

## II. Influent and Effluent Data Summary.

The results of all analyses performed on the WWRP influent and effluent are summarized in tables with monthly and annual averages (and in some cases annual totals) calculated. Graphs of monthly averages are presented.

- A. Influent and Effluent Data Summaries
- B. Influent and Effluent Graphs
- C. Daily Values of Selected Parameters
- D. Toxicity Report

Mass Emissions of Effluent Using 2006 Monthly Averages

DISCHARGE SPECIFICATIONS from NPDES Permit No. CA0109045/RWQCB Order No. 2000-129 effective on September 13, 2000 with limits on pollutant discharges.

Effluent Limitations for Major Constituents and Properties of Wastewater				
Constituent/Property	Limit: Monthly Average (30 day) (lbs/day)	2006 Mass Emissions (lbs/day) <sup>[1]</sup>	2006 Average Concentration	Units
Flow (MGD)			4.95	MGD
Total Suspended Solids	3,750	57	1.39	mg/L
BOD	3,750	101	2.44	mg/L
Oil & Grease	3,130	54	1.3	mg/L

Effluent Limitations on Toxic Materials for Protection of Marine Aquatic Life				
Constituent/Property	Limit: Daily Maximum (lbs/day)	2006 Mass Emissions (lbs/day) <sup>[1]</sup>	2006 Average Concentration	Units
Arsenic	363	0.012	0.28	ug/L
Cadmium	50	0.004	0.1	ug/L
Chromium	100	0.017	0.4	ug/L
Copper	125	0.4	10	ug/L
Lead	100	0.0	0.4	ug/L
Mercury	2	0.0	0	ug/L
Nickel	250	0.18	4.41	ug/L
Selenium	760	0.023	0.56	ug/L
Silver	21	0.008	0.2	ug/L
Zinc	910	1.4	32.7	ug/L
Cyanide	50	0.025	0.0006	mg/L
Residual Chlorine	100	0.0	0	mg/L
Ammonia	30,000	4.1	0.1	mg/L
Non-Chor. Phenols	1,500	0.0	0	ug/L
Chlorinated Phenols	50	0.0	0	ug/L
Endosulfan	0.22	0.0	0	ng/L
Endrin	0.05	0.0	0	ng/L
hexachlorocyclohexanes *(HCH)	0.1	0.0006	15	ng/L
* (all as Lindane, the gamma isomer)				

Effluent Limitations for Toxic, Non-carcinogenic Materials for Protection of Human Health				
Constituent/Property	Limit: Daily Maximum (lbs/day)	2006 Mass Emissions (lbs/day) <sup>[1]</sup>	2006 Average Concentration	Units
Acrolein	2,750	0	0	ug/L
Antimony	15,010	0.00	0	ug/L
Bis(2-chloroethoxy) methane	55	0	0	ug/L
Bis(2-chloroisopropyl) ether	15,010	0	0	ug/L
Chlorobenzene	7,250	0	0	ug/L
Chromium (III)	--	--	--	
di-n-butyl phthalate	43,800	0	0	ug/L
dichlorobenzenes	65,000	0	0	ug/L
1,1-dichloroethylene	90,000	0	0	ug/L
Diethyl phthalate	412,000	0	0	ug/L
Dimethyl phthalate	10,400,000	0	0	ug/L
4,6-dinitro-2-methylphenol	2,750	0	0	ug/L
2,4-dinitrophenol	50	0	0	ug/L
Ethylbenzene	51,300	0	0	ug/L
Fluoranthene	188	0	0	ug/L
Hexachlorocyclopentadiene	740	0	0	ug/L
Isophorone	1,880,000	0	0	ug/L
Nitrobenzene	61	0	0	ug/L
Thallium	175	0	0.4	ug/L
Toluene	1,060,000	0	0	ug/L
1,1,2,2-tetrachloroethane	15,000	0	0	ug/L
Tributyltin	0.017	0	0	ug/L
1,1,1-trichloroethane	6,750,000	0	0	ug/L
1,1,2-trichloroethane	540,000	0	0	ug/L

Effluent Limitations for Toxic, Carcinogenic Materials for Protection of Human Health				
Constituent/Property	Limit: Monthly Average (30 day) (lbs/day)	2006 Mass Emissions (lbs/day) <sup>[1]</sup>	2006 Concentration	Units
Acrylonitrile	1.25	0	0	ug/L
Aldrin	0.00027	0	0	ng/L
Benzene	74	0	0	ug/L
Benzidine	0.00086	0	0	ug/L
Beryllium	0.41	0.0	0.0003	ug/L
Bis(2-chloroethyl)ether	0.56	0	0	ug/L
Bis(2-ethylhexyl)phthalate	43.8	0	0	ug/L
Carbon Tetrachloride	11.2	0	0	ug/L
Chlordane	0.00028	0	0	ng/L
Chloroform	1,626	0.00	0.06	ug/L
DDT	0.00026	0	0	ng/L
1,4-dichlorobenzene	225	0	0	ug/L
3,3-dichlorobenzidine	0.1	0	0	ug/L
1,2-dichloroethane	1,626	0	0	ug/L
Dichloromethane (methylene chloride)	5,630	0	0	ug/L
1,3-dichloropropene	111	0	0	ug/L
Dieldrin	0.0005	0	0	ng/L
2,4-dinitrotoluene	32.5	0	0	ug/L
1,2-diphenylhydrazine	2	0	0	ug/L
Halomethanes	1,620	0	0	ug/L
Heptachlor	0.0009	0	0	ng/L
Heptachlor epoxide	-	0	0	ng/L
Hexachlorobenzene	0.0026	0	0	ug/L
Hexachlorobutadiene	175	0	0	ug/L
Hexachloroethane	31	0	0	ug/L
N-nitrosodimethylamine	92	0	0	ug/L
N-nitrosodiphenylamine	31	0	0	ug/L
PAHs	0.11	0	0	ug/L
PCBs	0.00024	0	0	ng/L
TCDD equivalents	0.000000048	0	0	pg/L
Tetrachloroethylene	1240	0	0	ug/L
Toxaphene	0.0026	0	0	ng/L
Trichloroethylene	337	0	0	ug/L
2,4,6-trichlorophenol	3.6	0	0	ug/L
Vinyl Chloride	450	0	0	ug/L

[1] Metric tons of mass emissions is calculated assuming the density of effluent is 1. The mean constituent value and mean daily flow value over the year is used to compute the mass emissions, assuming that constant concentration over 365 days.

## A. Influent and Effluent Data Summaries

The results of all analyses performed on the SBWRP influent and effluent are summarized in tables with monthly and annual averages (and in some cases annual totals) calculated.

SOUTH BAY WATER RECLAMATION PLANT

SEWAGE ANNUAL

From 01-JAN-2006 To 31-DEC-2006

Biochemical Oxygen Demand Concentration  
(24-hour composite)

	Influent Flow	Daily Influent Value (mg/L)	Daily Influent Value (lbs/Day)	Effluent Flow	Daily Effluent Value (mg/L)	Daily Effluent Value (lbs/Day)	Percent Removal BOD (%)
JANUARY -2006	4.2	303	10613	3.7	<2.0	0	100.0
FEBRUARY -2006	4.2	268	9388	3.6*	7.4*	227*	97.1*
MARCH -2006	4.2	243	8512	3.7	2.0	62	99.2
APRIL -2006	4.3	260	9324	3.7	2.0	62	99.2
MAY -2006	5.0	273	11384	4.3	<2.0	0	100.0
JUNE -2006	5.0	263	10967	5.2	4.9	213	98.1
JULY -2006	5.5	267	12247	4.0	<2.0	0	100.0
AUGUST -2006	6.4	288	15372	5.1	<2.0	0	100.0
SEPTEMBER-2006	7.8	298	19385	5.9	<2.0	0	100.0
OCTOBER -2006	8.8	348	25540	6.8	3.3	187	99.1
NOVEMBER -2006	8.9	325	24123	6.7	3.0	168	99.1
DECEMBER -2006	8.6	289	20728	6.6	4.7	259	98.4
Average	6.1	285	14799	4.9	2.6	108	99.1

\* = February monthly average values were calculated based on two different sources. The normal sampling point (SB\_Outfall\_00) for NPDES Compliance Monitoring was off-line from February 4 to February 25, 2006 due to equipment failure, an alternate location was used (SB\_SEC\_EFF\_29) as an alternative compliance monitoring point. The February SB\_OUTFALL\_00 data from February 1,2,25,26,27 and 28 were the only data points utilized in the annual average. The data from SB\_SEC\_EFF\_29 collected from February 5 thru the 23 was not included in annual average, although it is included in the calculation of the shown monthly average for February. For comparison February 2006 analytical data for these two sampling points can be referenced in the following table.

Biochemical Oxygen Demand Concentration  
(24-hour composite)

	Source	Daily Effluent Value (mg/L)	Daily Effluent Value (lbs/Day)	Percent Removal BOD (%)
FEBRUARY -2006	SB_SEC_EFF_29	6.1	183	97.7
FEBRUARY -2006	SB_OUFALL_00	11.3	339	95.8

Annual Mass Emissions are calculated from monthly averages of flow and BOD, whereas Monthly Report average mass emissions are calculated from average daily mass emissions.

ND=not detected; NS=not sampled; NA=not analyzed

SOUTH BAY WATER RECLAMATION PLANT

SEWAGE ANNUAL

From 01-JAN-2006 To 31-DEC-2006

Total Suspended Solids Concentration  
(24-hour composite)

	Daily Influent Flow	Daily Influent Value (mg/L)	Daily Influent Volitile (mg/L)	Percent VSS (%)	Daily Influent Value (lbs/Day)
JANUARY -2006	4.2	253	224	88.5	8862
FEBRUARY -2006	4.2	234	205	87.6	8197
MARCH -2006	4.2	199	172	86.4	6971
APRIL -2006	4.3	200	172	86.0	7172
MAY -2006	5.0	211	187	88.6	8799
JUNE -2006	5.0	218	187	85.8	9091
JULY -2006	5.5	235	209	88.9	10779
AUGUST -2006	6.4	248	215	86.7	13237
SEPTEMBER-2006	7.8	258	227	88.0	16783
OCTOBER -2006	8.8	255	225	88.2	18715
NOVEMBER -2006	8.9	295	262	88.8	21897
DECEMBER -2006	8.6	259	227	87.6	18577
Average	6.1	239	209		12423

Annual Mass Emissions are calculated from monthly averages of flow and TSS, wheras  
Monthly Report average mass emissions are calculated from average daily mass emissions.

ND=not detected; NS=not sampled; NA=not analyzed

SOUTH BAY WATER RECLAMATION PLANT

SEWAGE ANNUAL

From 01-JAN-2006 To 31-DEC-2006

Total Suspended Solids Concentration  
(24-hour composite)

	Effluent Flow	Daily Effluent Value (mg/L)	Daily Effluent Volitile (mg/L)	Percent VSS (%)	Daily Effluent Value (lbs/Day)	Percent Removal TSS (%)	Percent Removal VSS (%)
JANUARY -2006	3.7	<1.6	<1.6	#	0	100.0	100.0
FEBRUARY -2006	3.6	5.7*	4.7*	82.5*	171*	97.6*	97.7*
MARCH -2006	3.7	<1.6	<1.6	#	0	100.0	100.0
APRIL -2006	3.7	<1.6	<1.6	#	0	100.0	100.0
MAY -2006	4.3	<1.6	<1.6	#	0	100.0	100.0
JUNE -2006	5.2	4.0	3.3	82.5	173	98.2	98.2
JULY -2006	4.0	<1.6	<1.6	#	0	100.0	100.0
AUGUST -2006	5.1	<1.6	<1.6	#	0	100.0	100.0
SEPTEMBER-2006	5.9	<1.6	<1.6	#	0	100.0	100.0
OCTOBER -2006	6.8	2.0	<1.6	0.0	113	99.2	100.0
NOVEMBER -2006	6.7	2.1	<1.6	0.0	117	99.3	100.0
DECEMBER -2006	6.6	3.9	3.4	87.2	215	98.5	98.5
Average	4.9	1.4	0.9		63	99.4	99.6

\* = February monthly average values were calculated based on two different sources. The normal sampling point (SB\_Outfall\_00) for NPDES Compliance Monitoring was off-line from February 4 to February 25, 2006 due to equipment failure, an alternate location was used (SB\_SEC\_EFF\_29) as an alternative compliance monitoring point. The February SB\_OUTFALL\_00 data from February 1,2,25,26,27 and 28 were the only data points utilized in the annual average. The data from SB\_SEC\_EFF\_29 collected from February 5 thru the 23 was not included in annual average, although it is included in the calculation of the shown monthly average for February. For comparison February 2006 analytical data for these two sampling points can be referenced in the following table.

# = Values too low to calculate ratio, ie. <MDL

Total Suspended Solids Concentration  
(24-hour composite)

Source	Effluent Flow	Daily Effluent Value (mg/L)	Daily Effluent Volitile (mg/L)	Percent VSS (%)	Daily Effluent Value (lbs/Day)	Percent Removal TSS (%)	Percent Removal VSS (%)
FEBRUARY -2006 SB_SEC_EFF_29	3.6	6.2	5.2	83.9	186	97.4	97.5
FEBRUARY -2006 SB_OUTFALL_00	3.6	4.5	3.6	80.0	135	98.1	98.2

Annual Mass Emissions are calculated from monthly averages of flow and TSS, whereas Monthly Report average mass emissions are calculated from average daily mass emissions.

nd=not detected; NS=not sampled; NA=not analyzed

The limit is 85% removal on daily running averages.



		pH	Solids (ml/L)	Dissolved Solids (mg/L)	Oil & Grease (mg/L)	Outfall Temperature ( C )	Residual Chlorine (mg/L)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
Limit:									
JANUARY -2006	3.72	7.46	ND	873	2.0	21.8	ND	0.85	8.58
FEBRUARY -2006	3.65*	7.45*	ND*	845*	1.9	22.5*	ND*	3.18*	7.84*
MARCH -2006	3.70	7.40	ND	882	3.7	22.7	ND	1.20	7.63
APRIL -2006	3.73	7.41	ND	879	2.4	23.0	ND	1.09	7.28
MAY -2006	4.31	7.42	ND	893	<1.4	23.5	ND	1.09	7.16
JUNE -2006	5.23	7.51	ND	894	<1.4	24.4	<0.11	2.09	6.94
JULY -2006	3.99	7.44	ND	895	1.8	26.6	ND	0.83	6.43
AUGUST -2006	5.06	7.40	ND	876	ND	27.7	ND	0.96	6.41
SEPTEMBER -2006	5.92	7.32	ND	873	ND	27.2	ND	0.84	5.30
OCTOBER -2006	6.78	7.29	ND	848	<1.4	25.1	ND	1.33	5.33
NOVEMBER -2006	6.67	7.23	ND	785	<1.4	25.0	ND	1.13	6.44
DECEMBER -2006	6.58	7.20	ND	758	3.0	22.2	<0.11	1.99	7.05
SOUTH BAY WATER RECLAMATION PLANT									
Average	4.95	7.37	ND	859.50	1.3	24.3	0.00	1.45	6.86

From 01-JAN-2006 To 31-DEC-2006

\*The February monthly average values were calculated based on two different sources. The normal sampling point (SB\_Outfall\_00) for NPDES Compliance Monitoring was off-line from February 4 to February 25, 2006 due to equipment failure, an alternate effluent to ocean outfall (SB\_SEC\_EFF\_29) as an alternative compliance monitoring point. The February SB\_OUTFALL\_00 data from February 1,2,25,26,27 and 28 were the only data points utilized in the annual average. The data from SB\_SEC\_EFF\_29 collected from February 5 thru the 23 was not included in annual average, although it is included in the calculation of the shown monthly average for February. For comparison February 2006 analytical data for these two sampling points can be referenced in the following table.

Total

		(mgd)	pH	Solids (ml/L)	Dissolved Solids (mg/L)	Oil & Grease (mg/L)	Outfall Temperature ( C )	Residual Chlorine (mg/L)	Turbidity (NTU)	Dissolved Oxygen (mg/L)
FEBRUARY -2006	SB_SEC_EFF_29	3.6	7.46	ND	839	1.6	22.5	ND	2.92	
FEBRUARY -2006	SB_OUTFALL_00	3.65	7.41	ND	858	3.2	22.1	ND	3.98	7.86 7.79

nd=not detected; NS=not sampled; NA=not analyzed.

Source

SOUTH BAY WATER RECLAMATION PLANT

From 01-JAN-2006 To 31-DEC-2006

Influent to Plant  
(SB\_INF\_02)

	Flow (mgd)	pH	Total Dissolved Solids (mg/L)	Biochemical Oxygen Demand (mg/L)	Total Suspended Solids (mg/L)	Volatile Suspended Solids (mg/L)
Limit:						
JANUARY -2006	4.18	7.57	905	303	253	224
FEBRUARY -2006	4.15	7.53	899	268	234	205
MARCH -2006	4.16	7.52	891	243	199	172
APRIL -2006	4.27	7.59	888	260	200	172
MAY -2006	5.00	7.55	895	273	211	187
JUNE -2006	4.98	7.58	911	263	218	187
JULY -2006	5.53	7.62	913	267	235	209
AUGUST -2006	6.43	7.52	879	288	248	215
SEPTEMBER-2006	7.76	7.49	881	298	258	227
OCTOBER -2006	8.81	7.57	869	348	255	225
NOVEMBER -2006	8.86	7.47	800	325	295	262
DECEMBER -2006	8.61	7.50	770	289	259	227
Average	6.06	7.54	875	285	239	209

nd=not detected; NS=not sampled; NA=not analyzed.

SOUTH BAY WATER RECLAMATION PLANT  
ANNUAL SEWAGE  
Trace Metals  
(Limits shown are the 6-Month Median Maximum)

From: 01-JAN-2006 To: 31-DEC-2006

Analyte:	Antimony	Antimony	Arsenic	Arsenic	Beryllium	Beryllium
Max MDL Unit	2.9 UG/L	2.9 UG/L	.4 UG/L	.4 UG/L	.04 UG/L	.04 UG/L
Source:	INFLUENT	EFFLUENT	INFLUENT	EFFLUENT	INFLUENT	EFFLUENT
Month/Limit:			510			
JANUARY -2006	1.6	1.2	0.72	0.54	ND	ND
FEBRUARY -2006	ND	ND*	0.64	0.42*	ND	ND*
MARCH -2006	ND	1.02	0.91	0.43	ND	ND
APRIL -2006	ND	ND	0.71	ND	ND	ND
MAY -2006	ND	ND	0.63	ND	ND	ND
JUNE -2006	ND	ND	0.48	0.40	ND	ND
JULY -2006	ND	ND	0.49	0.41	ND	ND
AUGUST -2006	ND	ND	0.50	0.53	ND	ND
SEPTEMBER-2006	ND	ND	ND	ND	ND	ND
OCTOBER -2006	ND	ND	0.57	ND	ND	ND
NOVEMBER -2006	ND	ND	1.11	0.72	NR	ND
DECEMBER -2006	ND	ND	0.65	ND	NR	0.04
AVERAGE	0.13	0.1	0.62	0.28	ND	0.003

Analyte:	Cadmium	Cadmium	Chromium	Chromium	Copper	Copper
Max MDL Units:	.53 UG/L	.53 UG/L	1.2 UG/L	1.2 UG/L	0.3925 UG/L	0.3925 UG/L
Source:	INFLUENT	EFFLUENT	INFLUENT	EFFLUENT	INFLUENT	EFFLUENT
Month/Limit:	100		200		100	
JANUARY -2006	ND	0.3	1.0	0.6	38	9
FEBRUARY -2006	ND	ND*	1.9	0.8*	22	11*
MARCH -2006	ND	ND	1.6	0.9	63	8
APRIL -2006	ND	ND	0.7	ND	60	6
MAY -2006	ND	ND	1.6	ND	56	7
JUNE -2006	0.3	ND	1.4	ND	41	19
JULY -2006	0.4	ND	3.2	ND	73	6
AUGUST -2006	ND	ND	1.8	0.8	64	32
SEPTEMBER-2006	ND	ND	2.2	1.2	49	6
OCTOBER -2006	0.4	0.3	2.3	0.4	32	8
NOVEMBER -2006	0.4	ND	1.8	ND	63	8
DECEMBER -2006	ND	ND	1.5	ND	57	5
AVERAGE	0.1	0.1	1.8	0.4	52	10

\* = The normal sampling point (SB\_Outfall\_00) for NPDES Compliance Monitoring was off-line from February 4 to February 25, 2006 due to equipment failure, an alternate location was used (SB\_SEC\_EFF\_29) as a compliance point. The February 2006 average above is of the February 7<sup>th</sup> SB\_SEC\_EFF\_29 sample.

The annual average were calculated with the SB\_OUTFALL\_00 sampling point data and does not include the February SB\_SEC\_EFF\_29 value

ND= not detected  
NA= not analyzed  
NS= not sampled  
NR= Not Required

SOUTH BAY WATER RECLAMATION PLANT  
ANNUAL SEWAGE  
Trace Metals  
(Limits shown are the 6-Month Median Maximum)

From: 01-JAN-2006 To: 31-DEC-2006

Analyte:	Iron	Iron	Lead	Lead	Mercury	Mercury
Max MDL Units:	37 UG/L	37 UG/L	2 UG/L	2 UG/L	.09 UG/L	.09 UG/L
Source:	INFLUENT	EFFLUENT	INFLUENT	EFFLUENT	INFLUENT	EFFLUENT
Month/Limit:			200		4.00	
=====						
JANUARY -2006	338	ND	3.4	ND	0.19	ND
FEBRUARY -2006	#	51*	2.1	ND*	0.16	ND*
MARCH -2006	551	130	ND	2.5	0.13	ND
APRIL -2006	392	57	ND	ND	ND	ND
MAY -2006	430	46	2.4	ND	ND	ND
JUNE -2006	390	63	ND	1.8	ND	ND
JULY -2006	607	51	2.1	ND	0.10	ND
AUGUST -2006	417	43	ND	ND	ND	ND
SEPTEMBER-2006	655	106	2.0	ND	ND	ND
OCTOBER -2006	540	110	3.3	ND	ND	ND
NOVEMBER -2006	575	70	1.5	ND	0.17	ND
DECEMBER -2006	483	67	ND	ND	ND	ND
=====						
AVERAGE	489	68	1.4	0.4	0.06	ND

Analyte:	Nickel	Nickel	Selenium	Selenium	Silver	Silver
Max MDL Units:	.53 UG/L	.53 UG/L	.28 UG/L	.28 UG/L	0.4 UG/L	0.4 UG/L
Source:	INFLUENT	EFFLUENT	INFLUENT	EFFLUENT	INFLUENT	EFFLUENT
Month/Limit:	510		1500		29	
=====						
JANUARY -2006	4.71	4.06	1.58	0.56	ND	0.2
FEBRUARY -2006	5.07	4*	1.62	0.59*	0.5	0.2*
MARCH -2006	10.30	4.32	2.14	0.69	2.4	ND
APRIL -2006	4.86	2.80	1.18	0.54	0.3	ND
MAY -2006	4.22	3.26	1.30	0.51	2.0	0.2
JUNE -2006	5.22	4.25	1.19	0.38	0.5	ND
JULY -2006	6.70	3.61	1.04	0.44	2.3	ND
AUGUST -2006	37.0	6.80	1.53	0.34	0.6	ND
SEPTEMBER-2006	2.52	1.29	1.27	0.40	0.5	0.5
OCTOBER -2006	5.87	4.37	1.26	0.38	0.5	0.4
NOVEMBER -2006	5.31	3.44	1.49	0.34	1.2	0.3
DECEMBER -2006	8.68	10.30	1.18	ND	2.3	0.6
=====						
AVERAGE	8.37	4.41	1.40	0.42	1.1	0.2

\* = The normal sampling point (SB\_Outfall\_00) for NPDES Compliance Monitoring was off-line from February 4 to February 25, 2006 due to equipment failure, an alternate location was used (SB\_SEC\_EFF\_29) as a compliance point. The February 2006 average above is of the February 7<sup>th</sup> SB\_SEC\_EFF\_29 sample. The annual average were calculated with the SB\_OUTFALL\_00 sampling point data and does not include the February SB\_SEC\_EFF\_29 value

# = Original value affected by spectral interference, estimated value of 442 ug/L based on different wavelength.

ND= not detected  
NA= not analyzed  
NS= not sampled

SOUTH BAY WATER RECLAMATION PLANT  
ANNUAL SEWAGE  
Trace Metals  
(Limits shown are the 6-Month Median Maximum)

From: 01-JAN-2006 To: 31-DEC-2006

Analyte:	Thallium	Thallium	Zinc	Zinc	Manganese	Manganese
Max MDL Units:	3.9 UG/L	3.9 UG/L	.55 UG/L	.55 UG/L	.24 UG/L	.24 UG/L
Source:	INFLUENT	EFFLUENT	INFLUENT	EFFLUENT	INFLUENT	EFFLUENT
Month/Limit:			1200			
=====						
JANUARY -2006	ND	ND	129	31.6	57	10.7
FEBRUARY -2006	ND	ND*	127	35*	39	11*
MARCH -2006	ND	ND	116	30.3	87	10.4
APRIL -2006	ND	ND	99	22.8	61	14.7
MAY -2006	ND	ND	111	25.7	62	29.6
JUNE -2006	ND	ND	124	28.8	66	78.5
JULY -2006	3.0	ND	157	26.4	56	71.9
AUGUST -2006	ND	ND	113	39.0	38	6.9
SEPTEMBER-2006	4.5	4.3	147	33.9	40	12.2
OCTOBER -2006	ND	ND	134	36.5	31	11.4
NOVEMBER -2006	ND	ND	127	32.0	44	4.4
DECEMBER -2006	ND	ND	121	24.5	38	6.6
=====						
AVERAGE	0.6	0.4	125	30.1	52	23.4

Analyte:	Boron	Boron	Barium	Barium
Max MDL Units:	1.7 UG/L	1.7 UG/L	.039 UG/L	.039 UG/L
Source:	INFLUENT	EFFLUENT	INFLUENT	EFFLUENT
Month/Limit:				
=====				
JANUARY -2006	365	370	86	52.7
FEBRUARY -2006	333	356*	83	60*
MARCH -2006	371	313	120	63.7
APRIL -2006	298	328	83	56.3
MAY -2006	349	350	95	50.8
JUNE -2006	284	280	78	48.7
JULY -2006	366	310	96	53.4
AUGUST -2006	240	379	82	52.0
SEPTEMBER-2006	369	326	110	48.5
OCTOBER -2006	309	324	71	43.4
NOVEMBER -2006	288	252	73	39.2
DECEMBER -2006	273	233	70	32.8
=====				
AVERAGE	320	315	87	49.2

\* = The normal sampling point (SB\_Outfall\_00) for NPDES Compliance Monitoring was off-line from February 4 to February 25, 2006 due to equipment failure, an alternate location was used (SB\_SEC\_EFF\_29) as a compliance point. The February 2006 average above is of the February 7<sup>th</sup> SB\_SEC\_EFF\_29 sample. The annual average were calculated with the SB\_OUTFALL\_00 sampling point data and does not include the February SB\_SEC\_EFF\_29 value

ND= not detected  
NA= not analyzed  
NS= not sampled

SOUTH BAY WATER RECLAMATION PLANT  
Additional Analytes

From 01-JAN-2006  
To 31-DEC-2006

MDL/Units	Calcium		Magnesium		Lithium	
	.04 Inf.	mg/L Eff.	.014 Inf.	mg/L Eff.	.002 Inf.	mg/L Eff.
JANUARY -2006	84.6	75.3	33.9	31.4	0.027	0.027
FEBRUARY -2006	49.8	57.0*	22.2	25.0*	0.029	0.030*
MARCH -2006	57.8	53.9	23.4	21.9	0.034	0.036
APRIL -2006	63.4	64.5	26.4	26.4	0.029	0.034
MAY -2006	60.6	59.9	24.6	23.5	0.036	0.031
JUNE -2006	68.6	61.7	NR	26.4	0.025	0.021
JULY -2006	60.7	61.5	NR	24.7	0.028	0.029
AUGUST -2006	74.6	65.8	31.5	28.1	0.032	0.029
SEPTEMBER-2006	67.0	55.8	27.7	25.2	0.030	0.025
OCTOBER -2006	56.2	52.5	26.1	24.2	0.025	0.024
NOVEMBER -2006	50.2	53.3	NR	24.1	0.025	0.022
DECEMBER -2006	53.3	54.2	NR	20.7	0.026	0.027
Average:	62.2	59.9	27.0	25.1	0.029	0.028

MDL/Units	Sodium		Potassium	
	1 Inf.	mg/L Eff.	.3 Inf.	mg/L Eff.
JANUARY -2006	186	191	17.5	14.6
FEBRUARY -2006	151	167*	13.6	13.0*
MARCH -2006	145	146	12.5	11.2
APRIL -2006	163	177	16.7	14.8
MAY -2006	189	164	19.4	14.4
JUNE -2006	162	173	17.6	15.4
JULY -2006	158	165	16.4	14.7
AUGUST -2006	181	191	18.5	16.9
SEPTEMBER-2006	168	167	17.1	14.1
OCTOBER -2006	172	164	16.6	14.4
NOVEMBER -2006	145	155	16.0	14.0
DECEMBER -2006	142	149	17.3	16.1
Average:	164	167	16.6	14.6

\* = The normal sampling point (SB\_Outfall\_00) for NPDES Compliance Monitoring was off-line from February 4 to February 25, 2006 due to equipment failure, an alternate location was used (SB\_SEC\_EFF\_29) as a compliance point. The February 2006 average above is of the February 7<sup>th</sup> SB\_SEC\_EFF\_29 sample.  
The annual average were calculated with the SB\_OUTFALL\_00 sampling point data and does not include the February SB\_SEC\_EFF\_29 value

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SOUTH BAY WATER RECLAMATION PLANT  
ANNUAL SEWAGE  
Anions  
(Limits shown are the 6-Month Median Maximum)

From: 01-JAN-2006 To: 31-DEC-2006

Analyte:	Bromide	Bromide	Chloride	Chloride	Fluoride	Fluoride
MDL:	.1	.1	7	7	.05	.05
Units:	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
Source:	INFLUENT	EFFLUENT	INFLUENT	EFFLUENT	INFLUENT	EFFLUENT
=====	=====	=====	=====	=====	=====	=====
JANUARY -2006	NR	0.454	NR	229	NR	0.363
FEBRUARY -2006	0.325	0.361*	197	215*	0.461	0.430*
MARCH -2006	NR	0.452	NR	238	NR	0.430
APRIL -2006	NR	0.577	NR	235	NR	0.483
MAY -2006	0.345	0.390	198	203	0.411	0.397
JUNE -2006	NR	0.461	NR	248	NR	0.485
JULY -2006	NR	0.435	NR	227	NR	0.248
AUGUST -2006	0.429	0.416	233	238	0.346	0.406
SEPTEMBER-2006	NR	0.388	NR	219	NR	0.409
OCTOBER -2006	0.426	0.445	210	221	0.379	0.412
NOVEMBER -2006	NR	0.453	NR	233	NR	0.480
DECEMBER -2006	NR	0.370	NR	188	NR	0.398
=====	=====	=====	=====	=====	=====	=====
AVERAGE	0.381	0.440	210	225	0.399	0.410

Analyte:	Nitrate	Nitrate	Ortho Phosph	Ortho Phosphate	Sulfate	Sulfate
MDL:	.04	.04	.2	.2	9	9
Units:	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
Source:	INFLUENT	EFFLUENT	INFLUENT	EFFLUENT	INFLUENT	EFFLUENT
=====	=====	=====	=====	=====	=====	=====
JANUARY -2006	NR	26.9	NR	NR	NR	186
FEBRUARY -2006	ND	14.5*	11.00	10.70*	147	183
MARCH -2006	NR	29.3	NR	8.61	NR	180
APRIL -2006	NR	29.9	NR	9.24	NR	190
MAY -2006	0.2	25.7	12.80	4.67	128	177
JUNE -2006	NR	30.0	NR	8.12	NR	145
JULY -2006	NR	34.2	NR	7.21	NR	157
AUGUST -2006	0.2	36.0	11.40	9.51	117	160
SEPTEMBER-2006	NR	35.5	NR	7.91	NR	168
OCTOBER -2006	ND	30.7	12.30	11.50	120	161
NOVEMBER -2006	NR	35.3	NR	6.27	NR	150
DECEMBER -2006	NR	30.3	NR	5.88	NR	148
=====	=====	=====	=====	=====	=====	=====
AVERAGE	0.1	31.3	11.88	7.89	128	166

\* = The normal sampling point (SB\_Outfall\_00) for NPDES Compliance Monitoring was off-line from February 4 to February 25, 2006 due to equipment failure, an alternate location was used (SB\_SEC\_EFF\_29) as a compliance point. The February 2006 average above is of the February 7<sup>th</sup> SB\_SEC\_EFF\_29 sample.

The annual average were calculated with the SB\_OUTFALL\_00 sampling point data and does not include the February SB\_SEC\_EFF\_29 value

ND= not detected  
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NS= not sampled  
NR= not required

SOUTH BAY WATER RECLAMATION PLANT  
 ANNUAL SEWAGE  
 Ammonia-Nitrogen and Total Cyanides  
 (Limits shown are the 6-Month Median Maximum)

From: 01-JAN-2006 To: 31-DEC-2006

	Ammonia-N .2 MG/L SB_INF_02	Ammonia-N .2 MG/L SB_OUTFALL_00	Cyanides,Total .002 MG/L SB_INF_02	Cyanides,Total .002 MG/L SB_OUTFALL_00
Limit:		61		0.100
JANUARY -2006	NR	ND	0.0033	0.0026
FEBRUARY -2006	33.8	ND*	ND	0.003*
MARCH -2006	NR	0.2	ND	ND
APRIL -2006	NR	0.4	0.0023	0.0020
MAY -2006	32.5	ND	ND	0.0021
JUNE -2006	NR	ND	ND	ND
JULY -2006	NR	ND	ND	ND
AUGUST -2006	27.7	ND	ND	ND
SEPTEMBER-2006	NR	0.3	ND	ND
OCTOBER -2006	29.3	ND	ND	ND
NOVEMBER -2006	NR	ND	ND	ND
DECEMBER -2006	NR	ND	ND	ND
Average:	30.8	0.1	0.0005	0.0006

\* = The normal sampling point (SB\_Outfall\_00) for NPDES Compliance Monitoring was off-line from February 4 to February 25, 2006 due to equipment failure, an alternate location was used (SB\_SEC\_EFF\_29) as a compliance point. The February 2006 average above is of the February 7<sup>th</sup> SB\_SEC\_EFF\_29 sample.  
 The annual average were calculated with the SB\_OUTFALL\_00 sampling point data and does not include the February SB\_SEC\_EFF\_29 value

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 NR= not required



SOUTH BAY WATER RECLAMATION PLANT  
ANNUAL SEWAGE  
Radioactivity

From: 01-JAN-2006 To: 31-DEC-2006

Source	Month	Gross Alpha Radiation	Gross Beta Radiation
SB_OUTFALL_00	JANUARY -2006	2.6±1.2	9.1±2.8
SB_SEC_EFF_29	FEBRUARY -2006*	1.8±1.0*	11.3±3.3*
SB_OUTFALL_00	MARCH -2006	0.9±0.9	10.3±2.9
SB_OUTFALL_00	APRIL -2006	2.0±1.0	11.5±3.1
SB_OUTFALL_00	MAY -2006	0.9±0.6	8.8±3.0
SB_OUTFALL_00	JUNE -2006	1.8±1.0	13.7±3.9
SB_OUTFALL_00	JULY -2006	1.2±0.7	13.5±3.6
SB_OUTFALL_00	AUGUST -2006	1.9±0.9	11.7±3.0
SB_OUTFALL_00	SEPTEMBER-2006	-0.1±0.6	4.9±2.3
SB_OUTFALL_00	OCTOBER -2006	1.0±0.9	14.0±2.9
SB_OUTFALL_00	NOVEMBER -2006	0.8±0.8	11.9±3.7
SB_OUTFALL_00	DECEMBER -2006	1.7±1.0	8.6±2.1
AVERAGE		1.3±0.9	10.7±3.0

\* = The normal sampling point (SB\_Outfall\_00) for NPDES Compliance Monitoring was off-line from February 4 to February 25, 2006 due to equipment failure, an alternate location was used (SB\_SEC\_EFF\_29) as a compliance point. The February 2006 average above is of the February 7<sup>th</sup> SB\_SEC\_EFF\_29 sample.  
The annual average were calculated with the SB\_OUTFALL\_00 sampling point data and does not include the February SB\_SEC\_EFF\_29 value

ND= not detected  
NA= not analyzed  
NS= not sampled

Units in picocuries/liter (pCi/L)

SOUTH BAY WATER RECLAMATION PLANT  
SEWAGE ANNUAL - Chlorinated Pesticide Analysis

From 01-JAN-2006 To 31-DEC-2006

Analyte	MDL	Units	SEC													
			EFF	EFF	EFF	EFF	EFF	EFF	EFF	EFF	EFF	EFF	EFF	EFF		
			JAN	FEB*	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN	
			Avg	Avg	Avg	Avg	Avg	Avg	Avg	Avg	Avg	Avg	Avg	Avg	Avg	
Aldrin	60	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dieldrin	50	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BHC, Alpha isomer	20	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BHC, Beta isomer	20	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BHC, Gamma isomer	10	NG/L	28	16	23	16	23	28	23	<10	ND	13	11	ND	15	
BHC, Delta isomer	20	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
p,p-DDD	20	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
p,p-DDE	20	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
p,p-DDT	50	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
o,p-DDD	20	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
o,p-DDE	100	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
o,p-DDT	20	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Heptachlor	20	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Heptachlor epoxide	20	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Alpha (cis) Chlordane	30	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Gamma (trans) Chlordane	80	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Alpha Chlordene		NG/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Gamma Chlordene		NG/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Oxychlordane	20	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Trans Nonachlor	20	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Cis Nonachlor	20	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Alpha Endosulfan	30	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Beta Endosulfan	20	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Endosulfan Sulfate	20	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Endrin	50	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Endrin aldehyde	20	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Mirex	20	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Methoxychlor	60	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Toxaphene	4000	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
PCB 1016	4000	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
PCB 1221	4000	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
PCB 1232	4000	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
PCB 1242	4000	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
PCB 1248	2000	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
PCB 1254	2000	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
PCB 1260	2000	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
PCB 1262	2000	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Aldrin + Dieldrin	60	NG/L	0	0	0	0	0	0	0	0	0	0	0	0	0	
Hexachlorocyclohexanes	20	NG/L	28	16	23	16	23	28	23	0	0	13	11	0	15	
DDT and derivatives	100	NG/L	0	0	0	0	0	0	0	0	0	0	0	0	0	
Chlordane + related cmpds.	80	NG/L	0	0	0	0	0	0	0	0	0	0	0	0	0	
Polychlorinated biphenyls	4000	NG/L	0	0	0	0	0	0	0	0	0	0	0	0	0	
Endosulfans	30	NG/L	0	0	0	0	0	0	0	0	0	0	0	0	0	
Heptachlors	20	NG/L	0	0	0	0	0	0	0	0	0	0	0	0	0	
Chlorinated Hydrocarbons	4000	NG/L	28	16	23	16	23	28	23	0	0	13	11	0	15	

\* = The normal sampling point (SB\_Outfall\_00) for NPDES Compliance Monitoring was off-line from February 4 to February 25, 2006 due to equipment failure, an alternate location was used (SB\_SEC\_EFF\_29) as a compliance point. The February 2006 average above is of the February 7<sup>th</sup> SB\_SEC\_EFF\_29 sample. The annual average were calculated with the SB\_OUTFALL\_00 sampling point data and does not include the February SB\_SEC\_EFF\_29 value

nd=not detected; NS=not sampled; NA=not analyzed

"Standards for alpha and gamma chlordene are no longer available in the U.S. for the analysis of these compounds."

SOUTH BAY WATER RECLAMATION PLANT  
SEWAGE ANNUAL - Chlorinated Pesticide Analysis

From 01-JAN-2006 To 31-DEC-2006

Analyte	MDL	Units	INF	INF	INF	INF	INF
			FEB	MAY	AUG	OCT	Average
			Avg	Avg	Avg	Avg	
Aldrin	60	NG/L	ND	ND	ND	ND	ND
Dieldrin	50	NG/L	ND	ND	ND	ND	ND
BHC, Alpha isomer	20	NG/L	ND	ND	ND	ND	ND
BHC, Beta isomer	20	NG/L	ND	ND	ND	ND	ND
BHC, Gamma isomer	10	NG/L	44	71	29	41	46
BHC, Delta isomer	20	NG/L	ND	ND	ND	ND	ND
p,p-DDD	20	NG/L	ND	ND	26	ND	7
p,p-DDE	20	NG/L	ND	ND	20	ND	5
p,p-DDT	50	NG/L	ND	ND	64	ND	16
o,p-DDD	20	NG/L	ND	ND	ND	ND	ND
o,p-DDE	100	NG/L	ND	ND	ND	ND	ND
o,p-DDT	20	NG/L	ND	ND	ND	ND	ND
Heptachlor	20	NG/L	ND	ND	22	ND	6
Heptachlor epoxide	20	NG/L	ND	ND	ND	ND	ND
Alpha (cis) Chlordane	30	NG/L	ND	ND	ND	ND	ND
Gamma (trans) Chlordane	80	NG/L	ND	ND	ND	ND	ND
Alpha Chlordene		NG/L	NA	NA	NA	NA	NA
Gamma Chlordene		NG/L	NA	NA	NA	NA	NA
Oxychlordane	20	NG/L	ND	ND	ND	ND	ND
Trans Nonachlor	20	NG/L	ND	ND	ND	ND	ND
Cis Nonachlor	20	NG/L	ND	ND	ND	ND	ND
Alpha Endosulfan	30	NG/L	ND	ND	ND	ND	ND
Beta Endosulfan	20	NG/L	ND	ND	ND	ND	ND
Endosulfan Sulfate	20	NG/L	ND	ND	ND	ND	ND
Endrin	50	NG/L	ND	ND	ND	ND	ND
Endrin aldehyde	20	NG/L	ND	ND	ND	ND	ND
Mirex	20	NG/L	ND	ND	ND	ND	ND
Methoxychlor	60	NG/L	ND	ND	79	ND	20
Toxaphene	4000	NG/L	ND	ND	ND	ND	ND
PCB 1016	4000	NG/L	ND	ND	ND	ND	ND
PCB 1221	4000	NG/L	ND	ND	ND	ND	ND
PCB 1232	4000	NG/L	ND	ND	ND	ND	ND
PCB 1242	4000	NG/L	ND	ND	ND	ND	ND
PCB 1248	2000	NG/L	ND	ND	ND	ND	ND
PCB 1254	2000	NG/L	ND	ND	ND	ND	ND
PCB 1260	2000	NG/L	ND	ND	ND	ND	ND
PCB 1262	2000	NG/L	ND	ND	ND	ND	ND
Aldrin + Dieldrin	60	NG/L	0	0	0	0	0
Hexachlorocyclohexanes	20	NG/L	44	71	29	41	46
DDT and derivatives	100	NG/L	0	0	110	0	28
Chlordane + related cmpds.	80	NG/L	0	0	0	0	0
Polychlorinated biphenyls	4000	NG/L	0	0	0	0	0
Endosulfans	30	NG/L	0	0	0	0	0
Heptachlors	20	NG/L	0	0	22	0	6
Chlorinated Hydrocarbons	4000	NG/L	44	71	240	41	99

nd=not detected; NS=not sampled; NA=not analyzed

"Standards for alpha and gamma chlordene are no longer available in the U.S. for the analysis of these compounds."

SOUTH BAY WATER RECLAMATION PLANT  
 Quarterly Sludge Project - Organophosphorus Pesticides EPA Method 614/622 (with additions)  
 INFLUENT(SB\_INF\_02) & EFFLUENT(SB\_OUTFALL\_00)  
 From 01-JAN-2006 To 31-DEC-2006

Analyte	MDL	Units	EFF	EFF	INF	INF
			09-MAY-2006 P338014	03-OCT-2006 P355804	09-MAY-2006 P338009	03-OCT-2006 P355799
Demeton O	.15	UG/L	ND	ND	ND	ND
Demeton S	.08	UG/L	ND	ND	ND	ND
Diazinon	.03	UG/L	ND	ND	ND	ND
Guthion	.15	UG/L	ND	ND	ND	ND
Malathion	.03	UG/L	ND	ND	ND	ND
Parathion	.03	UG/L	ND	ND	ND	ND
Tetraethylpyrophosphate		UG/L	NA	NA	NA	NA
Dichlorvos	.05	UG/L	ND	ND	ND	ND
Dibrom	.2	UG/L	ND	ND	ND	ND
Ethoprop	.04	UG/L	ND	ND	ND	ND
Phorate	.04	UG/L	ND	ND	ND	ND
Sulfotepp	.04	UG/L	ND	ND	ND	ND
Disulfoton	.02	UG/L	ND	ND	ND	ND
Monocrotophos		UG/L	NA	NA	NA	NA
Dimethoate	.04	UG/L	ND	ND	ND	ND
Ronnel	.03	UG/L	ND	ND	ND	ND
Trichloronate	.04	UG/L	ND	ND	ND	ND
Merphos	.09	UG/L	ND	ND	ND	ND
Dichlofenthion	.03	UG/L	ND	ND	ND	ND
Tokuthion	.06	UG/L	ND	ND	ND	ND
Stirophos	.03	UG/L	ND	ND	ND	ND
Bolstar	.07	UG/L	ND	ND	ND	ND
Fensulfothion	.07	UG/L	ND	ND	ND	ND
EPN	.09	UG/L	ND	ND	ND	ND
Coumaphos	.15	UG/L	ND	ND	ND	ND
Mevinphos, e isomer	.05	UG/L	ND	ND	ND	ND
Mevinphos, z isomer	.3	UG/L	ND	ND	ND	ND
Chlorpyrifos	.03	UG/L	ND	ND	ND	ND
Thiophosphorus Pesticides	.15	UG/L	0.0	0.0	0.0	0.0
Demeton -O, -S	.15	UG/L	0.0	0.0	0.0	0.0
Total Organophosphorus Pesticides	.3	UG/L	0.0	0.0	0.0	0.0

ND=not detected; NS=not sampled; NA=not analyzed

SOUTH BAY WATER RECLAMATION PLANT  
ANNUAL SEWAGE - Tributyl Tin Analysis

From 01-JAN-2006 To 31-DEC-2006

Analyte	MDL	Units	SEC_EFF*	EFF	EFF	EFF	Average
			FEB	MAY	AUG	OCT	
Dibutyl tin	7	UG/L	ND	ND	ND	ND	ND
Monobutyl Tin	16	UG/L	ND	ND	ND	ND	ND
Tributyl tin	2	UG/L	ND	ND	ND	ND	ND

\* = The normal sampling point (SB\_Outfall\_00) for NPDES Compliance Monitoring was off-line from February 4 to February 25, 2006 due to equipment failure, an alternate location was used (SB\_SEC\_EFF\_29) as a compliance point. The February 2006 average above is of the February 7<sup>th</sup> SB\_SEC\_EFF\_29 sample.

The annual average were calculated with the SB\_OUTFALL\_00 sampling point data and does not include the February SB\_SEC\_EFF\_29 value

Analyte	MDL	Units	INF	INF	INF	INF	Average
			FEB	MAY	AUG	OCT	
Dibutyl tin	7	UG/L	ND	ND	ND	ND	ND
Monobutyl Tin	16	UG/L	ND	ND	ND	ND	ND
Tributyl tin	2	UG/L	ND	ND	ND	ND	ND

nd=not detected  
NS=not sampled  
NA=not analyzed

SOUTH BAY WATER RECLAMATION PLANT  
SEWAGE ANNUAL - Acid Extractables

From 01-JAN-2006 To 31-DEC-2006

Analyte	MDL	Units	Avg	EFF	EFF	EFF	EFF	EFF	EFF	EFF	EFF	EFF	EFF	Average
				MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
2-chlorophenol	1.76	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-dichlorophenol	1.95	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-chloro-3-methylphenol	1.34	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4,6-trichlorophenol	1.75	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	5.87	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenol	2.53	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-nitrophenol	1.88	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-dimethylphenol	1.32	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-dinitrophenol	6.07	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-nitrophenol	3.17	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-methyl-4,6-dinitrophenol	4.29	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Chlorinated Phenols	5.87	UG/L	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Non-Chlorinated Phenols	6.07	UG/L	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Phenols	6.07	UG/L	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Additional analytes determined;														
2-methylphenol	1.51	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3-methylphenol(4-MP is unresolved)	4.4	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-methylphenol(3-MP is unresolved)	4.22	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4,5-trichlorophenol	1.66	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

\* = The normal sampling point (SB\_Outfall\_00) for NPDES Compliance Monitoring was off-line from February 4 to February 25, 2006 due to equipment failure, an alternate location was used (SB\_SEC\_EFF\_29) as a compliance point. The February 2006 average above is of the February 7<sup>th</sup> SB\_SEC\_EFF\_29 sample.

The annual average were calculated with the SB\_OUTFALL\_00 sampling point data and does not include the February SB\_SEC\_EFF\_29 value

Analyte	MDL	Units	Avg Average		Analyte	MDL	Units	FEB Avg Average	
2-chlorophenol	1.76	UG/L	ND	ND	2-chlorophenol	1.76	UG/L	ND	ND
2,4-dichlorophenol	1.95	UG/L	ND	ND	2,4-dichlorophenol	1.95	UG/L	ND	ND
4-chloro-3-methylphenol	1.34	UG/L	ND	ND	4-chloro-3-methylphenol	1.34	UG/L	ND	ND
2,4,6-trichlorophenol	1.75	UG/L	ND	ND	2,4,6-trichlorophenol	1.75	UG/L	ND	ND
Pentachlorophenol	5.87	UG/L	ND	ND	Pentachlorophenol	5.87	UG/L	ND	ND
Phenol	2.53	UG/L	ND	ND	Phenol	2.53	UG/L	ND	ND
2-nitrophenol	1.88	UG/L	ND	ND	2-nitrophenol	1.88	UG/L	ND	ND
2,4-dimethylphenol	1.32	UG/L	ND	ND	2,4-dimethylphenol	1.32	UG/L	ND	ND
2,4-dinitrophenol	6.07	UG/L	ND	ND	2,4-dinitrophenol	6.07	UG/L	ND	ND
4-nitrophenol	3.17	UG/L	ND	ND	4-nitrophenol	3.17	UG/L	ND	ND
2-methyl-4,6-dinitrophenol	4.29	UG/L	ND	ND	2-methyl-4,6-dinitrophenol	4.29	UG/L	ND	ND
Total Chlorinated Phenols	5.87	UG/L	0.0	0.0	Total Chlorinated Phenols	5.87	UG/L	0.0	0.0
Total Non-Chlorinated Phenols	6.07	UG/L	0.0	0.0	Total Non-Chlorinated Phenols	6.07	UG/L	0.0	0.0
Phenols	6.07	UG/L	0.0	0.0	Phenols	6.07	UG/L	0.0	0.0
Additional analytes determined;									
2-methylphenol	1.51	UG/L	ND	ND	2-methylphenol	1.51	UG/L	ND	ND
3-methylphenol(4-MP is unresolved)	4.4	UG/L	ND	ND	3-methylphenol(4-MP is unresolved)	4.4	UG/L	ND	ND
4-methylphenol(3-MP is unresolved)	4.22	UG/L	ND	ND	4-methylphenol(3-MP is unresolved)	4.22	UG/L	ND	ND
2,4,5-trichlorophenol	1.66	UG/L	ND	ND	2,4,5-trichlorophenol	1.66	UG/L	ND	ND

nd=not detected; NS=not sampled; NA=not analyzed

FEB

SOUTH BAY WATER RECLAMATION PLANT  
SEWAGE ANNUAL - Acid Extractables

From 01-JAN-2006 To 31-DEC-2006

Analyte	MDL	Units	INF	INF	INF	INF	Average
			FEB	MAY	AUG	OCT	
			Avg	Avg	Avg	Avg	
2-chlorophenol	1.76	UG/L	ND	ND	ND	ND	ND
2,4-dichlorophenol	1.95	UG/L	ND	ND	ND	ND	ND
4-chloro-3-methylphenol	1.34	UG/L	ND	ND	ND	ND	ND
2,4,6-trichlorophenol	1.75	UG/L	ND	ND	ND	ND	ND
Pentachlorophenol	5.87	UG/L	ND	ND	ND	ND	ND
Phenol	2.53	UG/L	32.8	40.6	26.7	33.6	33.4
2-nitrophenol	1.88	UG/L	ND	ND	ND	ND	ND
2,4-dimethylphenol	1.32	UG/L	ND	ND	ND	ND	ND
2,4-dinitrophenol	6.07	UG/L	ND	ND	ND	ND	ND
4-nitrophenol	3.17	UG/L	ND	ND	ND	ND	ND
2-methyl-4,6-dinitrophenol	4.29	UG/L	ND	ND	ND	ND	ND
Total Chlorinated Phenols	5.87	UG/L	0.0	0.0	0.0	0.0	0.0
Total Non-Chlorinated Phenols	6.07	UG/L	32.8	40.6	26.7	33.6	33.4
Phenols	6.07	UG/L	32.8	40.6	26.7	33.6	33.4
2-methylphenol	1.51	UG/L	ND	ND	ND	ND	ND
3-methylphenol(4-MP is unresolved)	4.4	UG/L	ND	ND	ND	ND	ND
4-methylphenol(3-MP is unresolved)	4.22	UG/L	114.0	118.0	79.8	105.0	104.2
2,4,5-trichlorophenol	1.66	UG/L	ND	ND	ND	ND	ND

nd=not detected; NS=not sampled; NA=not analyzed

SOUTH BAY WATER RECLAMATION PLANT  
SEWAGE ANNUAL Priority Pollutants Base/Neutrals

From 01-JAN-2006 To 31-DEC-2006

Analyte	MDL	Units	SEC_EFF#	EFF	EFF	EFF	EFF
			FEB	MAY	AUG	OCT	Average
			Avg	Avg	Avg	Avg	
bis(2-chloroethyl) ether	2.62	UG/L	ND	ND	ND	ND	ND
1,3-dichlorobenzene	1.65	UG/L	ND	ND	ND	ND	ND
1,2-dichlorobenzene	1.63	UG/L	ND	ND	ND	ND	ND
1,4-dichlorobenzene	2.3	UG/L	ND	ND	ND	ND	ND
Bis-(2-chloroisopropyl) ether	8.95	UG/L	ND	ND	ND	ND	ND
N-nitrosodi-n-propylamine	1.63	UG/L	ND	ND	ND	ND	ND
Nitrobenzene	1.52	UG/L	ND	ND	ND	ND	ND
Hexachloroethane	3.55	UG/L	ND	ND	ND	ND	ND
Isophorone	1.93	UG/L	ND	ND	ND	ND	ND
bis(2-chloroethoxy)methane	1.57	UG/L	ND	ND	ND	ND	ND
1,2,4-trichlorobenzene	1.44	UG/L	ND	ND	ND	ND	ND
Naphthalene	1.52	UG/L	ND	ND	ND	ND	ND
Hexachlorobutadiene	2.87	UG/L	ND	ND	ND	ND	ND
Hexachlorocyclopentadiene		UG/L	ND	ND	ND	ND	ND
Acenaphthylene	2.02	UG/L	ND	ND	ND	ND	ND
Dimethyl phthalate	3.26	UG/L	ND	ND	ND	ND	ND
2,6-dinitrotoluene	1.93	UG/L	ND	ND	ND	ND	ND
Acenaphthene	2.2	UG/L	ND	ND	ND	ND	ND
2,4-dinitrotoluene	1.49	UG/L	ND	ND	ND	ND	ND
Fluorene	2.43	UG/L	ND	ND	ND	ND	ND
4-chlorophenyl phenyl ether	3.62	UG/L	ND	ND	ND	ND	ND
Diethyl phthalate	6.97	UG/L	ND	ND	ND	ND	ND
N-nitrosodiphenylamine	2.96	UG/L	ND	ND	ND	ND	ND
4-bromophenyl phenyl ether	4.04	UG/L	ND	ND	ND	ND	ND
Hexachlorobenzene	4.8	UG/L	ND	ND	ND	ND	ND
Phenanthrene	4.15	UG/L	ND	ND	ND	ND	ND
Anthracene	4.04	UG/L	ND	ND	ND	ND	ND
Di-n-butyl phthalate	6.49	UG/L	ND	ND	ND	ND	ND
N-nitrosodimethylamine	2.01	UG/L	ND	ND	ND	ND	ND
Fluoranthene	6.9	UG/L	ND	ND	ND	ND	ND
Pyrene	5.19	UG/L	ND	ND	ND	ND	ND
Benzidine	1.02	UG/L	ND	ND	ND	ND	ND
Butyl benzyl phthalate	4.77	UG/L	ND	ND	ND	ND	ND
Chrysene	7.49	UG/L	ND	ND	ND	ND	ND
Benzo[A]anthracene	7.68	UG/L	ND	ND	ND	ND	ND
Bis-(2-ethylhexyl) phthalate	10.43	UG/L	ND	17.6*	27.8*	ND	ND
Di-n-octyl phthalate	8.59	UG/L	ND	ND	ND	ND	ND
3,3-dichlorobenzidine	2.43	UG/L	ND	ND	ND	ND	ND
Benzo[K]fluoranthene	7.36	UG/L	ND	ND	ND	ND	ND
3,4-benzo(B)fluoranthene	6.63	UG/L	ND	ND	ND	ND	ND
Benzo[A]pyrene	6.53	UG/L	ND	ND	ND	ND	ND
Indeno(1,2,3-CD)pyrene	6.27	UG/L	ND	ND	ND	ND	ND
Dibenzo(A,H)anthracene	6.19	UG/L	ND	ND	ND	ND	ND
Benzo[G,H,I]perylene	6.5	UG/L	ND	ND	ND	ND	ND
1,2-diphenylhydrazine	2.49	UG/L	ND	ND	ND	ND	ND
Total Dichlorobenzenes	1.65	UG/L	0.0	0.0	0.0	0.0	0.0
Polynuc. Aromatic Hydrocarbons	7.68	UG/L	0.0	0.0	0.0	0.0	0.0
Base/Neutral Compounds	10.43	UG/L	0.0	0.0	0.0	0.0	0.0
1-methylnaphthalene	2.18	UG/L	ND	ND	ND	ND	ND
2-methylnaphthalene	2.25	UG/L	ND	ND	ND	ND	ND
2,6-dimethylnaphthalene	3.31	UG/L	ND	ND	ND	ND	ND
2,3,5-trimethylnaphthalene	4.4	UG/L	ND	ND	ND	ND	ND
1-methylphenanthrene	6.29	UG/L	ND	ND	ND	ND	ND
Benzo[e]pyrene	7.67	UG/L	ND	ND	ND	ND	ND
Perylene	6.61	UG/L	ND	ND	ND	ND	ND
Biphenyl	2.43	UG/L	ND	ND	ND	ND	ND

\* = Contamination from newly-purchased solvent bottle; data for this compound will be considered not reportable it is for review only and is not included in averages.

# = The normal sampling point (SB\_Outfall\_00) for NPDES Compliance Monitoring was off-line from February 4 to February 25, 2006 due to equipment failure, an alternate location was used (SB\_SEC\_EFF\_29) as a compliance point. The February 2006 average above is of the February 7<sup>th</sup> SB\_SEC\_EFF\_29 sample. The annual average were calculated with the SB\_OUTFALL\_00 sampling point data and does not include the February SB\_SEC\_EFF\_29 value

nd=not detected; NS=not sampled; NA=not analyzed



SOUTH BAY WATER RECLAMATION PLANT  
SEWAGE ANNUAL Priority Pollutants Base/Neutrals

From 01-JAN-2006 To 31-DEC-2006

Analyte	MDL	Units	INF	INF	INF	INF	INF
			FEB	MAY	AUG	OCT	Average
			Avg	Avg	Avg	Avg	
bis(2-chloroethyl) ether	2.62	UG/L	ND	ND	ND	ND	ND
1,3-dichlorobenzene	1.65	UG/L	ND	ND	ND	ND	ND
1,2-dichlorobenzene	1.63	UG/L	ND	ND	ND	ND	ND
1,4-dichlorobenzene	2.3	UG/L	2.7	4.8	2.4	2.4	3.1
Bis-(2-chloroisopropyl) ether	8.95	UG/L	ND	ND	ND	ND	ND
N-nitrosodi-n-propylamine	1.63	UG/L	ND	ND	ND	ND	ND
Nitrobenzene	1.52	UG/L	ND	ND	ND	ND	ND
Hexachloroethane	3.55	UG/L	ND	ND	ND	ND	ND
Isophorone	1.93	UG/L	ND	ND	ND	ND	ND
bis(2-chloroethoxy)methane	1.57	UG/L	ND	1.6	ND	ND	0.4
1,2,4-trichlorobenzene	1.44	UG/L	ND	ND	ND	ND	ND
Naphthalene	1.52	UG/L	ND	ND	ND	ND	ND
Hexachlorobutadiene	2.87	UG/L	ND	ND	ND	ND	ND
Hexachlorocyclopentadiene		UG/L	ND	ND	ND	ND	ND
Acenaphthylene	2.02	UG/L	ND	ND	ND	ND	ND
Dimethyl phthalate	3.26	UG/L	ND	ND	ND	ND	ND
2,6-dinitrotoluene	1.93	UG/L	ND	ND	ND	ND	ND
Acenaphthene	2.2	UG/L	ND	ND	ND	ND	ND
2,4-dinitrotoluene	1.49	UG/L	ND	ND	ND	ND	ND
Fluorene	2.43	UG/L	ND	ND	ND	ND	ND
4-chlorophenyl phenyl ether	3.62	UG/L	ND	ND	ND	ND	ND
Diethyl phthalate	6.97	UG/L	ND	ND	ND	ND	ND
N-nitrosodiphenylamine	2.96	UG/L	ND	ND	ND	ND	ND
4-bromophenyl phenyl ether	4.04	UG/L	ND	ND	ND	ND	ND
Hexachlorobenzene	4.8	UG/L	ND	ND	ND	ND	ND
Phenanthrene	4.15	UG/L	ND	ND	ND	ND	ND
Anthracene	4.04	UG/L	ND	ND	ND	ND	ND
Di-n-butyl phthalate	6.49	UG/L	ND	ND	ND	ND	ND
N-nitrosodimethylamine	2.01	UG/L	ND	ND	ND	ND	ND
Fluoranthene	6.9	UG/L	ND	ND	ND	ND	ND
Pyrene	5.19	UG/L	ND	ND	ND	ND	ND
Benzidine	1.02	UG/L	ND	ND	ND	ND	ND
Butyl benzyl phthalate	4.77	UG/L	ND	ND	ND	ND	ND
Chrysene	7.49	UG/L	ND	ND	ND	ND	ND
Benzo[A]anthracene	7.68	UG/L	ND	ND	ND	ND	ND
Bis-(2-ethylhexyl) phthalate	10.43	UG/L	ND	24.3*	28.2*	14.4#	ND
Di-n-octyl phthalate	8.59	UG/L	ND	ND	ND	ND	ND
3,3-dichlorobenzidine	2.43	UG/L	ND	ND	ND	ND	ND
Benzo[K]fluoranthene	7.36	UG/L	ND	ND	ND	ND	ND
3,4-benzo(B)fluoranthene	6.63	UG/L	ND	ND	ND	ND	ND
Benzo[A]pyrene	6.53	UG/L	ND	ND	ND	ND	ND
Indeno(1,2,3-CD)pyrene	6.27	UG/L	ND	ND	ND	ND	ND
Dibenzo(A,H)anthracene	6.19	UG/L	ND	ND	ND	ND	ND
Benzo[G,H,I]perylene	6.5	UG/L	ND	ND	ND	ND	ND
1,2-diphenylhydrazine	2.49	UG/L	ND	ND	ND	ND	ND
Total Dichlorobenzenes	1.65	UG/L	0.0	0.0	0.0	0.0	0.0
Polynuc. Aromatic Hydrocarbons	7.68	UG/L	0.0	0.0	0.0	0.0	0.0
Base/Neutral Compounds	10.43	UG/L	2.7	6.4	2.4	2.4	3.5
1-methylnaphthalene	2.18	UG/L	ND	ND	ND	ND	ND
2-methylnaphthalene	2.25	UG/L	ND	ND	ND	ND	ND
2,6-dimethylnaphthalene	3.31	UG/L	ND	ND	ND	ND	ND
2,3,5-trimethylnaphthalene	4.4	UG/L	ND	ND	ND	ND	ND
1-methylphenanthrene	6.29	UG/L	ND	ND	ND	ND	ND
Benzo[e]pyrene	7.67	UG/L	ND	ND	ND	ND	ND
Perylene	6.61	UG/L	ND	ND	ND	ND	ND
Biphenyl	2.43	UG/L	ND	ND	ND	ND	ND

\* = Contamination from newly-purchased solvent bottle; data for this compound will be considered not reportable it is for review only and is not included in averages.

# = The normal sampling point (SB\_Outfall\_00) for NPDES Compliance Monitoring was off-line from February 4 to February 25, 2006 due to equipment failure, an alternate location was used (SB\_SEC\_EFF\_29) as a compliance point. The February 2006 average above is of the February 7<sup>th</sup> SB\_SEC\_EFF\_29 sample. The annual average were calculated with the SB\_OUTFALL\_00 sampling point data and does not include the February SB\_SEC\_EFF\_29 value

nd=not detected; NS=not sampled; NA=not analyzed

SOUTH BAY WATER RECLAMATION PLANT  
SEWAGE ANNUAL Priority Pollutants Purgeables

From 01-JAN-2006 To 31-DEC-2006

Analyte	MDL	Units	EFF*	EFF	EFF	EFF	EFF
			FEB	MAY	AUG	OCT	Average
			Avg	Avg	Avg	Avg	
Chloromethane	1	UG/L	ND	ND	ND	ND	ND
Vinyl chloride	1	UG/L	ND	ND	ND	ND	ND
Bromomethane	1	UG/L	ND	ND	ND	ND	ND
Chloroethane	1	UG/L	ND	ND	ND	ND	ND
Trichlorofluoromethane	1	UG/L	ND	ND	ND	ND	ND
Acrolein	11.4	UG/L	ND	ND	ND	ND	ND
1,1-dichloroethane	1	UG/L	ND	ND	ND	ND	ND
Methylene chloride	1	UG/L	ND	ND	ND	ND	ND
trans-1,2-dichloroethene	1	UG/L	ND	ND	ND	ND	ND
1,1-dichloroethene	1	UG/L	ND	ND	ND	ND	ND
Acrylonitrile	13.8	UG/L	ND	ND	ND	ND	ND
Chloroform	1	UG/L	ND	1.8	ND	ND	0.5
1,1,1-trichloroethane	1	UG/L	ND	ND	ND	ND	ND
Carbon tetrachloride	1	UG/L	ND	ND	ND	ND	ND
Benzene	1	UG/L	ND	ND	ND	ND	ND
1,2-dichloroethane	1	UG/L	ND	ND	ND	ND	ND
Trichloroethene	1	UG/L	ND	ND	ND	ND	ND
1,2-dichloropropane	1	UG/L	ND	ND	ND	ND	ND
Bromodichloromethane	1	UG/L	ND	ND	ND	ND	ND
2-chloroethylvinyl ether	1	UG/L	ND	ND	ND	ND	ND
cis-1,3-dichloropropene	1	UG/L	ND	ND	ND	ND	ND
Toluene	1	UG/L	ND	ND	ND	ND	ND
trans-1,3-dichloropropene	1	UG/L	ND	ND	ND	ND	ND
1,1,2-trichloroethane	1	UG/L	ND	ND	ND	ND	ND
Tetrachloroethene	1	UG/L	ND	ND	ND	ND	ND
Dibromochloromethane	1	UG/L	ND	ND	ND	ND	ND
Chlorobenzene	1	UG/L	ND	ND	ND	ND	ND
Ethylbenzene	1	UG/L	ND	ND	ND	ND	ND
Bromoform	1	UG/L	ND	ND	ND	ND	ND
1,1,2,2-tetrachloroethane	1	UG/L	ND	ND	ND	ND	ND
1,3-dichlorobenzene	1	UG/L	ND	ND	ND	ND	ND
1,4-dichlorobenzene	1	UG/L	ND	ND	ND	ND	ND
1,2-dichlorobenzene	1	UG/L	ND	ND	ND	ND	ND
Halomethane Purgeable Cmpnds	1	UG/L	0.0	0.0	0.0	0.0	0.0
Purgeable Compounds	13.8	UG/L	0.0	1.8	0.0	0.0	0.5
Methyl Iodide	1	UG/L	ND	ND	ND	ND	ND
Carbon disulfide	1	UG/L	ND	1.1	ND	ND	0.3
Acetone	20	UG/L	ND	ND	ND	ND	ND
Allyl chloride	1	UG/L	ND	ND	ND	ND	ND
Methyl tert-butyl ether	1	UG/L	ND	ND	ND	ND	ND
Chloroprene	1.4	UG/L	ND	ND	ND	ND	ND
1,2-dibromoethane	3.3	UG/L	ND	ND	ND	ND	ND
2-butanone	4	UG/L	ND	ND	ND	ND	ND
Methyl methacrylate	4.6	UG/L	ND	ND	ND	ND	ND
2-nitropropane	10	UG/L	ND	ND	ND	ND	ND
4-methyl-2-pentanone	6.1	UG/L	ND	ND	ND	ND	ND
meta,para xylenes	3.1	UG/L	ND	ND	ND	ND	ND
ortho-xylene	3.4	UG/L	ND	ND	ND	ND	ND
Isopropylbenzene	4.4	UG/L	ND	ND	ND	ND	ND
Styrene	4.7	UG/L	ND	ND	ND	ND	ND
Benzyl chloride	7.2	UG/L	ND	ND	ND	ND	ND
1,2,4-trichlorobenzene	1.44	UG/L	ND	ND	ND	ND	ND

\* = The normal sampling point (SB\_Outfall\_00) for NPDES Compliance Monitoring was off-line from February 4 to February 25, 2006 due to equipment failure, an alternate location was used (SB\_SEC\_EFF\_29) as a compliance point. The February 2006 average above is of the February 7<sup>th</sup> SB\_SEC\_EFF\_29 sample. The annual average were calculated with the SB\_OUTFALL\_00 sampling point data and does not include the February SB\_SEC\_EFF\_29 value

nd=not detected; NS=not sampled; NA=not analyzed

SOUTH BAY WATER RECLAMATION PLANT  
SEWAGE ANNUAL Priority Pollutants Purgeables

From 01-JAN-2006 To 31-DEC-2006

Analyte	MDL	Units	INF	INF	INF	INF	INF
			FEB	MAY	AUG	OCT	Average
			Avg	Avg	Avg	Avg	
Chloromethane	1	UG/L	ND	ND	ND	ND	ND
Vinyl chloride	1	UG/L	ND	ND	ND	ND	ND
Bromomethane	1	UG/L	ND	ND	ND	ND	ND
Chloroethane	1	UG/L	ND	ND	ND	ND	ND
Trichlorofluoromethane	1	UG/L	ND	ND	ND	ND	ND
Acrolein	11.4	UG/L	ND	ND	ND	ND	ND
1,1-dichloroethane	1	UG/L	ND	ND	ND	ND	ND
Methylene chloride	1	UG/L	2.3	ND	2.4	1.6	1.6
trans-1,2-dichloroethene	1	UG/L	ND	ND	ND	ND	ND
1,1-dichloroethene	1	UG/L	ND	ND	ND	ND	ND
Acrylonitrile	13.8	UG/L	ND	ND	ND	ND	ND
Chloroform	1	UG/L	3.5	7.2	3.9	3.6	4.6
1,1,1-trichloroethane	1	UG/L	ND	ND	ND	ND	ND
Carbon tetrachloride	1	UG/L	ND	ND	ND	ND	ND
Benzene	1	UG/L	ND	ND	ND	ND	ND
1,2-dichloroethane	1	UG/L	ND	ND	ND	ND	ND
Trichloroethene	1	UG/L	ND	ND	ND	ND	ND
1,2-dichloropropane	1	UG/L	ND	ND	ND	ND	ND
Bromodichloromethane	1	UG/L	1.0	ND	ND	ND	0.3
2-chloroethylvinyl ether	1	UG/L	ND	ND	ND	ND	ND
cis-1,3-dichloropropene	1	UG/L	ND	ND	ND	ND	ND
Toluene	1	UG/L	1.2	1.1	1.1	ND	0.9
trans-1,3-dichloropropene	1	UG/L	ND	ND	ND	ND	ND
1,1,2-trichloroethane	1	UG/L	ND	ND	ND	ND	ND
Tetrachloroethene	1	UG/L	ND	ND	<1.0	ND	0.0
Dibromochloromethane	1	UG/L	ND	ND	ND	ND	ND
Chlorobenzene	1	UG/L	ND	ND	ND	ND	ND
Ethylbenzene	1	UG/L	ND	ND	ND	ND	ND
Bromoform	1	UG/L	ND	ND	ND	ND	ND
1,1,2,2-tetrachloroethane	1	UG/L	ND	ND	ND	ND	ND
1,3-dichlorobenzene	1	UG/L	ND	ND	ND	ND	ND
1,4-dichlorobenzene	1	UG/L	5.5	6.8	4.8	4.8	5.5
1,2-dichlorobenzene	1	UG/L	ND	ND	ND	ND	ND
Halomethane Purgeable Cmpnds	1	UG/L	1.0	0.0	0.0	0.0	0.3
Purgeable Compounds	13.8	UG/L	8.0	8.3	7.4	5.2	7.2
Methyl Iodide	1	UG/L	ND	ND	ND	ND	ND
Carbon disulfide	1	UG/L	1.4	3.4	3.6	1.0	2.4
Acetone	20	UG/L	395	173	159	104	208
Allyl chloride	1	UG/L	ND	ND	ND	ND	ND
Methyl tert-butyl ether	1	UG/L	ND	ND	ND	ND	ND
Chloroprene	1.4	UG/L	ND	ND	ND	ND	ND
1,2-dibromoethane	3.3	UG/L	ND	ND	ND	ND	ND
2-butanone	4	UG/L	5.8	21.2	28.1	ND	13.8
Methyl methacrylate	4.6	UG/L	ND	ND	ND	ND	ND
2-nitropropane	10	UG/L	ND	ND	ND	ND	ND
4-methyl-2-pentanone	6.1	UG/L	ND	ND	ND	ND	ND
meta,para xylenes	3.1	UG/L	ND	ND	ND	ND	ND
ortho-xylene	3.4	UG/L	ND	ND	ND	ND	ND
Isopropylbenzene	4.4	UG/L	ND	ND	ND	ND	ND
Styrene	4.7	UG/L	ND	ND	ND	ND	ND
Benzyl chloride	7.2	UG/L	ND	ND	ND	ND	ND
1,2,4-trichlorobenzene	1.44	UG/L	ND	ND	ND	ND	ND

nd=not detected; NS=not sampled; NA=not analyzed

SOUTH BAY WATER RECLAMATION PLANT  
Annual Sewage Dioxin and Furan Analysis

From 01-JAN-2006 To 31-DEC-2006

Analyte:	MDL	Units	Equiv	INF	INF	INF	INF
				JAN	FEB	MAR	APR
				P326896	P328141	P333231	P336781
2,3,7,8-tetra CDD	500	PG/L	1.000	ND	ND	ND	ND
1,2,3,7,8-penta CDD	500	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8-hexa_CDD	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDD	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDD	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDD	500	PG/L	0.010	ND	ND	ND	ND
octa CDD	1000	PG/L	0.001	ND	ND	ND	ND
2,3,7,8-tetra CDF	250	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8-penta CDF	500	PG/L	0.050	ND	ND	ND	ND
2,3,4,7,8-penta CDF	500	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8-hexa CDF	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDF	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDF	500	PG/L	0.100	ND	ND	ND	ND
2,3,4,6,7,8-hexa CDF	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDF	500	PG/L	0.010	ND	ND	ND	ND
1,2,3,4,7,8,9-hepta CDF	500	PG/L	0.010	ND	ND	ND	ND
octa CDF	1000	PG/L	0.001	ND	ND	ND	ND

Analyte:	MDL	Units	Equiv	INF	INF	INF	INF
				MAY	JUN	JUL	AUG
				P338009	P343972	P347277	P348705
2,3,7,8-tetra CDD	500	PG/L	1.000	ND	ND	ND	ND
1,2,3,7,8-penta CDD	500	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8-hexa_CDD	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDD	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDD	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDD	500	PG/L	0.010	ND	ND	ND	ND
octa CDD	1000	PG/L	0.001	ND	ND	ND	ND
2,3,7,8-tetra CDF	250	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8-penta CDF	500	PG/L	0.050	ND	ND	ND	ND
2,3,4,7,8-penta CDF	500	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8-hexa CDF	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDF	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDF	500	PG/L	0.100	ND	ND	ND	ND
2,3,4,6,7,8-hexa CDF	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDF	500	PG/L	0.010	ND	ND	ND	ND
1,2,3,4,7,8,9-hepta CDF	500	PG/L	0.010	ND	ND	ND	ND
octa CDF	1000	PG/L	0.001	ND	ND	ND	ND

Above are permit required CDD/CDF isomers.  
nd= not detected  
NA= not analyzed NS= not sampled

SOUTH BAY WATER RECLAMATION PLANT  
Annual Sewage Dioxin and Furan Analysis

From 01-JAN-2006 To 31-DEC-2006

Analyte:	MDL	Units	Equiv	INF	INF	INF	INF
				SEP	OCT	NOV	DEC
				P355264	P355799	P361463	P365622
2,3,7,8-tetra CDD	500	PG/L	1.000	ND	ND	ND	ND
1,2,3,7,8-penta CDD	500	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8_hexa_CDD	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDD	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDD	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDD	500	PG/L	0.010	ND	ND	ND	ND
octa CDD	1000	PG/L	0.001	ND	ND	ND	ND
2,3,7,8-tetra CDF	250	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8-penta CDF	500	PG/L	0.050	ND	ND	ND	ND
2,3,4,7,8-penta CDF	500	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8-hexa CDF	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDF	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDF	500	PG/L	0.100	ND	ND	ND	ND
2,3,4,6,7,8-hexa CDF	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDF	500	PG/L	0.010	ND	ND	ND	ND
1,2,3,4,7,8,9-hepta CDF	500	PG/L	0.010	ND	ND	ND	ND
octa CDF	1000	PG/L	0.001	ND	ND	ND	ND

Above are permit required CDD/CDF isomers.  
 nd= not detected  
 NA= not analyzed NS= not sampled

SOUTH BAY WATER RECLAMATION PLANT  
Annual Sewage Dioxin and Furan Analysis

From 01-JAN-2006 To 31-DEC-2006

Effluent Limit (TCDD): 0.39 pg/L (30-day Average)

Analyte:	MDL	Units	Equiv	EFF	SEC_EFF*	EFF	EFF
				JAN	FEB*	MAR	APR
				P326621	P328161	P333234	P336785
2,3,7,8-tetra CDD	500	PG/L	1.000	ND	ND	ND	ND
1,2,3,7,8-penta CDD	500	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8_hexa_CDD	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDD	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDD	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDD	500	PG/L	0.010	ND	ND	ND	ND
octa CDD	1000	PG/L	0.001	ND	ND	ND	ND
2,3,7,8-tetra CDF	250	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8-penta CDF	500	PG/L	0.050	ND	ND	ND	ND
2,3,4,7,8-penta CDF	500	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8-hexa CDF	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDF	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDF	500	PG/L	0.100	ND	ND	ND	ND
2,3,4,6,7,8-hexa CDF	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDF	500	PG/L	0.010	ND	ND	ND	ND
1,2,3,4,7,8,9-hepta CDF	500	PG/L	0.010	ND	ND	ND	ND
octa CDF	1000	PG/L	0.001	ND	ND	ND	ND

\* = The normal sampling point (SB\_Outfall\_00) for NPDES Compliance Monitoring was off-line from February 4 to February 25, 2006 due to equipment failure, an alternate location was used (SB\_SEC\_EFF\_29) as a compliance point. The February 2006 average above is of the February 7<sup>th</sup> SB\_SEC\_EFF\_29 sample. The annual average were calculated with the SB\_OUTFALL\_00 sampling point data and does not include the February SB\_SEC\_EFF\_29 value

Effluent Limit (TCDD): 0.39 pg/L (30-day Average)

Analyte:	MDL	Units	Equiv	EFF	EFF	EFF	EFF
				MAY	JUN	JUL	AUG
				P338014	P343976	P347281	P348710
2,3,7,8-tetra CDD	500	PG/L	1.000	ND	ND	ND	ND
1,2,3,7,8-penta CDD	500	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8_hexa_CDD	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDD	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDD	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDD	500	PG/L	0.010	ND	ND	ND	ND
octa CDD	1000	PG/L	0.001	ND	ND	ND	ND
2,3,7,8-tetra CDF	250	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8-penta CDF	500	PG/L	0.050	ND	ND	ND	ND
2,3,4,7,8-penta CDF	500	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8-hexa CDF	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDF	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDF	500	PG/L	0.100	ND	ND	ND	ND
2,3,4,6,7,8-hexa CDF	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDF	500	PG/L	0.010	ND	ND	ND	ND
1,2,3,4,7,8,9-hepta CDF	500	PG/L	0.010	ND	ND	ND	ND
octa CDF	1000	PG/L	0.001	ND	ND	ND	ND

Above are permit required CDD/CDF isomers.  
nd= not detected  
NA= not analyzed NS= not sampled

SOUTH BAY WATER RECLAMATION PLANT  
Annual Sewage Dioxin and Furan Analysis

From 01-JAN-2006 To 31-DEC-2006

Effluent Limit (TCDD): 0.39 pg/L (30-day Average)

Analyte:	MDL	Units	Equiv	EFF	EFF	EFF	EFF
				SEP	OCT	NOV	DEC
				P355268	P355804	P361467	P365626
2,3,7,8-tetra CDD	500	PG/L	1.000	ND	ND	ND	ND
1,2,3,7,8-penta CDD	500	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8-hexa_CDD	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDD	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDD	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDD	500	PG/L	0.010	ND	ND	ND	ND
octa CDD	1000	PG/L	0.001	ND	ND	ND	ND
2,3,7,8-tetra CDF	250	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8-penta CDF	500	PG/L	0.050	ND	ND	ND	ND
2,3,4,7,8-penta CDF	500	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8-hexa CDF	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDF	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDF	500	PG/L	0.100	ND	ND	ND	ND
2,3,4,6,7,8-hexa CDF	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDF	500	PG/L	0.010	ND	ND	ND	ND
1,2,3,4,7,8,9-hepta CDF	500	PG/L	0.010	ND	ND	ND	ND
octa CDF	1000	PG/L	0.001	ND	ND	ND	ND

Above are permit required CDD/CDF isomers.

nd= not detected

NA= not analyzed NS= not sampled

SOUTH BAY WATER RECLAMATION PLANT  
Annual Sewage Dioxin and Furan Analysis

From 01-JAN-2006 To 31-DEC-2006

Analyte:	MDL	Units	Equiv	INF	INF	INF	INF
				TCCD	TCCD	TCCD	TCCD
				JAN	FEB	MAR	APR
				P326896	P328141	P333231	P336781
2,3,7,8-tetra CDD	500	PG/L	1.000	ND	ND	ND	ND
1,2,3,7,8-penta CDD	500	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8-hexa_CDD	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDD	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDD	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDD	500	PG/L	0.010	ND	ND	ND	ND
octa CDD	1000	PG/L	0.001	ND	ND	ND	ND
2,3,7,8-tetra CDF	250	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8-penta CDF	500	PG/L	0.050	ND	ND	ND	ND
2,3,4,7,8-penta CDF	500	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8-hexa CDF	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDF	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDF	500	PG/L	0.100	ND	ND	ND	ND
2,3,4,6,7,8-hexa CDF	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDF	500	PG/L	0.010	ND	ND	ND	ND
1,2,3,4,7,8,9-hepta CDF	500	PG/L	0.010	ND	ND	ND	ND
octa CDF	1000	PG/L	0.001	ND	ND	ND	ND

Analyte:	MDL	Units	Equiv	INF	INF	INF	INF
				TCCD	TCCD	TCCD	TCCD
				MAY	JUN	JUL	AUG
				P338009	P343972	P347277	P348705
2,3,7,8-tetra CDD	500	PG/L	1.000	ND	ND	ND	ND
1,2,3,7,8-penta CDD	500	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8-hexa_CDD	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDD	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDD	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDD	500	PG/L	0.010	ND	ND	ND	ND
octa CDD	1000	PG/L	0.001	ND	ND	ND	ND
2,3,7,8-tetra CDF	250	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8-penta CDF	500	PG/L	0.050	ND	ND	ND	ND
2,3,4,7,8-penta CDF	500	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8-hexa CDF	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDF	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDF	500	PG/L	0.100	ND	ND	ND	ND
2,3,4,6,7,8-hexa CDF	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDF	500	PG/L	0.010	ND	ND	ND	ND
1,2,3,4,7,8,9-hepta CDF	500	PG/L	0.010	ND	ND	ND	ND
octa CDF	1000	PG/L	0.001	ND	ND	ND	ND

Above are permit required CDD/CDF isomers.  
nd= not detected  
NA= not analyzed NS= not sampled



SOUTH BAY WATER RECLAMATION PLANT  
Annual Sewage Dioxin and Furan Analysis

From 01-JAN-2006 To 31-DEC-2006

Analyte:	MDL	Units	Equiv	INF	INF	INF	INF
				TCCD	TCCD	TCCD	TCCD
				SEP	OCT	NOV	DEC
				P355264	P355799	P361463	P365622
2,3,7,8-tetra CDD	500	PG/L	1.000	ND	ND	ND	ND
1,2,3,7,8-penta CDD	500	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8-hexa_CDD	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDD	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDD	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDD	500	PG/L	0.010	ND	ND	ND	ND
octa CDD	1000	PG/L	0.001	ND	ND	ND	ND
2,3,7,8-tetra CDF	250	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8-penta CDF	500	PG/L	0.050	ND	ND	ND	ND
2,3,4,7,8-penta CDF	500	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8-hexa CDF	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDF	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDF	500	PG/L	0.100	ND	ND	ND	ND
2,3,4,6,7,8-hexa CDF	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDF	500	PG/L	0.010	ND	ND	ND	ND
1,2,3,4,7,8,9-hepta CDF	500	PG/L	0.010	ND	ND	ND	ND
octa CDF	1000	PG/L	0.001	ND	ND	ND	ND

Above are permit required CDD/CDF isomers.  
 nd= not detected  
 NA= not analyzed NS= not sampled

SOUTH BAY WATER RECLAMATION PLANT  
Annual Sewage Dioxin and Furan Analysis

From 01-JAN-2006 To 31-DEC-2006

Analyte:	MDL	Units	Equiv	EFF	SEC_EFF*	EFF	EFF
				TCCD	TCCD	TCCD	TCCD
				JAN	FEB*	MAR	APR
				P326621	P328161	P333234	P336785
2,3,7,8-tetra CDD	500	PG/L	1.000	ND	ND	ND	ND
1,2,3,7,8-penta CDD	500	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8-hexa_CDD	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDD	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDD	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDD	500	PG/L	0.010	ND	ND	ND	ND
octa CDD	1000	PG/L	0.001	ND	ND	ND	ND
2,3,7,8-tetra CDF	250	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8-penta CDF	500	PG/L	0.050	ND	ND	ND	ND
2,3,4,7,8-penta CDF	500	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8-hexa CDF	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDF	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDF	500	PG/L	0.100	ND	ND	ND	ND
2,3,4,6,7,8-hexa CDF	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDF	500	PG/L	0.010	ND	ND	ND	ND
1,2,3,4,7,8,9-hepta CDF	500	PG/L	0.010	ND	ND	ND	ND
octa CDF	1000	PG/L	0.001	ND	ND	ND	ND

\* = The normal sampling point (SB\_Outfall\_00) for NPDES Compliance Monitoring was off-line from February 4 to February 25, 2006 due to equipment failure, an alternate location was used (SB\_SEC\_EFF\_29) as a compliance point. The February 2006 average above is of the February 7<sup>th</sup> SB\_SEC\_EFF\_29 sample. The annual average were calculated with the SB\_OUTFALL\_00 sampling point data and does not include the February SB\_SEC\_EFF\_29 value

Analyte:	MDL	Units	Equiv	EFF	EFF	EFF	EFF
				TCCD	TCCD	TCCD	TCCD
				MAY	JUN	JUL	AUG
				P338014	P343976	P347281	P348710
2,3,7,8-tetra CDD	500	PG/L	1.000	ND	ND	ND	ND
1,2,3,7,8-penta CDD	500	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8-hexa_CDD	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDD	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDD	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDD	500	PG/L	0.010	ND	ND	ND	ND
octa CDD	1000	PG/L	0.001	ND	ND	ND	ND
2,3,7,8-tetra CDF	250	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8-penta CDF	500	PG/L	0.050	ND	ND	ND	ND
2,3,4,7,8-penta CDF	500	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8-hexa CDF	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDF	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDF	500	PG/L	0.100	ND	ND	ND	ND
2,3,4,6,7,8-hexa CDF	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDF	500	PG/L	0.010	ND	ND	ND	ND
1,2,3,4,7,8,9-hepta CDF	500	PG/L	0.010	ND	ND	ND	ND
octa CDF	1000	PG/L	0.001	ND	ND	ND	ND

Above are permit required CDD/CDF isomers.  
nd= not detected  
NA= not analyzed NS= not sampled

SOUTH BAY WATER RECLAMATION PLANT  
Annual Sewage Dioxin and Furan Analysis

From 01-JAN-2006 To 31-DEC-2006

Analyte:	MDL	Units	Equiv	EFF	EFF	EFF	EFF
				TCCD	TCCD	TCCD	TCCD
				SEP	OCT	NOV	DEC
				P355268	P355804	P361467	P365626
2,3,7,8-tetra CDD	500	PG/L	1.000	ND	ND	ND	ND
1,2,3,7,8-penta CDD	500	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8-hexa_CDD	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDD	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDD	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDD	500	PG/L	0.010	ND	ND	ND	ND
octa CDD	1000	PG/L	0.001	ND	ND	ND	ND
2,3,7,8-tetra CDF	250	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8-penta CDF	500	PG/L	0.050	ND	ND	ND	ND
2,3,4,7,8-penta CDF	500	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8-hexa CDF	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDF	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDF	500	PG/L	0.100	ND	ND	ND	ND
2,3,4,6,7,8-hexa CDF	500	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDF	500	PG/L	0.010	ND	ND	ND	ND
1,2,3,4,7,8,9-hepta CDF	500	PG/L	0.010	ND	ND	ND	ND
octa CDF	1000	PG/L	0.001	ND	ND	ND	ND

Above are permit required CDD/CDF isomers.  
nd= not detected  
NA= not analyzed NS= not sampled

SOUTH BAY WATER RECLAMATION PLANT

From 01-JAN-2006  
To 31-DEC-2006

MDL/units	Aluminum		Turbidity		Barium	
	47 ug/L		NTU		.039 ug/L	
	Inf.	Eff.	Inf.	Eff.	Inf.	Eff.
=====	=====	=====	=====	=====	=====	=====
JANUARY -2006	784	ND	NR	0.8	86.1	52.7
FEBRUARY -2006	1110	233*	148.0	4.0	83.0	60.0*
MARCH -2006	1190	143	NR	1.2	125.0	63.7
APRIL -2006	802	264	NR	1.1	83.0	56.3
MAY -2006	844	184	177.0	1.1	94.5	50.8
JUNE -2006	783	89	NR	2.1	77.8	48.7
JULY -2006	1000	201	NR	0.8	95.5	53.4
AUGUST -2006	704	529	133.0	1.0	81.6	52.0
SEPTEMBER-2006	1000	137	NR	0.8	110.0	48.5
OCTOBER -2006	966	133	141.0	1.3	70.6	43.4
NOVEMBER -2006	1010	28	NR	1.1	72.6	39.2
DECEMBER -2006	736	47	NR	2.0	69.5	32.8
=====	=====	=====	=====	=====	=====	=====
Average:	911	160	149.8	1.4	87.4	49.2

MDL/units	Manganese		Boron		Cobalt	
	.24 ug/L		1.7 ug/L		.162 ug/L	
	Inf.	Eff.	Inf.	Eff.	Inf.	Eff.
=====	=====	=====	=====	=====	=====	=====
JANUARY -2006	57.1	10.7	365	370	0.8	ND
FEBRUARY -2006	38.6	10.8*	333	356*	1.0	1*
MARCH -2006	141.0	10.4	327	313	1.2	0.4
APRIL -2006	60.8	14.7	298	328	ND	0.2
MAY -2006	62.4	29.6	349	350	0.2	ND
JUNE -2006	65.8	78.5	284	280	ND	0.3
JULY -2006	56.2	71.9	366	310	0.4	0.2
AUGUST -2006	38.4	6.9	240	379	0.7	0.5
SEPTEMBER-2006	40.2	12.2	369	326	0.8	0.4
OCTOBER -2006	31.1	11.4	309	324	ND	ND
NOVEMBER -2006	44.2	4.4	288	252	NR	ND
DECEMBER -2006	38.1	6.6	273	233	NR	1.6
=====	=====	=====	=====	=====	=====	=====
Average:	56.2	23.4	317	315	0.5	0.3

MDL/units	Calcium		Magnesium		Lithium	
	.04 mg/L		.014 mg/L		.002 mg/L	
	Inf.	Eff.	Inf.	Eff.	Inf.	Eff.
=====	=====	=====	=====	=====	=====	=====
JANUARY -2006	84.6	75.3	33.9	31.4	0.027	0.027
FEBRUARY -2006	49.8	57.0*	22.2	25.0*	0.029	0.030*
MARCH -2006	57.8	53.9	23.4	21.9	0.034	0.036
APRIL -2006	63.4	64.5	26.4	26.4	0.029	0.034
MAY -2006	60.6	59.9	24.6	23.5	0.036	0.031
JUNE -2006	68.6	61.7	NR	26.4	0.025	0.021
JULY -2006	60.7	61.5	NR	24.7	0.028	0.029
AUGUST -2006	74.6	65.8	31.5	28.1	0.032	0.029
SEPTEMBER-2006	67.0	55.8	27.7	25.2	0.030	0.025
OCTOBER -2006	56.2	52.5	26.1	24.2	0.025	0.024
NOVEMBER -2006	50.2	53.3	NR	24.1	0.025	0.022
DECEMBER -2006	53.3	54.2	NR	20.7	0.026	0.027
=====	=====	=====	=====	=====	=====	=====
Average:	62.2	59.9	27.0	25.1	0.029	0.028

\* = The normal sampling point (SB\_Outfall\_00) for NPDES Compliance Monitoring was off-line from February 4 to February 25, 2006 due to equipment failure, an alternate location was used (SB\_SEC\_EFF\_29) as a compliance point. The February 2006 average above is of the February 7<sup>th</sup> SB\_SEC\_EFF\_29 sample. The annual average were calculated with the SB\_OUTFALL\_00 sampling point data and does not include the February SB\_SEC\_EFF\_29 value

ND=not detected; NS=not sampled; NA=not analyzed; NR = not required

SOUTH BAY WATER RECLAMATION PLANT

From 01-JAN-2006  
To 31-DEC-2006

MD/units	Sodium		Potassium	
	1 mg/L		.3 mg/L	
	Inf.	Eff.	Inf.	Eff.
JANUARY -2006	186	191	17.5	14.6
FEBRUARY -2006	151	167*	13.6	13.0*
MARCH -2006	145	146	12.5	11.2
APRIL -2006	163	177	16.7	14.8
MAY -2006	189	164	19.4	14.4
JUNE -2006	162	173	17.6	15.4
JULY -2006	158	165	16.4	14.7
AUGUST -2006	181	191	18.5	16.9
SEPTEMBER-2006	168	167	17.1	14.1
OCTOBER -2006	172	164	16.6	14.4
NOVEMBER -2006	145	155	16.0	14.0
DECEMBER -2006	142	149	17.3	16.1
Average:	164	167	16.6	14.6

MD/units	Molybdenum		Vanadium		Total Dissolved Solids	
	.122 ug/L		.48 ug/L		42 mg/L	
	Inf.	Eff.	Inf.	Eff.	Inf.	Eff.
JANUARY -2006	2.1	4.1	2.7	ND	905	873
FEBRUARY -2006	0.9	2.3*	1.7	1.3*	899	858
MARCH -2006	4.9	4.0	2.1	1.1	891	882
APRIL -2006	3.7	4.6	1.5	1.0	888	879
MAY -2006	5.6	3.9	1.1	0.7	895	893
JUNE -2006	2.5	2.7	1.6	ND	911	894
JULY -2006	5.6	2.6	2.0	1.0	913	895
AUGUST -2006	4.6	2.2	1.8	1.1	879	876
SEPTEMBER-2006	2.8	3.4	2.2	1.1	881	873
OCTOBER -2006	3.1	5.6	ND	ND	869	848
NOVEMBER -2006	NR	2.7	NR	ND	800	785
DECEMBER -2006	NR	1.2	NR	ND	770	758
Average:	3.6	3.4	1.7	0.5	875	860

\* = The normal sampling point (SB\_Outfall\_00) for NPDES Compliance Monitoring was off-line from February 4 to February 25, 2006 due to equipment failure, an alternate location was used (SB\_SEC\_EFF\_29) as a compliance point. The February 2006 average above is of the February 7<sup>th</sup> SB\_SEC\_EFF\_29 sample. The annual average were calculated with the SB\_OUTFALL\_00 sampling point data and does not include the February SB\_SEC\_EFF\_29 value

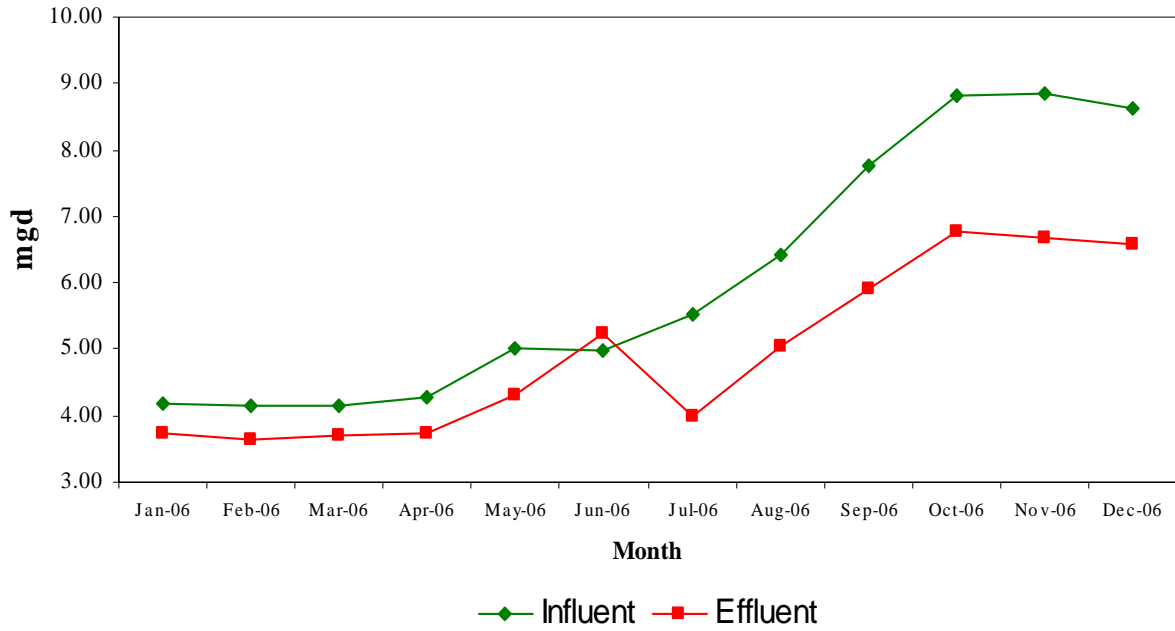
ND=not detected; NS=not sampled; NA=not analyzed; NR = not required

## B. Influent and Effluent Graphs

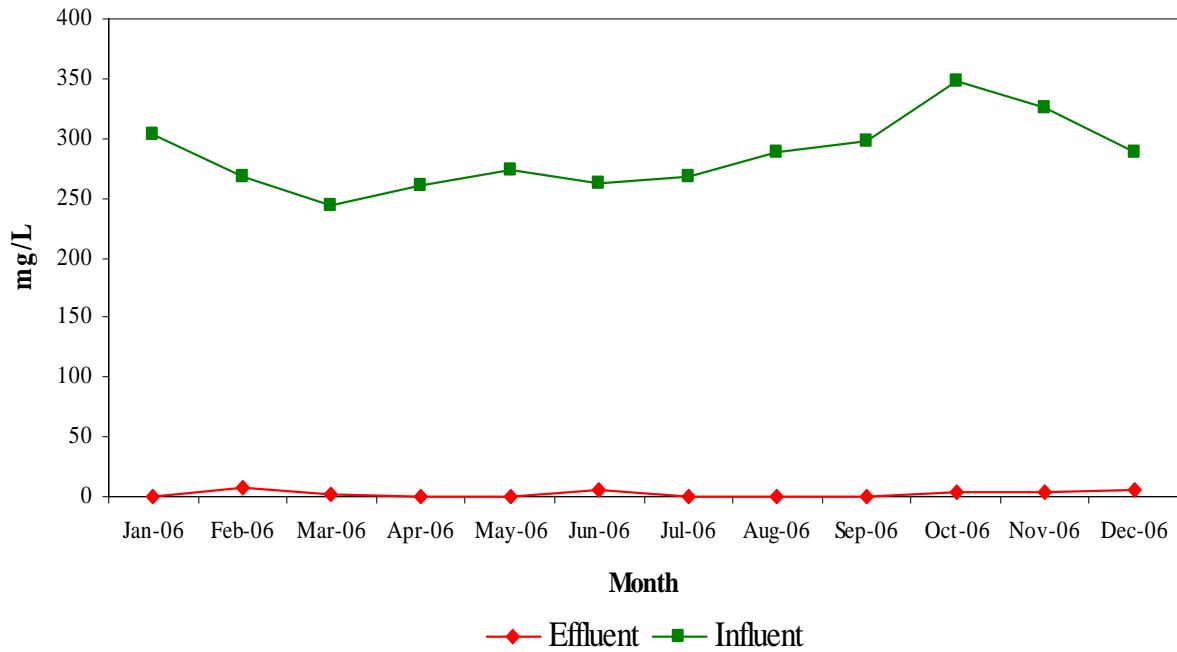
Graphs of monthly averages for permit parameters with measurable concentration averages.

Where possible, the influent and effluent values of a given parameter have been included on the same graph so that removals and other relationships are readily apparent. Please note that many of the graphs are on expanded scales. That is, they normally don't go to zero concentrations but show, in magnified scale, that range of concentrations where variation takes place. This makes differences and some trends obvious that might normally not be noticed. However, it also provides the temptation to interpret minor changes or trends as being of more significance than they are. Frequent reference to the scales and the actual differences in concentrations is therefore necessary.

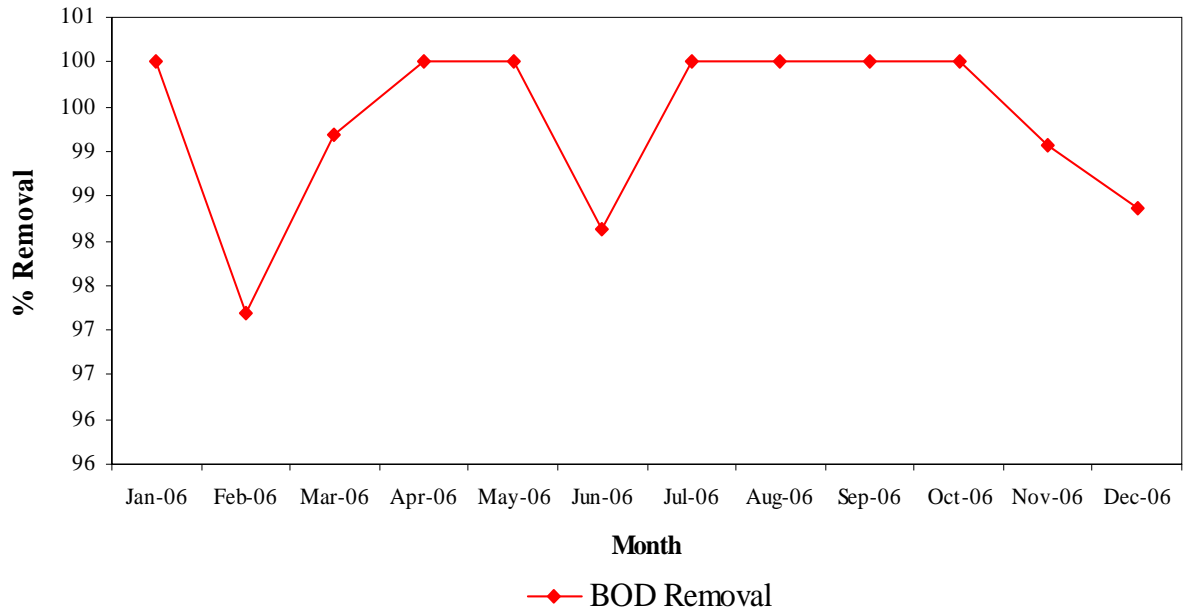
### 2006 Monthly Averages FLOWS



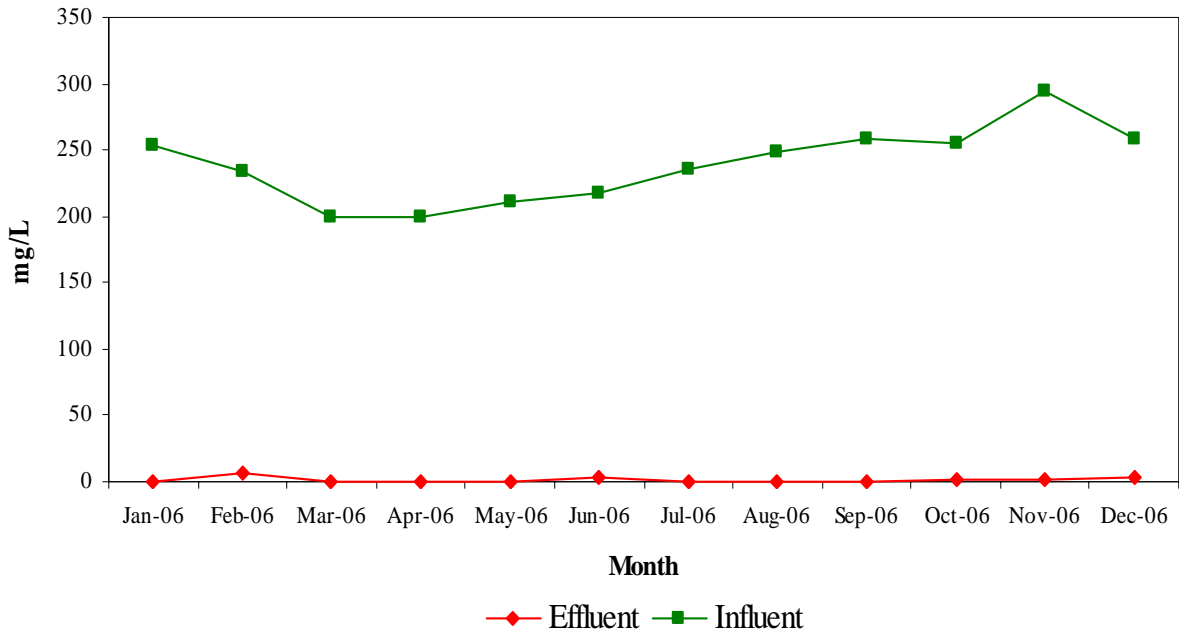
### 2006 Monthly Averages BOD



### 2006 Monthly Averages BOD Removals

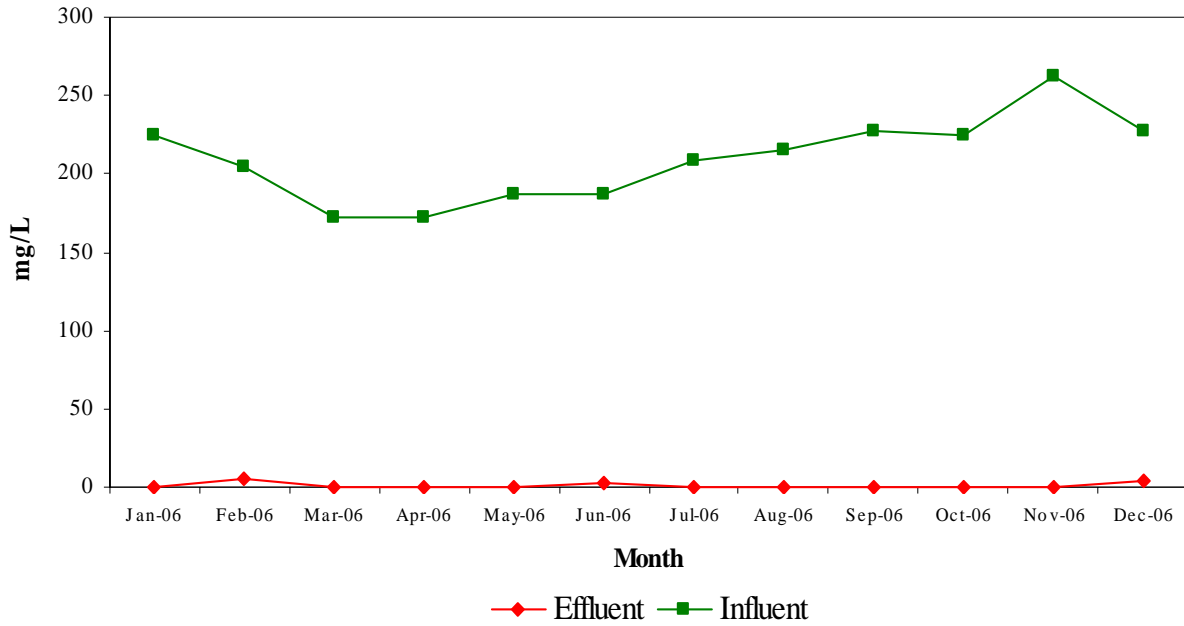


### 2006 Monthly Averages TSS

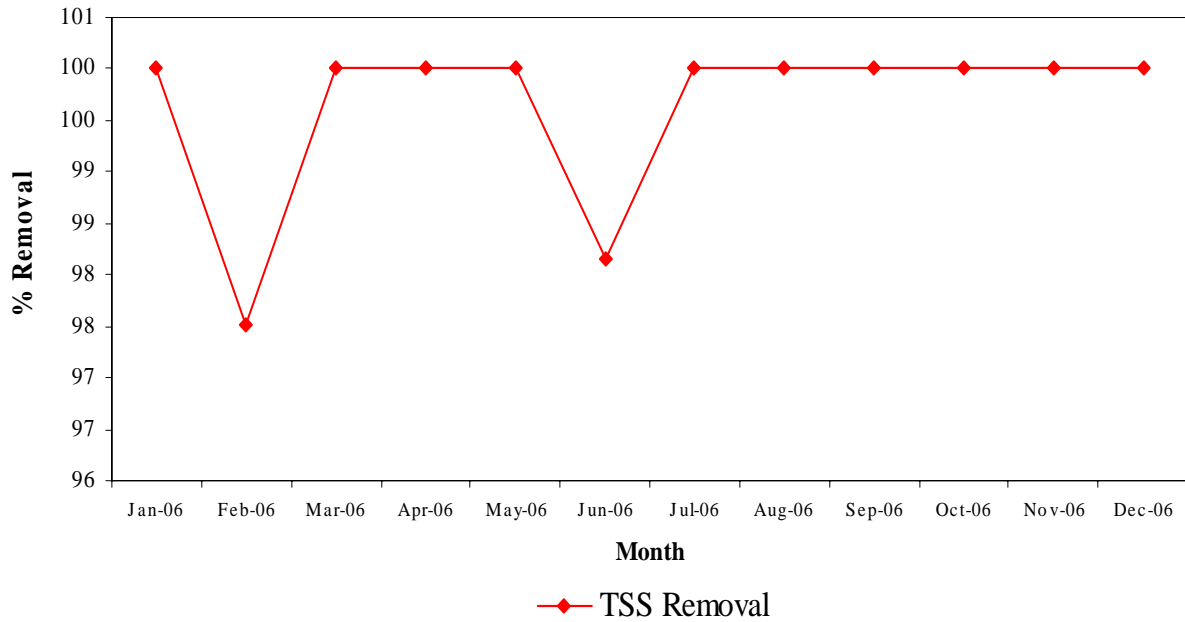




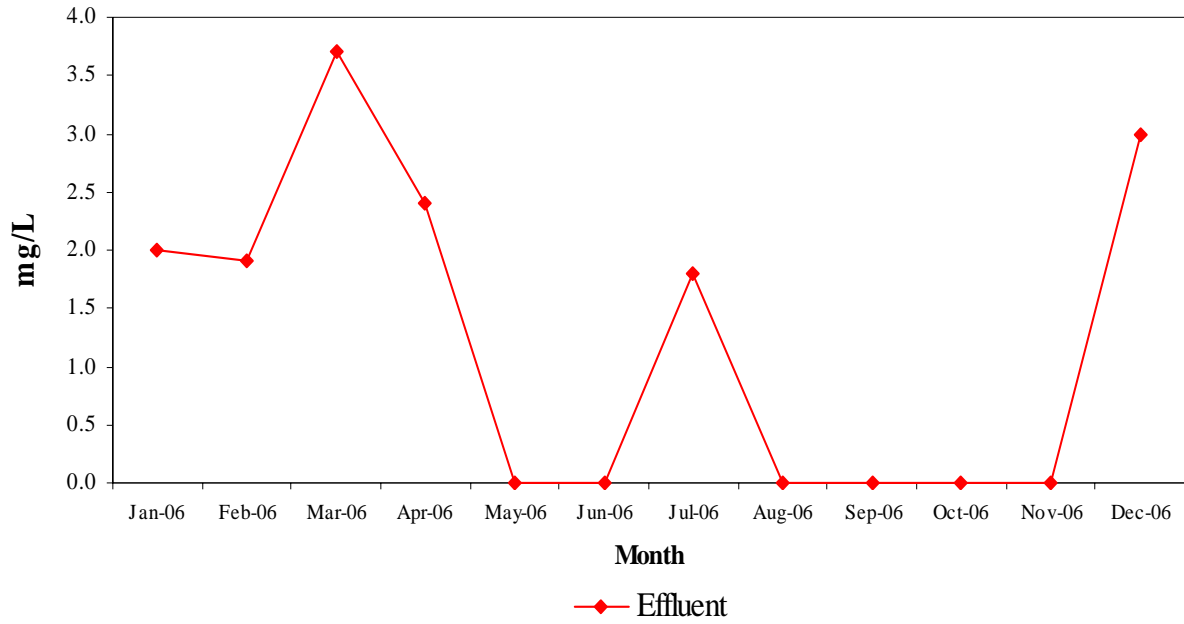
### 2006 Monthly Averages VSS



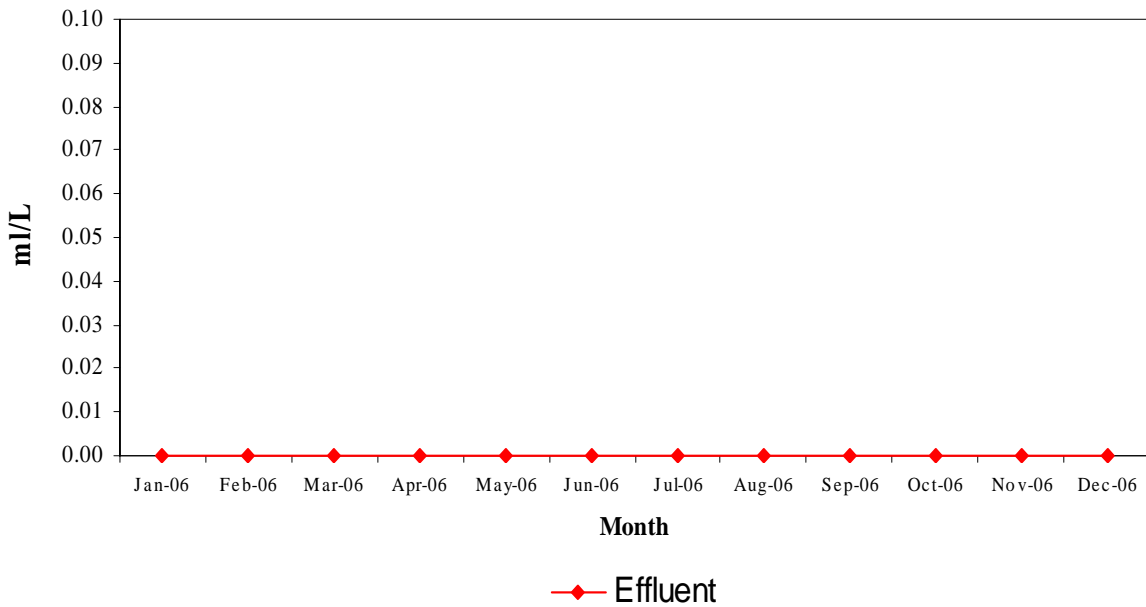
### 2006 Monthly Averages TSS Removals



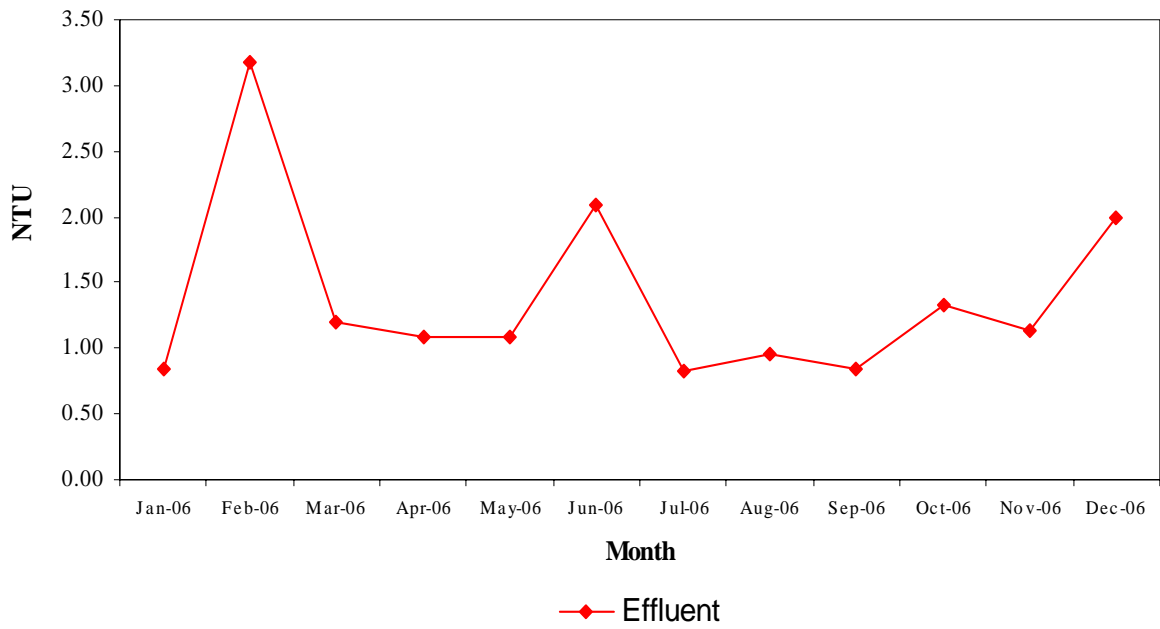
### 2006 Monthly Averages Oil & Grease



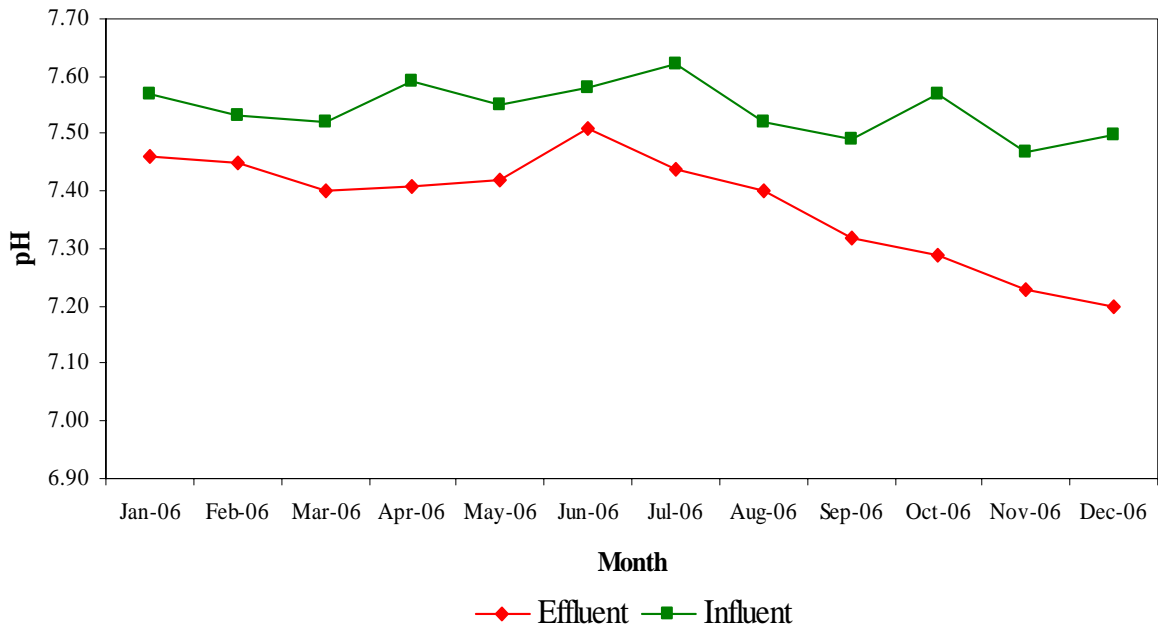
### 2006 Monthly Averages Settleable Solids



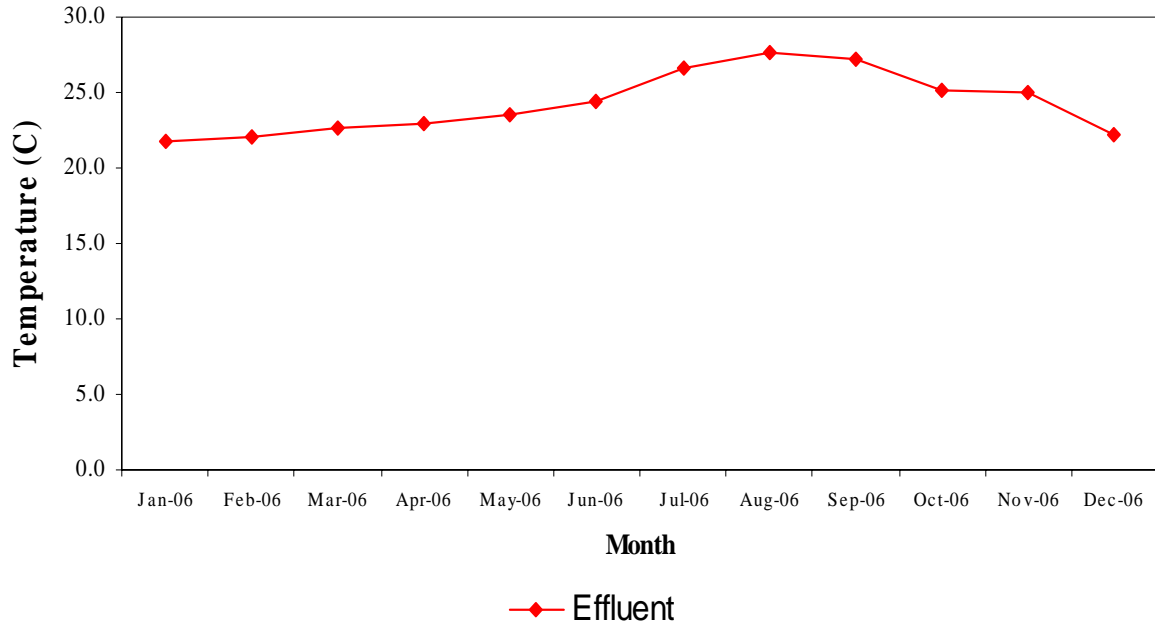
### 2006 Monthly Averages Turbidity



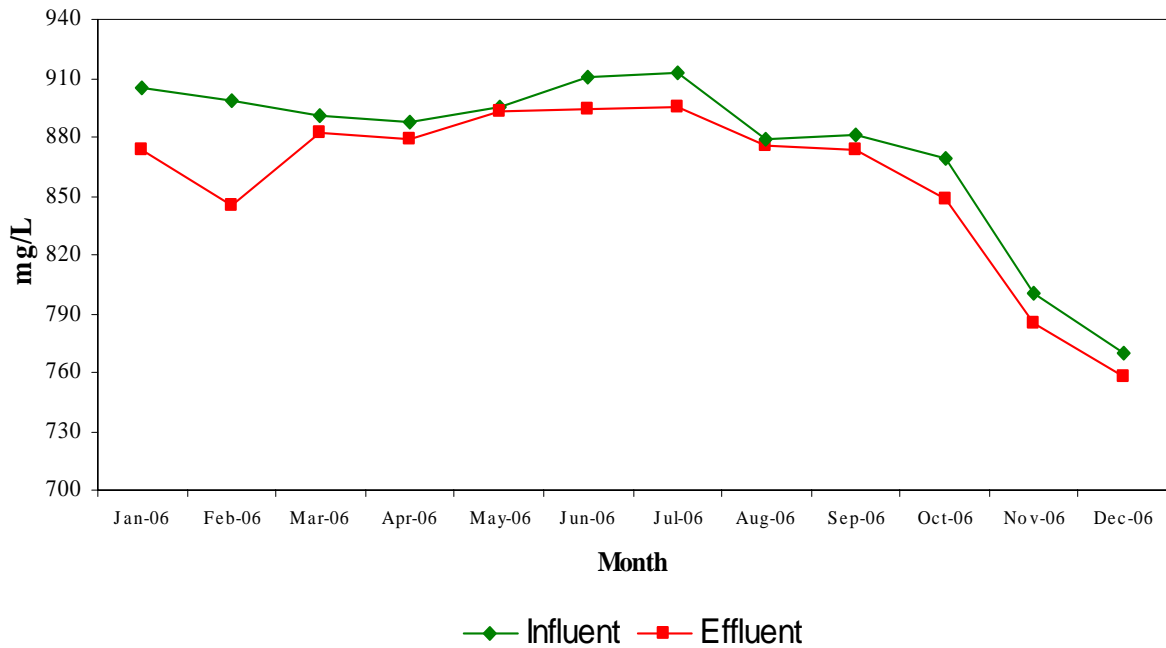
### 2006 Monthly Averages pH



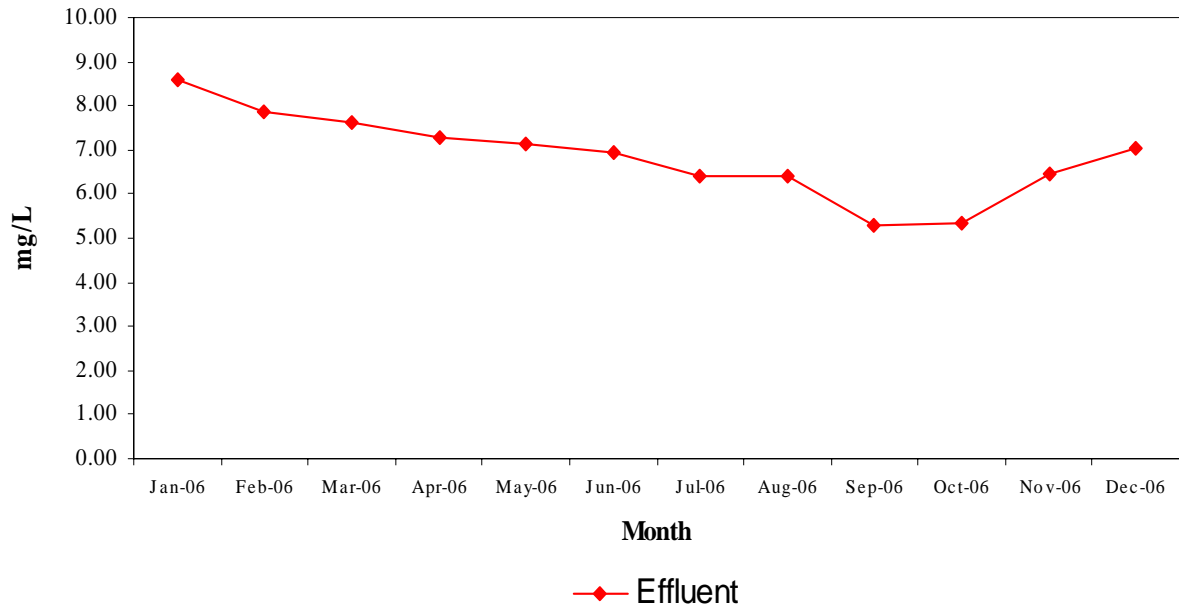
### 2006 Monthly Averages Outfall Temperature



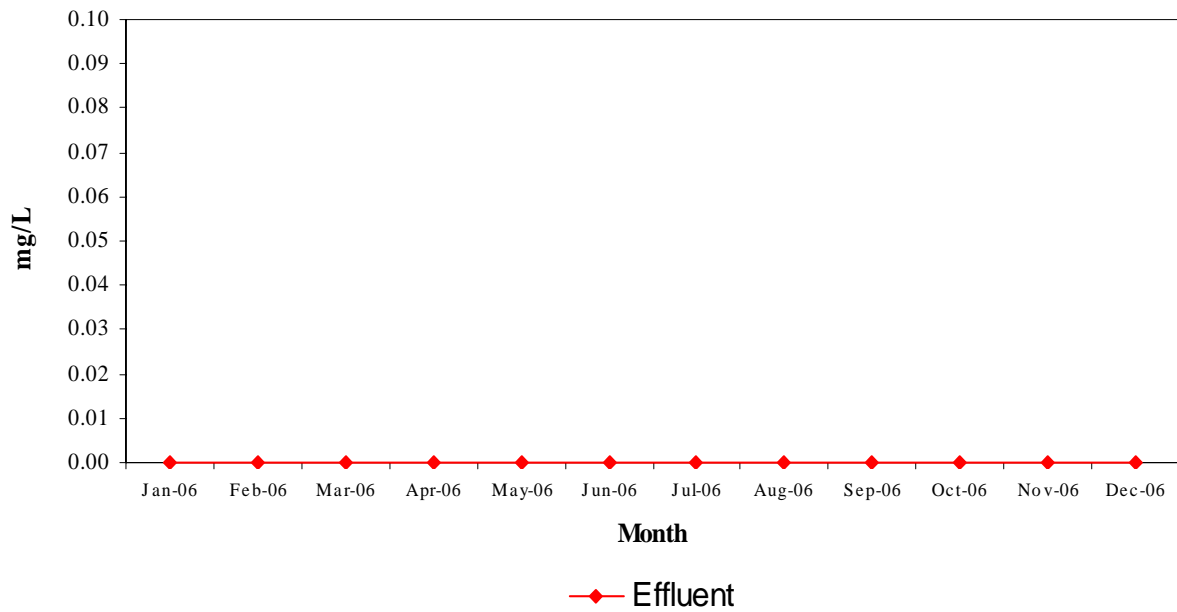
### 2006 Monthly Averages Total Dissolved Solids



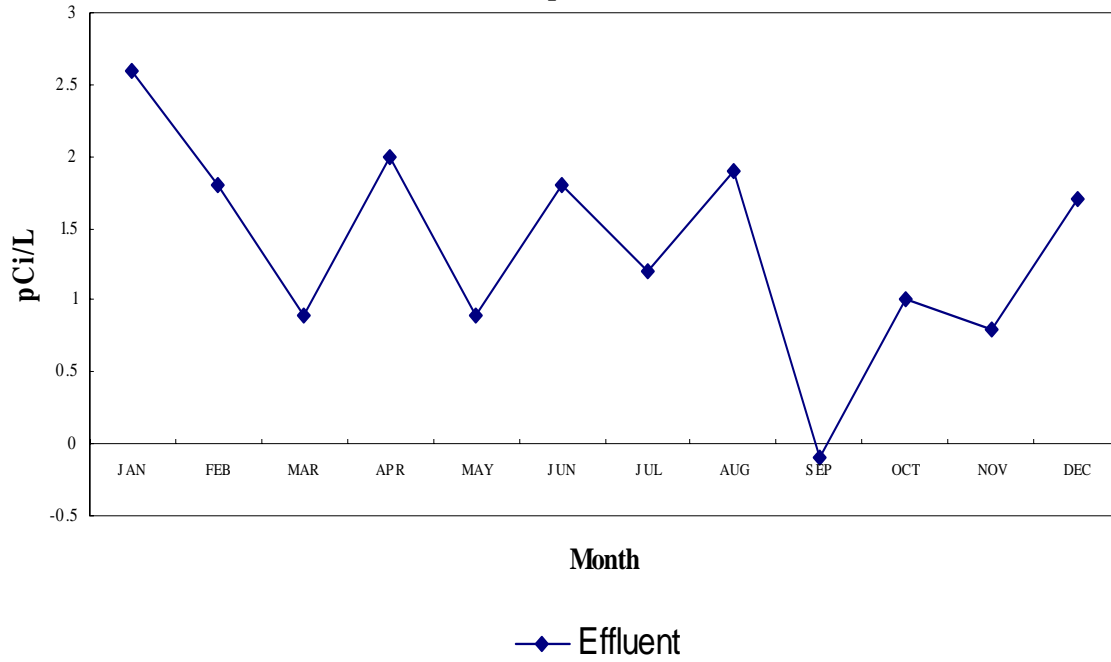
### 2006 Monthly Averages Dissolved Oxygen



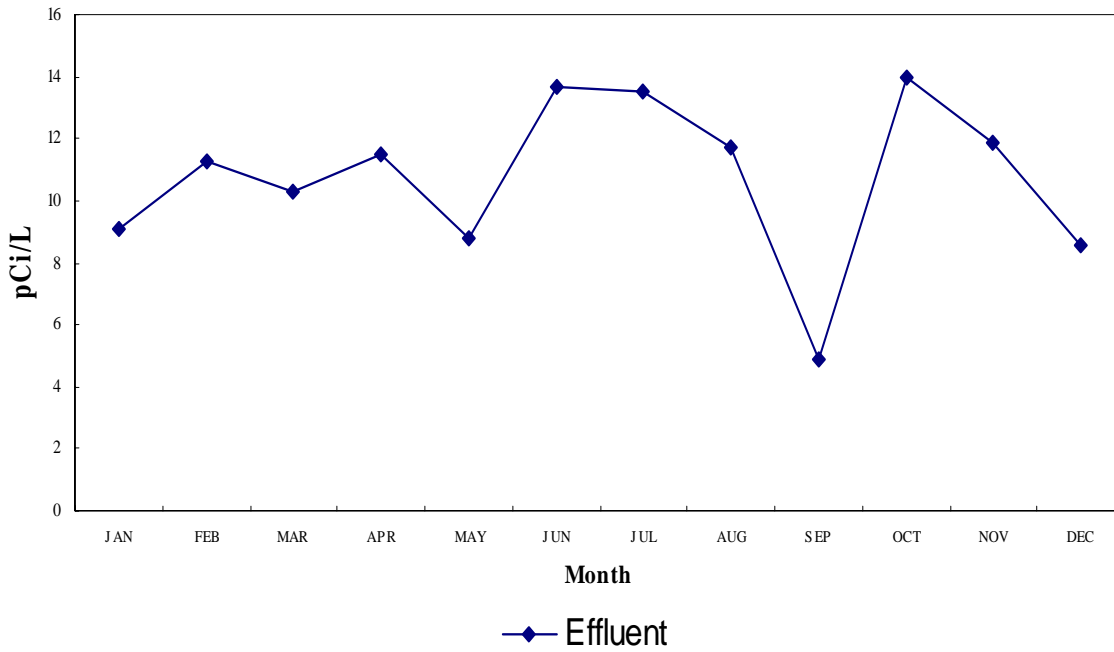
### 2006 Monthly Averages Residual Chlorine



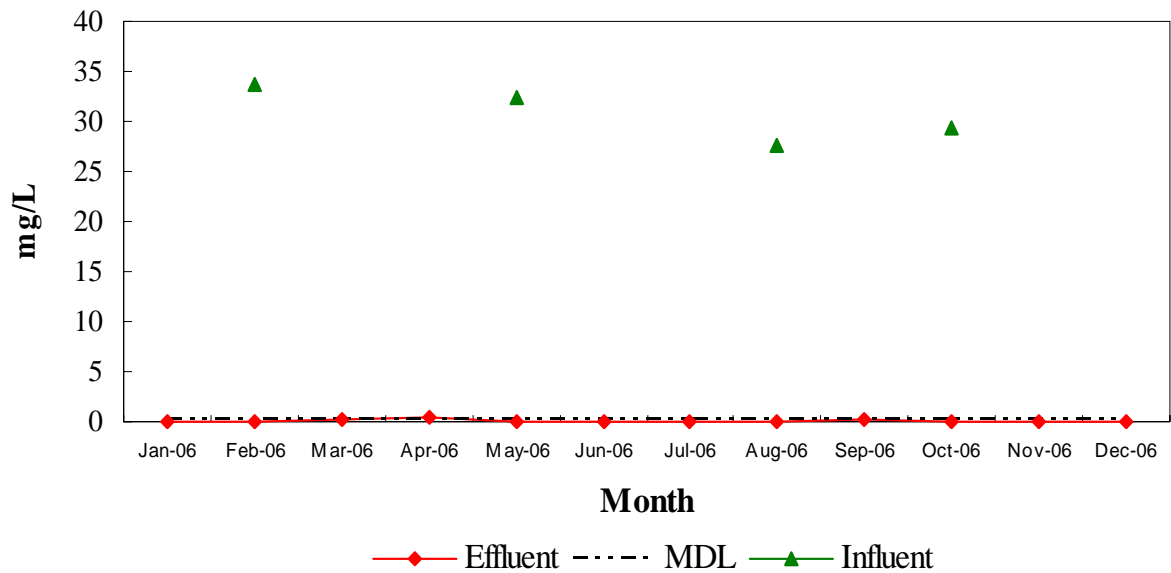
2006 Monthly Averages  
Alpha Radiation



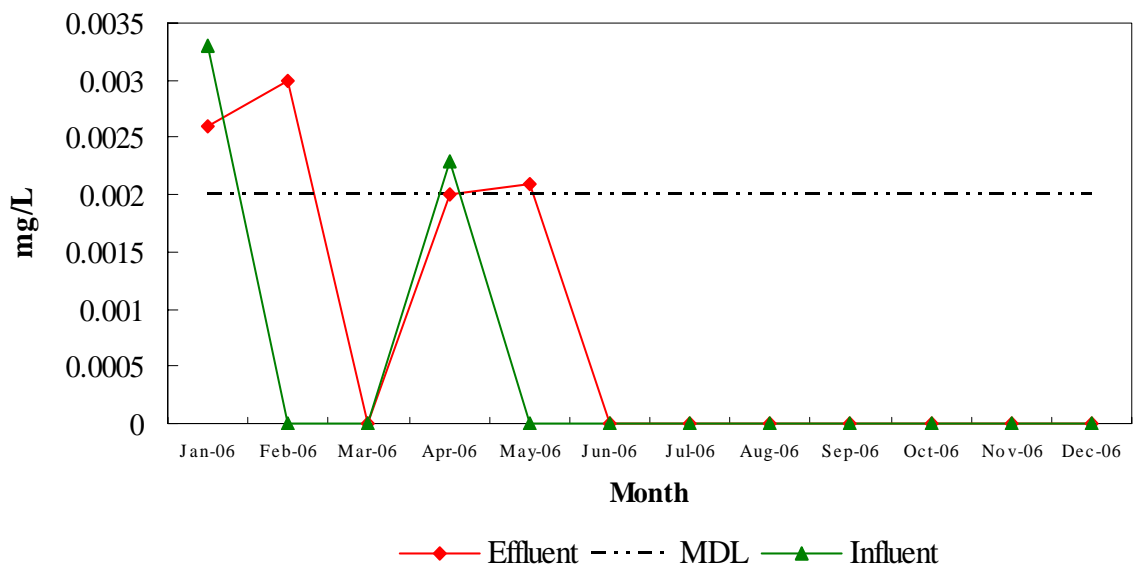
2006 Monthly Averages  
Beta Radiation



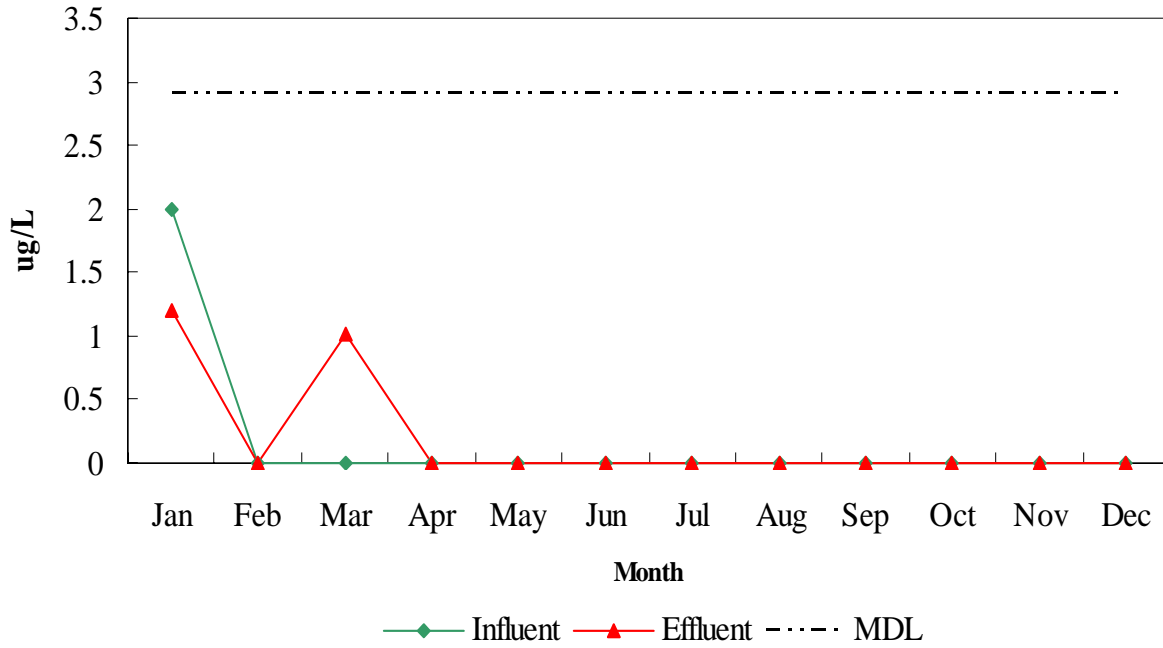
### 2006 Monthly Averages Ammonia-N



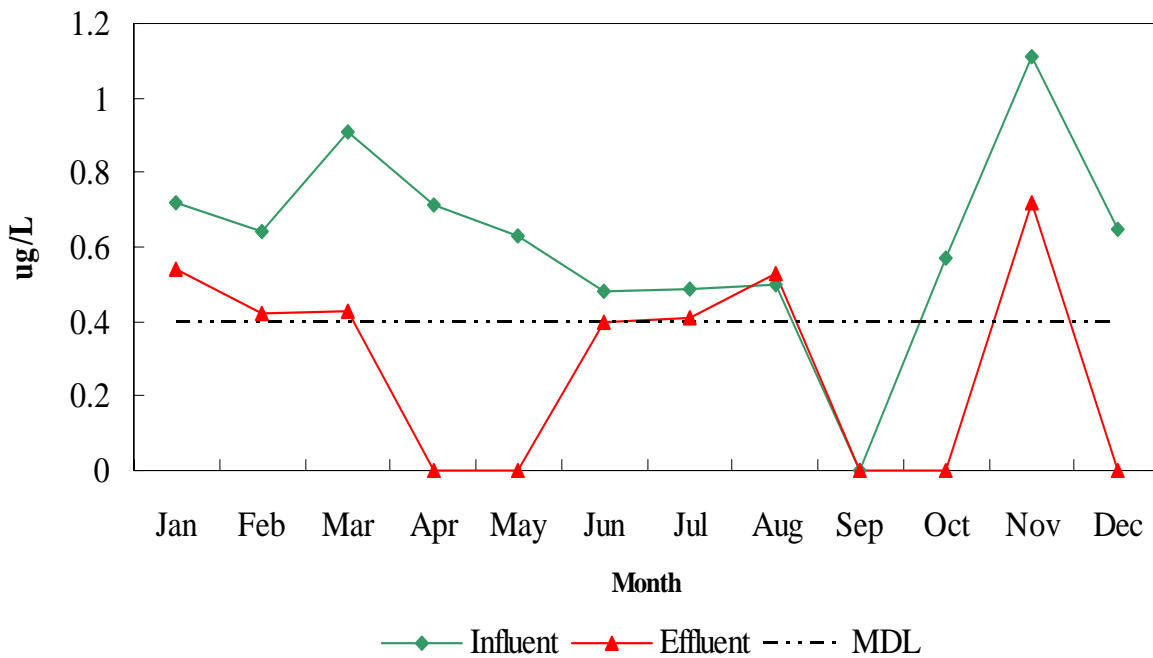
### 2006 Monthly Averages Total Cyanides



**2006 Monthly Averages  
Antimony**

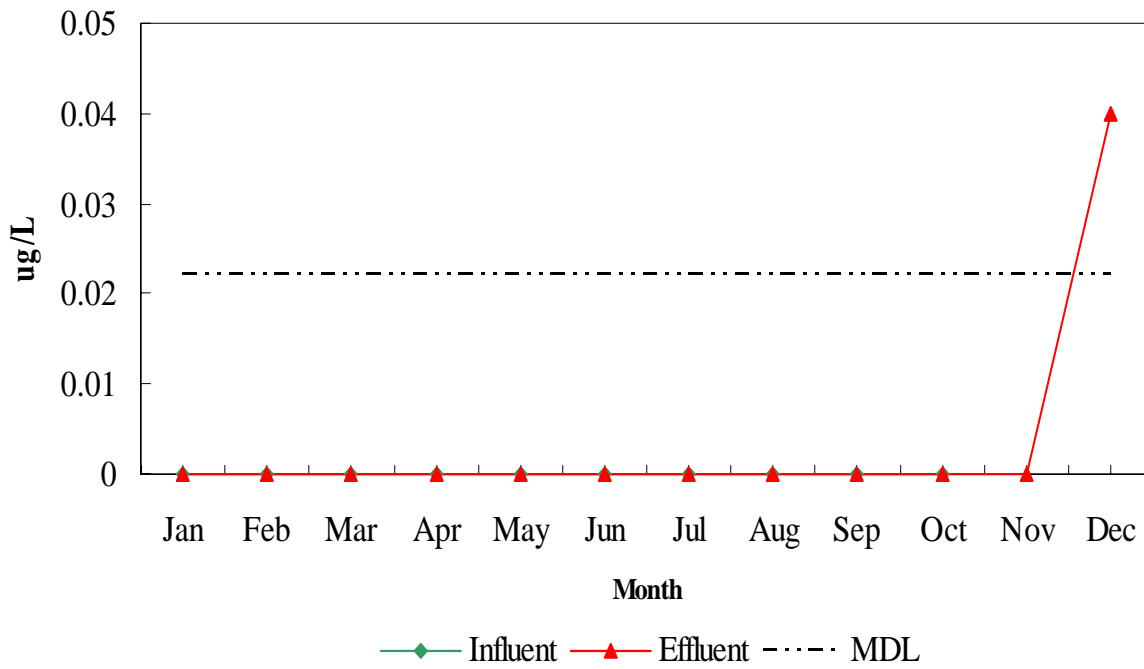


**2006 Monthly Averages  
Arsenic**

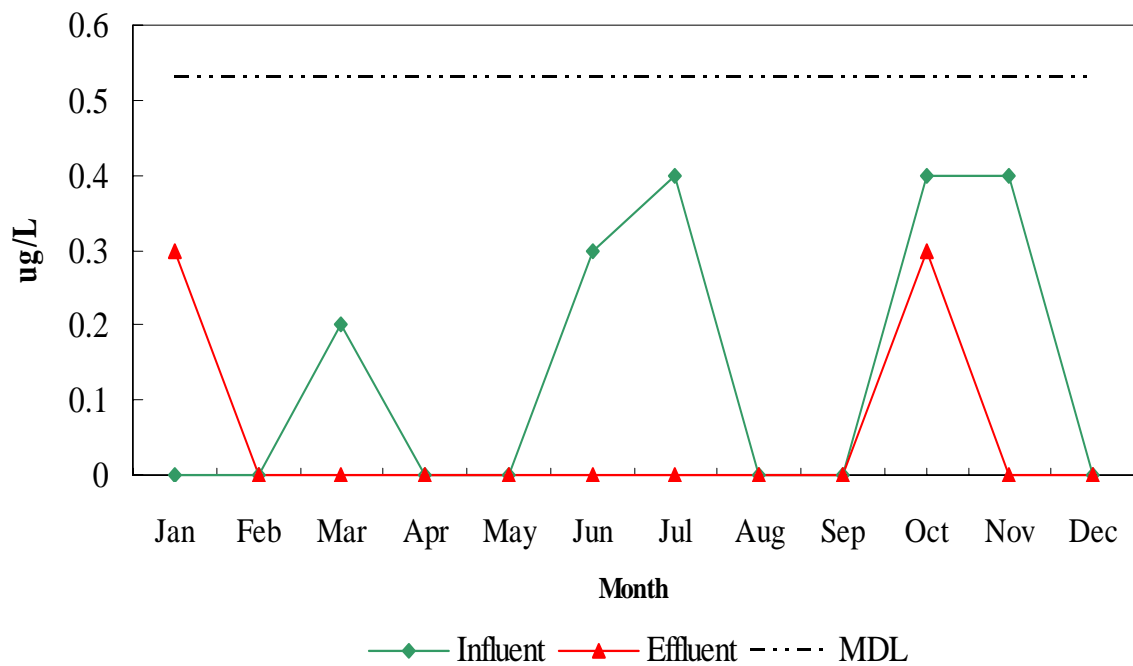




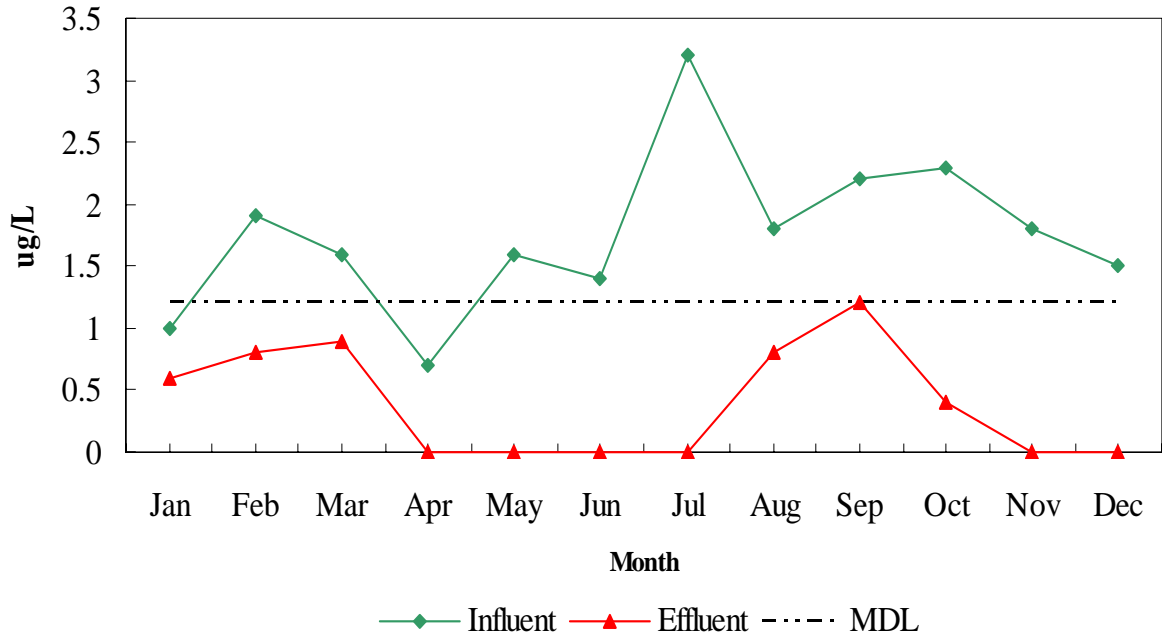
**2006 Monthly Averages  
Beryllium**



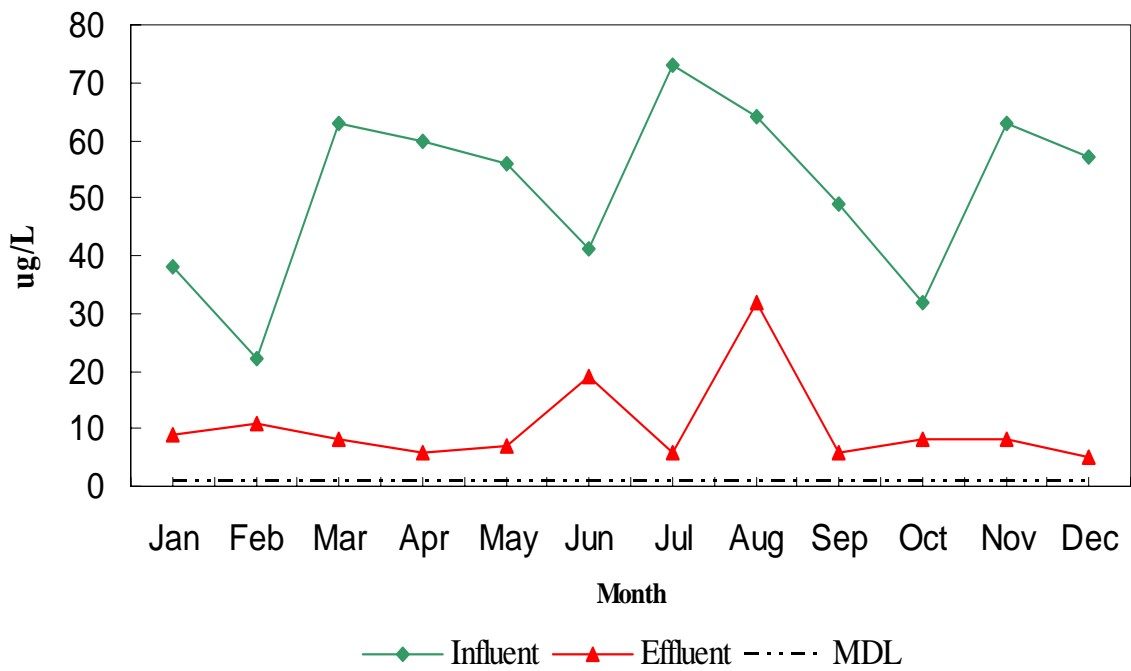
**2006 Monthly Averages  
Cadmium**



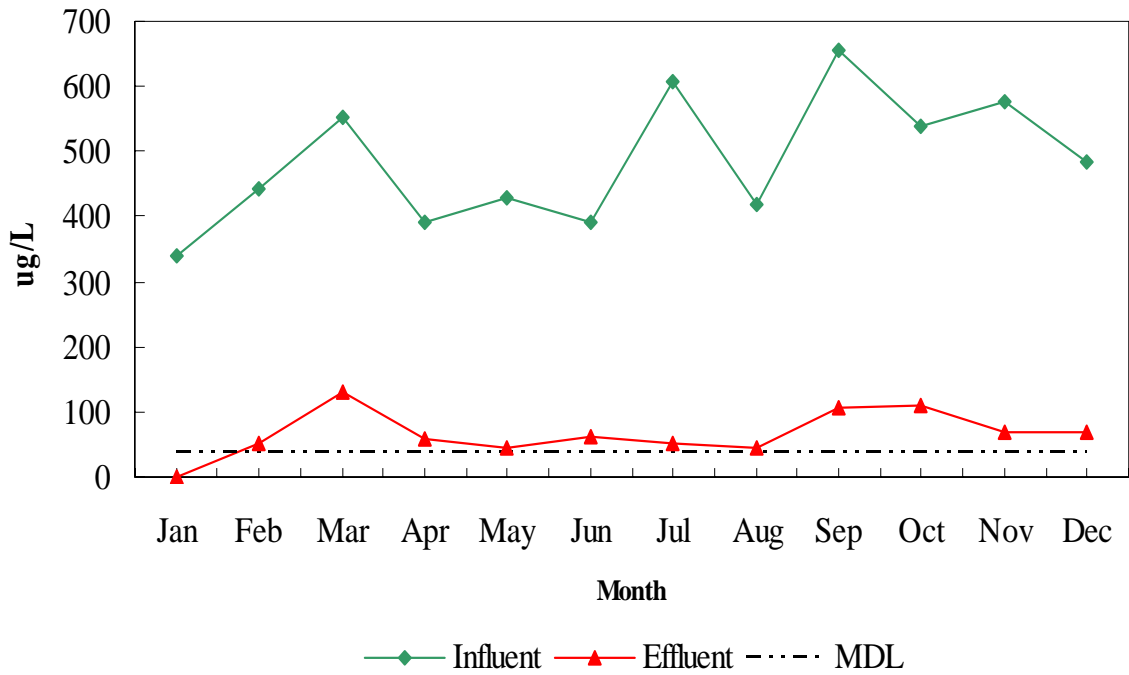
**2006 Monthly Averages  
Chromium**



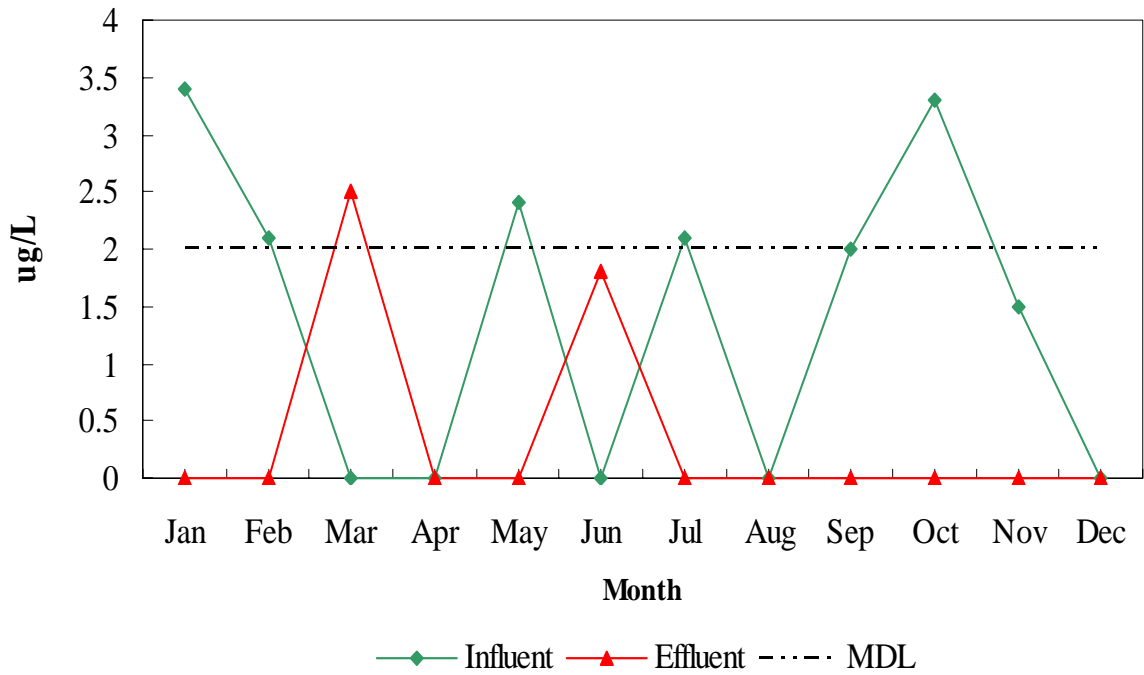
**2006 Monthly Averages  
Copper**



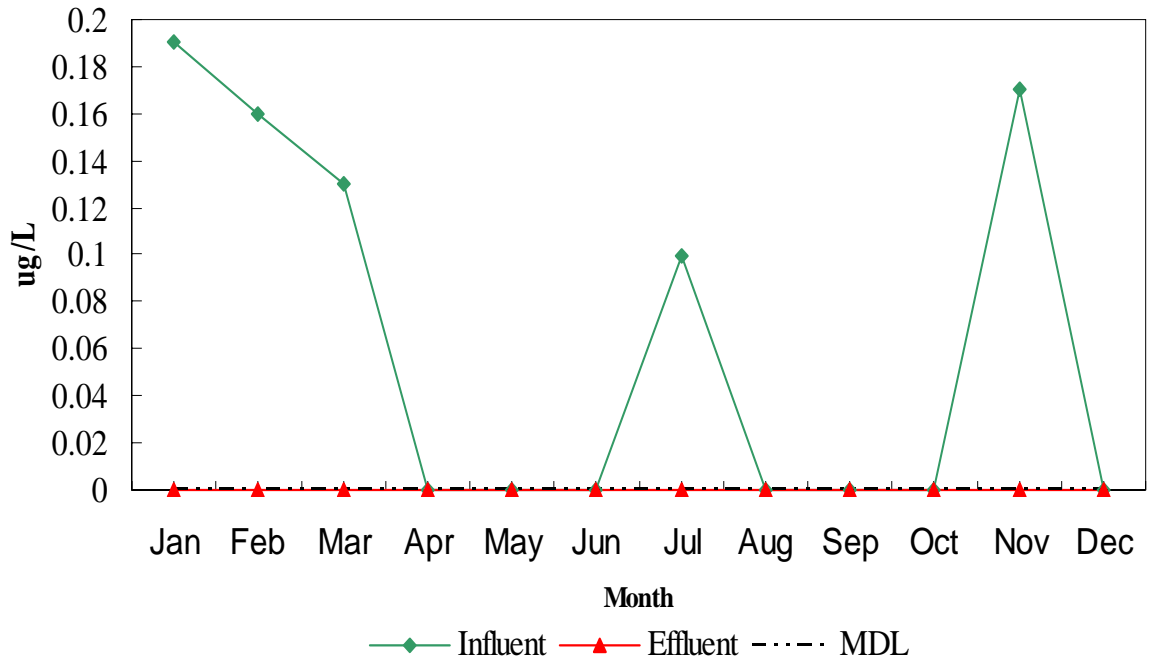
**2006 Monthly Averages  
Iron**



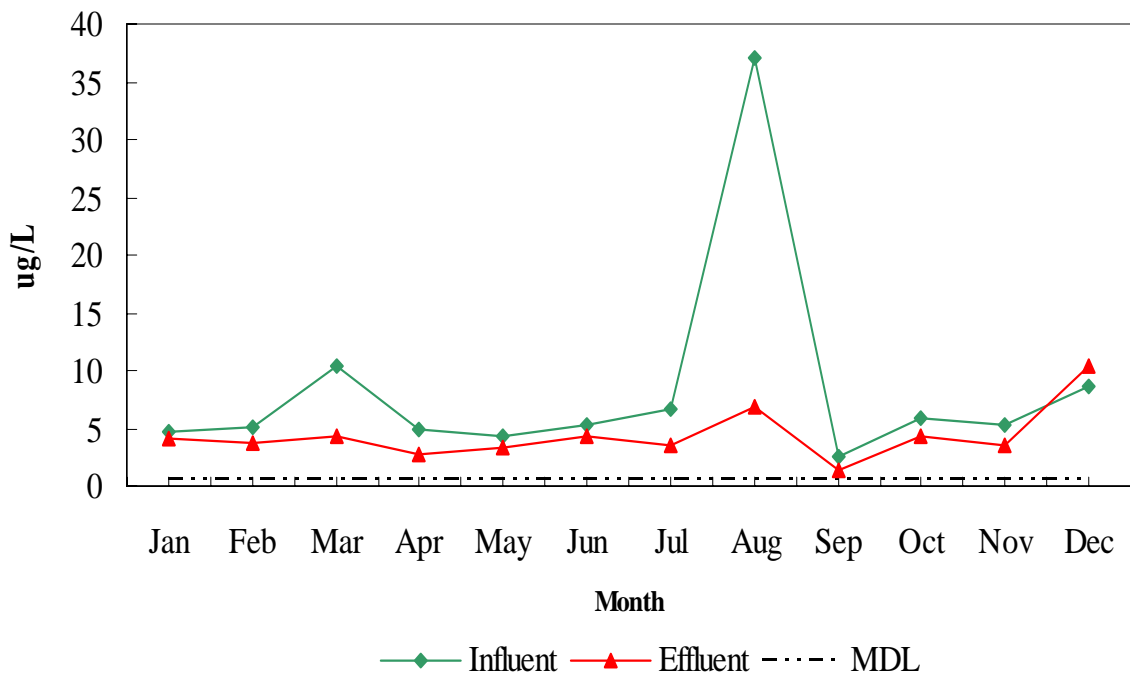
**2006 Monthly Averages  
Lead**



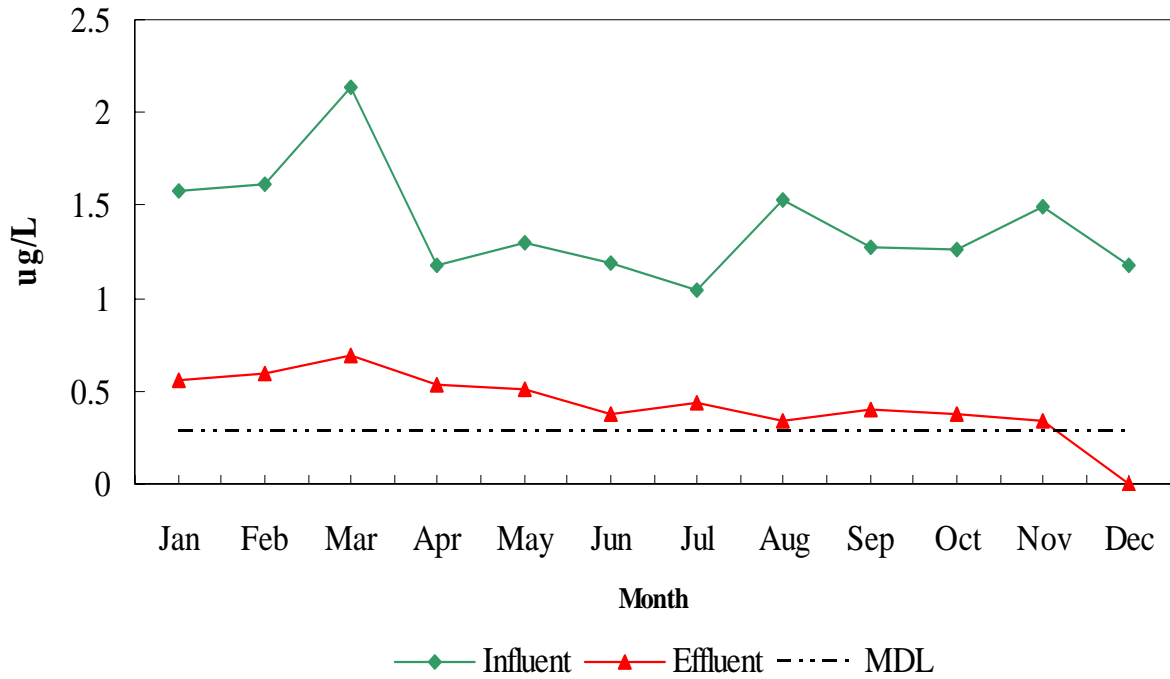
**2006 Monthly Averages  
Mercury**



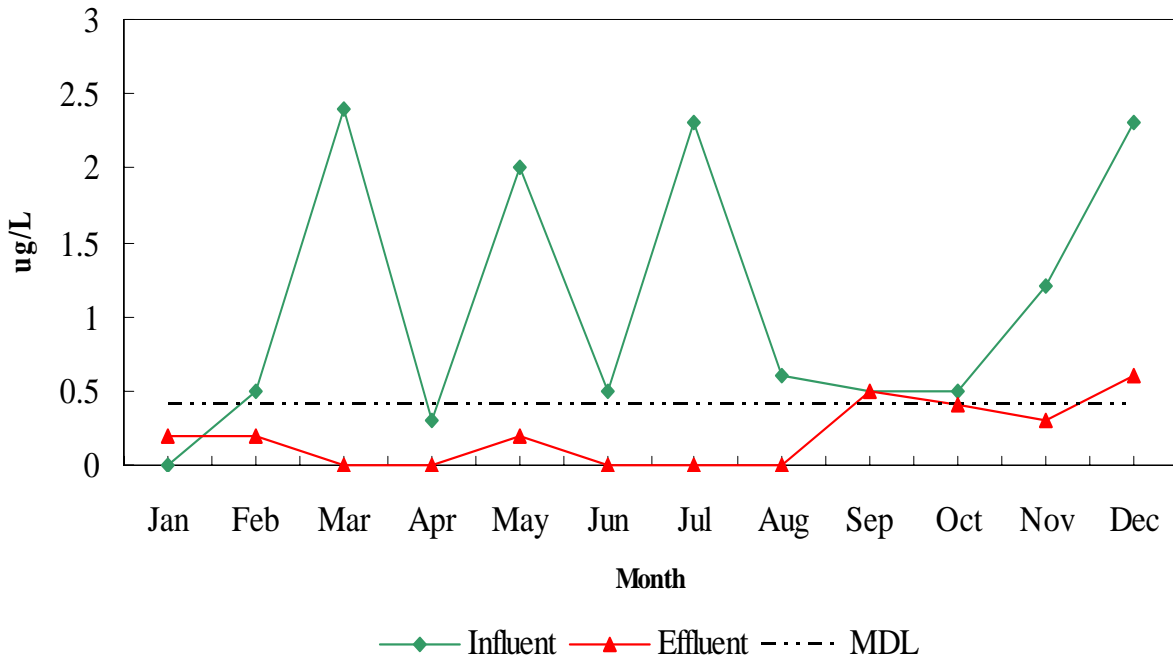
**2006 Monthly Averages  
Nickel**



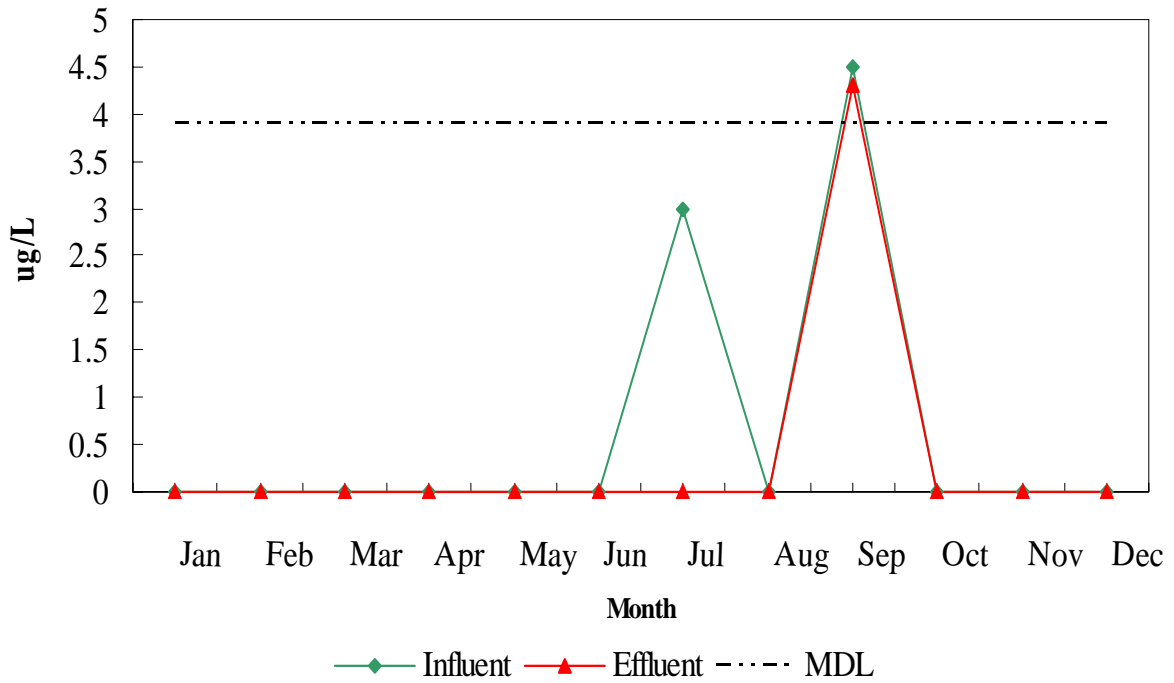
**2006 Monthly Averages  
Selenium**



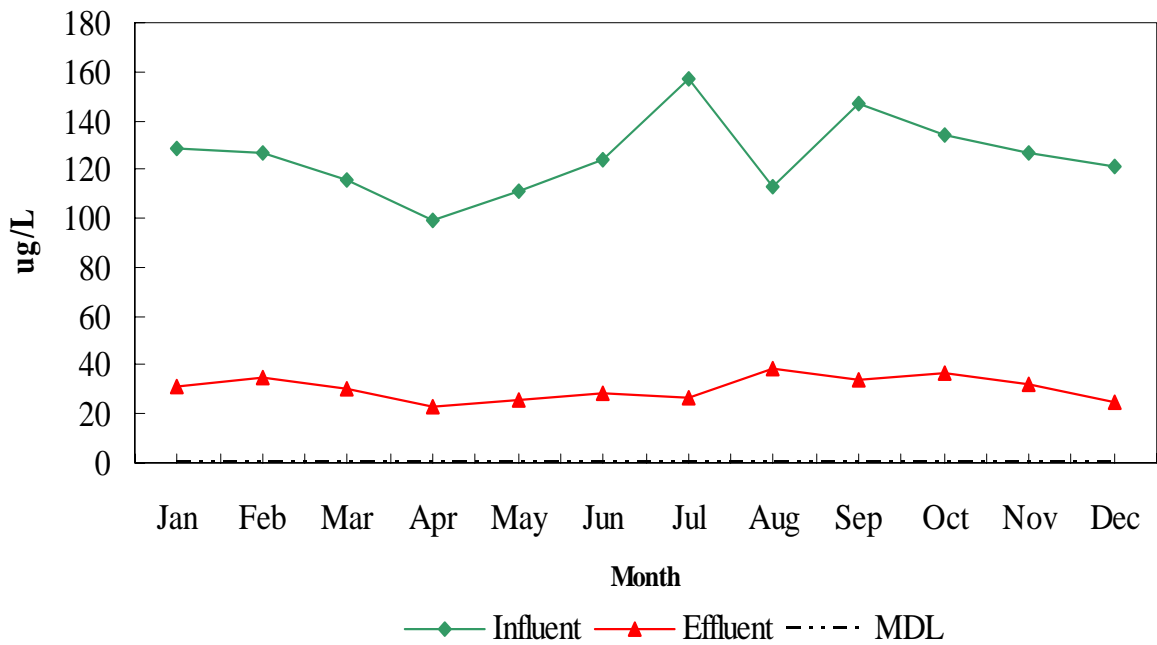
**2006 Monthly Averages  
Silver**



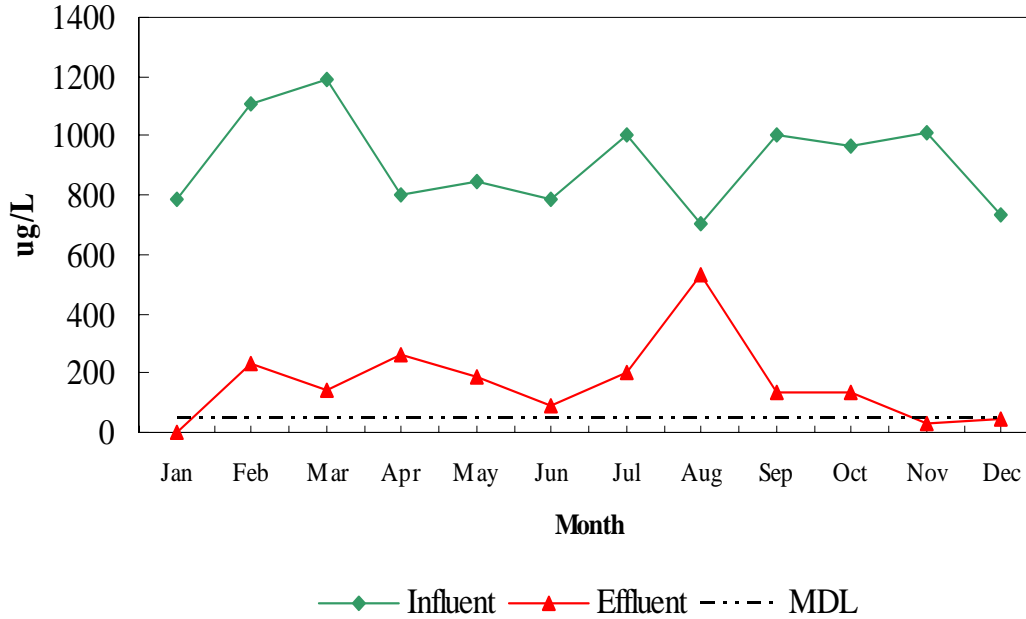
**2006 Monthly Averages  
Thallium**



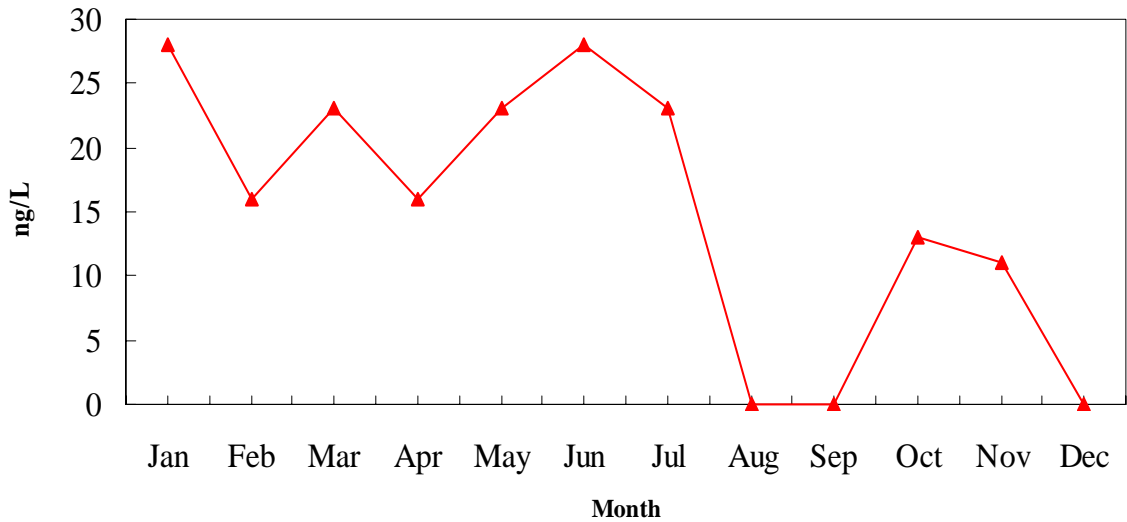
**2006 Monthly Averages  
Zinc**



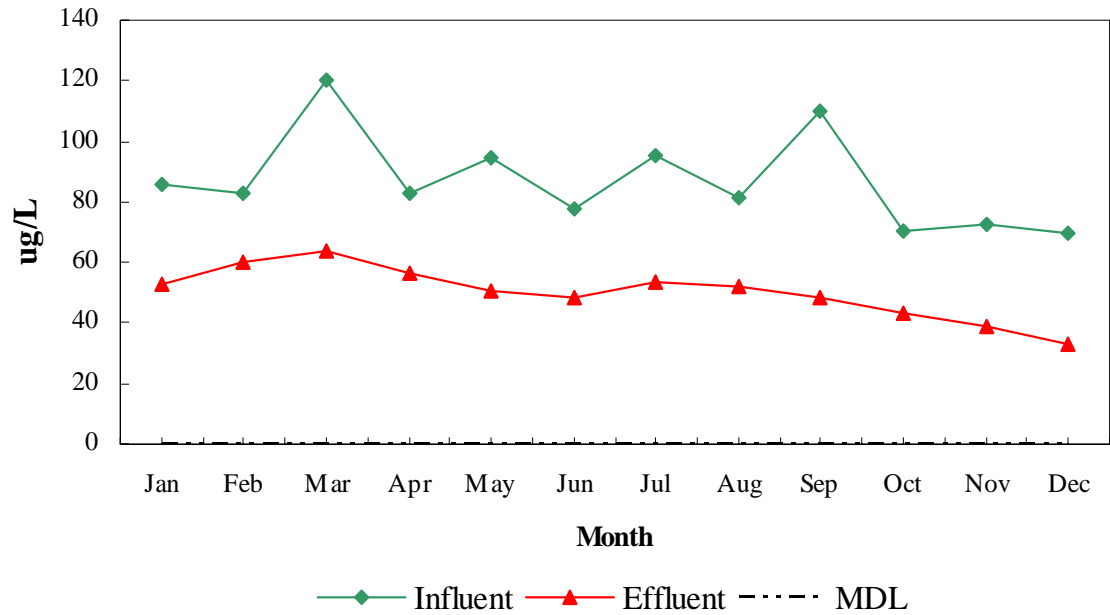
**2006 Monthly Averages  
Aluminum**



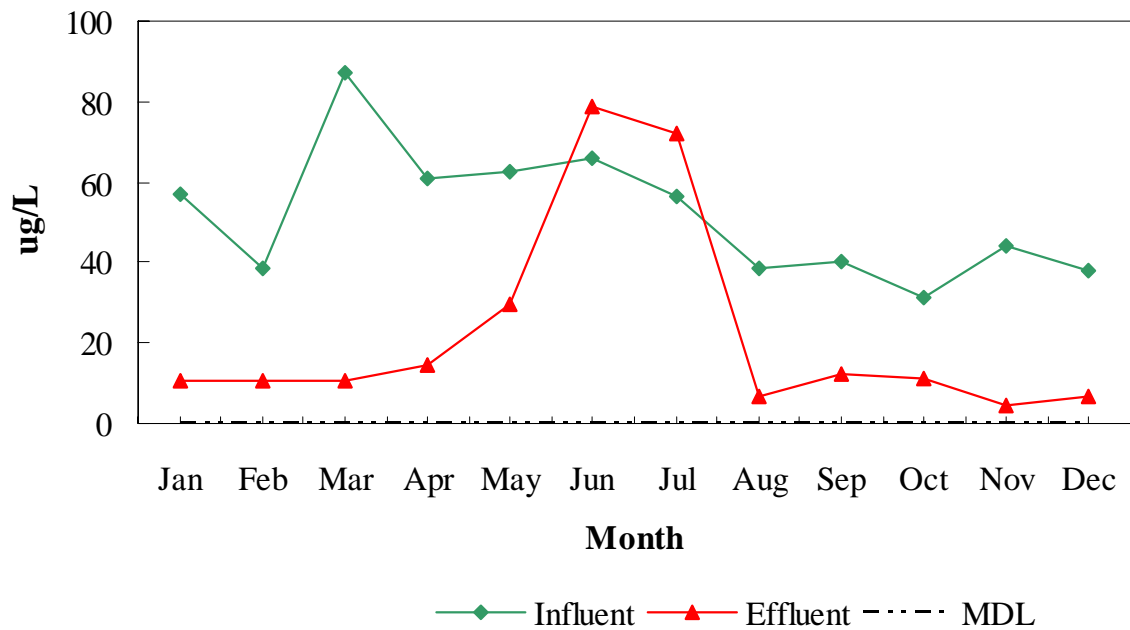
**2006 Monthly Averages  
Total Chlorinated Hydrocarbons**



**2006 Monthly Averages  
Barium**

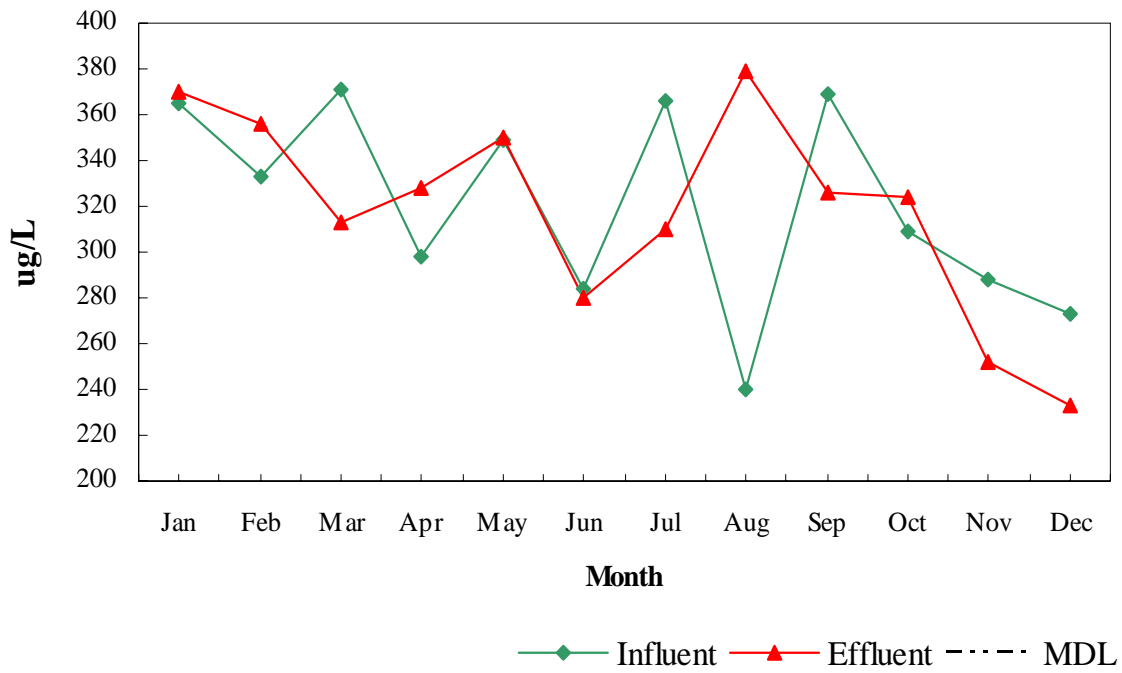


**2006 Monthly Averages  
Manganese**

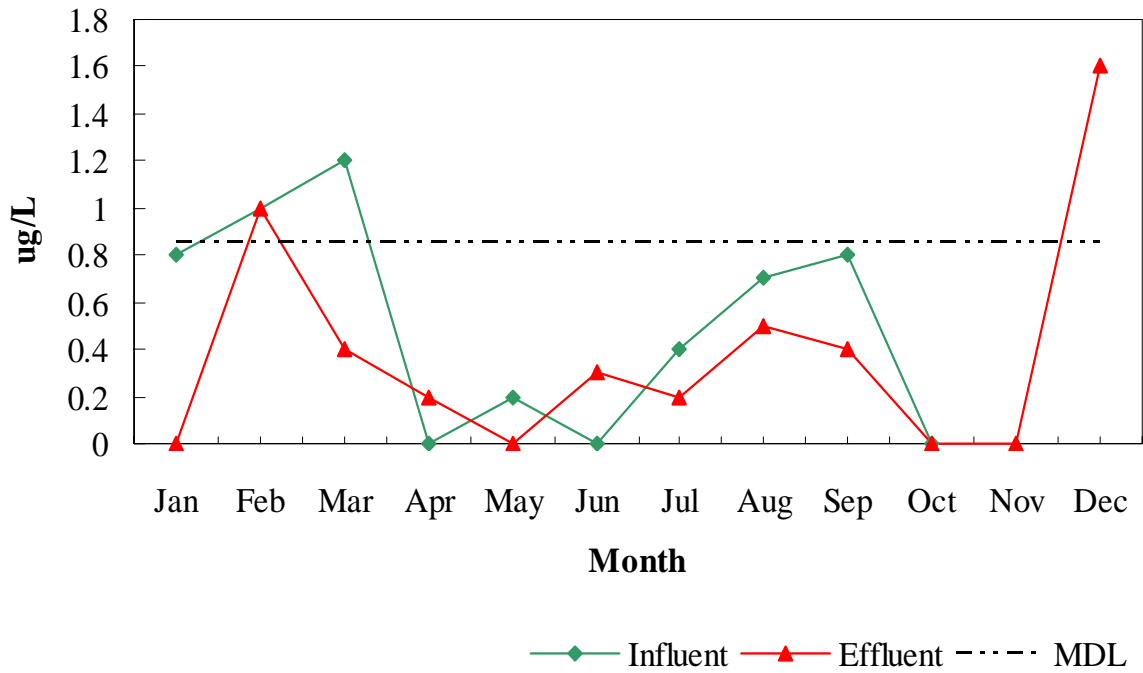




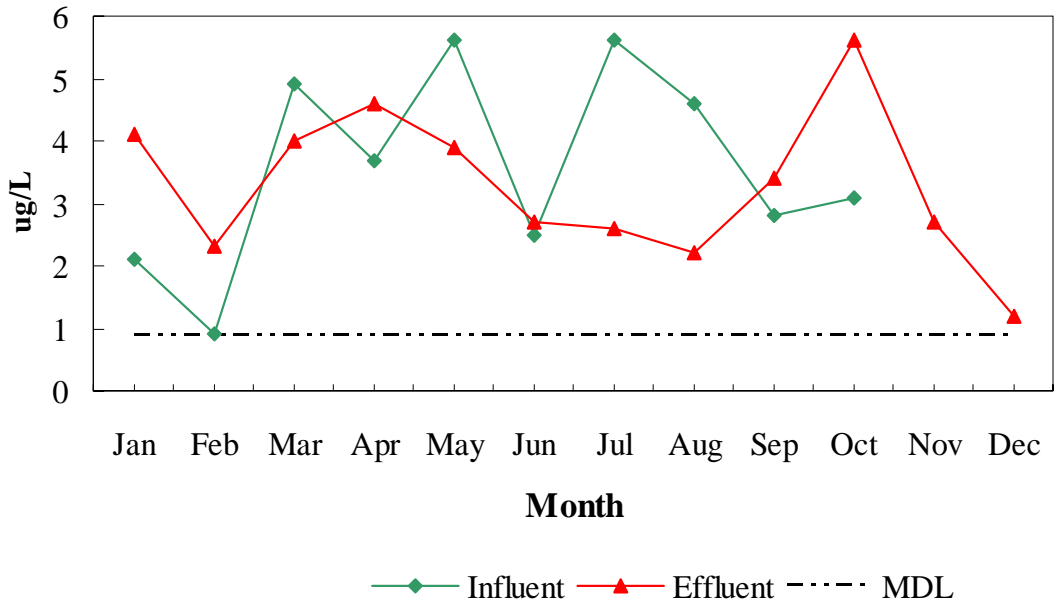
**2006 Monthly Averages  
Boron**



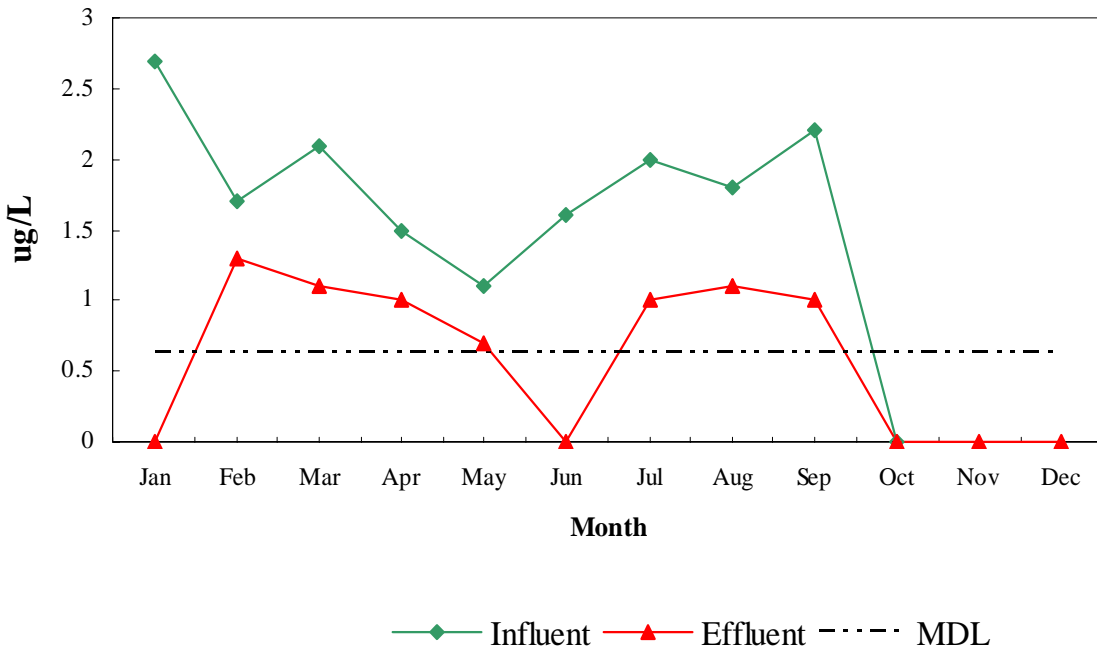
**2006 Monthly Averages  
Cobalt**



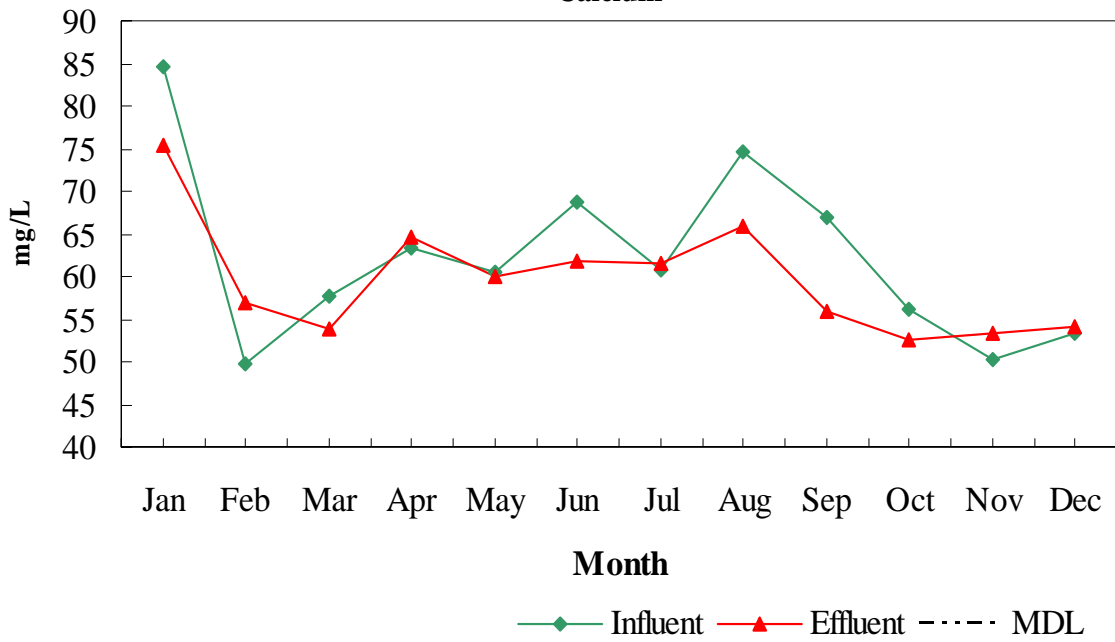
**2006 Monthly Averages  
Molybdenum**



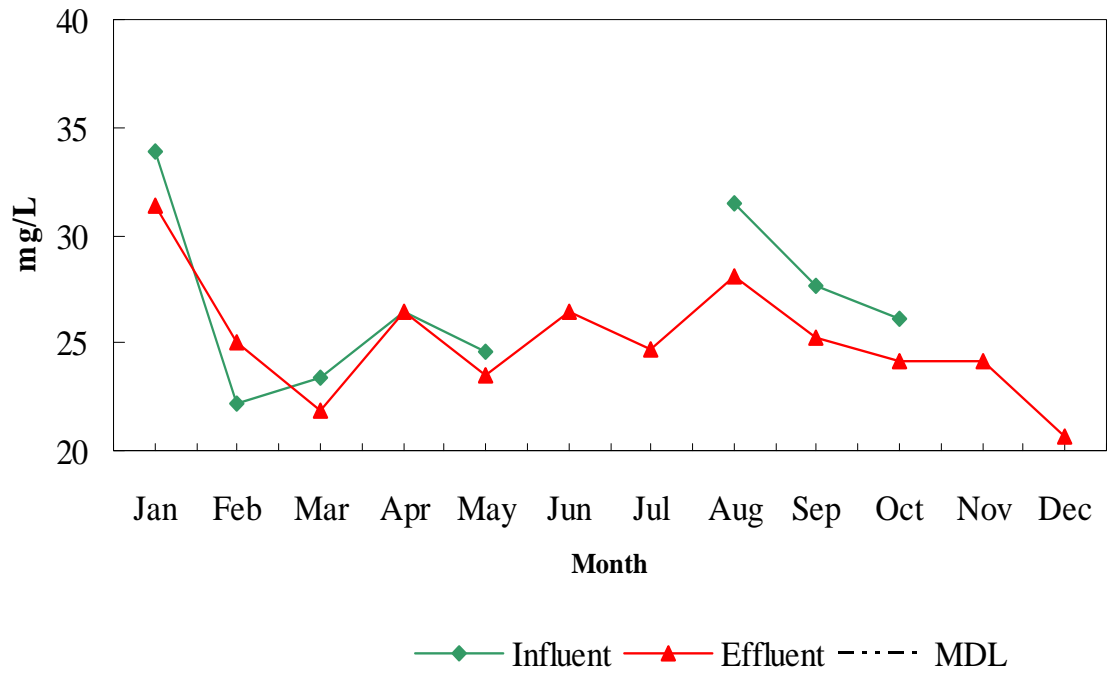
**2006 Monthly Averages  
Vanadium**



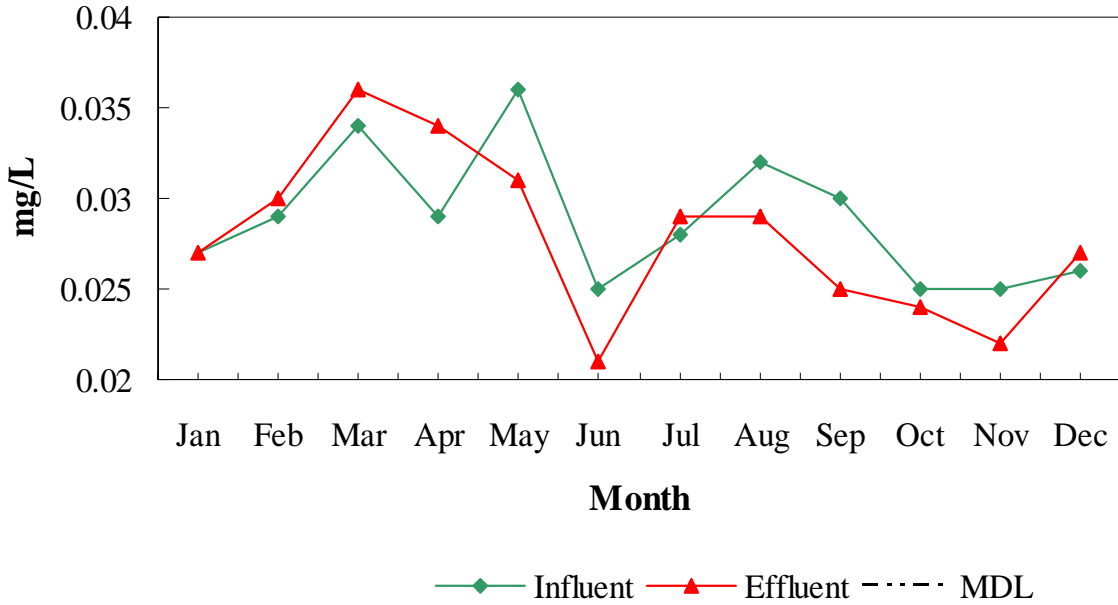
**2006 Monthly Averages  
Calcium**



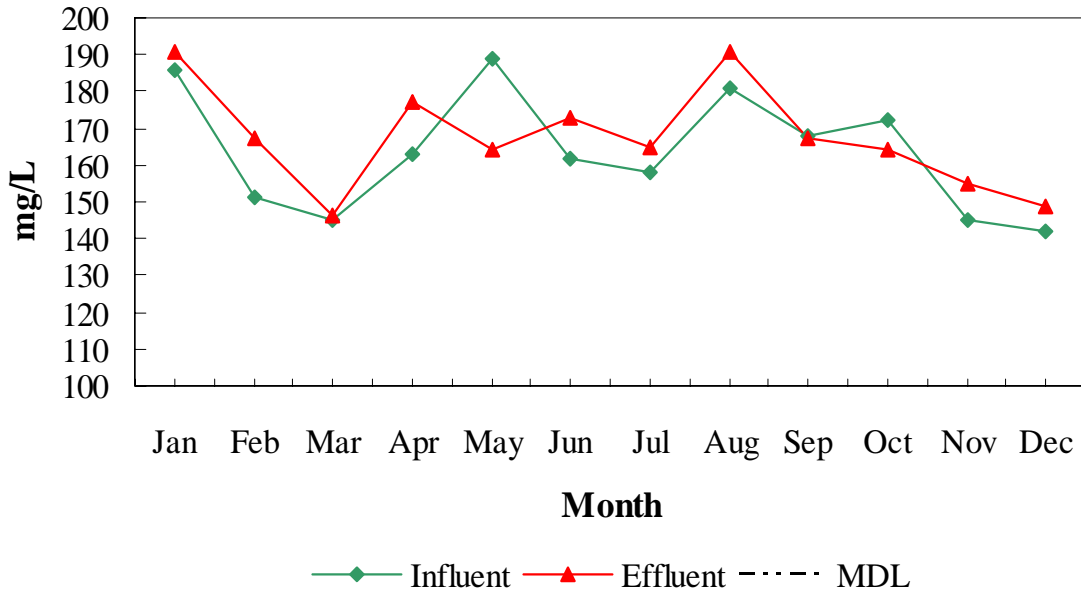
**2006 Monthly Averages  
Magnesium**



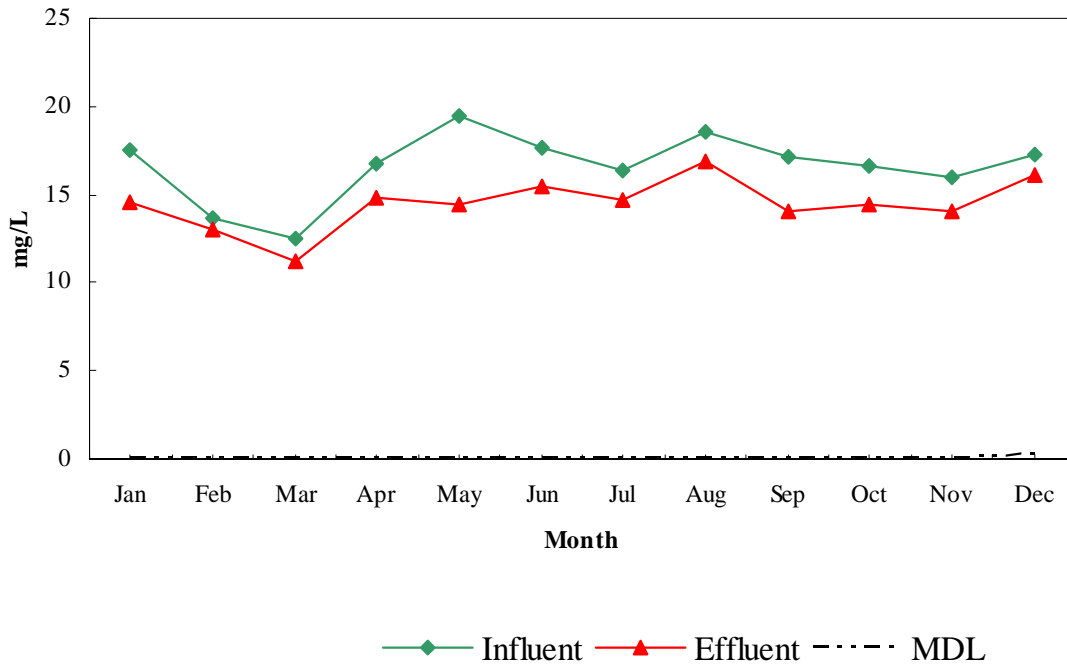
**2006 Monthly Averages  
Lithium**



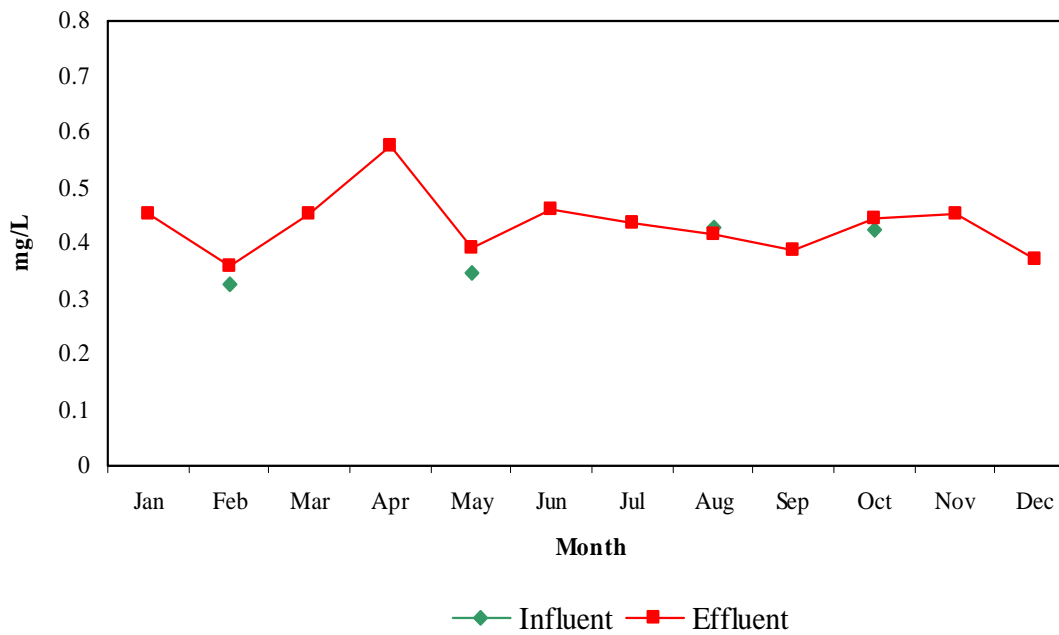
**2006 Monthly Averages  
Sodium**



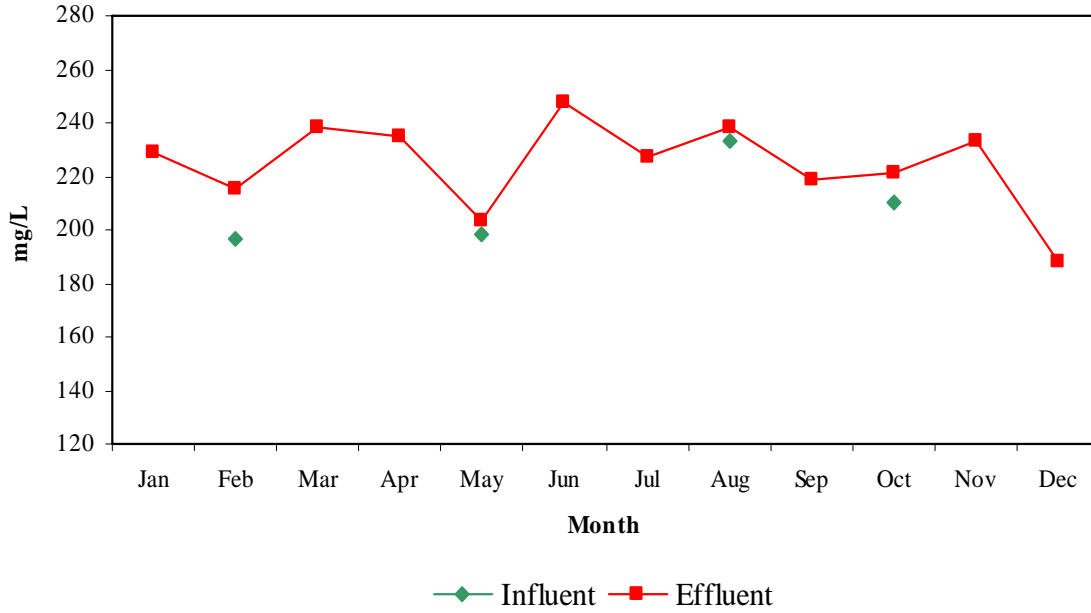
**2006 Monthly Averages  
Potassium**



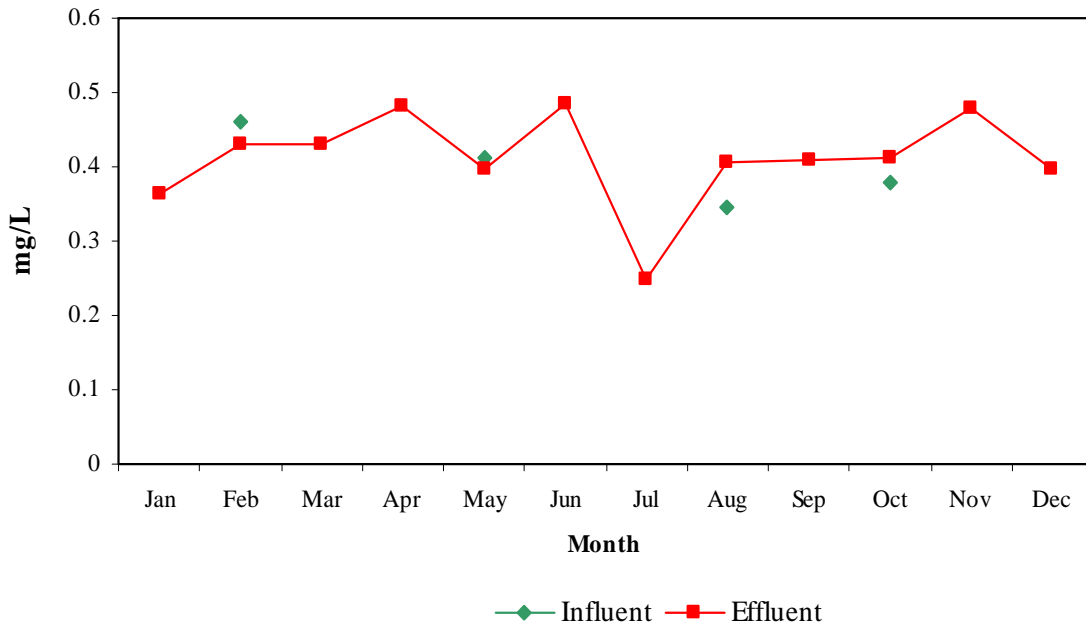
**2006 Monthly Averages  
Bromide**



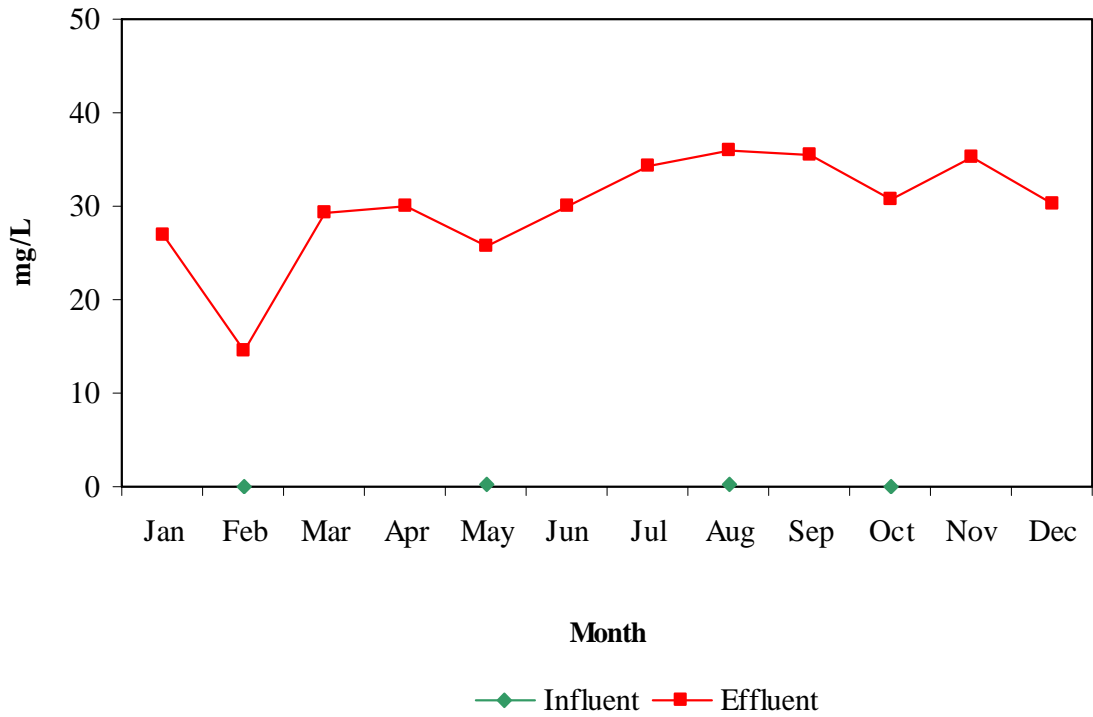
### 2006 Monthly Averages Chloride



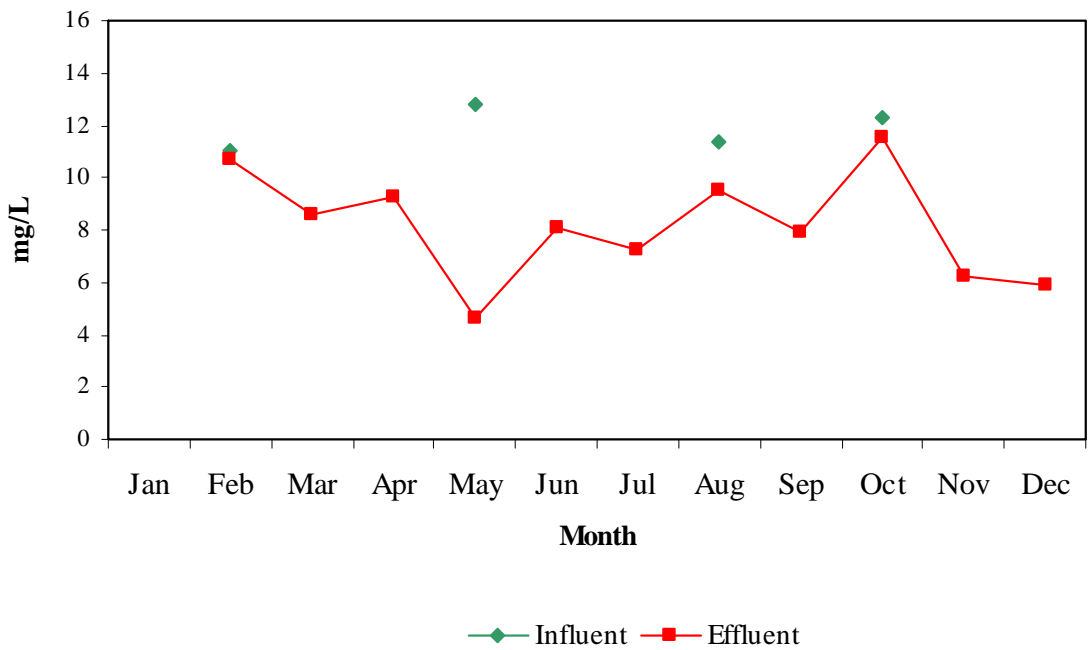
### 2006 Monthly Averages Fluoride



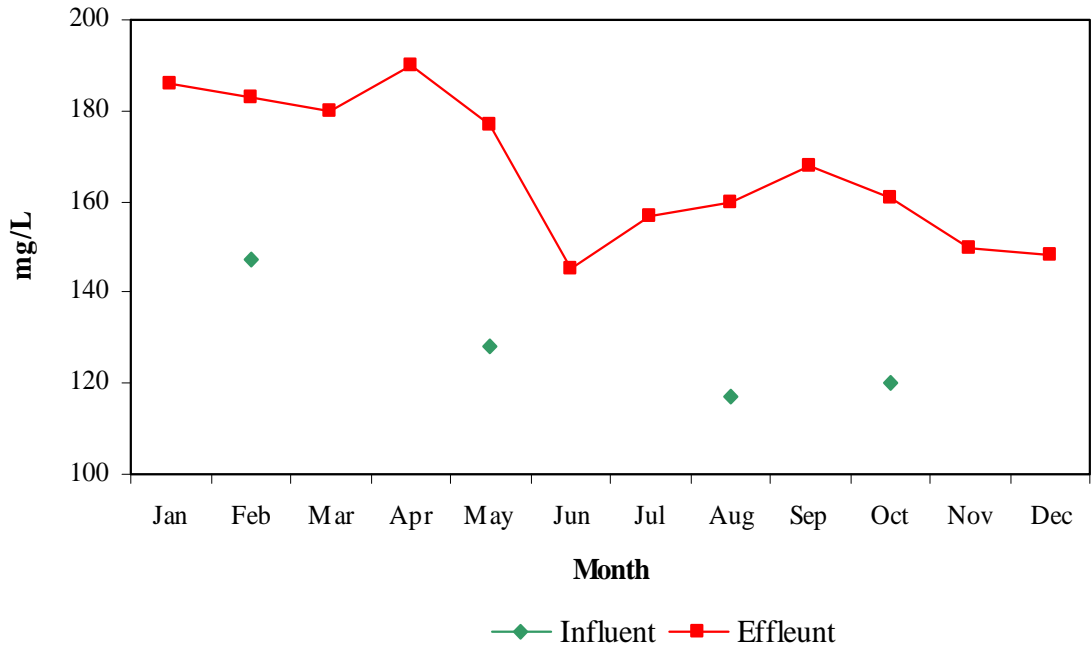
**2006 Monthly Average  
Nitrate**



**2006 Monthly Averages  
O-Phosphate**



### 2006 Monthly Averages Sulfate

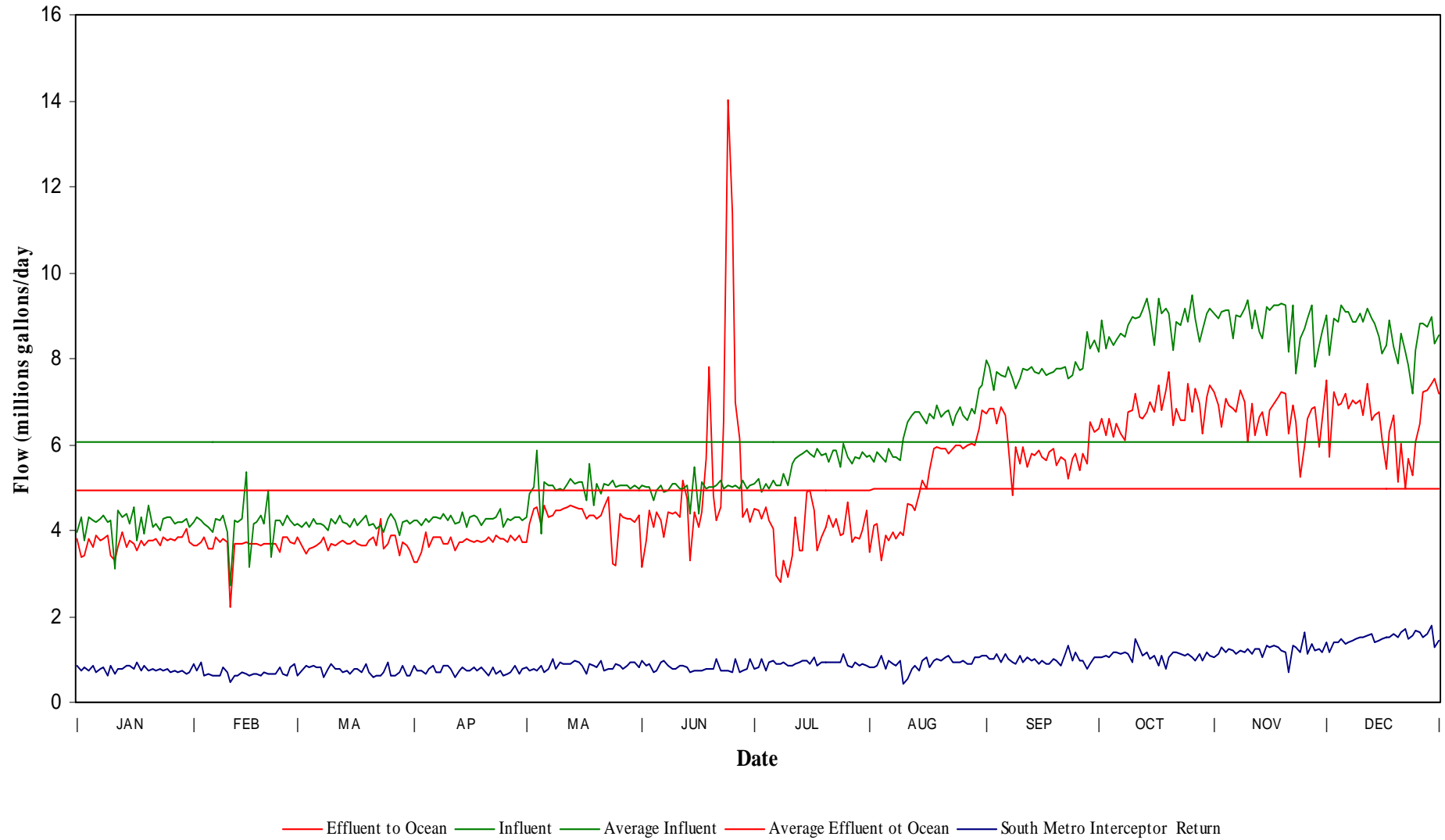




C. Daily Values of Selected Parameters.

Daily values of selected parameters (e.g. TSS, Flow, TSS Removals, etc.) are tabulated and presented graphically; statistical summary information is provided.

## South Bay Wastewater Reclamation Plant 2006 Daily Flows



## Daily Effluent to Ocean Flows (mgd) – 2006

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	3.81	3.66	3.85	3.25	3.71	3.15	4.51	3.49	6.73	6.36	7.21	7.48	
2	3.37	3.65	3.64	3.25	4.17	3.77	4.48	4.11	6.82	6.59	6.92	5.69	
3	3.40	3.73	3.46	3.50	4.51	4.46	4.27	4.15	6.84	6.22	6.39	7.24	
4	3.79	3.83	3.57	3.97	4.55	4.08	4.56	3.29	6.50	6.59	7.06	6.91	
5	3.63	3.57	3.60	3.60	4.11	4.44	4.25	3.89	6.88	6.17	6.90	6.94	
6	3.87	3.57	3.66	3.84	4.57	4.25	4.02	3.75	6.68	6.49	6.85	7.17	
7	3.76	3.84	3.72	3.86	4.30	3.83	2.94	3.96	5.99	6.25	6.75	6.83	
8	3.79	3.71	3.85	3.86	4.34	4.44	2.80	3.81	4.82	6.10	7.27	7.04	
9	3.88	3.81	3.55	3.67	4.46	4.38	3.30	3.97	5.96	6.77	6.99	6.96	
10	3.42	3.73	3.67	3.67	4.48	4.41	2.90	3.88	5.54	6.81	6.07	7.04	
11	3.29	2.22	3.66	3.83	4.52	4.33	3.42	4.63	5.95	7.19	6.96	6.68	
12	3.62	3.67	3.71	3.52	4.55	5.15	4.31	4.59	5.47	6.63	6.20	7.40	
13	3.96	3.70	3.75	3.72	4.60	4.73	3.55	4.48	5.78	6.62	6.63	6.55	
14	3.61	3.67	3.67	3.72	4.56	3.29	3.52	4.86	5.74	6.76	6.76	6.69	
15	3.75	3.74	3.70	3.79	4.52	4.41	4.89	5.15	5.86	7.00	6.21	6.77	
16	3.68	3.70	3.77	3.77	4.51	4.07	4.93	4.96	5.70	6.75	6.80	6.15	
18	3.78	3.69	3.66	3.78	4.34	5.66	3.54	5.92	5.83	6.80	7.11	6.30	
19	3.65	3.65	3.65	3.73	4.35	7.79	3.85	5.95	5.92	7.27	7.21	6.69	
20	3.76	3.68	3.75	3.75	4.29	4.80	4.09	5.92	5.51	7.67	7.17	5.12	
21	3.78	3.68	3.85	3.85	4.34	4.24	4.34	5.89	5.72	6.44	6.27	6.01	
22	3.79	3.67	3.64	3.72	4.53	4.55	4.08	5.79	5.63	6.85	6.93	4.96	
23	3.66	3.68	4.26	3.90	4.78	6.57	4.28	5.92	5.19	6.57	6.52	5.67	
24	3.84	3.48	3.59	3.81	3.24	14.03	3.89	5.97	5.67	6.57	5.26	5.28	
25	3.75	3.86	3.69	3.81	3.18	11.37	3.94	5.97	5.78	7.40	6.00	6.05	
26	3.81	3.83	3.87	3.71	4.39	6.98	4.66	5.89	5.38	6.77	6.61	6.47	
27	3.75	3.72	3.89	3.90	4.33	6.15	3.72	6.00	5.79	7.29	6.85	7.23	
28	3.84	3.67	3.41	3.78	4.28	4.33	3.83	6.02	5.55	6.97	6.87	7.26	
29	3.84		3.74	3.88	4.26	4.50	3.80	5.97	6.52	6.26	5.93	7.43	
30	4.05		3.64	3.71	4.20	4.19	3.99	6.38	6.31	7.11	6.58	7.52	
31	3.71		3.55		4.35		4.46	6.81		7.39		7.18	Annual Summary
<b>Average</b>	3.72	3.64	3.70	3.73	4.31	5.25	3.97	5.05	5.93	6.76	6.66	6.62	4.95
<b>Minimum</b>	3.29	2.22	3.41	3.25	3.18	3.15	2.80	3.29	4.82	6.10	5.26	4.96	2.22
<b>Maximum</b>	4.05	3.86	4.26	3.97	4.78	14.03	4.93	6.81	6.88	7.67	7.27	7.52	14.03
<b>Total</b>	111.64	98.41	111.02	108.15	129.32	152.35	119.12	151.37	172.06	202.66	193.28	198.71	1748

## Daily Influent Flows (mgd) – 2006

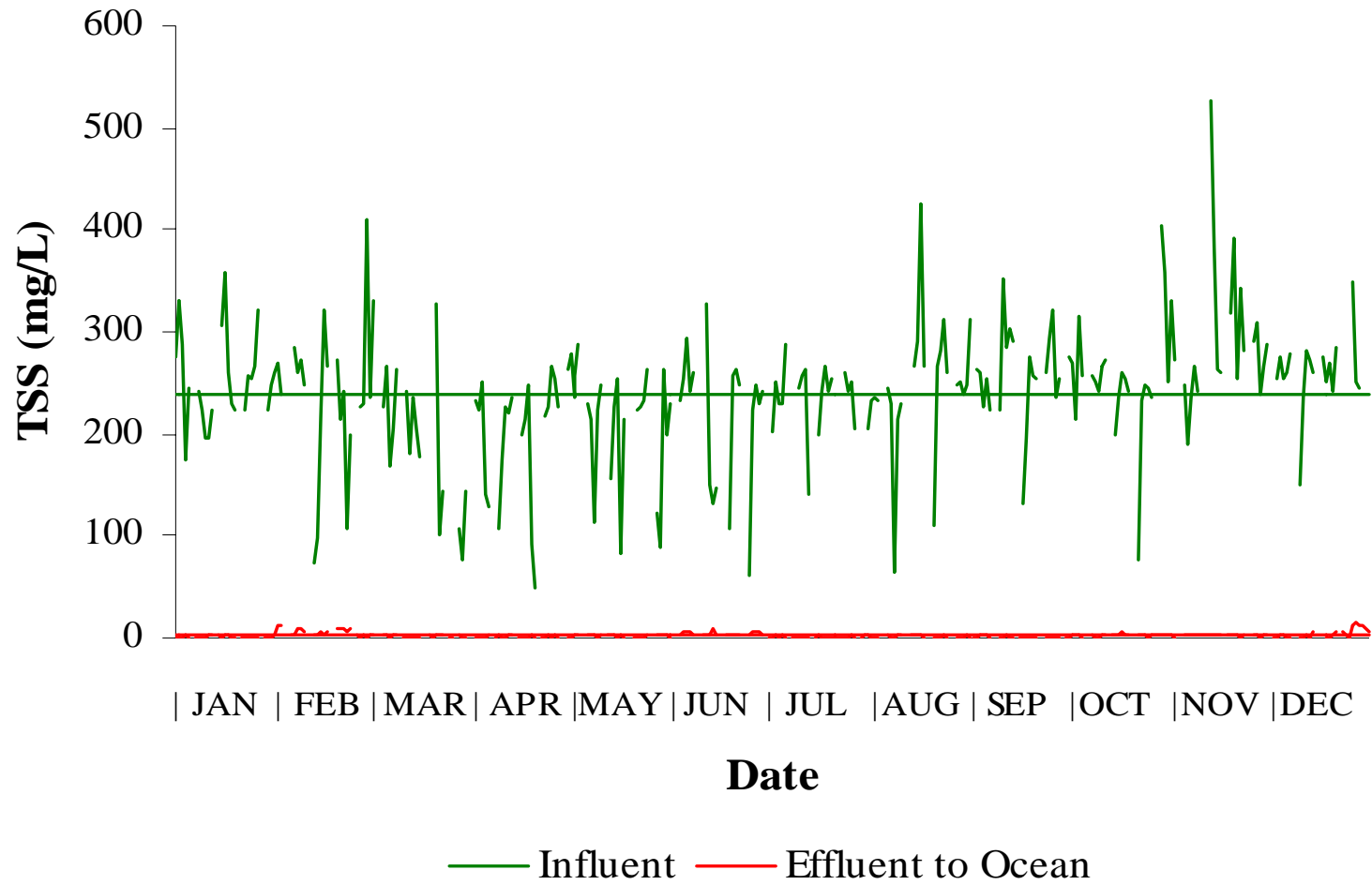
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	3.98	4.20	4.17	4.24	4.31	5.05	5.09	5.75	7.98	8.15	9.04	9.02	
2	4.30	4.30	4.08	4.24	4.85	5.02	5.20	5.59	7.79	8.88	8.95	8.07	
3	3.78	4.24	4.18	4.11	5.01	5.00	4.89	5.82	7.27	8.22	9.08	8.95	
4	4.33	4.17	4.09	4.26	5.86	4.68	5.09	5.71	7.69	8.51	9.13	8.87	
5	4.24	4.08	4.27	4.19	3.94	4.92	4.97	5.58	7.61	8.31	9.12	9.25	
6	4.21	3.97	4.14	4.32	5.11	5.03	5.18	5.89	7.59	8.44	8.48	9.08	
7	4.29	4.28	4.14	4.30	5.06	4.88	5.04	5.71	7.80	8.58	9.00	9.09	
8	4.34	4.24	4.10	4.29	5.04	4.93	5.03	5.69	7.54	8.51	8.99	8.86	
9	4.18	4.34	4.00	4.39	4.93	5.07	5.31	5.62	7.32	8.79	9.15	8.85	
10	4.23	3.95	4.27	4.22	4.96	5.08	5.03	6.15	7.53	8.96	9.34	9.04	
11	3.12	2.72	4.16	4.36	4.93	4.99	5.54	6.51	7.75	8.94	8.68	8.84	
12	4.48	4.23	4.35	4.15	5.08	4.96	5.67	6.67	7.71	8.96	9.12	9.17	
13	4.31	4.21	4.19	4.21	5.19	5.05	5.74	6.74	7.80	9.11	8.64	8.92	
14	4.38	4.29	4.17	4.42	5.09	4.38	5.77	6.75	7.69	9.38	8.48	8.80	
15	4.16	5.36	4.09	4.07	5.12	5.49	5.88	6.64	7.65	9.03	9.22	8.51	
16	4.56	3.14	4.26	4.31	5.12	4.39	5.77	6.50	7.78	8.31	9.11	8.13	
17	3.77	4.17	4.10	4.35	4.70	5.13	5.70	6.72	7.63	9.38	9.24	8.32	
18	4.31	4.21	4.23	4.33	5.57	4.96	5.89	6.62	7.65	9.04	9.26	8.89	
19	3.93	4.36	4.36	4.12	4.57	5.01	5.73	6.92	7.68	9.18	9.27	8.27	
20	4.59	4.17	4.10	4.28	5.10	5.02	5.78	6.64	7.76	9.06	9.24	7.89	
21	4.06	4.94	4.14	4.27	4.87	5.05	5.61	6.74	7.78	8.21	8.17	8.58	
22	4.16	3.37	4.02	4.28	5.10	5.16	5.85	6.79	7.82	8.84	9.25	8.15	
23	4.01	4.24	4.13	4.31	5.03	4.98	5.85	6.46	7.55	8.79	7.65	7.86	
24	4.28	4.22	3.98	4.51	5.17	5.04	5.47	6.69	7.61	9.15	8.48	7.19	
25	4.31	4.12	4.29	4.06	5.02	5.02	6.03	6.86	7.93	8.86	8.69	8.20	
26	4.33	4.35	4.38	4.27	5.03	5.06	5.70	6.69	7.74	9.46	8.93	8.82	
27	4.15	4.22	4.24	4.23	5.06	4.98	5.57	6.58	7.76	8.92	9.26	8.81	
28	4.18	4.13	3.89	4.33	5.06	5.17	5.72	6.84	8.62	8.38	7.80	8.75	
29	4.21		4.19	4.32	4.98	4.99	5.68	6.73	8.23	8.67	8.32	8.98	
30	4.26		4.23	4.25	5.03	5.05	5.81	7.29	8.42	9.05	8.63	8.35	
31	4.06		4.14		4.97		5.72	7.39		9.15		8.53	Annual Summary
<b>Average</b>	4.18	4.15	4.16	4.27	5.00	4.98	5.53	6.43	7.76	8.81	8.86	8.61	6.07
<b>Minimum</b>	3.12	2.72	3.89	4.06	3.94	4.38	4.89	5.58	7.27	8.15	7.65	7.19	2.72
<b>Maximum</b>	4.59	5.36	4.38	4.51	5.86	5.49	6.03	7.39	8.62	9.46	9.34	9.25	9.46
<b>Total</b>	129.50	116.22	129.08	127.99	154.86	149.54	171.31	199.28	232.68	273.22	265.72	267.04	2216

### South Metro Interceptor<sup>4</sup> Flows (mgd) 2006

Days	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	0.84	0.90	0.63	0.85	0.83	0.98	0.79	0.83	1.09	1.04	1.05	1.41	
2	0.75	0.72	0.75	0.74	0.75	0.87	0.83	0.83	1.01	1.04	1.12	1.18	
3	0.81	0.95	0.86	0.75	0.76	0.88	1.02	0.86	1.02	1.09	1.29	1.41	
4	0.73	0.64	0.82	0.65	0.75	0.71	0.72	1.10	1.13	1.05	1.15	1.38	
5	0.85	0.65	0.84	0.79	0.87	0.75	0.93	0.79	0.95	1.15	1.23	1.46	
6	0.68	0.64	0.83	0.86	0.69	0.93	0.97	0.98	1.11	1.17	1.22	1.35	
7	0.77	0.62	0.80	0.68	0.77	0.97	0.89	0.89	1.02	1.11	1.13	1.41	
8	0.81	0.63	0.60	0.68	1.01	0.84	0.89	0.85	0.92	1.15	1.21	1.45	
9	0.62	0.83	0.77	0.84	0.79	0.76	0.93	0.96	0.91	1.14	1.18	1.46	
10	0.86	0.69	0.90	0.84	0.92	0.76	0.84	0.44	1.07	0.95	1.24	1.50	
11	0.66	0.47	0.78	0.76	0.88	0.84	0.87	0.53	0.92	1.49	1.14	1.51	
12	0.77	0.64	0.78	0.58	0.88	0.84	0.88	0.79	1.06	1.23	1.24	1.54	
13	0.78	0.62	0.70	0.74	0.91	0.83	0.94	0.87	0.98	1.09	1.24	1.58	
14	0.84	0.69	0.75	0.82	0.97	0.70	0.96	0.72	1.02	1.18	1.06	1.39	
15	0.87	0.65	0.67	0.73	0.95	0.75	0.97	0.97	0.91	1.00	1.33	1.45	
16	0.78	0.63	0.78	0.73	0.84	0.73	0.89	1.04	0.97	1.10	1.27	1.46	
17	0.92	0.66	0.79	0.81	0.65	0.75	1.04	0.81	0.88	0.85	1.32	1.53	
18	0.74	0.65	0.71	0.74	0.91	0.77	0.87	0.98	0.90	1.08	1.29	1.51	
19	0.84	0.64	0.89	0.81	0.84	0.78	0.94	1.02	1.02	0.79	1.20	1.61	
20	0.73	0.68	0.71	0.71	0.81	0.77	0.95	0.98	0.98	1.03	1.17	1.53	
21	0.79	0.65	0.60	0.64	0.96	1.00	0.93	1.05	0.87	1.18	0.71	1.62	
22	0.74	0.65	0.63	0.80	0.74	0.74	0.95	1.07	1.11	1.18	1.33	1.69	
23	0.79	0.67	0.63	0.65	0.77	0.72	0.95	0.93	1.32	1.11	1.29	1.47	
24	0.72	0.82	0.71	0.75	0.79	0.72	0.94	0.93	0.98	1.09	1.17	1.57	
25	0.76	0.66	0.92	0.64	0.89	0.71	1.12	0.93	1.16	1.12	1.62	1.67	
26	0.68	0.64	0.64	0.66	0.87	1.01	0.86	0.97	0.98	1.05	1.11	1.65	
27	0.74	0.81	0.63	0.69	0.76	0.69	0.81	0.89	0.98	0.99	1.35	1.53	
28	0.68	0.90	0.69	0.87	0.84	0.74	0.92	0.90	0.78	1.13	1.19	1.60	
29	0.75		0.87	0.67	0.92	0.77	0.87	1.03	0.90	0.98	1.26	1.79	
30	0.65		0.62	0.76	0.94	1.01	0.89	1.05	1.06	1.15	1.17	1.29	
31	0.70		0.61		0.82	0.79	0.85	1.07		1.07		1.45	
<b>Average</b>	0.76	0.69	0.74	0.74	0.84	0.81	0.91	0.91	1.00	1.09	1.21	1.50	0.93
<b>Minimum</b>	0.62	0.47	0.60	0.58	0.65	0.69	0.72	0.44	0.78	0.79	0.71	1.18	0.44
<b>Maximum</b>	0.92	0.95	0.92	0.87	1.01	1.01	1.12	1.10	1.32	1.49	1.62	1.79	1.79
<b>Total</b>	23.65	19.40	22.91	22.24	26.08	25.11	28.21	28.06	30.01	33.78	36.28	46.45	342

4 South Metro Interceptor is the point at which any return stream (e.g. removed biosolids) are returned to the Metro System.

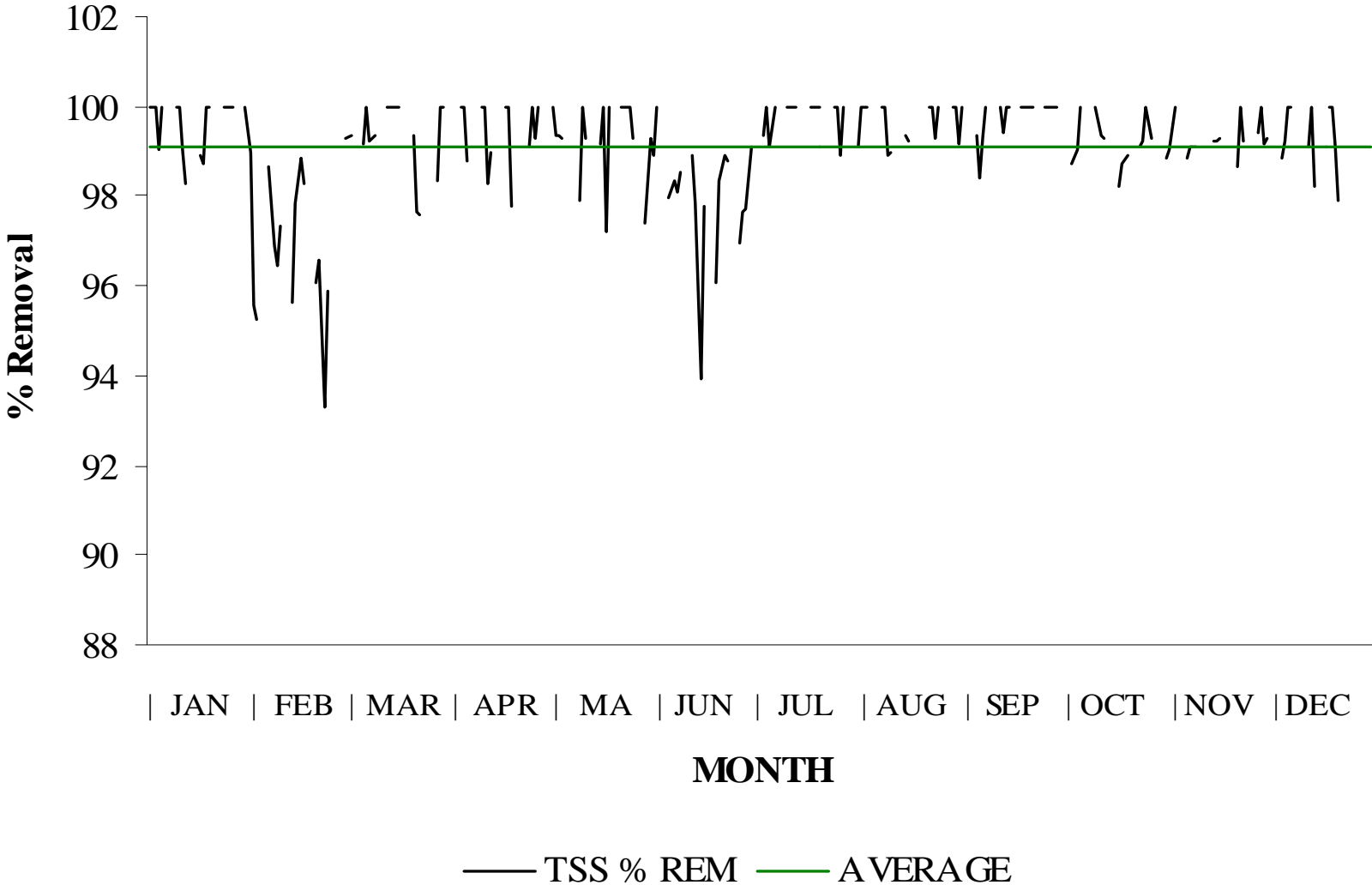
# South Bay Wastewater Reclamation Plant 2006 Total Suspended Solids



### Daily TSS values – 2006

Day	Jan		Feb		Mar		Apr		May		Jun		Jul		Aug		Sep		Oct		Nov		Dec		
	INF	EFF	INF	EFF	INF	EFF	EFF	INF	EFF	EFF	INF	EFF	INF	EFF	EFF	INF	EFF	EFF	INF	EFF	EFF	INF	EFF		
1	275	ND	268	11.8	235	1.6	INF		278	ND	229	ND	233	ND		276	ND	330	3.1	INF					
2	332	ND	238	11.3	332	2.1	232	ND	236	1.6		202	ND	237	ND		270	2	273	ND		ND			
3	287	ND					222	ND	258	1.6		250	1.7	233	ND	262	ND	214	2.7			253	ND		
4	175	1.7					252	ND	287	2	232	4	231	ND		259	1.6	316	3.1			277	3.2		
5	245	ND		3.75	226	2.8	142	ND			253	5.1	229	2.1		228	3.7	258	ND	248	1.7	254	1.9		
6			285	3.9	267	2.2	130	1.6			293	4.8	289	ND	244	1.9	255	1.8		189	2.2	260	ND		
7			259	8	169	ND			231	2.1	243	4.7			229	ND	223	ND		235	2.1	280	ND		
8	241	ND	271	9.6	205	1.6		ND	213	3.2	260	3.9		ND	63.5	ND			258	1.7	265	2.4			
9	222	ND	249	6.6	264	1.7	108	2.6	113	2.4				ND	215	2.4			251	ND	242	2.2			
10	195	ND					176	ND	222				245	ND	229	2.3	222	ND	241	ND		2.7	149	ND	
11	196	1.9				ND	227	ND	248	1.8		2.2	256	ND			353	ND	267	1.8		3.1	237	ND	
12	224	3.8	73	4	243	ND	219	3.8			328	3.6	262	ND			285	1.6	273	2		2.2	283	2.5	
13			99	4.31	181	ND	237	2.5		2	150	3.2	142	ND		3	304	ND			528	3.5	273	ND	
14		2.55		4.73	237	ND			157	2.2	132	8			267	1.8	291	ND		2.8	383	2.9	260	4.7	
15	305	ND	218	3.20	204	ND		ND	228	1.9	148	3.3			290	2.2			200	2.6	264	2.1			
16	357	3.8	265	4.62	178	ND	200	ND	254	ND			198	1.6	424	2.5		ND	237	2.1	260	1.9			
17	259	3.3					214	ND	82.7	2.3			242	ND	265	ND	132	ND	261	4.6			274	ND	
18	229	ND					247	ND	215	ND		3.7	266	ND			197	ND	253	3.3		2.6	251	ND	
19	224	ND	272	7.8		2.4	93.3	2.1			107	4.2	243	ND			275	ND	242	2.7	317	2.4	269	ND	
20			213	8.33		ND	50.4	ND				256	4.3	253	ND	110	ND	258	ND		393	1.7	243	2.2	
21		ND	242	8.31	328	2.1				ND	263	2.8			267	ND	254	ND			253	3.4	285	5.9	
22	224	ND	108	7.23	102	2.4		ND	222	ND	249	3			281	ND			76	3.1	343	ND			
23	256	ND	199	8.15	145	3.5	217	ND	227	ND					311	2.2			234	2.1	283	2.2		6.8	
24	255	ND					228	ND	232	ND			260	ND	261	ND	259	ND	248	1.9				3.1	
25	265	ND		1.65		ND	267	ND	264	1.8	60.7	3.6	242	ND			294	ND	245	ND				ND	
26	322	ND	228	ND	132	ND	253	1.8				223	6.86	251	2.7			321	ND	236	1.7	291	2	350	13.2
27			231	2.4			228	ND				247	5.75	204	ND	248	ND	235	ND		2	309	1.8	251	15.5
28		ND	409		107	1.8			123	1.6	230	5.2			251	ND	253	ND		2.6	239	ND	246	11.6	
29	224	ND			77	ND			88	2.3	83.4	2.2			239	ND			404	3.1	265	2.3		13	
30	248	ND			144	ND	262	ND	263	1.8				1.7	249	2.1		ND	357	2.1	287	2		8.8	
31	260	2.6							198	2.2			204	1.9	311	ND			251	2.9			234	6.11	
<b>Ave</b>	253	3	234	6	196	2	203	2	213	2	210	4	234	2	251	2	258	2	259	3	295	2	258	7	
<b>Min</b>	175	2	73	2	77	2	50	2	83	2	61	2	142	2	64	2	132	2	76	2	189	2	149	2	
<b>Max</b>	357	4	409	12	332	4	267	4	287	3	328	8	289	3	424	3	353	4	404	5	528	4	350	16	
<b>Tot</b>	5820	20	4447	120	3776	24	4205	14	4640	33	3987	84	4469	12	5458	20	5160	9	5868	53	6197	53	4929	99	

## South Bay Wastewater Reclamation Plant 2006 % TSS Removal

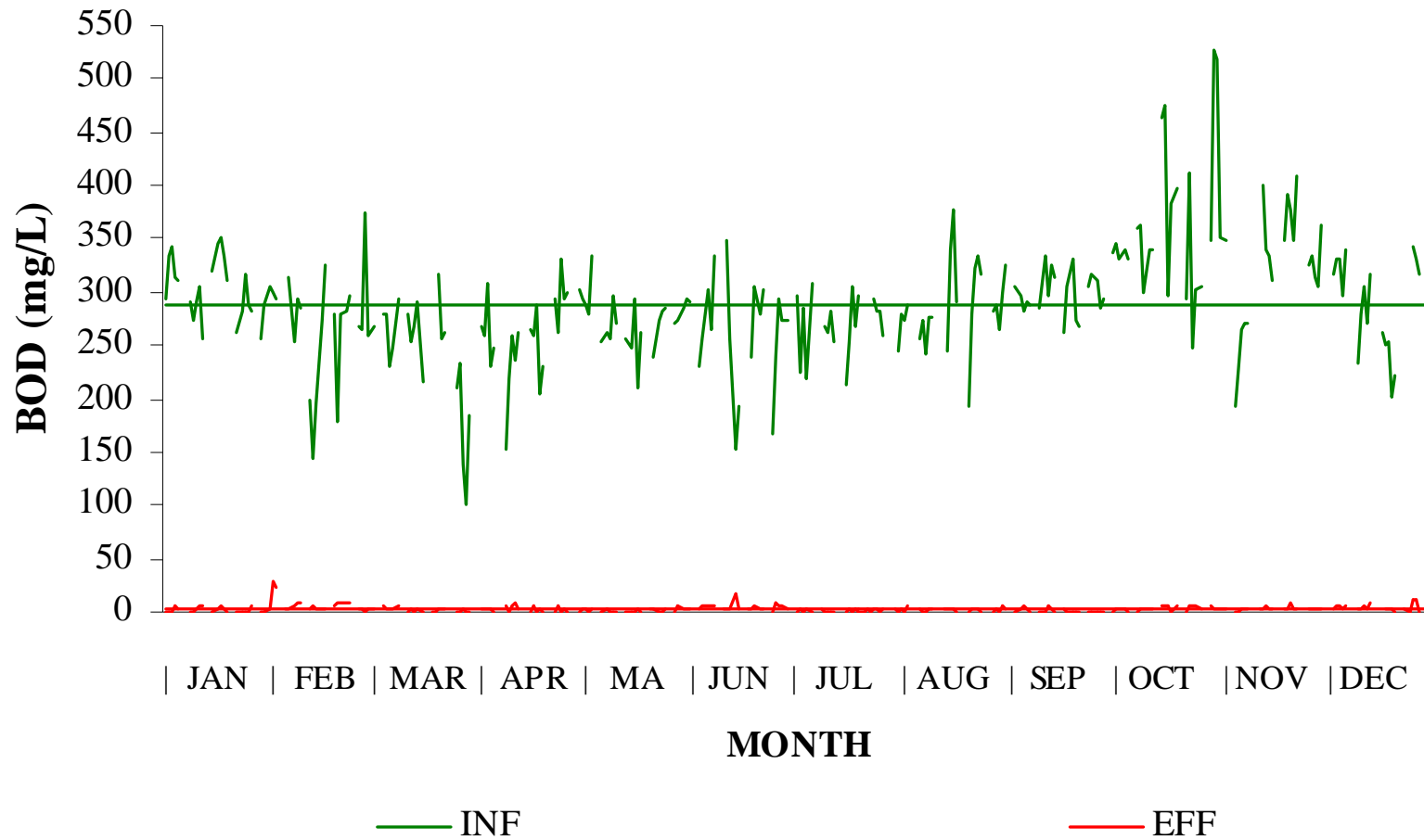




### 2006 % TSS Removals

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	100.00	95.60	99.32		100.0	100.0		100.0		100.0	99.1		
2	100.00	95.25	99.37	100.00	99.3		100.0	100.0		99.3	100.0		
3	100.00			100.00	99.4		99.3	100.0	100.0	98.7		100.0	
4	99.03			100.00	99.3	98.3	100.0		99.4	99.0		98.8	
5	100.00		98.76	100.00		98.0	99.1		98.4	100.0	99.3	99.3	
6		98.63	99.18	98.77		98.4	100.0	99.2	99.3		98.8	100.0	
7		96.91	100.00		99.1	98.1		100.0	100.0		99.1	100.0	
8	100.00	96.46	99.22		98.5	98.5		100.0		99.3	99.1		
9	100.00	97.35	99.36	97.59	97.9			98.9		100.0	99.1		
10	100.00			100.00	100.0		100.0	99.0	100.0	100.0		100.0	
11	99.03			100.00	99.3		100.0		100.0	99.3		100.0	
12	98.30	94.52	100.00	98.26		98.9	100.0		99.4	99.3		99.1	
13		95.65	100.00	98.95		97.9	100.0		100.0		99.3	100.0	
14		97.83	100.00		98.6	93.9		99.3	100.0		99.2	98.2	
15	100.00	98.88	100.00		99.2	97.8		99.2		98.7	99.2		
16	98.94	98.26	100.00	100.00	100.0		99.2	99.4		99.1	99.3		
17	98.73			100.00	97.2		100.0	100.0	100.0	98.2		100.0	
18	100.00			100.00	100.0		100.0		100.0	98.7		100.0	
19	100.00	97.13		97.75		96.1	100.0		100.0	98.9	99.2	100.0	
20		96.09		100.00		98.3	100.0	100.0	100.0		99.6	99.1	
21		96.57	99.36			98.9		100.0	100.0		98.7	97.9	
22	100.00	93.31	97.65		100.0	98.8		100.0		95.9	100.0		
23	100.00	95.90	97.59	100.00	100.0			99.3		99.1	99.2		
24	100.00			99.12	100.0		100.0	100.0	100.0	99.2			
25	100.00			100.00	99.3	94.1	100.0		100.0	100.0			
26	100.00	100.00	100.00	99.29		96.9	98.9		100.0	99.3	99.3	96.2	
27		98.96		100.00		97.7	100.0	100.0	100.0		99.4	93.8	
28		100.00	98.32		98.7	97.7		100.0	100.0		100.0	95.3	
29	100.00		100.00		97.4	99.1		100.0		99.2	99.1		
30	100.00		100.00	100.00	99.3			99.2		99.4	99.3		
31	99.00				98.9		99.1	100.0		98.8		97.4	Annual Summary
<b>Average</b>	99.70	97.02	99.37	99.51	99.15	97.75	99.77	99.71	99.82	99.11	99.31	98.69	99.08
<b>Minimum</b>	98.30	93.31	97.59	97.59	97.22	93.94	98.92	98.88	98.38	95.92	98.66	93.82	93.31
<b>Maximum</b>	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

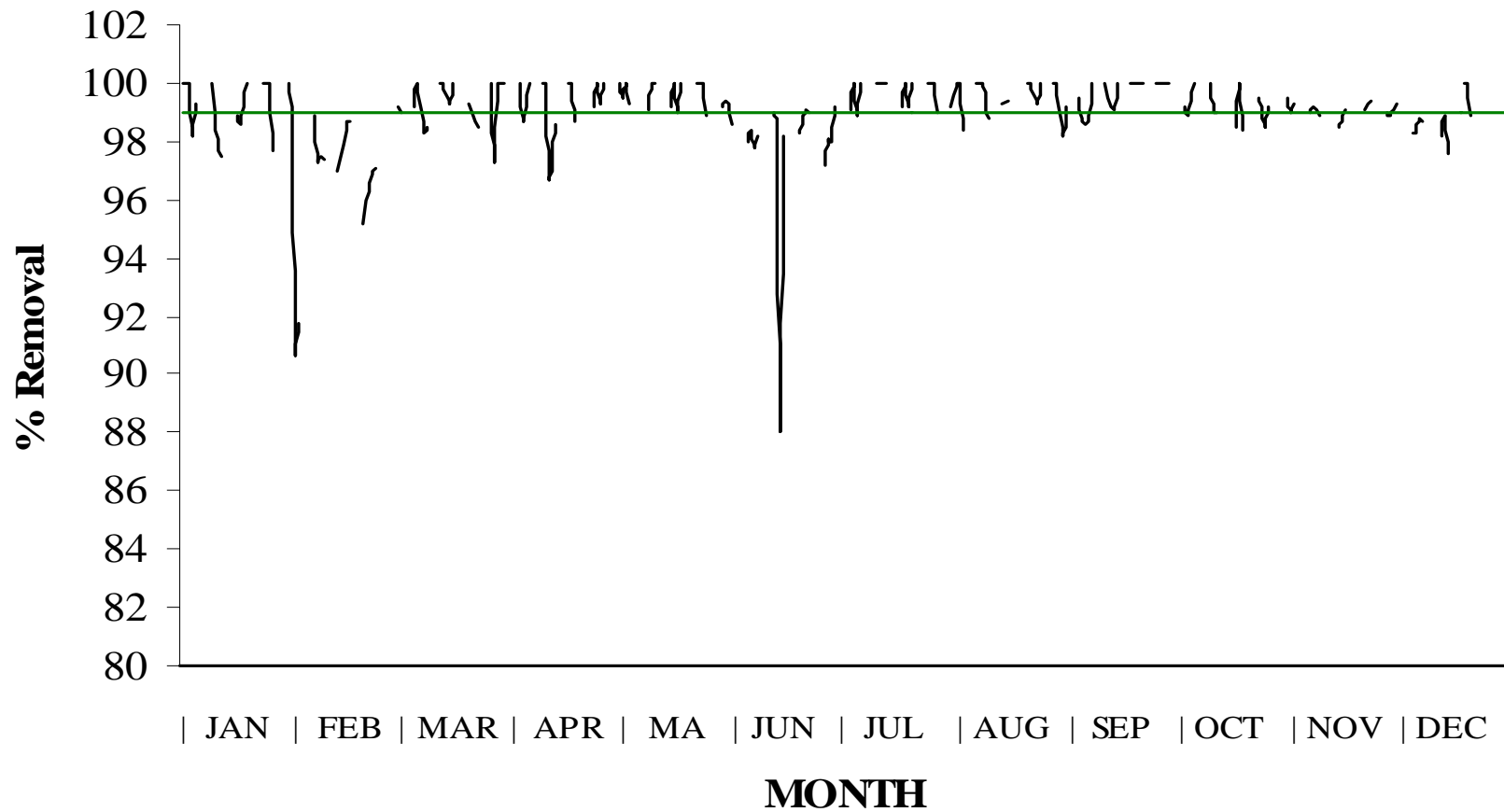
# South Bay Wastewater Reclamation Plant 2006 Biochemical Oxygen Demand



### Daily BOD values – 2006

Day	Jan		Feb		Mar		Apr		May		Jun		Jul		Aug		Sep		Oct		Nov		Dec	
	INF	EFF	INF	EFF	INF	EFF	INF	EFF	INF	EFF	INF	EFF	INF	EFF	INF	EFF	INF	EFF	INF	EFF	INF	EFF	INF	EFF
1	295	ND	300	27.7	260	2.11			294	2.08	292	4			280	3.04			338	ND	352	3.46		
2	334	ND	294	24.2	269	2.82	267	3.06	287	2.01			298	ND	275	ND			345	2.45	348	2.34		
3	344	ND					260	4.08	280	ND			224	2.11	287	4.52	305	ND	332	3.55			316	4.19
4	315	5.87					308	2.01	334	2.23	231	3.99	285	ND			298	2.21	340	3.93			331	5.57
5	312	2.16		3.71	280	4.73	229	3			256	6.37	220	2.36			281	4.77	332	ND	194	ND	332	5.56
6			314	3.41	279	3.75	249	ND			303	5.4	308	ND	256	2.3	291	3.8			227	ND	298	3.63
7			252	6.85	231	3.46			254	ND	265	5.84			275	ND	287	ND			266	2.21	340	4.42
8	291	ND	294	7.33	247	4.31			262	2.45	333	6.17			243	ND			360	ND	270	2.48		
9	275	ND	286	7.5	295	4.59	153	4.49	255	ND				2.64	277	2.07			363	2.78	272	2.97		
10	292	2.89					218	ND	298	ND			267	ND	277	3.3	285	ND	300	2.4			233	3.03
11	304	6.32					260	4.41	272	ND		3.73	262	ND			333	ND	339	3			280	4.03
12	255	6.45	198	3.79	278	ND	237	7.9			348	4.12	283	ND			297	6.05	339	3.39		2.99	304	5.59
13			143	4.39	252	2.24	261	3.69			255	3.53	252	ND		2.41	325	2.95			401	3	271	2.9
14			196	4.2	268	ND			256	ND	154	18.4			246	2.54	314	ND			340	5.28	318	7.6
15	319	ND	273	3.47	291	2.02			247	ND	192	3.54		2.09	339	3.04			465	5.13	333	4.31		
16	346	2.76	326	4.16	216	ND	266	ND	295	ND			214	ND	376	2.78			476	5.73	312	2.8		
17	350	5.08					259	4.98	211	2.13			254	2.1	291	ND	261	2	298	6.76			263	
18	335	2.02					287	ND	261	ND		3.45	304	ND			304	ND	384	ND			251	3.12
19	312	ND	280	7.08		ND	204	2.59			240	2.96	268	2.3			331	ND	397	6.36	347	3.66	252	2.64
20			178	8.62		ND	230	ND			304	4.76	298	ND	192	ND	273	ND			393	3.28	203	2.29
21			278	9.66	317	3.01				2.16	279	2.49		ND	279	2.49	267	ND			376	8.11	222	>7.97
22	261	ND	283	8.63	256	3.4			239	3.74	301	3.09		3.33	323	2.33			293	ND	349	2.64		
23	283	ND	297	8.78	262	3.92	295	ND	274	ND				ND	335	2.31			411	6.81	410	2.45		
24	317	ND					262	4.96	281	ND			293	2.03	316	ND	305	ND	248	5.91				3.48
25	288	ND					330	ND	284	3.22	167	ND	282	2.5			318	ND	303	4.72				ND
26	282	6.64	269	2.03	209	ND	293	2.04			240	7.97	281	ND			312	ND	306	2.47	326	3.23	342	10.9
27			264	2.37	233	ND	299	ND			293	5.6	259	2.5	281	ND	285	ND			335	3.28	331	11.7
28			373	ND	137	3.71			270	ND	275	5.47			288	3.24	294	ND			313	3.35	316	>23.9
29	256	ND			99.6	ND			274	4.64	275	2.34			266	ND			348	4.39	306	2.69		
30	288	ND			183	ND	303	ND	285	3.64				2.94	299	5.3			526	2.75	363	2.42		
31	306	2.6							293	2.01			244	ND	326	2.72			518	2.5			284	>12.4
<b>Ave</b>	303	2	268	7	243	2	260	2	273	1	263	5	268	1	288	2	298	1	364	3	325	3	289	4
<b>Min</b>	255	2	143	2	100	2	153	2	211	2	154	2	214	2	192	2	261	2	248	2	194	2	203	2
<b>Max</b>	350	7	373	28	317	5	330	8	334	5	348	18	308	3	376	5	333	6	526	7	410	8	342	12
<b>Tot</b>	6960	43	5098	148	4863	44	5470	47	6006	30	5003	103	5096	27	6327	44	5966	22	8361	75	6833	67	5487	81

## South Bay Wastewater Reclamation Plant 2006 % BOD Removal



— % REM BOD    — AVERAGE

## 2006 % BOD Removals

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
1	100.00	90.77	99.19		99.3	98.6		98.9		100.0	99.0			
2	100.00	91.77	98.95	98.85	99.3		100.0	100.0		99.3	99.3			
3	100.00				100.0		99.1	98.4	100.0	98.9				
4	98.14				99.3	98.3	100.0		99.3	98.8				
5	99.31		98.31	98.43	98.69		97.5	98.9		98.3	100.0	100.0	98.7	98.3
6		98.91	98.66	99.35	100.00		98.2	100.0	99.1	98.7		100.0	98.3	98.8
7		97.28	98.50		100.0		97.8		100.0	100.0		99.2		98.7
8	100.00	97.51	98.26		99.1	98.1		100.0			100.0	99.1		
9	100.00	97.38	98.44	97.07	100.0							99.2	98.9	
10	99.01				100.0		100.0	98.8	100.0	99.2				
11	97.92				100.0		100.0		100.0	99.1				
12	97.47	98.09	100.00	96.67		98.8	100.0		98.0	99.0		98.7		
13		96.93	99.11	98.30	98.59		98.6	100.0		99.1		99.3	98.6	98.9
14		97.86	100.00		100.0	88.1		99.0	100.0			98.4	98.2	97.6
15	100.00	98.73	99.31		100.0	98.2		99.1		98.9	98.7			
16	99.20	98.72	100.00	100.00	100.0		100.0	99.3		98.8	99.1			
17	98.55				99.0		99.2	100.0	99.2	97.7				
18	99.40				100.0		100.0		100.0	100.0				
19	100.00	97.47		98.08		98.8	99.1		100.0	98.4	98.9	100.0	99.0	
20		95.16		100.00		98.4	100.0	100.0	100.0		99.2	98.8	98.9	
21		96.53	99.05	98.73		99.1		99.1	100.0		97.8			
22	100.00	96.95	98.67	100.00	98.4	99.0		99.3		100.0	99.2			
23	100.00	97.04	98.50	100.00	100.0			99.3		98.3	99.4			
24	100.00				100.0		99.3	100.0	100.0	97.6				
25	100.00				98.9	100.0	99.1		100.0	98.4				
26	97.65	99.25	100.00	98.11	99.30		96.7	100.0	100.0	99.2	99.0		96.8	
27		99.10	100.00	100.00			98.1	99.0	100.0	100.0	99.0		96.5	
28		100.00	97.29		100.0	98.0		98.9	100.0		98.9			
29	100.00		100.00		98.3	99.1		100.0		98.7	99.1			
30	100.00		100.00	100.00	98.7			98.2		99.5	99.3			
31	99.15				99.3		100.0	99.2		99.5				Annual Summary
<b>Average</b>	99.38	97.13	99.11	99.06	99.53	97.86	99.67	99.35	99.63	99.08	99.10	98.41		98.94
<b>Minimum</b>	97.47	90.77	97.29	96.67	98.31	88.05	98.93	98.23	97.96	97.62	97.84	96.47		88.05
<b>Maximum</b>	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00		100.00

## D. Toxicity Report

### Toxicity Testing: South Bay Water Reclamation Plant 2006

#### INTRODUCTION

The City of San Diego conducted aquatic toxicity tests as required by its National Pollutant Discharge Elimination System permit No. CA0109045, Order No. 2000-129 for the South Bay Water Reclamation Plant (SBWRP). The testing requirement is designed to determine the acute and chronic toxicity of effluent samples collected from the SBWRP. In accordance with the above Order, the City also conducts toxicity tests of combined effluent samples that are collected from the SBWRP and the International Wastewater Treatment Plant (IWTP). This chapter presents summaries and discussion of all toxicity tests conducted in 2006.

Toxicity testing of wastewater effluent measures the bioavailability of toxicants in a complex mixture, accounts for interactions among potential toxicants, and integrates the effects of all constituents. Acute and chronic toxicity tests are characterized by the duration of exposure to a toxicant as well as the adverse effect (measured response) produced as the result of exposure to a toxicant. Acute toxicity testing consists of a short-term exposure period, usually 96 hours or less, and the acute effect refers to mortality of the test organism.

Chronic toxicity testing, in the classic sense, refers to long-term exposure of the test organism to a potential toxicant. This may involve exposing the test organism for its entire reproductive life cycle, which may exceed 12 months for organisms such as fish. In general, chronic tests are inherently more sensitive to toxicants than acute tests in that adverse effects are detected at lower toxicant concentrations. The City of San Diego is required to conduct critical/early life stage chronic tests that are intermediate between the acute and chronic toxicity testing protocols discussed above. These test results serve as short-term estimates of chronic toxicity.

#### MATERIALS & METHODS

##### Test Material

##### *SBWRP Effluent*

The acute toxicity tests were conducted monthly in 2006. Twenty-four hour, flow-weighted, effluent composite samples were collected at the SBWRP and stored at 4 °C until test initiation. All tests were initiated within 36 hours of sample collection. Test concentrations were 3.88, 7.75, 15.5, 31.0, and 62.0% (nominal) for the topsmelt and mysid tests. Dilution water for acute toxicity tests (effluent and reference toxicant) was obtained from the Scripps Institution of Oceanography (SIO), filtered, held at 4 °C, and used within 96 hours of collection.

Chronic toxicity testing was also conducted monthly in 2006. The samples consisted of flow-weighted, 24-hour composited effluent collected at the SBWRP. Samples were stored at 4 °C and testing was initiated within 36 hours of sample collection. Test concentrations were 0.25, 0.50, 1.0, 2.0 and 4.0% effluent. Dilution water for chronic toxicity tests (effluent and reference toxicant) was collected in the same manner as in the acute toxicity tests. Detailed methodology for all toxicity testing is described in the City Bioassay Lab Quality Assurance Manual (City of San Diego 2000).

### ***SBWRP/IWTP Combined Effluent***

The City also conducted chronic and acute toxicity tests of combined effluent from the SBWRP and IWTP in accordance with the quarterly testing schedule stated in Order No. 2000-129. Composite samples were collected during the same 24-hour sampling period by SBWRP and IWTP personnel at their respective facilities and combined in the laboratory in accordance with a ratio that is proportional to the flow from each plant at the time of the sample collection.

These acute toxicity tests were conducted quarterly in 2006. Samples were stored at 4 °C and testing was initiated within 36 hours of sample collection. Test concentrations were 3.88, 7.75, 15.5, 31.0, and 62.0% (nominal) for the mysid tests. Dilution water for acute toxicity tests (effluent and reference toxicant) was obtained from the Scripps Institution of Oceanography (SIO), filtered, held at 4 °C, and used within 96 hours of collection.

Chronic toxicity testing was also conducted quarterly in 2006. Samples were stored at 4 °C and testing was initiated within 36 hours of sample collection. Test concentrations were 0.25, 0.50, 1.0, 2.0 and 4.0% effluent. Dilution water for chronic toxicity tests (effluent and reference toxicant) was collected in the same manner as in the acute toxicity tests. Detailed methodology for all toxicity testing is described in the City Bioassay Lab Quality Assurance Manual (City of San Diego 2000).

### Acute Bioassays

#### Topsmelt Survival Bioassay

The topsmelt acute bioassay was conducted in accordance with USEPA protocol EPA/ 600/4-90/027F (USEPA 1993). Larval *Atherinops affinis* (9-14 days old) were purchased from Aquatic Bio Systems (Fort Collins, CO), and acclimated to test temperature and salinity for at least 24 hours. Upon test initiation, the topsmelt (10 per replicate) were exposed for 96 hours in a static-renewal system to the effluent exposure series. Dilution water and brine controls were also tested. The test solutions were renewed at 48 hours and the organisms were fed once daily.

Simultaneous reference toxicant testing was performed using reagent grade copper chloride. Test concentrations consisted of 56, 100, 180, 320, and 560 µg/L copper. Dilution water was obtained from SIO, filtered, held at 4 °C, and used within 96 hours of collection. Upon conclusion of the exposure period, percent survival was recorded. Tests were declared valid if control mortality did not exceed 10%. The data were analyzed using a multiple comparison procedure and point estimation method prescribed by USEPA (1993). ToxCalc software (Tidepool Scientific Software 2002) was used for all statistical analyses.

#### Mysid Survival Bioassay

The mysid acute bioassay was conducted in accordance with USEPA protocol EPA/600/4-90/027F (USEPA 1993). Larval *Mysidopsis bahia* (4-5 days old) were purchased from Aquatic Bio Systems (Fort Collins, CO), and acclimated to test temperature and salinity for at least 24 hours. Upon test initiation, the mysids (10 per replicate) were exposed for 96 hours in a static-renewal system to the effluent exposure series. Dilution water and brine controls were also

tested. The test solutions were renewed at 48 hours and the organisms were fed once daily.

Simultaneous reference toxicant testing was performed using reagent grade copper chloride. Test concentrations consisted of 56, 100, 180, 320, and 560 µg/L copper. A SIO seawater control was also tested. At the end of the exposure period, percent survival was recorded. Tests were declared valid if control mortality did not exceed 10%. The data were analyzed using a multiple comparison procedure and point estimation method prescribed by USEPA (1993). ToxCalc software (Tidepool Scientific Software 2002) was used for all statistical analyses.

## Chronic Bioassays

### ***Red Abalone Development Bioassay***

Chronic bioassays using the red abalone, *Haliotis rufescens*, were conducted in accordance with USEPA protocol EPA/600/R-95/136 (USEPA 1995). Test organisms were purchased from Cultured Abalone (Goleta, California), and shipped via overnight delivery to the City's toxicology laboratory. Mature male and female abalone were placed in separate natural seawater tanks and held at 15 °C. For each test event, spawning was induced in 6-8 abalones in gender-specific vessels. Eggs and sperm were retained and examined under magnification to ensure good quality. Once deemed acceptable, the sperm stock was used to fertilize the eggs, and a specific quantity of fertilized embryos was added to each test replicate and exposed to the effluent series for 48 hours. A receiving water control was also tested. At the end of the test period, 100 embryos were examined and the number of normally and abnormally developed embryos was recorded.

Simultaneous reference toxicant testing was performed using reagent grade zinc sulfate. The concentrations of zinc in the exposure series were 10, 18, 32, 56, and 100 µg/L. A SIO seawater control was also tested.

The percentage of normally developed embryos for each replicate was arcsine square root transformed. The data were analyzed in accordance with "Flowchart for statistical analysis of red abalone *Haliotis rufescens*, development data" (see USEPA 1995). ToxCalc software (Tidepool Scientific Software 2002) was used for all statistical analyses.



### ***Kelp Germination and Growth Test***

Chronic bioassays using the giant kelp, *Macrocystis pyrifera*, were conducted in accordance with USEPA protocol EPA/600/R-95/136 (USEPA 1995). Kelp zoospores were obtained from the reproductive blades (sporophylls) of adult *Macrocystis* plants, which were collected from the kelp beds near La Jolla, California one day prior to test initiation. The zoospores were exposed in a static system for 48 hours to effluent exposure series.

Simultaneous reference toxicant testing was performed using reagent grade copper chloride. The concentrations of copper in the exposure series were 5.6, 10, 18, 32, 56, 100, and 180 µg/L. A SIO seawater control was also tested. At the end of the exposure period, 100 zoospores from each replicate were examined and the percent germination was recorded. In addition, germ-tube length was measured and recorded for 10 of the germinated zoospores.

The data were analyzed in accordance with “Flowchart for statistical analysis of giant kelp, *Macrocystis pyrifera*, germination data” and “Flowchart for statistical analysis of giant kelp, *Macrocystis pyrifera*, growth data” (see USEPA 1995). ToxCalc software (Tidepool Scientific Software 2002) was used for all statistical analyses.

### ***Topsmelt Survival and Growth Bioassays***

Chronic bioassays using the topsmelt (*Atherinops affinis*) were conducted in accordance with EPA/600/R-95/136 (USEPA 1995). Larval topsmelt (9-14 days old) were purchased from a commercial vendor and exposed for seven days in a static-renewal system to 0.25, 0.50, 1.0, 2.0, and 4.0% effluent. The test endpoints are survival and growth (dry biomass). The results are expressed as the NOEC.

Simultaneous reference toxicant testing was performed using reagent grade copper chloride. The concentrations of copper in the exposure series were 32, 56, 100, 180, and 320 µg/L. A reference toxicant control consisting of SIO dilution water was also tested. Upon conclusion of the exposure period, percent survival and dry biomass were recorded.

The data were analyzed using ToxCalc (Tidepool Scientific Software, 2002) in accordance with the appropriate US EPA flowcharts for statistical analysis of topsmelt survival and growth test data by hypothesis testing and point estimation (USEPA 1995; pp.105-106).

## **RESULTS & DISCUSSION**

### ***Acute Toxicity of SBWRP Effluent***

In accordance with Order No. 2000-129, the City conducted a side-by-side acute re-screening study in 2006 to compare the sensitivity of the topsmelt and mysid to SBWRP effluent. Based on the results, the City selected the topsmelt as the most sensitive test organism for subsequent monitoring. All acute topsmelt toxicity tests for SBWRP effluent conducted in 2006 were within NPDES permit compliance limits (Table T.1).

### ***Chronic Toxicity of SBWRP Effluent***

In accordance with Order No. 2000-129, the City conducted monthly red abalone bioassays from January through October, 2006. The City also conducted a side-by-side chronic re-screening study in November 2006 using the giant kelp, red abalone, and topsmelt to compare the sensitivity of these test species to SBWRP effluent. Based on the results, the City resumed using the red abalone in December 2006, and will continue using the species for all subsequent monitoring until the next re-screening event. All chronic toxicity tests for SBWRP effluent conducted in 2006 were within NPDES permit compliance limits (Table T.2).

### ***Toxicity of SBWRP/IWTP Combined Effluent***

The City also conducted chronic and acute bioassays for the SBWRP/IWTP combined effluent samples in accordance with the quarterly testing schedule stated in Order No. 2000-129. Although this combined effluent testing is a requirement of the SBWRP monitoring program, there are no compliance limits for these data (see MRP No. 2000-129, Section V).

In October 2006, the City conducted a side-by-side chronic re-screening study to compare the sensitivity of the giant kelp, red abalone, and topsmelt to the combined effluent. The results were not the same as the results from the previous screening event, which was conducted in 2004. Therefore, the City will conduct two additional side-by-side comparisons in 2007 to ensure proper selection of the most sensitive test organism for subsequent monitoring. The results for all combined effluent bioassays performed in 2006 are summarized in Tables T.3 and T.4.

## **REFERENCES**

- City of San Diego. (2000). Quality Assurance Manual for Bioassay Testing. Metropolitan Wastewater Department, Environmental Monitoring and Technical Services Division, San Diego, CA
- Tidepool Scientific Software. (2002). ToxCalc Toxicity Information Management System Database Software
- USEPA. (1993). Methods for Measuring Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms. Fourth Edition. C.I. Weber (ed). Environmental Monitoring and Support Laboratory, U.S. Environmental Protection Agency, Cincinnati, OH. EPA/600/4-90/027F
- USEPA. (1995). Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms. Chapman, G.A., D.L. Denton, and J.M. Lazorchak (eds). Environmental Monitoring and Support Laboratory, U.S. Environmental Protection Agency, Cincinnati, OH, EPA/600/R-95/136

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**Table T.1**

Results of acute toxicity tests of SBWRP effluent conducted during 2006. Data are presented as acute toxic units (TUa). The compliance limit is 3.3 TUa.

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Sample Date	Topsmelt 96-Hour Survival	Mysid 96-Hour Survival
01/08/2006	--	<1.6
02/12/2006	<1.6	--
03/12/2006	<1.6	--
04/09/2006	<1.6	<1.6
05/29/2006	<1.5	--
06/11/2006	<1.5	--
07/16/2006	<1.6	--
08/13/2006	<1.6	--
09/11/2006	<1.6	--
10/22/2006	<1.5	--
11/05/2006	<1.6	--
12/10/2006	<1.6	--

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N	11	2
No. in compliance	11	2
Mean TUa	<1.6	<1.6

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**Table T.2**

Results of chronic toxicity testing of SBWRP effluent conducted during 2006. Data are presented as chronic toxic units (TUc) values. NPDES permit limit is 100 TUc.

Sample Date	Red Abalone Development	Giant Kelp		Topsmelt	
		Germination	Growth	Survival	Growth
01/08/2006	25	--	--	--	--
02/07/2006	25	--	--	--	--
03/06/2006	25	--	--	--	--
04/03/2006	25	--	--	--	--
05/09/2006	25	--	--	--	--
06/05/2006	25	--	--	--	--
07/10/2006	25	--	--	--	--
08/08/2006	25	--	--	--	--
09/05/2006	25	--	--	--	--
10/03/2006	25	--	--	--	--
11/13/2006	25	25	25	25	25
12/04/2006	25	--	--	--	--
N	12	1	1	1	1
No. in compliance	12	1	1	1	1
Mean TUc	25	25	25	25	25

**Table T.3**

Results of acute toxicity tests of SBWRP/IWTP combined effluent samples conducted in 2006. Data are presented as acute toxic units (TUa).

Sample Date	Mysid 96-Hour Survival
02/07/2006	6.1
05/06/2006	5.2
08/08/2006	4.5
10/03/2006	4.4

**Table T.4**

Results of chronic toxicity tests of SBWRP/IWTP combined effluent samples conducted in 2006. Data are presented as chronic toxicity units (TUc).

Sample Date	Red Abalone	Giant Kelp		Topsmelt	
	Development	Germination	Growth	Survival	Growth
02/07/2006	100	--	--	--	--
05/09/2006	50	--	--	--	--
08/08/2006	100	--	--	--	--
10/03/2006	50	25	100	25	25

