

2014 Annual Report and Summary for the South Bay Wastewater Reclamation Plant & Ocean Outfall



NPDES No. CA 0109045
Order No. R9-2013-0006
&
Order No. 2000-203



This page left blank intentionally.

City of San Diego
Public Utilities Department

2014 Annual Report and Summary
for the
South Bay Wastewater
Reclamation Plant & Ocean Outfall

This report consists of the 2014 South Bay Water Reclamation Plant and Ocean Outfall Annual Reports and Summary, as specified in discharge Order No. R9-2013-0006, NPDES Permit No. CA0109045.

Section I is an Executive Summary providing general background information regarding the review and summary of findings and conclusions for 2014.

Section II through IX contain reports and information for 2014 as listed in the Table of Contents.

This page left blank intentionally.

**City of San Diego
Public Utilities Department
Environmental Monitoring & Technical Services Division**

Table of Contents

I. Introduction	11
A. Executive Summary:.....	11
B. Explanatory Notes:	12
C. Reporting Definitions	13
D. Overview of the Metropolitan Wastewater (Metro) System	14
E. Overview of SBWRP\.....	17
F. Discussion of Compliance Record	19
G. Plant Facility Operation Report	22
H. Correlation of Results to Plant Conditions.....	28
II. Influent and Effluent Data Summary	29
A. Mass Emissions	31
B. Discharge Limits.....	34
C. Influent and Effluent Data Summaries.....	37
D. Influent and Effluent Graphs	62
E. Daily Values of Selected Parameters.	89
F. Toxicity Testing: South Bay Water Reclamation Plant 2014.....	98
III. Plant Operations Summary	105
A. Flows.....	110
B. Rain Days.....	118
C. Chemical Report.....	120
D. Facilities Out of Service Report	123
IV. Combined Ocean Outfall Data	129
V. Ocean Monitoring Data Summary	143
A. Ocean Sediment Chemistries.	146
B. Fish Tissue Data.....	197
C. Seawater Data	208
VI. Annual Pretreatment Program Data	221
VII. Reclaimed Water Data Summary.....	261
A. Reclaimed Water Data Summaries	263
B. Reclaimed Water Graphs.....	277
C. Daily Values of Selected Parameters.	283
D. Total Coliform Data Summaries.....	294
E. UV Performance 2014	296
VIII. Other Required Information.....	297
A. Notes on Specific Analyses:	299
B. Report of Operator Certification.....	300
IX. Appendices	301
A. Terms and Abbreviations used in this Report.....	303
B. Methods of Analysis	305
C. Frequency of Analysis and Type of Sample - 2014.....	314
D. Laboratories Contributing Results used in this report.....	316
E. Staff Contributing to this Report.....	324

This page left blank intentionally.

Credits and Acknowledgements

South Bay Wastewater Reclamation Plant and Ocean Outfall Annual Monitoring Report 2014

City of San Diego
Public Utilities Department
Environmental Monitoring & Technical Services Division
Environmental Chemistry Services
5530 Kiowa Drive
La Mesa, CA 91942
Phone: (619) 668-3213/3214 FAX: (619) 668-3284

Supervising Editors & Science Staff:

Elvira Mercado
Lee King

Editorial Production & Support

Corinna Quinata

Data Management, Report Generation, Data Tables & Graphics

Fernando Martinez

Treatment & Disposal Division
2411 Dairy Mart Road
San Diego, CA
Phone: (619) 428-7306 FAX: (619) 428-6915

South Bay Wastewater Reclamation Plant Superintendent

Ernesto Molas

Senior WW Operations Supervisor
Kip Cooper

Senior Plant Technician Supervisor
Robert Rodriguez

WW Operations Supervisor- Process Control
Linda Ruiz Lopez

This page left blank intentionally.

Introduction

- A. Executive Summary
- B. Explanatory Notes
- C. Reporting Definitions
- D. Overview of the Metropolitan Wastewater (Metro) System
- E. Overview of SBWRP
- F. Discussion of Compliance Record
- G. Plant Facility Operations Report
- H. Correlation of Results to Plant Conditions

This page left blank intentionally.

I. Introduction

A. Executive Summary:

Purpose:

This report meets the annual reporting requirements of Monitoring and Reporting Program (MRP) in Order No. R9-2013-0006 (NPDES Permit No. CA0109045), Order No. R9-2013-0006 superseded R9-2006-0067 on April 3, 2013. This report contains summaries for Order No. 2000-203 relating to the production and purveyance of recycled water at the South Bay Water Reclamation Plant (SBWRP). It also serves as an historical record and reference of operational and compliance metrics.

Background:

The South Bay Water Reclamation Plant (SBWRP) is located at the intersection of Dairy Mart and Monument Roads in the Tijuana River Valley. The plant relieves the South Metro Sewer Interceptor System and provides local wastewater treatment services and reclaimed water to the South Bay. The plant opened in May 2002 and has a wastewater treatment capacity of 15 million gallons a day. The plant shares the South Bay Ocean Outfall (SBOO) with the International Wastewater Treatment Plant operated by the U.S. Section of the International Boundary and Water Commission (IBWC). While the plant has been operating since May 2002, distribution of reclaimed water started 4-years later in July 2006. The volume reclaimed and distributed varies depending on demand for recycled water.

During 2014, the plant received and treated 2.9 billion gallons of wastewater, reclaiming 75% or 2.2 billion gallons. Seventy-one percent of the reclaimed water was beneficially reused by the Otay Water District, the International Treatment Plant, or used for in-plant processes. **Between the months of May thru October more than seventy percent of the reclaimed water was reused.**

Key metrics for 2014	Daily Average Flow (mgd)	Total Annual Flow (million gallons)
Influent to plant (Raw Wastewater Treated)	7.97	2,908
Effluent to Ocean Outfall	2.96	1,075
Reclaimed Water Produced	6.02	2,199
Beneficial Reuse (recycled water distributed)	3.32	1,216
Sludge and returns to South Metro Interceptor (SMI)	1.60	586
Plant Use of Reclaimed Water	0.94	344

For a detailed discussion of the plant and treatment process see sections I. F., Plant Facility Operation Report, and Chapter III. Plant Operations Summary.

B. Explanatory Notes:

The past year's data are presented in tabular and graphical form. We include annual monitoring results, special items and discussions itemized in the permits. This document is comprehensive, including supporting information on monitoring methods, frequency and changes in analyses, long-term tables of selected analytes, operational data, background analyses and treatment plant process control. Where the permit sets limits or requests the analysis of various groups of compounds (such as chlorinated and non-chlorinated phenols, PCBs, hexachlorocyclohexanes, etc.) we have provided summaries and averages of these groups and also of the individual compounds.

The Recycled Water Users Summary Report as described in Permit No. 2000-203 is submitted separately from this report. However, we do include summary information and an evaluation of the Water Reclamation and beneficial reuse integral to the operations of the plant. Section 7 contains a thorough presentation and evaluation of the Reclaimed Water process information and monitoring data.

For averaging purposes, "less than" and "not detected" (nd) values were treated as zero. In many parts of the report, zero values are found. Our computer system reads "less than" values as zero for summaries, and in computing averages. In those areas where zeros are found the reader can find appropriate method detection limits (MDL) in the table of data. Because "less than" values are averaged as zero, values in summary tables may be less than detection limits; these are simple numeric means (or minimums). The data tables may also contain values expressed as a <X (less than), where X represents the MDL.

A further limitation is that statistical confidence in the results of an analysis is heavily dependent upon the concentration relative to the Method Detection Limit (MDL). Essentially all of our detection limits have been established using the procedure in 40 CFR, part 136. This statistical basis for the MDL results in a defined statistical confidence (at the 99% Confidence Interval) of essentially $\pm 100\%$ when the result is near the MDL. Only at concentrations approximately 5 times the MDL is the confidence interval at $\pm 20\%$. While the precision of our methods generally ranges from 2–3 significant figures, the above limitations of confidence should always be considered.

Where possible, the influent and effluent values of a given parameter have been included on the same graph to make the removals and other relationships readily apparent. Please note that many of the graphs are on expanded scales where the y-axes (concentration) do not start at zero, but instead are scaled to highlight the range of concentrations where variation takes place. These expanded scales make differences and some trends obvious that might normally not be noticed; however, they also may inadvertently place more weight on relatively minor changes or trends than deserved. Please reference the chart axis scales.

C. Reporting Definitions

a. Estimated Concentrations (“E” Qualifier)

The “E” qualifier stands for “estimated value,” and is used in data reduction to flag data that have a lower concentration than normally acceptable for monitoring programs, or the method under federal regulations or ELAP requirements, but the qualitative identification has high certainty. Using normal detection limit criteria, useful information would be lost. In making determinations and reporting data there are circumstances where, due to the nature of the analysis and the needs of the customer, the certainty in quantification can be less than the requirements necessary for general environmental monitoring and reporting for regulatory compliance.

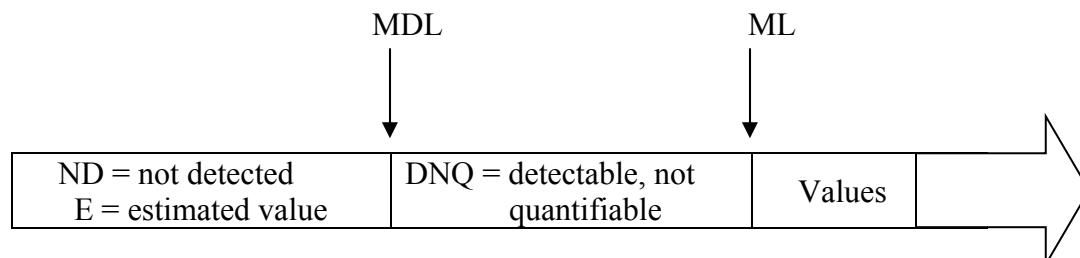
Data annotated with an “E” followed by a value (always less than the reported MDL) are estimated values. Data annotated in this manner have an uncertainty in concentrations unacceptable for compliance determinations or other concentration dependent conclusions.

b. Detected, but not qualified (“DNQ” Qualifier)

The “DNQ” qualifier is used for NPDES effluent reporting. DNQ is for analytical results that are less than the minimum level (ML), but greater than or equal to the MDL. Data annotated with DNQ will include a value, and the method’s MDL.

Summary of E and DNQ qualifiers

- E qualifier data in LIMS will have an “E” in the qualifier column, a value in the result value column, and the MDL deleted.
- DNQ qualifier data in LIMS will have a “DNQ” in the qualifier column, a value in the result value column, and the MDL.



D. Overview of the Metropolitan Wastewater (Metro) System

The City operates wastewater facilities to transport, treat, reclaim, reuse, and discharge wastewater and its by-products collected from the Metropolitan Wastewater System (the System). The System serves a population of approximately 3.2 million people providing for conveyance, treatment, reuse, and disposal of wastewater within a 450 square mile service area. The Metro System currently consists of several service areas including the City of San Diego (serviced by the Municipal Sub-System) and the 15-regional Participating Agencies. Wastewater treatment for the System is provided at the North City Water Reclamation Plant (NCWRP), the South Bay Water Reclamation Plant (SBWRP), and the Point Loma Wastewater Treatment Plant (PLWTP). Solids treatment and handling provided at the PLWTP and the Metro Biosolids Center (MBC). The City of San Diego contributes approximately 65% of the flow in the Metro System with the remainder coming from the Participating Agencies.

Each Participating Agency is responsible for the wastewater collection system within its boundaries to the point of discharge to the System. Wastewater flows from the Municipal Sub-System compose approximately 65% of the Metro Sub-System flows. All System facilities are owned by the City of San Diego and are managed by PUD.

A map detailing major facilities in the System and the participating agencies is included.

The System is a complex system of pipelines and pump stations that collect wastewater and convey it for treatment and disposal or reuse. The PLWTP serves as the terminus for the System and is capable of treating all flows generated within the System. Within the System are two water reclamation plants, the NCWRP and the SBWRP, that pull flow from the sewers for treatment and reuse. The System also includes the Metro Biosolids Center (MBC) that treats and disposes of all treatment process solids material removed by the treatment plants.

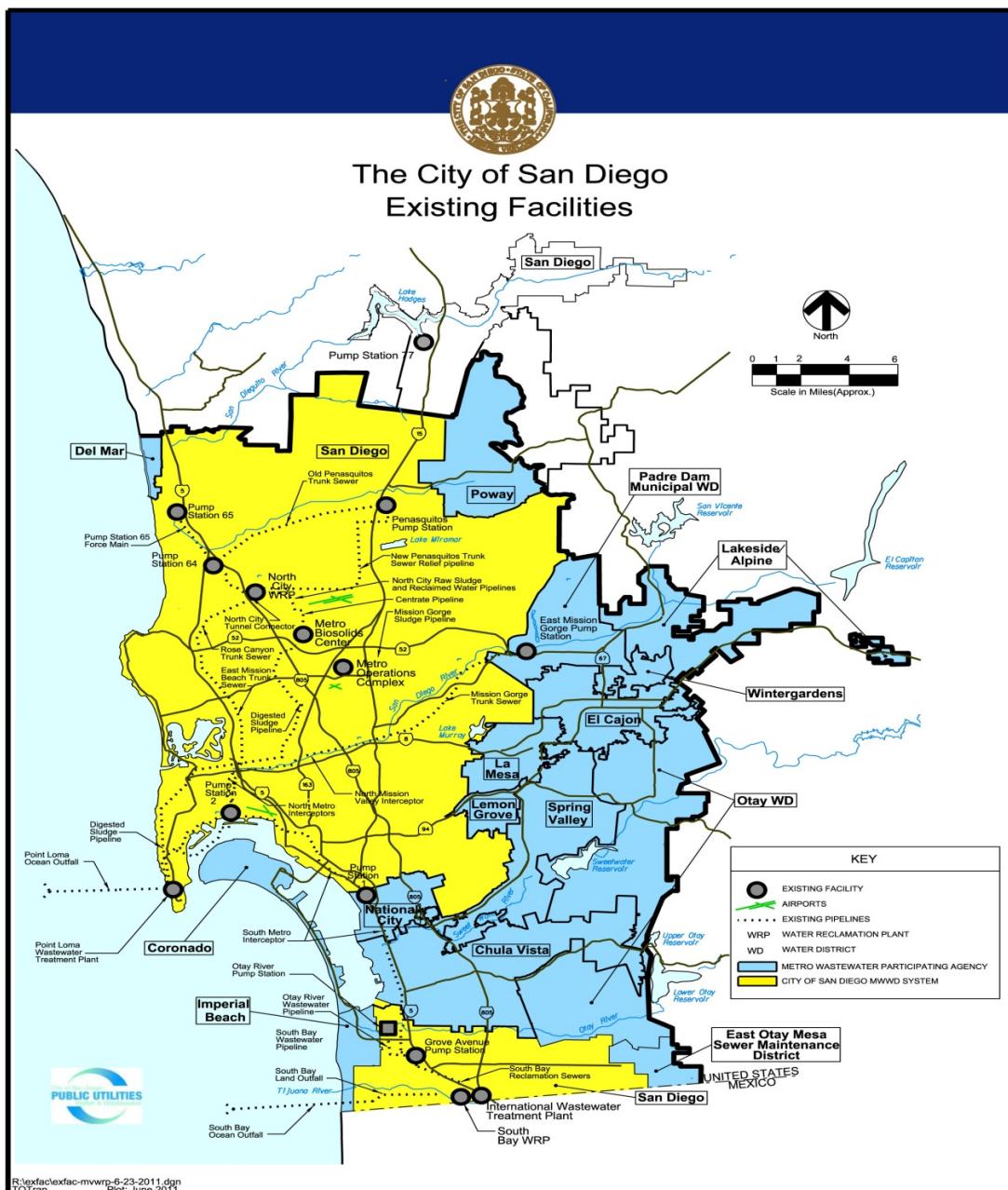
The PLWTP is the largest of the wastewater treatment plants in the System. The PLWTP is an advanced primary treatment WWTP that uses chemical addition to increase performance of the primary clarifiers and is the terminus for the System. The PLWTP discharges effluent through the Point Loma Ocean Outfall (PLOO). As an advanced primary treatment WWTP, performance is not measured entirely by effluent quality, but also against the California Ocean Plan and the Basin Plan that address the water quality and beneficial uses of the Pacific Ocean.

The plant has a rated capacity of 240 million gallons per day (mgd) and currently operates at 144 mgd. The NCWRP has a rated capacity of 30 mgd and currently operates at a nominal flow-rate of 15.4 mgd. The SBWRP has a rated capacity of 15 mgd and is currently treating a nominal 8.0 mgd. The PLWTP is a modern primary treatment facility and the NCWRP and SBWRP are both modern tertiary treatment facilities.

The other two facilities, the NCWRP and the SBWRP are scalping plants that divert water from the System and treat it for reclamation purposes. Both plants currently operate as secondary treatment plants and reclaim water to tertiary standards to meet demand. Demand will fluctuate depending on the time of year and the type and number of customers. The NCWRP returns all secondary effluent that is not reclaimed back to the System for treatment at the PLWTP. However, the solids that are removed, either by sedimentation or biological oxidation, are pumped to the MBC for further treatment. The

SBWRP discharges excess secondary effluent to the SBOO and returns all solids removed from the sewage to the System for transport to the PLWTP. Performance of both water reclamation plants is measured by each facility's ability to treat reclaimed water to the required standards when discharging to the reclaimed system. Performance of the SBWRP is also measured via secondary treatment standards, as defined in the facility's NPDES permit, when discharging to the South Bay Ocean Outfall (SBOO).

The MBC processes primary and secondary solids from the NCWRP through anaerobic digestion and dewatering, and processes the digested biosolids from the PLWTP through dewatering. The dewatered biosolids are beneficially used as cover at a local landfill or used as a soil amendment for agricultural purposes. The centrate from the centrifuges is returned to the sewer and treated at the PLWTP. Performance of this facility is measured by the quality of the solids product generated for use or disposal.



ISO 14001 Certification

Wastewater Treatment and Disposal Division (formerly called Operations and Maintenance Division) and the Monitoring and Reporting Programs operated by the Environmental Monitoring and Technical Services Division are certified in ISO¹ 14001, Environmental Management Systems.



¹ International Standards Organization

E. Overview of SBWRP\

The **South Bay Water Reclamation Plant (SBWRP)** relieves the South Metro Sewer Interceptor System and provides local wastewater treatment services and reclaimed or recycled water to the South Bay. The plant opened in May 2002 and has a wastewater treatment capacity of 15 million gallons a day. The plant design incorporates the newest technologies and provides advanced treatment for up to 15 million gallons of wastewater per day.



The advanced treatment meets tertiary or reclaimed water standards including disinfection. The SBWRP treatment process is a state-of-the-art implementation of traditional secondary treatment using activated-sludge. Much of the secondary effluent is reclaimed and beneficially reused after tertiary filtration through anthracite coal beds and disinfection with high-intensity ultraviolet (UV) light. The plant shares the South Bay Ocean Outfall (SBOO) with the International Wastewater Treatment Plant (IWTP) operated by the U.S. Section of the International Boundary and Water Commission (IBWC).

Treatment processes consist of mechanical bulky debris and grit removal at the headworks using standard traveling bar screens and aerated grit chambers. The removed debris is then dewatered and taken to landfills. Suspended solids of wastewater are removed by primary sedimentation. Scum removal is concurrent with primary sedimentation. Primary effluent is followed by industry standard aerated activated sludge secondary treatment. Secondary clarifiers allow settling and removal of the remainder of the solids (also called sludge) that is returned to the Metro System via the South Metro Interceptor and is pumped to the Point Loma WWTP. The resultant secondary effluent is either discharged to the South Bay Ocean Outfall or directed to tertiary treatment in the plant.

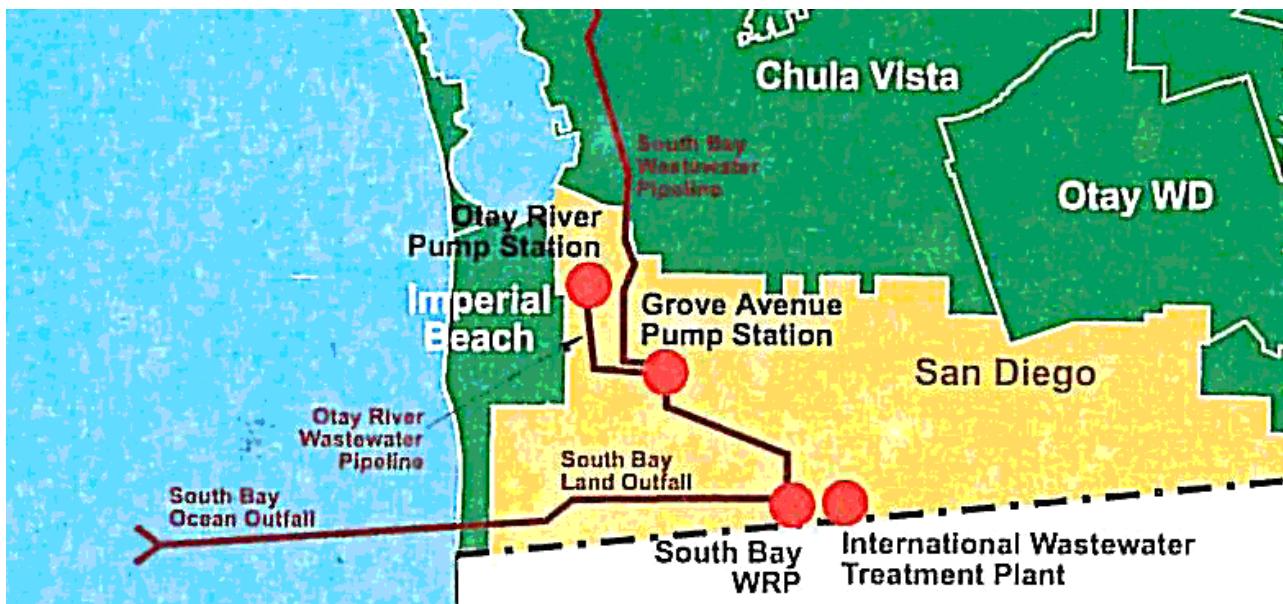


In 2014, approximately three quarters of the influent treated was directed to tertiary treatment. Tertiary treatment consists of running the secondary effluent through anthracite coal beds where it is filtered of remaining solids as it passes through the layered medium. The filtered water then passes through chambers where it is disinfected through exposure to high-energy ultraviolet light (UV). At this stage the "reclaimed" water meets California Title 22 full body contact requirements. Recycled or reclaimed water is beneficially reused for in-plant processes at SBWRP, at the nearby International Wastewater Treatment Plant and an increasing percentage of the recycled water is distributed to the Otay Water District for non-potable beneficial reuse off-setting demands for traditional potable water sources.

South Bay Ocean Outfall (SBOO)

The South Bay Water Reclamation Plant (SBWRP) is located at 2411 Dairy Mart Road, San Diego, CA 92154. It sits at the intersection of Dairy Mart and Monument Roads in the Tijuana River Valley just meters north of the U.S.-Mexico International border. The plant provides additional treatment capacity and reclaimed water for the southern service area of the Metro System (South Metro Sewer Interceptor System).

The South Bay Ocean Outfall extends approximately 3.5 miles offshore and discharges effluent in approximately 100 feet of water. The outfall tunnel has an 11 foot diameter and is 19,000 feet long.



F. Discussion of Compliance Record

The South Bay Water Reclamation Plant operates with two separate permits. NPDES Permit No. CA0109045/ Order No. 2013-0006 (with addenda) provides for the treatment and disposition of wastewater via the shared South Bay Ocean Outfall and Reclaimed Water Permit No. 2000-203 (with addenda) provides for water reclamation.

South Bay Ocean Outfall:

There were no discharge limitations exceeded for the South Bay Ocean outfall in 2014.

Recycled (Reclaimed) Water: This is the ninth year of operating where reclaimed water was produced and distributed.

Chloride

The monthly average chloride limit was exceeded in 2 months in 2014. In 2014, the monitoring of chloride continued at an accelerated schedule of weekly sampling and analysis. The monthly average was calculated as a running 30 day average and the calculated values above the 260 mg/L limit are shown in table below. The increase in the concentration of chloride in the reclaimed water to levels just above the monthly average limit is attributable to a similar increase in the chloride concentration of the influent to the plant from the wastewater collections system. The chloride limit is based on a Secondary MCL for aesthetics, i.e. taste, not a health concern. Reclaimed water from the SBWRP is not used for human consumption.

30 day running average chloride above 260 mg/L in 2014	
Date	30-Day Avg.
18-Mar-14	265
25-Mar-14	267
2-Apr-14	270
8-Apr-14	267
15-Apr-14	264

Coliform

The limit of not more than one value over 23 MPN/100mL in any 30 consecutive days was exceeded three times in 2014. The April 11, May 7 and 19, 2014 test results of 33, 70 and 33 MPN/100 mL, respectively, were above 23 MPN/100 mL. On August 22 and September 9 total coliform results of 1600 MPN/100 mL and 920 MPN/100 mL, respectively, exceeded the limit of 240 MPN/100 ml.

Reclaimed Water Permit No. 2000-203

Month	Number of measures exceeding limits.	Comments: (see monthly report for further details.)
January 2014	none	
February 2014	none	
March 2014	2	The 30-day average value for Chloride exceeded the limit of 260 mg/L on 2 days.
April 2014	3	The 30-day average value for Chloride exceeded the limit of 260 mg/L on 3 days.
May 2014	2	The limit of not more than one value over 23 MPN/100mL in any 30 consecutive days was exceeded twice.
June 2014	none	
July 2014	none	
August 2014	1	Total Coliform exceeded the limit of 240 MPN/100 mL limit on one day.
September 2014	1	Total Coliform exceeded the limit of 240 MPN/100 mL limit on one day.
October 2014	none	
November 2014	none	
December 2014	none	
Total:	9	

Ranges of Major Constituents in Reclaimed Water, 2014.

Waste Discharge and Water Recycling Requirements for the South Bay Water Reclamation Plant (Order No. 2000-203)			
Parameter	Permit Limits		Measured Values CY 2013
BOD ₅	Monthly Average	30 mg/L	<2 - 4
	Daily Maximum	45 mg/L	ND – 17
Total Dissolved Solids (TDS)	Monthly Average	1,200 mg/L	830 - 1000
	Daily Maximum	1,300 mg/L	1,140
Sulfate	Monthly Average	250 mg/L	147 – 253*
	Daily Maximum	300 mg/L	259
MBAS	Monthly Average	0.5 mg/L	0.10 – 0.17
	Daily Maximum	0.7 mg/L	0.165
Iron	Monthly Average	0.3 mg/L	ND – 0.076
	Daily Maximum	0.4 mg/L	0.076
Fluoride	Monthly Average	1.0 mg/L	0.49 – 0.59
	Daily Maximum	1.2 mg/L	0.62
Total Coliform	Daily Maximum	MPN 240/100-mLs	<1.8 – >1,600**

G. Plant Facility Operation Report

SOUTH BAY WATER RECLAMATION PLANT 2014 ANNUAL FACILITY REPORT Prepared by Plant Superintendent Ernesto Molas

This facility report summarizes some of the key operational considerations involved in the facility operation of the South Bay Water Reclamation Plant (SBWRP) during calendar year 2014. Numerical data and analysis presented in this section are based on plant staff work. Refer to the laboratory data in this document for validated results for official reporting purposes.

Influent Sampling:

Plant staff continues to implement a preventive maintenance program of switching and cleaning of the sample delivery pumps on a regular basis to ensure consistency in samples.

Basin Utilization:

The number of basins online for each unit processes meets the plant's overflow rates and detention time design criteria ranges which are as follows:

- 3 Primary Tanks on line with 2 offline as backups
- 5 Aeration Basin on line with 3 offline as backups
- 5 Secondary Basin on line with 3 as offline as backups

Influent Flows:

The design capacity of the plant is 15 million gallons per day (MGD), with a peak capacity of 18 MGD. The average daily influent flow treated during 2014 was 7.94 MGD. Effluent flow discharged to the ocean outfall was 2.96 MGD. Total reclaimed water usage was 4.27 MGD with 3.33 MGD of it was sold to customers and the remaining 0.94 MGD was used internally for filter backwashing and as utility water for plant equipment and processes.

Solids Handling:

The influent screening and washer/compaction units operated well, with adequate on-site hopper capacity. Approximately 38.29 tons of screenings were disposed of through the end of December 2014. Grit storage capacity was also adequate with 25.18 tons of grit hauled off site. All primary scum was returned to the MWWD collection system (for treatment at the Pt. Loma WWTP facility) by routing the scum collection discharge to the blended sludge pump wet well. Primary and secondary sludge is also routed to the collection system via the blended sludge pumps. The activated sludge process was maintained through the use of high capacity wasting directly from the aeration basins to the blended sludge pumps during the full period of 2014 operation. Average daily totals for blended sludge volumes returned to the Pt. Loma facility via the South Metro Interceptor were 1.61 MGD.

Secondary Performance:

Secondary treatment performance for TSS and BOD has been an average TSS of 10.38 mg/L and BOD of 14.17 mg/L for 2014. Average secondary effluent turbidity was 3.29 NTU. MCRT has typically been maintained between 5 to 7 days.

Tertiary Processes:

The average filter effluent turbidity for 2014 was 0.67 NTU. All seven filters were available for operation. And 4 to 5 filters were on line to meet the RW demand.

Chlorine is added at the UV influent to control algae growth. The total chlorine residual is maintained at equal or below 0.5 mg/l. The frequency of chlorine addition is 12 hrs/day.

Water Reclamation & Distribution:

The average delivery rate to Otay Storage tank during summer months was 5 to 7 mgd and only less than 1 mgd during the winter months.

Discussion of compliance record:

Coliform

The limit of not more than one value over 23 MPN/100mL in any 30 consecutive days was exceeded four times in 2014. The April 11, May 7 and 19, 2014 test results of 33, 70 and 33 MPN/100 mL, respectively, were above 23 MPN/100 mL. On August 22 and September 9 total coliform results of 1600 MPN/100 mL and 920 MPN/100 mL, respectively, exceeded the limit.

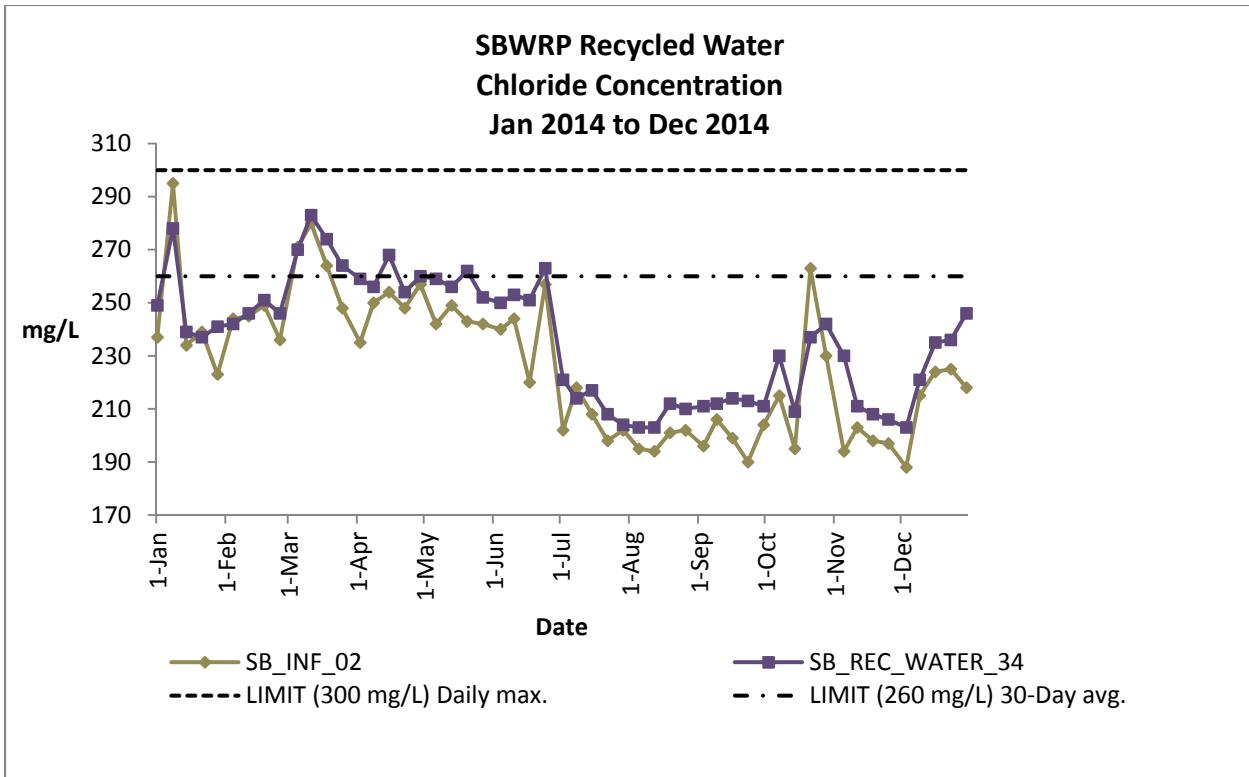
Chloride

During 2014, the 30-day average value for chloride exceeded the permit limit of 260 mg/L on the following months: March and April.

This increase in chloride concentration is under investigation.

Below is a graph showing the concentration of chloride in the treatment plant influent and recycled water at the SBWRP over time.

The graphical trending of the influent and recycled water chloride concentration indicates that there is increased chloride entering the treatment plant from the collection system. This increase was also observed for a short period during the winter of 2011.



Vector Control:

The presence of midge flies has been an on-going issue with the potential to adversely affect effluent quality, primarily at the secondary clarifiers and tertiary filters. Plant staff continues to rotate secondary clarifiers to disrupt midge flies larvae production. Control measures also include lowering the water level of a secondary clarifier to expose the larvae adhering to the side walls so they can be hosed down and removed. The staff also washes the sides of the filter during its backwash cycle to disrupt the midge fly from reproducing. The effort to gain full control over this problem continues.

Engineering Projects:

During 2014, the Engineering group for the Wastewater Treatment and Disposal Division (WWT) provided engineer support for the plant. Their support is mainly on-demand (no resident engineer) so the on-going and completed projects identified below were accomplished by a combination of plant staff and by the WWT engineering group.

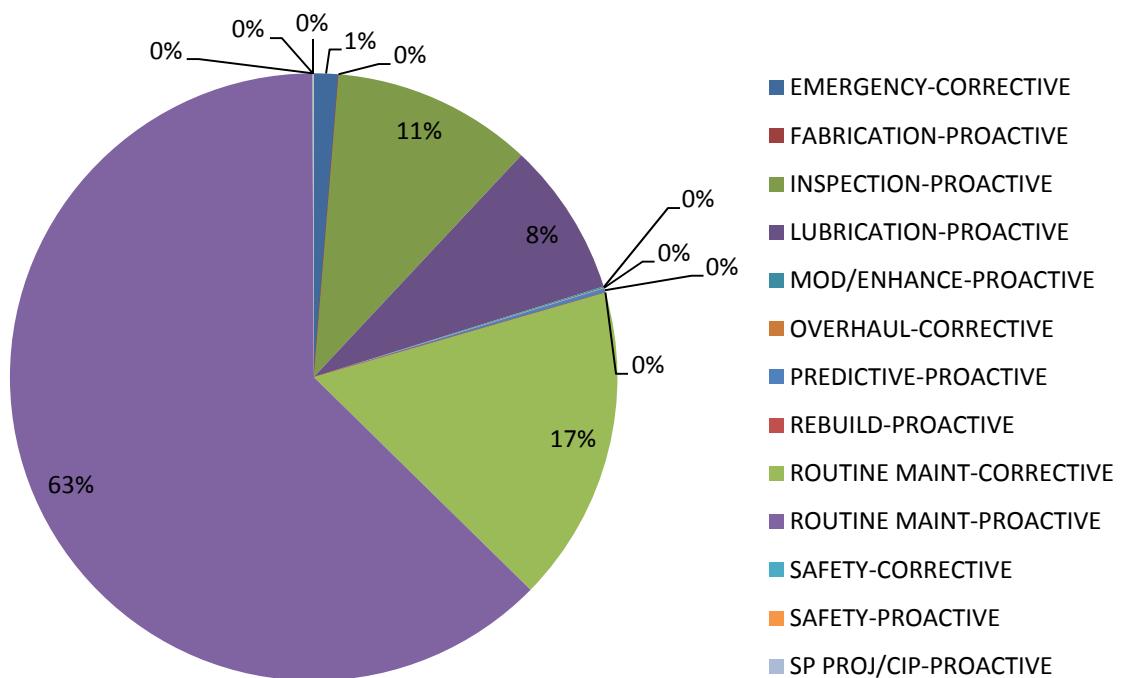
1. Sludge Pumps Replacement Project – pneumatics pumps will be replaced with motorized pumps to lower maintenance cost. Funding has been approved and the pumps and grinders have been ordered. Design Underway expecting 100% design by June 15.
2. Service Air Compressor Replacement Project – The compressor currently uses large amounts of reclaimed water (RW) for cooling. When the sludge Pumps Replacement Project is completed, the compressor will be replaced with an air cooled type compressor eliminating the need to use RW for cooling. Currently seeking funding to plan for replacement when the new sludge pump installation is completed. Design Underway. Same project as #1.
3. Jockey Pump project- Pump was installed with Electrical and I&C pulling cable. Expect completion by Dec 2014. DONE
4. Demineralization project (EDR) - Project is in the proposal phase to select Design Build team. Project in Construction. Expect completion by late August 15.

Maintenance Report 2014:

South Bay Maintenance Work Orders by Action

Action	Work Order Count
EMERGENCY-CORRECTIVE	55
FABRICATION-PROACTIVE	0
INSPECTION-PROACTIVE	450
LUBRICATION-PROACTIVE	346
MOD/ENHANCE-PROACTIVE	3
OVERHAUL-CORRECTIVE	1
PREDICTIVE-PROACTIVE	10
REBUILD-PROACTIVE	0
ROUTINE MAINT-CORRECTIVE	710
ROUTINE MAINT-PROACTIVE	2639
SAFETY-CORRECTIVE	1
SAFETY-PROACTIVE	1
SP PROJ/CIP-PROACTIVE	1

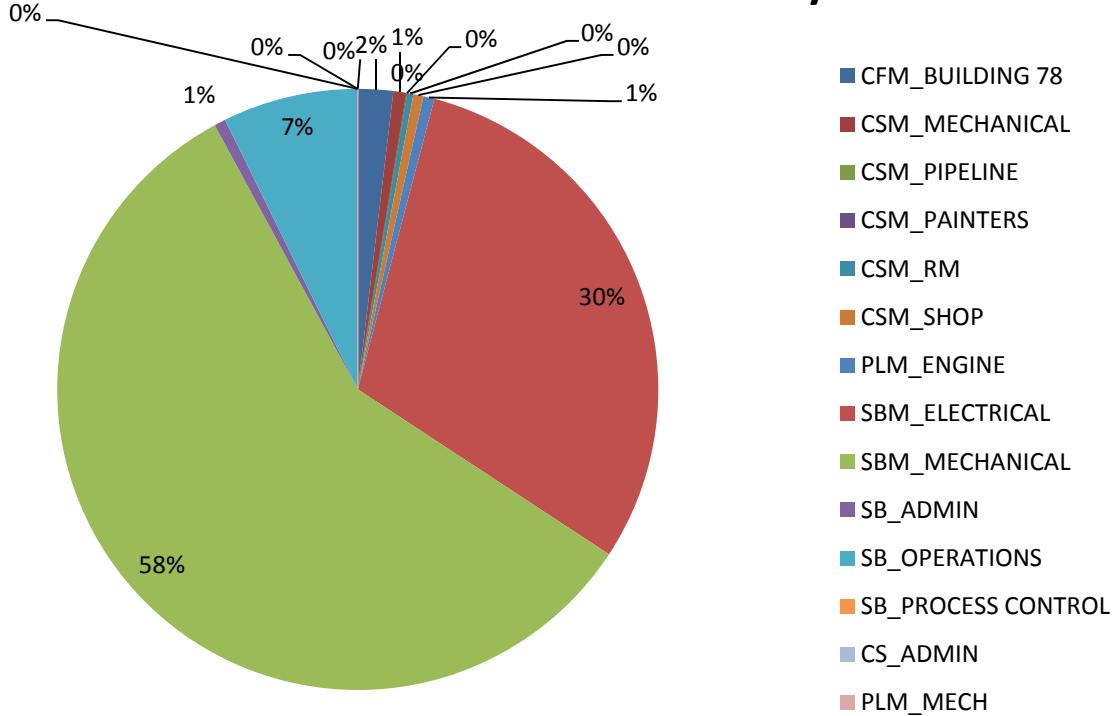
SBWRP Maintenance Work Orders by Action



South Bay Maintenance Work Orders by Crew

Crew	Work Order Count
CFM_BUILDING 78	80
CSM_MECHANICAL	30
CSM_PIPELINE	0
CSM_PAINTERS	1
CSM_RM	14
CSM_SHOP	23
PLM_ENGINE	25
SBM_ELECTRICAL	1271
SBM_MECHANICAL	2440
SB_ADMIN	26
SB_OPERATIONS	307
SB_PROCESS CONTROL	0
CS_ADMIN	0
PLM_MECH	0

SBWRP Maintenance Work Orders by Crew



H. Correlation of Results to Plant Conditions

In 2014 the amount of system flows treated at the SBWRP averaged 8 million gallons per day.

Annual Totals

Year	SBWRP Influent (million gals)	SBWRP Discharge to South Bay Outfall (million gals)	SBWRP Distributed Recycled Water (million gals)	System Return Stream (million gals)	Net removed from Metro (million gals)
2014	2,908	1,075	1,216	586	2,291
2013	2,948	1,171	1,172	590	2,343
2012	2,942	1,194	1,247	479	2,441
2011	3,001	1,288	1,177	505	2,465
2010	3,003	1,248	1,156	571	2,404
2009	3,050	958	1,501	564	2,459
2008	3,173	1,167	1,388	601	2,555
2007	3,158	1,467	1,101	527	2,568

Comparative flow data:

flow stream	2011		2012		2013		2014	
	Daily Average	Annual Total	Daily Average	Annual Total	Daily Average	Annual Total	Daily Average	Annual Total
Influent	8.22	3,000	8.04	2,942	8.08	2,948	7.97	2,908
RW (Reclaimed Water) Produced	5.89	2,154	6.01	2,200	5.96	2,176	6.02	2,199
RW Distributed	3.22	1,177	3.4	1,247	3.20	1,172	3.32	1,216
RW In-plant use	0.97	353	0.86	316	0.77	282	0.94	344
Total reuse	4.19	1,530	4.26	1,563	3.97	1,454	4.26	1,560
Effluent to SBOO	3.54	1,288	3.27	1,194	3.22	1,171	2.96	1,075
Return to SMI	1.38	505	1.31	479	1.62	590	1.60	586

II. Influent and Effluent Data Summary

- A. Mass Emissions
- B. Discharge Limits
- C. Influent and Effluent Data Summaries
- D. Influent and Effluent Graphs
- E. Daily Values of Selected Parameters
- F. Toxicity Bioassay

This page left blank intentionally.

A. Mass Emissions

Mass Emissions of Effluent Using 2014 Monthly Averages

DISCHARGE SPECIFICATIONS from NPDES Permit No. CA0109045/RWQCB Order No. 2013-0006 effective on April 4, 2013 with limits on pollutant discharges.

Effluent Limitations Based on Secondary Treatment Standards				
Constituent/Property	Limit: Monthly Average (30 day) (lbs/day)	2014 Mass Emissions (lbs/day) ^[1]	2014 Average Concentration	Units
Flow (MGD)			2.96	MGD
Total Suspended Solids	3,753	178	7.2	mg/L
BOD	3,753	346	14	mg/L
Oil & Grease	3,128	54	2.2	mg/L

Effluent Limitations Based on 2005 California Ocean Plan				
Constituent/Property	Limit: Daily Maximum (lbs/day)	2014 Mass Emissions (lbs/day) ^[1]	2014 Average Concentration	Units
Arsenic	350	0.017	0.7	ug/L
Cadmium	48	0	0	ug/L
Chromium	96	0.02	0.8	ug/L
Copper	120	0.2	10	ug/L
Lead	96	0.020	0.8	ug/L
Mercury	1.9	0.00005	0.002	ug/L
Nickel	240	0.10	4.12	ug/L
Selenium	720	0.016	0.64	ug/L
Silver	32	0	0	ug/L
Zinc	860	0.8	31.4	ug/L
Cyanide	48	0.025	0.001	mg/L
Residual Chlorine	96	1.2	0.05	mg/L
Ammonia	29,000	14.8	0.6	mg/L
Non-Chor. Phenols	1,400	0	0	ug/L
Chlorinated Phenols	48	0	0	ug/L
Endosulfan	0.22	0.00000	0	ng/L
Endrin	0.048	0.00	0	ng/L
hexachlorocyclohexanes * (HCH)	0.096	0.0	0	ng/L

* (all as Lindane, the gamma isomer)

Effluent Limitations Based on 2005 California Ocean Plan				
Constituent/Property	Limit: 30-Day Average (lbs/day)	2014 Mass Emissions (lbs/day) ^[1]	2014 Average Concentration	Units
Acrolein	2,600	0	0	ug/L
Antimony	14,000	0.000	0	ug/L
Bis(2-chloroethoxy) methane	53	0	0	ug/L
Bis(2-chloroisopropyl) ether	14,000	0	0	ug/L
Chlorobenzene	6,800	0	0	ug/L
Chromium (III)	--	--	--	
di-n-butyl phthalate	42,000	0	0	ug/L
dichlorobenzenes	61,000	0	0	ug/L
1,1-dichloroethylene	11	0	0	ug/L
Diethyl phthalate	390,000	0	0	ug/L
Dimethyl phthalate	9,800,000	0	0	ug/L
4,6-dinitro-2-methylphenol	2,600	0	0	ug/L
2,4-dinitrophenol	480	0	0	ug/L
Ethylbenzene	49,000	0	0	ug/L
Fluoranthene	180	0	0	ug/L
Hexachlorocyclopentadiene	690	0	0	ug/L
Isophorone	70,000	0	0	ug/L
Nitrobenzene	59	0	0	ug/L
Thallium	24	0	0	ug/L
Toluene	1,000,000	0	0	ug/L
1,1,2,2-tetrachloroethane	27	0	0	ug/L
Tributyltin	0.02	0.00	0	ug/L
1,1,1-trichloroethane	6,500,000	0	0	ug/L
1,1,2-trichloroethane	110	0	0	ug/L
Acrylonitrile	1.2	0.0	0	ug/L
Aldrin	0.00026	0	0	ng/L
Benzene	71	0	0	ug/L
Benzidine	82,000	0	0	ug/L
Beryllium	0.39	0.00	0	ug/L
Bis(2-chloroethyl)ether	0.54	0.00	0	ug/L
Bis(2-ethylhexyl)phthalate	42	0	0	ug/L
Carbon Tetrachloride	11	0	0	ug/L
Chlordane	0.00027	0.00000	0	ng/L
Chlorodibromomethane	100	0	0	ug/L
Chloroform	1,500	0.13	5.1	ug/L
DDT	0.002	0.000	0	ng/L
1,4-dichlorobenzene	210	0	0	ug/L
3,3-dichlorobenzidine	0.097	0.000	0	ug/L
1,2-dichloroethane	330	0	0	ug/L
Dichlorobromomethane	74	0.128	5.2	ug/L
Dichloromethane (methylene chloride)	5,400	0.015	0.6	ug/L
1,3-dichloropropene	110	0	0	ug/L
Dieldrin	0.00048	0.00000	0	ng/L

Effluent Limitations Based on 2005 California Ocean Plan				
Constituent/Property	Limit: 30-Day Average <u>(lbs/day)</u>	2014 Mass Emissions <u>(lbs/day)</u> ^[1]	2014 Average Concentration	Units
2,4-dinitrotoluene	31	0	0	ug/L
1,2-diphenylhydrazine	1.9	0.0	0	ug/L
Halomethanes	1,500	0.022	0.9	ug/L
Heptachlor	0.0006	0.0000	0	ng/L
Heptachlor epoxide	0.00024	0.00000	0	ng/L
Hexachlorobenzene	0.0025	0.0000	0	ug/L
Hexachlorobutadiene	170	0	0	ug/L
Hexachloroethane	30	0	0	ug/L
N-nitrosodimethylamine	87	0	0	ug/L
N-nitrosodi-N-Propylamine	4.5	0.0	0	ug/L
N-nitrosodiphenylamine	30	0	0	ug/L
PAHs	0.11	0.00	0	ug/L
PCBs	0.00023	0.00000	0	ng/L
TCDD equivalents	0.000000048	0.000000000	0	pg/L
Tetrachloroethylene	24	0	0	ug/L
Toxaphene	0.0025	0.0000	0	ng/L
Trichloroethylene	320	0	0	ug/L
2,4,6-trichlorophenol	3.5	0.0	0	ug/L
Vinyl Chloride	430	0	0	ug/L

^[1] 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.

B. Discharge Limits

DISCHARGE SPECIFICATIONS from NPDES Permit No. CA0109045/RWQCB Order No. R9-2013-0006 effective on April 4, 2013 with limits on pollutant discharges.

The discharge of effluent through the South Bay Ocean Outfall(E-001) shall maintain compliance with the following effluent limitations:

Effluent Limitations based on Secondary Treatment Standards						
Constituent	Units	6-month Median	30-day Average	7-Day Average	Daily Maximum	Instantaneous Maximum
Biochemical Oxygen Demand(BOD ₅)@ 20°C	mg/L lb/day		30 3,753	45 5,630		
Total Suspended Solids	mg/L lb/day		30 3,753	45 5,630		
pH	pH units		Within the limits of 6.0 - 9.0 at all times.			

Effluent Limitations based on 2005 California Ocean Plan						
Constituent	Units	6-month Median	30-day Average	7-Day Average	Daily Maximum	Instantaneous Maximum
Grease & Oil	mg/L lb/day		25 3,128	40 5,004		75 9,383
Settleable Solids	mL/L		1	1.5		3
Turbidity	NTU		75	100		225
Total Residual Chlorine(TRC)	mg/L lb/day	0.19 24			0.76 96	5.7 718
Copper, Total Recoverable	ug/L lb/day	98 12			960 120	2,700 340

Constituents that do not have reasonable potential or had inconclusive reasonable potential analysis results are referred to as performance goal constituents and are assigned the performance goals listed in the following table. Performance goal constituents shall also be monitored at E-001.

Performance Goals Based on 2005 California Ocean Plan				
Constituent	Units	6-month Median	Daily Maximum	Instantaneous Maximum
Arsenic	ug/L	480	2,800	7,400
	lb/day	60	350	920
Cadmium	ug/L	96	380	960
	lb/day	12	48	120
Chromium ² (Hexavalent)	ug/L	190	760	1900
	lb/day	24	96	240
Lead	ug/L	190	760	1,900
	lb/day	24	96	240
Mercury	ug/L	3.8	15.0	38
	lb/day	0.47	1.9	4.8
Nickel	ug/L	480	1,900	4,800
	lb/day	60	240	600
Selenium	ug/L	1,400	5,700	14,000
	lb/day	180	720	1800
Silver	ug/L	52	250	650
	lb/day	6.5	32	82
Zinc	ug/L	1,200	6,900	18,000
	lb/day	140	860	2300
Cyanide	mg/L	0.096	0.38	0.96
	lb/day	12	48	120
Ammonia (expressed as Nitrogen)	mg/L	57	230	570
	lb/day	7200	29,000	72,000
Acute Toxicity	TUa		3.1 ³	
Chronic Toxicity	TUc		96	
Phenolic Compounds(non-chlorinated)	ug/L	2,900	11,000	29,000
	lb/day	360	1400	3600
Chlorinated Phenolics	ug/L	96	380	960
	lb/day	12	48	120
Endosulfan	ng/L	860	1,700	2,600
	lb/day	0.11	0.21	0.32
Endrin	ng/L	190	380	570
	lb/day	0.024	0.048	0.072
HCH (hexachlorocyclohexanes)	ng/L	380	760	1,100
	lb/day	0.04	0.096	0.14
Radioactivity	Not to exceed limits specified in Title 17 California Code of Regulations Section 30253, Standards for Protection Against Radiation			

² Hexavalent Chromium limit met as Total Chromium.

³ Permit shows 2.9×10^{-1} which reflects an apparent error in calculation as discussed with SDRWQCB staff. Correction to 3.1 TUa referenced by email of Friday, January 26, 2007 4:14 PM, From: Melissa Valdovinos [mailto:mvaldovinos@waterboards.ca.gov] To: Stebbins, Tim, [mailto:Tstebbins@sandiego.gov]

Performance Goals Based on 2005 California Ocean Plan Continued		
Constituent	Monthly Average (30-Day)	
	ug/L	lbs/day
Acrolein	21,000	2600
Antimony	110,000	14,000
Bis(2-chloroethoxy) methane	420	53
Bis(2-chloroisopropyl) ether	110,000	14,000
Chlorobenzene	54,000	6800
Chromium (III) ⁴	18,000,000	2,300,000
di-n-butyl phthalate	330,000	42,000
Dichlorobenzenes	490,000	61,000
Diethyl phthalate	3,100,000	390,000
Dimethyl phthalate	78,000,000	9,800,000
4,6-dinitro-2-methylphenol	21,000	2600
2,4-dinitrophenol	3800	480
Ethylbenzene	390,000	49,000
Fluoranthene	1,400	180
Hexachlorocyclopentadiene	5,500	690
Nitrobenzene	470	59
Thallium	190	24
Toluene	8,100,000	1,000,000
Tributyltin	0.13	0.020
1,1,1-trichloroethane	52,000,000	6,500,000
Acrylonitrile	9.6	1.2
Benzene	560	71
Benzidine	0.0066	82,000
Beryllium	3.1	0.39
Bis(2-chloroethyl)ether	4.3	0.54
Bis(2-ethylhexyl)phthalate	330	42
Carbon Tetrachloride	86	11
Chloroform	12,000	1500
1,4-dichlorobenzene	1,700	210
3,3-dichlorobenzidine	0.77	0.097
1,2-dichloroethane	2,700	330
1,1-dichloroethylene	86	11
Dichlorobormomethane	590	74
Dichloromethane	43,000	5400
1,3-dichloropropene	850	110
2,4-dinitrotoluene	250	31
1,2-diphenylhydrazine	15	1.9
Halomethanes	12,000	1500

Performance Goals Based on 2005 California Ocean Plan Continued		
Constituent	Monthly Average (30-Day)	
	ug/L	lbs/day
Hexachlorobenzene	0.02	0.0025
Hexachlorobutadiene	1,300	170
Hexachloroethane	240	30
Isophorone	70,000	8700
N-nitrosodimethylamine	700	87
N-nitrosodi-N-propylamine	36	4.5
N-nitrosodiphenylamine	240	30
PAHs	0.84	0.11
1,1,2,2-tetrachloroethane	220	27
Tetrachloroethylene	190	24
Trichloroethylene	2,600	320
1,1,2-trichloroethane	900	110
2,4,6-trichlorophenol	28	3.5
Vinyl Chloride	3,400	430
	ng/L	lbs/day
Aldrin	2.1	0.00026
Chlordane	2,200,000	0.00027
DDT	16	0.0026
Dieldrin	3.8	0.00048
Heptachlor	48	.00060
Heptachlor Epoxide	1.9	0.00024
PCBs	1.8	0.00023
Toxaphene	200	0.0025
	pg/L	lbs/day
TCDD equivalents	0.37	0.000000047

⁴ Chromium (III) limit is met by Total Chromium.

C. 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. Data that have been reevaluated as discussed in Section 1.E are explicitly indicated. All other tables and charts include all data.

SOUTH BAY WATER RECLAMATION PLANT
SEWAGE INFLUENT and EFFLUENT

Annual 2014

Biochemical Oxygen Demand Concentration
(24-hour composite)

Month/ Units:	Influent Flow (MGD)	Daily Influent Value (mg/L)	Daily Influent Value (lbs/Day)	Effluent Flow (MGD)	Daily Effluent Value (mg/L)	Daily Effluent Value (lbs/Day)	Percent Removal BOD (%)
JANUARY -2014	7.90	349	22994	4.20	10	350	97.1
FEBRUARY -2014	7.89	374	24610	5.08	13	551	96.5
MARCH -2014	8.02	356	23812	4.89	10	408	97.2
APRIL -2014	8.14	364	24711	3.17	13	344	96.4
MAY -2014	8.13	351	23799	1.54	13	167	96.3
JUNE -2014	8.08	353	23788	1.42	18	213	94.9
JULY -2014	8.09	347	23412	0.84	17	119	95.1
AUGUST -2014	8.01	349	23314	1.21	13	131	96.3
SEPTEMBER-2014	8.00	326	21751	1.54	15	193	95.4
OCTOBER -2014	7.74	336	21689	1.96	17	278	94.9
NOVEMBER -2014	7.59	361	22852	3.64	14	425	96.1
DECEMBER -2014	7.99	346	23056	6.02	14	703	96.0
Average	7.97	351	23316	2.96	14	324	96.0

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

ND=not detected

SOUTH BAY WATER RECLAMATION PLANT
SEWAGE INFLUENT and EFFLUENT

Annual 2014

Total Suspended Solids Concentration
(24-hour composite)

Month/ Units:	Influent Flow (MGD)	Daily Influent TSS (mg/L)	Daily Influent VSS (mg/L)	Percent VSS (%)	Daily Influent Mass Emission (lbs/Day)
JANUARY -2014	7.90	285	258	90.5	18778
FEBRUARY -2014	7.89	283	259	91.5	18622
MARCH -2014	8.02	280	255	91.1	18728
APRIL -2014	8.14	282	255	90.4	19144
MAY -2014	8.13	270	245	90.7	18307
JUNE -2014	8.08	277	251	90.6	18666
JULY -2014	8.09	278	255	91.7	18757
AUGUST -2014	8.01	286	258	90.2	19106
SEPTEMBER-2014	8.00	273	247	90.5	18215
OCTOBER -2014	7.74	283	256	90.5	18268
NOVEMBER -2014	7.59	291	264	90.7	18420
DECEMBER -2014	7.99	280	255	91.1	18658
Average	7.97	281	255		18639

Total Suspended Solids Concentration
(24-hour composite)

Month/ Units:	Effluent Flow (MGD)	Daily Effluent TSS (mg/L)	Daily Effluent VSS (mg/L)	Percent VSS (%)	Daily Effluent Mass Emission (lbs/Day)	Percent Removal TSS (%)	Percent Removal VSS (%)
JANUARY -2014	4.20	6.2	5.6	90.3	217	97.8	97.8
FEBRUARY -2014	5.08	8.4	7.5	89.3	356	97.0	97.1
MARCH -2014	4.89	6.9	6.2	89.9	281	97.5	97.6
APRIL -2014	3.17	6.9	6.1	88.4	182	97.6	97.6
MAY -2014	1.54	6.3	5.6	88.9	81	97.7	97.7
JUNE -2014	1.42	8.8	7.8	88.6	104	96.8	96.9
JULY -2014	0.84	7.4	6.5	87.8	52	97.3	97.5
AUGUST -2014	1.21	6.9	6.2	89.9	70	97.6	97.6
SEPTEMBER-2014	1.54	6.7	5.9	88.1	86	97.5	97.6
OCTOBER -2014	1.96	6.4	5.6	87.5	105	97.7	97.8
NOVEMBER -2014	3.64	7.6	6.8	89.5	231	97.4	97.4
DECEMBER -2014	6.02	7.5	6.6	88.0	377	97.3	97.4
Average	2.96	7.2	6.4		179	97.4	97.5

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.

VSS= Volatile Suspended Solids
TSS= Total Suspended Solids

SOUTH BAY WATER RECLAMATION PLANT

Annual 2014

Effluent to Ocean Outfall
(SB_OUTFALL_01)

Analyte:	Flow	pH	Settleable Solids	Biochemical Oxygen Demand	Total Suspended Solids	Volatile Suspended Solids	Total Dissolved Solids
Units:	(mgd)	(pH)	(ml/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
JANUARY -2014	4.20	7.37	ND	10	6.2	5.6	975
FEBRUARY -2014	5.08	7.39	ND	13	8.4	7.5	946
MARCH -2014	4.89	7.42	ND	10	6.9	6.2	985
APRIL -2014	3.17	7.48	ND	13	6.9	6.1	980
MAY -2014	1.54	7.47	ND	13	6.3	5.6	1000
JUNE -2014	1.42	7.45	ND	18	8.8	7.8	939
JULY -2014	0.84	7.35	ND	17	7.4	6.5	834
AUGUST -2014	1.21	7.49	ND	13	6.9	6.2	798
SEPTEMBER-2014	1.54	7.47	ND	15	6.7	5.9	892
OCTOBER -2014	1.96	7.46	ND	17	6.4	5.6	928
NOVEMBER -2014	3.64	7.38	ND	14	7.6	6.8	935
DECEMBER -2014	6.02	7.28	ND	14	7.5	6.6	1030
Average	2.96	7.42	ND	14	7.2	6.4	937

Analyte:	Oil & Grease	Outfall Temperature	Residual Chlorine	Turbidity	Dissolved Oxygen
Units:	(mg/L)	(°C)	(mg/L)	(NTU)	(mg/L)
JANUARY -2014	3.7	22.8	0.04	2.66	2.40
FEBRUARY -2014	3.3	23.0	0.06	3.55	3.15
MARCH -2014	3.0	23.4	0.05	2.82	2.99
APRIL -2014	3.1	24.1	0.05	2.69	2.04
MAY -2014	3.9	26.6	0.04	2.86	1.90
JUNE -2014	2.7	26.6	0.05	3.21	1.97
JULY -2014	<1.2	27.9	0.06	2.82	1.99
AUGUST -2014	<1.2	27.8	0.05	3.25	1.76
SEPTEMBER-2014	1.6	28.4	0.04	3.18	2.64
OCTOBER -2014	<1.2	28.0	0.05	2.87	1.67
NOVEMBER -2014	1.8	26.1	0.05	3.07	2.56
DECEMBER -2014	2.8	23.7	0.03	2.99	2.50
Average	2.2	25.7	0.05	3.00	2.30

ND=not detected
NR=not required

SOUTH BAY WATER RECLAMATION PLANT

Annual 2014

Influent to Plant
(SB_INF_02)

Analyte:	Flow	pH	Total Dissolved Solids	Biochemical Oxygen Demand	Total Suspended Solids	Volatile Suspended Solids	Turbidity
Units:	(mgd)	(pH)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(NTU)
JANUARY -2014	7.90	NR	999	349	285	258	NR
FEBRUARY -2014	7.89	7.79	996	374	283	259	164
MARCH -2014	8.02	NR	1020	356	280	255	NR
APRIL -2014	8.14	NR	1000	364	282	255	NR
MAY -2014	8.13	7.50	1020	351	270	245	209
JUNE -2014	8.08	NR	959	353	277	251	NR
JULY -2014	8.09	NR	838	347	278	255	NR
AUGUST -2014	8.01	7.52	832	349	286	258	181
SEPTEMBER-2014	8.00	7.75	915	326	273	247	NR
OCTOBER -2014	7.74	7.64	951	336	283	256	181
NOVEMBER -2014	7.59	NR	981	361	291	264	NR
DECEMBER -2014	7.99	NR	1050	346	280	255	NR
Average	7.97	7.64	963	351	281	255	

ND=not detected

NR=not required

SOUTH BAY WATER RECLAMATION PLANT
ANNUAL SEWAGE

Trace Metals

Annual 2014

Analyte:	Aluminum	Aluminum	Antimony	Antimony	Arsenic	Arsenic
MAX MDL Units:	47 UG/L	47 UG/L	2.9 UG/L	2.9 UG/L	.06 UG/L	.06 UG/L
Source:	Influent	Effluent	Influent	Effluent	Influent	Effluent
Month/Limit:						2800
JANUARY -2014	640	ND	ND	ND	0.9	0.7
FEBRUARY -2014	517	ND	ND	ND	1.2	0.8
MARCH -2014	590	ND	ND	ND	1.4	1.1
APRIL -2014	545	ND	ND	ND	0.8	0.8
MAY -2014	279	ND	ND	<2.9	1.0	0.8
JUNE -2014	757	<47	ND	ND	1.0	0.5
JULY -2014	579	ND	ND	ND	0.9	0.6
AUGUST -2014	708	<24	3.1	ND	0.8	0.5
SEPTEMBER -2014	548	67	ND	ND	0.6	0.3
OCTOBER -2014	749	40	ND	<2.4	1.1	0.7
NOVEMBER -2014	646	28	ND	<2.4	1.0	0.5
DECEMBER -2014	771	30	ND	<2.4	0.9	0.5
AVERAGE	611	14	0.3	0.0	1.0	0.7

Analyte:	Barium	Barium	Beryllium	Beryllium	Boron	Boron
MAX MDL Units:	.7 UG/L	.7 UG/L	.05 UG/L	.05 UG/L	7 UG/L	7 UG/L
Source:	Influent	Effluent	Influent	Effluent	Influent	Effluent
Month/Limit:						
JANUARY -2014	89.6	61.6	ND	ND	270	286
FEBRUARY -2014	91.4	61.8	ND	ND	278	286
MARCH -2014	98.6	63.7	<0.022	ND	280	284
APRIL -2014	85.5	58.4	ND	ND	276	295
MAY -2014	83.9	63.4	ND	ND	285	292
JUNE -2014	98.6	60.8	ND	ND	291	282
JULY -2014	83.8	56.8	ND	ND	286	299
AUGUST -2014	70.8	44.9	ND	ND	290	309
SEPTEMBER -2014	102	65.9	ND	ND	324	312
OCTOBER -2014	117	75.2	ND	ND	302	305
NOVEMBER -2014	112	76.8	ND	ND	293	291
DECEMBER -2014	120	86.9	ND	ND	276	284
AVERAGE	96.1	64.7	0.0	0.0	288	294

Analyte:	Cadmium	Cadmium	Chromium	Chromium	Cobalt	Cobalt
MAX MDL Units:	53 UG/L	53 UG/L	1.2 UG/L	1.2 UG/L	85 UG/L	5 UG/L
Source:	Influent	Effluent	Influent	Effluent	Influent	Effluent
Month/Limit:		48		760		
JANUARY -2014	ND	ND	3.2	ND	NR	ND
FEBRUARY -2014	ND	ND	3.3	ND	ND	ND
MARCH -2014	ND	ND	2.6	ND	NR	ND
APRIL -2014	ND	ND	2.4	ND	NR	ND
MAY -2014	ND	ND	1.9	ND	ND	ND
JUNE -2014	ND	ND	3.8	ND	NR	ND
JULY -2014	ND	ND	4.2	1.7	NR	ND
AUGUST -2014	0.28	ND	3.1	1.1	0.9	0.6
SEPTEMBER -2014	0.37	ND	3.5	1.5	NR	0.6
OCTOBER -2014	ND	ND	3.9	1.6	0.9	0.4
NOVEMBER -2014	0.29	ND	13.2	2.0	NR	0.4
DECEMBER -2014	0.33	ND	3.9	1.5	NR	0.6
AVERAGE	0.11	0.0	4.1	0.8	0.5	0.2

ND= not detected

NR= not requested

SOUTH BAY WATER RECLAMATION PLANT
ANNUAL SEWAGE

Trace Metals

Annual 2014

Analyte:	Copper	Copper	Iron	Iron	Lead	Lead
MAX MDL Units:	2.16 UG/L	.16 UG/L	37 UG/L	37 UG/L	2 UG/L	2 UG/L
Source:	Influent	Effluent	Influent	Effluent	Influent	Effluent
Month/Limit:		960				760
JANUARY -2014	91	12	614	<37	ND	ND
FEBRUARY -2014	95	12	616	ND	ND	ND
MARCH -2014	96	9	792	ND	ND	2.3
APRIL -2014	93	11	629	ND	ND	ND
MAY -2014	77	10	503	58	ND	ND
JUNE -2014	96	9	898	54	2.8	ND
JULY -2014	81	10	685	58	5.5	3.0
AUGUST -2014	76	9	707	67	5.3	2.7
SEPTEMBER -2014	85	10	741	69	1.8	ND
OCTOBER -2014	87	9	887	65	2.2	ND
NOVEMBER -2014	81	9	871	61	3.2	2.0
DECEMBER -2014	88	6	892	58	3.6	ND
AVERAGE	87	10	736	41	2.0	0.8

Analyte:	Manganese	Manganese	Mercury	Mercury	Molybdenum	Molybdenum
MAX MDL Units:	.78 UG/L	.78 UG/L	.005 UG/L	.005 UG/L	.89 UG/L	.89 UG/L
Source:	Influent	Effluent	Influent	Effluent	Influent	Effluent
Month/Limit:				15.00		
JANUARY -2014	73.4	19.0	0.146	ND	NR	3.6
FEBRUARY -2014	80.1	27.6	0.094	0.007	5.0	2.6
MARCH -2014	113.0	32.5	0.082	ND	NR	2.9
APRIL -2014	93.8	34.4	0.052	ND	NR	2.8
MAY -2014	76.8	29.1	0.052	0.006	5.8	3.3
JUNE -2014	75.8	38.2	0.085	ND	NR	3.0
JULY -2014	66.7	27.8	0.121	0.005	NR	2.7
AUGUST -2014	62.2	34.7	0.167	0.006	5.6	2.6
SEPTEMBER -2014	59.3	39.9	0.056	0.005	NR	3.0
OCTOBER -2014	60.2	37.6	0.189	ND	6.6	3.3
NOVEMBER -2014	58.4	37.0	0.157	ND	NR	3.1
DECEMBER -2014	65.6	42.6	0.128	ND	NR	3.0
AVERAGE	73.8	33.4	0.111	0.002	5.8	3.0

ND= not detected

NR= not requested

SOUTH BAY WATER RECLAMATION PLANT
ANNUAL SEWAGE

Trace Metals

Annual 2014

Analyte:	Nickel	Nickel	Selenium	Selenium	Silver	Silver
MAX MDL Units:	.53 UG/L	.53 UG/L	.08 UG/L	.08 UG/L	.73 UG/L	.73 UG/L
Source:	Influent	Effluent	Influent	Effluent	Influent	Effluent
Month/Limit:		1900		5700		250
JANUARY -2014	5.88	5.70	0.95	0.58	ND	ND
FEBRUARY -2014	9.72	5.66	1.16	0.54	ND	ND
MARCH -2014	5.20	3.58	1.76	0.66	ND	ND
APRIL -2014	4.44	4.02	1.03	0.64	ND	ND
MAY -2014	4.61	3.75	1.10	0.51	ND	ND
JUNE -2014	4.57	2.61	1.62	0.54	0.9	ND
JULY -2014	5.01	2.96	1.67	0.50	ND	ND
AUGUST -2014	5.39	3.27	1.55	0.51	ND	ND
SEPTEMBER-2014	5.12	3.59	1.62	0.67	ND	ND
OCTOBER -2014	5.59	3.38	0.14	0.72	ND	ND
NOVEMBER -2014	18.20	7.54	1.92	0.83	ND	ND
DECEMBER -2014	4.89	3.36	2.08	0.97	ND	ND
AVERAGE	6.55	4.12	1.38	0.64	0.1	ND
Analyte:	Thallium	Thallium	Vanadium	Vanadium	Zinc	Zinc
MAX MDL Units:	3.9 UG/L	3.9 UG/L	.64 UG/L	.64 UG/L	4.19 UG/L	4.19 UG/L
Source:	Influent	Effluent	Influent	Effluent	Influent	Effluent
Month/Limit:						6900
JANUARY -2014	ND	ND	NR	ND	146	36.0
FEBRUARY -2014	ND	ND	2.0	1.37	161	35.4
MARCH -2014	ND	ND	NR	1.47	160	31.8
APRIL -2014	ND	ND	NR	ND	148	31.7
MAY -2014	ND	ND	0.9	ND	124	29.8
JUNE -2014	ND	ND	NR	ND	180	28.2
JULY -2014	ND	ND	NR	0.60	173	39.2
AUGUST -2014	ND	ND	1.4	0.65	172	33.4
SEPTEMBER-2014	ND	ND	NR	ND	161	29.3
OCTOBER -2014	ND	ND	1.7	0.85	189	29.8
NOVEMBER -2014	ND	ND	NR	0.50	162	28.5
DECEMBER -2014	ND	ND	NR	<0.45	178	24.2
AVERAGE	0.0	0.0	1.5	0.45	163	31.4

ND= not detected

NR= not requested

SOUTH BAY WATER RECLAMATION PLANT
Annual Sewage Cations

Annual 2014

Analyte:	Calcium		Magnesium		Lithium			
	MDL/Units:	.04 mg/L	INF	EFF	INF	.1 mg/L	INF	.002 mg/L
Source:								
JANUARY -2014		72.4	70.4		32.4	31.1	0.040	0.040
FEBRUARY -2014		70.1	70.0		32.5	31.4	0.035	0.033
MARCH -2014		75.1	76.7		34.7	34.8	0.037	0.033
APRIL -2014		70.8	72.1		32.9	32.7	0.034	0.030
MAY -2014		71.8	73.7		32.9	32.4	0.036	0.034
JUNE -2014		67.0	65.6		31.7	30.0	0.031	0.028
JULY -2014		63.9	58.9		25.0	24.8	0.033	0.030
AUGUST -2014		48.5	48.9		19.5	18.6	0.031	0.024
SEPTEMBER-2014		65.0	67.8		23.9	24.5	0.051	0.043
OCTOBER -2014		70.5	74.2		26.8	26.3	0.046	0.042
NOVEMBER -2014		72.1	77.7		24.8	27.6	0.054	0.041
DECEMBER -2014		83.7	79.8		30.7	27.9	0.056	0.047
Average:		69.2	69.7		29.0	28.5	0.040	0.035

Analyte:	Sodium		Potassium			
	MDL/Units:	1 mg/L	INF	EFF	.3 mg/L	
Source:						
JANUARY -2014		239	238		20.8	19.2
FEBRUARY -2014		200	195		18.7	17.8
MARCH -2014		211	209		18.7	18.1
APRIL -2014		201	215		20.2	18.8
MAY -2014		206	210		19.5	17.8
JUNE -2014		197	196		18.6	16.7
JULY -2014		172	189		18.5	18.0
AUGUST -2014		148	152		16.5	14.8
SEPTEMBER-2014		161	179		17.9	17.3
OCTOBER -2014		185	192		17.9	16.6
NOVEMBER -2014		174	201		18.4	19.1
DECEMBER -2014		191	181		21.3	17.7
Average:		190	196		18.9	17.7

ND=not detected

INF= Influent
EFF= Effluent

SOUTH BAY WATER RECLAMATION PLANT
ANNUAL SEWAGE

Anions

Annual 2014

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 -2014	0.3	0.4	246	295	0.37	0.50
FEBRUARY -2014	0.4	0.5	243	235	0.28	0.56
MARCH -2014	0.4	0.4	266	263	0.36	0.56
APRIL -2014	0.3	0.4	249	254	0.25	0.54
MAY -2014	0.3	0.4	244	248	0.32	0.56
JUNE -2014	0.3	0.4	240	239	0.29	0.58
JULY -2014	0.2	0.3	206	214	0.35	0.63
AUGUST -2014	0.2	0.2	198	196	0.32	0.50
SEPTEMBER-2014	0.2	0.2	199	208	0.49	0.53
OCTOBER -2014	0.3	0.1	226	228	0.48	0.58
NOVEMBER -2014	0.2	0.2	198	215	0.46	0.57
DECEMBER -2014	0.2	0.1	214	200	0.42	0.58
AVERAGE	0.3	0.3	227	233	0.37	0.56

Analyte:	Nitrate	Nitrate	O-Phosphate	O-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 -2014	0.53	52.8	11.5	7.7	140	183
FEBRUARY -2014	0.07	36.9	11.3	6.8	152	182
MARCH -2014	0.99	36.0	10.7	5.9	145	191
APRIL -2014	0.90	42.3	10.7	2.7	139	176
MAY -2014	0.57	38.9	10.4	1.1	138	181
JUNE -2014	2.42	30.4	10.3	1.1	109	162
JULY -2014	3.02	45.3	10.1	2.3	115	163
AUGUST -2014	1.38	36.2	10.7	3.2	116	135
SEPTEMBER-2014	3.71	23.4	11.1	4.5	159	192
OCTOBER -2014	2.92	17.6	10.8	0.8	148	211
NOVEMBER -2014	2.40	35.6	11.0	0.6	181	220
DECEMBER -2014	3.14	27.5	11.3	0.8	204	240
AVERAGE	1.84	35.2	10.8	3.1	146	186

ND= not detected

SOUTH BAY WATER RECLAMATION PLANT
ANNUAL SEWAGE

Ammonia-Nitrogen and Total Cyanides

Annual 2014

Analyte:	Ammonia-N	Ammonia-N	Total Cyanides	Total Cyanides
MDL/Units:	.3 MG/L	.3 MG/L	.002 MG/L	.002 MG/L
Source:	SB_INF_02	SB_OUTFALL_01	SB_INF_02	SB_OUTFALL_01
JANUARY -2014	33.1	ND	0.002	ND
FEBRUARY -2014	36.6	ND	ND	ND
MARCH -2014	32.3	ND	ND	ND
APRIL -2014	29.0	ND	ND	0.002
MAY -2014	31.4	ND	ND	ND
JUNE -2014	32.3	0.4	ND	0.003
JULY -2014	31.5	ND	ND	0.002
AUGUST -2014	31.2	ND	ND	<0.002
SEPTEMBER-2014	31.5	ND	ND	ND
OCTOBER -2014	34.6	0.6	ND	ND
NOVEMBER -2014	35.4	0.8	ND	ND
DECEMBER -2014	36.1	5.1	ND	ND
Average:	32.9	0.6	0.0002	0.001

ND= not detected

SOUTH BAY WATER RECLAMATION PLANT
Radioactivity
Effluent to the Ocean (SB_OUTFALL_01)

Analyzed by: TestAmerica Laboratories Richland

Annual 2014

Month	Gross Alpha Radiation	Gross Beta Radiation
JANUARY -2014	5.9 ± 5.4	19.4 ± 5.3
FEBRUARY -2014	4.8 ± 5.2	12.7 ± 4.7
MARCH -2014	2.3 ± 3.9	17.0 ± 4.5
APRIL -2014	4.4 ± 6.7	21.5 ± 5.7
MAY -2014	3.0 ± 5.6	20.5 ± 5.3
JUNE -2014	-2.4 ± 3.9	9.5 ± 4.8
JULY -2014	-1.2 ± 4.1	21.9 ± 7.4
AUGUST -2014	1.8 ± 4.2	18.8 ± 4.4
SEPTEMBER-2014	2.7 ± 4.8	19.9 ± 5.0
OCTOBER -2014	4.2 ± 3.9	20.3 ± 4.2
NOVEMBER -2014	1.2 ± 3.6	17.3 ± 3.8
DECEMBER -2014	4.4 ± 4.3	24.5 ± 4.7
AVERAGE	2.6 ± 4.6	18.6 ± 5.0

Units in picocuries/liter (pCi/L)

SOUTH BAY WATER RECLAMATION PLANT
SEWAGE ANNUAL - Chlorinated Pesticide Analysis

Annual 2014

Source: Date: Analyte	MDL	Units	EFFLUENT												Avg
			JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
Aldrin	4	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dieldrin	4.3	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BHC, Alpha isomer	.2	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BHC, Beta isomer	2	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	2	ND	ND	<2
BHC, Gamma isomer	.34	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BHC, Delta isomer	2	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p,p-DDD	4	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p,p-DDE	1.4	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p,p-DDT	3	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o,p-DDD	4	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o,p-DDE	2	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o,p-DDT	2.4	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor	.6	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor epoxide	9.4	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Alpha (cis) Chlordane	1.4	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Gamma (trans) Chlordane	1.3	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Alpha Chlordene	0	NG/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Gamma Chlordene	0	NG/L	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oxychlordane	2	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trans Nonachlor	1.1	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cis Nonachlor	4	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Alpha Endosulfan	1.5	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Beta Endosulfan	3.1	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan Sulfate	7	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Endrin	6	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Endrin aldehyde	5.4	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Mirex	2.3	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methoxychlor	20	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toxaphene	250	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 1016	250	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 1221	2000	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 1232	750	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 1242	250	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 1248	250	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 1254	500	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 1260	500	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PCB 1262	500	NG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aldrin + Dieldrin	4.3	NG/L	0	0	0	0	0	0	0	0	0	0	0	0	0
Hexachlorocyclohexanes	2	NG/L	0	0	0	0	0	0	0	0	0	2	0	0	0
DDT and derivatives	4	NG/L	0	0	0	0	0	0	0	0	0	0	0	0	0
Chlordane + related cmpds.	2	NG/L	0	0	0	0	0	0	0	0	0	0	0	0	0
Polychlorinated biphenyls	2000	NG/L	0	0	0	0	0	0	0	0	0	0	0	0	0
Endosulfans	7	NG/L	0	0	0	0	0	0	0	0	0	0	0	0	0
Heptachlors	9.4	NG/L	0	0	0	0	0	0	0	0	0	0	0	0	0
Chlorinated Hydrocarbons	2000	NG/L	0	0	0	0	0	0	0	0	0	2	0	0	0

ND=not detected
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

Annual 2014

Source: Date: Analyte	MDL	Units	INFLUENT				Avg
			FEB	MAY	AUG	OCT	
Aldrin	4	NG/L	ND	ND	ND	ND	ND
Dieldrin	4.3	NG/L	ND	ND	ND	ND	ND
BHC, Alpha isomer	.2	NG/L	ND	ND	ND	ND	ND
BHC, Beta isomer	2	NG/L	ND	ND	ND	ND	ND
BHC, Gamma isomer	.34	NG/L	ND	ND	ND	ND	ND
BHC, Delta isomer	2	NG/L	ND	ND	ND	ND	ND
p,p-DDD	4	NG/L	ND	ND	ND	ND	ND
p,p-DDE	1.4	NG/L	ND	33	ND	ND	8
p,p-DDT	3	NG/L	ND	ND	ND	ND	ND
o,p-DDD	4	NG/L	ND	ND	ND	ND	ND
o,p-DDE	2	NG/L	ND	ND	ND	ND	ND
o,p-DDT	2.4	NG/L	ND	ND	ND	ND	ND
Heptachlor	.6	NG/L	ND	ND	ND	ND	ND
Heptachlor epoxide	9.4	NG/L	ND	ND	ND	ND	ND
Alpha (cis) Chlordane	1.4	NG/L	ND	ND	ND	ND	ND
Gamma (trans) Chlordane	1.3	NG/L	ND	ND	ND	ND	ND
Alpha Chlordene	0	NG/L	NA	NA	NA	NA	NA
Gamma Chlordene	0	NG/L	NA	NA	NA	NA	NA
Oxychlordane	2	NG/L	ND	ND	ND	ND	ND
Trans Nonachlor	1.1	NG/L	ND	ND	ND	ND	ND
Cis Nonachlor	4	NG/L	ND	ND	ND	ND	ND
Alpha Endosulfan	1.5	NG/L	ND	ND	ND	ND	ND
Beta Endosulfan	3.1	NG/L	ND	ND	ND	ND	ND
Endosulfan Sulfate	7	NG/L	ND	ND	ND	ND	ND
Endrin	6	NG/L	ND	ND	ND	ND	ND
Endrin aldehyde	5.4	NG/L	ND	ND	ND	ND	ND
Mirex	2.3	NG/L	ND	ND	ND	ND	ND
Methoxychlor	20	NG/L	ND	ND	ND	ND	ND
Toxaphene	250	NG/L	ND	ND	ND	ND	ND
PCB 1016	250	NG/L	ND	ND	ND	ND	ND
PCB 1221	2000	NG/L	ND	ND	ND	ND	ND
PCB 1232	750	NG/L	ND	ND	ND	ND	ND
PCB 1242	250	NG/L	ND	ND	ND	ND	ND
PCB 1248	250	NG/L	ND	ND	ND	ND	ND
PCB 1254	500	NG/L	ND	ND	ND	ND	ND
PCB 1260	500	NG/L	ND	ND	ND	ND	ND
PCB 1262	500	NG/L	ND	ND	ND	ND	ND
Aldrin + Dieldrin	4.3	NG/L	0	0	0	0	0
Hexachlorocyclohexanes	2	NG/L	0	0	0	0	0
DDT and derivatives	4	NG/L	0	33	0	0	8
Chlordane + related cmpds.	2	NG/L	0	0	0	0	0
Polychlorinated biphenyls	2000	NG/L	0	0	0	0	0
Endosulfans	7	NG/L	0	0	0	0	0
Heptachlors	9.4	NG/L	0	0	0	0	0
Chlorinated Hydrocarbons	2000	NG/L	0	33	0	0	8

ND=not detected
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
Organophosphorus Pesticides EPA Method 614/622 (with additions)

INFLUENT(SB_INF_02) & EFFLUENT(SB_OUTFALL_01)

Annual 2014

Source:		Effluent	Effluent*	Influent	Influent*	
Date:		06-MAY-2014	07-OCT-2014	06-MAY-2014	07-OCT-2014	
Analyte	MDL	Units	P712566	P734804	P712561	P734799
Demeton O	.15	UG/L	ND	ND	ND	ND
Demeton S	.403	UG/L	ND	ND	ND	ND
Diazinon	.03	UG/L	ND	ND	ND	ND
Guthion	.15	UG/L	ND	ND	ND	ND
Malathion	.051	UG/L	ND	ND	ND	ND
Parathion	.032	UG/L	ND	ND	ND	ND
Dichlorvos	.05	UG/L	ND	ND	ND	ND
Disulfoton	.175	UG/L	ND	ND	ND	ND
Dimethoate	.189	UG/L	ND	ND	ND	ND
Stirophos	.034	UG/L	ND	ND	DNQ0.040	ND
Coumaphos	.15	UG/L	ND	ND	ND	ND
Chlorpyrifos	.034	UG/L	ND	ND	ND	ND
Thiophosphorus Pesticides	.15	UG/L	0.0	0.0	0.0	0.0
Demeton -O, -S	.403	UG/L	0.0	0.0	0.0	0.0
Total Organophosphorus Pesticides	.403	UG/L	0.0	0.0	0.0	0.0

*= These samples were analyzed with a GCMS-TQ.

ND= not detected

DNQ= Detected not quantifiable, result value less than minimum level (ML) but greater or equal MDL.

SOUTH BAY WATER RECLAMATION PLANT
ANNUAL SEWAGE - Tributyl Tin Analysis

Annual 2014

Source: **EFFLUENT**
Date: FEB MAY AUG OCT
Analyte MDL Units Average
===== == == ====== ====== =====
Dibutyltin 7 UG/L ND ND ND ND
Monobutyltin 16 UG/L ND ND ND ND
Tributyltin 2 UG/L ND ND ND ND

Source: **INFLUENT**
Date: FEB MAY AUG OCT
Analyte MDL Units Average
===== == == ====== ====== =====
Dibutyltin 7 UG/L ND ND ND ND
Monobutyltin 16 UG/L ND ND ND ND
Tributyltin 2 UG/L ND ND ND ND

ND=not detected

SOUTH BAY WATER RECLAMATION PLANT
SEWAGE ANNUAL - Acid Extractables

Annual 2014

Source:

Analyte	MDL	Units	EFFLUENT												
			JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Avg
2-Chlorophenol	1.32	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dichlorophenol	1.01	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Chloro-3-methylphenol	1.67	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4,6-Trichlorophenol	1.65	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	1.12	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenol	1.76	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Nitrophenol	1.55	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dimethylphenol	2.01	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dinitrophenol	2.16	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Nitrophenol	1.14	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methyl-4,6-dinitrophenol	1.52	UG/L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Chlorinated Phenols	1.67	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	0.0
Total Non-Chlorinated Phenols	2.16	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	0.0
Total Phenols	2.16	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	0.0

Additional analytes determined

| 2-Methylphenol | 2.15 | UG/L | ND |
|------------------------------------|------|------|----|----|----|----|----|----|----|----|----|----|----|----|
| 3-Methylphenol(4-MP is unresolved) | | UG/L | NA |
| 4-Methylphenol(3-MP is unresolved) | 2.11 | UG/L | ND |
| 2,4,5-Trichlorophenol | 1.66 | UG/L | ND |

Source:

Analyte	MDL	Units	INFLUENT				
			FEB	MAY	AUG	OCT	Avg
2-Chlorophenol	1.32	UG/L	ND	ND	ND	ND	ND
2,4-Dichlorophenol	1.01	UG/L	ND	ND	ND	ND	ND
4-Chloro-3-methylphenol	1.67	UG/L	ND	ND	ND	ND	ND
2,4,6-Trichlorophenol	1.65	UG/L	ND	ND	ND	ND	ND
Pentachlorophenol	1.12	UG/L	ND	ND	ND	ND	ND
Phenol	1.76	UG/L	39.4	39.8	47.0	48.3	43.6
2-Nitrophenol	1.55	UG/L	ND	ND	ND	ND	ND
2,4-Dimethylphenol	2.01	UG/L	ND	ND	ND	ND	ND
2,4-Dinitrophenol	2.16	UG/L	ND	ND	ND	ND	ND
4-Nitrophenol	1.14	UG/L	ND	ND	ND	ND	ND
2-Methyl-4,6-dinitrophenol	1.52	UG/L	ND	ND	ND	ND	ND
Total Chlorinated Phenols	1.67	UG/L	0.0	0.0	0.0	0.0	0.0
Total Non-Chlorinated Phenols	2.16	UG/L	39.4	39.8	47.0	48.3	43.6
Total Phenols	2.16	UG/L	39.4	39.8	47.0	48.3	43.6

Additional analytes determined

2-Methylphenol	2.15	UG/L	ND	ND	ND	ND	ND
3-Methylphenol(4-MP is unresolved)		UG/L	NA	NA	NA	NA	NA
4-Methylphenol(3-MP is unresolved)	2.11	UG/L	111	118	111	116	114
2,4,5-Trichlorophenol	1.66	UG/L	ND	ND	ND	ND	ND

ND=not detected

NA=not analyzed

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

Annual 2014

Source:

EFFLUENT

Analyte	MDL	Units	FEB	MAY	AUG	OCT	AVG
Bis-(2-chloroethyl) ether	1.38	UG/L	ND	ND	ND	ND	ND
Bis-(2-chloroisopropyl) ether	1.16	UG/L	ND	ND	ND	ND	ND
N-nitrosodi-n-propylamine	1.16	UG/L	ND	ND	ND	ND	ND
Nitrobenzene	1.6	UG/L	ND	ND	ND	ND	ND
Hexachloroethane	1.32	UG/L	ND	ND	ND	ND	ND
Isophorone	1.53	UG/L	ND	ND	ND	ND	ND
Bis-(2-chloroethoxy) methane	1.01	UG/L	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	1.52	UG/L	ND	ND	ND	ND	ND
Naphthalene	1.65	UG/L	ND	ND	ND	ND	ND
Hexachlorobutadiene	1.64	UG/L	ND	ND	ND	ND	ND
Hexachlorocyclopentadiene	1.25	UG/L	ND	ND	ND	ND	ND
Acenaphthylene	1.77	UG/L	ND	ND	ND	ND	ND
Dimethyl phthalate	1.44	UG/L	ND	ND	ND	ND	ND
2,6-Dinitrotoluene	1.53	UG/L	ND	ND	ND	ND	ND
Acenaphthene	1.8	UG/L	ND	ND	ND	ND	ND
2,4-Dinitrotoluene	1.36	UG/L	ND	ND	ND	ND	ND
Fluorene	1.61	UG/L	ND	ND	ND	ND	ND
4-Chlorophenyl phenyl ether	1.57	UG/L	ND	ND	ND	ND	ND
Diethyl phthalate	3.05	UG/L	ND	ND	ND	ND	ND
N-nitrosodiphenylamine	3.48	UG/L	ND	ND	ND	ND	ND
4-Bromophenyl phenyl ether	1.4	UG/L	ND	ND	ND	ND	ND
Hexachlorobenzene	1.48	UG/L	ND	ND	ND	ND	ND
Phenanthrone	1.34	UG/L	ND	ND	ND	ND	ND
Anthracene	1.29	UG/L	ND	ND	ND	ND	ND
Di-n-butyl phthalate	3.96	UG/L	ND	ND	ND	ND	ND
N-nitrosodimethylamine	1.27	UG/L	ND	ND	ND	ND	ND
Fluoranthene	1.33	UG/L	ND	ND	ND	ND	ND
Pyrene	1.43	UG/L	ND	ND	ND	ND	ND
Benzidine	1.52	UG/L	ND	ND	ND	ND	ND
Butyl benzyl phthalate	2.84	UG/L	ND	ND	ND	ND	ND
Chrysene	1.16	UG/L	ND	ND	ND	ND	ND
Benzo[a]anthracene	1.1	UG/L	ND	ND	ND	ND	ND
Bis-(2-ethylhexyl) phthalate	8.96	UG/L	ND	ND	ND	ND	ND
Di-n-octyl phthalate	1	UG/L	ND	ND	ND	ND	ND
3,3-Dichlorobenzidine	2.44	UG/L	ND	ND	ND	ND	ND
Benzo[k]fluoranthene	1.49	UG/L	ND	ND	ND	ND	ND
3,4-Benzo(b)fluoranthene	1.35	UG/L	ND	ND	ND	ND	ND
Benzo[a]pyrene	1.25	UG/L	ND	ND	ND	ND	ND
Indeno(1,2,3-CD)pyrene	1.14	UG/L	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	1.01	UG/L	ND	ND	ND	ND	ND
Benzo[g,h,i]perylene	1.09	UG/L	ND	ND	ND	ND	ND
1,2-Diphenylhydrazine	1.37	UG/L	ND	ND	ND	ND	ND
Polynuc. Aromatic Hydrocarbons	1.77	UG/L	0.0	0.0	0.0	0.0	0.0
Base/Neutral Compounds	8.96	UG/L	0.0	0.0	0.0	0.0	0.0

Additional analytes determined

1-Methylnaphthalene	2.18	UG/L	ND	ND	ND	ND	ND
2-Methylnaphthalene	2.14	UG/L	ND	ND	ND	ND	ND
2,6-Dimethylnaphthalene	2.16	UG/L	ND	ND	ND	ND	ND
2,3,5-Trimethylnaphthalene	2.18	UG/L	ND	ND	ND	ND	ND
1-Methylphenanthrene	1.46	UG/L	ND	ND	ND	ND	ND
Benzo[e]pyrene	1.44	UG/L	ND	ND	ND	ND	ND
Perylene	1.41	UG/L	ND	ND	ND	ND	ND
Biphenyl	2.29	UG/L	ND	ND	ND	ND	ND

ND=not detected

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

Annual 2014

Source:

INFLUENT

Analyte	MDL	Units	FEB	MAY	AUG	OCT	AVG
Bis-(2-chloroethyl) ether	1.38	UG/L	ND	ND	ND	ND	ND
Bis-(2-chloroisopropyl) ether	1.16	UG/L	ND	ND	ND	ND	ND
N-nitrosodi-n-propylamine	1.16	UG/L	ND	ND	ND	ND	ND
Nitrobenzene	1.6	UG/L	ND	ND	ND	ND	ND
Hexachloroethane	1.32	UG/L	ND	ND	ND	ND	ND
Isophorone	1.53	UG/L	ND	ND	ND	ND	ND
Bis-(2-chloroethoxy) methane	1.01	UG/L	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	1.52	UG/L	ND	ND	ND	ND	ND
Naphthalene	1.65	UG/L	ND	ND	ND	ND	ND
Hexachlorobutadiene	1.64	UG/L	ND	ND	ND	ND	ND
Hexachlorocyclopentadiene	1.25	UG/L	ND	ND	ND	ND	ND
Acenaphthylene	1.77	UG/L	ND	ND	ND	ND	ND
Dimethyl phthalate	1.44	UG/L	ND	ND	ND	ND	ND
2,6-Dinitrotoluene	1.53	UG/L	ND	ND	ND	ND	ND
Acenaphthene	1.8	UG/L	ND	ND	ND	ND	ND
2,4-Dinitrotoluene	1.36	UG/L	ND	ND	ND	ND	ND
Fluorene	1.61	UG/L	ND	ND	ND	ND	ND
4-Chlorophenyl phenyl ether	1.57	UG/L	ND	ND	ND	ND	ND
Diethyl phthalate	3.05	UG/L	5.7	4.5	5.4	5.9	5.4
N-nitrosodiphenylamine	3.48	UG/L	ND	ND	ND	ND	ND
4-Bromophenyl phenyl ether	1.4	UG/L	ND	ND	ND	ND	ND
Hexachlorobenzene	1.48	UG/L	ND	ND	ND	ND	ND
Phenanthrone	1.34	UG/L	ND	ND	ND	ND	ND
Anthracene	1.29	UG/L	ND	ND	ND	ND	ND
Di-n-butyl phthalate	3.96	UG/L	ND	ND	4.0	ND	1.0
N-nitrosodimethylamine	1.27	UG/L	ND	ND	ND	ND	ND
Fluoranthene	1.33	UG/L	ND	ND	ND	ND	ND
Pyrene	1.43	UG/L	ND	ND	ND	ND	ND
Benzidine	1.52	UG/L	ND	ND	ND	ND	ND
Butyl benzyl phthalate	2.84	UG/L	ND	ND	3.4	2.9	1.6
Chrysene	1.16	UG/L	ND	ND	ND	ND	ND
Benzo[a]anthracene	1.1	UG/L	ND	ND	ND	ND	ND
Bis-(2-ethylhexyl) phthalate	8.96	UG/L	17.2	28.8	19.6	18.0	20.9
Di-n-octyl phthalate	1	UG/L	ND	ND	ND	ND	ND
3,3-Dichlorobenzidine	2.44	UG/L	ND	ND	ND	ND	ND
Benzo[k]fluoranthene	1.49	UG/L	ND	ND	ND	ND	ND
3,4-Benzo(b)fluoranthene	1.35	UG/L	ND	ND	ND	ND	ND
Benzo[a]pyrene	1.25	UG/L	ND	ND	ND	ND	ND
Indeno(1,2,3-CD)pyrene	1.14	UG/L	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	1.01	UG/L	ND	ND	ND	ND	ND
Benzo[g,h,i]perylene	1.09	UG/L	ND	ND	ND	ND	ND
1,2-Diphenylhydrazine	1.37	UG/L	ND	ND	ND	ND	ND
Polynuc. Aromatic Hydrocarbons	1.77	UG/L	0.0	0.0	0.0	0.0	0.0
Base/Neutral Compounds	8.96	UG/L	22.9	33.3	32.4	26.8	28.9

Additional analytes determined

1-Methylnaphthalene	2.18	UG/L	ND	ND	ND	ND	ND
2-Methylnaphthalene	2.14	UG/L	ND	ND	ND	ND	ND
2,6-Dimethylnaphthalene	2.16	UG/L	ND	ND	ND	ND	ND
2,3,5-Trimethylnaphthalene	2.18	UG/L	ND	ND	ND	ND	ND
1-Methylphenanthrene	1.46	UG/L	ND	ND	ND	ND	ND
Benzo[e]pyrene	1.44	UG/L	ND	ND	ND	ND	ND
Perylene	1.41	UG/L	ND	ND	ND	ND	ND
Biphenyl	2.29	UG/L	ND	ND	ND	ND	ND

ND=not detected

SOUTH BAY WATER RECLAMATION PLANT
SEWAGE ANNUAL Priority Pollutants Purgeables

Annual 2014

Source:

EFFLUENT

Analyte	MDL	Units	FEB	MAY	AUG	OCT	AVG
Dichlorodifluoromethane	.66	UG/L	ND	ND	ND	ND	ND
Chloromethane	.5	UG/L	ND	1.5	ND	ND	0.4
Vinyl chloride	.4	UG/L	ND	ND	ND	ND	ND
Bromomethane	.7	UG/L	ND	ND	ND	ND	ND
Chloroethane	.9	UG/L	ND	ND	ND	ND	ND
Trichlorofluoromethane	.3	UG/L	ND	ND	ND	ND	ND
Acrolein	1.3	UG/L	ND	ND	ND	ND	ND
1,1-Dichloroethane	.4	UG/L	ND	ND	ND	ND	ND
Methylene chloride	.3	UG/L	ND	DNQ0.7	2.2	ND	0.6
trans-1,2-dichloroethene	.6	UG/L	ND	ND	ND	ND	ND
1,1-Dichloroethene	.4	UG/L	ND	ND	ND	ND	ND
Acrylonitrile	.7	UG/L	ND	ND	ND	ND	ND
Chloroform	.2	UG/L	DNQ0.8	20.3	DNQ0.9	ND	5.1
1,1,1-Trichloroethane	.4	UG/L	ND	ND	ND	ND	ND
Carbon tetrachloride	.4	UG/L	ND	ND	ND	ND	ND
Benzene	.4	UG/L	ND	ND	ND	ND	ND
1,2-Dichloroethane	.5	UG/L	ND	ND	ND	ND	ND
Trichloroethene	.7	UG/L	ND	ND	ND	ND	ND
1,2-Dichloropropane	.3	UG/L	ND	ND	ND	ND	ND
Bromodichloromethane	.5	UG/L	ND	20.9	ND	ND	5.2
2-Chloroethylvinyl ether	1.1	UG/L	ND	ND	ND	ND	ND
cis-1,3-dichloropropene	.3	UG/L	ND	ND	ND	ND	ND
Toluene	.4	UG/L	ND	ND	ND	ND	ND
trans-1,3-dichloropropene	.5	UG/L	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	.5	UG/L	ND	ND	ND	ND	ND
Tetrachloroethene	1.1	UG/L	ND	ND	ND	ND	ND
Dibromochloromethane	.6	UG/L	ND	12.3	ND	ND	3.1
Chlorobenzene	.4	UG/L	ND	ND	ND	ND	ND
Ethylbenzene	.3	UG/L	ND	ND	ND	ND	ND
Bromoform	.5	UG/L	ND	1.9	ND	ND	0.5
1,1,2,2-Tetrachloroethane	.5	UG/L	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	.5	UG/L	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	.4	UG/L	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	.4	UG/L	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	1.52	UG/L	ND	ND	ND	ND	ND
Halomethane Purgeable Cmpnds	.7	UG/L	0.0	3.4	0.0	0.0	0.9
Total Dichlorobenzenes	.5	UG/L	0.0	0.0	0.0	0.0	0.0
Total Chloromethanes	.5	UG/L	0.0	21.8	2.2	0.0	6.6
Purgeable Compounds	1.3	UG/L	0.0	56.9	2.2	0.0	15.4

Additional analytes determined

Analyte	MDL	Units	FEB	MAY	AUG	OCT	AVG
Methyl Iodide	.6	UG/L	ND	ND	ND	ND	ND
Carbon disulfide	.6	UG/L	ND	ND	ND	ND	ND
Acetone	4.5	UG/L	ND	ND	ND	ND	ND
Allyl chloride	.6	UG/L	ND	ND	ND	ND	ND
Methyl tert-butyl ether	.4	UG/L	ND	ND	ND	ND	ND
Chloroprene	.4	UG/L	ND	ND	ND	ND	ND
1,2-Dibromoethane	.3	UG/L	ND	ND	ND	ND	ND
2-Butanone	6.3	UG/L	ND	ND	ND	ND	ND
Methyl methacrylate	.8	UG/L	ND	ND	ND	ND	ND
2-Nitropropane	12	UG/L	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	1.3	UG/L	ND	ND	ND	ND	ND
meta,para xylenes	.6	UG/L	ND	ND	ND	ND	ND
ortho-xylene	.4	UG/L	ND	ND	ND	ND	ND
Isopropylbenzene	.3	UG/L	ND	ND	ND	ND	ND
Styrene	.3	UG/L	ND	ND	ND	ND	ND
Benzyl chloride	1.1	UG/L	ND	ND	ND	ND	ND

ND= not detected

DNQ= (Detected but not quantified). Estimated analyte concentration below calibration range.

SOUTH BAY WATER RECLAMATION PLANT
SEWAGE ANNUAL Priority Pollutants Purgeables

Annual 2014

Source:

INFLUENT

Analyte	MDL	Units	FEB	MAY	AUG	OCT	AVG
Dichlorodifluoromethane	.66	UG/L	ND	ND	ND	ND	ND
Chloromethane	.5	UG/L	ND	ND	ND	ND	ND
Vinyl chloride	.4	UG/L	ND	ND	ND	ND	ND
Bromomethane	.7	UG/L	ND	ND	ND	ND	ND
Chloroethane	.9	UG/L	ND	ND	ND	ND	ND
Trichlorofluoromethane	.3	UG/L	ND	ND	ND	ND	ND
Acrolein	1.3	UG/L	ND	ND	ND	ND	ND
1,1-Dichloroethane	.4	UG/L	ND	ND	ND	ND	ND
Methylene chloride	.3	UG/L	ND	DNQ1.0	1.8	DNQ0.9	0.5
trans-1,2-dichloroethene	.6	UG/L	ND	ND	ND	ND	ND
1,1-Dichloroethene	.4	UG/L	ND	ND	ND	ND	ND
Acrylonitrile	.7	UG/L	ND	ND	ND	ND	ND
Chloroform	.2	UG/L	1.8	3.4	2.0	1.7	2.2
1,1,1-Trichloroethane	.4	UG/L	ND	ND	ND	ND	ND
Carbon tetrachloride	.4	UG/L	ND	ND	ND	ND	ND
Benzene	.4	UG/L	ND	ND	ND	ND	ND
1,2-Dichloroethane	.5	UG/L	ND	ND	ND	ND	ND
Trichloroethene	.7	UG/L	ND	ND	ND	ND	ND
1,2-Dichloropropane	.3	UG/L	ND	ND	ND	ND	ND
Bromodichloromethane	.5	UG/L	ND	ND	ND	ND	ND
2-Chloroethylvinyl ether	1.1	UG/L	ND	ND	ND	ND	ND
cis-1,3-dichloropropene	.3	UG/L	ND	ND	ND	ND	ND
Toluene	.4	UG/L	3.4	DNQ0.7	DNQ0.7	DNQ0.9	0.9
trans-1,3-dichloropropene	.5	UG/L	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	.5	UG/L	ND	ND	ND	ND	ND
Tetrachloroethene	1.1	UG/L	ND	ND	ND	ND	ND
Dibromo-chloromethane	.6	UG/L	ND	ND	ND	ND	ND
Chlorobenzene	.4	UG/L	ND	ND	ND	ND	ND
Ethylbenzene	.3	UG/L	DNQ1.0	ND	ND	ND	0.0
Bromoform	.5	UG/L	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	.5	UG/L	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	.5	UG/L	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	.4	UG/L	DNQ0.4	ND	ND	ND	0.0
1,2-Dichlorobenzene	.4	UG/L	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	1.52	UG/L	ND	ND	ND	ND	ND
Halomethane Purgeable Cmpnds	.7	UG/L	0.0	0.0	0.0	0.0	0.0
Total Dichlorobenzenes	.5	UG/L	0.0	0.0	0.0	0.0	0.0
Total Chloromethanes	.5	UG/L	1.8	3.4	3.8	1.7	2.7
Purgeable Compounds	1.3	UG/L	5.2	3.4	3.8	1.7	3.6

Additional analytes determined

Methyl Iodide	.6	UG/L	ND	ND	ND	ND	ND
Carbon disulfide	.6	UG/L	2.2	4.3	2.7	1.6	2.7
Acetone	4.5	UG/L	292	115	207	139	188
Allyl chloride	.6	UG/L	ND	ND	ND	ND	ND
Methyl tert-butyl ether	.4	UG/L	ND	ND	DNQ0.6	ND	0.0
Chloroprene	.4	UG/L	ND	ND	ND	ND	ND
1,2-Dibromoethane	.3	UG/L	ND	ND	ND	ND	ND
2-Butanone	6.3	UG/L	ND	ND	ND	ND	ND
Methyl methacrylate	.8	UG/L	ND	ND	ND	ND	ND
2-Nitropropane	12	UG/L	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	1.3	UG/L	ND	ND	ND	ND	ND
meta,para xylenes	.6	UG/L	4.2	ND	ND	ND	1.1
ortho-xylene	.4	UG/L	DNQ1.9	ND	ND	ND	0.0
Isopropylbenzene	.3	UG/L	ND	ND	ND	ND	ND
Styrene	.3	UG/L	ND	ND	ND	ND	ND
Benzyl chloride	1.1	UG/L	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	1.52	UG/L	ND	ND	ND	ND	ND

ND= not detected

DNQ= (Detected but not quantified). Estimated analyte concentration below calibration range.

SOUTH BAY WATER RECLAMATION PLANT
Annual Sewage Dioxin and Furan Analysis

Annual 2014

Source:			INF	INF	INF	INF	
Date:			JAN	FEB	MAR	APR	
Analyte	MDL	Units	Equiv	P692147	P695802	P702467	P708735
2,3,7,8-tetra CDD	.155	PG/L	1.000	ND	ND	ND	ND
1,2,3,7,8-penta CDD	.254	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8_hexa_CDD	.31	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDD	.315	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDD	.287	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDD	.53	PG/L	0.010	DNQ11.5	DNQ16.9	DNQ13.7	DNQ23.9
octa CDD	1.12	PG/L	0.001	130	140	120	400
2,3,7,8-tetra CDF	.164	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8-penta CDF	.187	PG/L	0.050	ND	ND	ND	ND
2,3,4,7,8-penta CDF	.178	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8-hexa CDF	.19	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDF	.211	PG/L	0.100	DNQ0.809	ND	DNQ1.54	ND
1,2,3,7,8,9-hexa CDF	.265	PG/L	0.100	ND	ND	ND	ND
2,3,4,6,7,8-hexa CDF	.217	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDF	.225	PG/L	0.010	DNQ2.67	DNQ3.48	DNQ3.61	DNQ6.43
1,2,3,4,7,8,9-hepta CDF	.317	PG/L	0.010	ND	ND	ND	ND
octa CDF	.579	PG/L	0.001	DNQ6.5	DNQ7.18	DNQ7.24	DNQ29.5

Source:			INF	INF	INF	INF	
Date:			MAY	JUN	JUL	AUG	
Analyte	MDL	Units	Equiv	P712561	P717885	P721731	P723812
2,3,7,8-tetra CDD	.155	PG/L	1.000	ND	ND	ND	ND
1,2,3,7,8-penta CDD	.254	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8_hexa_CDD	.31	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDD	.315	PG/L	0.100	ND	ND	DNQ12.2	ND
1,2,3,7,8,9-hexa CDD	.287	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDD	.53	PG/L	0.010	DNQ11.3	DNQ23.1	74.6	DNQ24.4
octa CDD	1.12	PG/L	0.001	110	150	190	160
2,3,7,8-tetra CDF	.164	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8-penta CDF	.187	PG/L	0.050	ND	ND	DNQ4.27	ND
2,3,4,7,8-penta CDF	.178	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8-hexa CDF	.19	PG/L	0.100	ND	ND	DNQ2.02	ND
1,2,3,6,7,8-hexa CDF	.211	PG/L	0.100	ND	DNQ5.84	DNQ3.89	ND
1,2,3,7,8,9-hexa CDF	.265	PG/L	0.100	ND	ND	ND	ND
2,3,4,6,7,8-hexa CDF	.217	PG/L	0.100	ND	ND	DNQ1.97	ND
1,2,3,4,6,7,8-hepta CDF	.225	PG/L	0.010	ND	DNQ6.09	DNQ5.76	ND
1,2,3,4,7,8,9-hepta CDF	.317	PG/L	0.010	ND	ND	ND	ND
octa CDF	.579	PG/L	0.001	ND	DNQ7.37	DNQ8.62	ND

Source:			INF	INF	INF	INF	
Date:			SEP	OCT	NOV	DEC	
Analyte	MDL	Units	Equiv	P731953	P734799	P742304	P747531
2,3,7,8-tetra CDD	.155	PG/L	1.000	ND	ND	ND	ND
1,2,3,7,8-penta CDD	.254	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8_hexa_CDD	.31	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDD	.315	PG/L	0.100	ND	DNQ8.4	ND	ND
1,2,3,7,8,9-hexa CDD	.287	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDD	.53	PG/L	0.010	DNQ23.1	39.9	26.9	DNQ20.7
octa CDD	1.12	PG/L	0.001	180	250	200	240
2,3,7,8-tetra CDF	.164	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8-penta CDF	.187	PG/L	0.050	ND	ND	ND	ND
2,3,4,7,8-penta CDF	.178	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8-hexa CDF	.19	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDF	.211	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDF	.265	PG/L	0.100	ND	ND	ND	ND
2,3,4,6,7,8-hexa CDF	.217	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDF	.225	PG/L	0.010	DNQ4.7	DNQ4.35	DNQ477	DNQ4.99
1,2,3,4,7,8,9-hepta CDF	.317	PG/L	0.010	ND	ND	ND	ND
octa CDF	.579	PG/L	0.001	DNQ11.9	DNQ12.5	DNQ11.3	DNQ13.2

ND= not detected

DNQ= (Detected but not quantified). Estimated analyte concentration below calibration range.

SOUTH BAY WATER RECLAMATION PLANT
Annual Sewage Dioxin and Furan Analysis

Annual 2014

Source:			EFF	EFF	EFF	EFF	
Date:			JAN	FEB	MAR	APR	
Analyte	MDL	Units	Equiv	P692151	P695807	P702471	P708739
2,3,7,8-tetra CDD	.155	PG/L	1.000	ND	ND	ND	ND
1,2,3,7,8-penta CDD	.254	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8_hexa_CDD	.31	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDD	.315	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDD	.287	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDD	.53	PG/L	0.010	DNQ1.12	ND	ND	ND
octa CDD	1.12	PG/L	0.001	DNQ5.66	DNQ6.41	DNQ4.46	ND
2,3,7,8-tetra CDF	.164	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8-penta CDF	.187	PG/L	0.050	ND	ND	ND	ND
2,3,4,7,8-penta CDF	.178	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8-hexa CDF	.19	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDF	.211	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDF	.265	PG/L	0.100	ND	ND	ND	ND
2,3,4,6,7,8-hexa CDF	.217	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDF	.225	PG/L	0.010	ND	ND	ND	ND
1,2,3,4,7,8,9-hepta CDF	.317	PG/L	0.010	ND	ND	ND	ND
octa CDF	.579	PG/L	0.001	ND	ND	ND	ND

Source:			EFF	EFF	EFF	EFF	
Date:			MAY	JUN	JUL	AUG	
Analyte	MDL	Units	Equiv	P712566	P717889	P721735	P723817
2,3,7,8-tetra CDD	.155	PG/L	1.000	ND	ND	ND	ND
1,2,3,7,8-penta CDD	.254	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8_hexa_CDD	.31	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDD	.315	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDD	.287	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDD	.53	PG/L	0.010	ND	ND	ND	ND
octa CDD	1.12	PG/L	0.001	ND	ND	DNQ5.48	ND
2,3,7,8-tetra CDF	.164	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8-penta CDF	.187	PG/L	0.050	ND	ND	ND	ND
2,3,4,7,8-penta CDF	.178	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8-hexa CDF	.19	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDF	.211	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDF	.265	PG/L	0.100	ND	ND	ND	ND
2,3,4,6,7,8-hexa CDF	.217	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDF	.225	PG/L	0.010	ND	ND	ND	ND
1,2,3,4,7,8,9-hepta CDF	.317	PG/L	0.010	ND	ND	ND	ND
octa CDF	.579	PG/L	0.001	ND	ND	ND	ND

Source:			EFF	EFF	EFF	EFF	
Date:			SEP	OCT	NOV	DEC	
Analyte	MDL	Units	Equiv	P731957	P734804	P742308	P747535
2,3,7,8-tetra CDD	.155	PG/L	1.000	ND	ND	ND	ND
1,2,3,7,8-penta CDD	.254	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8_hexa_CDD	.31	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDD	.315	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDD	.287	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDD	.53	PG/L	0.010	DNQ3.37	DNQ1.86	ND	ND
octa CDD	1.12	PG/L	0.001	DNQ11.6	DNQ10.7	DNQ7.13	DNQ7.39
2,3,7,8-tetra CDF	.164	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8-penta CDF	.187	PG/L	0.050	ND	ND	ND	ND
2,3,4,7,8-penta CDF	.178	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8-hexa CDF	.19	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDF	.211	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDF	.265	PG/L	0.100	ND	ND	ND	ND
2,3,4,6,7,8-hexa CDF	.217	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDF	.225	PG/L	0.010	ND	ND	ND	ND
1,2,3,4,7,8,9-hepta CDF	.317	PG/L	0.010	ND	ND	ND	ND
octa CDF	.579	PG/L	0.001	ND	ND	ND	ND

ND= not detected

DNQ= (Detected but not quantified). Estimated analyte concentration below calibration range.

SOUTH BAY WATER RECLAMATION PLANT
Annual Sewage Dioxin and Furan Analysis

Annual 2014

Source:	MDL	Units	Equiv	INF	INF	INF	INF
				TCCD	JAN	TCCD	MAR
Date:							
Analyte	P692147	P695802	P702467	P708735			
2,3,7,8-tetra CDD	.155 PG/L	1.000	ND	ND	ND	ND	
1,2,3,7,8-penta CDD	.254 PG/L	0.500	ND	ND	ND	ND	
1,2,3,4,7,8_hexa_CDD	.31 PG/L	0.100	ND	ND	ND	ND	
1,2,3,6,7,8-hexa CDD	.315 PG/L	0.100	ND	ND	ND	ND	
1,2,3,7,8,9-hexa CDD	.287 PG/L	0.100	ND	ND	ND	ND	
1,2,3,4,6,7,8-hepta CDD	.53 PG/L	0.010	DNQ0.115	DNQ0.169	DNQ0.137	DNQ0.239	
octa CDD	1.12 PG/L	0.001	0.13	0.14	0.12	0.4	
2,3,7,8-tetra CDF	.164 PG/L	0.100	ND	ND	ND	ND	
1,2,3,7,8-penta CDF	.187 PG/L	0.050	ND	ND	ND	ND	
2,3,4,7,8-penta CDF	.178 PG/L	0.500	ND	ND	ND	ND	
1,2,3,4,7,8-hexa CDF	.19 PG/L	0.100	ND	ND	ND	ND	
1,2,3,6,7,8-hexa CDF	.211 PG/L	0.100	DNQ0.081	ND	DNQ0.154	ND	
1,2,3,7,8,9-hexa CDF	.265 PG/L	0.100	ND	ND	ND	ND	
2,3,4,6,7,8-hexa CDF	.217 PG/L	0.100	ND	ND	ND	ND	
1,2,3,4,6,7,8-hepta CDF	.225 PG/L	0.010	DNQ0.027	DNQ0.035	DNQ0.036	DNQ0.064	
1,2,3,4,7,8,9-hepta CDF	.317 PG/L	0.010	ND	ND	ND	ND	
octa CDF	.579 PG/L	0.001	DNQ0.007	DNQ0.007	DNQ0.007	DNQ0.03	
Source:							
Analyte	P712561	P717885	P721731	P723812			
					INF	INF	INF
					TCCD	TCCD	TCCD
Date:							
					MAY	JUN	AUG
						JUL	
2,3,7,8-tetra CDD	.155 PG/L	1.000	ND	ND	ND	ND	
1,2,3,7,8-penta CDD	.254 PG/L	0.500	ND	ND	ND	ND	
1,2,3,4,7,8_hexa_CDD	.31 PG/L	0.100	ND	ND	ND	ND	
1,2,3,6,7,8-hexa CDD	.315 PG/L	0.100	ND	ND	DNQ1.22	ND	
1,2,3,7,8,9-hexa CDD	.287 PG/L	0.100	ND	ND	ND	ND	
1,2,3,4,6,7,8-hepta CDD	.53 PG/L	0.010	DNQ0.113	DNQ0.231	0.746	DNQ0.244	
octa CDD	1.12 PG/L	0.001	0.11	0.15	0.19	0.16	
2,3,7,8-tetra CDF	.164 PG/L	0.100	ND	ND	ND	ND	
1,2,3,7,8-penta CDF	.187 PG/L	0.050	ND	ND	DNQ0.214	ND	
2,3,4,7,8-penta CDF	.178 PG/L	0.500	ND	ND	ND	ND	
1,2,3,4,7,8-hexa CDF	.19 PG/L	0.100	ND	ND	DNQ0.202	ND	
1,2,3,6,7,8-hexa CDF	.211 PG/L	0.100	ND	DNQ0.584	DNQ0.389	ND	
1,2,3,7,8,9-hexa CDF	.265 PG/L	0.100	ND	ND	ND	ND	
2,3,4,6,7,8-hexa CDF	.217 PG/L	0.100	ND	ND	DNQ0.197	ND	
1,2,3,4,6,7,8-hepta CDF	.225 PG/L	0.010	ND	DNQ0.061	DNQ0.058	ND	
1,2,3,4,7,8,9-hepta CDF	.317 PG/L	0.010	ND	ND	ND	ND	
octa CDF	.579 PG/L	0.001	ND	DNQ0.007	DNQ0.009	ND	
Source:							
Analyte	P731953	P734799	P742304	P747531			
					INF	INF	INF
					TCCD	TCCD	TCCD
Date:							
					SEP	OCT	DEC
						NOV	
2,3,7,8-tetra CDD	.155 PG/L	1.000	ND	ND	ND	ND	
1,2,3,7,8-penta CDD	.254 PG/L	0.500	ND	ND	ND	ND	
1,2,3,4,7,8_hexa_CDD	.31 PG/L	0.100	ND	ND	ND	ND	
1,2,3,6,7,8-hexa CDD	.315 PG/L	0.100	ND	DNQ0.84	ND	ND	
1,2,3,7,8,9-hexa CDD	.287 PG/L	0.100	ND	ND	ND	ND	
1,2,3,4,6,7,8-hepta CDD	.53 PG/L	0.010	DNQ0.231	0.399	0.269	DNQ0.207	
octa CDD	1.12 PG/L	0.001	0.18	0.25	0.2	0.24	
2,3,7,8-tetra CDF	.164 PG/L	0.100	ND	ND	ND	ND	
1,2,3,7,8-penta CDF	.187 PG/L	0.050	ND	ND	ND	ND	
2,3,4,7,8-penta CDF	.178 PG/L	0.500	ND	ND	ND	ND	
1,2,3,4,7,8-hexa CDF	.19 PG/L	0.100	ND	ND	ND	ND	
1,2,3,6,7,8-hexa CDF	.211 PG/L	0.100	ND	ND	ND	ND	
1,2,3,7,8,9-hexa CDF	.265 PG/L	0.100	ND	ND	ND	ND	
2,3,4,6,7,8-hexa CDF	.217 PG/L	0.100	ND	ND	ND	ND	
1,2,3,4,6,7,8-hepta CDF	.225 PG/L	0.010	DNQ0.047	DNQ0.044	DNQ4.77	DNQ0.05	
1,2,3,4,7,8,9-hepta CDF	.317 PG/L	0.010	ND	ND	ND	ND	
octa CDF	.579 PG/L	0.001	DNQ0.012	DNQ0.013	DNQ0.011	DNQ0.013	

ND= not detected

DNQ= (Detected but not quantified). Estimated analyte concentration below calibration range.

SOUTH BAY WATER RECLAMATION PLANT
Annual Sewage Dioxin and Furan Analysis

Annual 2014

Source:	MDL	Units	Equiv	EFF	EFF	EFF	EFF
				TCCD	TCCD	TCCD	TCCD
Date:				JAN	FEB	MAR	APR
Analyte	P692151	P695807	P702471	P708739			
=====	=====	=====	=====	=====	=====	=====	=====
2,3,7,8-tetra CDD	.155 PG/L	1.000	ND	ND	ND	ND	ND
1,2,3,7,8-penta CDD	.254 PG/L	0.500	ND	ND	ND	ND	ND
1,2,3,4,7,8_hexa_CDD	.31 PG/L	0.100	ND	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDD	.315 PG/L	0.100	ND	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDD	.287 PG/L	0.100	ND	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDD	.53 PG/L	0.010	DNQ0.011	ND	ND	ND	ND
octa CDD	1.12 PG/L	0.001	DNQ0.006	DNQ0.006	DNQ0.004		
2,3,7,8-tetra CDF	.164 PG/L	0.100	ND	ND	ND	ND	ND
1,2,3,7,8-penta CDF	.187 PG/L	0.050	ND	ND	ND	ND	ND
2,3,4,7,8-penta CDF	.178 PG/L	0.500	ND	ND	ND	ND	ND
1,2,3,4,7,8-hexa CDF	.19 PG/L	0.100	ND	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDF	.211 PG/L	0.100	ND	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDF	.265 PG/L	0.100	ND	ND	ND	ND	ND
2,3,4,6,7,8-hexa CDF	.217 PG/L	0.100	ND	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDF	.225 PG/L	0.010	ND	ND	ND	ND	ND
1,2,3,4,7,8,9-hepta CDF	.317 PG/L	0.010	ND	ND	ND	ND	ND
octa CDF	.579 PG/L	0.001	ND	ND	ND	ND	ND
Source:				EFF	EFF	EFF	EFF
				TCCD	TCCD	TCCD	TCCD
Date:				MAY	JUN	JUL	AUG
Analyte	P712566	P717889	P721735	P723817			
=====	=====	=====	=====	=====	=====	=====	=====
2,3,7,8-tetra CDD	.155 PG/L	1.000	ND	ND	ND	ND	ND
1,2,3,7,8-penta CDD	.254 PG/L	0.500	ND	ND	ND	ND	ND
1,2,3,4,7,8_hexa_CDD	.31 PG/L	0.100	ND	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDD	.315 PG/L	0.100	ND	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDD	.287 PG/L	0.100	ND	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDD	.53 PG/L	0.010	ND	ND	ND	ND	ND
octa CDD	1.12 PG/L	0.001	ND	ND	DNQ0.005		
2,3,7,8-tetra CDF	.164 PG/L	0.100	ND	ND	ND	ND	ND
1,2,3,7,8-penta CDF	.187 PG/L	0.050	ND	ND	ND	ND	ND
2,3,4,7,8-penta CDF	.178 PG/L	0.500	ND	ND	ND	ND	ND
1,2,3,4,7,8-hexa CDF	.19 PG/L	0.100	ND	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDF	.211 PG/L	0.100	ND	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDF	.265 PG/L	0.100	ND	ND	ND	ND	ND
2,3,4,6,7,8-hexa CDF	.217 PG/L	0.100	ND	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDF	.225 PG/L	0.010	ND	ND	ND	ND	ND
1,2,3,4,7,8,9-hepta CDF	.317 PG/L	0.010	ND	ND	ND	ND	ND
octa CDF	.579 PG/L	0.001	ND	ND	ND	ND	ND
Source:				EFF	EFF	EFF	EFF
				TCCD	TCCD	TCCD	TCCD
Date:				SEP	OCT	NOV	DEC
Analyte	P731957	P734804	P742308	P747535			
=====	=====	=====	=====	=====	=====	=====	=====
2,3,7,8-tetra CDD	.155 PG/L	1.000	ND	ND	ND	ND	ND
1,2,3,7,8-penta CDD	.254 PG/L	0.500	ND	ND	ND	ND	ND
1,2,3,4,7,8_hexa_CDD	.31 PG/L	0.100	ND	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDD	.315 PG/L	0.100	ND	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDD	.287 PG/L	0.100	ND	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDD	.53 PG/L	0.010	DNQ0.034	DNQ0.019	ND	ND	ND
octa CDD	1.12 PG/L	0.001	DNQ0.012	DNQ0.011	DNQ0.007	DNQ0.007	
2,3,7,8-tetra CDF	.164 PG/L	0.100	ND	ND	ND	ND	ND
1,2,3,7,8-penta CDF	.187 PG/L	0.050	ND	ND	ND	ND	ND
2,3,4,7,8-penta CDF	.178 PG/L	0.500	ND	ND	ND	ND	ND
1,2,3,4,7,8-hexa CDF	.19 PG/L	0.100	ND	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDF	.211 PG/L	0.100	ND	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDF	.265 PG/L	0.100	ND	ND	ND	ND	ND
2,3,4,6,7,8-hexa CDF	.217 PG/L	0.100	ND	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDF	.225 PG/L	0.010	ND	ND	ND	ND	ND
1,2,3,4,7,8,9-hepta CDF	.317 PG/L	0.010	ND	ND	ND	ND	ND
octa CDF	.579 PG/L	0.001	ND	ND	ND	ND	ND

ND= not detected

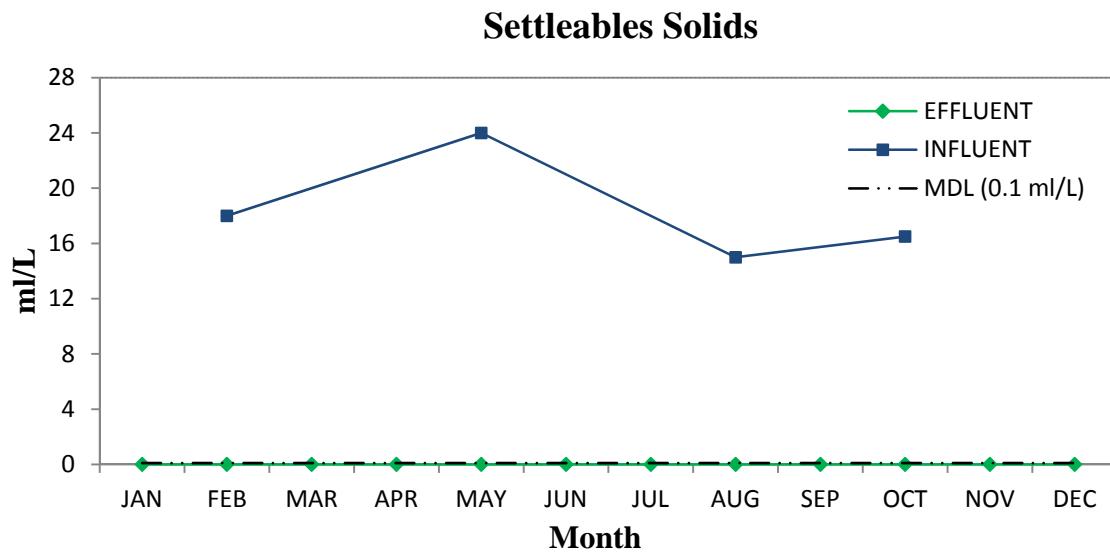
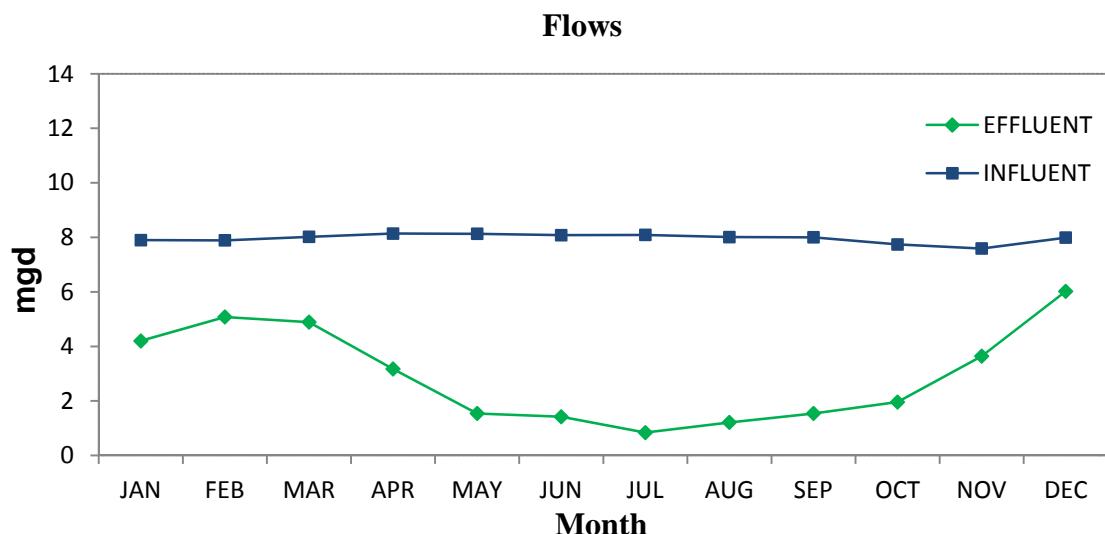
DNQ= (Detected but not quantified). Estimated analyte concentration below calibration range.

D. Influent and Effluent Graphs

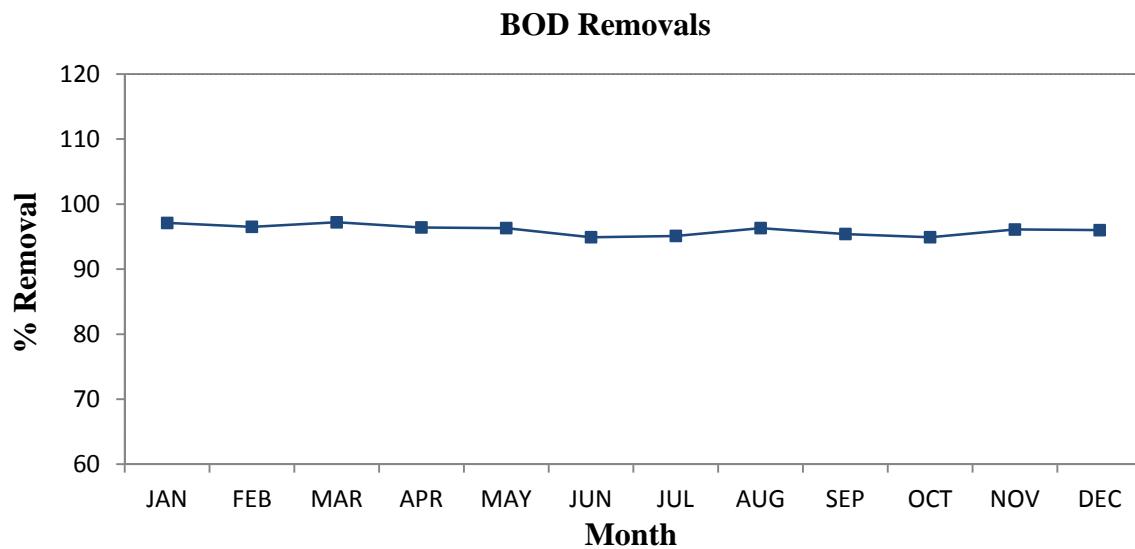
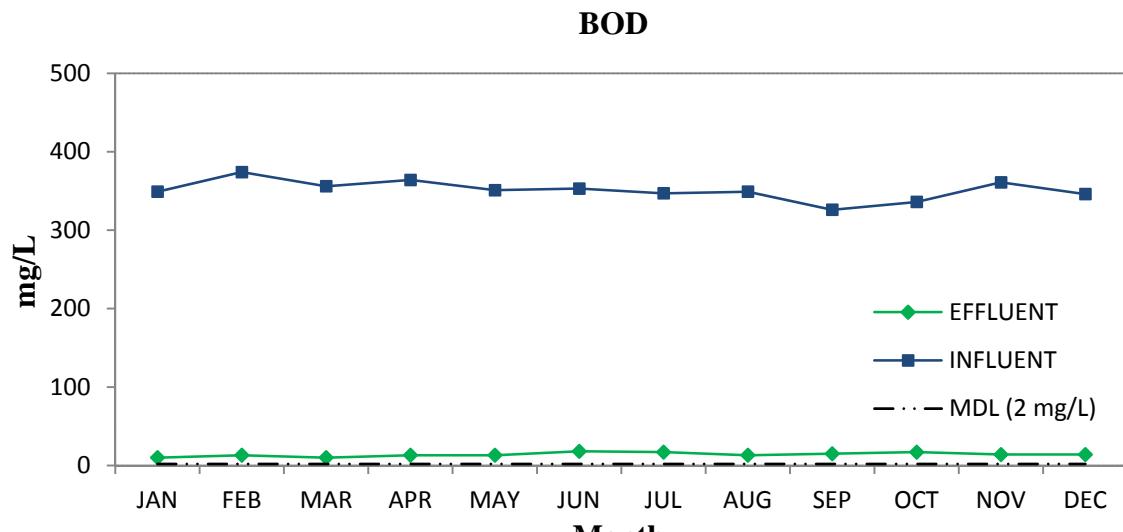
Graphs of monthly averages for permit parameters with measurable concentration averages.

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. Please note that many of the graphs are on expanded scales where the y-axes (concentration) do not start at zero, but instead are scaled to highlight the range of concentrations where variation takes place. These expanded scales make differences and some trends obvious that might normally not be noticed; however, they also may inadvertently place more weight on relatively minor changes or trends than deserved. Frequent reference to the scales and the actual differences in concentrations is therefore necessary.

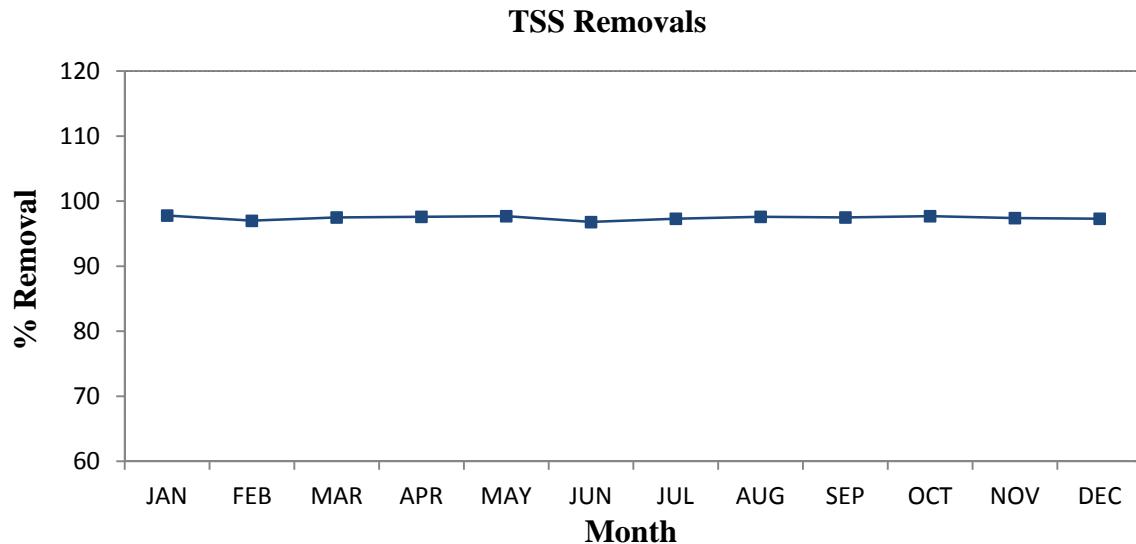
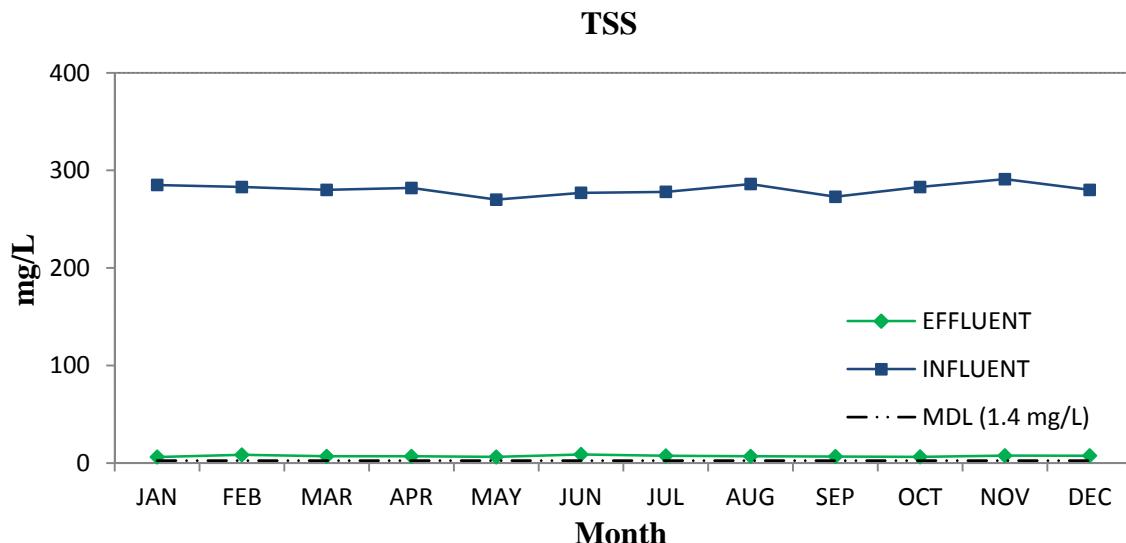
2014 South Bay Water Reclamation Plant Monthly Averages



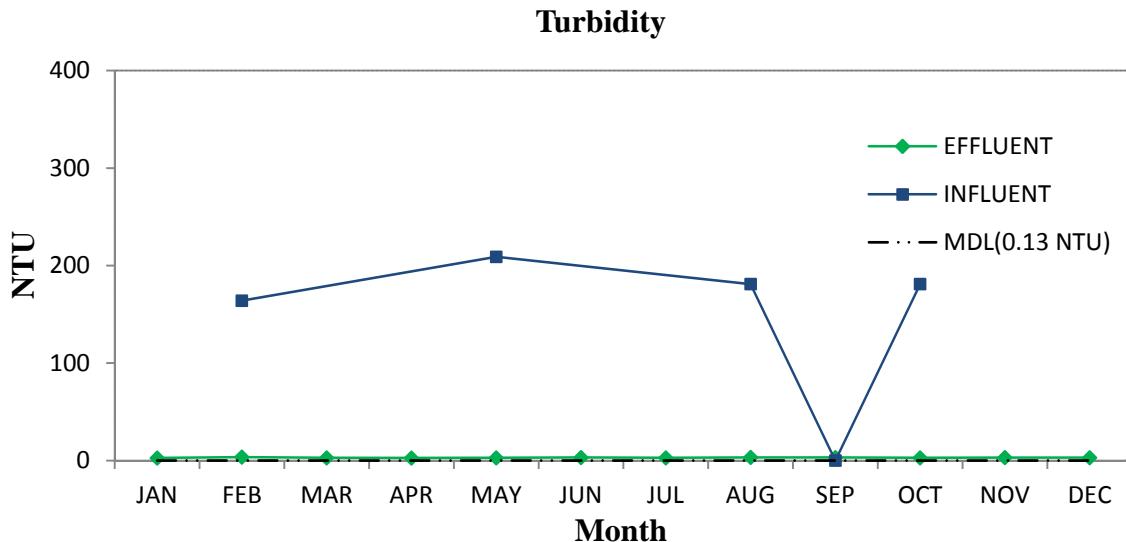
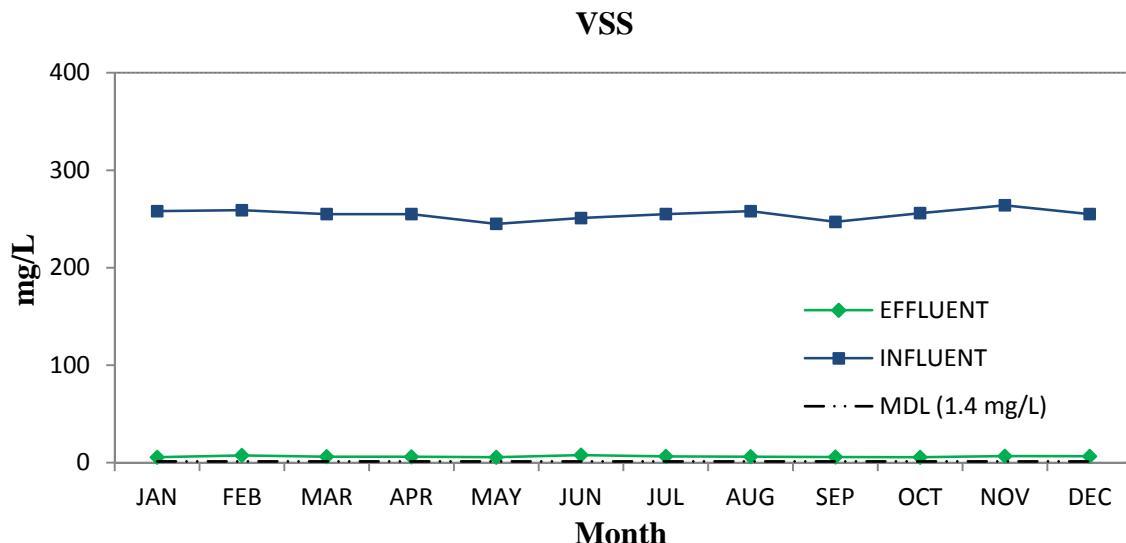
2014 South Bay Water Reclamation Plant Monthly Averages



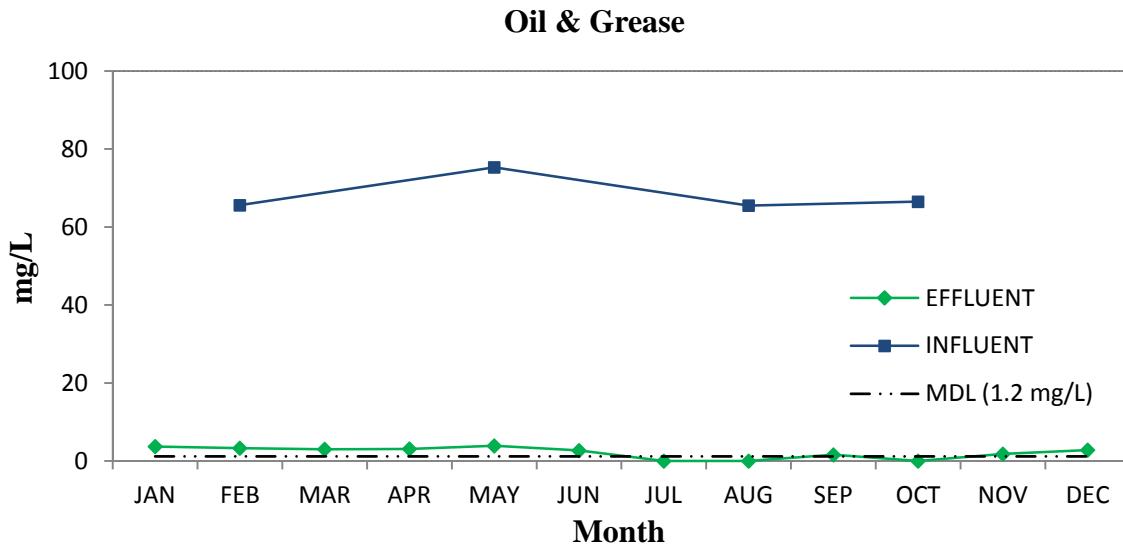
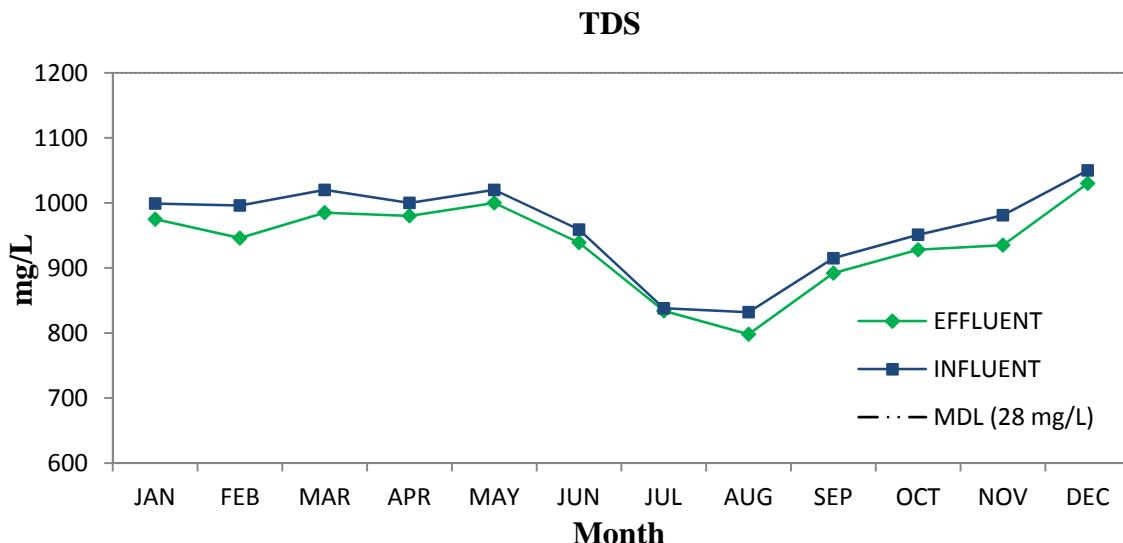
2014 South Bay Water Reclamation Plant Monthly Averages



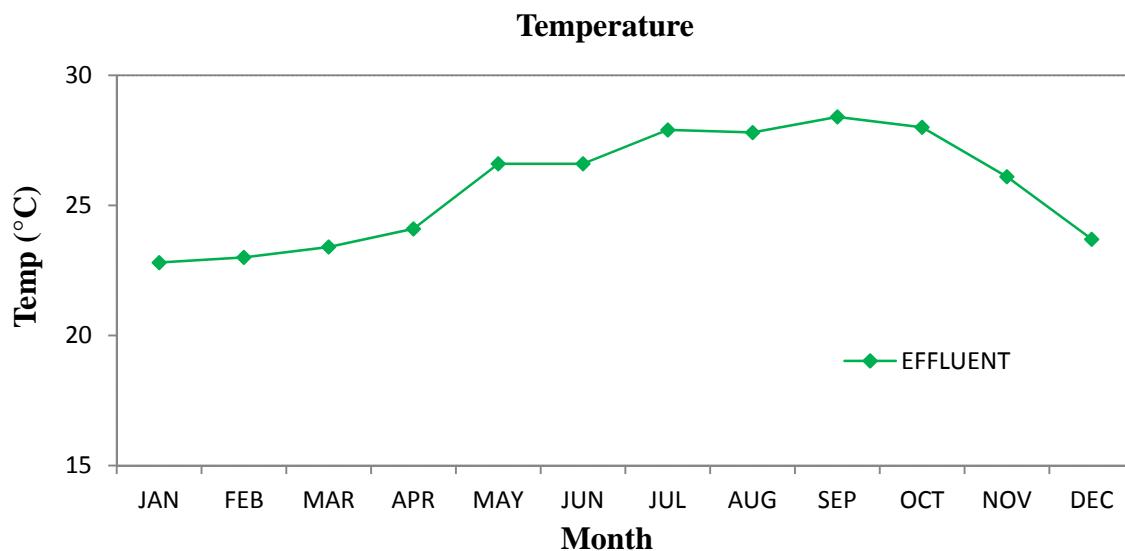
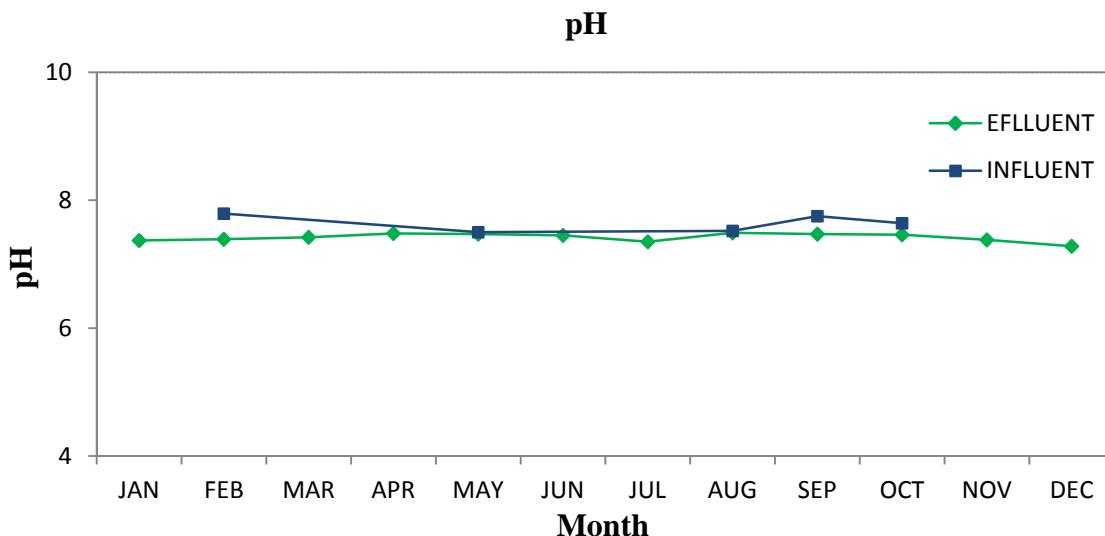
2014 South Bay Water Reclamation Plant Monthly Averages



2014 South Bay Water Reclamation Plant Monthly Averages

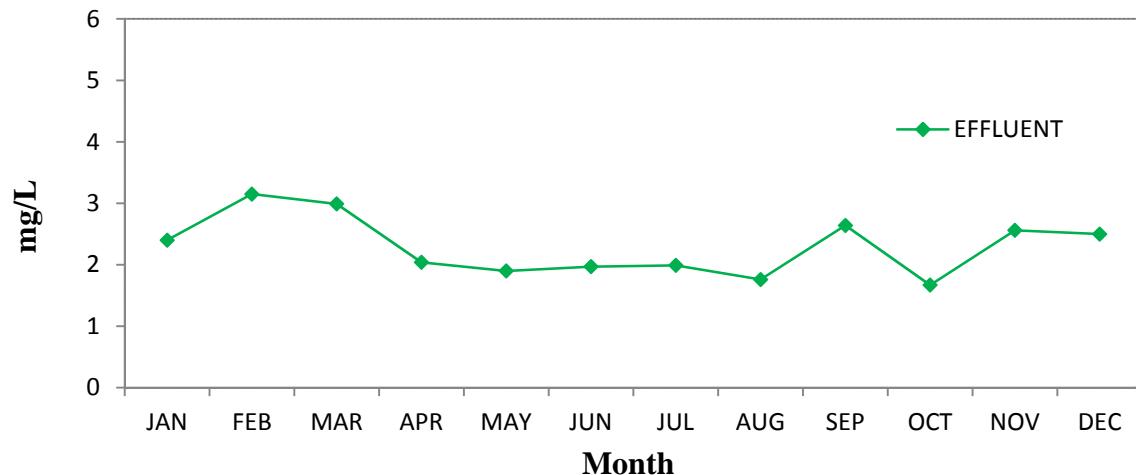


2014 South Bay Water Reclamation Plant Monthly Averages

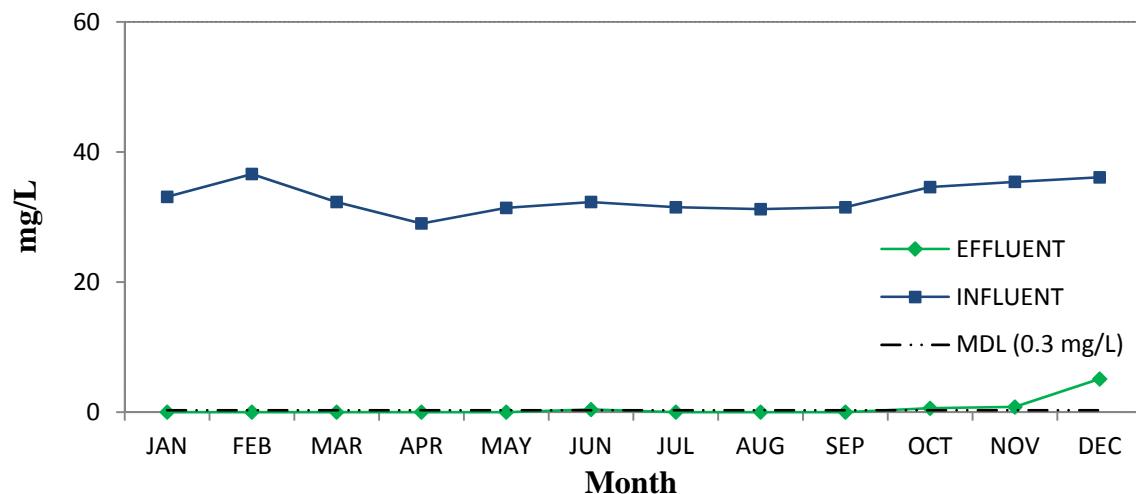


**2014 South Bay Water Reclamation Plant
Monthly Averages**

Dissolved Oxygen

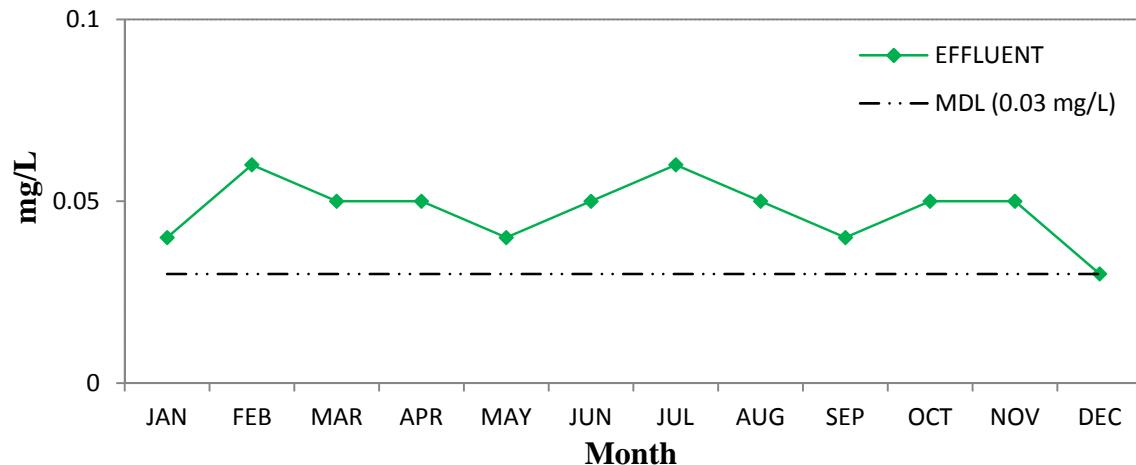


Ammonia-N

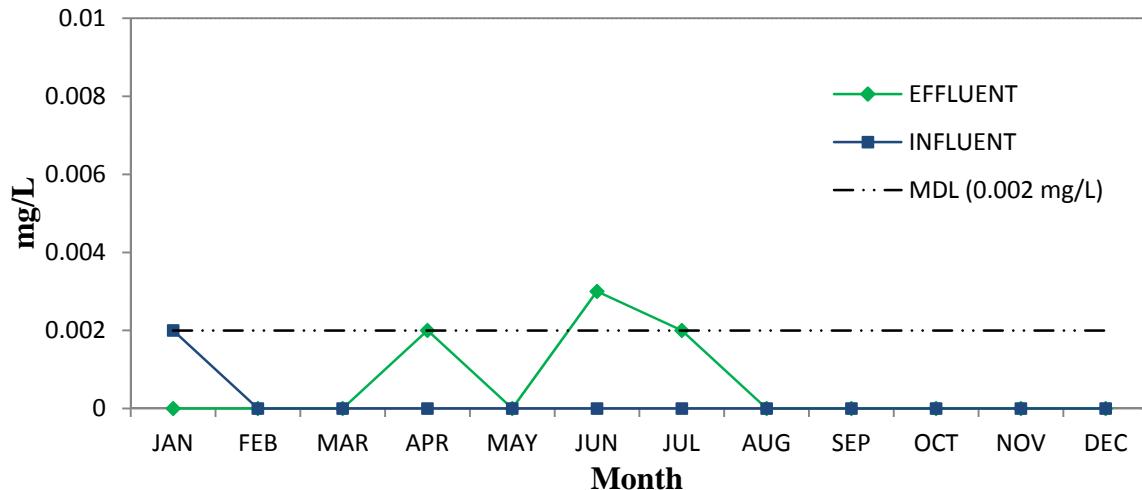


2014 South Bay Water Reclamation Plant Monthly Averages

Residual Chlorine

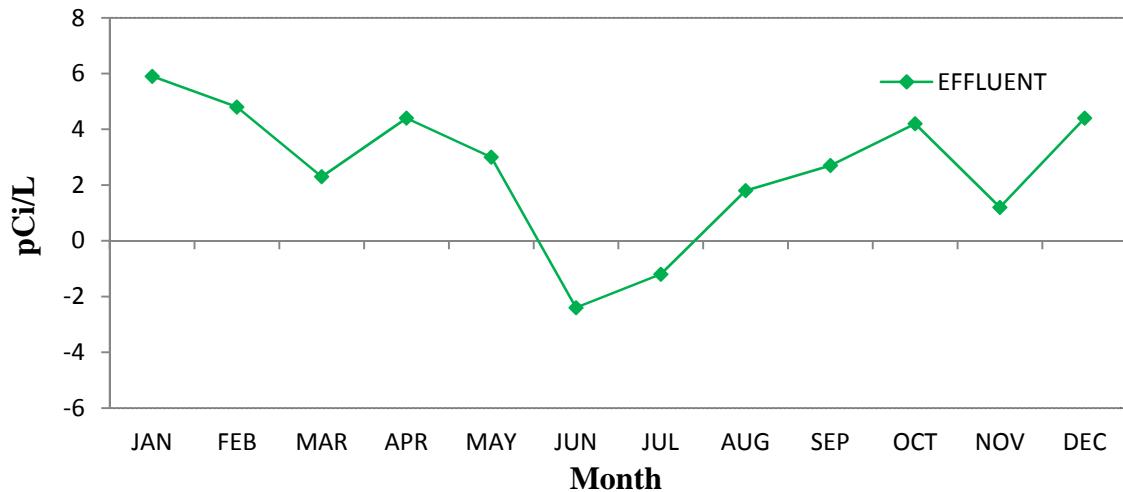


Total Cyanides

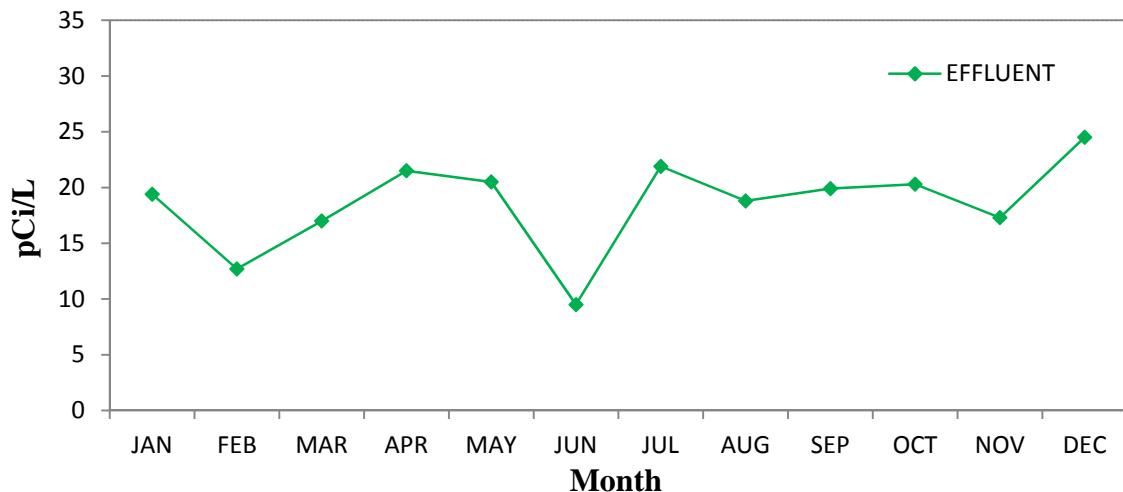


2014 South Bay Water Reclamation Plant Monthly Averages

Alpha Radiation

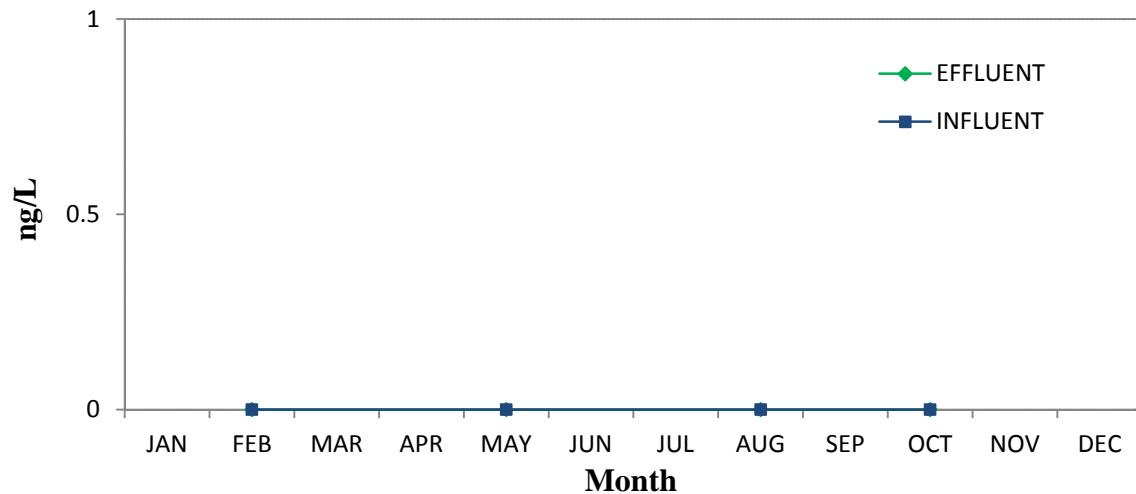


Beta Radiation

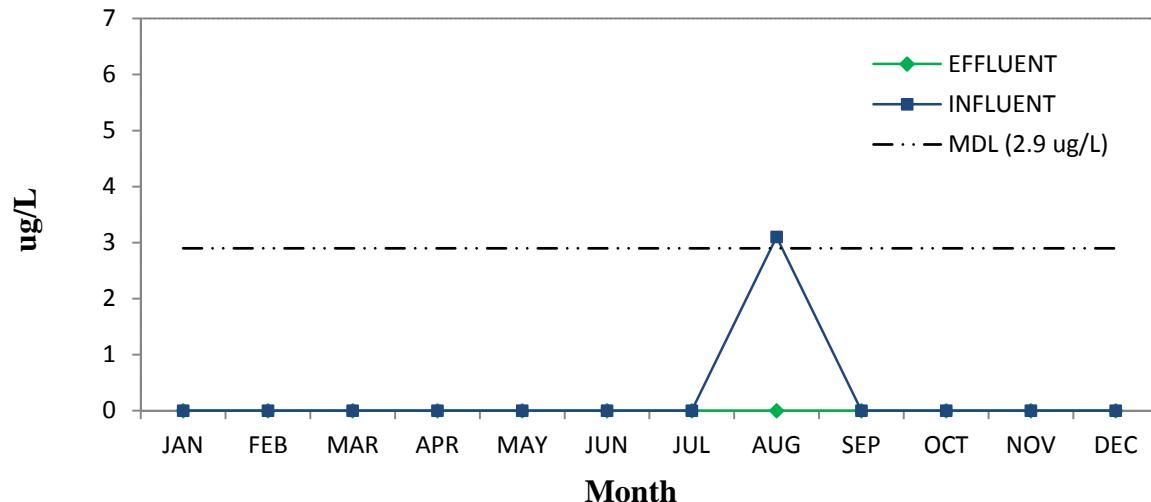


2014 South Bay Water Reclamation Plant Monthly Averages

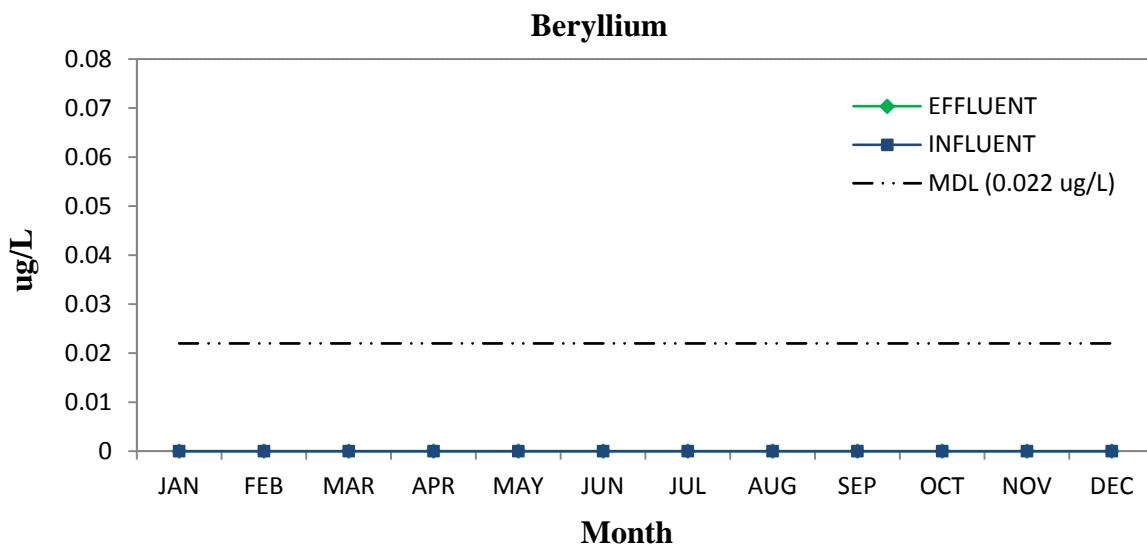
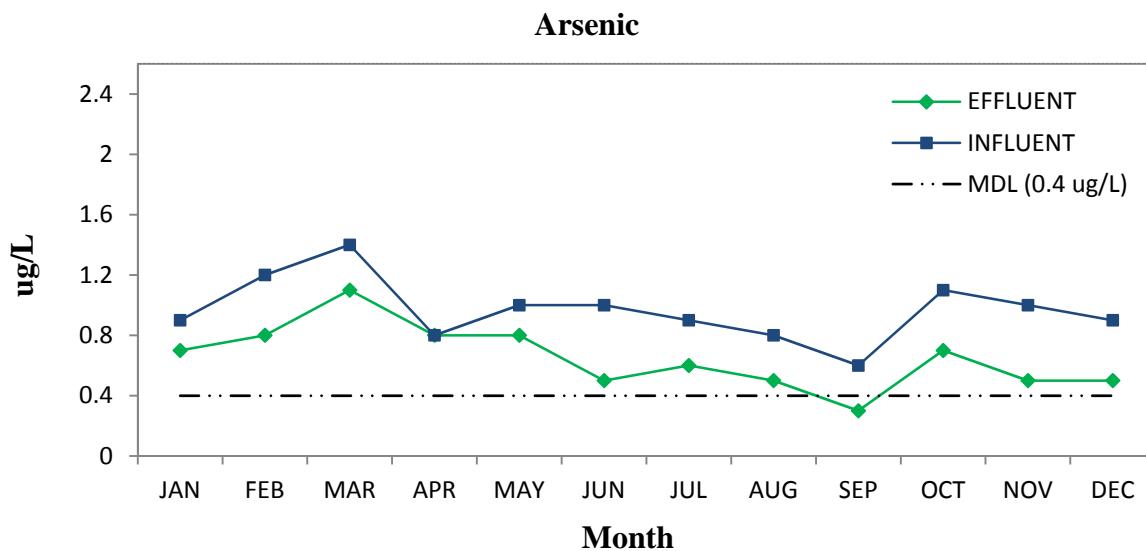
Total Chlorinated Hydrocarbons



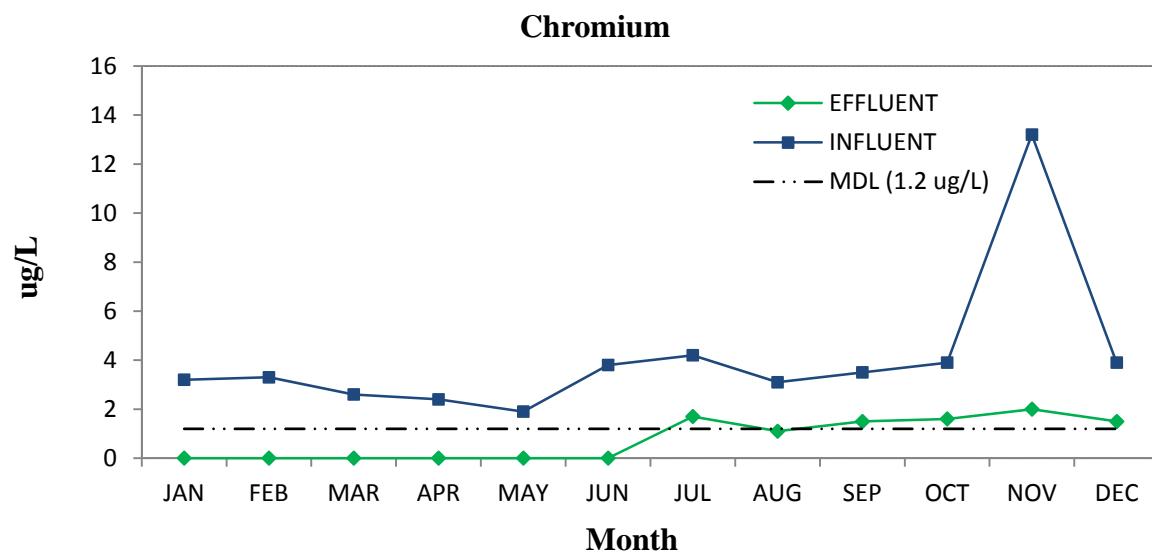
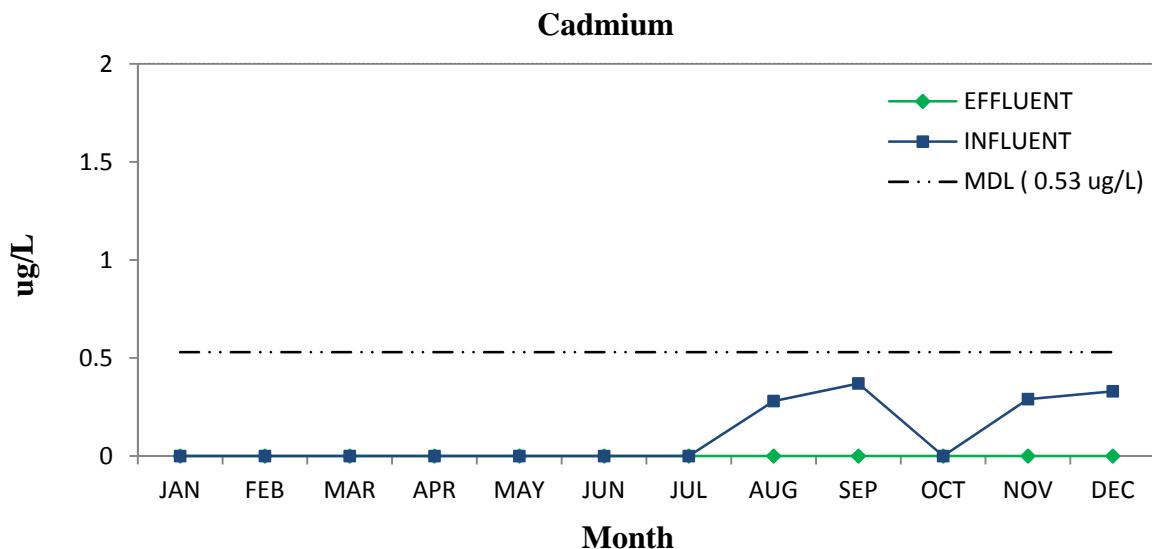
Antimony



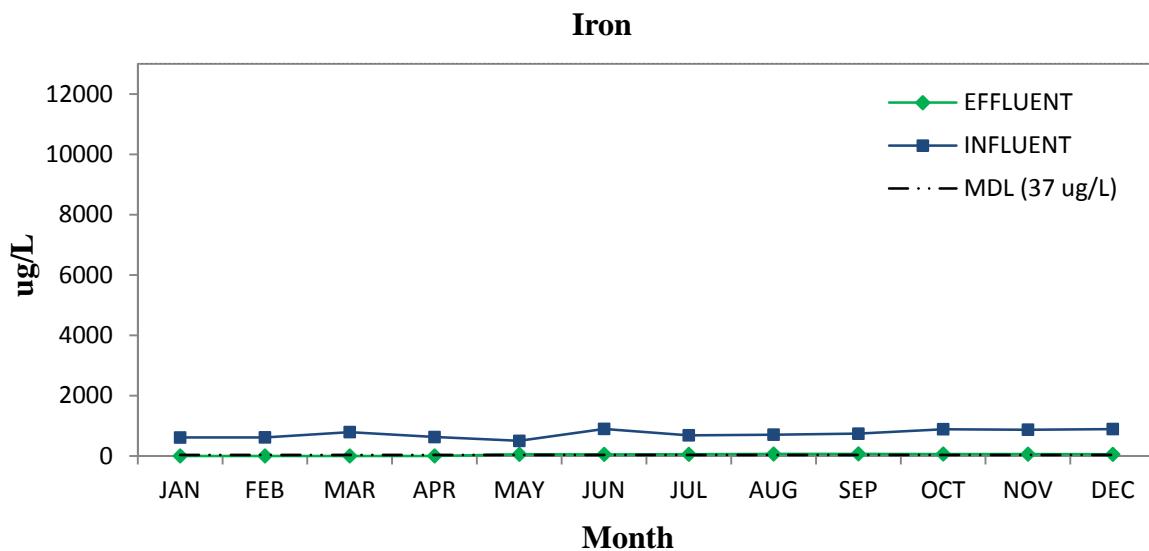
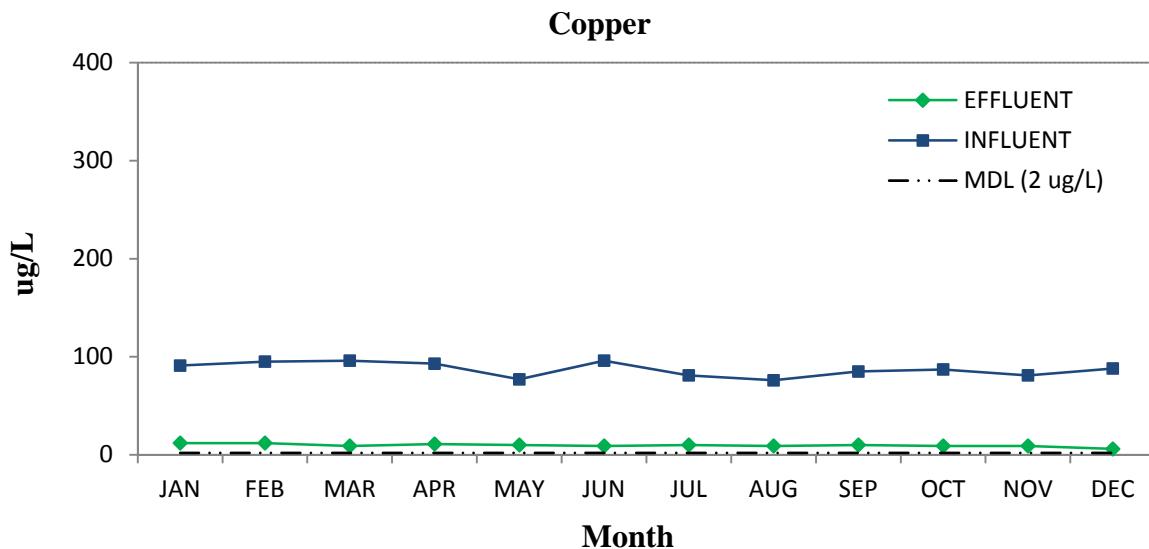
**2014 South Bay Water Reclamation Plant
Monthly Averages**



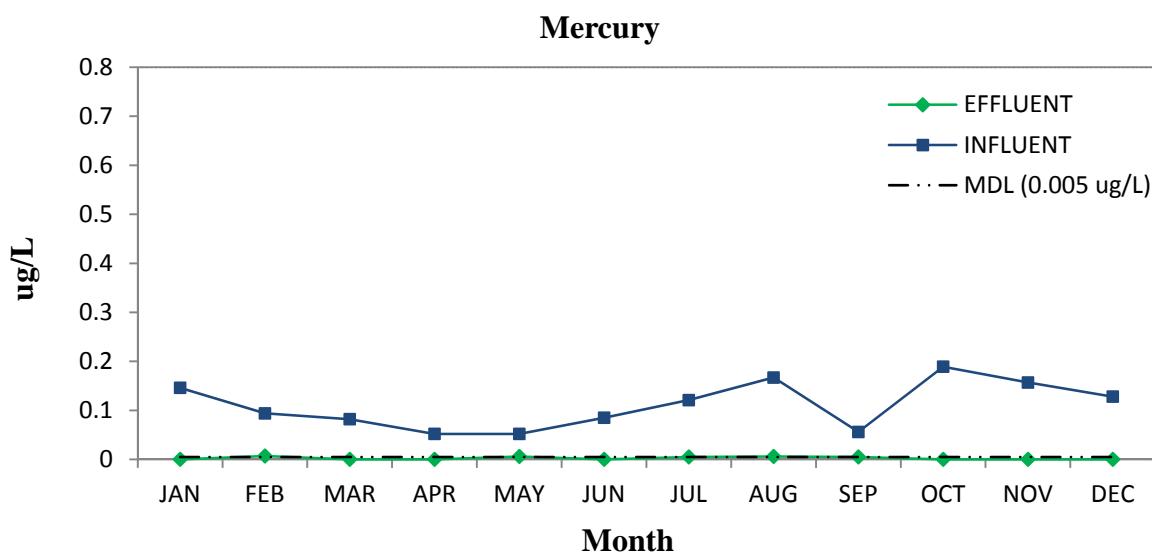
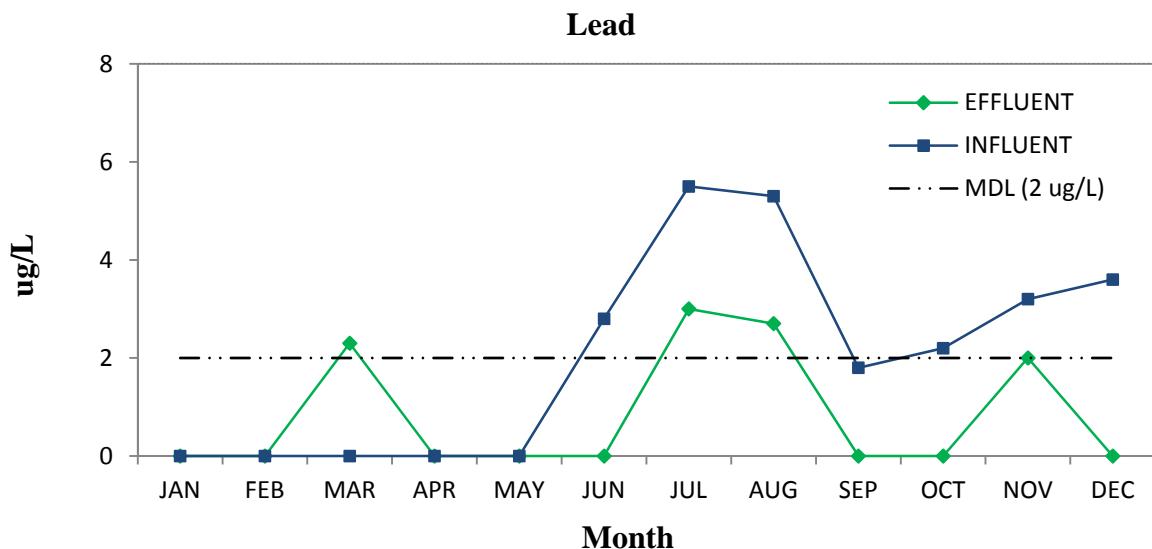
2014 South Bay Water Reclamation Plant Monthly Averages



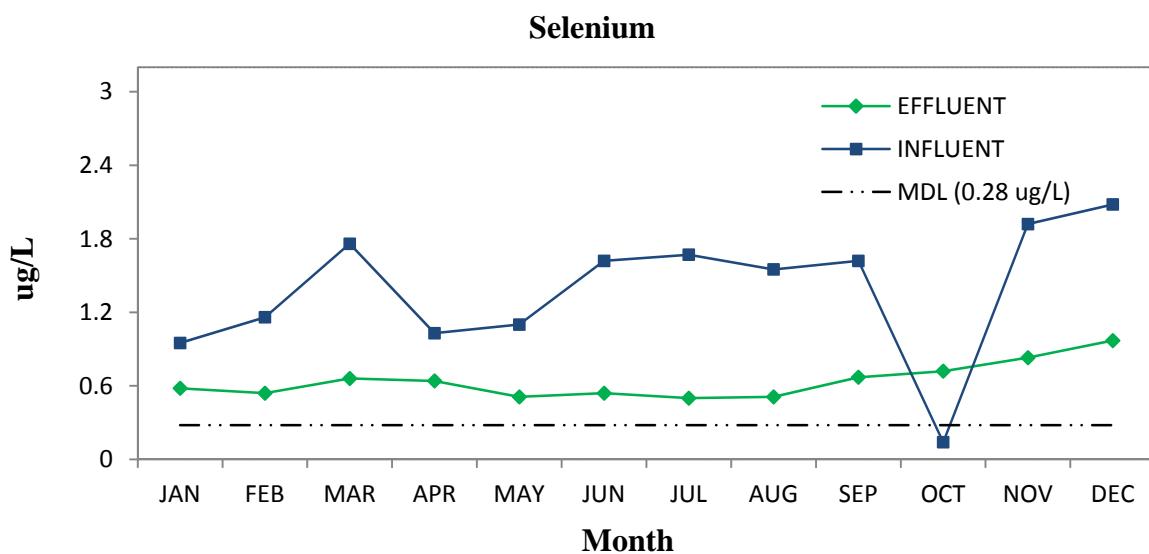
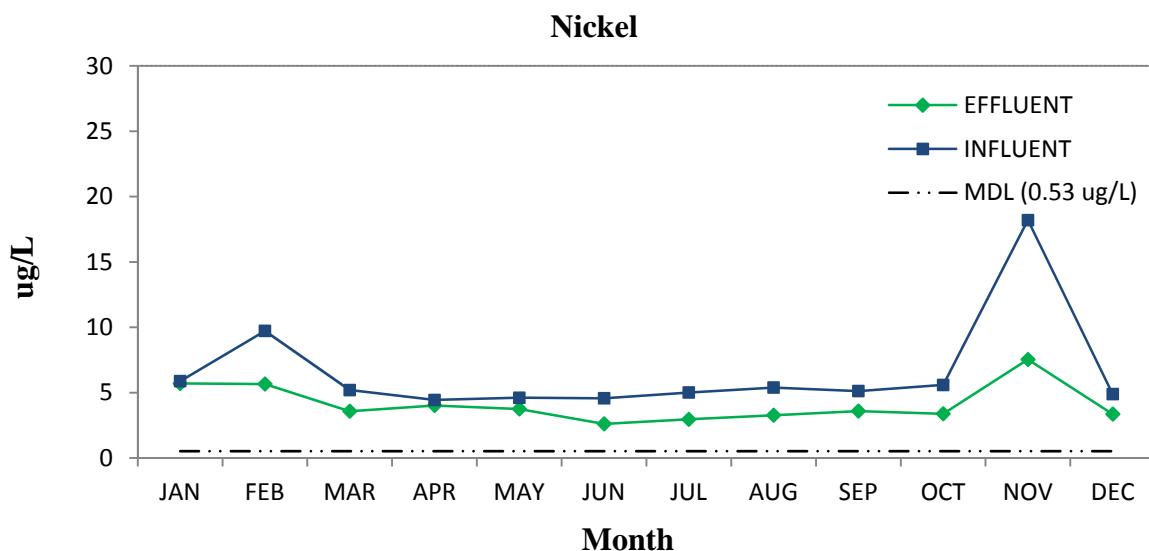
2014 South Bay Water Reclamation Plant Monthly Averages



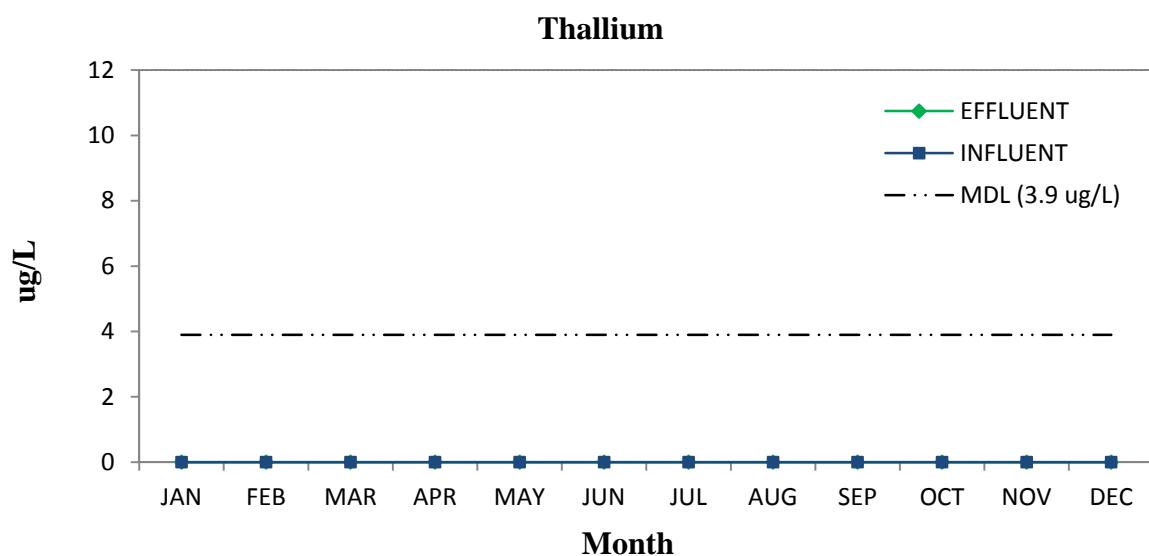
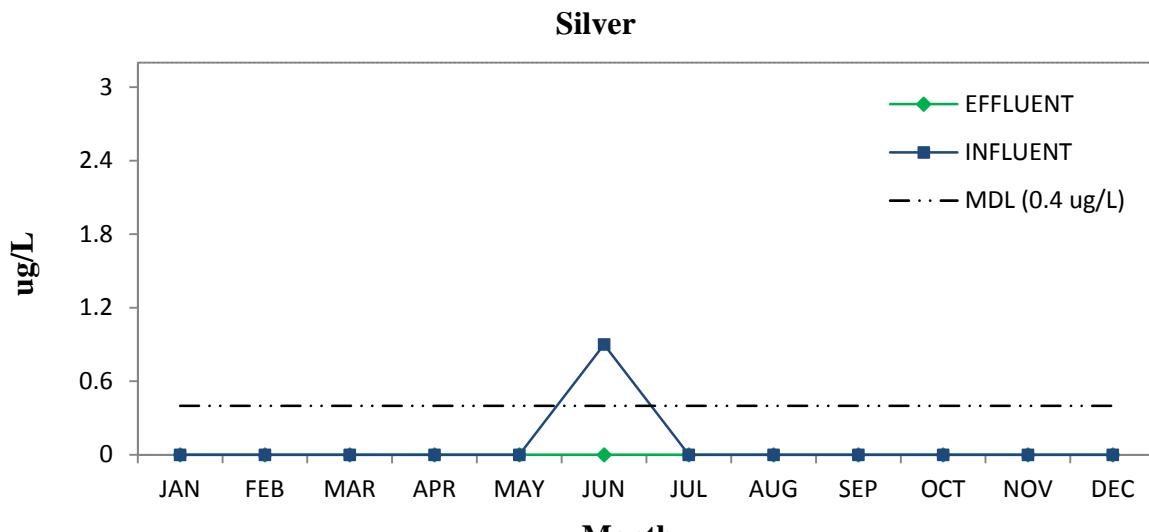
2014 South Bay Water Reclamation Plant Monthly Averages



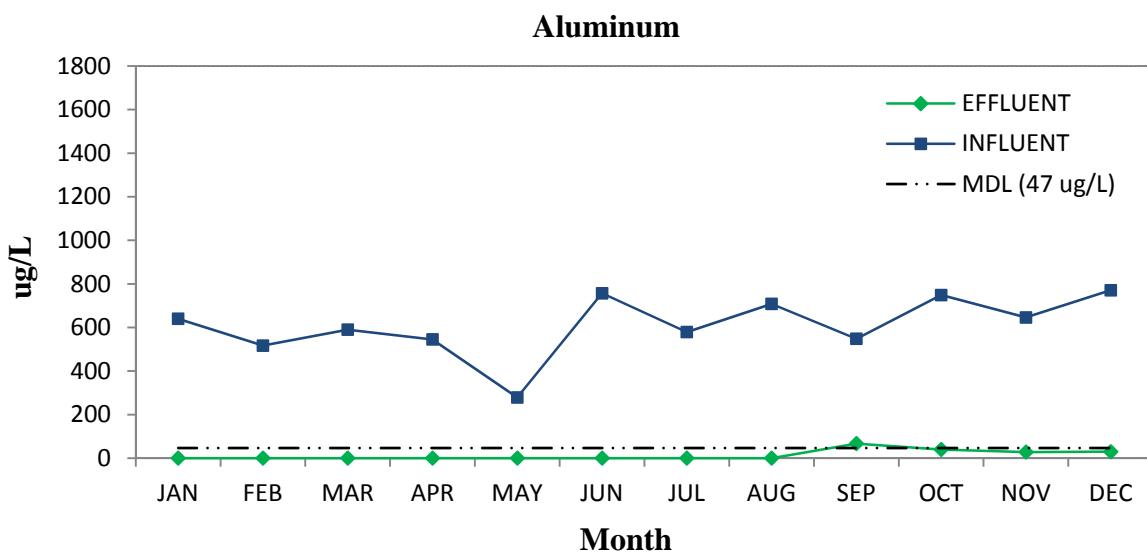
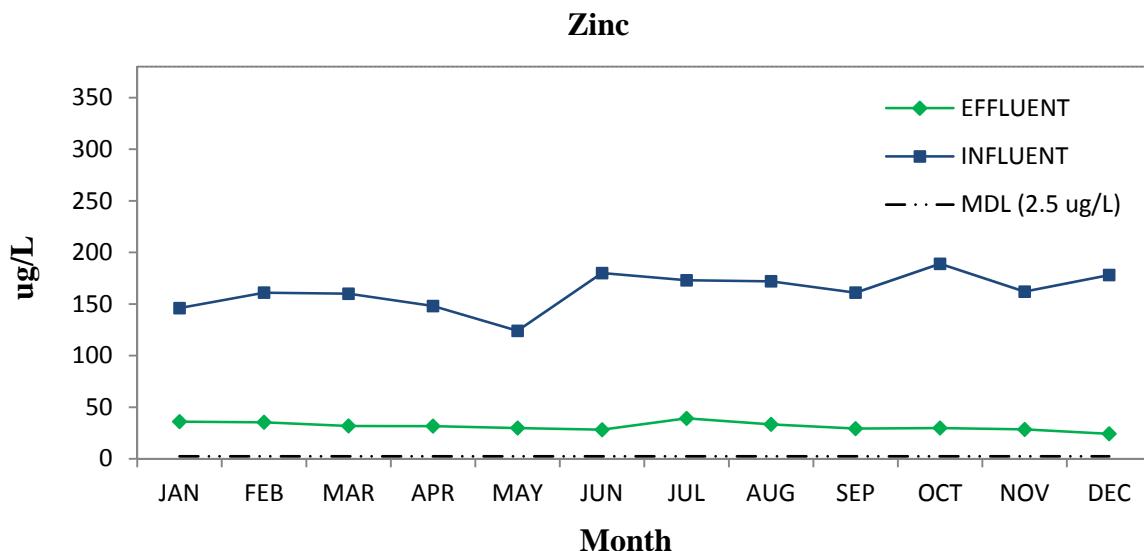
2014 South Bay Water Reclamation Plant Monthly Averages



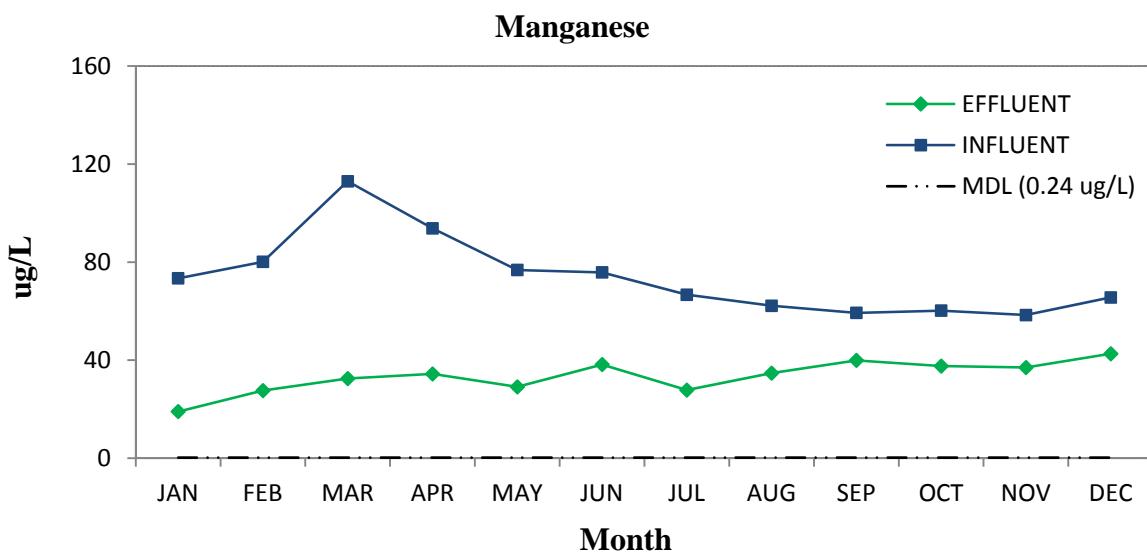
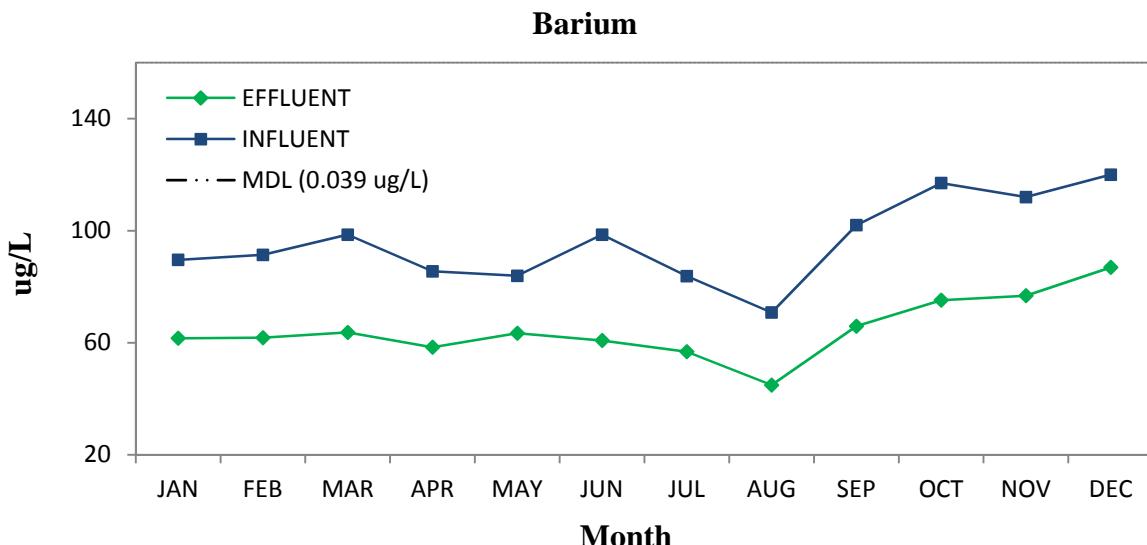
**2014 South Bay Water Reclamation Plant
Monthly Averages**



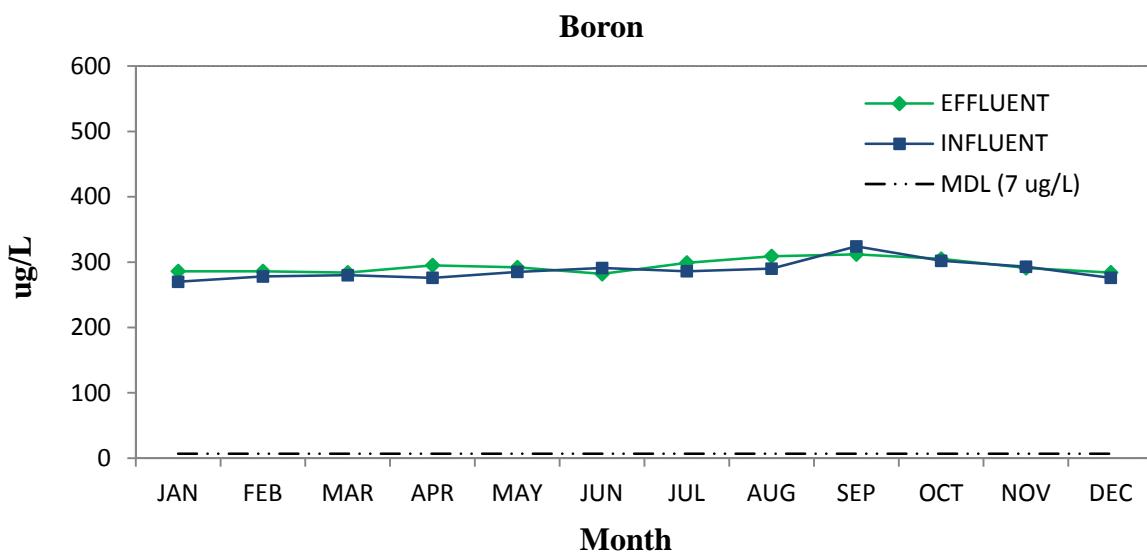
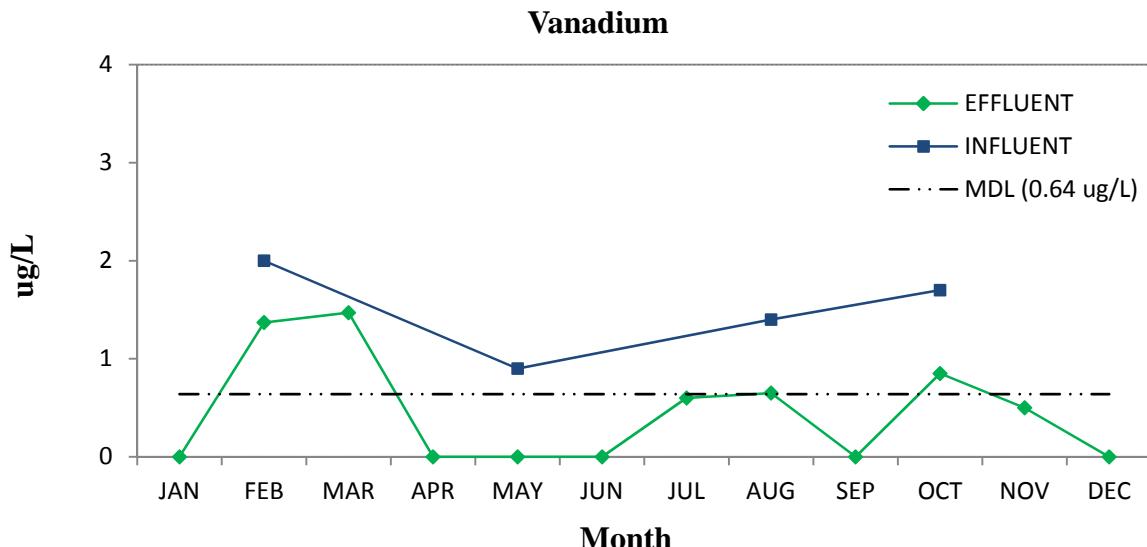
2014 South Bay Water Reclamation Plant Monthly Averages



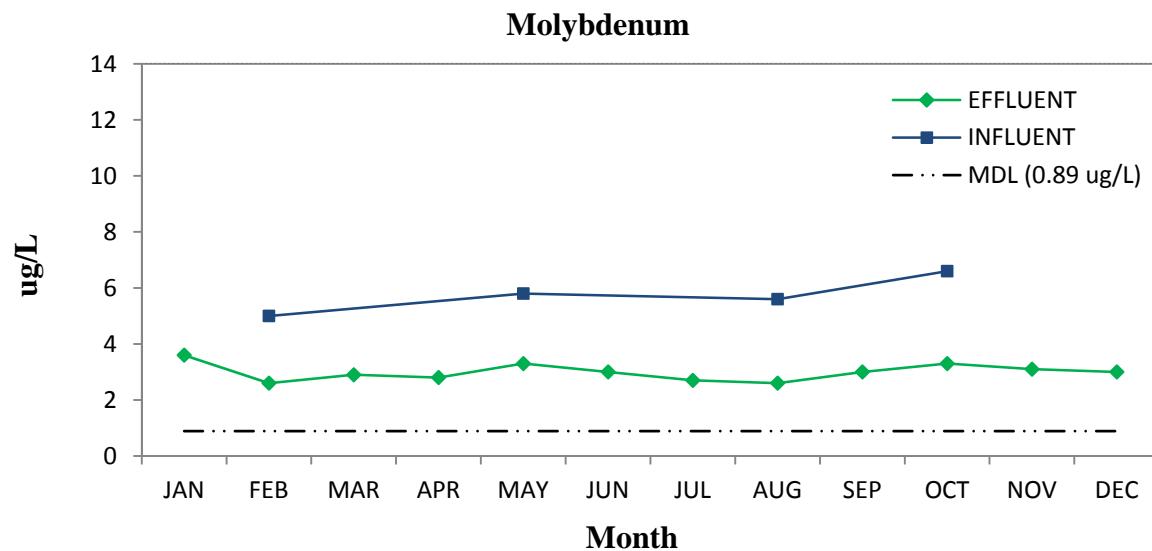
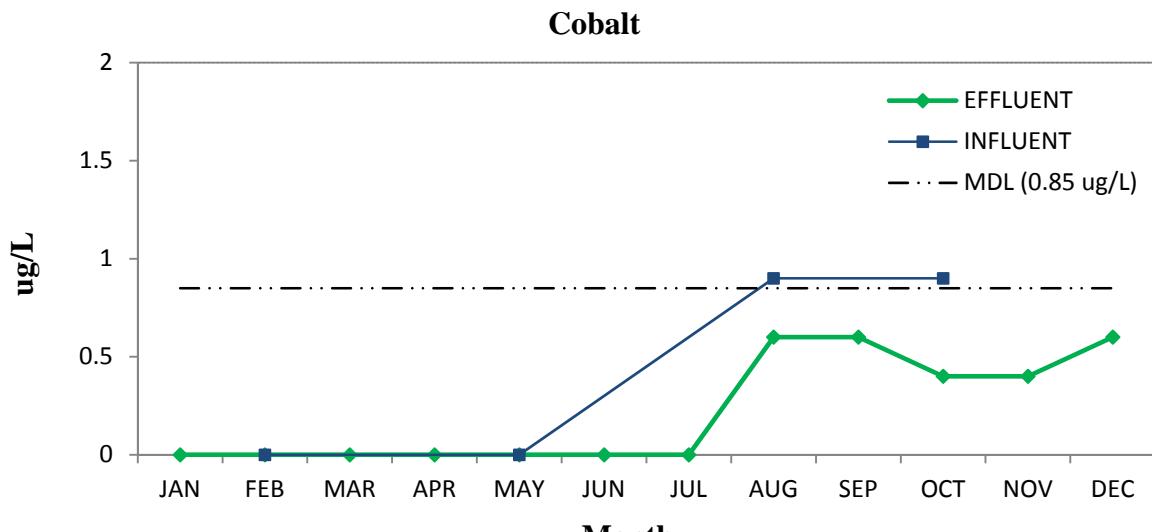
2014 South Bay Water Reclamation Plant Monthly Averages



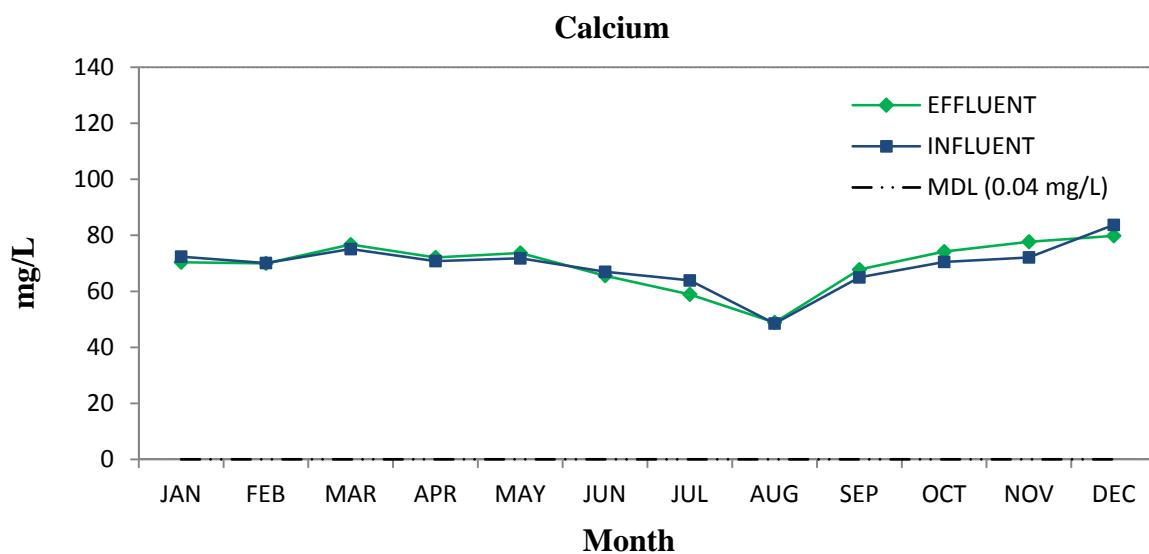
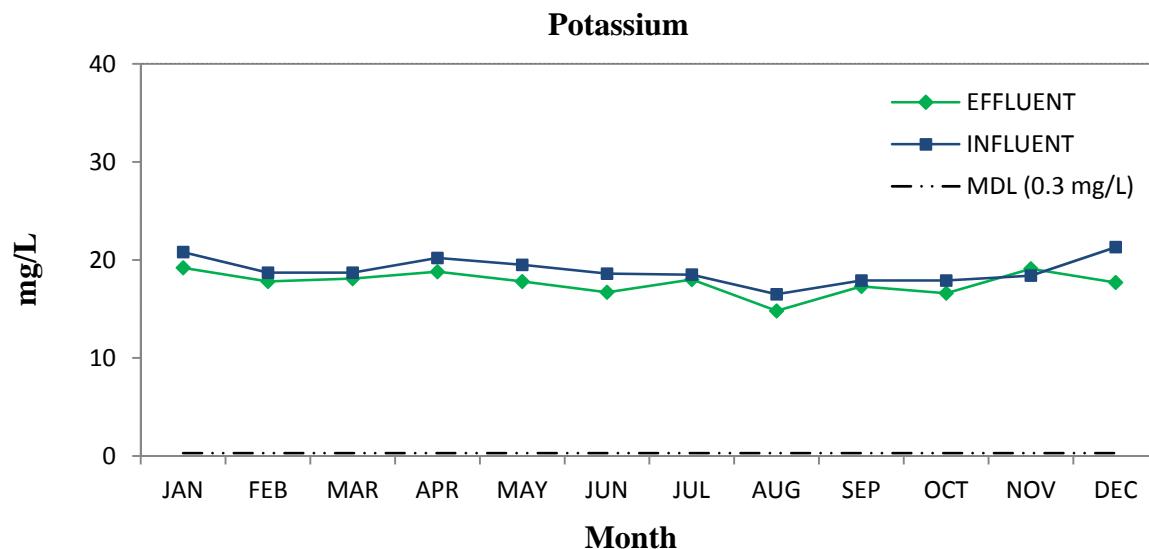
2014 South Bay Water Reclamation Plant Monthly Averages



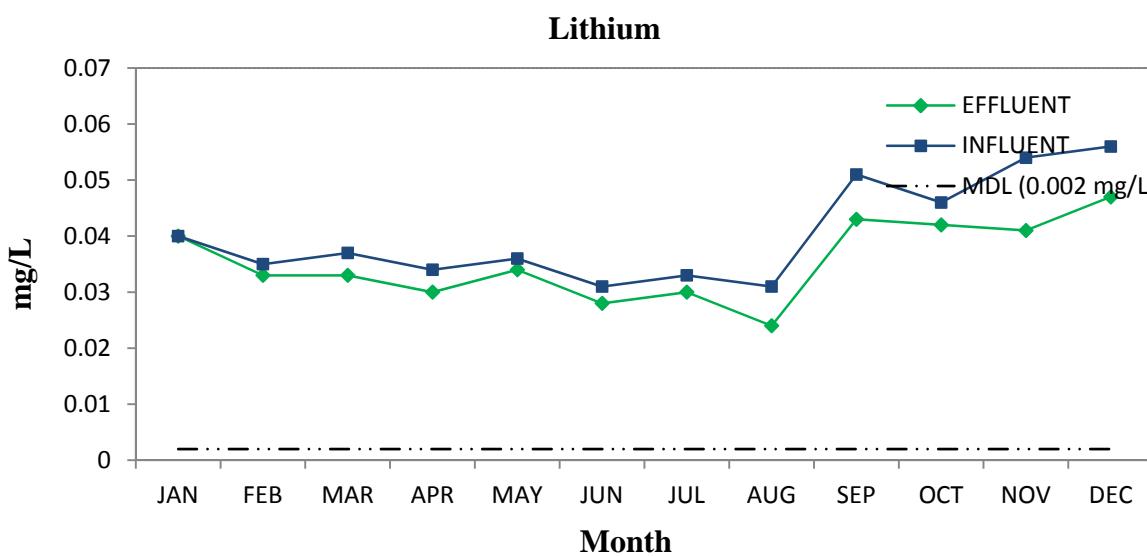
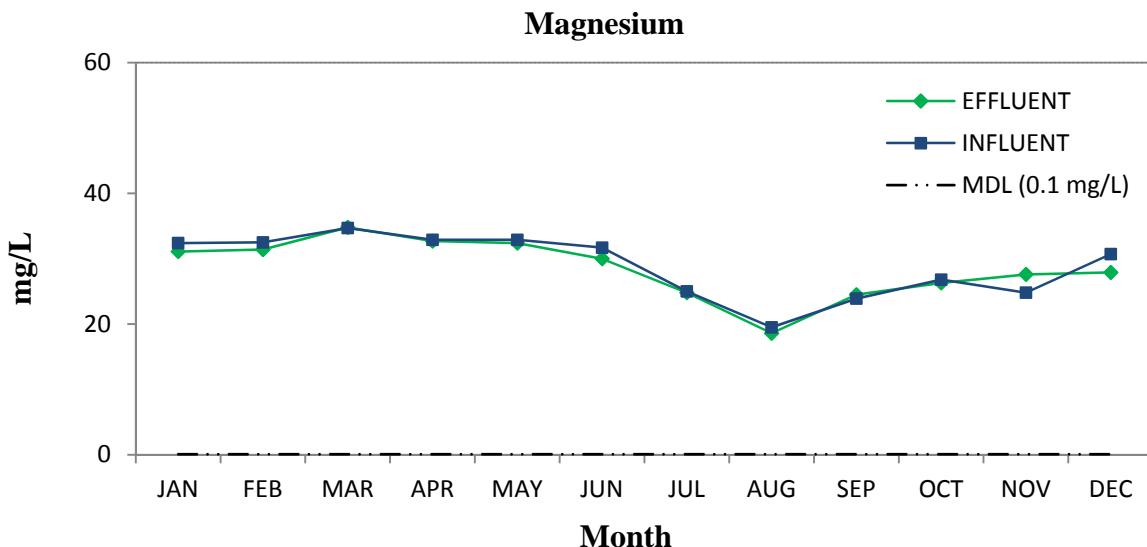
**2014 South Bay Water Reclamation Plant
Monthly Averages**



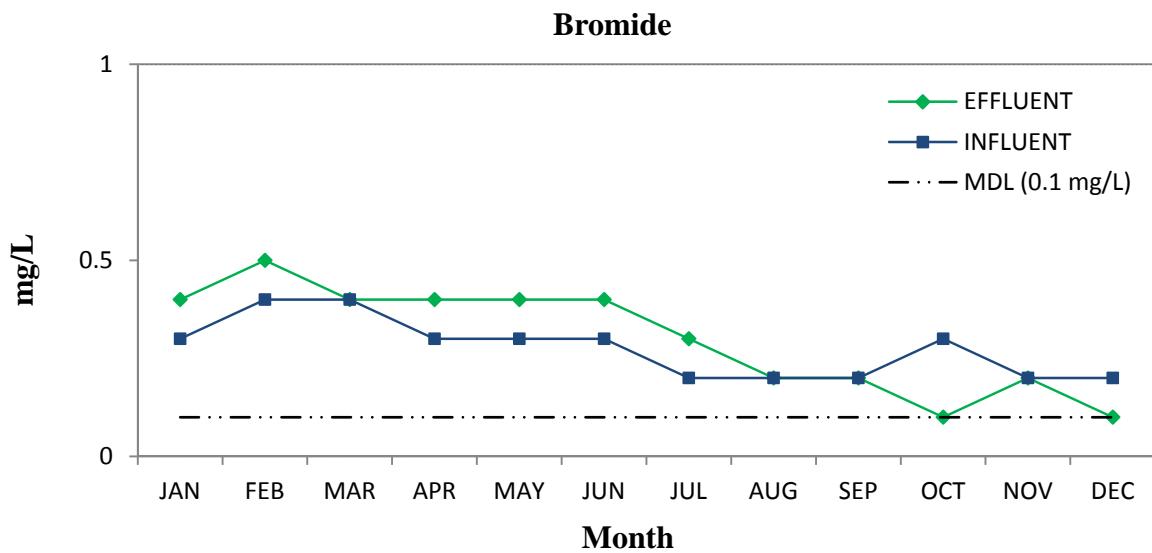
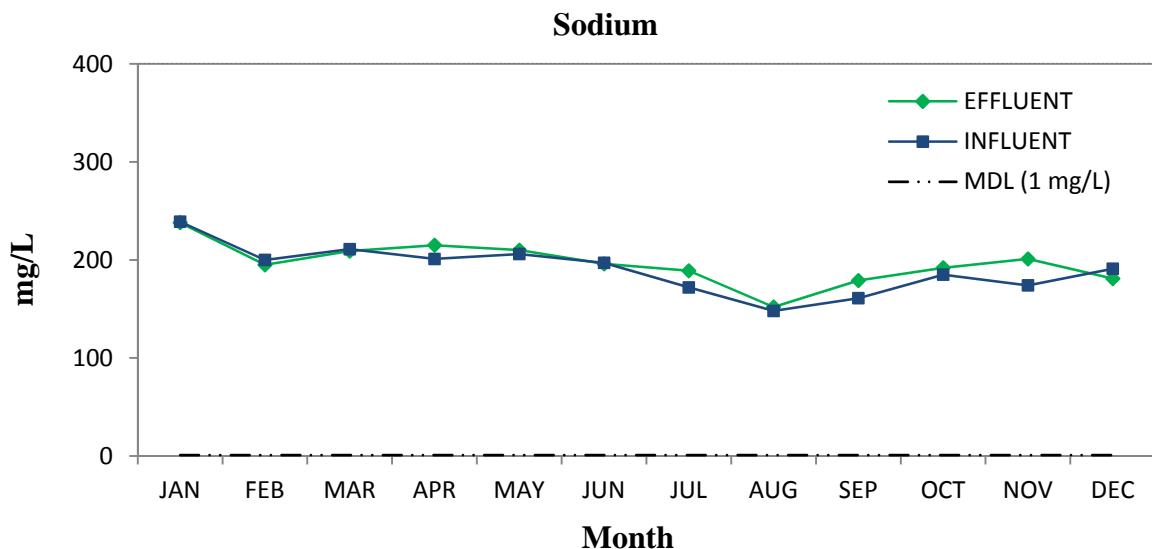
2014 South Bay Water Reclamation Plant Monthly Averages



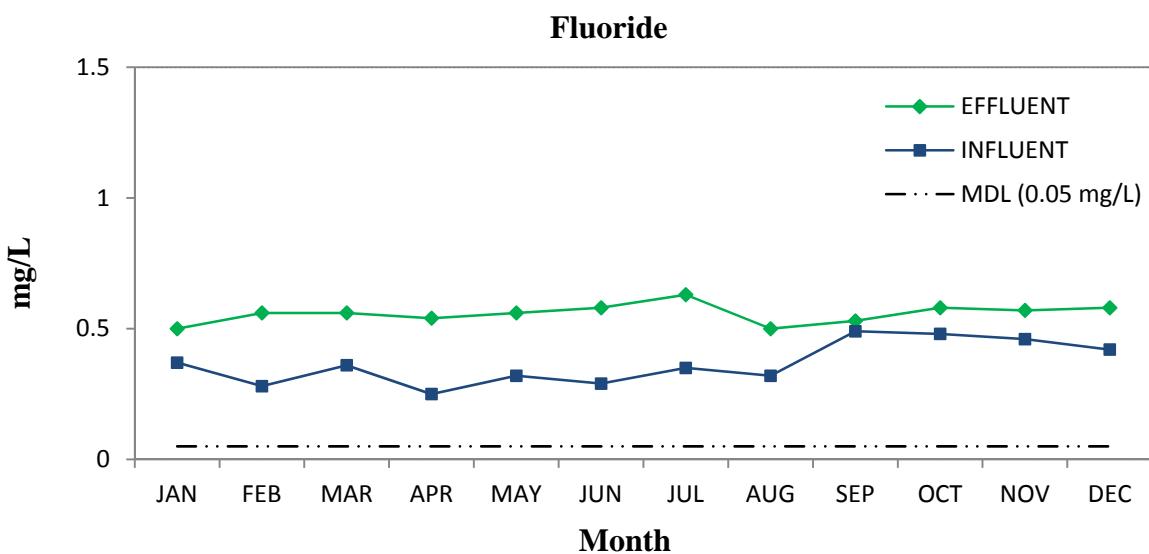
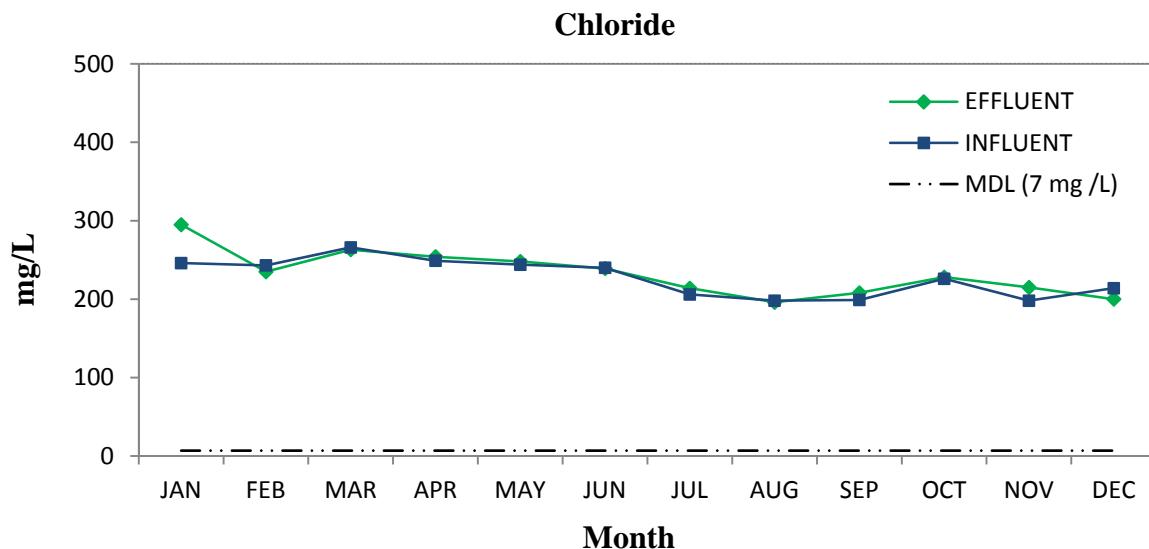
2014 South Bay Water Reclamation Plant Monthly Averages



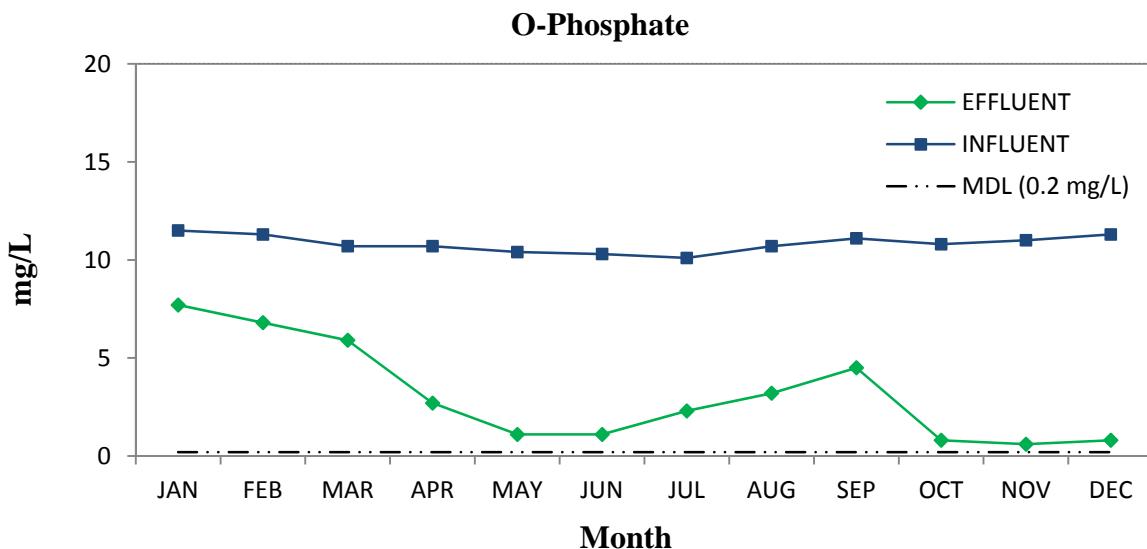
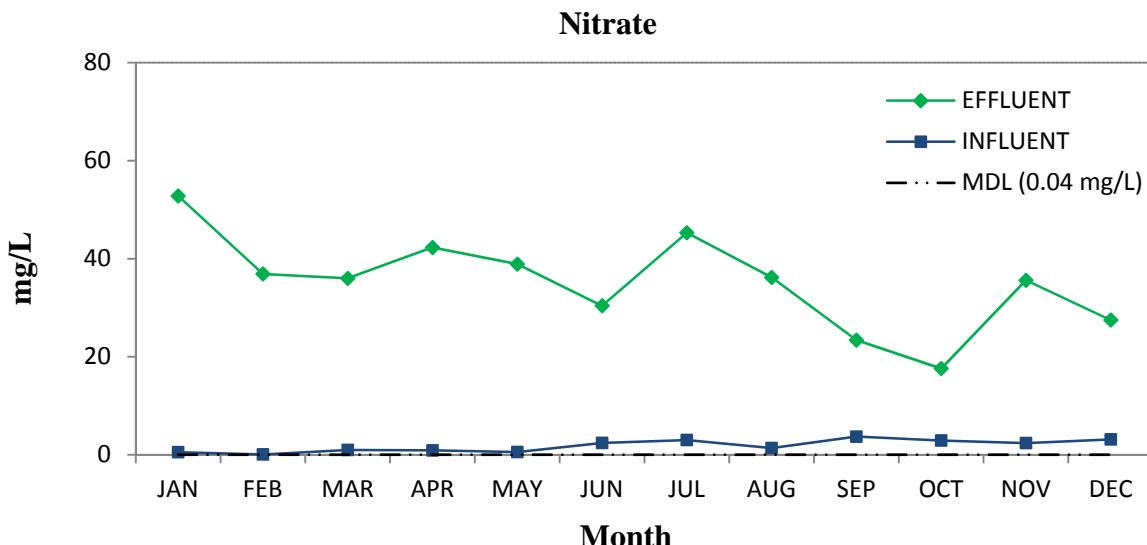
**2014 South Bay Water Reclamation Plant
Monthly Averages**



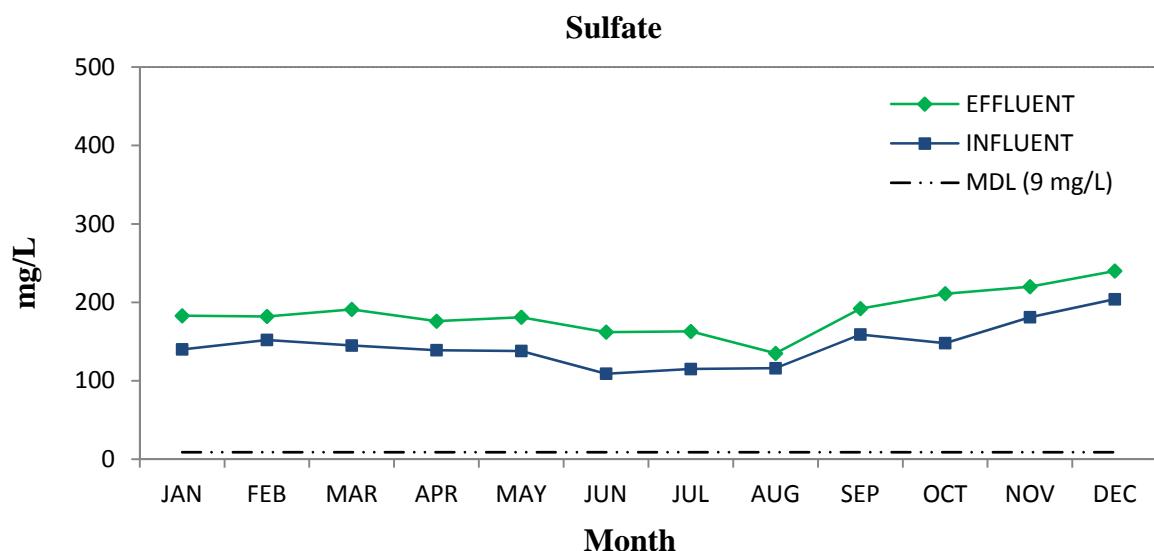
**2014 South Bay Water Reclamation Plant
Monthly Averages**



2014 South Bay Water Reclamation Plant Monthly Averages



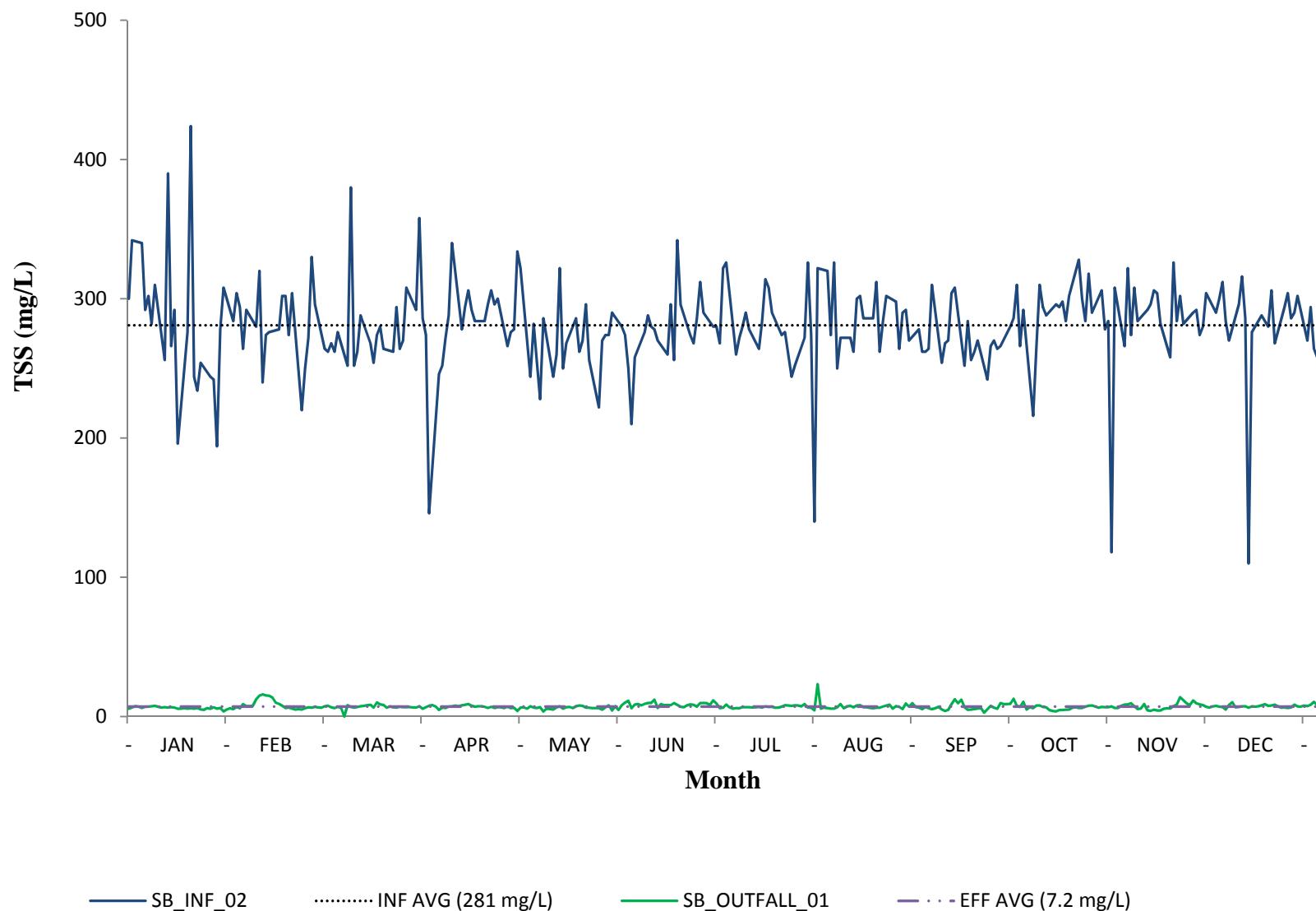
**2014 South Bay Water Reclamation Plant
Monthly Averages**



E. 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.

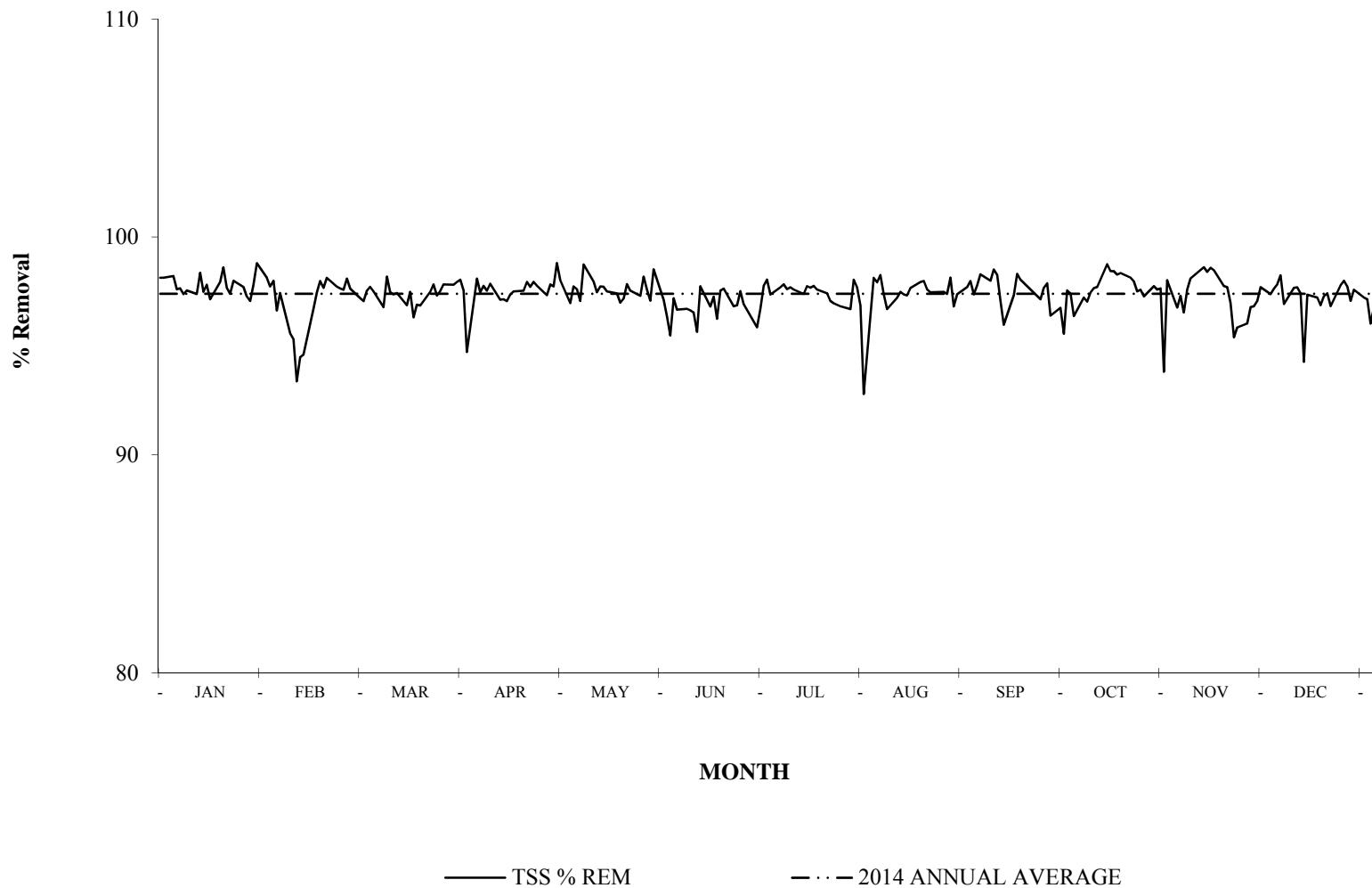
**South Bay Wastewater Reclamation Plant
2014 Total Suspended Solids**



2014 Total Suspended Solids

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	300	5.6			5.9		6.3		286	5.6	322	6.4	280	8.1	268	6.0			5.7		262	5.3	266	6.9	7.7	300	7.1					
2	342	6.4	284	5.3	264	7.4	274	6.7			6.5		274	10.0	322	6.3			6.4		262	6.9	292	10.6	266	8.6	312	6.8				
3		7.5	304	6.9	262	7.7	146	7.7			5.7		250	11.3	326	8.6	320	6.0	264	5.9			5.0		322	8.7	284	5.0				
4		7.1	294	5.9	268	6.6			8.2		244	7.4	210	5.9			6.6		274	5.7	310	5.3			6.7		274	9.5	270	8.3		
5	340	6.1	264	8.9	262	6.0			7.2		282	6.4	258	8.6			5.7		326	5.7			5.9		216	6.0	308	7.4		10.3		
6	292	7.0	292	7.5	276	6.9	246	4.7	254	6.1			9.0		260	6.0	250	6.6			7.0		266	7.9	284	5.4		6.6				
7	302	7.1			7.5		6.4		252	6.4	228	6.7			8.0		272	5.9	272	9.0	254	5.1	310	7.9			5.8		296	6.9		
8	282	7.4			7.7				272	6.1	286	3.6	276	9.1	280	6.7			5.9		268	4.0	294	6.9			9.0		316	7.3		
9	310	7.6	280	12.4	252	8.1	288	7.1			5.8		288	9.7	290	6.7			7.3		270	4.7	288	6.6	292	4.4		286	7.4			
10		7.0	320	15.0	380	6.9	340	7.3			5.4		280	9.7	278	6.7	272	7.6	304	8.9			4.6		296	4.1	110	6.3				
11		6.4	240	15.9	252	6.4			7.8		244	5.0	278	12.1			6.5		262	6.6	308	12.4			4.0		306	4.9	276	7.3		
12	256	6.7	274	15.1	262	6.9			7.4		260	6.6	270	6.1			6.6		300	7.9			9.5		296	3.7	304	4.3		7.1		
13	390	6.4	276	14.9	288	7.4	278	8.0	322	7.3			8.9		264	6.9	302	8.1			12.1		294	4.6	282	4.3		7.4				
14	266	6.7			13.6		7.6		294	8.4	250	5.7			8.1		284	6.4	286	6.7	252	6.7	298	4.7			5.6		288	8.0		
15	292	6.4			9.9		8.1		306	9.0	268	6.7	260	8.3	314	7.3			6.6		284	4.8	284	4.9			5.9		284	8.9		
16	196	5.6	278	9.1	268	8.4	292	7.7			6.9		296	8.1	308	6.9			6.2		256	5.0	302	5.0	258	5.8		280	7.6			
17		5.7	302	7.7	254	6.4	284	7.1			6.0		256	9.6	290	7.0	286	5.9	262				6.3		326	7.5	306	7.9				
18		6.0	302	6.1	274	10.1			7.4		286	7.4	342	8.4			6.3		312	6.3	270				6.7		284	8.6	268	8.5		
19	276	5.7	274	6.4	280	8.7			7.4		262	7.9	296	7.0			6.4		262	6.3			6.1		328	6.1	302	13.9		7.3		
20	424	5.9	304	5.7	264	8.3	284	7.0	270	7.6			6.7		274	7.1	284	7.2			2.7		300	6.1	282	11.7		6.3				
21	244	5.7			5.0		6.3		296	6.1	296	6.4			8.0		276	8.1	302				242		284	7.1		9.5		294	6.5	
22	234	6.1			5.3		7.3		306	7.0	256	6.3	274	8.7	260	7.9			8.5		266	7.6	318	7.7			8.1		304	6.1		
23	254	5.1	220	5.0	262	6.6	296	6.1			6.0		268	8.4	244	7.6			5.7		270	6.3	290	7.9	290	11.5		286	6.5			
24		4.8	250	5.9	294	6.4	300	6.7			6.0		286	7.1	252	8.0	298	7.5	264	5.6			7.2		292	9.4	290	8.5				
25		6.0	272	6.6	264	7.1			6.6		222	6.0	312	9.6			7.9		264	6.9	266	9.6			6.3		274	8.7	302	7.3		
26	244	5.6	330	6.3	270	6.7			6.1		270	4.9	290	9.7			7.3		290	5.4			8.9		306	6.9	280	8.2		7.1		
27	242	6.6	296	7.0	308	6.7	266	7.1	274	6.6			9.6		272	9.0	292	9.3			9.0		278	6.7	304	7.0		7.8				
28	194	5.7			6.5		6.8		276	6.0	274	8.0			8.3		326	6.4	270	7.1	280	9.1	284	6.7			6.4		270	7.5		
29	278	6.1					6.5		278	6.3	290	4.3	280	11.6	274	6.3			9.5		286	12.7	118	7.3			7.2		294	8.4		
30	308	3.7					292	6.4	334	4.0			7.4		280	9.3	140	4.4			6.8		310	7.6	308	6.1	290	7.6	264	10.5	Annual Summary	
31		5.0					358	7.4					4.7				322	23.2	278	6.4					6.1				258	8.3	INF	EFF
Ave	285	6.2	283	8.4	280	7.2	282	6.9	270	6.2	277	8.8	278	7.4	286	6.9	273	7.2	283	6.4	291	7.6	280	7.5	281	7.2						
Min	194	3.7	220	5.0	252	6.0	146	4.0	222	3.6	210	5.9	140	4.4	250	5.4	242	2.7	118	3.7	258	4.1	110	5.0	110	2.7						
Max	424	7.6	330	15.9	380	10.1	340	9.0	322	8.0	342	12.1	326	23.2	326	9.5	310	12.7	328	10.6	326	13.9	316	10.5	424	23.2						

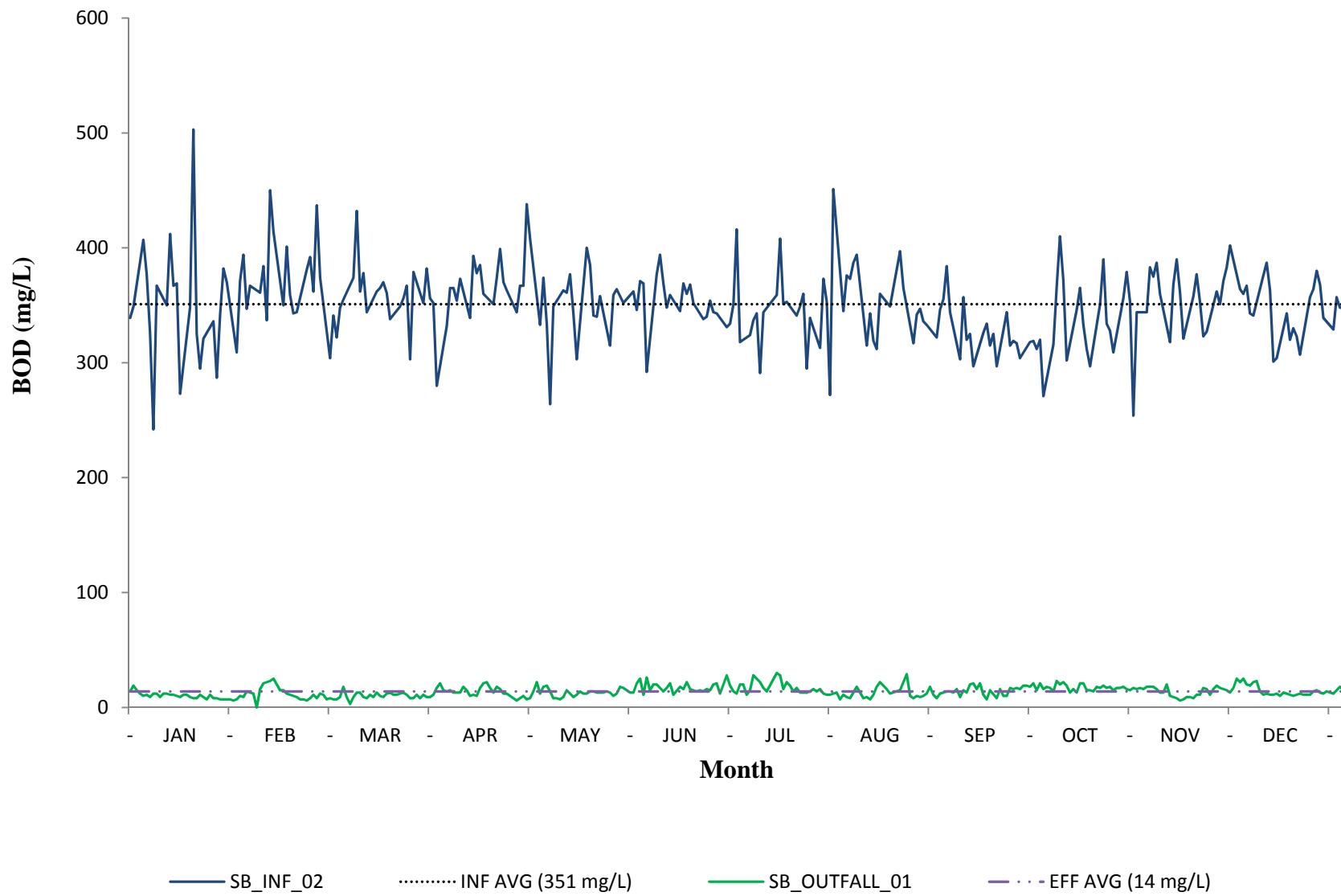
**South Bay Wastewater Reclamation Plant
2014 TSS Percent Removal**



2014 TSS Percent Removals

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	98.1			98.0	98.0	97.1	97.8		98.0	97.4		97.6
2	98.1	98.1	97.2	97.6		96.4	98.0		97.4	96.4	96.8	97.8
3		97.7	97.1	94.7		95.5	97.4	98.1	97.8		97.3	98.2
4		98.0	97.5		97.0	97.2		97.9	98.3		96.5	96.9
5	98.2	96.6	97.7		97.7	96.7		98.3		97.2	97.6	
6	97.6	97.4	97.5	98.1	97.6		97.7	97.4		97.0	98.1	
7	97.6			97.5	97.1		97.8	96.7	98.0	97.5		97.7
8	97.4			97.8	98.7	96.7	97.6		98.5	97.7		97.7
9	97.5	95.6	96.8	97.5		96.6	97.7		98.3	97.7	98.5	97.4
10		95.3	98.2	97.9		96.5	97.6	97.2	97.1		98.6	94.3
11		93.4	97.5		98.0	95.6		97.5	96.0		98.4	97.4
12	97.4	94.5	97.4		97.5	97.7		97.4		98.8	98.6	
13	98.4	94.6	97.4	97.1	97.7		97.4	97.3		98.4	98.5	
14	97.5			97.1	97.7		97.7	97.7	97.3	98.4		97.2
16	97.8			97.1	97.5	96.8	97.7		98.3	98.3		96.9
16	97.1	96.7	96.9	97.4		97.3	97.8		98.0	98.3	97.8	97.3
17		97.5	97.5	97.5		96.3	97.6	97.9	100.0		97.7	97.4
18		98.0	96.3		97.4	97.5		98.0	100.0		97.0	96.8
19	97.9	97.7	96.9		97.0	97.6		97.6		98.1	95.4	
20	98.6	98.1	96.9	97.5	97.2		97.4	97.5		98.0	95.9	
21	97.7			97.9	97.8		97.1	100.0	100.0	97.5		97.8
22	97.4			97.7	97.5	96.8	97.0		97.1	97.6		98.0
23	98.0	97.7	97.5	97.9		96.9	96.9		97.7	97.3	96.0	97.7
24		97.6	97.8	97.8		97.5	96.8	97.5	97.9		96.8	97.1
25		97.6	97.3		97.3	96.9		97.4	96.4		96.8	97.6
26	97.7	98.1	97.5		98.2	96.7		98.1		97.7	97.1	
27	97.3	97.6	97.8	97.3	97.6		96.7	96.8		97.6	97.7	
28	97.1			97.8	97.1		98.0	97.4	96.8	97.6		97.2
29	97.8			97.7	98.5	95.9	97.7		95.6	93.8		97.1
30	98.8		97.8	98.8		96.7	96.9		97.5	98.0	97.4	96.0
31			97.9				92.8	97.7				96.8 Annual Summary
Average	97.8	96.9	97.4	97.5	97.6	96.8	97.3	97.7	97.8	97.6	97.3	97.2
Minimum	97.1	93.4	96.3	94.7	97.0	95.5	92.8	96.7	95.6	93.8	95.4	94.3
Maximum	98.8	98.1	98.2	98.8	98.7	97.7	98.0	100.0	100.0	98.8	98.6	98.2
												100.0

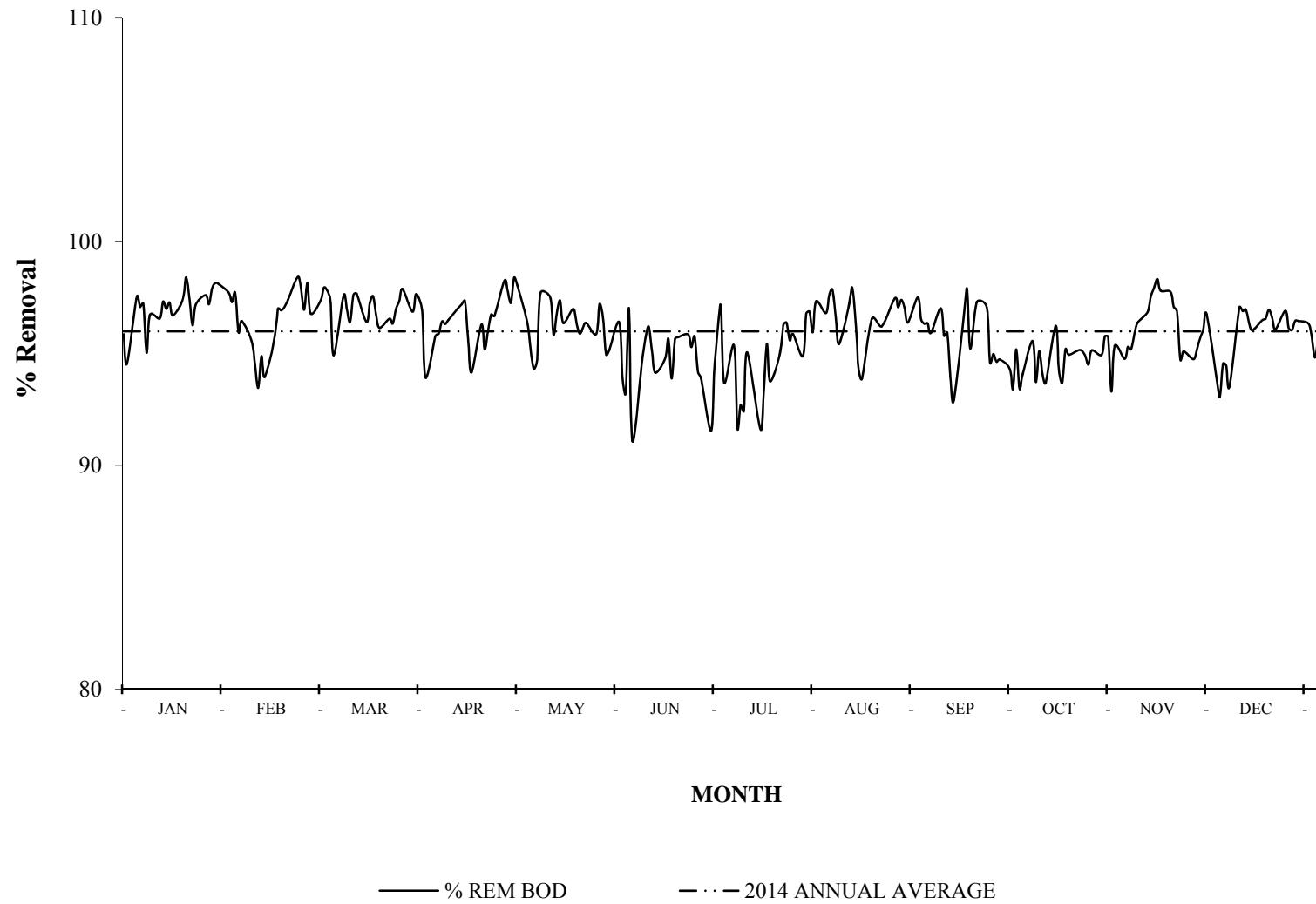
**South Bay Wastewater Reclamation Plant
2014 Biochemical Oxygen Demand**



2014 Biochemical Oxygen Demand

Day	Jan		Feb		Mar		Apr		May		Jun		Jul		Aug		Sep		Oct		Nov		Dec			
	INF	EFF																								
1	339	14		6		7	356	9	408	8	362	13	351	14		13	346	12	320	21		16	360	25		
2	349	19	309	7	304	8	352	11		14	346	21	416	12		7	355	13	271	16	344	18	367	20		
3	15	371	10	341	7	280	17		22	371	25	318	20	345	11	384	14		18	383	18	343	19			
4	12	394	9	322	7		21	333	12	369	11		20	376	9	344	14		17	375	18	341	22			
5	407	10	347	14	348	9		15	374	18	292	26		11	373	8		13	316	14	387	16		23		
6	377	11	367	13	355	18	332	14	334	19		15	324	15	387	13		16	367	23	360	13		14		
7	326	9		12		9	365	15	264	14		20	337	28	394	18	303	9	410	20		13	376	11		
8	242	12	0		3	365	13	349	8	377	20	343	25		13	357	15	372	22		20	387	12			
9	367	12	361	16	374	9	354	13		8	394	17	291	22		8	320	13	302	19	318	10	363	11		
10	9	384	21	432	13	373	13		7	369	14	344	17	315	9	325	20		13	368	9	301	11			
11	12	337	22	362	13		18	363	9	348	17		14	343	7	297	21		16	390	8	304	12			
12	350	12	450	23	378	9		15	361	15	359	21		11	319	11		16	346	13	361	6		10		
13	412	11	414	25	344	8	339	10	377	12		11		312	18		21	365	21	321	7		13			
14	367	11		20		11	393	11	343	9		359	30	360	22	326	11	333	21		9	343	12			
15	369	10		15		9	378	10	303	11	345	18	408	28		19	334	7	312	15		9	320	11		
16	273	9	350	15	362	13	385	17		14	369	16	351	16		16	315	15	297	15	358	8	330	10		
17	11	401	12	365	10	360	21		12	360	22	353	22	349	12	325			14	377	11	323	11			
18	11	359	11	370	9		22	400	12	368	16		19		0	297	8		18	353	11	307	12			
19	348	9	343	10	361	12		17	385	14	352	15		14		0		16	351	17	323	17		11		
20	503	8	344	9	338	13	351	13	341	14		14	341	17	397	15		10	390	19	327	16		11		
21	325	8		7		11	374	18	340	13		15	349	13	365	0	344	10	334	17		11	357	11		
22	295	11		7		11	399	16	358	13	338	14	360	13		29	315	17	328	18		16	364	14		
23	321	9	381	6	349	12	370	12		13	340	16	295	13		10	319	16	309	15	362	19	380	15		
24	7	392	8	356	13	363	12		14	354	15	339	14	317	8	317	17		17	351	17	368	13			
25	11	362	11	367	11		10	315	13	344	20		16	342	10	304	16		17	371	16	339	12			
26	336	8	437	8	303	8		8	359	10	343	21		14	347	9		19	356	18	383	15		14		
27	287	8	374	12	379	8	344	6	364	12		12	313	16	336	10		19	379	16	402	13		13		
28	342	7		11		11	367	8	358	18		20	373	12	333	12	318	18	353	15		17	329	12		
29	382	7				8	367	10	352	17	331	28	353	11		18	319	21	254	17		25	357	15		
30	370	7			352	11	438	7		15	334	19	272	11		11	312	15	344	16	364	22	348	18	Annual Summary	
31	7				382	9		13			451	12	322	8					17		347	15	INF	EFF		
Avg	349	10	374	12	357	10	364	13	351	13	353	18	347	17	349	11	326	15	345	17	361	14	346	14	351	14
Min	242	7	309	0	303	3	280	6	264	7	292	11	272	11	312	0	297	7	254	13	318	6	301	10	242	0
Max	503	19	450	25	432	18	438	22	408	22	394	28	451	30	397	29	384	21	410	23	402	25	387	25	503	30

**South Bay Wastewater Reclamation Plant
2014 BOD Percent Removal**



2014 BOD Percent Removals

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	95.9			97.5	98.0	96.4	96.0		96.5	93.4		93.1
2	94.6	97.7	97.4	96.9		93.9	97.1		96.3	94.1	94.8	94.6
3		97.3	97.9	93.9		93.3	93.7	96.8	96.4		95.3	94.5
4		97.7	97.8		96.4	97.0		97.6	95.9		95.2	93.5
5	97.5	96.0	97.4		95.2	91.1		97.9		95.6	95.9	
6	97.1	96.5	94.9	95.8	94.3		95.4	96.6		93.7	96.4	
7	97.2			95.9	94.7		91.7	95.4	97.0	95.1		97.1
8	95.0			96.4	97.7	94.7	92.7		95.8	94.1		96.9
9	96.7	95.6	97.6	96.3		95.7	92.4		95.9	93.7	96.9	97.0
10		94.5	97.0	96.5		96.2	95.1	97.1	93.8		97.6	96.3
11		93.5	96.4		97.5	95.1		98.0	92.9		97.9	96.1
12	96.6	94.9	97.6		95.8	94.2		96.6		96.2	98.3	
13	97.3	94.0	97.7	97.1	96.8			94.2		94.2	97.8	
14	97.0			97.2	97.4		91.6	93.9	96.6	93.7		96.5
15	97.3			97.4	96.4	94.8	93.1		97.9	95.2		96.6
16	96.7	95.7	96.4	95.6		95.7	95.4		95.2	94.9	97.8	97.0
17		97.0	97.3	94.2		93.9	93.8	96.6	100.0		97.1	96.6
18		96.9	97.6		97.0	95.7			97.3		96.9	96.1
19	97.4	97.1	96.7		96.4	95.7				95.2	94.7	
20	98.4	97.4	96.2	96.3	95.9		95.0	96.2		95.1	95.1	
21	97.5			95.2	96.2		96.3	100.0	97.1	94.9		96.9
22	96.3			96.0	96.4	95.9	96.4		94.6	94.5		96.2
23	97.2	98.4	96.6	96.8		95.3	95.6		95.0	95.1	94.8	96.1
24		98.0	96.3	96.7		95.8	95.9	97.5	94.6		95.2	96.5
25		97.0	97.0		95.9	94.2		97.1	94.7		95.7	96.5
26	97.6	98.2	97.4		97.2	93.9		97.4		94.9	96.1	
27	97.2	96.8	97.9	98.3	96.7		94.9	97.0		95.8	96.8	
28	98.0			97.8	95.0		96.8	96.4	94.3	95.8		96.4
29	98.2			97.3	95.2	91.5	96.9		93.4	93.3		95.8
30	98.1		96.9	98.4		94.3	96.0		95.2	95.3	94.0	94.8
31			97.6			97.3	97.5				95.7	Annual Summary
Average	97.0	96.50	97.1	96.5	96.3	94.7	95.0	96.8	95.8	94.7	96.2	95.9
Minimum	94.6	93.47	94.9	93.9	94.3	91.1	91.6	93.9	92.9	93.3	94.0	93.1
Maximum	98.4	98.4	97.9	98.4	98.0	97.0	97.3	100.0	100.0	96.2	98.3	97.1
												100.0

F. Toxicity Testing: South Bay Water Reclamation Plant 2014

INTRODUCTION

The City of San Diego's Toxicology Laboratory (CSDL) conducted aquatic toxicity testing (bioassays) of effluent from the South Bay Water Reclamation Plant (SBWRP) and combined effluent from the SBWRP and adjacent South Bay International Wastewater Treatment Plant (SBIWTP) during calendar year 2014 as required by Order No. R9-2013-0006, NPDES Permit No. CA0109045. Order No. R9-2013-0006 was subsequently amended by Order No. R9-2014-0071 on November 12, 2014, which resulted in the discontinuation of the requirement for combined effluent testing. The testing requirements are designed to determine the acute and chronic toxicity of effluent samples collected from the SBWRP. However, this chapter presents summaries and discussion of all toxicity tests conducted in calendar year 2014 before and after these changes went into effect.

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 bioassays are characterized by the duration of exposure of test organisms 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 animals. Acute toxicity testing of SBWRP effluent is not required under Order No. R9-2013-0006. In 2014, the annual acute toxicity testing of the combined effluent was discontinued with the amendment of Order No. R9-2013-0006.

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. In 2014, the quarterly chronic toxicity testing of the combined effluent that was discontinued with the amendment of Order No. R9-2013-0006.

MATERIALS & METHODS

Test Materials

SBWRP Effluent

Twenty-four hour, flow-weighted, effluent composite samples were collected at the in-stream sampling site (designated SB_Outfall_00) for the SBWRP and stored at 4 °C until test initiation. All tests were initiated within 36 hours of sample collection. The effluent exposure series consisted of 3.88, 7.75, 15.5, 31.0, and 62.0% (nominal) for the acute tests, and 0.26, 0.53, 1.05, 2.10, and 4.20% for the chronic tests. Dilution water for all tests (effluent and reference toxicant) was obtained from the Scripps Institution of Oceanography (SIO), filtered, held at 15 °C, and used within 96 hours of collection or frozen to produce hypersaline brine. Detailed descriptions for all toxicity tests are provided in the City of San Diego Toxicology Laboratory Quality Assurance Manual (City of San Diego 2014).

Combined Effluent

Composite samples for these bioassays were collected during overlapping 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 treatment plant at the time of sample collection. The comingled effluent samples are hereinafter referred to as "Combined Effluent".

The Combined Effluent samples were stored at 4 °C and testing was initiated within 36 hours of sample collection. The effluent exposure series consisted of 0.26, 0.53, 1.05, 2.10, and 4.20% for the chronic tests. Dilution water for all tests (effluent and reference toxicant) was obtained from SIO, filtered, held at 15 °C, and used within 96 hours of collection or frozen to produce hypersaline brine. Detailed descriptions for all toxicity tests are provided in the City of San Diego Toxicology Laboratory Quality Assurance Manual (City of San Diego 2012).

Chronic Bioassays

Red Abalone Development Bioassay

During the current reporting period (January–December 2014), chronic bioassays using the red abalone *Haliotis rufescens* were conducted for the SBWRP effluent on a quarterly basis and in accordance with USEPA protocol EPA/600/R-95/136 (USEPA 1995). Additional red abalone bioassays were conducted to support the biennial rescreening of the Combined Effluent.

Test organisms were purchased from Cultured Abalone (Goleta, California), and/or American Abalone Farm (Davenport, California), and shipped via overnight delivery to the CSDTL. Mature male and female abalones were placed in gender-specific natural seawater tanks and held at 15 °C. For each test event, spawning was induced in 6-10 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 SIO water control was also tested.

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

At the end of the exposure period, 100 randomly-selected embryos were examined and the number of normally and abnormally developed embryos was recorded. The percentage of normally developed embryos for each replicate was arcsine square root transformed. Data were analyzed in accordance with "Flowchart for statistical analysis of red abalone *Haliotis rufescens*, development data" (USEPA 1995). ToxCalc (Tidepool Scientific Software 2002) and CETIS (Tidepool Scientific Software 2010) were used for all statistical analyses.

The red abalone tests were scored both inclusive and exclusive of unicellular embryos, which can be indicative of poor animal quality. As shown in previous studies, the inclusive scoring method induced greater variability and reduced test sensitivity. Moreover, data from past and present studies showed no association between the distribution of unicellular embryos and exposure to the reference toxicant, which further support the use of the exclusive method in scoring the red abalone tests.

In accordance with USEPA guidelines on method variability, the lower “Percent MSD” (PMSD) bound was also evaluated in order to minimize Type 1 error (i.e., false positive). If the relative difference between an exposure concentration and the control was smaller than the 10th percentile PMSD value listed for the test method in the USEPA guidance document (i.e., 3.8), then the exposure concentration was treated as if it did not differ significantly from control for the purpose of determining the NOEC (USEPA, 2000).

Kelp Germination and Growth Tests

During the current reporting period (January–December 2014), chronic bioassays using the giant kelp, *Macrocystis pyrifera*, were conducted for the Combined Effluent on a quarterly basis in accordance with USEPA protocol EPA/600/R-95/136 (USEPA 1995). Additional red abalone bioassays were conducted to support the biennial rescreening of the SBWRP effluent.

Kelp zoospores were obtained from the reproductive blades (sporophylls) of adult *Macrocystis* plants at 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 the effluent exposure series. A SIO water control was also tested.

Simultaneous reference toxicant testing was performed using reagent grade copper chloride. The exposure series consisted of 5.6, 10, 18, 32, 100, 180 and 320 µg/L copper. A SIO seawater control was also tested.

At the end of the exposure period, 100 randomly-selected 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.

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 (Tidepool Scientific Software 2002) and CETIS (Tidepool Scientific Software 2010) were used for all statistical analyses.

In accordance with USEPA guidelines on method variability, the lower “Percent MSD” (PMSD) bound was also evaluated in order to minimize Type 1 error (i.e., false positive). If the relative difference between an exposure concentration and the control was smaller than the 10th percentile PMSD value listed for the test method in the USEPA guidance document (i.e., 6.5 for germination and 7.9 for growth), then the exposure concentration was treated as if it did not differ significantly from control for the purpose of determining the NOEC (USEPA, 2000).

Topsmelt Survival and Growth Bioassays

During the current reporting period (January–December 2014), chronic bioassays using the topsmelt, *Atherinops affinis*, were conducted for the SBWRP and Combined Effluent across multiple reporting periods as a part of the mandated multiple-species screening effort. All tests were conducted in accordance with EPA/600/R-95/136 (USEPA 1995).

Larval topsmelt (9-14 days old) were purchased from Aquatic Bio Systems (Fort Collins, CO) and exposed for seven days in a static-renewal system to the effluent. The test endpoints are survival and growth (dry biomass).

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 SIO seawater control was also tested.

Upon conclusion of the exposure period, percent survival and dry biomass were recorded. Data were analyzed in accordance with “Flowchart for statistical analysis of the topsmelt, *Atherinops affinis*, larval survival data” and “Flowchart for statistical analysis of the topsmelt, *Atherinops affinis*, larval growth data” (USEPA 1995). ToxCalc (Tidepool Scientific Software 2002) and CETIS (Tidepool Scientific Software 2010) were used for all statistical analyses.

In accordance with USEPA guidelines on method variability, the lower “Percent MSD” (PMSD) bound was also evaluated in order to minimize Type 1 error (i.e., false positive). Although PMSD bounds have not been established for the topsmelt, percentiles of PMSD for a comparable method using the inland silverside (*Menidia beryllina*) may be considered (Hemmer, 1992). If the relative difference between an exposure concentration and the control was smaller than the 10th percentile PMSD value listed for the inland silverside test method in the USEPA guidance document (i.e., 7.0 for 96-h survival and 12.0 for growth), then the exposure concentration will be further evaluated using other EPA-approved statistical strategies (USEPA, 2000).

RESULTS & DISCUSSION

Chronic Toxicity of SBWRP Effluent

In 2014, the City conducted quarterly chronic bioassays of the SBWRP effluent using the red abalone and additional bioassays using the giant kelp and topsmelt. The latter tests were conducted in accordance with the biennial re-screening requirement. All tests met the test acceptability criteria and the NPDES permit’s chronic toxicity performance goal (Table T.1).

Combined Effluent Toxicity

The City also conducted quarterly chronic bioassays for the Combined Effluent in 2014. Chronic tests were conducted using the giant kelp and additional bioassays using the red abalone and topsmelt. The latter tests were conducted in accordance with the biennial re-screening requirement. All valid tests met the acceptability criteria (Table T.2). Chronic toxicity testing of the Combined Effluent was discontinued in November with the amendment of Order No. R9-2013-0006.

REFERENCES

City of San Diego. 2014. Quality Assurance Manual. City of San Diego Ocean Monitoring Program, Metropolitan Wastewater Department, Environmental Monitoring and Technical Services Division, San Diego, CA

Tidepool Scientific Software. 2002. ToxCalc Toxicity Information Management System Database Software.

Tidepool Scientific Software. 2010. Comprehensive Environmental Toxicity Information System Software.

USEPA. 1995. Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms. U.S. Environmental Protection Agency, Environmental Monitoring and Support Laboratory, Cincinnati, OH, EPA/600/R-95/136.

USEPA. 2000. Understanding and Accounting for Method Variability in Whole Effluent Toxicity Applications Under the National Pollutant Discharge Elimination System Program. U.S. Environmental Protection Agency, Office of Water (4203), EPA 833-R-00-003.

USEPA. 2002. Methods for measuring the acute toxicity of effluents and receiving waters to freshwater and marine organisms. Fifth Edition. U.S. Environmental Protection Agency, Office of Water (4303T), Washington, DC, EPA-821-R-02-012.

Table T.1

Results of SBWRP effluent chronic toxicity tests conducted in 2014. Data are presented as chronic toxic units (TUC).

Sample Date	Red Abalone		Giant Kelp		Topsmelt	
	Development	Germination	Growth	Survival	Growth	
	Exclusive	Inclusive				
01/13/2014	-	-	23.8	23.8	-	-
01/14/2014	23.8	23.8	-	-	-	-
06/23/2014	23.8	23.8	23.8	23.8	23.8	23.8
07/21/2014	-	-	23.8	23.8	-	-
07/23/2014	23.8	23.8	-	-	23.8	23.8
12/18/2014	23.8	23.8	23.8	23.8	-	-

N	4	4	4	4	2	2
No. in compliance	4	4	4	4	2	2
Mean TUC	23.8	23.8	23.8	23.8	23.8	23.8

NPDES permit performance goal: 96 TUC

Table T.2

Results of SBWRP/IWTP combined effluent chronic toxicity tests conducted in 2014. Data are presented as chronic toxic units (TUC).

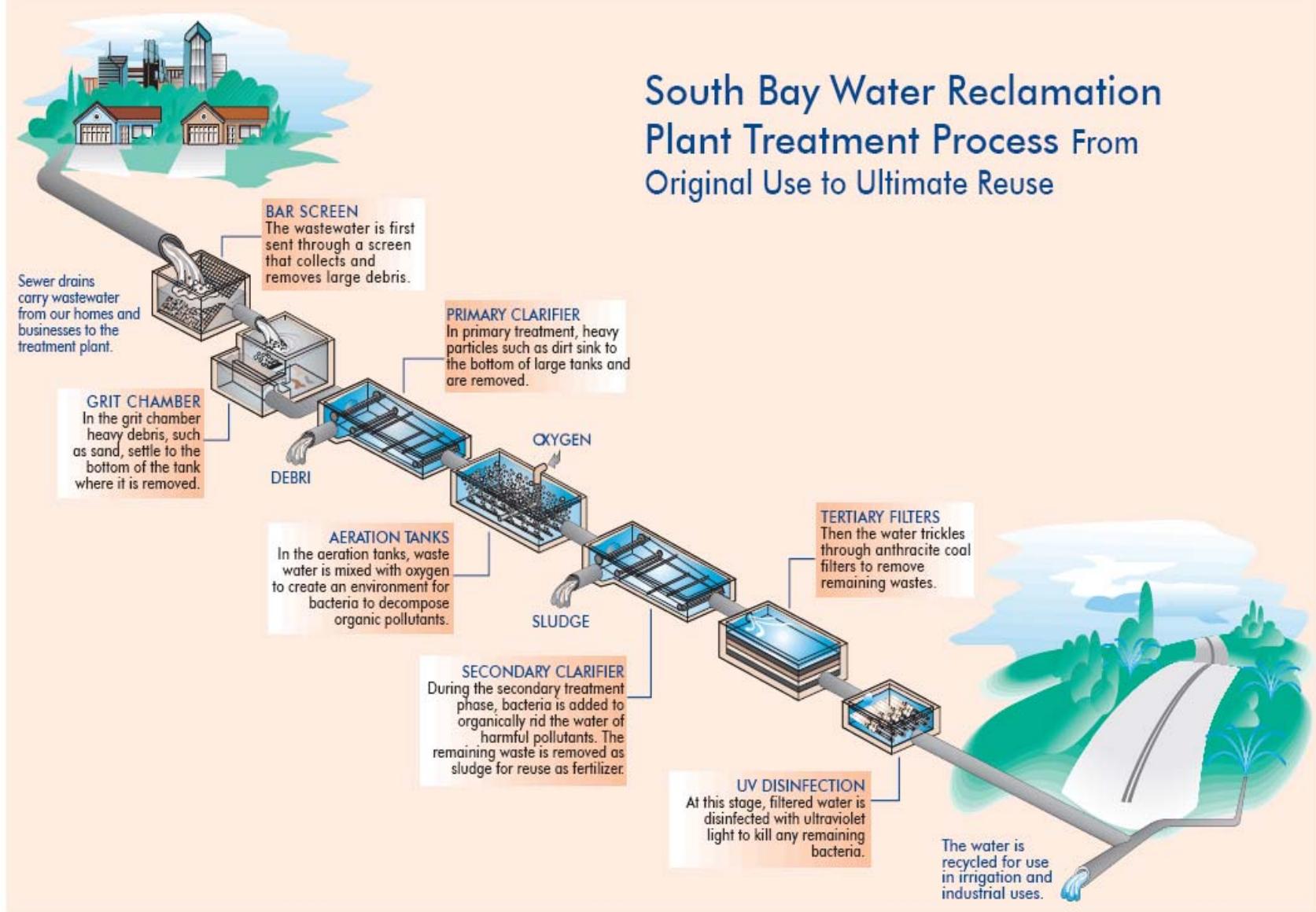
Sample Date	Giant Kelp		Red Abalone		Topsmelt	
	Germination	Growth	Development		Survival	Growth
			Exclusive	Inclusive		
03/25/2014	23.8	23.8	-	-	-	-
04/22/2014	23.8	23.8	-	-	23.8	23.8
04/28/2014	-	-	23.8	23.8	-	-
09/09/2014	23.8	23.8	N.V.	N.V.	23.8	23.8

N.V.: Test not valid

III. Plant Operations Summary

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

This page is left blank intentionally.



Overview of the Wastewater Treatment Process

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

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

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

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

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

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

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

The water, now treated to a Secondary Treatment level, can either be discharged into the ocean though the South Bay Ocean Outfall or moved on to Tertiary Treatment for reclaimed water applications and beneficial reuse⁵.

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

⁵ The Recycled Water Users Summary Report as described in Permit No. 2000-203 is submitted separately.

SBWRP Annual Monitoring Report
2014 Flow Report

SBWRP FLOWS

(Million Gallons / Day)

Mon	Influent	Outfall	Effluent	South			Dilution	Recycled
				Metro	Secondary	Interceptor	Recycled	Plant
				Return	Production	Distributed	Added	Internal use
01	7.90	4.20	2.98	1.50	4.15	2.15	.00	.78
02	7.89	5.08	1.56	1.55	5.57	1.17	.00	.88
03	8.02	4.89	.94	1.59	6.23	1.47	.00	.81
04	8.14	3.17	.30	1.64	7.17	3.34	.00	.95
05	8.13	1.54	.42	1.62	6.96	4.90	.00	.94
06	8.08	1.42	.60	1.64	6.70	4.92	.00	.97
07	8.09	.84	.21	1.70	7.14	5.54	.00	.98
08	8.01	1.21	.50	1.79	6.73	5.02	.00	1.01
09	8.00	1.54	.62	1.71	6.60	4.69	.00	.99
10	7.74	1.96	1.37	1.66	5.73	4.08	.00	1.07
11	7.59	3.64	2.23	1.44	4.74	2.31	.00	1.02
12	7.99	6.02	2.77	1.42	4.56	.22	.00	.92
avg	7.97	2.96	1.21	1.60	6.02	3.32	.00	.94

(Million Gallons / Month)

Mon	Influent	Outfall	Effluent	South			Dilution	Recycled
				Metro	Secondary	Interceptor	Recycled	Plant
				Return	Production	Distributed	Added	Internal use
01	244.92	130.08	92.44	46.55	128.57	66.68	.00	24.32
02	220.82	142.28	43.80	43.46	155.86	32.72	.00	24.64
03	248.71	151.55	29.18	49.23	193.22	45.62	.00	25.23
04	244.26	95.17	8.86	49.16	215.08	100.23	.00	28.60
05	251.96	47.73	13.04	50.26	215.70	152.03	.00	29.03
06	242.52	42.68	18.14	49.28	201.14	147.71	.00	28.95
07	250.90	26.06	6.66	52.75	221.44	171.61	.00	30.53
08	248.31	37.37	15.61	55.35	208.71	155.66	.00	31.33
09	239.88	46.08	18.54	51.43	197.89	140.81	.00	29.58
10	239.98	60.70	42.62	51.32	177.60	126.47	.00	33.12
11	227.69	109.08	66.77	43.06	142.08	69.26	.01	30.50
12	247.59	186.50	85.97	44.08	141.24	6.86	.00	28.54
avg	242.30	89.61	36.80	48.83	183.21	101.31	.00	28.70
sum	2907.54	1075.28	441.63	585.93	2198.53	1215.66	.01	344.37

A. Flows

Day	Effluent flows (mgd) 2014												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	3.26	5.94	5.65	5.48	2.32	4.00	4.70	0.10	1.05	1.60	4.31	5.51	
2	2.71	6.10	6.34	5.88	0.06	1.37	1.22	0.34	0.20	0.68	5.82	1.62	
3	3.46	6.38	6.47	6.40	1.46	0.63	0.97	2.53	1.61	2.82	5.58	6.38	
4	3.34	6.30	6.13	3.55	3.44	0.24	0.21	0.54	0.27	1.77	6.29	6.18	
5	5.87	6.38	6.56	4.31	2.55	0.09	0.17	0.15	0.03	0.87	4.40	5.98	
6	4.00	6.03	6.57	6.49	1.40	0.10	0.07	0.17	0.02	0.17	3.41	6.29	
7	3.62	6.26	6.73	2.24	1.61	0.03	0.05	1.05	3.19	0.78	2.89	6.18	
8	5.10	5.87	6.49	0.08	1.54	0.86	2.23	1.07	2.88	4.18	2.81	6.53	
9	6.38	5.98	6.49	2.20	1.69	0.20	0.04	2.41	0.93	2.90	3.62	6.10	
10	6.33	6.17	6.66	0.84	1.61	0.11	2.28	5.37	0.37	1.91	1.59	2.12	
11	6.24	6.46	6.52	1.16	6.54	0.15	0.03	1.21	0.03	0.62	1.68	6.47	
12	6.29	6.48	4.73	2.09	1.24	1.20	0.07	0.07	0.05	4.30	2.44	6.15	
13	6.28	6.74	2.02	6.63	0.94	1.46	0.01	1.13	1.79	5.36	3.42	6.73	
14	6.67	6.38	1.84	1.44	0.97	1.42	1.11	0.94	3.49	1.17	3.79	6.75	
15	6.53	4.80	3.91	2.13	0.65	2.79	0.98	0.11	1.59	0.67	2.14	6.65	
16	4.97	5.00	6.51	2.42	0.85	2.54	0.06	0.24	0.34	0.66	4.94	6.53	
17	3.66	5.73	2.73	1.92	0.95	1.41	0.10	2.30	0.00	0.57	3.14	6.52	
18	3.26	4.47	6.33	2.35	3.65	1.28	0.06	2.55	1.67	0.52	2.58	6.59	
19	3.27	3.12	2.97	3.91	1.83	0.11	0.01	0.84	0.65	1.29	3.05	6.58	
20	3.28	1.95	0.73	5.88	0.99	0.06	0.04	0.14	0.11	1.78	4.06	6.71	
21	2.84	1.46	2.81	0.97	1.01	0.04	1.56	1.47	3.28	1.70	4.67	6.26	
22	2.90	1.07	3.49	2.37	1.15	1.01	0.68	3.14	4.49	2.36	5.78	6.46	
23	6.69	1.04	6.61	5.12	0.51	3.25	0.07	1.89	3.30	0.87	5.91	6.64	
24	3.98	3.39	3.74	1.49	0.16	5.01	0.24	0.87	6.09	1.73	2.75	6.80	
25	3.27	4.27	3.18	0.07	2.80	6.56	0.21	1.53	2.34	2.02	2.54	6.55	
26	2.71	6.35	5.77	3.63	2.05	2.01	0.02	2.40	1.63	4.88	2.36	5.55	
27	2.51	6.51	5.82	6.85	1.07	1.53	3.29	2.56	2.08	2.65	2.13	6.42	
28	2.17	5.65	2.89	2.75	0.08	2.17	2.36	0.01	1.56	2.23	3.08	6.10	
29	2.33		4.59	2.01	0.76	0.22	0.96	0.12	0.81	2.52	3.05	6.58	
30	2.42		6.25	2.51	0.92	0.83	1.31	0.05	0.23	2.71	4.85	6.79	
31	3.74		4.02		0.93		0.95	0.07		2.41		3.78	
Average	4.20	5.08	4.89	3.17	1.54	1.42	0.84	1.21	1.54	1.96	3.64	6.02	2.95
Minimum	2.17	1.04	0.73	0.07	0.06	0.03	0.01	0.01	0.00	0.17	1.59	1.62	0.00
Maximum	6.69	6.74	6.73	6.85	6.54	6.56	4.70	5.37	6.09	5.36	6.29	6.80	6.85
Total	130.08	142.28	151.55	95.17	47.73	42.68	26.06	37.37	46.08	60.70	109.08	186.50	1,075
													Annual Summary

South Bay Water Reclamation Plant

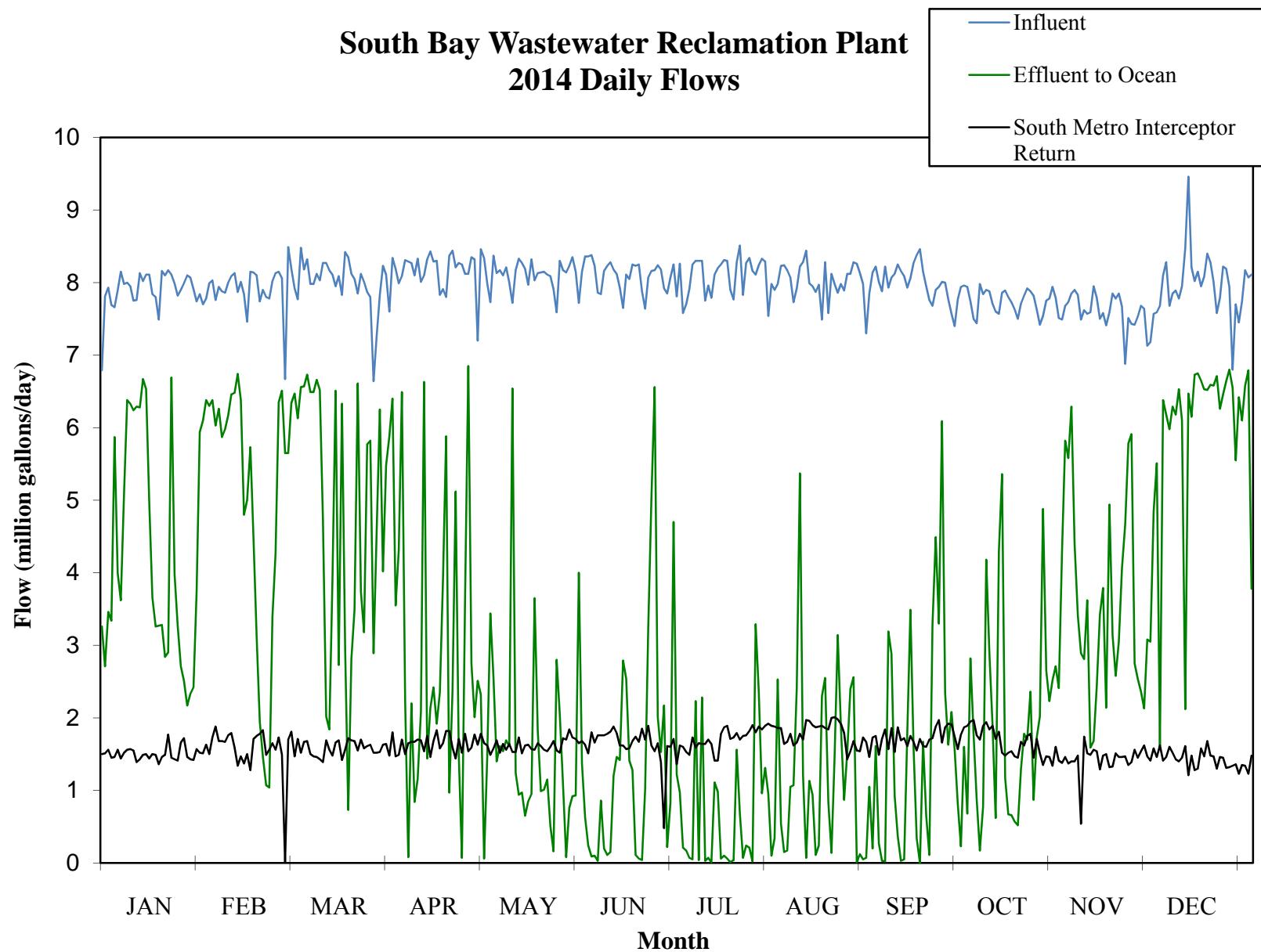
Influent Flows (mgd) 2014

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	6.79	7.84	8.49	8.11	8.46	7.72	8.25	7.98	7.85	7.96	7.49	7.59
2	7.81	7.70	8.19	7.60	8.34	8.15	7.81	7.90	8.14	7.94	7.68	7.68
3	7.93	7.78	7.92	8.34	7.99	8.36	8.26	7.98	8.22	7.74	7.73	8.10
4	7.69	7.99	7.77	8.19	7.73	8.36	7.58	8.23	8.01	7.50	7.85	8.28
5	7.66	8.03	8.48	7.99	8.37	8.38	7.70	8.24	7.88	7.44	7.90	7.68
6	7.89	7.76	8.18	8.09	8.13	8.23	7.91	8.17	8.22	7.98	7.83	7.85
7	8.15	7.94	8.32	8.31	8.17	7.86	8.25	8.07	7.93	7.84	7.49	7.89
8	7.98	7.88	7.98	8.29	8.10	7.84	8.30	7.73	8.07	7.90	7.62	7.78
9	8.00	7.86	7.98	8.27	8.21	8.16	8.30	7.92	8.12	7.88	7.57	7.95
10	7.95	8.00	8.12	8.10	8.00	8.23	8.30	8.22	8.25	7.71	7.59	8.47
11	7.75	8.09	8.03	8.33	7.72	8.28	7.75	8.28	8.16	7.60	7.95	9.46
12	7.76	8.13	8.27	8.01	8.17	8.18	7.96	8.44	8.09	7.57	7.79	8.21
13	8.13	7.87	8.27	8.10	8.33	8.12	7.79	7.99	7.93	7.86	7.50	8.02
14	8.02	8.01	8.17	8.32	8.27	7.93	8.11	7.95	8.06	7.89	7.58	8.15
15	8.11	7.84	8.11	8.43	8.19	7.65	8.20	7.87	8.27	7.80	7.41	7.95
16	8.11	7.46	7.95	8.29	7.97	8.11	8.25	7.97	8.38	7.73	7.59	8.08
17	7.84	8.15	8.09	8.30	8.32	8.05	8.31	7.49	8.46	7.63	7.85	8.40
18	7.80	8.14	7.83	7.83	8.03	8.25	8.30	8.28	8.15	7.50	7.78	8.28
19	7.49	8.10	8.42	7.91	8.13	8.23	7.90	7.58	7.95	7.71	7.85	8.01
20	8.16	7.74	8.35	7.80	8.14	8.25	7.77	8.12	7.76	7.82	7.67	7.58
21	8.10	7.90	8.12	8.37	8.15	7.88	8.28	7.98	7.68	7.92	6.88	7.79
22	8.17	7.80	8.05	8.44	8.11	7.64	8.51	7.86	7.90	7.88	7.51	8.22
23	8.11	7.78	7.85	8.21	8.09	8.07	7.83	7.98	7.94	7.82	7.43	8.19
24	7.99	8.02	8.12	8.27	7.91	8.16	8.27	7.89	8.01	7.63	7.42	7.94
25	7.82	8.13	8.01	8.25	7.59	8.17	8.34	8.12	8.00	7.42	7.53	6.80
26	7.90	8.15	7.87	8.12	8.30	8.24	8.16	8.12	7.77	7.54	7.68	7.70
27	7.99	8.06	7.8	8.12	8.17	8.18	8.11	8.28	7.57	7.75	7.64	7.45
28	8.10	6.67	6.64	8.35	8.14	7.92	8.24	8.26	7.40	7.78	7.13	7.74
29	8.07		7.27	8.32	8.23	7.85	8.33	8.13	7.77	7.94	7.18	8.17
30	7.91		7.83	7.20	8.35	8.07	8.29	7.98	7.94	7.79	7.57	8.07
31	7.74		8.23		8.15		7.54	7.30		7.51		8.11
Average	7.90	7.89	8.02	8.14	8.13	8.08	8.09	8.01	8.00	7.74	7.59	7.99
Minimum	6.79	6.67	6.64	7.20	7.59	7.64	7.54	7.30	7.40	7.42	6.88	6.80
Maximum	8.17	8.15	8.49	8.44	8.46	8.38	8.51	8.44	8.46	7.98	7.95	9.46
Total	244.92	220.82	248.71	244.26	251.96	242.52	250.90	248.31	239.88	239.98	227.69	247.59
												Annual Summary

South Bay Water Reclamation Plant
Blended Sludge Discharge to South Metro Interceptor (mgd) 2014

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	1.50	1.52	1.70	1.64	1.78	1.65	1.71	1.89	1.46	1.87	1.38	1.46
2	1.51	1.51	1.81	1.48	1.65	1.68	1.36	1.88	1.73	1.89	1.46	1.62
3	1.56	1.63	1.47	1.80	1.62	1.63	1.62	1.86	1.75	1.95	1.37	1.41
4	1.45	1.50	1.71	1.47	1.49	1.51	1.60	1.86	1.49	1.97	1.40	1.46
5	1.46	1.73	1.52	1.49	1.58	1.80	1.53	1.64	1.71	1.76	1.40	1.60
6	1.56	1.88	1.67	1.70	1.69	1.66	1.49	1.67	1.84	1.70	1.48	1.52
7	1.44	1.68	1.68	1.50	1.52	1.76	1.73	1.78	1.57	1.89	0.54	1.43
8	1.52	1.68	1.50	1.65	1.64	1.76	1.59	1.62	1.86	1.94	1.74	1.40
9	1.56	1.67	1.47	1.67	1.56	1.76	1.65	1.66	1.53	1.84	1.51	1.45
10	1.57	1.76	1.46	1.67	1.64	1.78	1.64	1.78	1.87	1.89	1.49	1.61
11	1.55	1.79	1.43	1.70	1.53	1.81	1.64	1.70	1.69	1.71	1.56	1.21
12	1.39	1.59	1.39	1.69	1.53	1.88	1.70	1.97	1.72	1.81	1.54	1.48
13	1.43	1.34	1.69	1.54	1.73	1.79	1.64	1.96	1.61	1.52	1.29	1.28
14	1.49	1.47	1.56	1.75	1.51	1.62	1.41	1.90	1.75	1.48	1.48	1.30
15	1.50	1.37	1.48	1.46	1.62	1.62	1.41	1.87	1.67	1.52	1.50	1.58
16	1.44	1.50	1.66	1.68	1.63	1.57	1.78	1.88	1.55	1.54	1.32	1.47
17	1.50	1.28	1.69	1.83	1.57	1.58	1.87	1.89	1.71	1.47	1.33	1.68
18	1.49	1.71	1.42	1.58	1.56	1.68	1.89	1.86	1.61	1.45	1.51	1.48
19	1.36	1.75	1.56	1.65	1.65	1.74	1.71	1.84	1.60	1.67	1.46	1.47
20	1.46	1.78	1.72	1.82	1.61	1.67	1.73	2.00	1.70	1.62	1.46	1.30
21	1.49	1.83	1.69	1.82	1.56	1.85	1.79	2.01	1.72	1.75	1.47	1.46
22	1.77	1.49	1.68	1.59	1.54	1.70	1.70	1.98	1.88	1.78	1.35	1.45
23	1.45	1.56	1.55	1.44	1.60	1.89	1.75	1.92	1.97	1.45	1.39	1.31
24	1.43	1.65	1.70	1.71	1.68	1.62	1.76	1.79	1.66	1.71	1.56	1.32
25	1.41	1.56	1.58	1.52	1.55	1.54	1.82	1.43	1.87	1.51	1.45	1.34
26	1.66	1.73	1.61	1.78	1.52	1.65	1.90	1.54	1.92	1.35	1.54	1.36
27	1.72	1.49	1.63	1.54	1.72	1.39	1.80	1.68	1.91	1.47	1.62	1.23
28	1.46	0.01	1.52	1.59	1.70	0.48	1.88	1.55	1.74	1.46	1.47	1.35
29	1.43		1.52	1.77	1.84	1.61	1.84	1.54	1.57	1.34	1.41	1.34
30	1.42		1.53	1.63	1.73	1.60	1.89	1.73	1.77	1.60	1.58	1.23
31	1.57		1.63		1.71		1.92	1.67		1.41		1.48
Average	1.50	1.55	1.59	1.64	1.62	1.64	1.70	1.79	1.71	1.66	1.44	1.42
Minimum	1.36	0.01	1.39	1.44	1.49	0.48	1.36	1.43	1.46	1.34	0.54	1.21
Maximum	1.77	1.88	1.81	1.83	1.84	1.89	1.92	2.01	1.97	1.97	1.74	2.01
Total	46.55	43.46	49.23	49.16	50.26	49.28	52.75	55.35	51.43	51.32	43.06	44.08
												Annual Summary
												586

South Bay Wastewater Reclamation Plant 2014 Daily Flows

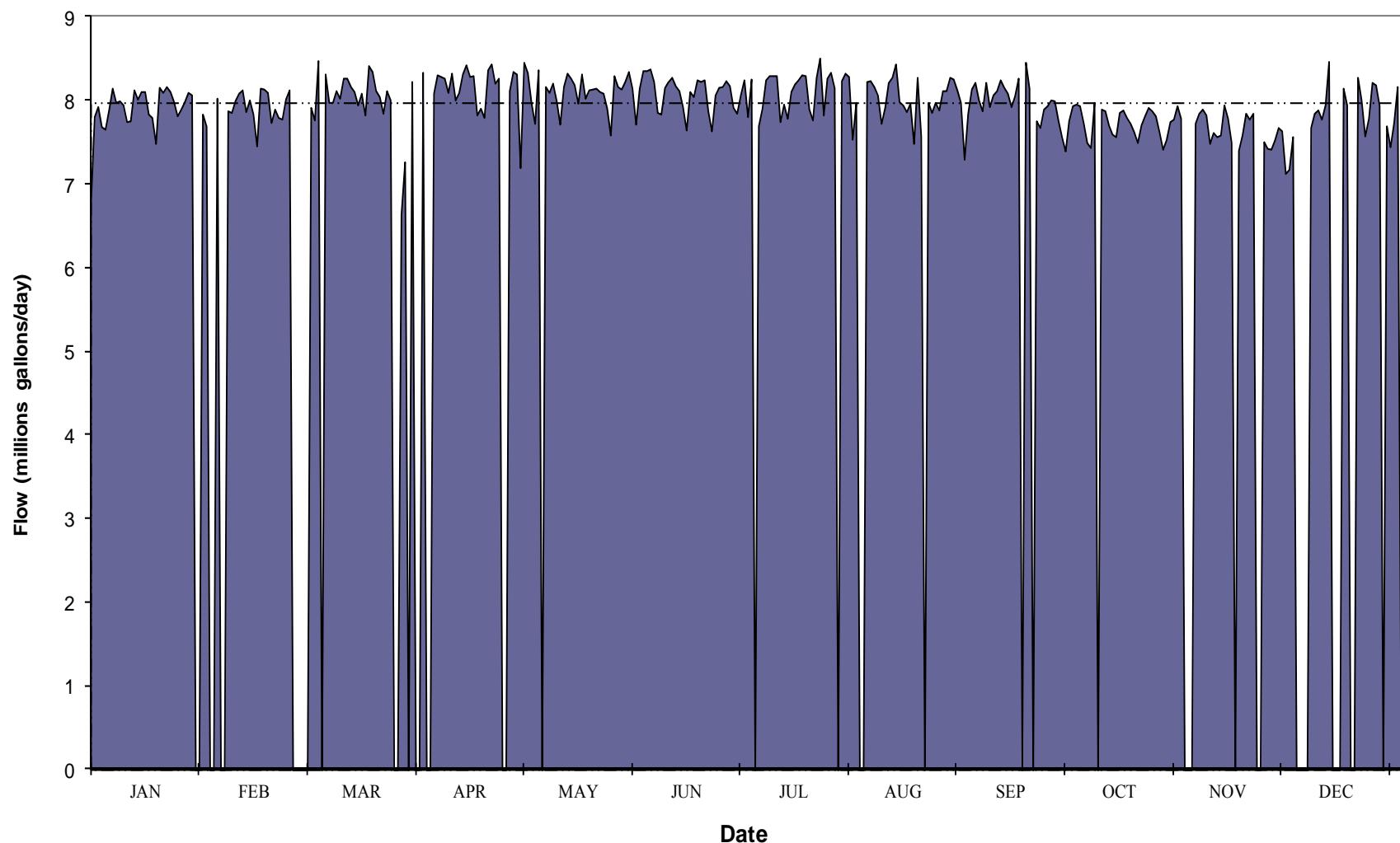


South Bay Water Reclamation Plant

Influent Dry Weather Flows (mgd) 2014

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	6.79	7.84			8.46	7.72	8.25	7.98	7.85	7.96			
2	7.81	7.70			8.34	8.15	7.81		8.14	7.94			
3	7.93		7.92	8.34	7.99	8.36	8.26		8.22	7.74	7.73		
4	7.69		7.77		7.73	8.36		8.23	8.01	7.50	7.85		
5	7.66	8.03	8.48		8.37	8.38	7.70	8.24	7.88	7.44	7.90	7.68	
6	7.89			8.09		8.23	7.91	8.17	8.22	7.98	7.83	7.85	
7	8.15		8.32	8.31	8.17	7.86	8.25	8.07	7.93		7.49	7.89	
8	7.98	7.88	7.98	8.29	8.10	7.84	8.30	7.73	8.07	7.90	7.62	7.78	
9	8.00	7.86	7.98	8.27	8.21	8.16	8.30	7.92	8.12	7.88	7.57	7.95	
10	7.95	8.00	8.12	8.10	8.00	8.23	8.30	8.22	8.25	7.71	7.59	8.47	
11	7.75	8.09	8.03	8.33	7.72	8.28	7.75	8.28	8.16	7.60	7.95		
12	7.76	8.13	8.27	8.01	8.17	8.18	7.96	8.44	8.09	7.57	7.79		
13	8.13	7.87	8.27	8.10	8.33	8.12	7.79	7.99	7.93	7.86	7.50		
14	8.02	8.01	8.17	8.32	8.27	7.93	8.11	7.95	8.06	7.89		8.15	
15	8.11	7.84	8.11	8.43	8.19	7.65	8.20	7.87	8.27	7.80	7.41	7.95	
16	8.11	7.46	7.95	8.29	7.97	8.11	8.25	7.97		7.73	7.59		
17	7.84	8.15	8.09	8.30	8.32	8.05	8.31	7.49	8.46	7.63	7.85		
18	7.80	8.14	7.83	7.83	8.03	8.25	8.30	8.28	8.15	7.50	7.78	8.28	
19	7.49	8.10	8.42	7.91	8.13	8.23	7.90	7.58		7.71	7.85	8.01	
20	8.16	7.74	8.35	7.80	8.14	8.25	7.77		7.76	7.82		7.58	
21	8.10	7.90	8.12	8.37	8.15	7.88	8.28	7.98	7.68	7.92		7.79	
22	8.17	7.80	8.05	8.44	8.11	7.64	8.51	7.86	7.90	7.88	7.51	8.22	
23	8.11	7.78	7.85	8.21	8.09	8.07	7.83	7.98	7.94	7.82	7.43	8.19	
24	7.99	8.02	8.12	8.27	7.91	8.16	8.27	7.89	8.01	7.63	7.42	7.94	
25	7.82	8.13	8.01		7.59	8.17	8.34	8.12	8.00	7.42	7.53		
26	7.90				8.30	8.24	8.16	8.12	7.77	7.54	7.68	7.70	
27	7.99			8.12	8.17	8.18		8.28	7.57	7.75	7.64	7.45	
28	8.10		6.64	8.35	8.14	7.92	8.24	8.26	7.40	7.78	7.13	7.74	
29	8.07		7.27	8.32	8.23	7.85	8.33	8.13	7.77	7.94	7.18	8.17	
30				7.20	8.35	8.07	8.29	7.98	7.94	7.79	7.57		
31				8.23	8.15		7.54	7.30			8.11	Annual Summary	
Average	7.91	7.93	8.01	8.17	8.13	8.08	8.11	8.01	7.98	7.75	7.62	7.95	7.97
Minimum	6.79	7.46	6.64	7.20	7.59	7.64	7.54	7.30	7.40	7.42	7.13	7.45	6.64
Maximum	8.17	8.15	8.48	8.44	8.46	8.38	8.51	8.44	8.46	7.98	7.95	8.47	8.51
Total	229	166	200	196	244	243	235	224	224	225	190	159	2535

**South Bay Wastewater Reclamation Plant
2014 Daily Influent Dry Weather Flows**

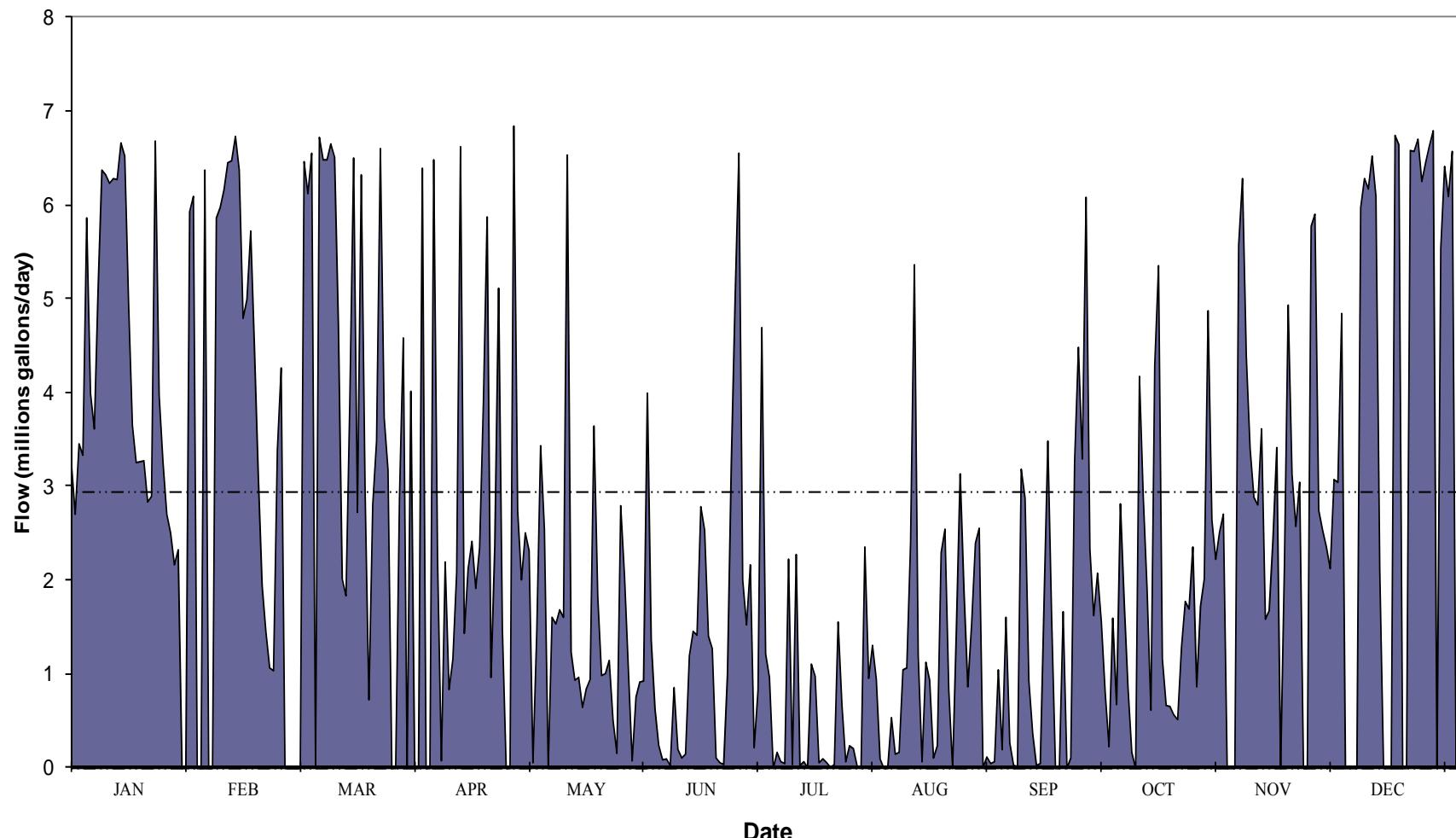


South Bay Water Reclamation Plant

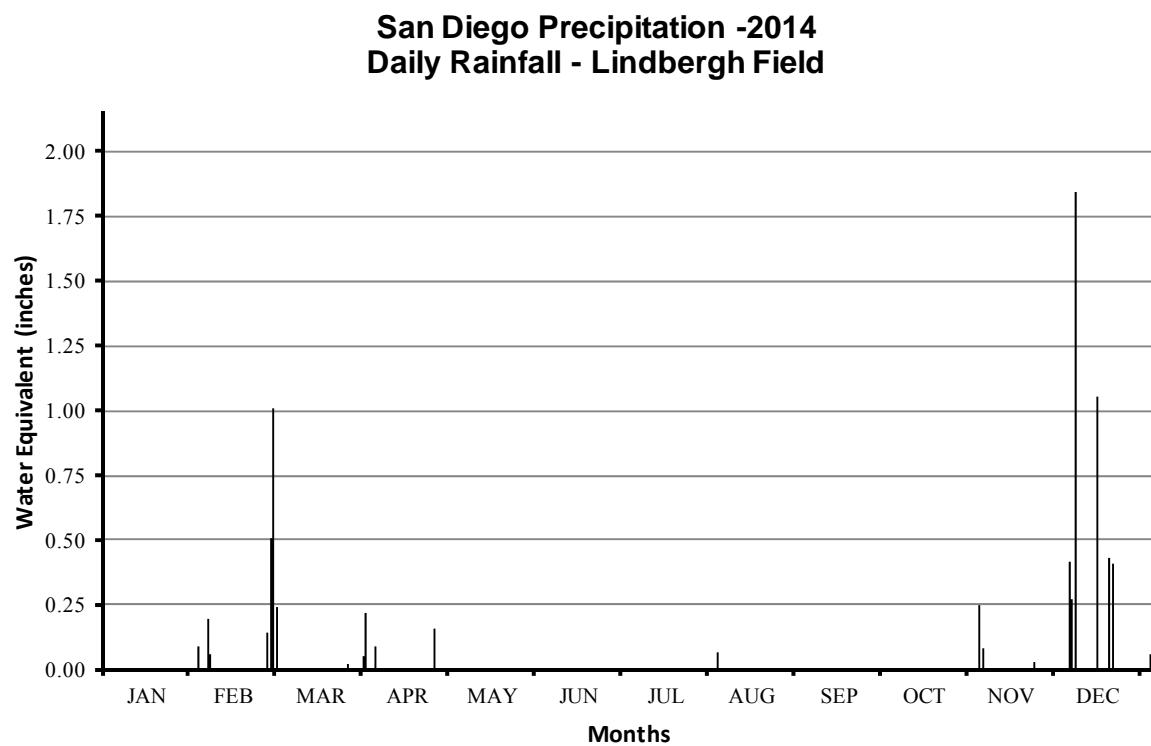
Effluent Dry Weather Flows (mgd) 2014

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	3.26	5.94			2.32	4.00	4.70	0.10	1.05	1.60		
2	2.71	6.10			0.06	1.37	1.22		0.20	0.68		
3	3.46		6.47	6.40	1.46	0.63	0.97		1.61	2.82	5.58	
4	3.34		6.13		3.44	0.24		0.54	0.27	1.77	6.29	
5	5.87	6.38	6.56		2.55	0.09	0.17	0.15	0.03	0.87	4.40	5.98
6	4.00			6.49		0.10	0.07	0.17	0.02	0.17	3.41	6.29
7	3.62		6.73	2.24	1.61	0.03	0.05	1.05	3.19		2.89	6.18
8	5.10	5.87	6.49	0.08	1.54	0.86	2.23	1.07	2.88	4.18	2.81	6.53
9	6.38	5.98	6.49	2.20	1.69	0.20	0.04	2.41	0.93	2.90	3.62	6.10
10	6.33	6.17	6.66	0.84	1.61	0.11	2.28	5.37	0.37	1.91	1.59	2.12
11	6.24	6.46	6.52	1.16	6.54	0.15	0.03	1.21	0.03	0.62	1.68	
12	6.29	6.48	4.73	2.09	1.24	1.20	0.07	0.07	0.05	4.30	2.44	
13	6.28	6.74	2.02	6.63	0.94	1.46	0.01	1.13	1.79	5.36	3.42	
14	6.67	6.38	1.84	1.44	0.97	1.42	1.11	0.94	3.49	1.17		6.75
15	6.53	4.80	3.91	2.13	0.65	2.79	0.98	0.11	1.59	0.67	2.14	6.65
16	4.97	5.00	6.51	2.42	0.85	2.54	0.06	0.24		0.66	4.94	
17	3.66	5.73	2.73	1.92	0.95	1.41	0.10	2.30	0.00	0.57	3.14	
18	3.26	4.47	6.33	2.35	3.65	1.28	0.06	2.55	1.67	0.52	2.58	6.59
19	3.27	3.12	2.97	3.91	1.83	0.11	0.01	0.84		1.29	3.05	6.58
20	3.28	1.95	0.73	5.88	0.99	0.06	0.04		0.11	1.78		6.71
21	2.84	1.46	2.81	0.97	1.01	0.04	1.56	1.47	3.28	1.70		6.26
22	2.90	1.07	3.49	2.37	1.15	1.01	0.68	3.14	4.49	2.36	5.78	6.46
23	6.69	1.04	6.61	5.12	0.51	3.25	0.07	1.89	3.30	0.87	5.91	6.64
24	3.98	3.39	3.74	1.49	0.16	5.01	0.24	0.87	6.09	1.73	2.75	6.80
25	3.27	4.27	3.18		2.80	6.56	0.21	1.53	2.34	2.02	2.54	
26	2.71				2.05	2.01	0.02	2.40	1.63	4.88	2.36	5.55
27	2.51			6.85	1.07	1.53		2.56	2.08	2.65	2.13	6.42
28	2.17		2.89	2.75	0.08	2.17	2.36	0.01	1.56	2.23	3.08	6.10
29	2.33			4.59	2.01	0.76	0.22	0.96	0.12	0.81	2.52	3.05
30					2.51	0.92	0.83	1.31	0.05	0.23	2.71	4.85
31				4.02	0.93		0.95	0.07			3.78	Annual Summary
Average	4.27	4.70	4.61	3.01	1.54	1.42	0.78	1.23	1.61	1.98	3.46	6.05
Minimum	2.17	1.04	0.73	0.08	0.06	0.03	0.01	0.01	0.00	0.17	1.59	2.12
Maximum	6.69	6.74	6.73	6.85	6.54	6.56	4.70	5.37	6.09	5.36	6.29	6.80
Total	123.9	98.8	115	72	46.3	42.7	22.6	34.4	45.1	57.5	86.4	121.1
												866

**South Bay Wastewater Reclamation Plant
2014 Daily Effluent to Ocean Dry Weather Flows**



B. Rain Days



San Diego Precipitation – 2014
Daily Rainfall – Lindbergh Field

Total Annual Precipitation=7.75

Maximum=1.84

Trace=0

First Quarter		Second Quarter		Third Quarter		Fourth Quarter		
Date	Rain	Date	Rain	Date	Rain	Date	Rain	
30-Jan-14	0.01	1-Apr-14	0.05	4-Jul-14		T	7-Oct-14	T
31-Jan-14	T	2-Apr-14	0.22	27-Jul-14		T	31-Oct-14	T
3-Feb-14	0.09	4-Apr-14	T	2-Aug-14	0.07	1-Nov-14	0.25	
4-Feb-14	T	5-Apr-14	0.09	3-Aug-14		T	2-Nov-14	0.08
6-Feb-14	0.2	25-Apr-14	0.01	20-Aug-14	0.01	14-Nov-14	T	
7-Feb-14	0.06	26-Apr-14	0.16	16-Sep-14		T	20-Nov-14	0.03
26-Feb-14	T	6-May-14	T	19-Sep-14		T	21-Nov-14	0.01
27-Feb-14	0.14						1-Dec-14	T
28-Feb-14	0.51						2-Dec-14	0.42
1-Mar-14	1.01						3-Dec-14	0.27
2-Mar-14	0.24						4-Dec-14	1.84
6-Mar-14	T						11-Dec-14	T
26-Mar-14	0.01						12-Dec-14	1.05
27-Mar-14	0.02						13-Dec-14	T
30-Mar-14	T						16-Dec-14	0.43
							17-Dec-14	0.41
							25-Dec-14	T
							30-Dec-14	0.06
TOTALS	2.29		0.53		0.08		4.85	

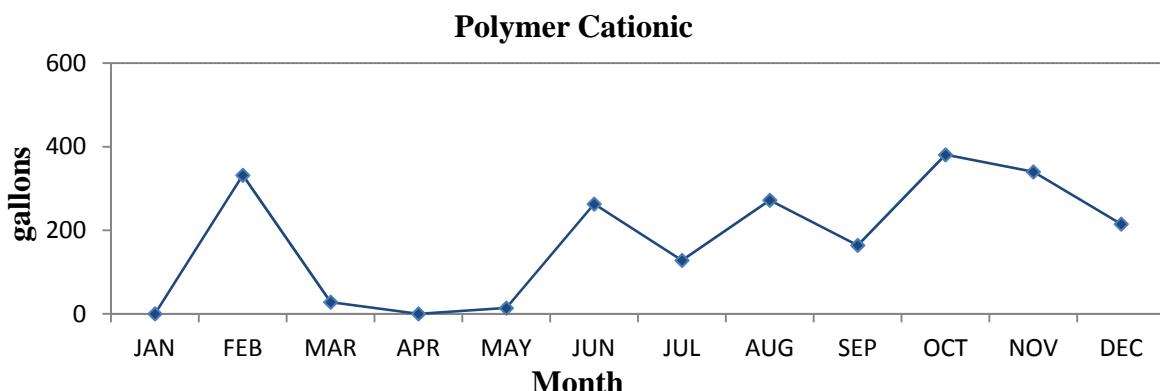
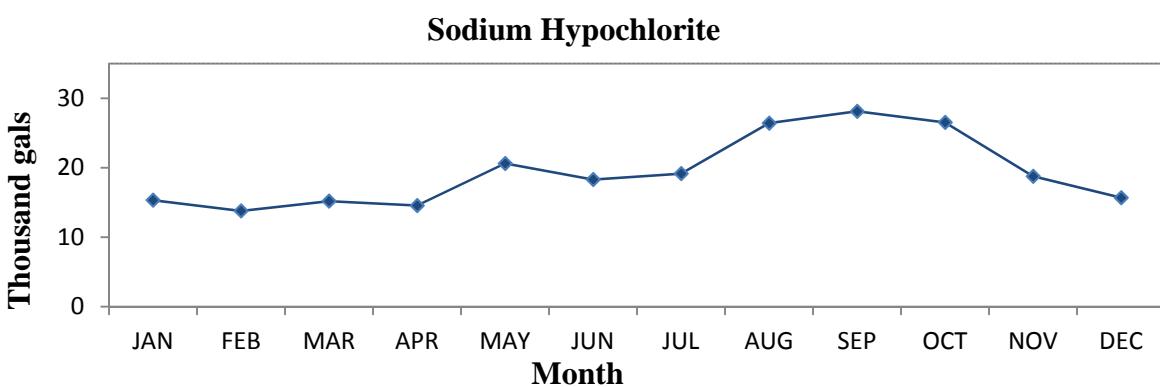
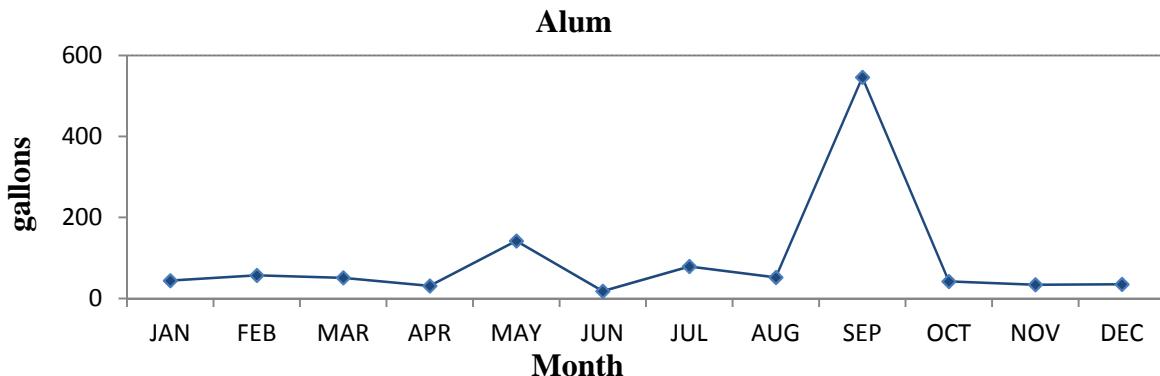
C. Chemical Report

South Bay Water Reclamation Plant - Annual Chemical Usage Report

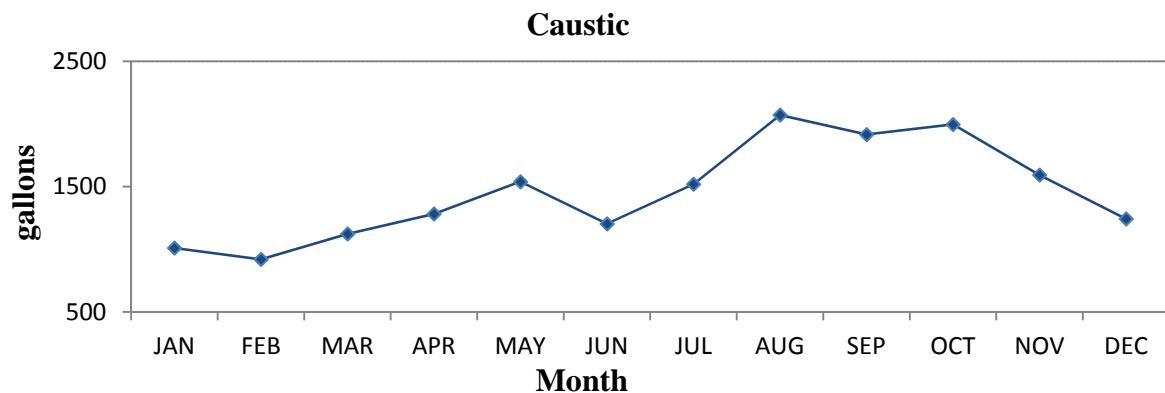
2014

Date	Hypochlorite Gallons	Alum Chloride Gallons	Polymer Cationic Gallons	Sodium Hydroxide Gallons
Jan-14	15,331	44	0	1,010
Feb-14	13,792	57	332	919
Mar-14	15,197	51	28	1,122
Apr-14	14,561	31	0	1,282
May-14	20,625	142	14	1,539
Jun-14	18,310	18	263	1,203
Jul-14	19,164	79	128	1,519
Aug-14	26,436	52	272	2,071
Sep-14	28,132	546	164	1,916
Oct-14	26,539	42	381	1,996
Nov-14	18,779	34	340	1,592
Dec-14	15,688	35	215	1,242
AVG	19,380	94	178	1,451
SUM	232,554	1131	2137	17,411

**South Bay Water Reclamation Plant
2014 Monthly Chemical Usage**



**South Bay Water Reclamation Plant
2014 Monthly Chemical Usage**



D. Facilities Out of Service Report

FACILITIES OOS BY DATE

Barscreens

	FROM	TO	REASON
Barscreen 1	2/11/2014	4/10/2014	Please replace all valves and solenoids on water system to screen.
Barscreen 2	2/11/2014	3/11/2014	Water valves and solenoids are rusted out, no water getting to screens so plug is dry tripping unit, need water system replaced/renewed.
Barscreen 2	11/24/2014	11/24/2014	Water sprayers not coming on when screen cycles, solenoid doesn't appear to open.

Primary Sedimentation

	FROM	TO	REASON
Pri Sed Tank 1	3/6/2014	3/6/2014	Please check electrical conduit for proximity switch. Repair or replace necessary parts This is a possible confined space entry. Follow all proper procedures.
Pri Sed Tank 1	12/22/2014	1/7/2015	Pri sed Tank 1 has broken chains. Repair or replace chains.
Pri Sed Tank 2	3/4/2014	3/20/2014	Suction valve not operating, please repair
Pri Sed Tank 2	3/24/2014	4/24/2014	Please troubleshoot and repair MOV valve 7041. It keep tripping the pumping strategy
Pri Sed Tank 2	4/3/2014	4/7/2014	PSL TK 2 primary scum spray valve 10SV520 does not open to allow water to push scum into the scum trough. Please troubleshoot and repair.
Pri Sed Tank 2	4/7/2014	4/8/2014	Please check power to the sprayers Pt's checked and they found no power. See Vic Diaz
Pri Sed Tank 3	6/4/2014	6/10/2014	Need machine shop to remove old worn out gears from saddles and weld new gears on saddles that will be provided by us. Primary 3 .We are currently overhauling basin.
Pri Sed Tank 3	12/1/2014	12/1/2014	SB--adjust primary set tank troughs does not go to proper limits.
Pri Sed Tank 4	12/19/2014		Scum trough seals leaking filling up scum sump every 6 minutes.
Pri Sed Tank 5	2/28/2014	3/4/2014	Primary Tank #5 - draw off valve 10MOV7071 keeps failing to open. It happens periodically and shuts down strategy. Sometimes it gen fails and needs a local reset.
Pri Sed Tank 5	2/28/2014	4/15/2014	Primary #5 scum trough worm gear or the scum trough gear worn out need maintenance to check out will not till back and forward.
Pri Sed Tank 5	4/16/2014	6/4/2014	Please generate a sub work order off of 13-041010-000 to remove and transport hub to the machine shop to have brass bushings installed and reinstall

			hub man power required 1 pts for 6 hrs.
Pri Sed Tank 5	4/16/2014	4/16/2014	Please readjust and set limits to scum trough.

Aeration Basins

	FROM	TO	REASON
Aer. Basin 6	1/27/2014	1/28/2014	Aeration basin #6 Air bleed line on zone #3 is broken, Please check/Repair
Aer. Basin 6	5/8/2014	6/16/2014	Remove damaged concrete from exposed rebar, clean rusted rebar to clean steel, coat rebar and repair concrete. This is a confine space entry.
Aer. Basin 7	11/26/2014	12/1/2014	mix liquor gland seal leaking
Aer. Basin 8	6/16/2014	6/20/2014	Aeration basin #8 D/O probe zone 2 is reading low, Cleaned several times wont clear low alarm, Please check
Aer. Basin 8	7/29/2014	7/30/2014	Aeration Basin #8 DO PROBE zone 2 - reading low after multiple cleanings. Portable Meter shows a much higher value than DO Probe. Please repair or replace. Last WO to reference 6/20/2014. Notes say probe was cleaned.

Secondary Clarifiers

	FROM	TO	REASON
Sec. Clar. 1	1/9/2014	1/21/2014	#1 Sec Clarifier, please set limits on scum trough.
Sec. Clar. 2	2/24/2014	5/1/2014	Trough not turning with actuator.
Sec. Clar. 2	4/17/2014	4/24/2014	Spiral gear inner recess diameter undersize. Modify machine cut inner recess diameter including key way to size like per sample provided. South Bay will provide and deliver all material.
Sec. Clar. 2	5/1/2014	5/9/2014	Secondary Sed Tank MOV Scum Trough tilting degree out of setting. Adjust and re-set scum trough tilting angle.
Sec. Clar. 2	5/8/2014	6/12/2014	Please generate a work order to remove and replace hub and H78 drive chain on gear box.
Sec. Clar. 2	6/9/2014	6/6/2014	Please generate a sub work order off of 14-019229-00 to have the machine shop install brass bushings into hub.
Sec. Clar. 2	9/18/2014	11/25/2014	# 2 scum trough will not rotate. Investigate and repair as necessary.
Sec. Clar. 2	10/9/2014	10/27/2014	MOV scum trough spiral gear deformed. Request CSF machine cut spiral gear, with a 5/16 keyway, SBWRP will provide and deliver materials.
Sec. Clar. 2	10/21/2014	10/24/2014	Replace scum trough shaft with stainless steel material as per sample to be delivered.
Sec. Clar. 2	11/5/2014	11/6/2014	Repair MOV motor wire termination.
Sec. Clar. 2	11/19/2014	11/25/2014	Assemble and Test MOV.
Sec. Clar. 2	11/25/2014	11/25/2014	Disconnect wiring hook-up for MOV actuator.
Sec. Clar. 2	12/5/2014	12/5/2014	Actuator failure alarm, troubleshoot and repair.

Sec. Clar. 3	4/22/2014	4/22/2014	Lever to manually operate scum trough snapped off, need repaired.
Sec. Clar. 3	7/7/2014	7/7/2014	The actuator for secondary tank 3 does not declutch allowing the gear to spin freely. Please troubleshoot and repair.
Sec. Clar. 3	8/13/2014	8/13/2014	--SAFETY ISSUE - VERY DANGEROUS--SECONDARY #3 - Actuator hand wheel engages while actuator operates so it turns very fast and could really hurt someone.
Sec. Clar. 3	10/21/2014	10/21/2014	MOV inoperable. Remove and repair MOV.
Sec. Clar. 3	10/21/2014	10/21/2014	Disconnect MOV.
Sec. Clar. 4	2/6/2014	3/4/2014	Sludge drive has a shear pin alarm. Investigate and repair as necessary.
Sec. Clar. 4	3/4/2014	3/4/2014	bolt falling out , of worm gear bushing, no nut on the backside
Sec. Clar. 4	11/25/2014	2/9/2015	Disconnect wiring for MOV actuator.
Sec. Clar. 4	12/1/2014	2/2/2015	MOV actuator gear slipping, Troubleshoot repair actuator, and conduct test for proper operation.
Sec. Clar. 5	3/4/2014	3/26/2014	adjust tip as needed, found out on pm. see Terry Moran
Sec. Clar. 6	3/24/2014	3/26/2014	Secondary 6 scum collector does not tilt far enough in the forward position. Please adjust.
Sec. Clar. 6	8/1/2014	8/5/2014	The chain for the sludge drive pops about every 5 to 10 minutes. Please troubleshoot and correct. WR # 14-001942
Sec. Clar. 6	12/30/2014	2/3/2015	The collector will not operate in local without pushing the button. Repair or replace as necessary.
Sec. Clar. 7	9/22/2014	9/26/2014	Actuator jumped gear and stuck on rear tilt, which flooded tank 2 which is also down for broken scum gear.

Tertiary Filters

	FROM	TO	REASON
Ter. Filter 3	3/5/2014	3/5/2014	#3 filter will not complete a backwash. Level indicator bouncing around. Investigate and repair as necessary.
Ter. Filter 4	1/13/2014	1/14/2014	SHC injection line for filter chlorination leaks. It is located in RAS gallery above Secondary Effluent NTU meters. Please repair.
Ter. Filter 5	2/4/2014	2/4/2014	Please troubleshoot high pressure on Bleach Pump when trying to bleach Filter #5. Clear SHC line in RAS Gallery.
Ter. Filter 5	6/16/2014	6/23/2014	Tertiary filter #5 FLE valve output does not match valve position its on gen fail alarm, please check
Ter. Filter 5	6/26/2014	6/26/2014	FLE valve 25FCV253 failed on deviation alarm. Troubleshoot and repair.
Ter. Filter 5	12/26/2014	12/26/2014	FLI valve 25 MOV 252 getting Gen Fail alarms, can

			close valve and turn power off in field and on DCS valve still shows open and powered up.
Ter. Filter 6	7/3/2014	9/25/2014	FLE valve actuator SB25FCV263 does not work. Troubleshoot and repair.
Ter. Filter 7	2/10/2014	12/11/2014	Pls. install pressure relief valve on SHC injection line to the filter east and west side. This is located in RAS gallery pls. see Romy if you have Q
Ter. Filter 7	3/24/2014	4/1/2014	Filter #7 - FLE Valve 25-FCV-273 actual % open does not match called for % open. When showing closed actually 7% open. WR 14-000728

FACILITIES OOS BY PROCESS

Bar Screens

	FROM	TO
Barscreen 1	2/11/2014	4/10/2014
Barscreen 2	2/11/2014 11/24/2014	3/11/2014 11/24/2014

Primary Sedimentation

	FROM	TO
Pri Sed Tank 1	3/6/2014	3/6/2014
	12/22/2014	1/7/2015
Pri Sed Tank 2	3/4/2014	3/20/2014
	3/24/2014	4/24/2014
	4/3/2014	4/7/2014
	4/7/2014	4/8/2014
Pri Sed Tank 3	6/4/2014	6/10/2014
	12/1/2014	12/1/2014
Pri Sed Tank 4	12/19/2014	
Pri Sed Tank 5	2/28/2014	3/4/2014
	2/28/2014	4/15/2014
	4/16/2014	6/4/2014
	4/16/2014	4/16/2014

Aeration Basins

	FROM	TO
Aer. Basin 6	1/27/2014	1/28/2014
	5/8/2014	6/16/2014
Aer. Basin 7	11/26/2014	12/1/2014
Aer. Basin 8	6/16/2014	6/20/2014
	7/29/2014	7/30/2014

Secondary Clarifiers

	FROM	TO
Sec. Clar. 1	1/9/2014	1/21/2014
Sec. Clar. 2	2/24/2014	5/1/2014
	4/17/2014	4/24/2014
	5/1/2014	5/9/2014
	5/8/2014	6/12/2014
	6/9/2014	6/6/2014
	9/18/2014	11/25/2014
	10/9/2014	10/27/2014
	10/21/2014	10/24/2014
	11/5/2014	11/6/2014
	11/19/2014	11/25/2014
	11/25/2014	11/25/2014
	12/5/2014	12/5/2014
Sec. Clar. 3	4/22/2014	4/22/2014
	7/7/2014	7/7/2014
	8/13/2014	8/13/2014
	10/21/2014	10/21/2014
	10/21/2014	10/21/2014
Sec. Clar. 4	2/6/2014	3/4/2014
	3/4/2014	3/4/2014
	11/25/2014	2/9/2015
	12/1/2014	2/2/2015
Sec. Clar. 5	3/4/2014	3/26/2014
Sec. Clar. 6	3/24/2014	3/26/2014
	8/1/2014	8/5/2014
	12/30/2014	2/3/2015
Sec. Clar. 7	9/22/2014	9/26/2014

Tertiary Filter

	FROM	TO
Ter. Filter 3	3/5/2014	3/5/2014
Ter. Filter 4	1/13/2014	1/14/2014
Ter. Filter 5	2/4/2014	2/4/2014
	6/16/2014	6/23/2014
	6/26/2014	6/26/2014
	12/26/2014	12/26/2014
Ter. Filter 6	7/3/2014	9/25/2014
Ter. Filter 7	2/10/2014	12/11/2014
	3/24/2014	4/1/2014

This page left blank intentionally.

IV. Combined Ocean Outfall Data

Data Summaries

This section presents the results of analyses of the combined or mixed effluent stream being discharged to the South Bay Ocean Outfall from the South Bay Wastewater Reclamation and International Wastewater Treatment Plant for 2014.

SB_ITP_COMB_EFF designates a composite sample taken at a point downstream of the discharges of both plants where the wastewater stream is a mixture of both effluents (the secondary or tertiary effluent from SBWRP and the primary effluent from the IWTP).

Sampling and monitoring analyses occurred quarterly in February, May, August and October.

Discharge limits do not apply to this combined flow; but quarterly monitoring is required.

This page left blank intentionally

SOUTH BAY WATER RECLAMATION PLANT
ANNUAL SEWAGE: COMBINED OUTFALL (SB_ITP_COMB_EFF)

Annual 2014

Source: SB_ITP_COMB_EFF

		MDL	Units	04-FEB-2014 P695812	06-MAY-2014 P712571	05-AUG-2014 P723822	07-OCT-2014 P734809	17-NOV-2014 P745823
Aluminum	.47	UG/L		ND	ND	50	ND	
Antimony	2.9	UG/L		ND	ND	ND	ND	
Arsenic	.06	UG/L		1.7	1.9	1.9	2.3	
Barium	.7	UG/L		23.5	20.1	21.9	23.0	
Beryllium	.05	UG/L		ND	ND	ND	ND	
Boron	7	UG/L		326	368	408	448	
Cadmium	.53	UG/L		ND	ND	ND	ND	
Chromium	1.2	UG/L		ND	ND	2.0	2.3	
Cobalt	.85	UG/L		ND	ND	1.3	1.1	
Copper	2.16	UG/L		4	12	7	5	
Iron	37	UG/L		62.3	133	240	144	
Lead	2	UG/L		ND	ND	3.3	1.7	
Manganese	.78	UG/L		33.8	73.3	75.4	37.2	
Mercury	.005	UG/L		0.016	ND	ND	ND	
Molybdenum	.89	UG/L		7.8	6.5	6.7	8.3	
Nickel	.53	UG/L		14.5	15.8	16.3	21.9	
Selenium	.08	UG/L		1.19	1.57	1.18	1.05	
Silver	.73	UG/L		ND	ND	ND	ND	
Thallium	3.9	UG/L		ND	ND	ND	ND	
Vanadium	.64	UG/L		2.5	1.9	1.2	2.2	
Zinc	4.19	UG/L		28.8	31.1	14.0	22.7	
Calcium Hardness		MG/L		226	245	207	240	
Magnesium Hardness		MG/L		146	175	153	178	
Total Hardness		MG/L		372	420	360	418	
Total Alkalinity (bicarbonate)	20	MG/L		100	155	138	152	
Calcium	.04	MG/L		91	98	83	96	
Lithium	.002	MG/L		0.06	0.07	0.07	0.08	
Magnesium	.1	MG/L		35	42	37	43	
Potassium	.3	MG/L		22	25	23	24	
Sodium	1	MG/L		257	306	287	318	
Bromide	.1	MG/L		0.3	0.4	0.4	0.3	
Chloride	7	MG/L		279	337	361	373	
Fluoride	.05	MG/L		0.61	0.59	0.65	0.73	
Nitrate	.04	MG/L		105	66.4	39.1	58.9	
Ortho Phosphate	.2	MG/L		5.9	7.9	9.6	10.6	
Sulfate	9	MG/L		328	366	363	398	
Cyanide, Total	.002	MG/L		0.004	0.004	0.004	0.004	
Sulfides-Total	.4	MG/L		ND	ND	ND	ND	
BOD (Biochemical Oxygen Demand)	2	MG/L		5.0	4.0	11.0	NR	16.5
Total Suspended Solids	2.5	MG/L		4.4	4.6	6.7	104	
Volatile Suspended Solids	2.5	MG/L		4.3	3.5	5.7	90.0	
Total Dissolved Solids	28	MG/L		1160	1440	1120	1490	
Settleable Solids	.1	ML/L		0.1*	0.3*	ND*	ND*	
pH		PH		7.29*	7.63*	7.50*	7.46*	
Turbidity	.13	NTU		2.0	2.0	2.9	2.3	
Chlorine Residual, Total	.03	MG/L		0.09*	0.23*	0.08*	0.13*	
Ammonia-N	.3	MG/L		ND	ND	ND	0.9	
Total Kjeldahl Nitrogen	1.6	MG/L		2.0	1.7	2.3	3.0	

*= These values are from grab samples.

ND= Not Detected

NR= Not Required

Chromium results are for Total Chromium.

SOUTH BAY WATER RECLAMATION PLANT
ANNUAL SEWAGE: COMBINED OUTFALL (SB_ITP_COMB_EFF)
Temperature

Annual 2014

Analyte:	Temperature
	GRAB
Units:	(°C)
=====	=====
04-FEB-2014	19.3
06-MAY-2014	23.8
05-AUG-2014	27.5
07-OCT-2014	25.6
=====	=====
Average:	24.1
Maximum:	27.5
Minimum:	19.3

ND= Not Detected

SOUTH BAY WATER RECLAMATION PLANT
ANNUAL SEWAGE: COMBINED EFFLUENT (SB_ITP_COMB_EFF)

Ammonia-Nitrogen and Total Cyanides

Annual 2014

Source:	COMB EFF	COMB EFF
Analyte:	Ammonia-N	Cyanides,Total
MDL/ Units:	.3 MG/L	.002 MG/L
=====	=====	=====
FEBRUARY -2014	ND	0.004
MAY -2014	ND	0.004
AUGUST -2014	ND	0.004
OCTOBER -2014	0.9	0.004
=====	=====	=====
Average:	0.2	0.004

ND= not detected

SOUTH BAY WATER RECLAMATION PLANT
ANNUAL SEWAGE: COMBINED OUTFALL (SB_ITP_COMB_EFF)

Radioactivity

Annual 2014

Source	Month	Gross Alpha Radiation
SB_ITP_COMB_EFF	FEBRUARY -2014	0.6 ± 5.5
SB_ITP_COMB_EFF	MAY -2014	3.9 ± 7.5
SB_ITP_COMB_EFF	AUGUST -2014	2.5 ± 6.5
SB_ITP_COMB_EFF	OCTOBER -2014	0.6 ± 6.1
AVERAGE		1.9 ± 6.4

Source	Month	Gross Beta Radiation
SB_ITP_COMB_EFF	FEBRUARY -2014	22.2 ± 6.4
SB_ITP_COMB_EFF	MAY -2014	23.8 ± 7.2
SB_ITP_COMB_EFF	AUGUST -2014	155.0 ± 22.0
SB_ITP_COMB_EFF	OCTOBER -2014	24.9 ± 6.1
AVERAGE		56.5 ± 10.4

Units in picocuries/liter (pCi/L)

SOUTH BAY WATER RECLAMATION PLANT
ANNUAL SEWAGE: COMBINED OUTFALL (SB_ITP_COMB_EFF)

Chlorinated Pesticide Analysis

Annual 2014

Source:		COMB_EFF	COMB_EFF	COMB_EFF	COMB_EFF	COMB_EFF
Date:		04-FEB-2014	06-MAY-2014	05-AUG-2014	07-OCT-2014	
Analyte	MDL	Units				Avg
Aldrin	4	NG/L	ND	ND	ND	ND
Dieldrin	4.3	NG/L	ND	ND	ND	ND
BHC, Alpha isomer	.2	NG/L	ND	ND	ND	ND
BHC, Beta isomer	2	NG/L	ND	ND	ND	ND
BHC, Gamma isomer	.34	NG/L	ND	ND	ND	ND
BHC, Delta isomer	2	NG/L	ND	ND	ND	ND
p,p-DDD	4	NG/L	ND	ND	ND	ND
p,p-DDE	1.4	NG/L	ND	ND	ND	ND
p,p-DDT	3	NG/L	ND	ND	ND	ND
o,p-DDD	4	NG/L	ND	ND	ND	ND
o,p-DDE	2	NG/L	ND	ND	ND	ND
o,p-DDT	2.4	NG/L	ND	ND	ND	ND
Heptachlor	.6	NG/L	ND	ND	ND	ND
Heptachlor epoxide	9.4	NG/L	ND	ND	ND	ND
Alpha (cis) Chlordane	1.4	NG/L	ND	ND	ND	ND
Gamma (trans) Chlordane	1.3	NG/L	ND	ND	ND	ND
Alpha Chlordene		NG/L	NA	NA	NA	NA
Gamma Chlordene		NG/L	NA	NA	NA	NA
Oxychlordane	2	NG/L	ND	ND	ND	ND
Trans Nonachlor	1.1	NG/L	ND	ND	ND	ND
Cis Nonachlor	4	NG/L	ND	ND	ND	ND
Alpha Endosulfan	1.5	NG/L	ND	ND	ND	ND
Beta Endosulfan	3.1	NG/L	ND	ND	ND	ND
Endosulfan Sulfate	7	NG/L	ND	ND	ND	ND
Endrin	6	NG/L	ND	ND	ND	ND
Endrin aldehyde	5.4	NG/L	ND	ND	ND	ND
Mirex	2.3	NG/L	ND	ND	ND	ND
Methoxychlor	20	NG/L	ND	ND	ND	ND
Toxaphene	250	NG/L	ND	ND	ND	ND
PCB 1016	250	NG/L	ND	ND	ND	ND
PCB 1221	2000	NG/L	ND	ND	ND	ND
PCB 1232	750	NG/L	ND	ND	ND	ND
PCB 1242	250	NG/L	ND	ND	ND	ND
PCB 1248	250	NG/L	ND	ND	ND	ND
PCB 1254	500	NG/L	ND	ND	ND	ND
PCB 1260	500	NG/L	ND	ND	ND	ND
PCB 1262	500	NG/L	ND	ND	ND	ND
Aldrin + Dieldrin	4.3	NG/L	0	0	0	0
Hexachlorocyclohexanes	2	NG/L	0	0	0	0
DDT and derivatives	4	NG/L	0	0	0	0
Chlordane + related cmpds.	2	NG/L	0	0	0	0
Polychlorinated biphenyls	2000	NG/L	0	0	0	0
Endosulfans	7	NG/L	0	0	0	0
Heptachlors	9.4	NG/L	0	0	0	0
Chlorinated Hydrocarbons	2000	NG/L	0	0	0	0

ND=not detected
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
ANNUAL SEWAGE: COMBINED OUTFALL

Acid Extractables

Annual 2014

Source: SB_ITP_COMB_EFF

Date:

Analyte	MDL	Units	FEB	MAY	AUG	OCT	Avg
2-Chlorophenol	1.32	UG/L	ND	ND	ND	ND	ND
2,4-Dichlorophenol	1.01	UG/L	ND	ND	ND	ND	ND
4-Chloro-3-methylphenol	1.67	UG/L	ND	ND	ND	ND	ND
2,4,6-Trichlorophenol	1.65	UG/L	ND	ND	ND	ND	ND
Pentachlorophenol	1.12	UG/L	ND	ND	ND	ND	ND
Phenol	1.76	UG/L	ND	ND	ND	ND	ND
2-Nitrophenol	1.55	UG/L	ND	ND	ND	ND	ND
2,4-Dimethylphenol	2.01	UG/L	ND	ND	ND	ND	ND
2,4-Dinitrophenol	2.16	UG/L	ND	ND	ND	ND	ND
4-Nitrophenol	1.14	UG/L	ND	ND	ND	ND	ND
2-Methyl-4,6-dinitrophenol	1.52	UG/L	ND	ND	ND	ND	ND
Total Chlorinated Phenols	1.67	UG/L	0.0	0.0	0.0	0.0	0.0
Total Non-Chlorinated Phenols	2.16	UG/L	0.0	0.0	0.0	0.0	0.0
Total Phenols	2.16	UG/L	0.0	0.0	0.0	0.0	0.0

Additional analytes determined

2-Methylphenol	2.15	UG/L	ND	ND	ND	ND	ND
3-Methylphenol(4-MP is unresolved)		UG/L	NA	NA	NA	NA	NA
4-Methylphenol(3-MP is unresolved)	2.11	UG/L	ND	ND	ND	ND	ND
2,4,5-Trichlorophenol	1.66	UG/L	ND	ND	ND	ND	ND

ND=not detected

NA=not analyzed

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

Annual 2014

Source: SB_ITP_COMB_EFF

Date:

Analyte	MDL	Units	FEB	MAY	AUG	OCT	Avg
Acenaphthene	1.8	UG/L	ND	ND	ND	ND	ND
Acenaphthylene	1.77	UG/L	ND	ND	ND	ND	ND
Anthracene	1.29	UG/L	ND	ND	ND	ND	ND
Benzidine	1.52	UG/L	ND	ND	ND	ND	ND
Benzo[a]anthracene	1.1	UG/L	ND	ND	ND	ND	ND
3,4-Benzo(b)fluoranthene	1.35	UG/L	ND	ND	ND	ND	ND
Benzo[k]fluoranthene	1.49	UG/L	ND	ND	ND	ND	ND
Benzo[a]pyrene	1.25	UG/L	ND	ND	ND	ND	ND
Benzo[g,h,i]perylene	1.09	UG/L	ND	ND	ND	ND	ND
4-Bromophenyl phenyl ether	1.4	UG/L	ND	ND	ND	ND	ND
Bis-(2-chloroethoxy) methane	1.01	UG/L	ND	ND	ND	ND	ND
Bis-(2-chloroethyl) ether	1.38	UG/L	ND	ND	ND	ND	ND
Bis-(2-chloroisopropyl) ether	1.16	UG/L	ND	ND	ND	ND	ND
4-Chlorophenyl phenyl ether	1.57	UG/L	ND	ND	ND	ND	ND
2-Chloronaphthalene	1.87	UG/L	ND	ND	ND	ND	ND
Chrysene	1.16	UG/L	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	1.01	UG/L	ND	ND	ND	ND	ND
Butyl benzyl phthalate	2.84	UG/L	ND	ND	ND	ND	ND
Di-n-butyl phthalate	3.96	UG/L	ND	ND	ND	ND	ND
Bis-(2-ethylhexyl) phthalate	8.96	UG/L	ND	ND	ND	ND	ND
Diethyl phthalate	3.05	UG/L	ND	ND	ND	ND	ND
Dimethyl phthalate	1.44	UG/L	ND	ND	ND	ND	ND
Di-n-octyl phthalate	1	UG/L	ND	ND	ND	ND	ND
3,3-Dichlorobenzidine	2.44	UG/L	ND	ND	ND	ND	ND
2,4-Dinitrotoluene	1.36	UG/L	ND	ND	ND	ND	ND
2,6-Dinitrotoluene	1.53	UG/L	ND	ND	ND	ND	ND
1,2-Diphenylhydrazine	1.37	UG/L	ND	ND	ND	ND	ND
Fluoranthene	1.33	UG/L	ND	ND	ND	ND	ND
Fluorene	1.61	UG/L	ND	ND	ND	ND	ND
Hexachlorobenzene	1.48	UG/L	ND	ND	ND	ND	ND
Hexachlorobutadiene	1.64	UG/L	ND	ND	ND	ND	ND
Hexachlorocyclopentadiene	1.25	UG/L	ND	ND	ND	ND	ND
Hexachloroethane	1.32	UG/L	ND	ND	ND	ND	ND
Indeno(1,2,3-CD)pyrene	1.14	UG/L	ND	ND	ND	ND	ND
Isophorone	1.53	UG/L	ND	ND	ND	ND	ND
Naphthalene	1.65	UG/L	ND	ND	ND	ND	ND
Nitrobenzene	1.6	UG/L	ND	ND	ND	ND	ND
N-nitrosodimethylamine	1.27	UG/L	ND	ND	ND	ND	ND
N-nitrosodi-n-propylamine	1.16	UG/L	ND	ND	ND	ND	ND
N-nitrosodiphenylamine	3.48	UG/L	ND	ND	ND	ND	ND
Phenanthrene	1.34	UG/L	ND	ND	ND	ND	ND
Pyrene	1.43	UG/L	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	1.52	UG/L	ND	ND	ND	ND	ND
Polynuc. Aromatic Hydrocarbons	1.77	UG/L	0.0	0.0	0.0	0.0	0.0
Base/Neutral Compounds	8.96	UG/L	0.0	0.0	0.0	0.0	0.0

Additional analytes determined

Benzo[e]pyrene	1.44	UG/L	ND	ND	ND	ND	ND
Biphenyl	2.29	UG/L	ND	ND	ND	ND	ND
2,6-Dimethylnaphthalene	2.16	UG/L	ND	ND	ND	ND	ND
1-Methylnaphthalene	2.18	UG/L	ND	ND	ND	ND	ND
1-Methylphenanthrene	1.46	UG/L	ND	ND	ND	ND	ND
2-Methylnaphthalene	2.14	UG/L	ND	ND	ND	ND	ND
2,3,5-Trimethylnaphthalene	2.18	UG/L	ND	ND	ND	ND	ND
Perylene	1.41	UG/L	ND	ND	ND	ND	ND

ND=not detected

SOUTH BAY WATER RECLAMATION PLANT
ANNUAL SEWAGE: COMBINED EFFLUENT

Tributyl Tin Analysis

Annual 2014

Source:	SB_ITP_COMB_EFF				
Date:	FEB	MAY	AUG	OCT	
Analyte	MDL	Units			Avg
Dibutyltin	7	UG/L	ND	ND	ND
Monobutyltin	16	UG/L	ND	ND	ND
Tributyltin	2	UG/L	ND	ND	ND

ND=not detected

SOUTH BAY WATER RECLAMATION PLANT
SEWAGE ANNUAL: COMBINED EFFLUENT
Priority Pollutants Purgeables

Annual 2014

Source: SB_ITP_COMB_EFF

Date:

Analyte	MDL	Units	FEB	MAY	AUG	OCT	Avg
Dichlorodifluoromethane	.66	UG/L	ND	ND	ND	ND	ND
Chloromethane	.5	UG/L	ND	ND	ND	ND	ND
Vinyl chloride	.4	UG/L	ND	ND	ND	ND	ND
Bromomethane	.7	UG/L	ND	ND	ND	ND	ND
Chloroethane	.9	UG/L	ND	ND	ND	ND	ND
Trichlorofluoromethane	.3	UG/L	ND	ND	ND	ND	ND
Acrolein	1.3	UG/L	ND	ND	ND	ND	ND
1,1-Dichloroethane	.4	UG/L	ND	ND	ND	ND	ND
Methylene chloride	.3	UG/L	ND	ND	ND	ND	ND
trans-1,2-dichloroethene	.6	UG/L	ND	ND	ND	ND	ND
1,1-Dichloroethene	.4	UG/L	ND	ND	ND	ND	ND
Acrylonitrile	.7	UG/L	ND	ND	ND	ND	ND
Chloroform	.2	UG/L	10.8	2.0	1.1	ND	3.5
1,1,1-Trichloroethane	.4	UG/L	ND	ND	ND	ND	ND
Carbon tetrachloride	.4	UG/L	ND	ND	ND	ND	ND
Benzene	.4	UG/L	ND	ND	ND	ND	ND
1,2-Dichloroethane	.5	UG/L	ND	ND	ND	ND	ND
Trichloroethene	.7	UG/L	ND	ND	ND	ND	ND
1,2-Dichloropropane	.3	UG/L	ND	ND	ND	ND	ND
Bromodichloromethane	.5	UG/L	7.9	DNQ0.7	ND	ND	2.2
2-Chloroethylvinyl ether	1.1	UG/L	ND	ND	ND	ND	ND
cis-1,3-dichloropropene	.3	UG/L	ND	ND	ND	ND	ND
Toluene	.4	UG/L	ND	ND	ND	ND	ND
trans-1,3-dichloropropene	.5	UG/L	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	.5	UG/L	ND	ND	ND	ND	ND
Tetrachloroethene	1.1	UG/L	ND	ND	ND	ND	ND
Dibromochloromethane	.6	UG/L	4.3	ND	ND	ND	1.1
Chlorobenzene	.4	UG/L	ND	ND	ND	ND	ND
Ethylbenzene	.3	UG/L	ND	ND	ND	ND	ND
Bromoform	.5	UG/L	DNQ0.6	ND	ND	ND	0.2
1,1,2,2-Tetrachloroethane	.5	UG/L	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	.5	UG/L	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	.4	UG/L	DNQ1.0	DNQ0.8	DNQ0.7	ND	0.6
1,2-Dichlorobenzene	.4	UG/L	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	.7	UG/L	ND	ND	ND	ND	ND
Halomethane Purgeable Cmpnds	.7	UG/L	0.6	0.0	0.0	0.0	0.2
Dichlorobenzenes	.5	UG/L	0.0	0.0	0.0	0.0	0.0
Total Chloromethanes	.5	UG/L	10.8	2.0	1.1	0.0	3.5
Purgeable Compounds	1.3	UG/L	23.0	2.0	1.1	0.0	7.5

Additional analytes determined

Methyl Iodide	.6	UG/L	ND	ND	ND	ND	ND
Carbon disulfide	.6	UG/L	ND	ND	ND	ND	ND
Acetone	4.5	UG/L	ND	ND	ND	ND	ND
Allyl chloride	.6	UG/L	ND	ND	ND	ND	ND
Methyl tert-butyl ether	.4	UG/L	ND	ND	ND	ND	ND
Chloroprene	.4	UG/L	ND	ND	ND	ND	ND
1,2-Dibromoethane	.3	UG/L	ND	ND	ND	ND	ND
2-Butanone	6.3	UG/L	ND	ND	ND	ND	ND
Methyl methacrylate	.8	UG/L	ND	ND	ND	ND	ND
2-Nitropropane	12	UG/L	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	1.3	UG/L	ND	ND	ND	ND	ND
meta,para xylenes	.6	UG/L	ND	ND	ND	ND	ND
ortho-xylene	.4	UG/L	ND	ND	ND	ND	ND
Isopropylbenzene	.3	UG/L	ND	ND	ND	ND	ND
Styrene	.3	UG/L	ND	ND	ND	ND	ND
Benzyl chloride	1.1	UG/L	ND	ND	ND	ND	ND

DNQ= (Detected but not quantified). Estimated analyte concentration below calibration range.

ND= not detected

SOUTH BAY WATER RECLAMATION PLANT
Organophosphorus Pesticides

COMBINED OUTFALL

Annual 2014

Source: SB_ITP_COMB_EFF

Analyte	MDL Units	P712571
Demeton O	.15 UG/L	ND
Demeton S	.08 UG/L	ND
Diazinon	.03 UG/L	ND
Guthion	.15 UG/L	ND
Malathion	.03 UG/L	ND
Parathion	.03 UG/L	ND
Dichlorvos	.05 UG/L	ND
Disulfoton	.02 UG/L	ND
Dimethoate	.04 UG/L	ND
Stirophos	.03 UG/L	ND
Coumaphos	.15 UG/L	ND
Chlorpyrifos	.03 UG/L	ND
Thiophosphorus Pesticides	.15 UG/L	0.0
Demeton -O, -S	.15 UG/L	0.0
Total Organophosphorus Pesticides	.15 UG/L	0.0

Source: SB_ITP_COMB_EFF

Analyte	MDL Units	P734809*
Demeton O	.15 UG/L	ND
Demeton S	.403 UG/L	ND
Diazinon	.03 UG/L	DNQ0.07
Guthion	.15 UG/L	ND
Malathion	.051 UG/L	ND
Parathion	.032 UG/L	ND
Dichlorvos	.05 UG/L	ND
Disulfoton	.175 UG/L	ND
Dimethoate	.189 UG/L	ND
Stirophos	.034 UG/L	ND
Coumaphos	.15 UG/L	ND
Chlorpyrifos	.034 UG/L	ND
Thiophosphorus Pesticides	.15 UG/L	0.0
Demeton -O, -S	.403 UG/L	0.0
Total Organophosphorus Pesticides	.403 UG/L	0.0

*=This sample was analyzed using a Bruker GC/MS/MS.

ND=not detected

SOUTH BAY WATER RECLAMATION PLANT
Annual Sewage Dioxin and Furan Analysis

COMBINED OUTFALL

Annual 2014

Source:	MDL	Units	Equiv	COMB	EFF	COMB	EFF	COMB	EFF	COMB	EFF
				FEB	P695812	MAY	P712571	AUG	P723822	OCT	P734809
2,3,7,8-tetra CDD	.155	PG/L	1.000		ND		ND		ND		ND
1,2,3,7,8-penta CDD	.205	PG/L	0.500		ND		ND		ND		ND
1,2,3,4,7,8_hexa_CDD	.273	PG/L	0.100		ND		ND		ND		ND
1,2,3,6,7,8-hexa CDD	.291	PG/L	0.100		ND		ND		ND		ND
1,2,3,7,8,9-hexa CDD	.264	PG/L	0.100		ND		ND		ND		ND
1,2,3,4,6,7,8-hepta CDD	.53	PG/L	0.010		ND		ND		ND		ND
octa CDD	1.02	PG/L	0.001		ND		ND		ND		ND
2,3,7,8-tetra CDF	.164	PG/L	0.100		ND		ND		ND		ND
1,2,3,7,8-penta CDF	.187	PG/L	0.050		ND		ND		ND		ND
2,3,4,7,8-penta CDF	.178	PG/L	0.500		ND		ND		ND		ND
1,2,3,4,7,8-hexa CDF	.168	PG/L	0.100		ND		ND		ND		ND
1,2,3,6,7,8-hexa CDF	.173	PG/L	0.100		ND		ND		ND		ND
1,2,3,7,8,9-hexa CDF	.242	PG/L	0.100		ND		ND		ND		ND
2,3,4,6,7,8-hexa CDF	.188	PG/L	0.100		ND		ND		ND		ND
1,2,3,4,6,7,8-hepta CDF	.218	PG/L	0.010		ND		ND		ND		ND
1,2,3,4,7,8,9-hepta CDF	.317	PG/L	0.010		ND		ND		ND		ND
octa CDF	.579	PG/L	0.001		ND		ND		ND		ND

Source:	MDL	Units	Equiv	COMB	EFF	COMB	EFF	COMB	EFF	COMB	EFF
				TCCD	P695812	TCCD	P712571	TCCD	P723822	TCCD	P734809
2,3,7,8-tetra CDD	.155	PG/L	1.000		ND		ND		ND		ND
1,2,3,7,8-penta CDD	.205	PG/L	0.500		ND		ND		ND		ND
1,2,3,4,7,8_hexa_CDD	.273	PG/L	0.100		ND		ND		ND		ND
1,2,3,6,7,8-hexa CDD	.291	PG/L	0.100		ND		ND		ND		ND
1,2,3,7,8,9-hexa CDD	.264	PG/L	0.100		ND		ND		ND		ND
1,2,3,4,6,7,8-hepta CDD	.53	PG/L	0.010		ND		ND		ND		ND
octa CDD	1.02	PG/L	0.001		ND		ND		ND		ND
2,3,7,8-tetra CDF	.164	PG/L	0.100		ND		ND		ND		ND
1,2,3,7,8-penta CDF	.187	PG/L	0.050		ND		ND		ND		ND
2,3,4,7,8-penta CDF	.178	PG/L	0.500		ND		ND		ND		ND
1,2,3,4,7,8-hexa CDF	.168	PG/L	0.100		ND		ND		ND		ND
1,2,3,6,7,8-hexa CDF	.173	PG/L	0.100		ND		ND		ND		ND
1,2,3,7,8,9-hexa CDF	.242	PG/L	0.100		ND		ND		ND		ND
2,3,4,6,7,8-hexa CDF	.188	PG/L	0.100		ND		ND		ND		ND
1,2,3,4,6,7,8-hepta CDF	.218	PG/L	0.010		ND		ND		ND		ND
1,2,3,4,7,8,9-hepta CDF	.317	PG/L	0.010		ND		ND		ND		ND
octa CDF	.579	PG/L	0.001		ND		ND		ND		ND

Above are permit required CDD/CDF isomers.

ND= not detected

This page left blank intentionally

V. Ocean Monitoring Data Summary

- A. Ocean Sediment Chemistry Data Tables.
- B. Fish Tissue Chemistry Data Tables.
- C. Seawaters Chemistry Data Tables.

This page is left blank intentionally

Maps, with sampling sites labeled, are included in this section.

Summary of Sampling Technique⁶:

Sediments

Benthic sediment is obtained using a 0.1m², chain-rigged Tandem van Veen grab sampler deployed from a City ocean monitoring vessel. Sediment samples are collected from the top 2 cm of an undisturbed grab surface and then placed into an appropriately labeled sample container. Subsamples are placed on ice and subsequently shipped to the laboratory for chemical analysis. Preservatives are used in accordance with the requirements of 40 CFR and our Quality Assurance Plan. Sediment concentrations are based on the dry weight of a sample.

Fish Tissue

Several species of flat fish and rock fish are taken by Otter trawls and/or rig fishing. The dissected muscle and liver tissues are frozen and delivered to the laboratory for analysis. Tissue samples are kept frozen until prepared for analyses.

⁶ For complete description of the sampling protocols, dissections, equipment, vessels, etc. related to the sampling of ocean sediments and fish, please refer to the City of San Diego, Annual Receiving Waters Monitoring Report 2011

A. Ocean Sediment Chemistries.

The data for Biochemical Oxygen Demand (BOD) and Total Volatile Solids (TVS), all measures of organic enrichment, as well as total sulfides and temperature, are all presented by quarter and averaged. The quarterly particle size analysis does not lend itself to summarization and each quarter's analysis is presented separately. For the data from all the metals, cyanide, radiation and all of the numerous organic priority pollutant analyses (except dioxin, presented by quarter) only the average of the four quarters is presented here; the values for each quarter has been reported in the Quarterly Monitoring Reports.

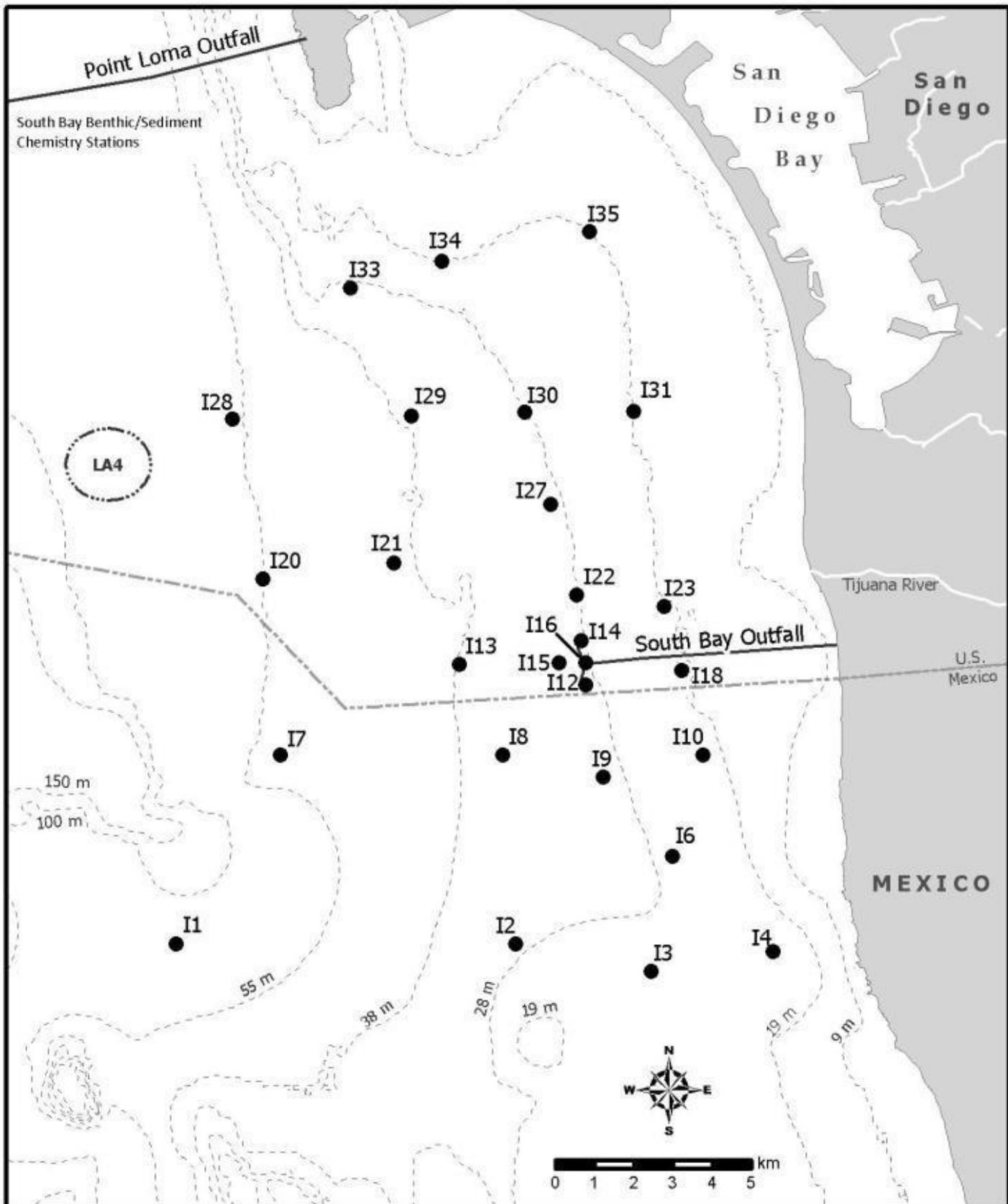
Station

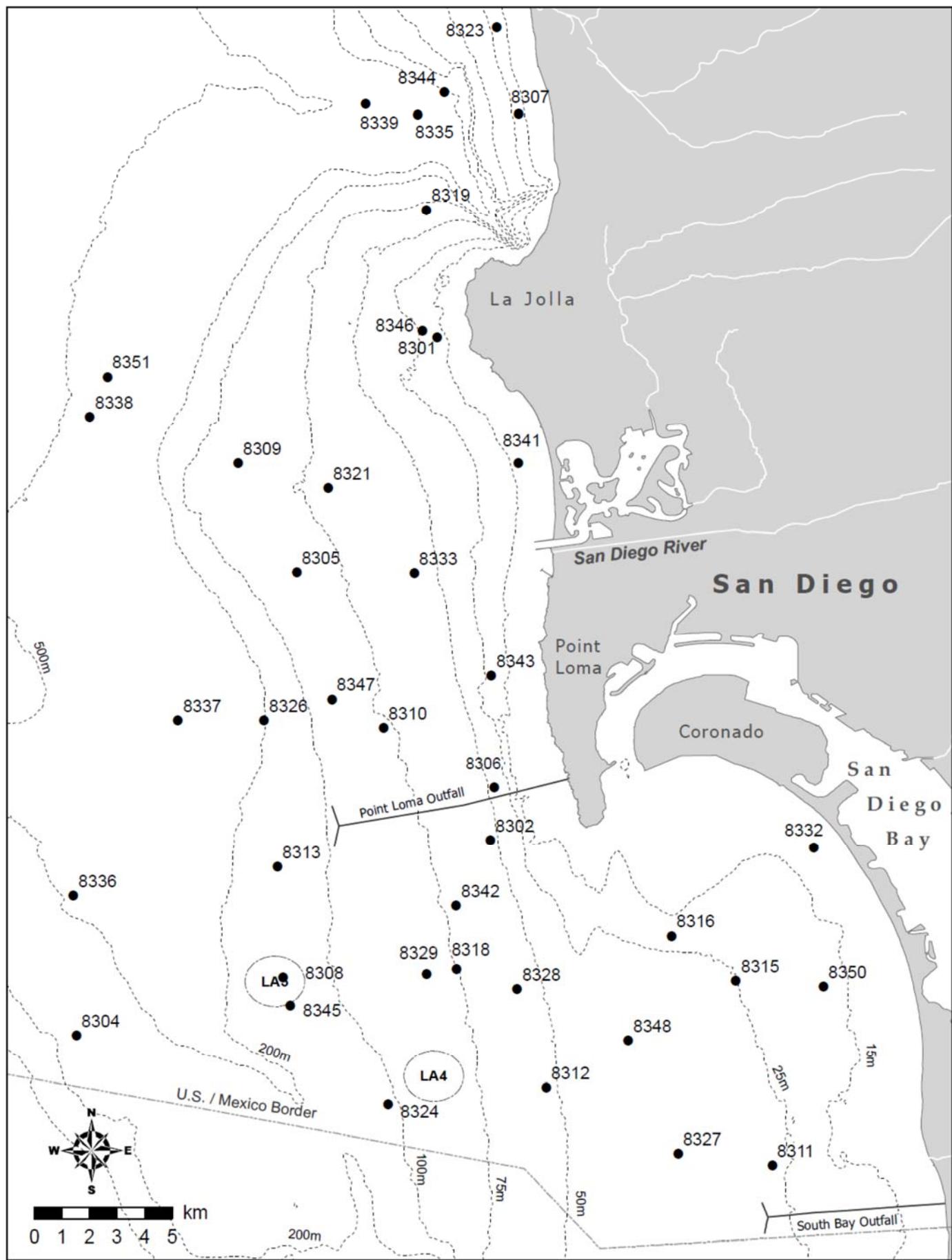
I-1	I-12	I-23
I-2	I-13	I-27
I-3	I-14	I-28
I-4	I-15	I-29
I-6	I-16	I-30
I-7	I-18	I-31
I-8	I-20	I-33
I-9	I-21	I-34
I-10	I-22	I-35

2014 Random Stations

Station	Sample Date	Station	Sample Date	Station	Sample Date
8301	21-Jul-14	8318	22-Jul-14	8338	23-Jul-14
8302	11-Jul-14	8319	21-Jul-14	8339	21-Jul-14
8304	16-Jul-14	8321	23-Jul-14	8341	21-Jul-14
8305	23-Jul-14	8323	21-Jul-14	8342	22-Jul-14
8306	11-Jul-14	8324	15-Jul-14	8343	21-Jul-14
8307	21-Jul-14	8326	23-Jul-14	8345	22-Jul-14
8308	16-Jul-14	8327	15-Jul-14	8346	21-Jul-14
8309	23-Jul-14	8328	15-Jul-14	8347	25-Jul-14
8310	11-Jul-14	8329	22-Jul-14	8348	22-Jul-14
8311	15-Jul-14	8332	22-Jul-14	8344	21-Jul-14
8312	15-Jul-14	8333	21-Jul-14	8350	22-Jul-14
8313	22-Jul-14	8335	21-Jul-14	8351	23-Jul-14
8315	22-Jul-14	8336	16-Jul-14		
8316	22-Jul-14	8337	23-Jul-14		

SBWRP Regular Fixed Grid Ocean sediment (benthic) stations





SOUTH BAY OCEAN OUTFALL MONITORING
SEDIMENT ANNUAL - International Stations

Sulfide and Total Volatile Solids Analysis

Annual 2014

Source:		I-1	I-2	I-3	I-4	I-6	I-7	I-8	I-9	I-10
Date:		2014	2014	2014	2014	2014	2014	2014	2014	2014
Analyte	MDL Units	Avg								
Sulfides-Total	.14 MG/KG	1.31	1.26	0.31	1.64	0.27	0.29	2.25	3.46	2.06
Total Volatile Solids	.11 WT%	1.00	0.45	0.44	0.59	0.47	0.50	0.51	1.30	0.87

Source:		I-12	I-13	I-14	I-15	I-16	I-18	I-20	I-21	I-22
Date:		2014	2014	2014	2014	2014	2014	2014	2014	2014
Analyte	MDL Units	Avg								
Sulfides-Total	.14 MG/KG	2.25	0.22	2.95	2.23	1.54	6.59	0.53	0.40	3.98
Total Volatile Solids	.11 WT%	0.69	0.47	1.15	0.62	0.61	0.72	0.54	0.56	1.04

Source:		I-23	I-27	I-28	I-29	I-30	I-31	I-33	I-34	I-35
Date:		2014	2014	2014	2014	2014	2014	2014	2014	2014
Analyte	MDL Units	Avg								
Sulfides-Total	.14 MG/KG	3.50	2.40	1.73	2.68	2.49	1.77	4.90	1.02	5.12
Total Volatile Solids	.11 WT%	0.88	1.01	1.72	1.51	1.13	0.60	1.28	0.83	1.50

ND=not detected

SOUTH BAY OCEAN OUTFALL MONITORING
SEDIMENT ANNUAL - International Stations

Grain Size
(all values are in percent distribution)

ANNUAL 2014

Source:	I-1	I-1	I-2	I-2	I-3	I-3	I-4	
Sample ID:	P692792	P724962	P692804	P725001	P692821	P725009	P692826	
Analyte	Units	02-JAN-2014	14-JUL-2014	02-JAN-2014	14-JUL-2014	02-JAN-2014	14-JUL-2014	02-JAN-2014
>0.5 to 1.0		0.000	0.000	0.000	0.000	0.000	0.000	0.000
>1.0 to 2.0		0.000	0.000	0.000	0.000	0.000	0.000	0.000
>2.0 to 3.9		0.000	0.104	0.000	0.000	0.000	0.000	0.000
>3.9 to 7.8		1.950	2.180	0.130	0.012	0.116	0.000	0.000
>7.8 to 15.6		3.200	2.850	0.867	0.709	0.799	0.000	0.000
>15.6 to 31		1.250	1.010	0.508	0.217	0.497	0.000	0.000
>31 to 62.5		3.110	3.070	0.199	0.054	0.181	0.000	0.194
>62.5 to 125		33.400	33.500	2.660	2.210	2.210	0.061	1.750
>125 to 250		50.300	49.900	27.200	26.500	30.500	2.560	10.000
>250 to 500		6.730	7.310	55.000	56.700	55.400	20.400	52.700
>500 to 1000		0.039	0.040	13.000	13.200	10.200	69.200	32.700
>1000 to 2000		0.000	0.000	0.463	0.423	0.069	7.810	2.700
>2000*		ND						
Totals:		99.979	99.964	100.027	100.025	99.972	100.031	100.044

Source:	I-4	I-6	I-6	I-7	I-7	I-8	I-8	
Sample ID:	P725012	P692835	P725016	P692837	P725020	P693525	P725026	
Analyte	Units	14-JUL-2014	02-JAN-2014	14-JUL-2014	02-JAN-2014	14-JUL-2014	06-JAN-2014	14-JUL-2014
>0.5 to 1.0		0.000	0.000	0.000	0.000	0.000	0.000	0.000
>1.0 to 2.0		0.000	0.000	0.000	0.000	0.000	0.000	0.000
>2.0 to 3.9		0.000	0.000	0.000	0.000	0.000	0.000	0.000
>3.9 to 7.8		1.840	0.261	0.000	0.334	0.117	0.394	0.306
>7.8 to 15.6		2.360	1.110	0.503	1.570	0.591	1.910	1.240
>15.6 to 31		1.090	0.867	0.200	0.989	0.000	1.420	0.750
>31 to 62.5		7.910	0.889	0.461	0.466	0.000	1.140	0.304
>62.5 to 125		47.000	2.030	1.570	1.200	0.538	2.760	1.850
>125 to 250		24.800	10.600	9.720	5.980	3.280	14.400	16.000
>250 to 500		13.500	48.600	52.700	31.900	21.600	46.000	57.700
>500 to 1000		1.510	32.300	32.500	44.500	63.100	28.700	21.000
>1000 to 2000		0.000	3.350	2.340	13.100	10.800	3.280	0.997
>2000*		ND						
Totals:		100.010	100.007	99.994	100.039	100.026	100.004	100.147

*=A value in this field reflects a percentage of 30 grams remaining on a 2000 micron sieve. This value must be subtracted from the total percentage.

SOUTH BAY OCEAN OUTFALL MONITORING
SEDIMENT ANNUAL - International Stations

Grain Size
(all values are in percent distribution)

ANNUAL 2014

Source:	I-9	I-9	I-10	I-10	I-12	I-12	I-13	
Sample ID:	P693636	P725033	P692799	P724967	P693591	P724972	P693514	
Analyte	Units	07-JAN-2014	14-JUL-2014	02-JAN-2014	14-JUL-2014	07-JAN-2014	14-JUL-2014	06-JAN-2014
>0.5 to 1.0		0.000	0.000	0.000	0.000	0.000	0.000	0.000
>1.0 to 2.0		0.000	0.000	0.000	0.000	0.000	0.000	0.000
>2.0 to 3.9		0.000	0.108	0.100	0.126	0.000	0.000	0.000
>3.9 to 7.8		2.100	2.170	1.780	1.760	0.538	0.594	0.251
>7.8 to 15.6		3.720	3.130	1.980	1.510	2.070	1.460	0.973
>15.6 to 31		2.250	1.640	0.706	0.131	1.650	1.050	0.645
>31 to 62.5		15.400	14.800	6.350	5.920	3.480	5.950	0.280
>62.5 to 125		59.700	62.500	61.900	63.100	10.600	28.000	1.260
>125 to 250		15.600	14.800	25.300	25.500	22.600	31.700	8.450
>250 to 500		1.230	0.793	1.970	2.000	46.900	26.600	52.100
>500 to 1000		0.000	0.000	0.000	0.000	11.800	4.650	33.700
>1000 to 2000		0.000	0.000	0.000	0.000	0.389	0.000	2.270
>2000*		ND						
Totals:		100.000	99.941	100.086	100.047	100.027	100.004	99.929

Source:	I-13	I-14	I-14	I-15	I-15	I-16	I-16	
Sample ID:	P724976	P693600	P724982	P693603	P724986	P693610	P724990	
Analyte	Units	14-JUL-2014	07-JAN-2014	14-JUL-2014	07-JAN-2014	14-JUL-2014	07-JAN-2014	14-JUL-2014
>0.5 to 1.0		0.000	0.000	0.000	0.000	0.000	0.000	0.000
>1.0 to 2.0		0.000	0.000	0.000	0.000	0.000	0.000	0.000
>2.0 to 3.9		0.000	0.051	0.170	0.000	0.000	0.000	0.000
>3.9 to 7.8		0.006	2.330	2.290	0.586	0.509	0.580	0.557
>7.8 to 15.6		0.335	3.270	1.840	2.020	1.590	2.390	1.930
>15.6 to 31		0.047	1.570	0.664	1.480	1.180	1.910	1.330
>31 to 62.5		0.024	12.400	11.300	3.800	3.730	3.410	2.850
>62.5 to 125		0.892	55.400	64.600	13.500	14.400	16.600	15.700
>125 to 250		7.030	21.600	17.500	32.400	33.300	38.400	31.100
>250 to 500		50.200	3.290	1.580	40.300	39.500	31.600	36.900
>500 to 1000		38.300	0.000	0.000	5.930	5.820	5.110	9.490
>1000 to 2000		3.140	0.000	0.000	0.000	0.000	0.000	0.073
>2000*		ND						
Totals:		99.974	99.911	99.944	100.016	100.029	100.000	99.930

*=A value in this field reflects a percentage of 30 grams remaining on a 2000 micron sieve. This value must be subtracted from the total percentage.

SOUTH BAY OCEAN OUTFALL MONITORING
SEDIMENT ANNUAL - International Stations

Grain Size
(all values are in percent distribution)

ANNUAL 2014

Source:	I-18	I-18	I-20	I-20	I-21	I-21	I-22	
Sample ID:	P693612	P724999	P693518	P725349	P692807	P725354	P693620	
Analyte	Units	07-JAN-2014	14-JUL-2014	06-JAN-2014	15-JUL-2014	02-JAN-2014	15-JUL-2014	07-JAN-2014
>0.5 to 1.0		0.000	0.000	0.000	0.000	0.000	0.000	0.000
>1.0 to 2.0		0.000	0.000	0.000	0.000	0.000	0.000	0.000
>2.0 to 3.9		0.118	0.277	0.000	0.000	0.000	0.000	0.000
>3.9 to 7.8		2.040	1.320	0.552	0.735	0.410	0.010	2.180
>7.8 to 15.6		2.170	0.663	2.000	2.600	2.250	0.550	3.100
>15.6 to 31		0.809	0.000	1.250	1.690	1.660	0.000	1.450
>31 to 62.5		8.250	6.330	0.789	1.190	1.030	0.048	9.980
>62.5 to 125		64.400	71.500	1.240	1.530	1.690	1.010	53.100
>125 to 250		20.700	19.100	5.460	4.790	8.280	7.970	26.600
>250 to 500		1.460	0.760	15.700	17.900	44.500	53.400	3.600
>500 to 1000		0.000	0.000	61.900	59.500	37.000	34.700	0.000
>1000 to 2000		0.000	0.000	11.100	10.100	3.230	2.250	0.000
>2000*		ND						
Totals:		99.947	99.950	99.991	100.035	100.050	99.938	100.010

Source:	I-22	I-23	I-23	I-27	I-27	I-29	I-29	
Sample ID:	P725358	P693625	P725363	P693629	P725370	P692819	P725377	
Analyte	Units	15-JUL-2014	07-JAN-2014	15-JUL-2014	07-JAN-2014	15-JUL-2014	02-JAN-2014	15-JUL-2014
>0.5 to 1.0		0.000	0.000	0.000	0.000	0.000	0.000	0.000
>1.0 to 2.0		0.000	0.000	0.000	0.000	0.000	0.000	0.000
>2.0 to 3.9		0.000	0.105	0.139	0.149	0.305	0.131	0.000
>3.9 to 7.8		2.240	2.180	2.030	2.650	2.280	3.110	2.880
>7.8 to 15.6		3.650	2.670	1.620	2.630	1.670	5.760	7.660
>15.6 to 31		1.980	1.080	0.123	0.947	0.517	4.180	5.420
>31 to 62.5		10.100	7.950	5.800	11.900	12.100	18.700	17.300
>62.5 to 125		46.700	57.500	66.600	66.700	68.000	44.800	43.900
>125 to 250		29.500	25.000	22.300	14.400	14.400	20.300	19.700
>250 to 500		5.890	3.430	1.430	0.647	0.818	3.060	3.220
>500 to 1000		0.000	0.000	0.000	0.000	0.000	0.000	0.000
>1000 to 2000		0.000	0.000	0.000	0.000	0.000	0.000	0.000
>2000*		ND						
Totals:		100.060	99.915	100.042	100.023	100.090	100.041	100.080

*=A value in this field reflects a percentage of 30 grams remaining on a 2000 micron sieve. This value must be subtracted from the total percentage.

SOUTH BAY OCEAN OUTFALL MONITORING
SEDIMENT ANNUAL - International Stations

Grain Size
(all values are in percent distribution)

ANNUAL 2014

Source:	I-30	I-30	I-31	I-31	I-33	I-33	I-34	
Sample ID:	P693631	P725382	P694575	P725389	P694582	P725392	P694589	
Analyte	Units	07-JAN-2014	15-JUL-2014	09-JAN-2014	15-JUL-2014	09-JAN-2014	15-JUL-2014	09-JAN-2014
>0.5 to 1.0		0.000	0.000	0.000	0.000	0.000	0.000	0.000
>1.0 to 2.0		0.000	0.000	0.000	0.000	0.000	0.000	0.000
>2.0 to 3.9		0.132	0.139	0.274	0.152	0.117	0.113	0.000
>3.9 to 7.8		2.790	2.080	2.170	1.760	2.630	2.290	0.116
>7.8 to 15.6		4.070	2.370	1.310	0.877	3.440	2.690	0.590
>15.6 to 31		2.030	1.230	0.000	0.000	1.170	0.888	0.000
>31 to 62.5		14.300	13.900	5.040	4.740	4.020	4.200	0.207
>62.5 to 125		60.600	66.000	71.900	73.900	45.600	51.800	2.970
>125 to 250		15.200	13.700	18.700	18.000	38.000	34.700	32.600
>250 to 500		0.852	0.606	0.643	0.497	5.000	3.320	52.300
>500 to 1000		0.000	0.000	0.000	0.000	0.000	0.000	10.800
>1000 to 2000		0.000	0.000	0.000	0.000	0.000	0.000	0.426
>2000*		ND						
Totals:		99.974	100.025	100.037	99.926	99.977	100.001	100.009

Source:	I-35	I-35	
Sample ID:	P694591	P726488	
Analyte	Units	09-JAN-2014	22-JUL-2014
>0.5 to 1.0		0.000	0.000
>1.0 to 2.0		0.000	0.000
>2.0 to 3.9		0.000	0.000
>3.9 to 7.8		2.280	1.970
>7.8 to 15.6		7.000	6.940
>15.6 to 31		7.350	8.030
>31 to 62.5		20.900	21.200
>62.5 to 125		41.400	40.000
>125 to 250		18.300	18.900
>250 to 500		2.760	2.990
>500 to 1000		0.000	0.000
>1000 to 2000		0.000	0.000
>2000*		ND	ND
Totals:		99.990	100.030

*=A value in this field reflects a percentage of 30 grams remaining on a 2000 micron sieve. This value must be subtracted from the total percentage.

SOUTH BAY OCEAN OUTFALL MONITORING
SEDIMENT SEMI-ANNUAL - Grain Size (Sieve)
(all values are in percent distribution)

Annual 2014

Source:		I-28	I-28	I-34
Sample ID:		P692814	P725371	P726481
Analyte	MDL Units	02-JAN-2014	15-JUL-2014	22-JUL-2014
<63 microns, Phi<4		22.3	19.2	3.2
>63 to 125 microns, Phi>4		20.5	19.4	1.6
>125 to 250 microns, Phi>3		3.5	3.0	5.6
>250 to 500 microns, Phi>2		13.6	10.7	11.0
>500 to 1000 microns, Phi>1		25.4	20.7	25.0
>1000 to 2000 microns, Phi>0		10.3	13.5	18.3
>2000 microns, Phi>-1		4.4	13.5	35.3
Totals:		100.0	100.0	100.0

SOUTH BAY WATER RECLAMATION PLANT
SEDIMENT ANNUAL - International Stations

Total Organic Carbon/Total Nitrogen

Annual 2014

Source:		I-1	I-2	I-3	I-4	I-6	I-7	
Date:		2014	2014	2014	2014	2014	2014	
Analyte	MDL	Units	Avg	Avg	Avg	Avg	Avg	
Total Nitrogen	.005	WT%	0.028	0.015	0.012	0.025	0.014	0.013
Total Organic Carbon	.01	WT%	0.212	0.096	0.085	0.134	0.083	0.082
Source:		I-8	I-9	I-10	I-12	I-13	I-14	
Date:		2014	2014	2014	2014	2014	2014	
Analyte	MDL	Units	Avg	Avg	Avg	Avg	Avg	
Total Nitrogen	.005	WT%	0.016	0.034	0.023	0.017	0.018	0.030
Total Organic Carbon	.01	WT%	0.107	0.221	0.163	0.128	0.107	0.208
Source:		I-15	I-16	I-18	I-20	I-21	I-22	
Date:		2014	2014	2014	2014	2014	2014	
Analyte	MDL	Units	Avg	Avg	Avg	Avg	Avg	
Total Nitrogen	.005	WT%	0.021	0.023	0.021	0.014	0.013	0.031
Total Organic Carbon	.01	WT%	0.145	0.166	0.497	0.108	0.081	0.227
Source:		I-23	I-27	I-28	I-29	I-30	I-31	
Date:		2014	2014	2014	2014	2014	2014	
Analyte	MDL	Units	Avg	Avg	Avg	Avg	Avg	
Total Nitrogen	.005	WT%	0.024	0.029	0.051	0.038	0.031	0.018
Total Organic Carbon	.01	WT%	0.161	0.201	0.536	0.366	0.234	0.157
Source:		I-33	I-34	I-35				
Date:		2014	2014	2014				
Analyte	MDL	Units	Avg	Avg	Avg			
Total Nitrogen	.005	WT%	0.030	0.016	0.033			
Total Organic Carbon	.01	WT%	0.289	0.108	0.321			

ND=not detected

SOUTH BAY WASTEWATER RECLAMATION PLANT
SEDIMENT ANNUAL - International Stations

Trace Metals

Annual 2014

Source:		I-1	I-2	I-3	I-4	I-6
Date:		2014	2014	2014	2014	2014
Analyte	MDL	Units	Average	Average	Average	Average
Aluminum	2	MG/KG	2510	916	730	1960
Antimony	.3	MG/KG	<0.3	ND	<0.3	<0.3
Arsenic	.33	MG/KG	4.38	0.99	0.58	1.20
Beryllium	.01	MG/KG	ND	ND	ND	ND
Cadmium	.06	MG/KG	<0.06	ND	ND	ND
Chromium	.1	MG/KG	6.7	5.2	5.8	5.7
Copper	.2	MG/KG	0.7	ND	ND	0.4
Iron	9	MG/KG	3460	1200	1630	2920
Lead	.8	MG/KG	1.7	<0.8	1.2	1.4
Manganese	.08	MG/KG	32.8	7.67	6.33	24.7
Mercury	.004	MG/KG	0.004	<0.004	ND	ND
Nickel	.1	MG/KG	2.8	0.8	0.8	1.8
Selenium	.24	MG/KG	ND	ND	<0.24	ND
Silver	.04	MG/KG	ND	ND	ND	ND
Thallium	.5	MG/KG	<0.5	1.0	ND	0.7
Tin	.3	MG/KG	<0.3	0.3	0.3	<0.3
Zinc	.25	MG/KG	7.9	2.6	2.4	6.0

Source:		I-7	I-8	I-9	I-10	I-12
Date:		2014	2014	2014	2014	2014
Analyte	MDL	Units	Average	Average	Average	Average
Aluminum	2	MG/KG	1190	1440	7390	5250
Antimony	.3	MG/KG	<0.3	ND	<0.3	<0.3
Arsenic	.33	MG/KG	6.44	3.09	1.93	1.46
Beryllium	.01	MG/KG	ND	ND	ND	0.02
Cadmium	.06	MG/KG	ND	ND	ND	ND
Chromium	.1	MG/KG	8.5	7.8	12.2	9.8
Copper	.2	MG/KG	ND	ND	2.1	1.1
Iron	9	MG/KG	6330	3540	8390	6530
Lead	.8	MG/KG	2.5	1.3	1.8	1.7
Manganese	.08	MG/KG	16.4	16.8	80.0	61.1
Mercury	.004	MG/KG	ND	ND	0.004	<0.004
Nickel	.1	MG/KG	0.9	1.2	4.9	3.1
Selenium	.24	MG/KG	<0.24	ND	ND	<0.24
Silver	.04	MG/KG	ND	ND	ND	ND
Thallium	.5	MG/KG	<0.5	ND	ND	<0.5
Tin	.3	MG/KG	0.4	0.3	<0.3	<0.3
Zinc	.25	MG/KG	5.1	6.2	21.8	15.3

ND= not detected

SOUTH BAY WASTEWATER RECLAMATION PLANT
SEDIMENT ANNUAL - International Stations

Trace Metals

Annual 2014

Source:		I-13	I-14	I-15	I-16	I-18
Date:		2014	2014	2014	2014	2014
Analyte	MDL	Units	Average	Average	Average	Average
Aluminum	2	MG/KG	1350	8370	4080	4040
Antimony	.3	MG/KG	1.1	0.7	0.4	<0.3
Arsenic	.33	MG/KG	5.52	1.33	1.99	1.94
Beryllium	.01	MG/KG	0.04	0.08	0.05	0.04
Cadmium	.06	MG/KG	ND	<0.06	ND	ND
Chromium	.1	MG/KG	10.6	12.5	10.1	7.6
Copper	.2	MG/KG	ND	0.9	0.2	0.2
Iron	9	MG/KG	9570	8880	6560	4990
Lead	.8	MG/KG	2.4	1.7	1.8	1.3
Manganese	.08	MG/KG	181	120	88.9	59.7
Mercury	.004	MG/KG	<0.004	<0.004	<0.004	<0.004
Nickel	.1	MG/KG	1.3	4.9	2.9	2.5
Selenium	.24	MG/KG	<0.24	ND	<0.24	ND
Silver	.04	MG/KG	ND	ND	ND	ND
Thallium	.5	MG/KG	ND	ND	ND	ND
Tin	.3	MG/KG	ND	0.3	<0.3	ND
Zinc	.25	MG/KG	10.2	22.4	13.4	11.6
						18.2

Source:		I-20	I-21	I-22	I-23	I-27
Date:		2014	2014	2014	2014	2014
Analyte	MDL	Units	Average	Average	Average	Average
Aluminum	2	MG/KG	1790	1450	6150	6060
Antimony	.3	MG/KG	0.3	<0.3	0.5	0.5
Arsenic	.33	MG/KG	3.31	9.73	1.60	1.40
Beryllium	.01	MG/KG	0.03	0.03	0.06	0.06
Cadmium	.06	MG/KG	ND	ND	ND	ND
Chromium	.1	MG/KG	5.8	12.0	10.7	9.9
Copper	.2	MG/KG	ND	ND	0.6	0.4
Iron	9	MG/KG	5200	8420	7040	6460
Lead	.8	MG/KG	1.9	3.6	1.6	1.5
Manganese	.08	MG/KG	31.4	17.9	107	88.4
Mercury	.004	MG/KG	ND	ND	0.004	<0.004
Nickel	.1	MG/KG	1.6	1.4	4.1	3.4
Selenium	.24	MG/KG	ND	ND	<0.24	ND
Silver	.04	MG/KG	ND	ND	ND	ND
Thallium	.5	MG/KG	<0.5	ND	ND	ND
Tin	.3	MG/KG	<0.3	0.3	ND	<0.3
Zinc	.25	MG/KG	7.4	6.9	16.9	15.2
						16.2

ND= not detected

SOUTH BAY WASTEWATER RECLAMATION PLANT
SEDIMENT ANNUAL - International Stations

Trace Metals

Annual 2014

Source:		I-28	I-29	I-30	I-31	I-33
Date:		2014	2014	2014	2014	2014
Analyte	MDL	Units	Average	Average	Average	Average
Aluminum	2	MG/KG	7030	7540	7810	4420
Antimony	.3	MG/KG	0.8	0.9	0.6	0.8
Arsenic	.33	MG/KG	2.35	2.12	2.02	2.39
Beryllium	.01	MG/KG	0.05	0.05	0.03	0.01
Cadmium	.06	MG/KG	ND	ND	ND	ND
Chromium	.1	MG/KG	11.6	13.2	11.8	8.5
Copper	.2	MG/KG	3.0	1.4	1.4	0.2
Iron	9	MG/KG	8770	9460	7510	6180
Lead	.8	MG/KG	3.6	2.6	1.8	<0.8
Manganese	.08	MG/KG	94.5	127	83.6	152
Mercury	.004	MG/KG	0.013	0.010	0.005	<0.004
Nickel	.1	MG/KG	6.3	5.3	4.5	2.4
Selenium	.24	MG/KG	<0.24	ND	<0.24	ND
Silver	.04	MG/KG	ND	ND	ND	ND
Thallium	.5	MG/KG	ND	0.5	ND	<0.5
Tin	.3	MG/KG	0.7	0.8	0.8	0.3
Zinc	.25	MG/KG	21.7	22.6	19.8	19.2

Source:		I-34	I-35
Date:		2014	2014
Analyte	MDL	Units	Average
Aluminum	2	MG/KG	2360
Antimony	.3	MG/KG	0.5
Arsenic	.33	MG/KG	2.74
Beryllium	.01	MG/KG	0.02
Cadmium	.06	MG/KG	ND
Chromium	.1	MG/KG	4.5
Copper	.2	MG/KG	0.8
Iron	9	MG/KG	4130
Lead	.8	MG/KG	2.1
Manganese	.08	MG/KG	57.4
Mercury	.004	MG/KG	<0.004
Nickel	.1	MG/KG	1.7
Selenium	.24	MG/KG	ND
Silver	.04	MG/KG	ND
Thallium	.5	MG/KG	ND
Tin	.3	MG/KG	1.1
Zinc	.25	MG/KG	9.2
			32.6

ND= not detected

SOUTH BAY OCEAN OUTFALL MONITORING
SEDIMENT ANNUAL Chlorinated Pesticide Analysis - International Stations

Annual 2014

Source:		I-1	I-2	I-3	I-4	I-6	I-7	I-8	I-9
Date:		2014	2014	2014	2014	2014	2014	2014	2014
Analyte	MDL Units	Avg							
Aldrin	70 NG/KG	ND							
Dieldrin	340 NG/KG	ND							
BHC, Alpha isomer	100 NG/KG	ND							
BHC, Beta isomer	50 NG/KG	ND							
BHC, Gamma isomer	190 NG/KG	ND							
BHC, Delta isomer	220 NG/KG	ND							
p,p-DDD	160 NG/KG	ND	ND	ND	ND	ND	325	ND	ND
p,p-DDE	90 NG/KG	ND	ND	ND	ND	ND	240	ND	135
p,p-DDT	70 NG/KG	ND	ND	ND	ND	ND	250	ND	ND
o,p-DDD	100 NG/KG	ND							
o,p-DDE	60 NG/KG	ND							
o,p-DDT	110 NG/KG	ND							
Heptachlor	120 NG/KG	ND							
Heptachlor epoxide	300 NG/KG	ND							
Alpha (cis) Chlordane	160 NG/KG	ND	ND	ND	ND	ND	<160	ND	ND
Gamma (trans) Chlordane	190 NG/KG	ND	ND	ND	ND	ND	<190	ND	ND
Alpha Chlordene	NG/KG	NA							
Gamma Chlordene	NG/KG	NA							
Oxychlordane	1200 NG/KG	ND							
Trans Nonachlor	240 NG/KG	ND							
Cis Nonachlor	380 NG/KG	ND							
Alpha Endosulfan	720 NG/KG	ND							
Beta Endosulfan	780 NG/KG	ND							
Endosulfan Sulfate	1100 NG/KG	ND							
Endrin	510 NG/KG	ND							
Endrin aldehyde	2400 NG/KG	ND							
Mirex	60 NG/KG	ND							
Methoxychlor	90 NG/KG	ND	ND	ND	ND	ND	<90	ND	ND
Aldrin + Dieldrin	340 NG/KG	0	0	0	0	0	0	0	0
Hexachlorocyclohexanes	220 NG/KG	0	0	0	0	0	925	0	0
DDT and derivatives	160 NG/KG	0	0	0	0	0	815	0	135
Chlordane + related cmpds.	1200 NG/KG	0	0	0	0	0	0	0	0
Chlorinated Hydrocarbons	2400 NG/KG	0	0	0	0	0	1740	0	135

ND=not detected

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 OCEAN OUTFALL MONITORING
SEDIMENT ANNUAL Chlorinated Pesticide Analysis - International Stations

Annual 2014

Source:		I-10	I-12	I-13	I-14	I-15	I-16	I-18	I-20
Date:		2014	2014	2014	2014	2014	2014	2014	2014
Analyte	MDL	Units	Avg						
Aldrin	70	NG/KG	ND						
Dieldrin	340	NG/KG	ND						
BHC, Alpha isomer	100	NG/KG	ND						
BHC, Beta isomer	50	NG/KG	ND						
BHC, Gamma isomer	190	NG/KG	ND						
BHC, Delta isomer	220	NG/KG	ND						
p,p-DDD	160	NG/KG	ND						
p,p-DDE	90	NG/KG	ND	ND	125	ND	<90	ND	ND
p,p-DDT	70	NG/KG	ND						
o,p-DDD	100	NG/KG	ND						
o,p-DDE	60	NG/KG	ND						
o,p-DDT	110	NG/KG	ND						
Heptachlor	120	NG/KG	ND						
Heptachlor epoxide	300	NG/KG	ND						
Alpha (cis) Chlordane	160	NG/KG	ND						
Gamma (trans) Chlordane	190	NG/KG	ND						
Alpha Chlordene		NG/KG	NA						
Gamma Chlordene		NG/KG	NA						
Oxychlordane	1200	NG/KG	ND						
Trans Nonachlor	240	NG/KG	ND						
Cis Nonachlor	380	NG/KG	ND						
Alpha Endosulfan	720	NG/KG	ND						
Beta Endosulfan	780	NG/KG	ND						
Endosulfan Sulfate	1100	NG/KG	ND						
Endrin	510	NG/KG	ND						
Endrin aldehyde	2400	NG/KG	ND						
Mirex	60	NG/KG	ND						
Methoxychlor	90	NG/KG	ND						
Aldrin + Dieldrin	340	NG/KG	0	0	0	0	0	0	0
Hexachlorocyclohexanes	220	NG/KG	0	0	0	0	0	0	0
DDT and derivatives	160	NG/KG	0	0	125	0	0	0	0
Chlordane + related cmpds.	1200	NG/KG	0	0	0	0	0	0	0
Chlorinated Hydrocarbons	2400	NG/KG	0	0	0	125	0	0	0

ND=not detected

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 OCEAN OUTFALL MONITORING
SEDIMENT ANNUAL Chlorinated Pesticide Analysis - International Stations

Annual 2014

Source:		I-21	I-22	I-23	I-27	I-28	I-29	I-30	I-31
Date:		2014	2014	2014	2014	2014	2014	2014	2014
Analyte	MDL	Units	Avg						
Aldrin	70	NG/KG	ND						
Dieldrin	340	NG/KG	ND						
BHC, Alpha isomer	100	NG/KG	ND						
BHC, Beta isomer	50	NG/KG	ND	ND	ND	500	ND	ND	ND
BHC, Gamma isomer	190	NG/KG	ND						
BHC, Delta isomer	220	NG/KG	ND						
p,p-DDD	160	NG/KG	ND						
p,p-DDE	90	NG/KG	ND	820	ND	180	735	1310	315
p,p-DDT	70	NG/KG	ND	ND	ND	ND	195	280	ND
o,p-DDD	100	NG/KG	ND						
o,p-DDE	60	NG/KG	ND	ND	ND	ND	ND	<60	ND
o,p-DDT	110	NG/KG	ND	ND	ND	ND	<110	ND	ND
Heptachlor	120	NG/KG	ND						
Heptachlor epoxide	300	NG/KG	ND						
Alpha (cis) Chlordane	160	NG/KG	ND						
Gamma (trans) Chlordane	190	NG/KG	ND						
Alpha Chlordene		NG/KG	NA						
Gamma Chlordene		NG/KG	NA						
Oxychlordane	1200	NG/KG	ND						
Trans Nonachlor	240	NG/KG	ND						
Cis Nonachlor	380	NG/KG	ND						
Alpha Endosulfan	720	NG/KG	ND						
Beta Endosulfan	780	NG/KG	ND						
Endosulfan Sulfate	1100	NG/KG	ND						
Endrin	510	NG/KG	ND						
Endrin aldehyde	2400	NG/KG	ND						
Mirex	60	NG/KG	ND						
Methoxychlor	90	NG/KG	ND						
Aldrin + Dieldrin	340	NG/KG	0	0	0	0	0	0	0
Hexachlorocyclohexanes	220	NG/KG	0	0	500	0	0	0	0
DDT and derivatives	160	NG/KG	0	820	0	180	735	1505	595
Chlordane + related cmpds.	1200	NG/KG	0	0	0	0	0	0	0
Chlorinated Hydrocarbons	2400	NG/KG	0	820	0	680	735	1505	595

ND=not detected

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 OCEAN OUTFALL MONITORING
SEDIMENT ANNUAL Chlorinated Pesticide Analysis - International Stations

Annual 2014

Source:		I-33	I-34	I-35
Date:		2014	2014	2014
Analyte	MDL	Units	Avg	Avg
Aldrin	70	NG/KG	ND	ND
Dieldrin	340	NG/KG	ND	ND
BHC, Alpha isomer	100	NG/KG	ND	ND
BHC, Beta isomer	50	NG/KG	ND	500
BHC, Gamma isomer	190	NG/KG	ND	ND
BHC, Delta isomer	220	NG/KG	ND	ND
p,p-DDD	160	NG/KG	ND	210
p,p-DDE	90	NG/KG	<90	125
p,p-DDT	70	NG/KG	75	220
o,p-DDD	100	NG/KG	ND	ND
o,p-DDE	60	NG/KG	ND	ND
o,p-DDT	110	NG/KG	ND	ND
Heptachlor	120	NG/KG	ND	ND
Heptachlor epoxide	300	NG/KG	ND	ND
Alpha (cis) Chlordane	160	NG/KG	ND	ND
Gamma (trans) Chlordane	190	NG/KG	ND	ND
Alpha Chlordene		NG/KG	NA	NA
Gamma Chlordene		NG/KG	NA	NA
Oxychlordane	1200	NG/KG	ND	ND
Trans Nonachlor	240	NG/KG	ND	ND
Cis Nonachlor	380	NG/KG	ND	ND
Alpha Endosulfan	720	NG/KG	ND	ND
Beta Endosulfan	780	NG/KG	ND	ND
Endosulfan Sulfate	1100	NG/KG	ND	ND
Endrin	510	NG/KG	ND	ND
Endrin aldehyde	2400	NG/KG	ND	ND
Mirex	60	NG/KG	ND	ND
Methoxychlor	90	NG/KG	ND	ND
<hr/>				
Aldrin + Dieldrin	340	NG/KG	0	0
Hexachlorocyclohexanes	220	NG/KG	0	500
DDT and derivatives	160	NG/KG	75	555
Chlordane + related cmpds.	1200	NG/KG	0	115
<hr/>				
Chlorinated Hydrocarbons	2400	NG/KG	75	1055
				115

ND=not detected

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 OCEAN OUTFALL MONITORING
SEDIMENT ANNUAL - PCB Congeners (I-1 to I-40)

Annual 2014

Source:		I-1 2014 Avg	I-2 2014 Avg	I-3 2014 Avg	I-4 2014 Avg	I-6 2014 Avg	I-7 2014 Avg
PCB 18	90 NG/KG	ND	ND	ND	ND	ND	ND
PCB 28	60 NG/KG	ND	ND	ND	ND	ND	ND
PCB 52	90 NG/KG	ND	ND	ND	ND	ND	ND
PCB 49	70 NG/KG	ND	ND	ND	ND	ND	ND
PCB 44	100 NG/KG	ND	ND	ND	ND	ND	ND
PCB 37	90 NG/KG	ND	ND	ND	ND	ND	ND
PCB 74	100 NG/KG	ND	ND	ND	ND	<100	ND
PCB 70	60 NG/KG	ND	ND	ND	ND	<60	ND
PCB 66	100 NG/KG	ND	ND	ND	ND	<100	ND
PCB 101	100 NG/KG	ND	ND	ND	ND	ND	ND
PCB 99	120 NG/KG	ND	ND	ND	ND	ND	ND
PCB 119	80 NG/KG	ND	ND	ND	ND	ND	ND
PCB 87	200 NG/KG	ND	ND	ND	ND	ND	ND
PCB 110	110 NG/KG	ND	ND	ND	ND	ND	ND
PCB 81	130 NG/KG	ND	ND	ND	ND	ND	ND
PCB 151	80 NG/KG	ND	ND	ND	ND	ND	ND
PCB 77	110 NG/KG	ND	ND	ND	ND	ND	ND
PCB 149	110 NG/KG	ND	ND	ND	ND	ND	ND
PCB 123	130 NG/KG	ND	ND	ND	ND	ND	ND
PCB 118	90 NG/KG	ND	ND	ND	ND	ND	ND
PCB 114	130 NG/KG	ND	ND	ND	ND	ND	ND
PCB 105	50 NG/KG	ND	ND	ND	ND	ND	ND
PCB 138	80 NG/KG	ND	ND	ND	ND	ND	ND
PCB 158	70 NG/KG	ND	ND	ND	ND	ND	ND
PCB 187	110 NG/KG	ND	ND	ND	ND	ND	ND
PCB 183	60 NG/KG	ND	ND	ND	ND	ND	ND
PCB 126	70 NG/KG	ND	ND	ND	ND	ND	ND
PCB 128	80 NG/KG	ND	ND	ND	ND	ND	ND
PCB 167	30 NG/KG	ND	ND	ND	ND	ND	ND
PCB 177	70 NG/KG	ND	ND	ND	ND	ND	ND
PCB 201	70 NG/KG	ND	ND	ND	ND	ND	ND
PCB 156	90 NG/KG	ND	ND	ND	ND	ND	ND
PCB 157	100 NG/KG	ND	ND	ND	ND	ND	ND
PCB 180	80 NG/KG	ND	ND	ND	ND	ND	ND
PCB 170	80 NG/KG	ND	ND	ND	ND	ND	ND
Total PCB's	200 NG/KG	0	0	0	0	0	0

ND=not detected

SOUTH BAY OCEAN OUTFALL MONITORING
SEDIMENT ANNUAL - PCB Congeners (I-1 to I-40)

Annual 2014

Source:		I-8	I-9	I-10	I-12	I-13	I-14
Date:		2014	2014	2014	2014	2014	2014
Analyte	MDL Units	Avg	Avg	Avg	Avg	Avg	Avg
PCB 18	90 NG/KG	ND	ND	ND	ND	ND	ND
PCB 28	60 NG/KG	ND	ND	ND	ND	ND	ND
PCB 52	90 NG/KG	ND	ND	ND	ND	ND	ND
PCB 49	70 NG/KG	ND	ND	ND	ND	ND	ND
PCB 44	100 NG/KG	ND	ND	ND	ND	ND	ND
PCB 37	90 NG/KG	ND	ND	ND	ND	ND	ND
PCB 74	100 NG/KG	ND	ND	ND	ND	ND	ND
PCB 70	60 NG/KG	ND	ND	ND	ND	ND	ND
PCB 66	100 NG/KG	ND	ND	ND	ND	ND	ND
PCB 101	100 NG/KG	ND	ND	ND	ND	ND	ND
PCB 99	120 NG/KG	ND	ND	ND	ND	ND	ND
PCB 119	80 NG/KG	ND	ND	ND	ND	ND	ND
PCB 87	200 NG/KG	ND	ND	ND	ND	ND	ND
PCB 110	110 NG/KG	ND	ND	ND	ND	ND	ND
PCB 81	130 NG/KG	ND	ND	ND	ND	ND	ND
PCB 151	80 NG/KG	ND	ND	ND	ND	ND	ND
PCB 77	110 NG/KG	ND	ND	ND	ND	ND	ND
PCB 149	110 NG/KG	ND	ND	ND	ND	ND	ND
PCB 123	130 NG/KG	ND	ND	ND	ND	ND	ND
PCB 118	90 NG/KG	ND	ND	ND	ND	ND	ND
PCB 114	130 NG/KG	ND	ND	ND	ND	ND	ND
PCB 105	50 NG/KG	ND	ND	ND	ND	ND	ND
PCB 138	80 NG/KG	ND	ND	ND	ND	ND	ND
PCB 158	70 NG/KG	ND	ND	ND	ND	ND	ND
PCB 187	110 NG/KG	ND	ND	ND	ND	ND	ND
PCB 183	60 NG/KG	ND	ND	ND	ND	ND	ND
PCB 126	70 NG/KG	ND	ND	ND	ND	ND	ND
PCB 128	80 NG/KG	ND	ND	ND	ND	ND	ND
PCB 167	30 NG/KG	ND	ND	ND	ND	ND	ND
PCB 177	70 NG/KG	ND	ND	ND	ND	ND	ND
PCB 201	70 NG/KG	ND	ND	ND	ND	ND	ND
PCB 156	90 NG/KG	ND	ND	ND	ND	ND	ND
PCB 157	100 NG/KG	ND	ND	ND	ND	ND	ND
PCB 180	80 NG/KG	ND	ND	ND	ND	ND	ND
PCB 170	80 NG/KG	ND	ND	ND	ND	ND	ND
Total PCB's	200 NG/KG	0	0	0	0	0	0

ND=not detected

SOUTH BAY OCEAN OUTFALL MONITORING
SEDIMENT ANNUAL - PCB Congeners (I-1 to I-40)

Annual 2014

Source:		I-15	I-16	I-18	I-20	I-21	I-22
Date:		2014	2014	2014	2014	2014	2014
Analyte	MDL Units	Avg	Avg	Avg	Avg	Avg	Avg
PCB 18	90 NG/KG	ND	ND	ND	ND	ND	ND
PCB 28	60 NG/KG	ND	ND	ND	ND	ND	ND
PCB 52	90 NG/KG	ND	ND	ND	ND	ND	ND
PCB 49	70 NG/KG	ND	ND	ND	ND	ND	ND
PCB 44	100 NG/KG	ND	ND	ND	ND	ND	ND
PCB 37	90 NG/KG	ND	ND	ND	ND	ND	ND
PCB 74	100 NG/KG	ND	ND	ND	ND	ND	ND
PCB 70	60 NG/KG	ND	ND	ND	ND	ND	ND
PCB 66	100 NG/KG	ND	ND	ND	ND	ND	ND
PCB 101	100 NG/KG	ND	ND	ND	ND	ND	ND
PCB 99	120 NG/KG	ND	ND	ND	ND	ND	ND
PCB 119	80 NG/KG	ND	ND	ND	ND	ND	ND
PCB 87	200 NG/KG	ND	ND	ND	ND	ND	ND
PCB 110	110 NG/KG	ND	ND	ND	ND	ND	ND
PCB 81	130 NG/KG	ND	ND	ND	ND	ND	ND
PCB 151	80 NG/KG	ND	ND	ND	ND	ND	ND
PCB 77	110 NG/KG	ND	ND	ND	ND	ND	ND
PCB 149	110 NG/KG	ND	ND	ND	ND	ND	ND
PCB 123	130 NG/KG	ND	ND	ND	ND	ND	ND
PCB 118	90 NG/KG	ND	ND	ND	ND	ND	ND
PCB 114	130 NG/KG	ND	ND	ND	ND	ND	ND
PCB 105	50 NG/KG	ND	ND	ND	ND	ND	ND
PCB 138	80 NG/KG	ND	ND	ND	ND	ND	ND
PCB 158	70 NG/KG	ND	ND	ND	ND	ND	ND
PCB 187	110 NG/KG	ND	ND	ND	ND	ND	ND
PCB 183	60 NG/KG	ND	ND	ND	ND	ND	ND
PCB 126	70 NG/KG	ND	ND	ND	ND	ND	ND
PCB 128	80 NG/KG	ND	ND	ND	ND	ND	ND
PCB 167	30 NG/KG	ND	ND	ND	ND	ND	ND
PCB 177	70 NG/KG	ND	ND	ND	ND	ND	ND
PCB 201	70 NG/KG	ND	ND	ND	ND	ND	ND
PCB 156	90 NG/KG	ND	ND	ND	ND	ND	ND
PCB 157	100 NG/KG	ND	ND	ND	ND	ND	ND
PCB 180	80 NG/KG	ND	ND	ND	ND	ND	ND
PCB 170	80 NG/KG	ND	ND	ND	ND	ND	ND
Total PCB's	200 NG/KG	0	0	0	0	0	0

ND=not detected

SOUTH BAY OCEAN OUTFALL MONITORING
SEDIMENT ANNUAL - PCB Congeners (I-1 to I-40)

Annual 2014

Source:		I-23	I-27	I-28	I-29	I-30	I-31
Date:		2014	2014	2014	2014	2014	2014
Analyte	MDL Units	Avg	Avg	Avg	Avg	Avg	Avg
PCB 18	90 NG/KG	ND	ND	ND	ND	ND	ND
PCB 28	60 NG/KG	ND	ND	ND	ND	ND	ND
PCB 52	90 NG/KG	ND	ND	ND	ND	ND	ND
PCB 49	70 NG/KG	ND	ND	<70	ND	ND	ND
PCB 44	100 NG/KG	ND	ND	ND	ND	ND	ND
PCB 37	90 NG/KG	ND	ND	ND	ND	ND	ND
PCB 74	100 NG/KG	ND	ND	ND	ND	ND	ND
PCB 70	60 NG/KG	ND	ND	ND	ND	ND	ND
PCB 66	100 NG/KG	ND	ND	<100	ND	ND	ND
PCB 101	100 NG/KG	ND	ND	<100	ND	ND	ND
PCB 99	120 NG/KG	ND	ND	<120	ND	ND	ND
PCB 119	80 NG/KG	ND	ND	ND	ND	ND	ND
PCB 87	200 NG/KG	ND	ND	ND	ND	ND	ND
PCB 110	110 NG/KG	ND	ND	ND	ND	ND	ND
PCB 81	130 NG/KG	ND	ND	ND	ND	ND	ND
PCB 151	80 NG/KG	ND	ND	ND	ND	ND	ND
PCB 77	110 NG/KG	ND	ND	ND	ND	ND	ND
PCB 149	110 NG/KG	ND	ND	ND	ND	ND	ND
PCB 123	130 NG/KG	ND	ND	ND	ND	ND	ND
PCB 118	90 NG/KG	ND	ND	ND	ND	ND	ND
PCB 114	130 NG/KG	ND	ND	ND	ND	ND	ND
PCB 105	50 NG/KG	ND	ND	ND	ND	ND	ND
PCB 138	80 NG/KG	ND	ND	<80	ND	ND	ND
PCB 158	70 NG/KG	ND	ND	ND	ND	ND	ND
PCB 187	110 NG/KG	ND	ND	ND	ND	ND	ND
PCB 183	60 NG/KG	ND	ND	ND	ND	ND	ND
PCB 126	70 NG/KG	ND	ND	ND	ND	ND	ND
PCB 128	80 NG/KG	ND	ND	ND	ND	ND	ND
PCB 167	30 NG/KG	ND	ND	ND	ND	ND	ND
PCB 177	70 NG/KG	ND	ND	ND	ND	ND	ND
PCB 201	70 NG/KG	ND	ND	ND	ND	ND	ND
PCB 156	90 NG/KG	ND	ND	ND	ND	ND	ND
PCB 157	100 NG/KG	ND	ND	ND	ND	ND	ND
PCB 180	80 NG/KG	ND	ND	ND	ND	ND	ND
PCB 170	80 NG/KG	ND	ND	ND	ND	ND	ND
Total PCB's	200 NG/KG	0	0	0	0	0	0

ND=not detected

SOUTH BAY OCEAN OUTFALL MONITORING
SEDIMENT ANNUAL - PCB Congeners (I-1 to I-40)

Annual 2014

Source:		I-33	I-34	I-35
Date:		2014	2014	2014
Analyte	MDL Units	Avg	Avg	Avg
<hr/>				
PCB 18	90 NG/KG	ND	ND	ND
PCB 28	60 NG/KG	ND	ND	ND
PCB 52	90 NG/KG	ND	ND	ND
PCB 49	70 NG/KG	ND	ND	ND
PCB 44	100 NG/KG	ND	ND	ND
PCB 37	90 NG/KG	ND	ND	ND
PCB 74	100 NG/KG	ND	ND	ND
PCB 70	60 NG/KG	ND	ND	ND
PCB 66	100 NG/KG	ND	ND	ND
PCB 101	100 NG/KG	ND	ND	ND
PCB 99	120 NG/KG	ND	ND	ND
PCB 119	80 NG/KG	ND	ND	ND
PCB 87	200 NG/KG	ND	ND	ND
PCB 110	110 NG/KG	ND	ND	ND
PCB 81	130 NG/KG	ND	ND	ND
PCB 151	80 NG/KG	ND	ND	ND
PCB 77	110 NG/KG	ND	ND	ND
PCB 149	110 NG/KG	ND	ND	ND
PCB 123	130 NG/KG	ND	ND	ND
PCB 118	90 NG/KG	ND	ND	ND
PCB 114	130 NG/KG	ND	ND	ND
PCB 105	50 NG/KG	ND	ND	ND
PCB 138	80 NG/KG	ND	ND	ND
PCB 158	70 NG/KG	ND	ND	ND
PCB 187	110 NG/KG	ND	ND	ND
PCB 183	60 NG/KG	ND	ND	ND
PCB 126	70 NG/KG	ND	ND	ND
PCB 128	80 NG/KG	ND	ND	ND
PCB 167	30 NG/KG	ND	ND	ND
PCB 177	70 NG/KG	ND	ND	ND
PCB 201	70 NG/KG	ND	ND	ND
PCB 156	90 NG/KG	ND	ND	ND
PCB 157	100 NG/KG	ND	ND	ND
PCB 180	80 NG/KG	ND	ND	ND
PCB 170	80 NG/KG	ND	ND	ND
<hr/>				
Total PCB's	200 NG/KG	0	0	0

ND=not detected

SOUTH BAY OCEAN OUTFALL MONITORING
SEDIMENT ANNUAL Base/Neutrals - International Stations

Annual 2014

Source:		I-1	I-2	I-3	I-4	I-6	I-7	I-8
Date:		2014	2014	2014	2014	2014	2014	2014
Analyte	MDL Units	Avg						
Acenaphthene	20 UG/KG	ND						
Acenaphthylene	30 UG/KG	ND						
Anthracene	20 UG/KG	ND						
Benz[a]anthracene	20 UG/KG	ND						
Benz[a]pyrene	20 UG/KG	ND						
3,4-Benzo(b)fluoranthene	20 UG/KG	ND						
Benz[e]pyrene	20 UG/KG	ND						
Benz[g,h,i]perylene	20 UG/KG	ND						
Benz[k]fluoranthene	20 UG/KG	ND						
Biphenyl	30 UG/KG	ND						
Chrysene	40 UG/KG	ND						
Dibenzo(a,h)anthracene	20 UG/KG	ND						
2,6-Dimethylnaphthalene	20 UG/KG	ND						
Fluoranthene	20 UG/KG	ND						
Fluorene	20 UG/KG	ND						
Indeno(1,2,3-CD)pyrene	20 UG/KG	ND						
1-Methylphenanthrene	20 UG/KG	ND						
2-Methylnaphthalene	20 UG/KG	ND						
1-Methylnaphthalene	20 UG/KG	ND						
Naphthalene	30 UG/KG	ND						
Perylene	30 UG/KG	ND						
Phenanthrene	30 UG/KG	ND						
Pyrene	20 UG/KG	ND						
2,3,5-Trimethylnaphthalene	20 UG/KG	ND						
Base/Neutral Compounds		0	0	0	0	0	0	0

Source:		I-9	I-10	I-12	I-13	I-14	I-15	I-16
Date:		2014	2014	2014	2014	2014	2014	2014
Analyte	MDL Units	Avg						
Acenaphthene	20 UG/KG	ND						
Acenaphthylene	30 UG/KG	ND						
Anthracene	20 UG/KG	ND						
Benz[a]anthracene	20 UG/KG	ND						
Benz[a]pyrene	20 UG/KG	ND						
3,4-Benzo(b)fluoranthene	20 UG/KG	ND						
Benz[e]pyrene	20 UG/KG	ND						
Benz[g,h,i]perylene	20 UG/KG	ND						
Benz[k]fluoranthene	20 UG/KG	ND						
Biphenyl	30 UG/KG	ND						
Chrysene	40 UG/KG	ND						
Dibenzo(a,h)anthracene	20 UG/KG	ND						
2,6-Dimethylnaphthalene	20 UG/KG	<20	ND	<20	ND	ND	ND	ND
Fluoranthene	20 UG/KG	ND						
Fluorene	20 UG/KG	ND						
Indeno(1,2,3-CD)pyrene	20 UG/KG	ND						
1-Methylphenanthrene	20 UG/KG	ND						
2-Methylnaphthalene	20 UG/KG	ND						
1-Methylnaphthalene	20 UG/KG	ND						
Naphthalene	30 UG/KG	ND						
Perylene	30 UG/KG	ND						
Phenanthrene	30 UG/KG	ND						
Pyrene	20 UG/KG	ND						
2,3,5-Trimethylnaphthalene	20 UG/KG	ND						
Base/Neutral Compounds		0	0	0	0	0	0	0

ND=not detected

SOUTH BAY OCEAN OUTFALL MONITORING
SEDIMENT ANNUAL Base/Neutrals - International Stations

Annual 2014

Source:		I-18	I-20	I-21	I-22	I-23	I-27	I-28
Date:		2014	2014	2014	2014	2014	2014	2014
Analyte	MDL Units	Avg						
Acenaphthene	20 UG/KG	ND						
Acenaphthylene	30 UG/KG	ND						
Anthracene	20 UG/KG	ND						
Benz[a]anthracene	20 UG/KG	ND						
Benz[a]pyrene	20 UG/KG	ND						
3,4-Benzo(b)fluoranthene	20 UG/KG	ND						
Benz[e]pyrene	20 UG/KG	ND						
Benz[g,h,i]perylene	20 UG/KG	ND						
Benz[k]fluoranthene	20 UG/KG	ND						
Biphenyl	30 UG/KG	ND						
Chrysene	40 UG/KG	ND						
Dibenzo(a,h)anthracene	20 UG/KG	ND						
2,6-Dimethylnaphthalene	20 UG/KG	<20	<20	ND	<20	ND	ND	E9
Fluoranthene	20 UG/KG	ND						
Fluorene	20 UG/KG	ND						
Indeno(1,2,3-CD)pyrene	20 UG/KG	ND						
1-Methylphenanthrene	20 UG/KG	ND						
2-Methylnaphthalene	20 UG/KG	ND						
1-Methylnaphthalene	20 UG/KG	ND						
Naphthalene	30 UG/KG	ND						
Perylene	30 UG/KG	ND						
Phenanthrene	30 UG/KG	ND						
Pyrene	20 UG/KG	ND						
2,3,5-Trimethylnaphthalene	20 UG/KG	ND						
Base/Neutral Compounds		0	0	0	0	0	0	0

Source:		I-29	I-30	I-31	I-33	I-34	I-35
Date:		2014	2014	2014	2014	2014	2014
Analyte	MDL Units	Avg	Avg	Avg	Avg	Avg	Avg
Acenaphthene	20 UG/KG	ND	ND	ND	ND	ND	ND
Acenaphthylene	30 UG/KG	ND	ND	ND	ND	ND	ND
Anthracene	20 UG/KG	ND	ND	ND	ND	ND	ND
Benz[a]anthracene	20 UG/KG	ND	ND	ND	ND	ND	ND
Benz[a]pyrene	20 UG/KG	ND	ND	ND	ND	ND	<20
3,4-Benzo(b)fluoranthene	20 UG/KG	ND	ND	ND	ND	ND	<20
Benz[e]pyrene	20 UG/KG	ND	ND	ND	ND	ND	ND
Benz[g,h,i]perylene	20 UG/KG	ND	ND	ND	ND	ND	<20
Benz[k]fluoranthene	20 UG/KG	ND	ND	ND	ND	ND	ND
Biphenyl	30 UG/KG	ND	ND	ND	ND	ND	ND
Chrysene	40 UG/KG	ND	ND	ND	ND	ND	<40
Dibenzo(a,h)anthracene	20 UG/KG	ND	ND	ND	ND	ND	ND
2,6-Dimethylnaphthalene	20 UG/KG	<20	<20	ND	ND	ND	<20
Fluoranthene	20 UG/KG	ND	ND	ND	ND	ND	E9
Fluorene	20 UG/KG	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-CD)pyrene	20 UG/KG	ND	ND	ND	ND	ND	ND
1-Methylphenanthrene	20 UG/KG	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	20 UG/KG	ND	ND	ND	ND	ND	ND
1-Methylnaphthalene	20 UG/KG	ND	ND	ND	ND	ND	ND
Naphthalene	30 UG/KG	ND	ND	ND	ND	ND	ND
Perylene	30 UG/KG	ND	ND	ND	ND	ND	ND
Phenanthrene	30 UG/KG	ND	ND	ND	ND	ND	ND
Pyrene	20 UG/KG	ND	ND	ND	ND	ND	<20
2,3,5-Trimethylnaphthalene	20 UG/KG	ND	ND	ND	ND	ND	ND
Base/Neutral Compounds		0	0	0	0	0	0

ND=not detected

SOUTH BAY OCEAN OUTFALL MONITORING
SEDIMENT - Random Stations

Sulfide and Total Volatile Solids Analysis

Annual 2014

Source:		8302	8306	8310	8311	8312	8324
Analyte	MDL Units	11-JUL-2014	11-JUL-2014	11-JUL-2014	15-JUL-2014	15-JUL-2014	15-JUL-2014

Sulfides-Total	.14 MG/KG	3.98	1.73	5.21	2.14	0.57	4.99
Total Volatile Solids	.11 WT%	2.10	0.74	3.20	0.93	0.51	1.99

Source:		8327	8328	8304	8308	8336	8301
Analyte	MDL Units	15-JUL-2014	15-JUL-2014	16-JUL-2014	16-JUL-2014	16-JUL-2014	21-JUL-2014

Sulfides-Total	.14 MG/KG	29.2	5.05	0.82	9.22	0.80	0.62
Total Volatile Solids	.11 WT%	3.43	1.64	3.19	2.37	3.75	1.12

Source:		8307	8319	8323	8333	8335	8339
Analyte	MDL Units	21-JUL-2014	21-JUL-2014	21-JUL-2014	21-JUL-2014	21-JUL-2014	21-JUL-2014

Sulfides-Total	.14 MG/KG	2.26	9.18	2.68	3.21	182	249
Total Volatile Solids	.11 WT%	0.72	2.00	0.72	2.36	6.59	9.39

Source:		8341	8343	8344	8346	8313	8315
Analyte	MDL Units	21-JUL-2014	21-JUL-2014	21-JUL-2014	21-JUL-2014	22-JUL-2014	22-JUL-2014

Sulfides-Total	.14 MG/KG	3.70	0.60	98.10	6.48	4.30	4.52
Total Volatile Solids	.11 WT%	0.72	0.49	6.47	1.44	3.37	1.16

Source:		8316	8318	8329	8332	8342	8345
Analyte	MDL Units	22-JUL-2014	22-JUL-2014	22-JUL-2014	22-JUL-2014	22-JUL-2014	22-JUL-2014

Sulfides-Total	.14 MG/KG	1.95	5.13	3.85	15.90	7.43	14.30
Total Volatile Solids	.11 WT%	0.66	3.13	2.50	0.96	3.05	3.70

Source:		8348	8350	8305	8309	8321	8326
Analyte	MDL Units	22-JUL-2014	22-JUL-2014	23-JUL-2014	23-JUL-2014	23-JUL-2014	23-JUL-2014

Sulfides-Total	.14 MG/KG	4.53	7.80	4.30	7.29	2.94	30.90
Total Volatile Solids	.11 WT%	2.10	0.77	2.53	3.97	2.13	4.76

Source:		8337	8338	8351	8347
Analyte	MDL Units	23-JUL-2014	23-JUL-2014	23-JUL-2014	25-JUL-2014

Sulfides-Total	.14 MG/KG	77.40	20.30	15.60	4.85
Total Volatile Solids	.11 WT%	8.17	7.59	6.50	2.34

ND=not detected

SOUTH BAY OCEAN OUTFALL MONITORING
SEDIMENT SEMI-ANNUAL- Grain Size - Random Stations
(all values are in percent distribution)

Annual 2014

Source:		8301	8302	8304	8305	8306	8307	
Date:		21-JUL-2014	11-JUL-2014	16-JUL-2014	23-JUL-2014	11-JUL-2014	21-JUL-2014	
Analyte	MDL	Units	P726163	P724827	P725582	P726660	P724834	P726165
>0.5 to 1.0			0.000	0.000	0.000	0.000	0.000	0.000
>1.0 to 2.0			0.000	0.000	0.000	0.000	0.000	0.000
>2.0 to 3.9			0.000	0.129	0.000	0.150	0.000	0.135
>3.9 to 7.8			0.000	3.700	1.570	4.680	1.680	1.540
>7.8 to 15.6			0.254	10.400	4.550	14.700	5.980	1.030
>15.6 to 31			0.544	7.260	2.120	12.300	3.270	0.000
>31 to 62.5			0.000	17.000	1.580	26.200	1.850	2.470
>62.5 to 125			0.000	42.500	5.280	33.200	2.130	53.100
>125 to 250			0.000	17.500	23.500	8.530	6.470	37.900
>250 to 500			7.020	1.530	44.900	0.192	38.700	3.800
>500 to 1000			83.800	0.000	16.000	0.000	35.900	0.000
>1000 to 2000			8.420	0.000	0.532	0.000	4.000	0.000
>2000*			ND	ND	ND	ND	ND	ND
Totals:			100.038	100.019	100.032	99.952	99.980	99.975

Source:		8308	8310	8311	8312	8313	8315	
Date:		16-JUL-2014	11-JUL-2014	15-JUL-2014	15-JUL-2014	22-JUL-2014	22-JUL-2014	
Analyte	MDL	Units	P725589	P724839	P725322	P725330	P726490	P726495
>0.5 to 1.0			0.000	0.000	0.000	0.000	0.000	0.000
>1.0 to 2.0			0.000	0.000	0.000	0.000	0.000	0.000
>2.0 to 3.9			0.485	0.154	0.127	0.000	0.166	0.000
>3.9 to 7.8			6.360	4.810	2.350	1.070	5.650	1.770
>7.8 to 15.6			12.200	15.200	2.420	4.570	16.300	4.350
>15.6 to 31			9.060	13.200	0.876	2.650	10.200	3.080
>31 to 62.5			12.700	29.700	9.140	1.480	21.900	17.700
>62.5 to 125			17.200	31.600	59.500	1.800	37.600	60.300
>125 to 250			25.600	5.290	23.100	4.420	8.100	12.300
>250 to 500			14.900	0.106	2.500	24.400	0.140	0.496
>500 to 1000			1.460	0.000	0.000	45.900	0.000	0.000
>1000 to 2000			0.000	0.000	0.000	13.200	0.000	0.000
>2000*			ND	ND	ND	ND	ND	ND
Totals:			99.965	100.060	100.013	99.490	100.056	99.996

ND=not detected

*=A value in this field reflects a percentage of 30 grams remaining on a 2000 micron sieve. This value must be subtracted from the total percentage.

SOUTH BAY OCEAN OUTFALL MONITORING
SEDIMENT SEMI-ANNUAL- Grain Size - Random Stations
(all values are in percent distribution)

Annual 2014

Source:		8316	8318	8319	8321	8323	8324	
Date:		22-JUL-2014	22-JUL-2014	21-JUL-2014	23-JUL-2014	21-JUL-2014	15-JUL-2014	
Analyte	MDL	Units	P726499	P726508	P726174	P726671	P726175	P725333
>0.5 to 1.0			0.000	0.000	0.000	0.000	0.000	0.000
>1.0 to 2.0			0.000	0.000	0.000	0.000	0.000	0.000
>2.0 to 3.9			0.000	0.126	0.142	0.135	0.137	0.315
>3.9 to 7.8			0.258	4.230	3.940	4.010	1.550	5.370
>7.8 to 15.6			0.876	13.900	10.000	12.000	1.030	11.400
>15.6 to 31			0.348	12.100	5.840	9.130	0.000	5.990
>31 to 62.5			0.573	27.400	14.500	19.400	3.020	12.200
>62.5 to 125			5.310	33.900	47.300	40.300	56.300	43.000
>125 to 250			39.600	8.150	17.500	14.400	35.000	20.800
>250 to 500			44.700	0.192	0.745	0.660	3.010	0.842
>500 to 1000			8.320	0.000	0.000	0.000	0.000	0.000
>1000 to 2000			0.054	0.000	0.000	0.000	0.000	0.000
>2000*			ND	ND	ND	ND	ND	ND
Totals:			100.039	99.998	99.967	100.035	100.047	99.917

Source:		8326	8327	8328	8329	8332	8333	
Date:		23-JUL-2014	15-JUL-2014	15-JUL-2014	22-JUL-2014	22-JUL-2014	21-JUL-2014	
Analyte	MDL	Units	P726679	P725337	P725343	P726511	P726516	P726183
>0.5 to 1.0			0.000	0.000	0.000	0.000	0.000	0.000
>1.0 to 2.0			0.000	0.000	0.000	0.000	0.000	0.000
>2.0 to 3.9			0.573	0.376	0.102	0.134	0.000	0.115
>3.9 to 7.8			7.280	4.660	3.170	4.100	1.720	3.970
>7.8 to 15.6			19.100	12.200	9.000	12.500	2.830	12.700
>15.6 to 31			13.400	11.500	6.290	10.500	2.080	10.100
>31 to 62.5			25.400	24.800	16.500	23.700	10.300	23.500
>62.5 to 125			28.800	28.400	39.900	35.200	44.100	38.000
>125 to 250			5.370	15.100	15.400	12.500	26.500	11.000
>250 to 500			0.112	2.930	5.040	1.290	11.200	0.672
>500 to 1000			0.000	0.000	3.660	0.000	1.320	0.000
>1000 to 2000			0.000	0.000	0.886	0.000	0.000	0.000
>2000*			ND	ND	ND	ND	ND	ND
Totals:			100.035	99.966	99.948	99.924	100.050	100.057

ND=not detected

*=A value in this field reflects a percentage of 30 grams remaining on a 2000 micron sieve. This value must be subtracted from the total percentage.

SOUTH BAY OCEAN OUTFALL MONITORING
SEDIMENT SEMI-ANNUAL- Grain Size - Random Stations
(all values are in percent distribution)

Annual 2014

Source:		8335	8336	8337	8338	8339	8341	
Date:		21-JUL-2014	16-JUL-2014	23-JUL-2014	23-JUL-2014	21-JUL-2014	21-JUL-2014	
Analyte	MDL	Units	P726187	P725593	P726682	P726686	P726192	P726197
>0.5 to 1.0			0.000	0.000	0.000	0.000	0.000	0.000
>1.0 to 2.0			0.000	0.000	0.000	0.000	0.000	0.000
>2.0 to 3.9			0.000	0.101	0.197	0.109	0.316	0.123
>3.9 to 7.8			5.830	5.040	8.950	7.050	9.370	1.270
>7.8 to 15.6			27.100	18.800	32.900	32.000	36.000	0.549
>15.6 to 31			19.200	12.100	21.000	22.300	23.500	0.000
>31 to 62.5			17.000	9.960	19.600	18.900	16.000	3.300
>62.5 to 125			20.500	11.500	15.100	15.400	11.300	62.300
>125 to 250			9.690	10.400	2.260	4.100	3.390	29.800
>250 to 500			0.801	10.700	0.000	0.114	0.106	2.590
>500 to 1000			0.000	13.800	0.000	0.000	0.000	0.000
>1000 to 2000			0.000	7.220	0.000	0.000	0.000	0.000
>2000*			ND	ND	ND	ND	ND	ND
Totals:			100.121	99.621	100.007	99.973	99.982	99.932

Source:		8342	8343	8344	8345	8346	8347	
Date:		22-JUL-2014	21-JUL-2014	21-JUL-2014	22-JUL-2014	21-JUL-2014	25-JUL-2014	
Analyte	MDL	Units	P726521	P726202	P726212	P726527	P726206	P726924
>0.5 to 1.0			0.000	0.000	0.000	0.000	0.000	0.000
>1.0 to 2.0			0.000	0.000	0.000	0.000	0.000	0.000
>2.0 to 3.9			0.157	0.000	0.312	0.149	0.000	0.130
>3.9 to 7.8			4.680	0.000	8.090	5.810	0.848	3.910
>7.8 to 15.6			14.300	0.719	28.400	19.200	3.240	11.900
>15.6 to 31			11.800	1.240	18.900	12.600	1.950	10.600
>31 to 62.5			25.700	0.350	19.800	15.100	1.980	29.300
>62.5 to 125			33.400	0.000	19.200	23.400	8.560	37.000
>125 to 250			9.280	0.000	5.230	18.600	29.300	7.060
>250 to 500			0.727	8.610	0.125	5.060	34.000	0.126
>500 to 1000			0.000	83.400	0.000	0.000	17.500	0.000
>1000 to 2000			0.000	5.710	0.000	0.000	2.680	0.000
>2000*			ND	ND	ND	ND	ND	ND
Totals:			100.044	100.029	100.057	99.919	100.058	100.026

ND=not detected

*=A value in this field reflects a percentage of 30 grams remaining on a 2000 micron sieve. This value must be subtracted from the total percentage.

SOUTH BAY OCEAN OUTFALL MONITORING
 SEDIMENT SEMI-ANNUAL- Grain Size - Random Stations
 (all values are in percent distribution)

Annual 2014

Source:		8348	8350	8351
Date:		22-JUL-2014	22-JUL-2014	23-JUL-2014
Analyte	MDL Units	P726532	P726534	P726693
<hr/>				
>0.5 to 1.0		0.000	0.000	0.000
>1.0 to 2.0		0.000	0.000	0.000
>2.0 to 3.9		0.111	0.151	0.665
>3.9 to 7.8		2.680	1.890	9.890
>7.8 to 15.6		6.610	1.200	28.900
>15.6 to 31		5.050	0.000	18.000
>31 to 62.5		18.700	5.800	19.300
>62.5 to 125		47.300	72.500	18.700
>125 to 250		17.700	17.800	4.420
>250 to 500		1.860	0.685	0.106
>500 to 1000		0.000	0.000	0.000
>1000 to 2000		0.000	0.000	0.000
>2000*		ND	ND	ND
<hr/>				
Totals:		100.011	100.026	99.981

ND=not detected

*=A value in this field reflects a percentage of 30 grams remaining on a 2000 micron sieve. This value must be subtracted from the total percentage.

SOUTH BAY OCEAN OUTFALL MONITORING
SEDIMENT-ANNUAL - Grain Size (Sieve) - Random Stations
(all values are in percent distribution)

Annual 2014

Source:	8309
Sample ID:	P726667
Analyte	MDL Units 23-JUL-2014
=====	
<63 microns, Phi<4	31.4
>63 to 125 microns, Phi>4	23.7
>125 to 250 microns, Phi>3	12.4
>250 to 500 microns, Phi>2	15.0
>500 to 1000 microns, Phi>1	8.9
>1000 to 2000 microns, Phi>0	3.7
>2000 microns, Phi>-1	4.9
=====	
Totals:	100.0

SOUTH BAY WATER RECLAMATION PLANT
SEDIMENT ANNUAL Total Organic Carbon/Total Nitrogen - Random Stations

Annual 2014

Source:		MDL	Units	8302	8306	8310	8311	8312	8324
Analyte				11-JUL-2014	11-JUL-2014	11-JUL-2014	15-JUL-2014	15-JUL-2014	15-JUL-2014
Total Nitrogen	.005	WT%		0.049	0.015	0.066	0.020	0.010	0.038
Total Organic Carbon	.01	WT%		0.55	0.21	0.88	0.22	0.12	0.55

Source:		MDL	Units	8327	8328	8304	8308	8336	8301
Analyte				15-JUL-2014	15-JUL-2014	16-JUL-2014	16-JUL-2014	16-JUL-2014	21-JUL-2014
Total Nitrogen	.005	WT%		0.049	0.034	0.047	0.036	0.069	0.050
Total Organic Carbon	.01	WT%		0.14	0.49	0.75	0.48	0.20	0.61

Source:		MDL	Units	8307	8319	8323	8333	8335	8339
Analyte				21-JUL-2014	21-JUL-2014	21-JUL-2014	21-JUL-2014	21-JUL-2014	21-JUL-2014
Total Nitrogen	.005	WT%		0.013	0.029	0.008	0.029	0.047	0.098
Total Organic Carbon	.01	WT%		0.18	0.50	0.17	0.64	0.19	0.22

Source:		MDL	Units	8341	8343	8344	8346	8313	8315
Analyte				21-JUL-2014	21-JUL-2014	21-JUL-2014	21-JUL-2014	21-JUL-2014	21-JUL-2014
Total Nitrogen	.005	WT%		ND	0.011	0.095	0.018	0.075	0.036
Total Organic Carbon	.01	WT%		0.22	0.18	0.16	0.24	0.96	0.28

Source:		MDL	Units	8316	8318	8329	8332	8342	8345
Analyte				22-JUL-2014	22-JUL-2014	22-JUL-2014	22-JUL-2014	22-JUL-2014	22-JUL-2014
Total Nitrogen	.005	WT%		0.009	0.094	0.068	0.018	0.068	0.097
Total Organic Carbon	.01	WT%		0.13	0.74	0.61	0.19	0.70	0.73

Source:		MDL	Units	8348	8350	8305	8309	8321	8326
Analyte				22-JUL-2014	22-JUL-2014	22-JUL-2014	22-JUL-2014	22-JUL-2014	22-JUL-2014
Total Nitrogen	.005	WT%		0.038	0.016	0.044	0.052	0.037	0.072
Total Organic Carbon	.01	WT%		0.39	0.18	0.59	0.31	0.44	0.11

Source:		MDL	Units	8337	8338	8351	8347		
Analyte				23-JUL-2014	23-JUL-2014	23-JUL-2014	25-JUL-2014		
Total Nitrogen	.005	WT%		0.012	0.013	0.012	0.027		
Total Organic Carbon	.01	WT%		0.20	0.19	0.17	0.63		

ND=not detected

SOUTH BAY WASTEWATER RECLAMATION PLANT
ANNUAL OCEAN SEDIMENT - RANDOM

Trace Metals

Annual 2014

Source:		8302	8306	8310	8311	8312	8324	8327
Date:		11-JUL-2014	11-JUL-2014	11-JUL-2014	15-JUL-2014	15-JUL-2014	15-JUL-2014	15-JUL-2014
Analyte	MDL	Units						
Aluminum	2	MG/KG	8100	4520	21400	9120	3030	9600
Antimony	.3	MG/KG	0.7	1.3	1.4	0.9	1.5	0.8
Arsenic	.33	MG/KG	3.10	1.37	3.91	1.39	1.56	1.62
Beryllium	.01	MG/KG	0.14	0.10	0.34	0.14	0.10	0.17
Cadmium	.06	MG/KG	ND	ND	ND	ND	ND	ND
Chromium	.1	MG/KG	15.1	9.3	27.1	12.2	6.9	13.8
Copper	.2	MG/KG	6.4	ND	9.2	ND	ND	2.4
Iron	9	MG/KG	11900	9900	19800	9080	9550	9710
Lead	.8	MG/KG	5.4	2.1	6.3	ND	1.6	2.6
Manganese	.08	MG/KG	113	199	232	191	206	144
Mercury	.004	MG/KG	0.031	0.008	0.044	ND	ND	0.006
Nickel	.1	MG/KG	6.8	2.1	12.5	3.3	1.1	6.2
Selenium	.24	MG/KG	<0.24	ND	ND	ND	ND	<0.24
Silver	.04	MG/KG	ND	ND	ND	ND	ND	ND
Thallium	.5	MG/KG	0.5	ND	ND	ND	0.5	1.5
Tin	.3	MG/KG	1.7	ND	0.7	ND	ND	0.4
Zinc	.25	MG/KG	33.7	18.2	54.2	20.9	11.7	25.2

Source:		8328	8304	8308	8336	8301	8307	8319
Date:		15-JUL-2014	16-JUL-2014	16-JUL-2014	16-JUL-2014	21-JUL-2014	21-JUL-2014	21-JUL-2014
Analyte	MDL	Units						
Aluminum	2	MG/KG	12800	6750	21700	12100	1210	7330
Antimony	.3	MG/KG	1.5	1.0	1.8	1.5	0.4	1.0
Arsenic	.33	MG/KG	2.56	8.70	3.66	3.69	5.91	1.57
Beryllium	.01	MG/KG	0.20	0.36	0.31	0.28	ND	0.12
Cadmium	.06	MG/KG	ND	ND	ND	ND	ND	0.07
Chromium	.1	MG/KG	17.6	27.9	23.8	23.0	8.8	11.4
Copper	.2	MG/KG	4.3	3.2	30.7	10.1	0.3	ND
Iron	9	MG/KG	12100	20000	22500	13500	4520	7720
Lead	.8	MG/KG	4.8	4.1	8.4	3.8	2.4	0.9
Manganese	.08	MG/KG	179	51.9	226	92.2	50.1	149
Mercury	.004	MG/KG	0.013	ND	0.024	0.008	ND	ND
Nickel	.1	MG/KG	6.6	6.9	9.9	10.8	1.4	3.3
Selenium	.24	MG/KG	ND	0.24	0.26	0.61	<0.24	ND
Silver	.04	MG/KG	ND	ND	ND	ND	ND	ND
Thallium	.5	MG/KG	ND	2.2	0.7	0.5	1.5	ND
Tin	.3	MG/KG	0.5	0.4	0.9	1.1	ND	ND
Zinc	.25	MG/KG	37.1	34.3	83.2	32.9	8.2	18.8

ND= not detected

SOUTH BAY WASTEWATER RECLAMATION PLANT
ANNUAL OCEAN SEDIMENT - RANDOM

Trace Metals

Annual 2014

Source:		8323	8333	8335	8339	8341	8343	8344
Date:		21-JUL-2014						
Analyte	MDL	Units						
Aluminum	2	MG/KG	7010	16600	32200	37800	6030	2190
Antimony	.3	MG/KG	0.9	1.4	2.6	3.2	1.6	0.9
Arsenic	.33	MG/KG	1.08	2.74	5.88	8.20	1.25	5.32
Beryllium	.01	MG/KG	0.10	0.28	0.58	0.68	0.11	0.13
Cadmium	.06	MG/KG	ND	<0.06	0.33	0.27	ND	ND
Chromium	.1	MG/KG	13.2	20.4	42.1	49.5	8.6	4.6
Copper	.2	MG/KG	ND	5.6	19.9	26.3	ND	ND
Iron	9	MG/KG	8710	16200	29900	33000	8110	3660
Lead	.8	MG/KG	ND	5.4	11.0	15.4	ND	2.5
Manganese	.08	MG/KG	217	210	306	312	224	46.6
Mercury	.004	MG/KG	ND	0.012	0.016	0.023	ND	ND
Nickel	.1	MG/KG	2.9	8.9	22.0	27.6	2.2	1.8
Selenium	.24	MG/KG	<0.24	ND	0.74	0.77	ND	<0.24
Silver	.04	MG/KG	ND	ND	ND	ND	ND	ND
Thallium	.5	MG/KG	1.4	<0.5	ND	ND	ND	1.6
Tin	.3	MG/KG	ND	1.1	1.9	2.5	ND	0.8
Zinc	.25	MG/KG	18.4	43.3	90.3	103	17.3	8.7

Source:		8346	8313	8315	8316	8318	8329	8332
Date:		21-JUL-2014	22-JUL-2014	22-JUL-2014	22-JUL-2014	22-JUL-2014	22-JUL-2014	22-JUL-2014
Analyte	MDL	Units						
Aluminum	2	MG/KG	5930	17000	10700	3710	20400	16400
Antimony	.3	MG/KG	1.2	1.0	0.5	ND	1.3	1.1
Arsenic	.33	MG/KG	3.25	1.97	1.89	2.66	3.75	2.82
Beryllium	.01	MG/KG	0.12	0.30	0.15	0.05	0.31	0.27
Cadmium	.06	MG/KG	ND	ND	ND	ND	ND	ND
Chromium	.1	MG/KG	10.4	23.9	12.8	4.3	26.2	20.8
Copper	.2	MG/KG	ND	8.0	1.3	0.4	9.3	7.5
Iron	9	MG/KG	9510	16300	8460	4050	18200	16000
Lead	.8	MG/KG	4.7	4.6	1.2	2.0	7.1	7.7
Manganese	.08	MG/KG	172	194	131	51	212	197
Mercury	.004	MG/KG	ND	0.009	ND	ND	0.014	0.013
Nickel	.1	MG/KG	3.0	10.9	4.2	1.3	11.7	9.5
Selenium	.24	MG/KG	ND	<0.24	ND	ND	ND	<0.24
Silver	.04	MG/KG	ND	ND	ND	ND	ND	ND
Thallium	.5	MG/KG	ND	ND	ND	2.0	0.7	ND
Tin	.3	MG/KG	0.8	0.4	ND	ND	1.2	0.6
Zinc	.25	MG/KG	26.6	44.5	22.0	8.7	53.2	44.1

ND= not detected

SOUTH BAY WASTEWATER RECLAMATION PLANT
ANNUAL OCEAN SEDIMENT - RANDOM

Trace Metals

Annual 2014

Source:		8342	8345	8348	8350	8305	8309	8321
Date:		22-JUL-2014	22-JUL-2014	22-JUL-2014	22-JUL-2014	23-JUL-2014	23-JUL-2014	23-JUL-2014
Analyte	MDL	Units						
Aluminum	2	MG/KG	21300	26800	14000	7830	16600	14000
Antimony	.3	MG/KG	1.9	2.1	1.9	1.6	1.4	1.1
Arsenic	.33	MG/KG	3.51	3.67	2.33	1.09	2.66	3.72
Beryllium	.01	MG/KG	0.35	0.41	0.21	0.13	0.28	0.29
Cadmium	.06	MG/KG	ND	ND	ND	ND	ND	ND
Chromium	.1	MG/KG	25.8	29.7	16.7	10.4	21.6	22.8
Copper	.2	MG/KG	9.2	35.5	2.6	ND	5.5	6.3
Iron	9	MG/KG	19800	25900	12300	8950	16400	18100
Lead	.8	MG/KG	6.6	8.3	2.9	ND	4.6	5.4
Manganese	.08	MG/KG	256	278	192	246	205	166
Mercury	.004	MG/KG	0.012	0.021	0.005	ND	0.008	0.007
Nickel	.1	MG/KG	12.5	13.9	6.8	2.4	9.7	9.5
Selenium	.24	MG/KG	<0.24	0.50	ND	ND	ND	<0.24
Silver	.04	MG/KG	ND	ND	ND	ND	ND	ND
Thallium	.5	MG/KG	ND	ND	ND	ND	ND	ND
Tin	.3	MG/KG	1.0	1.4	0.6	ND	0.5	0.7
Zinc	.25	MG/KG	54.2	74.1	30.3	22.6	41.8	44.9

Source:		8326	8337	8338	8351	8347
Date:		23-JUL-2014	23-JUL-2014	23-JUL-2014	23-JUL-2014	25-JUL-2014
Analyte	MDL	Units				
Aluminum	2	MG/KG	20300	30600	29400	26700
Antimony	.3	MG/KG	1.1	2.4	2.7	2.8
Arsenic	.33	MG/KG	2.51	4.75	3.04	3.06
Beryllium	.01	MG/KG	0.32	0.53	0.52	0.48
Cadmium	.06	MG/KG	0.12	0.28	0.49	0.40
Chromium	.1	MG/KG	28.2	43.3	44.0	38.6
Copper	.2	MG/KG	9.9	21.2	20.7	17.0
Iron	9	MG/KG	17200	26100	25400	23800
Lead	.8	MG/KG	4.5	7.8	8.3	6.3
Manganese	.08	MG/KG	194	266	271	263
Mercury	.004	MG/KG	0.008	0.004	0.004	0.008
Nickel	.1	MG/KG	14.8	29.1	27.8	23.5
Selenium	.24	MG/KG	0.37	1.16	1.07	0.89
Silver	.04	MG/KG	ND	ND	ND	ND
Thallium	.5	MG/KG	1.0	ND	ND	ND
Tin	.3	MG/KG	0.3	1.8	1.2	0.6
Zinc	.25	MG/KG	52.5	83.1	85.8	76.1

ND= not detected

SOUTH BAY OCEAN OUTFALL MONITORING
SEDIMENT ANNUAL Chlorinated Pesticide Analysis - Random Stations

Annual 2014

Source: Analyte	MDL	Units	8302 11-JUL-2014	8306 11-JUL-2014	8310 11-JUL-2014	8311 15-JUL-2014	8312 15-JUL-2014	8324 15-JUL-2014
Aldrin	70	NG/KG	ND	ND	ND	ND	ND	ND
Dieldrin	340	NG/KG	ND	ND	ND	ND	ND	ND
BHC, Alpha isomer	100	NG/KG	ND	ND	ND	ND	ND	ND
BHC, Beta isomer	50	NG/KG	ND	ND	ND	ND	ND	ND
BHC, Gamma isomer	190	NG/KG	ND	ND	ND	ND	ND	ND
BHC, Delta isomer	220	NG/KG	ND	ND	ND	ND	ND	ND
p,p-DDD	160	NG/KG	ND	ND	ND	ND	ND	ND
p,p-DDE	90	NG/KG	100	ND	170	120	ND	250
p,p-DDT	70	NG/KG	77	ND	110	ND	ND	73
o,p-DDD	100	NG/KG	ND	ND	ND	ND	ND	ND
o,p-DDE	60	NG/KG	ND	ND	ND	ND	ND	ND
o,p-DDT	110	NG/KG	ND	ND	ND	ND	ND	ND
Heptachlor	120	NG/KG	ND	ND	ND	ND	ND	ND
Heptachlor epoxide	300	NG/KG	ND	ND	ND	ND	ND	ND
Alpha (cis) Chlordane	160	NG/KG	ND	ND	ND	ND	ND	ND
Gamma (trans) Chlordane	190	NG/KG	ND	ND	ND	ND	ND	ND
Alpha Chlordene		NG/KG	NA	NA	NA	NA	NA	NA
Gamma Chlordene		NG/KG	NA	NA	NA	NA	NA	NA
Oxychlordane	1200	NG/KG	ND	ND	ND	ND	ND	ND
Trans Nonachlor	240	NG/KG	ND	ND	ND	ND	ND	ND
Cis Nonachlor	380	NG/KG	ND	ND	ND	ND	ND	ND
Alpha Endosulfan	720	NG/KG	ND	ND	ND	ND	ND	ND
Beta Endosulfan	780	NG/KG	ND	ND	ND	ND	ND	ND
Endosulfan Sulfate	1100	NG/KG	ND	ND	ND	ND	ND	ND
Endrin	510	NG/KG	ND	ND	ND	ND	ND	ND
Endrin aldehyde	2400	NG/KG	ND	ND	ND	ND	ND	ND
Mirex	60	NG/KG	ND	ND	ND	ND	ND	ND
Methoxychlor	90	NG/KG	ND	ND	ND	ND	ND	ND
Aldrin + Dieldrin	340	NG/KG	0	0	0	0	0	0
Hexachlorocyclohexanes	220	NG/KG	0	0	0	0	0	0
DDT and derivatives	160	NG/KG	177	0	280	120	0	323
Chlordane + related cmpds.	1200	NG/KG	0	0	0	0	0	0
Chlorinated Hydrocarbons	2400	NG/KG	177	0	280	120	0	323

ND=not detected

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 OCEAN OUTFALL MONITORING
SEDIMENT ANNUAL Chlorinated Pesticide Analysis - Random Stations

Annual 2014

Source: Analyte	MDL	Units	8327 15-JUL-2014	8328 15-JUL-2014	8304 16-JUL-2014	8308 16-JUL-2014	8336 16-JUL-2014	8301 21-JUL-2014
Aldrin	70	NG/KG	ND	ND	ND	ND	ND	ND
Dieldrin	340	NG/KG	ND	ND	ND	ND	ND	ND
BHC, Alpha isomer	100	NG/KG	ND	ND	ND	ND	ND	ND
BHC, Beta isomer	50	NG/KG	ND	ND	ND	ND	ND	ND
BHC, Gamma isomer	190	NG/KG	ND	ND	ND	ND	ND	ND
BHC, Delta isomer	220	NG/KG	ND	ND	ND	ND	ND	ND
p,p-DDD	160	NG/KG	670	ND	ND	220	ND	ND
p,p-DDE	90	NG/KG	4600	340	330	290	250	ND
p,p-DDT	70	NG/KG	1200	ND	ND	81	85	ND
o,p-DDD	100	NG/KG	260	ND	ND	ND	ND	ND
o,p-DDE	60	NG/KG	130	ND	ND	ND	ND	ND
o,p-DDT	110	NG/KG	250	ND	ND	ND	ND	ND
Heptachlor	120	NG/KG	ND	ND	ND	ND	ND	ND
Heptachlor epoxide	300	NG/KG	ND	ND	ND	ND	ND	ND
Alpha (cis) Chlordane	160	NG/KG	ND	ND	ND	ND	ND	ND
Gamma (trans) Chlordane	190	NG/KG	ND	ND	ND	ND	ND	ND
Alpha Chlordene		NG/KG	NA	NA	NA	NA	NA	NA
Gamma Chlordene		NG/KG	NA	NA	NA	NA	NA	NA
Oxychlordane	1200	NG/KG	ND	ND	ND	ND	ND	ND
Trans Nonachlor	240	NG/KG	ND	ND	ND	ND	ND	ND
Cis Nonachlor	380	NG/KG	ND	ND	ND	ND	ND	ND
Alpha Endosulfan	720	NG/KG	ND	ND	ND	ND	ND	ND
Beta Endosulfan	780	NG/KG	ND	ND	ND	ND	ND	ND
Endosulfan Sulfate	1100	NG/KG	ND	ND	ND	ND	ND	ND
Endrin	510	NG/KG	ND	ND	ND	ND	ND	ND
Endrin aldehyde	2400	NG/KG	ND	ND	ND	ND	ND	ND
Mirex	60	NG/KG	ND	ND	ND	ND	ND	ND
Methoxychlor	90	NG/KG	ND	ND	ND	ND	ND	ND
Aldrin + Dieldrin	340	NG/KG	0	0	0	0	0	0
Hexachlorocyclohexanes	220	NG/KG	0	0	0	0	0	0
DDT and derivatives	160	NG/KG	7110	340	330	591	335	0
Chlordane + related cmpds.	1200	NG/KG	0	0	0	0	0	0
Chlorinated Hydrocarbons	2400	NG/KG	7110	340	330	591	335	0

ND=not detected

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 OCEAN OUTFALL MONITORING
SEDIMENT ANNUAL Chlorinated Pesticide Analysis - Random Stations

Annual 2014

Source: Analyte	MDL	Units	8307 21-JUL-2014	8319 21-JUL-2014	8323 21-JUL-2014	8333 21-JUL-2014	8335 21-JUL-2014	8339 21-JUL-2014
Aldrin	70	NG/KG	ND	ND	ND	ND	ND	ND
Dieldrin	340	NG/KG	ND	ND	ND	ND	ND	ND
BHC, Alpha isomer	100	NG/KG	ND	ND	ND	ND	ND	ND
BHC, Beta isomer	50	NG/KG	ND	ND	ND	ND	ND	ND
BHC, Gamma isomer	190	NG/KG	ND	ND	ND	ND	ND	ND
BHC, Delta isomer	220	NG/KG	ND	ND	ND	ND	ND	ND
p,p-DDD	160	NG/KG	ND	ND	ND	ND	ND	ND
p,p-DDE	90	NG/KG	ND	580	ND	440	560	890
p,p-DDT	70	NG/KG	ND	ND	ND	ND	ND	ND
o,p-DDD	100	NG/KG	ND	ND	ND	ND	ND	ND
o,p-DDE	60	NG/KG	ND	ND	ND	ND	ND	ND
o,p-DDT	110	NG/KG	ND	ND	ND	ND	ND	ND
Heptachlor	120	NG/KG	ND	ND	ND	ND	ND	ND
Heptachlor epoxide	300	NG/KG	ND	ND	ND	ND	ND	ND
Alpha (cis) Chlordane	160	NG/KG	ND	ND	ND	ND	ND	ND
Gamma (trans) Chlordane	190	NG/KG	ND	ND	ND	ND	ND	ND
Alpha Chlordene		NG/KG	NA	NA	NA	NA	NA	NA
Gamma Chlordene		NG/KG	NA	NA	NA	NA	NA	NA
Oxychlordane	1200	NG/KG	ND	ND	ND	ND	ND	ND
Trans Nonachlor	240	NG/KG	ND	ND	ND	ND	ND	ND
Cis Nonachlor	380	NG/KG	ND	ND	ND	ND	ND	ND
Alpha Endosulfan	720	NG/KG	ND	ND	ND	ND	ND	ND
Beta Endosulfan	780	NG/KG	ND	ND	ND	ND	ND	ND
Endosulfan Sulfate	1100	NG/KG	ND	ND	ND	ND	ND	ND
Endrin	510	NG/KG	ND	ND	ND	ND	ND	ND
Endrin aldehyde	2400	NG/KG	ND	ND	ND	ND	ND	ND
Mirex	60	NG/KG	ND	ND	ND	ND	ND	ND
Methoxychlor	90	NG/KG	ND	ND	ND	ND	ND	ND
Aldrin + Dieldrin	340	NG/KG	0	0	0	0	0	0
Hexachlorocyclohexanes	220	NG/KG	0	0	0	0	0	0
DDT and derivatives	160	NG/KG	0	580	0	440	560	890
Chlordane + related cmpds.	1200	NG/KG	0	0	0	0	0	0
Chlorinated Hydrocarbons	2400	NG/KG	0	580	0	440	560	890

ND=not detected

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 OCEAN OUTFALL MONITORING
SEDIMENT ANNUAL Chlorinated Pesticide Analysis - Random Stations

Annual 2014

Source: Analyte	MDL	Units	8341 21-JUL-2014	8343 21-JUL-2014	8344 21-JUL-2014	8346 21-JUL-2014	8313 22-JUL-2014	8315 22-JUL-2014
Aldrin	70	NG/KG	ND	ND	ND	ND	ND	ND
Dieldrin	340	NG/KG	ND	ND	ND	ND	ND	ND
BHC, Alpha isomer	100	NG/KG	ND	ND	ND	ND	ND	ND
BHC, Beta isomer	50	NG/KG	ND	ND	ND	ND	ND	ND
BHC, Gamma isomer	190	NG/KG	ND	ND	ND	ND	ND	ND
BHC, Delta isomer	220	NG/KG	ND	ND	ND	ND	ND	ND
p,p-DDD	160	NG/KG	ND	ND	ND	ND	ND	ND
p,p-DDE	90	NG/KG	ND	340	630	100	1000	270
p,p-DDT	70	NG/KG	ND	ND	96	ND	ND	ND
o,p-DDD	100	NG/KG	ND	ND	ND	ND	ND	ND
o,p-DDE	60	NG/KG	ND	ND	ND	ND	ND	ND
o,p-DDT	110	NG/KG	ND	ND	ND	ND	ND	ND
Heptachlor	120	NG/KG	ND	ND	ND	ND	ND	ND
Heptachlor epoxide	300	NG/KG	ND	ND	ND	ND	ND	ND
Alpha (cis) Chlordane	160	NG/KG	ND	ND	ND	ND	ND	ND
Gamma (trans) Chlordane	190	NG/KG	ND	ND	ND	ND	ND	ND
Alpha Chlordene		NG/KG	NA	NA	NA	NA	NA	NA
Gamma Chlordene		NG/KG	NA	NA	NA	NA	NA	NA
Oxychlordane	1200	NG/KG	ND	ND	ND	ND	ND	ND
Trans Nonachlor	240	NG/KG	ND	ND	ND	ND	ND	ND
Cis Nonachlor	380	NG/KG	ND	ND	ND	ND	ND	ND
Alpha Endosulfan	720	NG/KG	ND	ND	ND	ND	ND	ND
Beta Endosulfan	780	NG/KG	ND	ND	ND	ND	ND	ND
Endosulfan Sulfate	1100	NG/KG	ND	ND	ND	ND	ND	ND
Endrin	510	NG/KG	ND	ND	ND	ND	ND	ND
Endrin aldehyde	2400	NG/KG	ND	ND	ND	ND	ND	ND
Mirex	60	NG/KG	ND	ND	ND	ND	ND	ND
Methoxychlor	90	NG/KG	ND	ND	ND	ND	ND	ND
Aldrin + Dieldrin	340	NG/KG	0	0	0	0	0	0
Hexachlorocyclohexanes	220	NG/KG	0	0	0	0	0	0
DDT and derivatives	160	NG/KG	0	340	726	100	1000	270
Chlordane + related cmpds.	1200	NG/KG	0	0	0	0	0	0
Chlorinated Hydrocarbons	2400	NG/KG	0	340	726	100	1000	270

ND=not detected

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 OCEAN OUTFALL MONITORING
SEDIMENT ANNUAL Chlorinated Pesticide Analysis - Random Stations

Annual 2014

Source: Analyte	MDL	Units	8316 22-JUL-2014	8318 22-JUL-2014	8323 21-JUL-2014	8332 22-JUL-2014	8342 22-JUL-2014	8345 22-JUL-2014
Aldrin	70	NG/KG	ND	ND	ND	ND	ND	ND
Dieldrin	340	NG/KG	ND	ND	ND	ND	ND	ND
BHC, Alpha isomer	100	NG/KG	ND	ND	ND	ND	ND	ND
BHC, Beta isomer	50	NG/KG	ND	ND	ND	ND	ND	ND
BHC, Gamma isomer	190	NG/KG	ND	ND	ND	ND	ND	ND
BHC, Delta isomer	220	NG/KG	ND	ND	ND	ND	ND	ND
p,p-DDD	160	NG/KG	ND	390	ND	ND	ND	ND
p,p-DDE	90	NG/KG	ND	1300	ND	ND	900	ND
p,p-DDT	70	NG/KG	ND	ND	ND	ND	ND	ND
o,p-DDD	100	NG/KG	ND	ND	ND	ND	ND	ND
o,p-DDE	60	NG/KG	ND	ND	ND	ND	ND	ND
o,p-DDT	110	NG/KG	ND	ND	ND	ND	ND	ND
Heptachlor	120	NG/KG	ND	ND	ND	ND	ND	ND
Heptachlor epoxide	300	NG/KG	ND	ND	ND	ND	ND	ND
Alpha (cis) Chlordane	160	NG/KG	ND	ND	ND	ND	ND	ND
Gamma (trans) Chlordane	190	NG/KG	ND	ND	ND	ND	ND	ND
Alpha Chlordene		NG/KG	NA	NA	NA	NA	NA	NA
Gamma Chlordene		NG/KG	NA	NA	NA	NA	NA	NA
Oxychlordane	1200	NG/KG	ND	ND	ND	ND	ND	ND
Trans Nonachlor	240	NG/KG	ND	ND	ND	ND	ND	ND
Cis Nonachlor	380	NG/KG	ND	ND	ND	ND	ND	ND
Alpha Endosulfan	720	NG/KG	ND	ND	ND	ND	ND	ND
Beta Endosulfan	780	NG/KG	ND	ND	ND	ND	ND	ND
Endosulfan Sulfate	1100	NG/KG	ND	ND	ND	ND	ND	ND
Endrin	510	NG/KG	ND	ND	ND	ND	ND	ND
Endrin aldehyde	2400	NG/KG	ND	ND	ND	ND	ND	ND
Mirex	60	NG/KG	ND	ND	ND	ND	ND	ND
Methoxychlor	90	NG/KG	ND	ND	ND	ND	ND	ND
Aldrin + Dieldrin	340	NG/KG	0	0	0	0	0	0
Hexachlorocyclohexanes	220	NG/KG	0	0	0	0	0	0
DDT and derivatives	160	NG/KG	0	1690	0	0	900	0
Chlordane + related cmpds.	1200	NG/KG	0	0	0	0	0	0
Chlorinated Hydrocarbons	2400	NG/KG	0	1690	0	0	900	0

ND=not detected

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 OCEAN OUTFALL MONITORING
SEDIMENT ANNUAL Chlorinated Pesticide Analysis - Random Stations

Annual 2014

Source: Analyte	MDL	Units	8348 22-JUL-2014	8350 22-JUL-2014	8305 23-JUL-2014	8309 23-JUL-2014	8321 23-JUL-2014	8326 23-JUL-2014
Aldrin	70	NG/KG	ND	ND	ND	ND	ND	ND
Dieldrin	340	NG/KG	ND	ND	ND	ND	ND	ND
BHC, Alpha isomer	100	NG/KG	ND	ND	ND	ND	ND	ND
BHC, Beta isomer	50	NG/KG	ND	ND	ND	ND	ND	ND
BHC, Gamma isomer	190	NG/KG	ND	ND	ND	ND	ND	ND
BHC, Delta isomer	220	NG/KG	ND	ND	ND	ND	ND	ND
p,p-DDD	160	NG/KG	510	ND	160	800	ND	340
p,p-DDE	90	NG/KG	3400	140	870	1200	530	2000
p,p-DDT	70	NG/KG	570	ND	100	980	97	370
o,p-DDD	100	NG/KG	130	ND	ND	250	ND	190
o,p-DDE	60	NG/KG	120	ND	ND	250	ND	360
o,p-DDT	110	NG/KG	120	ND	ND	ND	ND	210
Heptachlor	120	NG/KG	ND	ND	ND	ND	ND	ND
Heptachlor epoxide	300	NG/KG	ND	ND	ND	ND	ND	ND
Alpha (cis) Chlordane	160	NG/KG	ND	ND	ND	270	ND	ND
Gamma (trans) Chlordane	190	NG/KG	ND	ND	ND	190	ND	250
Alpha Chlordene		NG/KG	NA	NA	NA	NA	NA	NA
Gamma Chlordene		NG/KG	NA	NA	NA	NA	NA	NA
Oxychlordane	1200	NG/KG	ND	ND	ND	ND	ND	ND
Trans Nonachlor	240	NG/KG	ND	ND	ND	ND	ND	670
Cis Nonachlor	380	NG/KG	ND	ND	ND	ND	ND	ND
Alpha Endosulfan	720	NG/KG	ND	ND	ND	ND	ND	ND
Beta Endosulfan	780	NG/KG	ND	ND	ND	ND	ND	ND
Endosulfan Sulfate	1100	NG/KG	ND	ND	ND	ND	ND	ND
Endrin	510	NG/KG	ND	ND	ND	ND	ND	ND
Endrin aldehyde	2400	NG/KG	ND	ND	ND	ND	ND	ND
Mirex	60	NG/KG	ND	ND	ND	ND	ND	150
Methoxychlor	90	NG/KG	ND	ND	ND	ND	ND	ND
Aldrin + Dieldrin	340	NG/KG	0	0	0	0	0	0
Hexachlorocyclohexanes	220	NG/KG	0	0	0	0	0	0
DDT and derivatives	160	NG/KG	4850	140	1130	3480	627	3470
Chlordane + related cmpds.	1200	NG/KG	0	0	0	460	0	250
Chlorinated Hydrocarbons	2400	NG/KG	4850	140	1130	3940	627	4540

ND=not detected

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 OCEAN OUTFALL MONITORING
SEDIMENT ANNUAL Chlorinated Pesticide Analysis - Random Stations

Annual 2014

Source: Analyte	MDL	Units	8337 23-JUL-2014	8338 23-JUL-2014	8351 23-JUL-2014	8347 25-JUL-2014
Aldrin	70	NG/KG	ND	ND	ND	ND
Dieldrin	340	NG/KG	ND	ND	ND	ND
BHC, Alpha isomer	100	NG/KG	ND	ND	ND	ND
BHC, Beta isomer	50	NG/KG	ND	ND	ND	ND
BHC, Gamma isomer	190	NG/KG	ND	ND	ND	ND
BHC, Delta isomer	220	NG/KG	ND	ND	ND	ND
p,p-DDD	160	NG/KG	ND	240	ND	ND
p,p-DDE	90	NG/KG	580	630	600	645
p,p-DDT	70	NG/KG	324	140	ND	ND
o,p-DDD	100	NG/KG	ND	ND	ND	ND
o,p-DDE	60	NG/KG	ND	190	ND	ND
o,p-DDT	110	NG/KG	ND	ND	ND	ND
Heptachlor	120	NG/KG	ND	ND	ND	ND
Heptachlor epoxide	300	NG/KG	ND	ND	ND	ND
Alpha (cis) Chlordane	160	NG/KG	ND	ND	ND	ND
Gamma (trans) Chlordane	190	NG/KG	ND	ND	ND	ND
Alpha Chlordene		NG/KG	NA	NA	NA	NA
Gamma Chlordene		NG/KG	NA	NA	NA	NA
Oxychlordane	1200	NG/KG	ND	ND	ND	ND
Trans Nonachlor	240	NG/KG	ND	ND	ND	ND
Cis Nonachlor	380	NG/KG	ND	ND	ND	ND
Alpha Endosulfan	720	NG/KG	ND	ND	ND	ND
Beta Endosulfan	780	NG/KG	ND	ND	ND	ND
Endosulfan Sulfate	1100	NG/KG	ND	ND	ND	ND
Endrin	510	NG/KG	ND	ND	ND	ND
Endrin aldehyde	2400	NG/KG	ND	ND	ND	ND
Mirex	60	NG/KG	ND	ND	ND	ND
Methoxychlor	90	NG/KG	ND	ND	ND	ND
Aldrin + Dieldrin	340	NG/KG	0	0	0	0
Hexachlorocyclohexanes	220	NG/KG	0	0	0	0
DDT and derivatives	160	NG/KG	904	1200	600	645
Chlordane + related cmpds.	1200	NG/KG	0	0	0	0
Chlorinated Hydrocarbons	2400	NG/KG	904	1200	600	645

ND=not detected

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 OCEAN OUTFALL MONITORING
SEDIMENT ANNUAL - PCB Congeners Random Stations

Annual 2014

Source: Analyte	MDL	Units	8302 11-JUL-2014	8306 11-JUL-2014	8310 11-JUL-2014	8311 15-JUL-2014	8312 15-JUL-2014	8324 15-JUL-2014	8327 15-JUL-2014
PCB 18	90	NG/KG	ND						
PCB 28	60	NG/KG	ND						
PCB 52	90	NG/KG	ND						
PCB 49	70	NG/KG	ND						
PCB 44	100	NG/KG	ND						
PCB 37	90	NG/KG	ND						
PCB 74	100	NG/KG	ND						
PCB 70	60	NG/KG	ND						
PCB 66	100	NG/KG	ND						
PCB 101	100	NG/KG	ND	ND	ND	ND	ND	ND	560
PCB 99	120	NG/KG	ND						
PCB 119	80	NG/KG	ND						
PCB 87	200	NG/KG	ND	ND	ND	ND	ND	ND	300
PCB 110	110	NG/KG	ND	ND	ND	ND	ND	ND	650
PCB 81	130	NG/KG	ND						
PCB 151	80	NG/KG	ND	ND	ND	ND	ND	ND	90
PCB 77	110	NG/KG	ND						
PCB 149	110	NG/KG	ND	ND	ND	ND	ND	ND	270
PCB 123	130	NG/KG	ND						
PCB 118	90	NG/KG	ND	ND	ND	ND	ND	ND	510
PCB 114	130	NG/KG	ND						
PCB 105	50	NG/KG	ND						
PCB 138	80	NG/KG	ND	ND	ND	ND	ND	ND	420
PCB 158	70	NG/KG	ND	ND	ND	ND	ND	ND	100
PCB 187	110	NG/KG	ND	ND	ND	ND	ND	ND	E87
PCB 183	60	NG/KG	ND						
PCB 126	70	NG/KG	ND						
PCB 128	80	NG/KG	ND	ND	ND	ND	ND	ND	150
PCB 167	30	NG/KG	ND						
PCB 177	70	NG/KG	ND						
PCB 201	70	NG/KG	ND						
PCB 156	90	NG/KG	ND	ND	ND	ND	ND	ND	E81
PCB 157	100	NG/KG	ND						
PCB 180	80	NG/KG	ND	ND	ND	ND	ND	ND	160
PCB 170	80	NG/KG	ND						
Total PCB's	200	NG/KG	0	0	0	0	0	0	3210

ND=not detected

E=Estimated value below MDL, but qualified.

SOUTH BAY OCEAN OUTFALL MONITORING
SEDIMENT ANNUAL - PCB Congeners Random Stations

Annual 2014

Source: Analyte	MDL	Units	8328 15-JUL-2014	8304 16-JUL-2014	8308 16-JUL-2014	8336 16-JUL-2014	8301 21-JUL-2014	8307 21-JUL-2014	8319 21-JUL-2014
PCB 18	90	NG/KG	ND						
PCB 28	60	NG/KG	ND	ND	120	ND	ND	ND	ND
PCB 52	90	NG/KG	ND						
PCB 49	70	NG/KG	ND	ND	170	ND	ND	ND	ND
PCB 44	100	NG/KG	ND						
PCB 37	90	NG/KG	ND						
PCB 74	100	NG/KG	ND						
PCB 70	60	NG/KG	ND						
PCB 66	100	NG/KG	ND	ND	160	ND	ND	ND	ND
PCB 101	100	NG/KG	ND	ND	280	E88	ND	ND	ND
PCB 99	120	NG/KG	ND						
PCB 119	80	NG/KG	ND						
PCB 87	200	NG/KG	ND						
PCB 110	110	NG/KG	ND	ND	320	E66	ND	ND	ND
PCB 81	130	NG/KG	ND						
PCB 151	80	NG/KG	ND						
PCB 77	110	NG/KG	ND						
PCB 149	110	NG/KG	ND	ND	280	ND	ND	ND	ND
PCB 123	130	NG/KG	ND						
PCB 118	90	NG/KG	ND	ND	300	E82	ND	ND	ND
PCB 114	130	NG/KG	ND						
PCB 105	50	NG/KG	ND						
PCB 138	80	NG/KG	85	ND	330	ND	ND	ND	ND
PCB 158	70	NG/KG	ND						
PCB 187	110	NG/KG	ND	ND	180	ND	ND	ND	ND
PCB 183	60	NG/KG	ND						
PCB 126	70	NG/KG	ND						
PCB 128	80	NG/KG	ND	ND	87	ND	ND	ND	ND
PCB 167	30	NG/KG	ND						
PCB 177	70	NG/KG	ND						
PCB 201	70	NG/KG	ND						
PCB 156	90	NG/KG	ND						
PCB 157	100	NG/KG	ND						
PCB 180	80	NG/KG	90	ND	270	ND	ND	ND	ND
PCB 170	80	NG/KG	ND						
Total PCB's	200	NG/KG	175	0	2497	0	0	0	0

ND=not detected

E=Estimated value below MDL, but qualified.

SOUTH BAY OCEAN OUTFALL MONITORING
SEDIMENT ANNUAL - PCB Congeners Random Stations

Annual 2014

Source: Analyte	MDL	Units	8323 21-JUL-2014	8333 21-JUL-2014	8335 21-JUL-2014	8339 21-JUL-2014	8341 21-JUL-2014	8343 21-JUL-2014	8344 21-JUL-2014
PCB 18	90	NG/KG	ND						
PCB 28	60	NG/KG	ND						
PCB 52	90	NG/KG	ND						
PCB 49	70	NG/KG	ND						
PCB 44	100	NG/KG	ND						
PCB 37	90	NG/KG	ND						
PCB 74	100	NG/KG	ND						
PCB 70	60	NG/KG	ND						
PCB 66	100	NG/KG	ND						
PCB 101	100	NG/KG	ND						
PCB 99	120	NG/KG	ND						
PCB 119	80	NG/KG	ND						
PCB 87	200	NG/KG	ND						
PCB 110	110	NG/KG	ND						
PCB 81	130	NG/KG	ND						
PCB 151	80	NG/KG	ND						
PCB 77	110	NG/KG	ND						
PCB 149	110	NG/KG	ND						
PCB 123	130	NG/KG	ND						
PCB 118	90	NG/KG	ND						
PCB 114	130	NG/KG	ND						
PCB 105	50	NG/KG	ND						
PCB 138	80	NG/KG	ND						
PCB 158	70	NG/KG	ND						
PCB 187	110	NG/KG	ND						
PCB 183	60	NG/KG	ND						
PCB 126	70	NG/KG	ND						
PCB 128	80	NG/KG	ND						
PCB 167	30	NG/KG	ND						
PCB 177	70	NG/KG	ND						
PCB 201	70	NG/KG	ND						
PCB 156	90	NG/KG	ND						
PCB 157	100	NG/KG	ND						
PCB 180	80	NG/KG	ND						
PCB 170	80	NG/KG	ND						
Total PCB's	200	NG/KG	0	0	0	0	0	0	0

ND=not detected

SOUTH BAY OCEAN OUTFALL MONITORING
SEDIMENT ANNUAL - PCB Congeners Random Stations

Annual 2014

Source: Analyte	MDL	Units	8346 21-JUL-2014	8313 22-JUL-2014	8315 22-JUL-2014	8316 22-JUL-2014	8318 22-JUL-2014	8329 22-JUL-2014	8332 22-JUL-2014
PCB 18	90	NG/KG	ND						
PCB 28	60	NG/KG	ND						
PCB 52	90	NG/KG	ND	ND	ND	ND	ND	ND	520
PCB 49	70	NG/KG	ND	ND	ND	ND	ND	ND	130
PCB 44	100	NG/KG	ND						
PCB 37	90	NG/KG	ND						
PCB 74	100	NG/KG	ND						
PCB 70	60	NG/KG	ND	ND	ND	ND	91	81	380
PCB 66	100	NG/KG	ND	ND	ND	ND	120	E89	130
PCB 101	100	NG/KG	ND	ND	ND	ND	ND	ND	1400
PCB 99	120	NG/KG	ND	ND	ND	ND	ND	ND	560
PCB 119	80	NG/KG	ND						
PCB 87	200	NG/KG	ND	ND	ND	ND	ND	ND	680
PCB 110	110	NG/KG	ND	ND	ND	ND	ND	ND	1600
PCB 81	130	NG/KG	ND						
PCB 151	80	NG/KG	ND						
PCB 77	110	NG/KG	ND						
PCB 149	110	NG/KG	ND	ND	ND	ND	240	220	740
PCB 123	130	NG/KG	ND						
PCB 118	90	NG/KG	ND	ND	ND	ND	330	ND	1100
PCB 114	130	NG/KG	ND						
PCB 105	50	NG/KG	ND	ND	ND	ND	ND	ND	470
PCB 138	80	NG/KG	ND	ND	ND	ND	200	ND	1100
PCB 158	70	NG/KG	ND	ND	ND	ND	ND	ND	160
PCB 187	110	NG/KG	ND						
PCB 183	60	NG/KG	ND						
PCB 126	70	NG/KG	ND						
PCB 128	80	NG/KG	ND	ND	ND	ND	ND	ND	310
PCB 167	30	NG/KG	ND						
PCB 177	70	NG/KG	ND						
PCB 201	70	NG/KG	ND						
PCB 156	90	NG/KG	ND	ND	ND	ND	ND	ND	170
PCB 157	100	NG/KG	ND						
PCB 180	80	NG/KG	ND						
PCB 170	80	NG/KG	ND						
Total PCB's	200	NG/KG	0	0	0	0	981	301	9450

ND=not detected

E=Estimated value below MDL, but qualified.

SOUTH BAY OCEAN OUTFALL MONITORING
SEDIMENT ANNUAL - PCB Congeners Random Stations

Annual 2014

Source: Analyte	MDL	Units	8342 22-JUL-2014	8345 22-JUL-2014	8348 22-JUL-2014	8350 22-JUL-2014	8305 23-JUL-2014	8321 23-JUL-2014	8326 23-JUL-2014
PCB 18	90	NG/KG	ND	ND	ND	ND	ND	ND	140
PCB 28	60	NG/KG	ND	ND	ND	ND	ND	ND	260
PCB 52	90	NG/KG	ND						
PCB 49	70	NG/KG	ND						
PCB 44	100	NG/KG	ND						
PCB 37	90	NG/KG	ND	ND	ND	ND	ND	ND	270
PCB 74	100	NG/KG	ND	ND	ND	ND	ND	ND	310
PCB 70	60	NG/KG	ND						
PCB 66	100	NG/KG	E72	E98	ND	ND	ND	ND	150
PCB 101	100	NG/KG	150	220	ND	ND	ND	ND	450
PCB 99	120	NG/KG	ND	ND	ND	ND	ND	ND	390
PCB 119	80	NG/KG	ND	ND	ND	ND	ND	ND	240
PCB 87	200	NG/KG	ND	ND	ND	ND	ND	ND	420
PCB 110	110	NG/KG	ND	ND	ND	ND	ND	ND	470
PCB 81	130	NG/KG	ND	ND	ND	ND	ND	ND	320
PCB 151	80	NG/KG	ND	ND	ND	ND	ND	ND	300
PCB 77	110	NG/KG	ND	ND	ND	ND	ND	ND	240
PCB 149	110	NG/KG	ND	240	ND	ND	ND	ND	210
PCB 123	130	NG/KG	ND	ND	ND	ND	ND	ND	290
PCB 118	90	NG/KG	ND	ND	ND	ND	ND	ND	360
PCB 114	130	NG/KG	ND	ND	ND	ND	ND	ND	250
PCB 105	50	NG/KG	ND	ND	ND	ND	ND	ND	220
PCB 138	80	NG/KG	ND	200	ND	ND	ND	ND	240
PCB 158	70	NG/KG	ND						
PCB 187	110	NG/KG	ND						
PCB 183	60	NG/KG	ND						
PCB 126	70	NG/KG	ND	ND	ND	ND	ND	ND	150
PCB 128	80	NG/KG	ND						
PCB 167	30	NG/KG	ND	ND	ND	ND	ND	ND	130
PCB 177	70	NG/KG	ND						
PCB 201	70	NG/KG	ND						
PCB 156	90	NG/KG	ND						
PCB 157	100	NG/KG	ND						
PCB 180	80	NG/KG	ND						
PCB 170	80	NG/KG	ND	ND	ND	ND	ND	ND	140
Total PCB's	200	NG/KG	150	660	0	0	0	0	5950

ND=not detected

E=Estimated value below MDL, but qualified.

SOUTH BAY OCEAN OUTFALL MONITORING
SEDIMENT ANNUAL - PCB Congeners Random Stations

Annual 2014

Source: Analyte	MDL	Units	8337 23-JUL-2014	8338 23-JUL-2014	8351 23-JUL-2014	8347 25-JUL-2014	8309* 23-JUL-2014
PCB 18	90	NG/KG	ND	ND	ND	ND	320
PCB 28	60	NG/KG	ND	ND	ND	ND	740
PCB 52	90	NG/KG	ND	ND	ND	ND	930
PCB 49	70	NG/KG	ND	ND	ND	ND	640
PCB 44	100	NG/KG	ND	ND	ND	ND	600
PCB 37	90	NG/KG	ND	ND	ND	ND	130
PCB 74	100	NG/KG	ND	ND	ND	ND	270
PCB 70	60	NG/KG	ND	ND	ND	ND	550
PCB 66	100	NG/KG	ND	ND	ND	E53	490
PCB 101	100	NG/KG	ND	ND	ND	ND	500
PCB 99	120	NG/KG	ND	ND	ND	ND	240
PCB 119	80	NG/KG	ND	ND	ND	ND	ND
PCB 87	200	NG/KG	ND	ND	ND	ND	ND
PCB 110	110	NG/KG	ND	110	ND	ND	400
PCB 81	130	NG/KG	ND	ND	ND	ND	ND
PCB 151	80	NG/KG	ND	ND	ND	ND	ND
PCB 77	110	NG/KG	ND	ND	ND	ND	ND
PCB 149	110	NG/KG	ND	ND	ND	ND	320
PCB 123	130	NG/KG	ND	ND	ND	ND	ND
PCB 118	90	NG/KG	ND	ND	ND	ND	270
PCB 114	130	NG/KG	ND	ND	ND	ND	ND
PCB 105	50	NG/KG	ND	ND	ND	ND	130
PCB 138	80	NG/KG	ND	ND	ND	110	260
PCB 158	70	NG/KG	ND	ND	ND	ND	ND
PCB 187	110	NG/KG	ND	ND	ND	ND	180
PCB 183	60	NG/KG	ND	ND	ND	ND	ND
PCB 126	70	NG/KG	ND	ND	ND	ND	ND
PCB 128	80	NG/KG	ND	ND	ND	ND	ND
PCB 167	30	NG/KG	ND	ND	ND	ND	ND
PCB 177	70	NG/KG	ND	ND	ND	ND	ND
PCB 201	70	NG/KG	ND	ND	ND	ND	ND
PCB 156	90	NG/KG	ND	ND	ND	ND	ND
PCB 157	100	NG/KG	ND	ND	ND	ND	ND
PCB 180	80	NG/KG	ND	ND	ND	ND	170
PCB 170	80	NG/KG	ND	ND	ND	ND	ND
Total PCB's	200	NG/KG	0	110	0	110	7140

*=Sample non-reportable, failed QC.

ND=not detected

E=Estimated value below MDL, but qualified.

SOUTH BAY OCEAN OUTFALL MONITORING
SEDIMENT ANNUAL Base/Neutrals - Random Stations

Annual 2014

Source:		MDL	Units	8302 11-JUL-2014	8306 11-JUL-2014	8310 11-JUL-2014	8311 15-JUL-2014	8312 15-JUL-2014	8324 15-JUL-2014
Analyte									
Acenaphthene	20	UG/KG		ND	ND	ND	ND	ND	ND
Acenaphthylene	30	UG/KG		ND	ND	ND	ND	ND	ND
Anthracene	20	UG/KG		ND	ND	ND	ND	ND	ND
Benzo[a]anthracene	20	UG/KG		ND	ND	ND	ND	ND	ND
Benzo[a]pyrene	20	UG/KG		ND	ND	ND	ND	ND	ND
3,4-Benzo(b)fluoranthene	20	UG/KG		ND	ND	E12	ND	ND	ND
Benzo[e]pyrene	20	UG/KG		ND	ND	ND	ND	ND	ND
Benzo[g,h,i]perylene	20	UG/KG		ND	ND	ND	ND	ND	ND
Benzo[k]fluoranthene	20	UG/KG		ND	ND	ND	ND	ND	ND
Biphenyl	30	UG/KG		ND	ND	ND	ND	ND	ND
Chrysene	40	UG/KG		ND	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	20	UG/KG		ND	ND	ND	ND	ND	ND
2,6-Dimethylnaphthalene	20	UG/KG		E14	ND	E12	E8	ND	E8
Fluoranthene	20	UG/KG		ND	ND	E9	ND	ND	ND
Fluorene	20	UG/KG		ND	ND	ND	ND	ND	ND
Indeno(1,2,3-CD)pyrene	20	UG/KG		ND	ND	ND	ND	ND	ND
1-Methylphenanthrene	20	UG/KG		ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	20	UG/KG		ND	ND	ND	ND	ND	ND
1-Methylnaphthalene	20	UG/KG		ND	ND	ND	ND	ND	ND
Naphthalene	30	UG/KG		ND	ND	ND	ND	ND	ND
Perylene	30	UG/KG		ND	ND	ND	ND	ND	ND
Phanthrene	30	UG/KG		ND	ND	ND	ND	ND	ND
Pyrene	20	UG/KG		ND	ND	E11	ND	ND	ND
2,3,5-Trimethylnaphthalene	20	UG/KG		ND	ND	ND	ND	ND	ND
Base/Neutral Compounds				0	0	0	0	0	0

Source:		MDL	Units	8327 15-JUL-2014	8328 15-JUL-2014	8304 16-JUL-2014	8308 16-JUL-2014	8336 16-JUL-2014	8301 21-JUL-2014
Analyte									
Acenaphthene	20	UG/KG		ND	ND	ND	ND	ND	ND
Acenaphthylene	30	UG/KG		ND	ND	ND	E8	ND	ND
Anthracene	20	UG/KG		ND	ND	ND	E15	ND	ND
Benzo[a]anthracene	20	UG/KG		ND	ND	ND	30	ND	ND
Benzo[a]pyrene	20	UG/KG		ND	ND	ND	80	ND	ND
3,4-Benzo(b)fluoranthene	20	UG/KG		ND	ND	ND	100	ND	ND
Benzo[e]pyrene	20	UG/KG		ND	ND	ND	50	ND	ND
Benzo[g,h,i]perylene	20	UG/KG		ND	ND	ND	40	ND	ND
Benzo[k]fluoranthene	20	UG/KG		ND	ND	ND	40	ND	ND
Biphenyl	30	UG/KG		ND	ND	ND	ND	ND	ND
Chrysene	40	UG/KG		ND	ND	ND	40	ND	ND
Dibenzo(a,h)anthracene	20	UG/KG		ND	ND	ND	ND	ND	ND
2,6-Dimethylnaphthalene	20	UG/KG		E13	E12	ND	E11	E12	ND
Fluoranthene	20	UG/KG		ND	ND	ND	30	ND	ND
Fluorene	20	UG/KG		ND	ND	ND	ND	ND	ND
Indeno(1,2,3-CD)pyrene	20	UG/KG		ND	ND	ND	40	ND	ND
1-Methylphenanthrene	20	UG/KG		ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	20	UG/KG		ND	ND	ND	ND	ND	ND
1-Methylnaphthalene	20	UG/KG		ND	ND	ND	ND	ND	ND
Naphthalene	30	UG/KG		ND	ND	ND	ND	ND	ND
Perylene	30	UG/KG		ND	ND	ND	E13	ND	ND
Phanthrene	30	UG/KG		ND	ND	ND	ND	ND	ND
Pyrene	20	UG/KG		ND	ND	ND	50	ND	ND
2,3,5-Trimethylnaphthalene	20	UG/KG		ND	ND	ND	ND	ND	ND
Base/Neutral Compounds				0	0	0	500	0	0

ND=not detected

E=Estimated value below MDL, but qualified.

SOUTH BAY OCEAN OUTFALL MONITORING
SEDIMENT ANNUAL Base/Neutrals - Random Stations

Annual 2014

Source:		MDL	Units	8307 21-JUL-2014	8319 21-JUL-2014	8323 21-JUL-2014	8333 21-JUL-2014	8335 21-JUL-2014	8339 21-JUL-2014
Analyte									
Acenaphthene	20	UG/KG		ND	ND	ND	ND	ND	ND
Acenaphthylene	30	UG/KG		ND	ND	ND	ND	ND	ND
Anthracene	20	UG/KG		ND	ND	ND	ND	ND	ND
Benzo[a]anthracene	20	UG/KG		ND	ND	ND	ND	ND	ND
Benzo[a]pyrene	20	UG/KG		ND	ND	ND	ND	ND	ND
3,4-Benzo(b)fluoranthene	20	UG/KG		ND	ND	ND	ND	ND	ND
Benzo[e]pyrene	20	UG/KG		ND	ND	ND	ND	E14	ND
Benzo[g,h,i]perylene	20	UG/KG		ND	ND	ND	ND	E13	ND
Benzo[k]fluoranthene	20	UG/KG		ND	ND	ND	ND	ND	ND
Biphenyl	30	UG/KG		ND	ND	ND	E7	ND	ND
Chrysene	40	UG/KG		ND	ND	ND	ND	ND	ND
Dibenz(a,h)anthracene	20	UG/KG		ND	ND	ND	ND	ND	ND
2,6-Dimethylnaphthalene	20	UG/KG		ND	E10	ND	E13	40	30
Fluoranthene	20	UG/KG		ND	ND	ND	E9	ND	E15
Fluorene	20	UG/KG		ND	ND	ND	ND	ND	ND
Indeno(1,2,3-CD)pyrene	20	UG/KG		ND	ND	ND	ND	ND	ND
1-Methylphenanthrene	20	UG/KG		ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	20	UG/KG		ND	ND	ND	ND	ND	ND
1-Methylnaphthalene	20	UG/KG		ND	ND	ND	ND	ND	ND
Naphthalene	30	UG/KG		ND	ND	ND	ND	ND	ND
Perylene	30	UG/KG		ND	ND	ND	ND	E13	ND
Phenanthrene	30	UG/KG		ND	ND	ND	ND	ND	ND
Pyrene	20	UG/KG		ND	ND	ND	E11	E16	E13
2,3,5-Trimethylnaphthalene	20	UG/KG		ND	ND	ND	ND	ND	ND
Base/Neutral Compounds				0	0	0	0	40	0

Source:		MDL	Units	8341 21-JUL-2014	8343 21-JUL-2014	8344 21-JUL-2014	8346 21-JUL-2014	8313 22-JUL-2014	8315 22-JUL-2014
Analyte									
Acenaphthene	20	UG/KG		ND	ND	ND	ND	ND	ND
Acenaphthylene	30	UG/KG		ND	ND	ND	ND	ND	ND
Anthracene	20	UG/KG		ND	ND	ND	ND	ND	ND
Benzo[a]anthracene	20	UG/KG		ND	ND	ND	ND	ND	ND
Benzo[a]pyrene	20	UG/KG		ND	ND	ND	ND	E10	ND
3,4-Benzo(b)fluoranthene	20	UG/KG		ND	ND	ND	ND	ND	ND
Benzo[e]pyrene	20	UG/KG		ND	ND	ND	ND	E9	ND
Benzo[g,h,i]perylene	20	UG/KG		ND	ND	ND	ND	E10	ND
Benzo[k]fluoranthene	20	UG/KG		ND	ND	ND	ND	ND	ND
Biphenyl	30	UG/KG		ND	ND	ND	ND	ND	ND
Chrysene	40	UG/KG		ND	ND	ND	ND	ND	ND
Dibenz(a,h)anthracene	20	UG/KG		ND	ND	ND	ND	ND	ND
2,6-Dimethylnaphthalene	20	UG/KG		E7	ND	E19	E7	<20	E11
Fluoranthene	20	UG/KG		ND	ND	E12	ND	E7	ND
Fluorene	20	UG/KG		ND	ND	ND	ND	ND	ND
Indeno(1,2,3-CD)pyrene	20	UG/KG		ND	ND	ND	ND	<20	ND
1-Methylphenanthrene	20	UG/KG		ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	20	UG/KG		ND	ND	ND	ND	ND	ND
1-Methylnaphthalene	20	UG/KG		ND	ND	ND	ND	ND	ND
Naphthalene	30	UG/KG		ND	ND	ND	ND	ND	ND
Perylene	30	UG/KG		ND	ND	ND	ND	ND	ND
Phenanthrene	30	UG/KG		ND	ND	ND	ND	ND	ND
Pyrene	20	UG/KG		ND	ND	ND	ND	E8	ND
2,3,5-Trimethylnaphthalene	20	UG/KG		ND	ND	ND	ND	ND	ND
Base/Neutral Compounds				0	0	0	0	0	0

ND=not detected

E=Estimated value below MDL, but qualified.

SOUTH BAY OCEAN OUTFALL MONITORING
SEDIMENT ANNUAL Base/Neutrals - Random Stations

Annual 2014

Source: Analyte	MDL	Units	8316 22-JUL-2014	8318 22-JUL-2014	8329 22-JUL-2014	8332 22-JUL-2014	8342 22-JUL-2014	8345 22-JUL-2014
Acenaphthene	20	UG/KG	ND	ND	ND	ND	ND	ND
Acenaphthylene	30	UG/KG	ND	ND	ND	ND	ND	E10
Anthracene	20	UG/KG	ND	ND	ND	ND	ND	E14
Benzo[a]anthracene	20	UG/KG	ND	ND	ND	ND	ND	30
Benzo[a]pyrene	20	UG/KG	ND	20	E14	ND	E8	70
3,4-Benzo(b)fluoranthene	20	UG/KG	ND	20	E16	ND	ND	90
Benzo[e]pyrene	20	UG/KG	ND	E14	E9	ND	ND	50
Benzo[g,h,i]perylene	20	UG/KG	ND	E15	E10	ND	ND	40
Benzo[k]fluoranthene	20	UG/KG	ND	E9	ND	ND	ND	40
Biphenyl	30	UG/KG	ND	E9	ND	ND	ND	E8
Chrysene	40	UG/KG	ND	E12	E11	ND	ND	50
Dibenzo(a,h)anthracene	20	UG/KG	ND	ND	ND	ND	ND	ND
2,6-Dimethylnaphthalene	20	UG/KG	ND	E15	E9	ND	E10	E13
Fluoranthene	20	UG/KG	ND	E18	E13	ND	E7	30
Fluorene	20	UG/KG	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-CD)pyrene	20	UG/KG	ND	E12	E9	ND	ND	40
1-Methylphenanthrene	20	UG/KG	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	20	UG/KG	ND	ND	ND	ND	ND	ND
1-Methylnaphthalene	20	UG/KG	ND	ND	ND	ND	ND	ND
Naphthalene	30	UG/KG	ND	ND	ND	ND	ND	ND
Perylene	30	UG/KG	ND	ND	ND	ND	ND	ND
Phenanthrene	30	UG/KG	ND	ND	ND	ND	ND	E10
Pyrene	20	UG/KG	ND	E20	E16	ND	E9	40
2,3,5-Trimethylnaphthalene	20	UG/KG	ND	ND	ND	ND	ND	ND
Base/Neutral Compounds			0	40	0	0	0	488

Source: Analyte	MDL	Units	8348 22-JUL-2014	8350 22-JUL-2014	8305 23-JUL-2014	8309 23-JUL-2014	8321 23-JUL-2014	8326 23-JUL-2014
Acenaphthene	20	UG/KG	ND	ND	ND	ND	ND	ND
Acenaphthylene	30	UG/KG	ND	ND	ND	ND	ND	ND
Anthracene	20	UG/KG	ND	ND	ND	ND	ND	ND
Benzo[a]anthracene	20	UG/KG	ND	ND	ND	ND	ND	ND
Benzo[a]pyrene	20	UG/KG	ND	ND	ND	ND	ND	ND
3,4-Benzo(b)fluoranthene	20	UG/KG	ND	ND	ND	ND	ND	E9
Benzo[e]pyrene	20	UG/KG	ND	ND	ND	ND	ND	ND
Benzo[g,h,i]perylene	20	UG/KG	ND	ND	ND	ND	ND	ND
Benzo[k]fluoranthene	20	UG/KG	ND	ND	ND	ND	ND	ND
Biphenyl	30	UG/KG	ND	ND	ND	ND	ND	ND
Chrysene	40	UG/KG	ND	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	20	UG/KG	ND	ND	ND	ND	ND	ND
2,6-Dimethylnaphthalene	20	UG/KG	E12	E6	ND	ND	ND	E13
Fluoranthene	20	UG/KG	E6	ND	ND	ND	ND	E10
Fluorene	20	UG/KG	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-CD)pyrene	20	UG/KG	ND	ND	ND	ND	ND	ND
1-Methylphenanthrene	20	UG/KG	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	20	UG/KG	ND	ND	ND	ND	ND	ND
1-Methylnaphthalene	20	UG/KG	ND	ND	ND	ND	ND	ND
Naphthalene	30	UG/KG	ND	ND	ND	ND	ND	ND
Perylene	30	UG/KG	ND	ND	ND	ND	ND	ND
Phenanthrene	30	UG/KG	ND	ND	ND	ND	ND	ND
Pyrene	20	UG/KG	E7	ND	ND	ND	ND	E10
2,3,5-Trimethylnaphthalene	20	UG/KG	ND	ND	ND	ND	ND	ND
Base/Neutral Compounds			0	0	0	0	0	0

ND=not detected

E=Estimated value below MDL, but qualified.

SOUTH BAY OCEAN OUTFALL MONITORING
SEDIMENT ANNUAL Base/Neutrals - Random Stations

Annual 2014

Source: Analyte	MDL	Units	8337 23-JUL-2014	8338 23-JUL-2014	8351 23-JUL-2014	8347 25-JUL-2014
Acenaphthene	20	UG/KG	ND	ND	ND	ND
Acenaphthylene	30	UG/KG	ND	ND	ND	ND
Anthracene	20	UG/KG	ND	ND	ND	ND
Benzo[a]anthracene	20	UG/KG	ND	ND	ND	ND
Benzo[a]pyrene	20	UG/KG	ND	ND	ND	ND
3,4-Benzo(b)fluoranthene	20	UG/KG	ND	ND	ND	ND
Benzo[e]pyrene	20	UG/KG	ND	ND	ND	ND
Benzo[g,h,i]perylene	20	UG/KG	ND	ND	ND	ND
Benzo[k]fluoranthene	20	UG/KG	ND	ND	ND	ND
Biphenyl	30	UG/KG	ND	ND	ND	ND
Chrysene	40	UG/KG	ND	ND	ND	ND
Dibenz(a,h)anthracene	20	UG/KG	ND	ND	ND	ND
2,6-Dimethylnaphthalene	20	UG/KG	E15	E14	E12	ND
Fluoranthene	20	UG/KG	ND	ND	ND	ND
Fluorene	20	UG/KG	ND	ND	ND	ND
Indeno(1,2,3-CD)pyrene	20	UG/KG	ND	ND	ND	ND
1-Methylphenanthrene	20	UG/KG	ND	ND	ND	ND
2-Methylnaphthalene	20	UG/KG	ND	ND	ND	ND
1-Methylnaphthalene	20	UG/KG	ND	ND	ND	ND
Naphthalene	30	UG/KG	ND	ND	ND	ND
Perylene	30	UG/KG	ND	ND	ND	ND
Phenanthrene	30	UG/KG	ND	ND	ND	ND
Pyrene	20	UG/KG	ND	ND	ND	ND
2,3,5-Trimethylnaphthalene	20	UG/KG	ND	ND	ND	E8
Base/Neutral Compounds			0	0	0	0

ND=not detected

E=Estimated value below MDL, but qualified.

B. Fish Tissue Data.

Fish were taken from the following stations during 2014. The fish were dissected, preserved by freezing, and each sample analyzed for PAHs, trace metals, chlorinated pesticides and PCBs. Lipids and total solids were also determined for each sample.

The reported values are annual averages. Results for individual sampling events are contained in the previously published quarterly reports.

Station

RF-3

RF-4

Station

SD-15

SD-16

SD-17

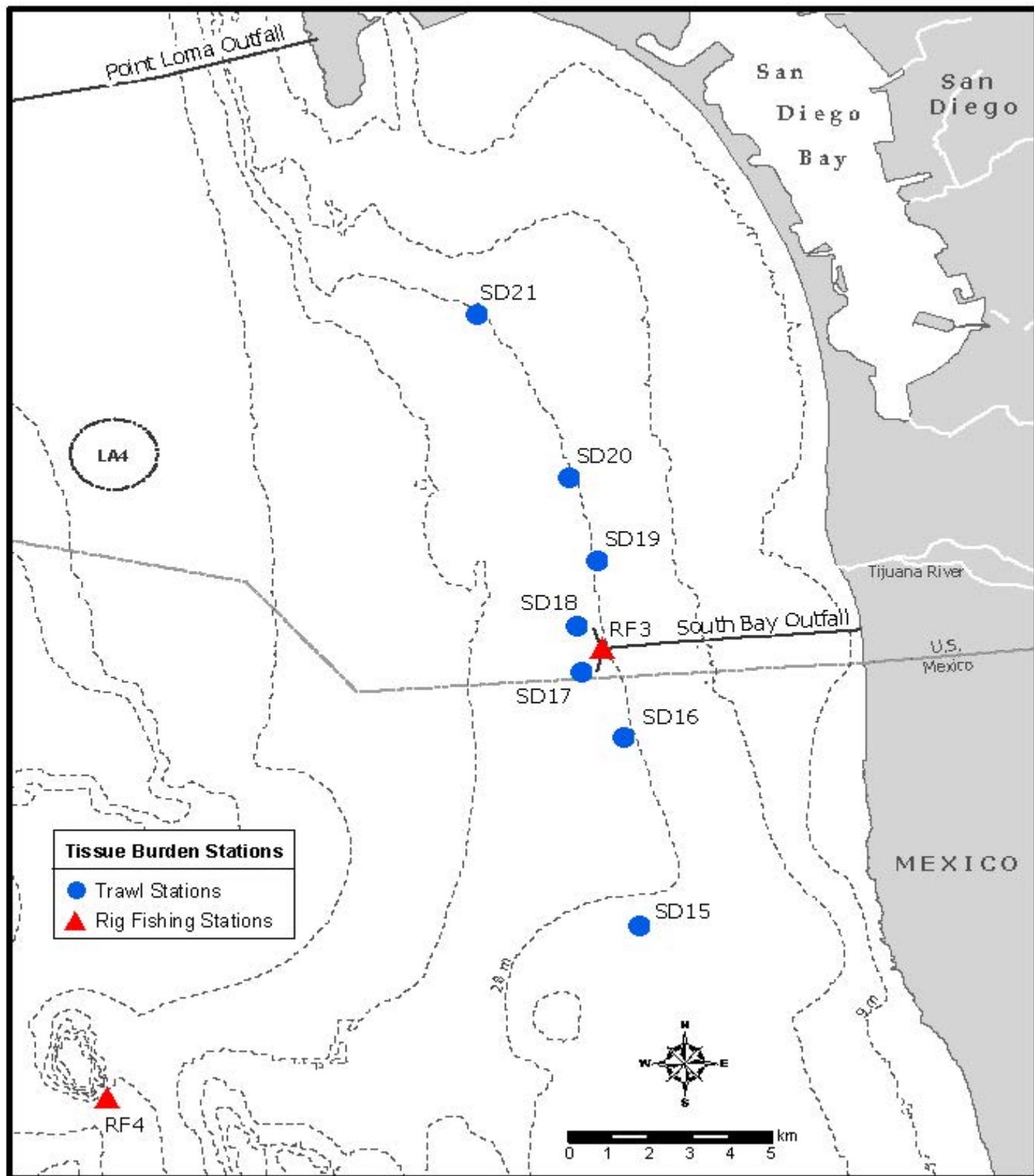
SD-18

SD-19

SD-20

SD-21

South Bay Rig Fishing and Trawl Stations



SOUTH BAY WATER RECLAMATION PLANT
TISSUE

FISH - Lipids & Total Solids

Annual 2014

Source:	SD-15	SD-16	SD-17	SD-18	SD-19	SD-20
Date:	2014	2014	2014	2014	2014	2014
Tissue Analyte	MDL Units	Avg	Avg	Avg	Avg	Avg
Liver Lipids	.09 WT%	3.1	5.5	10.2	12.3	7.4
Liver Total Solids	.4 WT%	26.2	27.3	30.1	37.5	27.5

Source:	SD-21	RF-3	RF-4	
Date:	2014	2014	2014	
Tissue Analyte	MDL Units	Avg	Avg	Avg
Liver Lipids	.09 WT%	27.2		
Liver Total Solids	.4 WT%	42.3		
Muscle Lipids	.09 WT%		0.2	0.2
Muscle Total Solids	.4 WT%		20.8	21.9

ND= not detected

SOUTH BAY WATER RECLAMATION PLANT
ANNUAL FISH TISSUE - MUSCLE

Trace Metals

Annual 2014

Source:	RF-3		RF-4	
Date:	2014		2014	
Analyte	MDL	Units	Average	Average
Aluminum	1.2	MG/KG	<1	<1
Antimony	.1	MG/KG	ND	ND
Arsenic	.12	MG/KG	3.36	2.21
Beryllium	.002	MG/KG	ND	<0.002
Cadmium	.06	MG/KG	0.07	<0.06
Chromium	.1	MG/KG	ND	ND
Copper	.3	MG/KG	<0.3	<0.3
Iron	2	MG/KG	<2	<2
Lead	.2	MG/KG	ND	<0.2
Manganese	.1	MG/KG	0.1	0.1
Mercury	.002	MG/KG	0.5	0.8
Nickel	.2	MG/KG	ND	ND
Selenium	.06	MG/KG	0.30	0.28
Silver	.05	MG/KG	ND	ND
Thallium	.1	MG/KG	ND	ND
Tin	.2	MG/KG	ND	ND
Zinc	.15	MG/KG	2.8	2.7
Total Solids	.4	WT%	20.8	21.9

ND= not detected

SOUTH BAY WATER RECLAMATION PLANT
ANNUAL FISH TISSUE - LIVER

Trace Metals

Annual 2014

Source:		SD-15	SD-16	SD-17	SD-18	SD-19
Date:		2014	2014	2014	2014	2014
Analyte	MDL	Units	Average	Average	Average	Average
Aluminum	1.2	MG/KG	2	ND	3	2
Antimony	.1	MG/KG	ND	ND	ND	ND
Arsenic	.12	MG/KG	25.0	2.95	4.04	5.41
Beryllium	.002	MG/KG	ND	ND	0.002	0.003
Cadmium	.06	MG/KG	2.60	1.24	2.47	3.75
Chromium	.1	MG/KG	0.3	0.1	<0.1	0.1
Copper	.3	MG/KG	10.0	6.5	8.5	7.0
Iron	2	MG/KG	70	62	77	92
Lead	.2	MG/KG	<0.2	ND	<0.2	<0.2
Manganese	.1	MG/KG	1.4	1.4	1.3	1.1
Mercury	.002	MG/KG	0.333	0.193	0.228	0.249
Nickel	.2	MG/KG	0.2	ND	ND	ND
Selenium	.06	MG/KG	1.25	0.91	1.12	1.04
Silver	.05	MG/KG	0.1	0.2	0.2	0.1
Thallium	.1	MG/KG	ND	ND	ND	ND
Tin	.2	MG/KG	ND	ND	ND	ND
Zinc	.15	MG/KG	57.5	47.8	73.5	58.3
Total Solids	.4	WT%	26.2	27.3	30.1	37.5

Source:		SD-20	SD-21	
Date:		2014	2014	
Analyte	MDL	Units	Average	Average
Aluminum	1.2	MG/KG	2	2
Antimony	.1	MG/KG	0.1	ND
Arsenic	.12	MG/KG	3.95	3.88
Beryllium	.002	MG/KG	0.003	0.002
Cadmium	.06	MG/KG	2.61	0.76
Chromium	.1	MG/KG	<0.1	ND
Copper	.3	MG/KG	6.1	6.6
Iron	2	MG/KG	100	51
Lead	.2	MG/KG	<0.2	<0.2
Manganese	.1	MG/KG	1.1	0.7
Mercury	.002	MG/KG	0.212	0.121
Nickel	.2	MG/KG	ND	ND
Selenium	.06	MG/KG	0.81	0.61
Silver	.05	MG/KG	0.1	0.1
Thallium	.1	MG/KG	ND	ND
Tin	.2	MG/KG	ND	ND
Zinc	.15	MG/KG	43.3	85.1
Total Solids	.4	WT%	42.2	42.3

ND= not detected

SOUTH BAY WATER RECLAMATION PLANT
FISH LIVER - Chlorinated Pesticides

Annual 2014

Source:		SD-15	SD-16	SD-17	SD-18	SD-19
Date:		2014	2014	2014	2014	2014
Analyte	MDL	Units	Average Value	Average Value	Average Value	Average Value
Hexachlorobenzene		UG/KG	E1.20	E1.20	E3.50	E3.60
BHC, Gamma isomer	50.4	UG/KG	ND	ND	ND	ND
Heptachlor	2.1	UG/KG	ND	ND	ND	ND
Aldrin	25.3	UG/KG	ND	ND	ND	ND
Heptachlor epoxide	3.79	UG/KG	ND	ND	ND	ND
o,p-DDE	2.52	UG/KG	ND	ND	ND	<2.52
Alpha Endosulfan	24.7	UG/KG	ND	ND	ND	ND
Alpha (cis) Chlordane	2.02	UG/KG	ND	ND	ND	ND
Trans Nonachlor	1.44	UG/KG	ND	ND	ND	ND
p,p-DDE	4.94	UG/KG	11.00	24.00	51.50	249.00
Dieldrin	12.6	UG/KG	ND	ND	ND	ND
o,p-DDD	1.98	UG/KG	ND	ND	ND	ND
Endrin	30.3	UG/KG	ND	ND	ND	ND
o,p-DDT	2.05	UG/KG	ND	ND	ND	ND
p,p-DDD	2.86	UG/KG	ND	ND	ND	<2.86
p,p-DDT	2.76	UG/KG	ND	ND	ND	3.00
Mirex	1.77	UG/KG	ND	ND	ND	ND

Source:		SD-20	SD-21	
Date:		2014	2014	
Analyte	MDL	Units	Average Value	Average Value
Hexachlorobenzene	2.29	UG/KG	<2.29	<2.29
BHC, Gamma isomer	50.4	UG/KG	ND	ND
Heptachlor	2.1	UG/KG	ND	ND
Aldrin	25.3	UG/KG	ND	ND
Heptachlor epoxide	3.79	UG/KG	ND	ND
o,p-DDE	2.52	UG/KG	3.40	<2.52
Alpha Endosulfan	24.7	UG/KG	ND	ND
Alpha (cis) Chlordane	2.02	UG/KG	ND	ND
Trans Nonachlor	1.44	UG/KG	ND	ND
p,p-DDE	4.94	UG/KG	347	153
Dieldrin	12.6	UG/KG	ND	ND
o,p-DDD	1.98	UG/KG	ND	ND
Endrin	30.3	UG/KG	ND	ND
o,p-DDT	2.05	UG/KG	ND	ND
p,p-DDD	2.86	UG/KG	<2.86	3.87
p,p-DDT	2.76	UG/KG	2.80	<2.76
Mirex	1.77	UG/KG	ND	ND

ND= not detected

E=estimated value, value is less than the Method Detection Limit but confirmed by GC/MS-MS

SOUTH BAY WATER RECLAMATION PLANT
FISH MUSCLE - Chlorinated Pesticides

Annual 2014

Source:		RF-3	RF-4
Date:		2014	2014
Analyte	MDL	Units	Avg
Hexachlorobenzene	.23	UG/KG	<0.23
BHC, Gamma isomer	5.04	UG/KG	ND
Heptachlor	.21	UG/KG	ND
Aldrin	2.53	UG/KG	ND
Heptachlor epoxide	.38	UG/KG	ND
o,p-DDE	.25	UG/KG	ND
Alpha Endosulfan	2.47	UG/KG	ND
Alpha (cis) Chlordane	.2	UG/KG	ND
Trans Nonachlor	.14	UG/KG	ND
p,p-DDE	.49	UG/KG	<0.49
Dieldrin	1.26	UG/KG	ND
o,p-DDD	.2	UG/KG	ND
Endrin	3.03	UG/KG	ND
o,p-DDT	.2	UG/KG	ND
p,p-DDD	.29	UG/KG	ND
p,p-DDT	.28	UG/KG	ND
Mirex	.18	UG/KG	ND

ND= not detected

SOUTH BAY WATER RECLAMATION PLANT
FISH LIVER - Analysis of Poly Aromatic Hydrocarbon (PAH)

Annual 2014

Source:		SD-15	SD-16	SD-17	SD-18
Date:		2014	2014	2014	2014
Analyte	MDL Units	Avg	Avg	Avg	Avg
Acenaphthene	28.9 UG/KG	NA	ND	ND	ND
Acenaphthylene	24.7 UG/KG	NA	ND	ND	ND
Anthracene	25.3 UG/KG	NA	ND	ND	ND
Benzo[a]anthracene	47.3 UG/KG	NA	ND	ND	ND
Benzo[a]pyrene	42.9 UG/KG	NA	ND	ND	ND
3,4-Benzo(b)fluoranthene	30.2 UG/KG	NA	ND	ND	ND
Benzo[e]pyrene	41.8 UG/KG	NA	ND	ND	ND
Benzo[g,h,i]perylene	27.2 UG/KG	NA	ND	ND	ND
Benzo[k]fluoranthene	32 UG/KG	NA	ND	ND	ND
Biphenyl	38 UG/KG	NA	ND	ND	ND
Chrysene	18.1 UG/KG	NA	ND	ND	ND
Dibenzo(a,h)anthracene	37.6 UG/KG	NA	ND	ND	ND
2,6-Dimethylnaphthalene	21.7 UG/KG	NA	ND	ND	<21.7
Fluoranthene	19.9 UG/KG	NA	ND	ND	ND
Fluorene	27.3 UG/KG	NA	ND	ND	ND
Indeno(1,2,3-CD)pyrene	25.6 UG/KG	NA	ND	ND	ND
1-Methylnaphthalene	27.9 UG/KG	NA	ND	ND	ND
2-Methylnaphthalene	35.8 UG/KG	NA	ND	ND	ND
1-Methylphenanthrene	17.4 UG/KG	NA	ND	ND	ND
Naphthalene	34.2 UG/KG	NA	ND	ND	ND
Perylene	18.5 UG/KG	NA	ND	ND	ND
Phenanthrene	11.6 UG/KG	NA	ND	ND	ND
Pyrene	9.1 UG/KG	NA	ND	ND	ND
2,3,5-Trimethylnaphthalene	21.7 UG/KG	NA	ND	ND	ND

Source:		SD-19	SD-20	SD-21
Date:		2014	2014	2014
Analyte	MDL Units	Avg	Avg	Avg
Acenaphthene	28.9 UG/KG	ND	NA	ND
Acenaphthylene	24.7 UG/KG	ND	NA	ND
Anthracene	25.3 UG/KG	ND	NA	ND
Benzo[a]anthracene	47.3 UG/KG	ND	NA	ND
Benzo[a]pyrene	42.9 UG/KG	ND	NA	ND
3,4-Benzo(b)fluoranthene	30.2 UG/KG	ND	NA	ND
Benzo[e]pyrene	41.8 UG/KG	ND	NA	ND
Benzo[g,h,i]perylene	27.2 UG/KG	ND	NA	ND
Benzo[k]fluoranthene	32 UG/KG	ND	NA	ND
Biphenyl	38 UG/KG	ND	NA	ND
Chrysene	18.1 UG/KG	ND	NA	ND
Dibenzo(a,h)anthracene	37.6 UG/KG	ND	NA	ND
2,6-Dimethylnaphthalene	21.7 UG/KG	ND	NA	ND
Fluoranthene	19.9 UG/KG	ND	NA	ND
Fluorene	27.3 UG/KG	ND	NA	ND
Indeno(1,2,3-CD)pyrene	25.6 UG/KG	ND	NA	ND
1-Methylnaphthalene	27.9 UG/KG	ND	NA	ND
2-Methylnaphthalene	35.8 UG/KG	ND	NA	ND
1-Methylphenanthrene	17.4 UG/KG	ND	NA	ND
Naphthalene	34.2 UG/KG	ND	NA	ND
Perylene	18.5 UG/KG	ND	NA	ND
Phenanthrene	11.6 UG/KG	ND	NA	ND
Pyrene	9.1 UG/KG	ND	NA	ND
2,3,5-Trimethylnaphthalene	21.7 UG/KG	ND	NA	ND

ND= not detected

NA= not analyzed, the sample jar was empty.

SOUTH BAY WATER RECLAMATION PLANT
ANNUAL FISH MUSCLE - Analysis of Poly Aromatic Hydrocarbon (PAH)

Annual 2014

Source:		RF-3	RF-4
Date:		2014	2014
Analyte	MDL Units	Avg	Avg
<hr/>			
Acenaphthene	11.3 UG/KG	ND	ND
Acenaphthylene	9.1 UG/KG	ND	ND
Anthracene	8.4 UG/KG	ND	ND
Benzo[a]anthracene	15.9 UG/KG	ND	ND
Benzo[a]pyrene	18.3 UG/KG	ND	ND
3,4-Benzo(b)fluoranthene	26.8 UG/KG	ND	ND
Benzo[e]pyrene	40.6 UG/KG	ND	ND
Benzo[g,h,i]perylene	59.5 UG/KG	ND	ND
Benzo[k]fluoranthene	37.3 UG/KG	ND	ND
Biphenyl	19.9 UG/KG	ND	ND
Chrysene	23 UG/KG	ND	ND
Dibenzo(a,h)anthracene	40.3 UG/KG	ND	ND
2,6-Dimethylnaphthalene	19.5 UG/KG	ND	ND
Fluoranthene	12.9 UG/KG	ND	ND
Fluorene	11.4 UG/KG	ND	ND
Indeno(1,2,3-CD)pyrene	46.5 UG/KG	ND	ND
1-Methylnaphthalene	26.4 UG/KG	ND	ND
2-Methylnaphthalene	13.2 UG/KG	ND	ND
1-Methylphenanthrene	23.3 UG/KG	ND	ND
Naphthalene	17.4 UG/KG	ND	ND
Perylene	50.9 UG/KG	ND	ND
Phenanthrene	12.9 UG/KG	ND	ND
Pyrene	16.6 UG/KG	ND	ND
2,3,5-Trimethylnaphthalene	21.6 UG/KG	ND	ND

ND= not detected

SOUTH BAY WATER RECLAMATION PLANT
ANNUAL FISH LIVER - Analysis of Poly Chlorinated Biphenyls

Annual 2014

Source:		SD-15	SD-16	SD-17	SD-18	SD-19	SD-20	SD-21
Date:		01-OCT-2014	01-OCT-2014	02-OCT-2014	02-OCT-2014	02-OCT-2014	02-OCT-2014	07-OCT-2014
Analyte	MDL	Units	Value	Value	Value	Value	Value	Value
PCB 18	1.49	UG/KG	ND	ND	ND	ND	ND	ND
PCB 28	1.47	UG/KG	ND	ND	ND	ND	<1.47	ND
PCB 49	1.67	UG/KG	ND	ND	ND	E1.25	<1.67	2.33
PCB 37	2.03	UG/KG	ND	ND	ND	ND	ND	ND
PCB 70	2.05	UG/KG	ND	ND	ND	ND	ND	<2.05
PCB 101	1.7	UG/KG	ND	ND	3.13	ND	4.65	6.83
PCB 119	2.72	UG/KG	ND	ND	ND	ND	ND	ND
PCB 87	1.95	UG/KG	ND	ND	ND	ND	ND	ND
PCB 110	2.13	UG/KG	ND	ND	<2.13	ND	<2.13	2.20
PCB 151	1.52	UG/KG	ND	ND	2.70	ND	2.95	1.97
PCB 77	3.32	UG/KG	ND	ND	ND	ND	ND	ND
PCB 149	1.92	UG/KG	ND	ND	<1.92	3.03	2.65	5.50
PCB 123	3.04	UG/KG	ND	ND	<3.04	ND	<3.04	ND
PCB 118	2.56	UG/KG	ND	ND	8.27	4.60	11.0	13.0
PCB 114	2.77	UG/KG	ND	ND	ND	ND	ND	ND
PCB 153/168	3.76	UG/KG	ND	E3.70	5.20	35.5	9.70	40.3
PCB 105	2.28	UG/KG	ND	ND	<2.28	ND	2.80	2.37
PCB 138	1.93	UG/KG	ND	ND	2.50	16.20	5.50	22.10
PCB 158	2.55	UG/KG	ND	ND	<2.55	ND	<2.55	<2.55
PCB 187	2.25	UG/KG	ND	E1.80	2.55	15.7	4.30	20.4
PCB 183	2.06	UG/KG	ND	ND	2.97	ND	4.60	4.30
PCB 126	1.93	UG/KG	ND	ND	ND	ND	ND	ND
PCB 128	2.28	UG/KG	ND	ND	<2.28	ND	3.80	3.23
PCB 167	2.05	UG/KG	ND	ND	<2.05	ND	<2.05	<2.05
PCB 177	1.96	UG/KG	ND	ND	ND	ND	3.85	3.17
PCB 156	2.33	UG/KG	ND	ND	<2.33	ND	<2.33	<2.33
PCB 157	2.77	UG/KG	ND	ND	ND	ND	ND	ND
PCB 180	2.89	UG/KG	ND	ND	<2.89	11.20	E3.85	12.50
PCB 170	2.16	UG/KG	ND	ND	4.00	ND	6.00	5.67
PCB 169	1.41	UG/KG	ND	ND	ND	ND	ND	ND
PCB 189	1.78	UG/KG	ND	ND	ND	ND	ND	ND
PCB 194	3.41	UG/KG	ND	ND	<3.41	ND	4.10	<3.41
PCB 206	1.84	UG/KG	ND	ND	<1.84	ND	2.65	2.43

ND= not detected

E=estimated value, value is less than the Method Detection Limit but confirmed by GC/MS-MS.

SOUTH BAY WATER RECLAMATION PLANT
ANNUAL FISH MUSCLE - Analysis of Poly Chlorinated Biphenyls

Annual 2014

Source:		RF-3	RF-4
Date:		2014	2014
Analyte	MDL Units	Avg	Avg
PCB 18	.15 UG/KG	ND	ND
PCB 28	.15 UG/KG	ND	ND
PCB 49	.17 UG/KG	ND	ND
PCB 37	.2 UG/KG	ND	ND
PCB 70	.2 UG/KG	ND	ND
PCB 101	.17 UG/KG	ND	ND
PCB 119	.27 UG/KG	ND	ND
PCB 87	.19 UG/KG	ND	ND
PCB 110	.21 UG/KG	ND	ND
PCB 151	.15 UG/KG	ND	ND
PCB 77	.33 UG/KG	ND	ND
PCB 149	.19 UG/KG	ND	ND
PCB 123	.3 UG/KG	ND	ND
PCB 118	.26 UG/KG	ND	ND
PCB 114	.28 UG/KG	ND	ND
PCB 153/168	.38 UG/KG	ND	<0.38
PCB 105	.23 UG/KG	ND	ND
PCB 138	.19 UG/KG	ND	ND
PCB 158	.26 UG/KG	ND	ND
PCB 187	.23 UG/KG	ND	ND
PCB 183	.21 UG/KG	ND	ND
PCB 126	.19 UG/KG	ND	ND
PCB 128	.23 UG/KG	ND	ND
PCB 167	.21 UG/KG	ND	ND
PCB 177	.2 UG/KG	ND	ND
PCB 156	.23 UG/KG	ND	ND
PCB 157	.28 UG/KG	ND	ND
PCB 180	.29 UG/KG	ND	ND
PCB 170	.22 UG/KG	ND	ND
PCB 169	.14 UG/KG	ND	ND
PCB 189	.18 UG/KG	ND	ND
PCB 194	.34 UG/KG	ND	ND
PCB 206	.18 UG/KG	ND	ND

ND= not detected

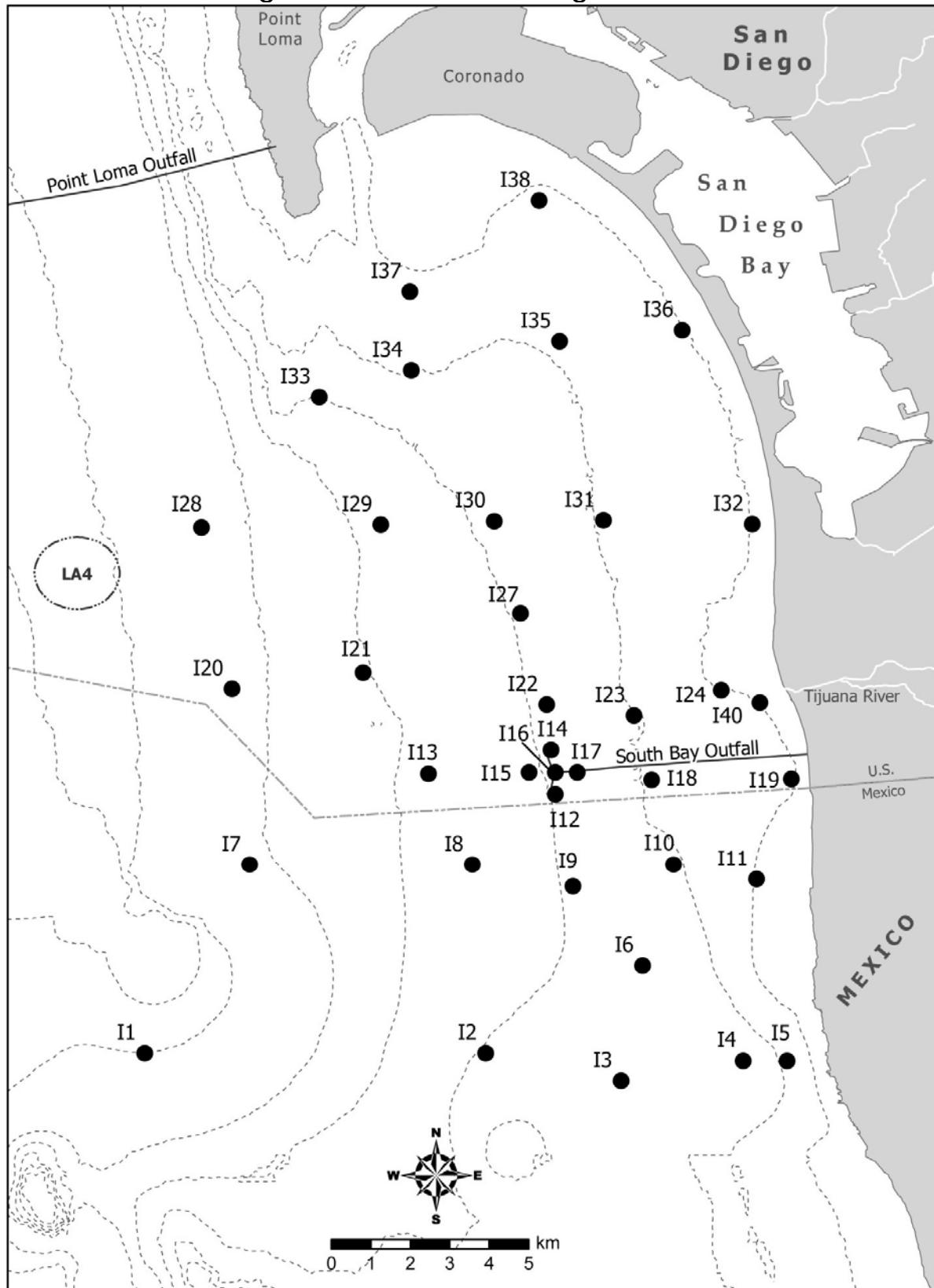
C. Seawater Data

Seawater is collected monthly at the following stations for analysis of total suspended solids (TSS) and Oil & Grease (O&G). Samples for TSS analysis are collected at 3 depths, sub-surface, mid-depth, and bottom, for each station shown in the following table. Oil and Grease samples are only collected from the 5 foot depth. The Oil & Grease analysis was changed to a Hexane Extractable Material (HEM) method. A report of analyses for each month is attached.

Table 1. Regular Fixed Grid Seawater sampling stations.

Station	Station
I-3	I-21
I-5	I-22
I-7	I-23
I-8	I-24
I-9	I-25
I-10	I-26
I-11	I-30
I-12	I-32
I-13	I-33
I-14	I-36
I-16	I-37
I-18	I-38
I-19	I-39
I-20	I-40

Regular Fixed Grid Monitoring Stations



South Bay Ocean Outfall Monitoring
Seawater Analysis for Total Suspended Solids and Hexane Extractable Material

Annual 2014

Analyte:		HEM	TSS
MDL:		1.4	2.5
SOURCE	SAMPLE DATE	mg/L	mg/L
I-3 2 M	06-FEB-2014	ND	3.7
I-3 2 M	14-MAY-2014	ND	3.9
I-3 2 M	05-AUG-2014	ND	ND
I-3 2 M	17-NOV-2014	ND	ND
I-3 18 M	06-FEB-2014		3.9
I-3 18 M	14-MAY-2014		2.9
I-3 18 M	05-AUG-2014		ND
I-3 18 M	17-NOV-2014		ND
I-3 27 M	06-FEB-2014		ND
I-3 27 M	14-MAY-2014		5.0
I-3 27 M	05-AUG-2014		ND
I-3 27 M	17-NOV-2014		ND
I-5 2 M	06-FEB-2014	ND	3.8
I-5 2 M	14-MAY-2014	ND	6.2
I-5 2 M	05-AUG-2014	ND	ND
I-5 2 M	17-NOV-2014	ND	3.6
I-5 6 M	06-FEB-2014		6.2
I-5 6 M	14-MAY-2014		6.0
I-5 6 M	05-AUG-2014		ND
I-5 6 M	17-NOV-2014		4.9
I-5 11 M	06-FEB-2014		8.6
I-5 11 M	14-MAY-2014		7.5
I-5 11 M	05-AUG-2014		ND
I-5 11 M	17-NOV-2014		7.6
I-7 2 M	06-FEB-2014	ND	<2.5
I-7 2 M	14-MAY-2014	ND	6.3
I-7 2 M	05-AUG-2014	ND	ND
I-7 2 M	17-NOV-2014	ND	ND
I-7 18 M	06-FEB-2014		ND
I-7 18 M	14-MAY-2014		4.2
I-7 18 M	05-AUG-2014		ND
I-7 18 M	17-NOV-2014		ND
I-7 52 M	06-FEB-2014		ND
I-7 52 M	14-MAY-2014		9.9
I-7 52 M	05-AUG-2014		ND
I-7 52 M	17-NOV-2014		ND
I-8 2 M	06-FEB-2014	ND	ND
I-8 2 M	14-MAY-2014	ND	5.1
I-8 2 M	05-AUG-2014	ND	ND
I-8 2 M	17-NOV-2014	ND	ND
I-8 18 M	06-FEB-2014		3.5

ND=not detected

South Bay Ocean Outfall Monitoring
Seawater Analysis for Total Suspended Solids and Hexane Extractable Material

Annual 2014

Analyte:		HEM	TSS
MDL:		1.4	2.5
SOURCE	SAMPLE DATE	mg/L	mg/L
I-8	18 M 14-MAY-2014		4.4
I-8	18 M 05-AUG-2014		ND
I-8	18 M 17-NOV-2014		ND
I-8	37 M 06-FEB-2014		3.1
I-8	37 M 14-MAY-2014		3.4
I-8	37 M 05-AUG-2014		ND
I-8	37 M 17-NOV-2014		ND
I-9	2 M 06-FEB-2014	ND	3.3
I-9	2 M 14-MAY-2014	ND	7.1
I-9	2 M 05-AUG-2014	ND	ND
I-9	2 M 17-NOV-2014	ND	ND
I-9	18 M 06-FEB-2014		3.6
I-9	18 M 14-MAY-2014		4.1
I-9	18 M 05-AUG-2014		ND
I-9	18 M 17-NOV-2014		ND
I-9	27 M 06-FEB-2014		3.9
I-9	27 M 14-MAY-2014		3.0
I-9	27 M 05-AUG-2014		ND
I-9	27 M 17-NOV-2014		ND
I-10	2 M 06-FEB-2014	ND	2.7
I-10	2 M 14-MAY-2014	ND	3.0
I-10	2 M 05-AUG-2014	ND	ND
I-10	2 M 17-NOV-2014	ND	ND
I-10	12 M 06-FEB-2014		3.2
I-10	12 M 14-MAY-2014		3.2
I-10	12 M 05-AUG-2014		ND
I-10	12 M 17-NOV-2014		ND
I-10	18 M 06-FEB-2014		4.7
I-10	18 M 14-MAY-2014		3.7
I-10	18 M 05-AUG-2014		ND
I-10	18 M 17-NOV-2014		ND
I-11	2 M 06-FEB-2014	ND	3.5
I-11	2 M 14-MAY-2014	ND	3.9
I-11	2 M 05-AUG-2014	ND	ND
I-11	2 M 17-NOV-2014	ND	ND
I-11	6 M 06-FEB-2014		4.5
I-11	6 M 14-MAY-2014		8.0
I-11	6 M 05-AUG-2014		ND
I-11	6 M 17-NOV-2014		ND
I-11	11 M 06-FEB-2014		6.4
I-11	11 M 14-MAY-2014		5.3

ND=not detected

South Bay Ocean Outfall Monitoring
Seawater Analysis for Total Suspended Solids and Hexane Extractable Material

Annual 2014

Analyte:			HEM	TSS
MDL:			1.4	2.5
SOURCE	SAMPLE	DATE	mg/L	mg/L
I-11	11	M 05-AUG-2014		3.8
I-11	11	M 17-NOV-2014		2.6
I-12	2	M 30-JAN-2014	ND	2.8
I-12	2	M 07-FEB-2014	2.50	ND
I-12	2	M 07-MAR-2014	ND	3.6
I-12	2	M 04-APR-2014	ND	7.5
I-12	2	M 15-MAY-2014	ND	6.8
I-12	2	M 13-JUN-2014	ND	5.4
I-12	2	M 02-JUL-2014	ND	11.3
I-12	2	M 06-AUG-2014	ND	ND
I-12	2	M 08-SEP-2014	ND	ND
I-12	2	M 10-OCT-2014	ND	ND
I-12	2	M 18-NOV-2014	ND	ND
I-12	2	M 03-DEC-2014		ND
I-12	18	M 30-JAN-2014		4.1
I-12	18	M 07-FEB-2014		2.8
I-12	18	M 07-MAR-2014		2.8
I-12	18	M 04-APR-2014		ND
I-12	18	M 15-MAY-2014		ND
I-12	18	M 13-JUN-2014		ND
I-12	18	M 02-JUL-2014		3.6
I-12	18	M 06-AUG-2014		ND
I-12	18	M 08-SEP-2014		ND
I-12	18	M 10-OCT-2014		ND
I-12	18	M 18-NOV-2014		ND
I-12	18	M 03-DEC-2014		ND
I-12	27	M 30-JAN-2014		7.8
I-12	27	M 07-FEB-2014		3.1
I-12	27	M 07-MAR-2014		6.5
I-12	27	M 04-APR-2014		3.4
I-12	27	M 15-MAY-2014		3.0
I-12	27	M 13-JUN-2014		ND
I-12	27	M 02-JUL-2014		4.5
I-12	27	M 06-AUG-2014		ND
I-12	27	M 08-SEP-2014		3.8
I-12	27	M 10-OCT-2014		ND
I-12	27	M 18-NOV-2014		ND
I-12	27	M 03-DEC-2014		ND
I-13	2	M 06-FEB-2014	ND	3.6
I-13	2	M 14-MAY-2014	ND	3.4
I-13	2	M 05-AUG-2014	ND	ND

ND=not detected

South Bay Ocean Outfall Monitoring
Seawater Analysis for Total Suspended Solids and Hexane Extractable Material

Annual 2014

Analyte:		HEM	TSS
MDL:		1.4	2.5
SOURCE	SAMPLE DATE	mg/L	mg/L
I-13	2 M 17-NOV-2014	ND	ND
I-13	18 M 06-FEB-2014		3.0
I-13	18 M 14-MAY-2014		4.0
I-13	18 M 05-AUG-2014		ND
I-13	18 M 17-NOV-2014		ND
I-13	37 M 06-FEB-2014		2.6
I-13	37 M 14-MAY-2014		3.3
I-13	37 M 05-AUG-2014		ND
I-13	37 M 17-NOV-2014		ND
I-14	2 M 30-JAN-2014	ND	2.9
I-14	2 M 07-FEB-2014	ND	ND
I-14	2 M 07-MAR-2014	ND	3.7
I-14	2 M 04-APR-2014	ND	5.5
I-14	2 M 15-MAY-2014	ND	3.5
I-14	2 M 13-JUN-2014	ND	3.4
I-14	2 M 02-JUL-2014	ND	6.3
I-14	2 M 06-AUG-2014	ND	ND
I-14	2 M 08-SEP-2014	ND	ND
I-14	2 M 10-OCT-2014	ND	ND
I-14	2 M 18-NOV-2014	ND	ND
I-14	2 M 03-DEC-2014		ND
I-14	18 M 30-JAN-2014		3.4
I-14	18 M 07-FEB-2014		2.6
I-14	18 M 07-MAR-2014		3.6
I-14	18 M 04-APR-2014		3.9
I-14	18 M 15-MAY-2014		ND
I-14	18 M 13-JUN-2014		ND
I-14	18 M 02-JUL-2014		3.5
I-14	18 M 06-AUG-2014		ND
I-14	18 M 08-SEP-2014		4.1
I-14	18 M 10-OCT-2014		ND
I-14	18 M 18-NOV-2014		ND
I-14	18 M 03-DEC-2014		ND
I-14	27 M 30-JAN-2014		10.7
I-14	27 M 07-FEB-2014		2.7
I-14	27 M 07-MAR-2014		6.0
I-14	27 M 04-APR-2014		2.7
I-14	27 M 15-MAY-2014		ND
I-14	27 M 13-JUN-2014		ND
I-14	27 M 02-JUL-2014		4.1
I-14	27 M 06-AUG-2014		ND

ND=not detected

South Bay Ocean Outfall Monitoring
Seawater Analysis for Total Suspended Solids and Hexane Extractable Material

Annual 2014

Analyte:		HEM	TSS
MDL:		1.4	2.5
SOURCE	SAMPLE DATE	mg/L	mg/L
I-14	27 M 08-SEP-2014	ND	
I-14	27 M 10-OCT-2014	ND	
I-14	27 M 18-NOV-2014	ND	
I-14	27 M 03-DEC-2014	ND	
I-16	2 M 30-JAN-2014	ND	2.9
I-16	2 M 07-FEB-2014	ND	3.2
I-16	2 M 07-MAR-2014	ND	<2.5
I-16	2 M 04-APR-2014	ND	ND
I-16	2 M 15-MAY-2014	ND	3.9
I-16	2 M 13-JUN-2014	ND	2.9
I-16	2 M 02-JUL-2014	ND	4.4
I-16	2 M 06-AUG-2014	ND	<2.5
I-16	2 M 08-SEP-2014	ND	ND
I-16	2 M 10-OCT-2014	ND	ND
I-16	2 M 18-NOV-2014	ND	ND
I-16	2 M 03-DEC-2014	ND	
I-16	18 M 30-JAN-2014	3.5	
I-16	18 M 07-FEB-2014	3.9	
I-16	18 M 07-MAR-2014	3.4	
I-16	18 M 04-APR-2014	8.5	
I-16	18 M 15-MAY-2014	ND	
I-16	18 M 13-JUN-2014	ND	
I-16	18 M 02-JUL-2014	3.4	
I-16	18 M 06-AUG-2014	ND	
I-16	18 M 08-SEP-2014	ND	
I-16	18 M 10-OCT-2014	ND	
I-16	18 M 18-NOV-2014	ND	
I-16	18 M 03-DEC-2014	ND	
I-16	27 M 30-JAN-2014	6.2	
I-16	27 M 07-FEB-2014	3.9	
I-16	27 M 07-MAR-2014	5.1	
I-16	27 M 04-APR-2014	2.9	
I-16	27 M 15-MAY-2014	4.0	
I-16	27 M 13-JUN-2014	ND	
I-16	27 M 02-JUL-2014	5.0	
I-16	27 M 06-AUG-2014	ND	
I-16	27 M 08-SEP-2014	3.2	
I-16	27 M 10-OCT-2014	ND	
I-16	27 M 18-NOV-2014	ND	
I-16	27 M 03-DEC-2014	ND	
I-18	2 M 07-FEB-2014	1.40	3.7

ND=not detected

South Bay Ocean Outfall Monitoring
Seawater Analysis for Total Suspended Solids and Hexane Extractable Material

Annual 2014

Analyte:		HEM	TSS
MDL:		1.4	2.5
SOURCE	SAMPLE DATE	mg/L	mg/L
I-18	2 M 15-MAY-2014	ND	4.2
I-18	2 M 06-AUG-2014	ND	ND
I-18	2 M 18-NOV-2014	ND	ND
I-18	12 M 07-FEB-2014		4.8
I-18	12 M 15-MAY-2014		5.3
I-18	12 M 06-AUG-2014		ND
I-18	12 M 18-NOV-2014		ND
I-18	18 M 07-FEB-2014		3.5
I-18	18 M 15-MAY-2014		3.2
I-18	18 M 06-AUG-2014		ND
I-18	18 M 18-NOV-2014		ND
I-19	2 M 07-FEB-2014	ND	6.5
I-19	2 M 15-MAY-2014	ND	3.1
I-19	2 M 06-AUG-2014	ND	ND
I-19	2 M 18-NOV-2014	ND	ND
I-19	6 M 07-FEB-2014		7.6
I-19	6 M 15-MAY-2014		5.1
I-19	6 M 06-AUG-2014		ND
I-19	6 M 18-NOV-2014		ND
I-19	11 M 07-FEB-2014		4.4
I-19	11 M 15-MAY-2014		9.4
I-19	11 M 06-AUG-2014		6.5
I-19	11 M 18-NOV-2014		3.4
I-20	2 M 06-FEB-2014	ND	<2.5
I-20	2 M 14-MAY-2014	ND	4.5
I-20	2 M 05-AUG-2014	ND	ND
I-20	2 M 17-NOV-2014	ND	ND
I-20	18 M 06-FEB-2014		ND
I-20	18 M 14-MAY-2014		3.9
I-20	18 M 05-AUG-2014		ND
I-20	18 M 17-NOV-2014		ND
I-20	55 M 06-FEB-2014		2.6
I-20	55 M 14-MAY-2014		3.2
I-20	55 M 05-AUG-2014		ND
I-20	55 M 17-NOV-2014		ND
I-21	2 M 06-FEB-2014	ND	ND
I-21	2 M 14-MAY-2014	ND	4.5
I-21	2 M 05-AUG-2014	ND	ND
I-21	2 M 17-NOV-2014	ND	ND
I-21	18 M 06-FEB-2014		ND
I-21	18 M 14-MAY-2014		3.1

ND=not detected

South Bay Ocean Outfall Monitoring
Seawater Analysis for Total Suspended Solids and Hexane Extractable Material

Annual 2014

Analyte:		HEM	TSS
MDL:		1.4	2.5
SOURCE	SAMPLE DATE	mg/L	mg/L
I-21	18 M 05-AUG-2014	ND	
I-21	18 M 17-NOV-2014	ND	
I-21	37 M 06-FEB-2014	ND	
I-21	37 M 14-MAY-2014	3.0	
I-21	37 M 05-AUG-2014	ND	
I-21	37 M 17-NOV-2014	ND	
I-22	2 M 07-FEB-2014	ND	ND
I-22	2 M 15-MAY-2014	ND	3.8
I-22	2 M 06-AUG-2014	ND	ND
I-22	2 M 18-NOV-2014	ND	ND
I-22	18 M 07-FEB-2014	ND	
I-22	18 M 15-MAY-2014	3.8	
I-22	18 M 06-AUG-2014	ND	
I-22	18 M 18-NOV-2014	ND	
I-22	27 M 07-FEB-2014	3.7	
I-22	27 M 15-MAY-2014	4.5	
I-22	27 M 06-AUG-2014	ND	
I-22	27 M 18-NOV-2014	ND	
I-23	2 M 07-FEB-2014	ND	2.7
I-23	2 M 15-MAY-2014	ND	5.3
I-23	2 M 06-AUG-2014	ND	ND
I-23	2 M 18-NOV-2014	ND	ND
I-23	12 M 07-FEB-2014	ND	
I-23	12 M 15-MAY-2014	6.0	
I-23	12 M 06-AUG-2014	ND	
I-23	12 M 18-NOV-2014	ND	
I-23	18 M 07-FEB-2014	6.8	
I-23	18 M 15-MAY-2014	6.7	
I-23	18 M 06-AUG-2014	ND	
I-23	18 M 18-NOV-2014	2.8	
I-24	2 M 07-FEB-2014	ND	5.8
I-24	2 M 15-MAY-2014	ND	3.5
I-24	2 M 06-AUG-2014	ND	2.7
I-24	2 M 18-NOV-2014	ND	ND
I-24	6 M 07-FEB-2014	4.3	
I-24	6 M 15-MAY-2014	3.6	
I-24	6 M 06-AUG-2014	2.7	
I-24	6 M 18-NOV-2014	ND	
I-24	11 M 07-FEB-2014	5.3	
I-24	11 M 15-MAY-2014	18.6	
I-24	11 M 06-AUG-2014	7.3	

ND=not detected

South Bay Ocean Outfall Monitoring
Seawater Analysis for Total Suspended Solids and Hexane Extractable Material

Annual 2014

Analyte:		HEM	TSS
MDL:		1.4	2.5
SOURCE	SAMPLE DATE	mg/L	mg/L
I-24	11 M 18-NOV-2014	ND	
I-25	2 M 07-FEB-2014	ND	6.1
I-25	2 M 15-MAY-2014	ND	3.6
I-25	2 M 06-AUG-2014	ND	ND
I-25	2 M 18-NOV-2014	ND	ND
I-25	6 M 07-FEB-2014	7.1	
I-25	6 M 15-MAY-2014	5.0	
I-25	6 M 06-AUG-2014	ND	
I-25	6 M 18-NOV-2014	ND	
I-25	9 M 07-FEB-2014	6.7	
I-25	9 M 15-MAY-2014	3.7	
I-25	9 M 06-AUG-2014	3.5	
I-25	9 M 18-NOV-2014	ND	
I-26	2 M 07-FEB-2014	ND	4.8
I-26	2 M 15-MAY-2014	ND	3.7
I-26	2 M 06-AUG-2014	ND	ND
I-26	2 M 18-NOV-2014	ND	ND
I-26	6 M 07-FEB-2014	5.1	
I-26	6 M 15-MAY-2014	4.1	
I-26	6 M 06-AUG-2014	ND	
I-26	6 M 18-NOV-2014	ND	
I-26	9 M 07-FEB-2014	5.2	
I-26	9 M 15-MAY-2014	8.0	
I-26	9 M 06-AUG-2014	ND	
I-26	9 M 18-NOV-2014	ND	
I-30	2 M 05-FEB-2014	ND	<2.5
I-30	2 M 13-MAY-2014	ND	4.4
I-30	2 M 07-AUG-2014	ND	ND
I-30	2 M 19-NOV-2014	ND	ND
I-30	18 M 05-FEB-2014	ND	
I-30	18 M 13-MAY-2014	ND	
I-30	18 M 07-AUG-2014	ND	
I-30	18 M 19-NOV-2014	ND	
I-30	27 M 05-FEB-2014	4.5	
I-30	27 M 13-MAY-2014	ND	
I-30	27 M 07-AUG-2014	ND	
I-30	27 M 19-NOV-2014	ND	
I-32	2 M 05-FEB-2014	ND	5.0
I-32	2 M 13-MAY-2014	ND	6.6
I-32	2 M 07-AUG-2014	ND	ND
I-32	2 M 19-NOV-2014	ND	ND

ND=not detected

South Bay Ocean Outfall Monitoring
Seawater Analysis for Total Suspended Solids and Hexane Extractable Material

Annual 2014

Analyte:		HEM	TSS
MDL:		1.4	2.5
SOURCE	SAMPLE DATE	mg/L	mg/L
I-32	6 M 05-FEB-2014		16.3
I-32	6 M 13-MAY-2014		5.9
I-32	6 M 07-AUG-2014		ND
I-32	6 M 19-NOV-2014		2.8
I-32	9 M 05-FEB-2014		8.9
I-32	9 M 13-MAY-2014		6.9
I-32	9 M 07-AUG-2014		3.1
I-32	9 M 19-NOV-2014		2.6
I-33	2 M 05-FEB-2014	ND	ND
I-33	2 M 13-MAY-2014	ND	4.1
I-33	2 M 07-AUG-2014	ND	ND
I-33	2 M 19-NOV-2014	ND	ND
I-33	18 M 05-FEB-2014		ND
I-33	18 M 13-MAY-2014		3.4
I-33	18 M 07-AUG-2014		ND
I-33	18 M 19-NOV-2014		ND
I-33	27 M 05-FEB-2014		4.4
I-33	27 M 13-MAY-2014		3.5
I-33	27 M 07-AUG-2014		ND
I-33	27 M 19-NOV-2014		ND
I-36	2 M 05-FEB-2014	ND	5.3
I-36	2 M 13-MAY-2014	ND	5.7
I-36	2 M 07-AUG-2014	ND	ND
I-36	2 M 19-NOV-2014	ND	2.6
I-36	6 M 05-FEB-2014		6.4
I-36	6 M 13-MAY-2014		5.0
I-36	6 M 07-AUG-2014		ND
I-36	6 M 19-NOV-2014		2.7
I-36	11 M 05-FEB-2014		6.8
I-36	11 M 13-MAY-2014		16.8
I-36	11 M 07-AUG-2014		4.4
I-36	11 M 19-NOV-2014		3.9
I-37	2 M 05-FEB-2014	ND	5.2
I-37	2 M 13-MAY-2014	ND	4.2
I-37	2 M 07-AUG-2014	ND	ND
I-37	2 M 19-NOV-2014	ND	ND
I-37	6 M 05-FEB-2014		5.4
I-37	6 M 13-MAY-2014		3.5
I-37	6 M 07-AUG-2014		ND
I-37	6 M 19-NOV-2014		ND
I-37	11 M 05-FEB-2014		6.8

ND=not detected

South Bay Ocean Outfall Monitoring
Seawater Analysis for Total Suspended Solids and Hexane Extractable Material

Annual 2014

Analyte:		HEM	TSS
MDL:		1.4	2.5
SOURCE	SAMPLE DATE	mg/L	mg/L
I-37	11 M 13-MAY-2014		10.8
I-37	11 M 07-AUG-2014		ND
I-37	11 M 19-NOV-2014		ND
I-38	2 M 05-FEB-2014	ND	5.6
I-38	2 M 13-MAY-2014	ND	3.4
I-38	2 M 07-AUG-2014	ND	ND
I-38	2 M 19-NOV-2014	ND	ND
I-38	6 M 05-FEB-2014		6.7
I-38	6 M 13-MAY-2014		3.2
I-38	6 M 07-AUG-2014		ND
I-38	6 M 19-NOV-2014		ND
I-38	11 M 05-FEB-2014		5.5
I-38	11 M 13-MAY-2014		4.1
I-38	11 M 07-AUG-2014		3.0
I-38	11 M 19-NOV-2014		ND
I-39	2 M 07-FEB-2014	ND	ND
I-39	2 M 15-MAY-2014	ND	3.6
I-39	2 M 06-AUG-2014	ND	ND
I-39	2 M 18-NOV-2014	ND	ND
I-39	12 M 07-FEB-2014		3.5
I-39	12 M 15-MAY-2014		5.4
I-39	12 M 06-AUG-2014		ND
I-39	12 M 18-NOV-2014		ND
I-39	18 M 07-FEB-2014		4.4
I-39	18 M 15-MAY-2014		4.1
I-39	18 M 06-AUG-2014		ND
I-39	18 M 18-NOV-2014		ND
I-40	2 M 07-FEB-2014	ND	4.6
I-40	2 M 15-MAY-2014	ND	3.8
I-40	2 M 06-AUG-2014	ND	3.0
I-40	2 M 18-NOV-2014	ND	ND
I-40	6 M 07-FEB-2014		4.6
I-40	6 M 15-MAY-2014		4.9
I-40	6 M 06-AUG-2014		2.7
I-40	6 M 18-NOV-2014		3.3
I-40	9 M 07-FEB-2014		4.2
I-40	9 M 15-MAY-2014		16.3
I-40	9 M 06-AUG-2014		8.1
I-40	9 M 18-NOV-2014		2.6

ND=not detected

This page left blank intentionally.

VI. Annual Pretreatment Program Data

2014 Annual Pretreatment Program Sludge Analysis (QUARTERLY SLUDGE PROJECT)

SOUTH BAY WATER RECLAMATION PLANT
Order No. R9-2013-0006 as Amended by Order No. R9-2014-0071
NPDES Permit No.CA0109045

The Quarterly Sludge Project is part of the South Bay WRP NPDES (Permit No. CA0109045/ Order No. R9-2013-0006) monitoring requirements for the Metropolitan Sewerage System. The sampling plan is designed so as to provide a “snapshot” of all of the physical and chemical characteristics monitored of the wastewater treatment waste streams for a short interval of time (1-2 days). This is conducted quarterly.

The Quarterly Sludge Project was conducted four times during 2014. Sampling occurred on February 4, May 6, August 5, and October 7. Monthly composite samples of MBC dewatered sludge (belt-press dewatered) during the respective calendar months were taken and analyzed for a similar suite of parameters. The tables showing the results of these analyses follow in this section. Results relative to the Pt. Loma WWTP or North City Water Reclamation Plant are in the respective annual reports for those facilities.

* pH, Grease & Oils, temperature, and conductivity are determined from grab samples.

Abbreviations:

SB_INF_02	SBWRP influent
SB_OUTFALL_01	SBWRP effluent
SB_ITP_COMB_EFF	SBWRP & IWTP combined effluent
SB_REC_WATER_34	SBWRP reclaim water
SB_PRIEFF_10	Primary Effluent
SB_SEC_EFF_29	Secondary effluent
SB_RSL_10	Primary Sed Tank to Sludge Line

This page left blank intentionally

SOUTH BAY WATER RECLAMATION PLANT
Daily Parameters and Metals

Annual 2014

Source:		INFLUENT 04-FEB-2014	INFLUENT 06-MAY-2014	INFLUENT 05-AUG-2014	INFLUENT 07-OCT-2014	EFFLUENT 04-FEB-2014
Analyte	MDL Units					
Aluminum	47 UG/L	517	279	708	749	ND
Antimony	2.9 UG/L	ND	ND	3.1	ND	ND
Arsenic	.06 UG/L	1.2	1.0	0.8	1.1	0.8
Barium	.7 UG/L	91.4	83.9	70.8	117	61.8
Beryllium	.05 UG/L	ND	ND	ND	ND	ND
Boron	7 UG/L	278	285	290	302	286
Cadmium	.53 UG/L	ND	ND	0.28	ND	ND
Chromium	1.2 UG/L	3.3	1.9	3.1	3.9	ND
Cobalt	.85 UG/L	ND	ND	0.86	0.92	ND
Copper	2.16 UG/L	95	77	76	87	12
Iron	37 UG/L	616	503	707	887	ND
Lead	2 UG/L	ND	ND	5	2	ND
Manganese	.78 UG/L	80.1	76.8	62.2	60.2	27.6
Mercury	.005 UG/L	0.094	0.052	0.167	0.189	0.007
Molybdenum	.89 UG/L	5.02	5.75	5.62	6.58	2.58
Nickel	.53 UG/L	9.72	4.61	5.39	5.59	5.66
Selenium	.08 UG/L	1.16	1.1	1.55	0.14	0.54
Silver	.73 UG/L	ND	ND	ND	ND	ND
Thallium	31 UG/L	ND	ND	ND	ND	ND
Vanadium	.64 UG/L	1.96	0.9	1.4	1.7	1.37
Zinc	4.19 UG/L	161	124	172	189	35.4
Calcium Hardness	MG/L	175	179	121	176	175
Magnesium Hardness	MG/L	134	135	80	110	129
Total Hardness	MG/L	309	314	201	286	304
Total Alkalinity (bicarbonate)	20 MG/L	352	358	287	327	173
Calcium	.04 MG/L	70.1	71.8	48.5	70.5	70.0
Lithium	.002 MG/L	0.035	0.036	0.031	0.046	0.033
Magnesium	.1 MG/L	32.5	32.9	19.5	26.8	31.4
Potassium	.3 MG/L	18.7	19.5	16.5	17.9	17.8
Sodium	1 MG/L	200	206	148	185	195
Bromide	.1 MG/L	0.4	0.3	0.2	0.2	0.5
Chloride	7 MG/L	244	242	195	215	235
Fluoride	.05 MG/L	0.23	0.37	0.29	0.50	0.56
Nitrate	.04 MG/L	0.06	0.06	0.07	ND	36.9
Ortho Phosphate	.2 MG/L	12.3	13.2	11.2	11.9	6.8
Sulfate	9 MG/L	142	135	97	152	182
Cyanide, Total	.002 MG/L	ND	ND	ND	ND	ND
BOD	2 MG/L	394	334	373	410	9
pH	PH	7.79	7.50	7.52	7.64	7.5
Settleable Solids	.1 ML/L	18.0	24.0	15.0	16.5	ND
Turbidity	.13 NTU	164	209	181	181	2.84
Total Kjeldahl Nitrogen	1.6 MG/L	60.2	54.8	46.4	60.4	2.7
Chlorine Residual, Total	.03 MG/L	NR	NR	NR	NR	ND
Ammonia-N	.3 MG/L	36.6	31.4	31.2	34.6	ND
Sulfides-Total	.4 MG/L	3.74	8.02	3.11	1.9	ND
Total Suspended Solids	2.5 MG/L	294	254	326	310	5.9
Volatile Suspended Solids	2.5 MG/L	272	226	296	280	5.7
Total Dissolved Solids	28 MG/L	936	1010	784	1000	900
MBAS (Surfactants)	.03 MG/L	10.2	8.34	9.28	8.96	0.15

ND= Not Detected

NR= Not Required

Chromium results are for Total Chromium.

SOUTH BAY WATER RECLAMATION PLANT
Daily Parameters and Metals

Annual 2014

Source:		EFFLUENT 06-MAY-2014	EFFLUENT 05-AUG-2014	EFFLUENT 07-OCT-2014
Analyte	MDL Units			
Aluminum	47 UG/L	ND	<24	40
Antimony	2.9 UG/L	<2.9	ND	<2.4
Arsenic	.06 UG/L	0.8	0.5	0.7
Barium	.7 UG/L	63.4	44.9	75.2
Beryllium	.05 UG/L	ND	ND	ND
Boron	7 UG/L	292	309	305
Cadmium	.53 UG/L	ND	ND	ND
Chromium	1.2 UG/L	ND	1.1	1.6
Cobalt	.85 UG/L	ND	0.58	0.39
Copper	2.16 UG/L	10	9	9
Iron	37 UG/L	58	67	65
Lead	2 UG/L	ND	3	ND
Manganese	.78 UG/L	29.1	34.7	37.6
Mercury	.005 UG/L	0.006	0.006	ND
Molybdenum	.89 UG/L	3.34	2.63	3.33
Nickel	.53 UG/L	3.75	3.27	3.38
Selenium	.08 UG/L	0.51	0.51	0.72
Silver	.73 UG/L	ND	ND	ND
Thallium	31 UG/L	ND	ND	ND
Vanadium	.64 UG/L	ND	0.65	0.85
Zinc	4.19 UG/L	29.8	33.4	29.8
Calcium Hardness	MG/L	184	122	185
Magnesium Hardness	MG/L	134	77	108
Total Hardness	MG/L	318	199	293
Total Alkalinity (bicarbonate)	20 MG/L	179	121	151
Calcium	.04 MG/L	73.7	48.9	74.2
Lithium	.002 MG/L	0.034	0.024	0.042
Magnesium	.1 MG/L	32.4	18.6	26.3
Potassium	.3 MG/L	17.8	14.8	16.6
Sodium	1 MG/L	210	152	192
Bromide	.1 MG/L	0.4	0.2	0.1
Chloride	7 MG/L	248	196	228
Fluoride	.05 MG/L	0.56	0.50	0.58
Nitrate	.04 MG/L	38.9	36.2	17.6
Ortho Phosphate	.2 MG/L	1.1	3.2	0.8
Sulfate	9 MG/L	181	135	211
Cyanide, Total	.002 MG/L	ND	<0.002	ND
BOD	2 MG/L	19	8	20
pH	PH	7.51	7.32	7.54
Settleable Solids	.1 ML/L	ND	ND	ND
Turbidity	.13 NTU	3.81	2.45	3.36
Total Kjeldahl Nitrogen	1.6 MG/L	3.4	1.8	3.2
Chlorine Residual, Total	.03 MG/L	0.16	0.04	0.04
Ammonia-N	.3 MG/L	ND	ND	0.6
Sulfides-Total	.4 MG/L	ND	ND	ND
Total Suspended Solids	2.5 MG/L	6.1	5.7	7.9
Volatile Suspended Solids	2.5 MG/L	5.9	5.1	6.1
Total Dissolved Solids	28 MG/L	1010	780	956
MBAS (Surfactants)	.03 MG/L	0.14	0.61	0.13

ND= Not Detected

NR= Not Required

Chromium results are for Total Chromium.

SOUTH BAY WATER RECLAMATION PLANT
Daily Parameters and Metals

Annual 2014

Source:		COMB EFF 04-FEB-2014	COMB EFF 06-MAY-2014	COMB EFF 05-AUG-2014	COMB EFF 07-OCT-2014	COMB EFF 17-NOV-2014
Analyte	MDL Units					
Aluminum	47 UG/L	ND	ND	50	ND	
Antimony	2.9 UG/L	ND	ND	ND	ND	
Arsenic	.06 UG/L	1.7	1.9	1.9	2.3	
Barium	.7 UG/L	23.5	20.1	21.9	23.0	
Beryllium	.05 UG/L	ND	ND	ND	ND	
Boron	7 UG/L	326	368	408	448	
Cadmium	.53 UG/L	ND	ND	ND	ND	
Chromium	1.2 UG/L	ND	ND	2.0	2.3	
Cobalt	.85 UG/L	ND	ND	1.26	1.1	
Copper	2.16 UG/L	4	12	7	5	
Iron	37 UG/L	62	133	240	144	
Lead	2 UG/L	ND	ND	3	2	
Manganese	.78 UG/L	33.8	73.3	75.4	37.2	
Mercury	.005 UG/L	0.016	ND	ND	ND	
Molybdenum	.89 UG/L	7.78	6.45	6.71	8.32	
Nickel	.53 UG/L	14.5	15.8	16.3	21.9	
Selenium	.08 UG/L	1.19	1.57	1.18	1.05	
Silver	.73 UG/L	ND	ND	ND	ND	
Thallium	31 UG/L	ND	ND	ND	ND	
Vanadium	.64 UG/L	2.46	1.93	1.2	2.2	
Zinc	4.19 UG/L	28.8	31.1	14.0	22.7	
Calcium Hardness	MG/L	226	245	207	240	
Magnesium Hardness	MG/L	146	175	153	178	
Total Hardness	MG/L	372	420	360	418	
Total Alkalinity (bicarbonate)	20 MG/L	100	155	138	152	
Calcium	.04 MG/L	90.5	98.1	82.8	96.0	
Lithium	.002 MG/L	0.064	0.07	0.073	0.081	
Magnesium	.1 MG/L	35.4	42.4	37.2	43.2	
Potassium	.3 MG/L	21.5	25.2	23.1	23.5	
Sodium	1 MG/L	257	306	287	318	
Bromide	.1 MG/L	0.3	0.4	0.4	0.3	
Chloride	7 MG/L	279	337	361	373	
Fluoride	.05 MG/L	0.61	0.59	0.65	0.73	
Nitrate	.04 MG/L	105	66.4	39.1	58.9	
Ortho Phosphate	.2 MG/L	5.9	7.9	9.6	10.6	
Sulfate	9 MG/L	328	366	363	398	
Cyanide, Total	.002 MG/L	0.004	0.004	0.004	0.004	
BOD	2 MG/L	5	4	11	ND*	17
pH	PH	7.29	7.63	7.5	7.46	
Settleable Solids	.1 ML/L	0.1	0.3	ND	ND	
Turbidity	.13 NTU	1.97	1.95	2.89	2.25	
Total Kjeldahl Nitrogen	1.6 MG/L	2.0	1.7	2.3	3.0	
Chlorine Residual, Total	.03 MG/L	0.09	0.23	0.08	0.13	
Ammonia-N	.3 MG/L	ND	ND	ND	0.9	
Sulfides-Total	.4 MG/L	ND	ND	ND	ND	
Total Suspended Solids	2.5 MG/L	4.4	4.6	6.7	104	
Volatile Suspended Solids	2.5 MG/L	4.3	3.5	5.7	90.0	
Total Dissolved Solids	28 MG/L	1160	1440	1120	1490	
MBAS (Surfactants)	.03 MG/L	0.24	0.28	0.24	0.19	

*= This is a non-reportable value, a SB_ITP_COMB_EFF sample was collected on November 17, 2014 and analyzed.

ND= Not Detected

NR= Not Required

Chromium results are for Total Chromium.

SOUTH BAY WATER RECLAMATION PLANT
Daily Parameters and Metals

Annual 2014

Source:		PRI EFF 04-FEB-2014	PRI EFF 06-MAY-2014	PRI EFF 05-AUG-2014	PRI EFF 07-OCT-2014	SEC_EFF 04-FEB-2014
Analyte	MDL Units					
Aluminum	47 UG/L	253	128	283	249	ND
Antimony	2.9 UG/L	ND	ND	ND	2.8	ND
Arsenic	.06 UG/L	0.9	0.9	0.6	0.8	0.8
Barium	.7 UG/L	77.3	77.2	54.6	89.6	61.8
Beryllium	.05 UG/L	ND	ND	ND	ND	ND
Boron	7 UG/L	304	286	290	307	295
Cadmium	.53 UG/L	ND	ND	ND	ND	ND
Chromium	1.2 UG/L	2.1	1.9	2.3	2.6	ND
Cobalt	.85 UG/L	ND	ND	0.70	0.39	ND
Copper	2.16 UG/L	68	58	50	48	12
Iron	37 UG/L	360	298	302	308	ND
Lead	2 UG/L	ND	ND	3	2	ND
Manganese	.78 UG/L	63.6	67.7	55.6	47.4	23.0
Mercury	.005 UG/L	0.06	0.055	0.043	0.033	0.005
Molybdenum	.89 UG/L	4.42	4.72	4.33	5.01	3.1
Nickel	.53 UG/L	8.77	4.15	4.46	4.22	5.43
Selenium	.08 UG/L	1.18	0.82	0.93	1.24	0.6
Silver	.73 UG/L	ND	ND	ND	ND	ND
Thallium	31 UG/L	4.5	ND	ND	ND	ND
Vanadium	.64 UG/L	1.52	0.68	0.5	0.6	1.61
Zinc	4.19 UG/L	100	84.0	87.2	79.5	37.6
Calcium Hardness	MG/L	173	181	126	176	175
Magnesium Hardness	MG/L	132	134	80	108	129
Total Hardness	MG/L	305	315	206	284	304
Total Alkalinity (bicarbonate)	20 MG/L	320	318	271	302	171
Calcium	.04 MG/L	69.3	72.3	50.4	70.3	70.1
Lithium	.002 MG/L	0.038	0.039	0.036	0.044	0.035
Magnesium	.1 MG/L	32.0	32.6	19.5	26.2	31.4
Potassium	.3 MG/L	18.7	18.8	16.1	17.8	17.5
Sodium	1 MG/L	199	210	155	193	191
Bromide	.1 MG/L	0.5	0.3	0.2	0.2	0.5
Chloride	7 MG/L	230	248	207	230	235
Fluoride	.05 MG/L	0.29	0.44	0.38	0.53	0.57
Nitrate	.04 MG/L	0.17	0.07	0.06	0.17	38.1
Ortho Phosphate	.2 MG/L	9.7	11.4	10.9	10.3	6.7
Sulfate	9 MG/L	168	175	125	187	182
Cyanide, Total	.002 MG/L	ND	ND	ND	ND	ND
BOD	2 MG/L	237	138	233	208	12
pH	PH	7.74	7.87	7.68	7.75	7.5
Settleable Solids	.1 ML/L	0.9	0.5	0.6	1.5	ND
Turbidity	.13 NTU	115	83	88	99.5	NR
Total Kjeldahl Nitrogen	1.6 MG/L	48.0	48.3	42.2	52.9	2.7
Ammonia-N	.3 MG/L	30.0	28.4	27.9	31.2	ND
Sulfides-Total	.4 MG/L	1.19	1.12	4.74	13.4	ND
Total Suspended Solids	2.5 MG/L	107	90	125	92.9	10.0
Volatile Suspended Solids	2.5 MG/L	91.7	82.9	113	74.3	9.2
Total Dissolved Solids	28 MG/L	900	984	820	968	888
MBAS (Surfactants)	.03 MG/L	6.41	2.88	5.10	4.97	0.14

ND= Not Detected

NR= Not Required

Chromium results are for Total Chromium.

SOUTH BAY WATER RECLAMATION PLANT
Daily Parameters and Metals

Annual 2014

Source:		SEC_EFF 06-MAY-2014	SEC_EFF 05-AUG-2014	SEC_EFF 07-OCT-2014	RAW SLUDGE 04-FEB-2014	RAW SLUDGE 06-MAY-2014
Analyte	MDL Units					
Aluminum	47 UG/L	ND	ND	36	23300	38400
Antimony	2.9 UG/L	ND	ND	ND	7.7	50.6
Arsenic	.06 UG/L	0.7	0.5	0.6	9.0	17.3
Barium	.7 UG/L	62.7	43.8	76.3	1280	2180
Beryllium	.05 UG/L	ND	ND	ND	0.52	0.57
Boron	7 UG/L	292	310	310	363	400
Cadmium	.53 UG/L	ND	ND	ND	4.52	12.3
Chromium	1.2 UG/L	ND	0.8	0.9	189	222
Cobalt	.85 UG/L	ND	0.76	0.34	13.1	27.6
Copper	2.16 UG/L	9	12	10	2340	4730
Iron	37 UG/L	37	64	69	53900	59000
Lead	2 UG/L	ND	2	ND	97	231
Manganese	.78 UG/L	23.1	32.4	32.2	835	1400
Mercury	.005 UG/L	0.007	0.005	ND	10.7	11.4
Molybdenum	.89 UG/L	2.96	2.67	3.38	73	141
Nickel	.53 UG/L	3.74	4.88	3.56	217	222
Selenium	.08 UG/L	0.52	0.46	0.76	10.6	29.0
Silver	.73 UG/L	ND	ND	ND	28.0	48.4
Thallium	31 UG/L	ND	ND	ND	28.2	7.1
Vanadium	.64 UG/L	1.0	ND	0.5	64.2	90.2
Zinc	4.19 UG/L	27.9	36.7	31.1	5150	9030
Calcium Hardness	MG/L	183	131	185	280	355
Magnesium Hardness	MG/L	132	78	106	166	190
Total Hardness	MG/L	315	209	291	446	545
Total Alkalinity (bicarbonate)	20 MG/L	177	123	151	493	568
Calcium	.04 MG/L	73.4	52.3	74.0	112	142
Lithium	.002 MG/L	0.037	0.036	0.046	0.035	0.039
Magnesium	.1 MG/L	32.0	18.9	25.8	40.3	46.2
Potassium	.3 MG/L	17.7	15.5	16.3	29.5	36.1
Sodium	1 MG/L	209	154	190	196	205
Bromide	.1 MG/L	0.4	0.2	0.2	0.6	2.3
Chloride	7 MG/L	248	197	229	232	249
Fluoride	.05 MG/L	0.56	0.51	0.59	0.23	ND
Nitrate	.04 MG/L	39.6	36.1	16.1	0.1	ND
Ortho Phosphate	.2 MG/L	1.1	3.0	0.7	35.7	71.0
Sulfate	9 MG/L	181	136	210	36	12
Cyanide, Total	.002 MG/L	ND	<0.002	ND	0.003	0.005
BOD	2 MG/L	20	10	19	NR	NR
pH	PH	7.84	7.51	7.56	NR	NR
Settleable Solids	.1 ML/L	0.2	ND	ND	NR	NR
Total Kjeldahl Nitrogen	1.6 MG/L	2.1	1.7	3.2	383	575
Ammonia-N	.3 MG/L	0.6	ND	0.9	NR	NR
Sulfides-Total	.4 MG/L	ND	ND	ND	49.5	47.7
Total Suspended Solids	2.5 MG/L	7.5	9.6	7.8	NR	NR
Volatile Suspended Solids	2.5 MG/L	6.3	8.4	7.0	NR	NR
Total Dissolved Solids	28 MG/L	972	776	908	NR	NR
MBAS (Surfactants)	.03 MG/L	0.18	0.19	0.14	NR	NR

ND= Not Detected

NR= Not Required

Chromium results are for Total Chromium.

SOUTH BAY WATER RECLAMATION PLANT
Daily Parameters and Metals

Annual 2014

Source:		RAW SLUDGE 05-AUG-2014	RAW SLUDGE 07-OCT-2014	REC_WATER 04-FEB-2014	REC_WATER 06-MAY-2014	REC_WATER 05-AUG-2014
Analyte	MDL Units					
Aluminum	47 UG/L	22900	16500	ND	ND	ND
Antimony	2.9 UG/L	28.8	21.3	ND	ND	ND
Arsenic	.06 UG/L	12.8	10.1	0.7	0.7	0.6
Barium	.7 UG/L	1070	992	59.8	61.7	43.3
Beryllium	.05 UG/L	ND	0.25	ND	ND	ND
Boron	7 UG/L	368	345	296	288	313
Cadmium	.53 UG/L	5.16	4.96	ND	ND	ND
Chromium	1.2 UG/L	111	77.2	ND	ND	1.1
Cobalt	.85 UG/L	16.30	7.43	ND	ND	0.62
Copper	2.16 UG/L	1930	1690	8	7	7
Iron	37 UG/L	31300	21800	ND	41	46
Lead	2 UG/L	97	108	ND	ND	2
Manganese	.78 UG/L	648	450	13.9	20.9	23.9
Mercury	.005 UG/L	143	5.27	ND	ND	ND
Molybdenum	.89 UG/L	71.3	55.6	2.64	3.21	2.38
Nickel	.53 UG/L	108	77.9	5.71	3.83	2.89
Selenium	.08 UG/L	20.9	4.45	0.55	0.52	0.52
Silver	.73 UG/L	11.8	8.5	ND	ND	ND
Thallium	31 UG/L	ND	ND	ND	ND	ND
Vanadium	.64 UG/L	48	33.8	0.87	ND	ND
Zinc	4.19 UG/L	5470	3790	34.1	25.9	31.0
Calcium Hardness	MG/L	209	209	178	185	128
Magnesium Hardness	MG/L	109	121	131	132	77
Total Hardness	MG/L	318	330	309	317	205
Total Alkalinity (bicarbonate)	20 MG/L	439	463	175	181	125
Calcium	.04 MG/L	83.9	83.8	71.2	73.9	51.4
Lithium	.002 MG/L	0.038	0.041	0.033	0.036	0.036
Magnesium	.1 MG/L	26.4	29.3	31.9	32.1	18.7
Potassium	.3 MG/L	26.5	22.6	17.9	18.0	15.5
Sodium	1 MG/L	162	183	197	212	157
Bromide	.1 MG/L	0.1	0.2	0.4	0.3	0.2
Chloride	7 MG/L	199	227	242	259	203
Fluoride	.05 MG/L	ND	0.34	0.57	0.55	0.5
Nitrate	.04 MG/L	ND	ND	35.4	39.7	41.4
Ortho Phosphate	.2 MG/L	48.3	24.9	6.7	1.2	3.2
Sulfate	9 MG/L	12	59	182	182	136
Cyanide, Total	.002 MG/L	0.004	ND	0.004	0.003	0.003
BOD	2 MG/L	NR	NR	11	2	2
pH	PH	NR	NR	7.33	7.48	7.48
Turbidity	.13 NTU	NR	NR	0.58	1.14	0.93
Total Kjeldahl Nitrogen	1.6 MG/L	319.0	277.0	1.9	2.2	ND
Ammonia-N	.3 MG/L	NR	NR	ND	ND	ND
Sulfides-Total	.4 MG/L	38.20	34.70	ND	0.48	ND
Total Suspended Solids	2.5 MG/L	NR	NR	ND	ND	ND
Volatile Suspended Solids	2.5 MG/L	NR	NR	ND	ND	ND
Total Dissolved Solids	28 MG/L	NR	NR	956	1000	780
MBAS (Surfactants)	.03 MG/L	NR	NR	0.13	0.14	NR

ND= Not Detected

NR= Not Required

Chromium results are for Total Chromium.

SOUTH BAY WATER RECLAMATION PLANT
Daily Parameters and Metals

Annual 2014

Source:	REC_WATER		
Date:	07-OCT-2014		
Analyte	MDL	Units	
Aluminum	47	UG/L	26
Antimony	2.9	UG/L	ND
Arsenic	.06	UG/L	0.7
Barium	.7	UG/L	73.2
Beryllium	.05	UG/L	ND
Boron	7	UG/L	293
Cadmium	.53	UG/L	ND
Chromium	1.2	UG/L	1.2
Cobalt	.85	UG/L	0.48
Copper	2.16	UG/L	6
Iron	37	UG/L	55
Lead	2	UG/L	2
Manganese	.78	UG/L	32.0
Mercury	.005	UG/L	ND
Molybdenum	.89	UG/L	3.11
Nickel	.53	UG/L	3.03
Selenium	.08	UG/L	0.63
Silver	.73	UG/L	ND
Thallium	31	UG/L	ND
Vanadium	.64	UG/L	0.6
Zinc	4.19	UG/L	25.3
Calcium Hardness		MG/L	186
Magnesium Hardness		MG/L	108
Total Hardness		MG/L	294
Total Alkalinity (bicarbonate)	20	MG/L	157
Calcium	.04	MG/L	74.3
Lithium	.002	MG/L	0.045
Magnesium	.1	MG/L	26.2
Potassium	.3	MG/L	16.7
Sodium	1	MG/L	191
Bromide	.1	MG/L	0.2
Chloride	7	MG/L	230
Fluoride	.05	MG/L	0.59
Nitrate	.04	MG/L	21.9
Ortho Phosphate	.2	MG/L	1.1
Sulfate	9	MG/L	210
Cyanide, Total	.002	MG/L	ND
BOD	2	MG/L	4
pH		PH	7.56
Turbidity	.13	NTU	1.21
Total Kjeldahl Nitrogen	1.6	MG/L	1.6
Ammonia-N	.3	MG/L	ND
Sulfides-Total	.4	MG/L	ND
Total Suspended Solids	2.5	MG/L	ND
Volatile Suspended Solids	2.5	MG/L	ND
Total Dissolved Solids	28	MG/L	936
MBAS (Surfactants)	.03	MG/L	0.08

ND= Not Detected

NR= Not Required

Chromium results are for Total Chromium.

SOUTH BAY WATER RECLAMATION PLANT
Ammonia-Nitrogen and Total Cyanides

Annual 2014

Total Cyanide, MDL=0.002 mg/L

Source:	INFLUENT	EFFLUENT	COMB EFF	PRI EFF	SEC EFF	RSL
04-FEB-2014	ND	ND	0.004	ND	ND	0.003
06-MAY-2014	ND	ND	0.004	ND	ND	0.005
05-AUG-2014	ND	<0.002	0.004	ND	<0.002	0.004
07-OCT-2014	ND	ND	0.004	ND	ND	ND
AVERAGE	0.0	0.000	0.004	0.0	0.000	0.003

Ammonia as Nitrogen, MDL=0.3 mg/L

Source:	INFLUENT	EFFLUENT	COMB EFF	PRI EFF	SEC EFF
04-FEB-2014	36.6	ND	ND	30.0	ND
06-MAY-2014	31.4	ND	ND	28.4	0.6
05-AUG-2014	31.2	ND	ND	27.9	ND
07-OCT-2014	34.6	0.6	0.9	31.2	0.9
AVERAGE	33.5	0.2	0.2	29.4	0.4

ND= Not Detected

SOUTH BAY WATER RECLAMATION PLANT
Radioactivity

Analyzed by: TestAmerica Laboratories Richland

Annual 2014

Source	Sample Date	Sample ID	Gross Alpha Radiation	Gross Beta Radiation
INFLUENT	04-FEB-2014	P695802	2.1 ± 3.9	20.2 ± 5.4
INFLUENT	06-MAY-2014	P712561	3.4 ± 5.1	24.4 ± 6.5
INFLUENT	05-AUG-2014	P723812	-1.8 ± 4.1	20.4 ± 4.4
INFLUENT	07-OCT-2014	P734799	-2.0 ± 3.9	17.4 ± 4.5
AVERAGE			0.4 ± 4.3	20.6 ± 5.2
Source	Sample Date	Sample ID	Gross Alpha Radiation	Gross Beta Radiation
EFFLUENT	04-FEB-2014	P695807	4.8 ± 5.2	12.7 ± 4.7
EFFLUENT	06-MAY-2014	P712566	3.0 ± 5.6	20.5 ± 5.3
EFFLUENT	05-AUG-2014	P723817	1.8 ± 4.2	18.8 ± 4.4
EFFLUENT	07-OCT-2014	P734804	4.2 ± 3.9	20.3 ± 4.2
AVERAGE			3.5 ± 4.7	18.1 ± 4.7
Source	Sample Date	Sample ID	Gross Alpha Radiation	Gross Beta Radiation
COMB EFF	04-FEB-2014	P695812	0.6 ± 5.5	22.2 ± 6.4
COMB EFF	06-MAY-2014	P712571	3.9 ± 7.5	23.8 ± 7.2
COMB EFF	05-AUG-2014	P723822	2.5 ± 6.5	155.0 ± 22.0
COMB EFF	07-OCT-2014	P734809	0.6 ± 6.1	24.9 ± 6.1
AVERAGE			1.9 ± 6.4	56.5 ± 10.4
Source	Sample Date	Sample ID	Gross Alpha Radiation	Gross Beta Radiation
PRI EFF	04-FEB-2014	P695817	1.3 ± 5.7	19.6 ± 5.2
PRI EFF	06-MAY-2014	P712576	4.7 ± 5.8	21.3 ± 5.4
PRI EFF	05-AUG-2014	P723827	2.2 ± 4.2	20.0 ± 4.2
PRI EFF	07-OCT-2014	P734814	5.7 ± 4.8	21.0 ± 5.0
AVERAGE			3.5 ± 5.1	20.5 ± 5.0
Source	Sample Date	Sample ID	Gross Alpha Radiation	Gross Beta Radiation
SEC EFF	04-FEB-2014	P695822	0.9 ± 3.9	15.3 ± 4.9
SEC EFF	06-MAY-2014	P712581	-1.7 ± 5.4	17.7 ± 5.8
SEC EFF	05-AUG-2014	P723832	3.5 ± 3.8	18.9 ± 3.8
SEC EFF	07-OCT-2014	P734819	5.0 ± 5.7	18.6 ± 4.6
AVERAGE			1.9 ± 4.7	17.6 ± 4.8
Source	Sample Date	Sample ID	Gross Alpha Radiation	Gross Beta Radiation
REC WATER	04-FEB-2014	P695838	-0.7 ± 4.8	18.7 ± 5.9
REC WATER	06-MAY-2014	P712595	0.1 ± 4.3	14.0 ± 4.8
REC WATER	05-AUG-2014	P723848	-0.6 ± 3.7	18.6 ± 3.8
REC WATER	07-OCT-2014	P734833	3.2 ± 3.8	21.5 ± 4.6
AVERAGE			0.5 ± 4.2	18.2 ± 4.8

ND= Not Detected

Units in picocuries/liter (pCi/L)

SOUTH BAY WATER RECLAMATION PLANT
Chlorinated Pesticide Analysis, EPA Method 608 (with additions)

Annual 2014

Source: Date: Analyte	MDL	Units	INFLUENT	INFLUENT	INFLUENT	INFLUENT
			04-FEB-2014 P695802	06-MAY-2014 P712561	05-AUG-2014 P723812	07-OCT-2014 P734799
Aldrin	4	NG/L	ND	ND	ND	ND
BHC, Alpha isomer	.2	NG/L	ND	ND	ND	ND
BHC, Beta isomer	2	NG/L	ND	ND	ND	ND
BHC, Delta isomer	2	NG/L	ND	ND	ND	ND
BHC, Gamma isomer	.34	NG/L	ND	ND	ND	ND
Alpha (cis) Chlordane	1.4	NG/L	ND	ND	ND	ND
Gamma (trans) Chlordane	1.3	NG/L	ND	ND	ND	ND
Alpha Chlordene		NG/L	NA	NA	NA	NA
Gamma Chlordene		NG/L	NA	NA	NA	NA
Cis Nonachlor	4	NG/L	ND	ND	ND	ND
Dieldrin	4.3	NG/L	ND	ND	ND	ND
Endosulfan Sulfate	7	NG/L	ND	ND	ND	ND
Alpha Endosulfan	1.5	NG/L	ND	ND	ND	ND
Beta Endosulfan	3.1	NG/L	ND	ND	ND	ND
Endrin	6	NG/L	ND	ND	ND	ND
Endrin aldehyde	5.4	NG/L	ND	ND	ND	ND
Heptachlor	.6	NG/L	ND	ND	ND	ND
Heptachlor epoxide	9.4	NG/L	ND	ND	ND	ND
Methoxychlor	20	NG/L	ND	ND	ND	ND
Mirex	2.3	NG/L	ND	ND	ND	ND
o,p-DDD	4	NG/L	ND	ND	ND	ND
o,p-DDE	2	NG/L	ND	ND	ND	ND
o,p-DDT	2.4	NG/L	ND	ND	ND	ND
Oxychlordane	2	NG/L	ND	ND	ND	ND
PCB 1016	250	NG/L	ND	ND	ND	ND
PCB 1221	2000	NG/L	ND	ND	ND	ND
PCB 1232	750	NG/L	ND	ND	ND	ND
PCB 1242	250	NG/L	ND	ND	ND	ND
PCB 1248	250	NG/L	ND	ND	ND	ND
PCB 1254	500	NG/L	ND	ND	ND	ND
PCB 1260	500	NG/L	ND	ND	ND	ND
PCB 1262	500	NG/L	ND	ND	ND	ND
p,p-DDD	4	NG/L	ND	ND	ND	ND
p,p-DDE	1.4	NG/L	ND	33	ND	ND
p,p-DDT	3	NG/L	ND	ND	ND	ND
Toxaphene	250	NG/L	ND	ND	ND	ND
Trans Nonachlor	1.1	NG/L	ND	ND	ND	ND
<hr/>						
Aldrin + Dieldrin	4.3	NG/L	0	0	0	0
Hexachlorocyclohexanes	2	NG/L	0	0	0	0
DDT and derivatives	4	NG/L	0	33	0	0
Chlordane + related cmpds.	4	NG/L	0	0	0	0
Polychlorinated biphenyls	2000	NG/L	0	0	0	0
Endosulfans	7	NG/L	0	0	0	0
Heptachlors	9.4	NG/L	0	0	0	0
<hr/>						
Chlorinated Hydrocarbons	2000	NG/L	0	33	0	0

ND=not detected

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
Chlorinated Pesticide Analysis, EPA Method 608 (with additions)

Annual 2014

Source: Date: Analyte	MDL	Units	EFFLUENT	EFFLUENT	EFFLUENT	EFFLUENT
			04-FEB-2014 P695807	06-MAY-2014 P712566	05-AUG-2014 P723817	07-OCT-2014 P734804
Aldrin	4	NG/L	ND	ND	ND	ND
BHC, Alpha isomer	.2	NG/L	ND	ND	ND	ND
BHC, Beta isomer	2	NG/L	ND	ND	ND	2
BHC, Delta isomer	2	NG/L	ND	ND	ND	ND
BHC, Gamma isomer	.34	NG/L	ND	ND	ND	ND
Alpha (cis) Chlordane	1.4	NG/L	ND	ND	ND	ND
Gamma (trans) Chlordane	1.3	NG/L	ND	ND	ND	ND
Alpha Chlordene		NG/L	NA	NA	NA	NA
Gamma Chlordene		NG/L	NA	NA	NA	NA
Cis Nonachlor	4	NG/L	ND	ND	ND	ND
Dieldrin	4.3	NG/L	ND	ND	ND	ND
Endosulfan Sulfate	7	NG/L	ND	ND	ND	ND
Alpha Endosulfan	1.5	NG/L	ND	ND	ND	ND
Beta Endosulfan	3.1	NG/L	ND	ND	ND	ND
Endrin	6	NG/L	ND	ND	ND	ND
Endrin aldehyde	5.4	NG/L	ND	ND	ND	ND
Heptachlor	.6	NG/L	ND	ND	ND	ND
Heptachlor epoxide	9.4	NG/L	ND	ND	ND	ND
Methoxychlor	20	NG/L	ND	ND	ND	ND
Mirex	2.3	NG/L	ND	ND	ND	ND
o,p-DDD	4	NG/L	ND	ND	ND	ND
o,p-DDE	2	NG/L	ND	ND	ND	ND
o,p-DDT	2.4	NG/L	ND	ND	ND	ND
Oxychlordane	2	NG/L	ND	ND	ND	ND
PCB 1016	250	NG/L	ND	ND	ND	ND
PCB 1221	2000	NG/L	ND	ND	ND	ND
PCB 1232	750	NG/L	ND	ND	ND	ND
PCB 1242	250	NG/L	ND	ND	ND	ND
PCB 1248	250	NG/L	ND	ND	ND	ND
PCB 1254	500	NG/L	ND	ND	ND	ND
PCB 1260	500	NG/L	ND	ND	ND	ND
PCB 1262	500	NG/L	ND	ND	ND	ND
p,p-DDD	4	NG/L	ND	ND	ND	ND
p,p-DDE	1.4	NG/L	ND	ND	ND	ND
p,p-DDT	3	NG/L	ND	ND	ND	ND
Toxaphene	250	NG/L	ND	ND	ND	ND
Trans Nonachlor	1.1	NG/L	ND	ND	ND	ND
<hr/>						
Aldrin + Dieldrin	4.3	NG/L	0	0	0	0
Hexachlorocyclohexanes	2	NG/L	0	0	0	2
DDT and derivatives	4	NG/L	0	0	0	0
Chlordane + related cmpds.	4	NG/L	0	0	0	0
Polychlorinated biphenyls	2000	NG/L	0	0	0	0
Endosulfans	7	NG/L	0	0	0	0
Heptachlors	9.4	NG/L	0	0	0	0
<hr/>						
Chlorinated Hydrocarbons	2000	NG/L	0	0	0	2

ND=not detected
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
Chlorinated Pesticide Analysis, EPA Method 608 (with additions)

Annual 2014

Source: Date: Analyte	MDL	Units	COMB	EFF	COMB	EFF	COMB	EFF	COMB	EFF
			04-FEB-2014 P695812	06-MAY-2014 P712571	05-AUG-2014 P723822	07-OCT-2014 P734809				
Aldrin	4	NG/L		ND	ND	ND	ND	ND	ND	ND
BHC, Alpha isomer	.2	NG/L		ND	ND	ND	ND	ND	ND	ND
BHC, Beta isomer	2	NG/L		ND	ND	ND	ND	ND	ND	ND
BHC, Delta isomer	2	NG/L		ND	ND	ND	ND	ND	ND	ND
BHC, Gamma isomer	.34	NG/L		ND	ND	ND	ND	ND	ND	ND
Alpha (cis) Chlordane	1.4	NG/L		ND	ND	ND	ND	ND	ND	ND
Gamma (trans) Chlordane	1.3	NG/L		ND	ND	ND	ND	ND	ND	ND
Alpha Chlordene		NG/L		NA	NA	NA	NA	NA	NA	NA
Gamma Chlordene		NG/L		NA	NA	NA	NA	NA	NA	NA
Cis Nonachlor	4	NG/L		ND	ND	ND	ND	ND	ND	ND
Dieldrin	4.3	NG/L		ND	ND	ND	ND	ND	ND	ND
Endosulfan Sulfate	7	NG/L		ND	ND	ND	ND	ND	ND	ND
Alpha Endosulfan	1.5	NG/L		ND	ND	ND	ND	ND	ND	ND
Beta Endosulfan	3.1	NG/L		ND	ND	ND	ND	ND	ND	ND
Endrin	6	NG/L		ND	ND	ND	ND	ND	ND	ND
Endrin aldehyde	5.4	NG/L		ND	ND	ND	ND	ND	ND	ND
Heptachlor	.6	NG/L		ND	ND	ND	ND	ND	ND	ND
Heptachlor epoxide	9.4	NG/L		ND	ND	ND	ND	ND	ND	ND
Methoxychlor	20	NG/L		ND	ND	ND	ND	ND	ND	ND
Mirex	2.3	NG/L		ND	ND	ND	ND	ND	ND	ND
o,p-DDD	4	NG/L		ND	ND	ND	ND	ND	ND	ND
o,p-DDE	2	NG/L		ND	ND	ND	ND	ND	ND	ND
o,p-DDT	2.4	NG/L		ND	ND	ND	ND	ND	ND	ND
Oxychlordane	2	NG/L		ND	ND	ND	ND	ND	ND	ND
PCB 1016	250	NG/L		ND	ND	ND	ND	ND	ND	ND
PCB 1221	2000	NG/L		ND	ND	ND	ND	ND	ND	ND
PCB 1232	750	NG/L		ND	ND	ND	ND	ND	ND	ND
PCB 1242	250	NG/L		ND	ND	ND	ND	ND	ND	ND
PCB 1248	250	NG/L		ND	ND	ND	ND	ND	ND	ND
PCB 1254	500	NG/L		ND	ND	ND	ND	ND	ND	ND
PCB 1260	500	NG/L		ND	ND	ND	ND	ND	ND	ND
PCB 1262	500	NG/L		ND	ND	ND	ND	ND	ND	ND
p,p-DDD	4	NG/L		ND	ND	ND	ND	ND	ND	ND
p,p-DDE	1.4	NG/L		ND	ND	ND	ND	ND	ND	ND
p,p-DDT	3	NG/L		ND	ND	ND	ND	ND	ND	ND
Toxaphene	250	NG/L		ND	ND	ND	ND	ND	ND	ND
Trans Nonachlor	1.1	NG/L		ND	ND	ND	ND	ND	ND	ND
<hr/>										
Aldrin + Dieldrin	4.3	NG/L	0	0	0	0	0	0	0	0
Hexachlorocyclohexanes	2	NG/L	0	0	0	0	0	0	0	0
DDT and derivatives	4	NG/L	0	0	0	0	0	0	0	0
Chlordane + related cmpds.	4	NG/L	0	0	0	0	0	0	0	0
Polychlorinated biphenyls	2000	NG/L	0	0	0	0	0	0	0	0
Endosulfans	7	NG/L	0	0	0	0	0	0	0	0
Heptachlors	9.4	NG/L	0	0	0	0	0	0	0	0
<hr/>										
Chlorinated Hydrocarbons	2000	NG/L	0	0	0	0	0	0	0	0

ND=not detected
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
Chlorinated Pesticide Analysis, EPA Method 608 (with additions)

Annual 2014

Source: Date: Analyte	MDL	Units	PRI	EFF	PRI	EFF	PRI	EFF	PRI	EFF
			04-FEB-2014 P695817	06-MAY-2014 P712576	05-AUG-2014 P723827	07-OCT-2014 P734814				
Aldrin	4	NG/L		ND	ND	ND	ND	ND	ND	ND
BHC, Alpha isomer	.2	NG/L		ND	ND	ND	ND	ND	ND	ND
BHC, Beta isomer	2	NG/L		ND	ND	ND	ND	ND	ND	ND
BHC, Delta isomer	2	NG/L		ND	ND	ND	ND	ND	ND	ND
BHC, Gamma isomer	.34	NG/L		ND	ND	ND	ND	ND	ND	ND
Alpha (cis) Chlordane	1.4	NG/L		ND	ND	ND	ND	ND	ND	ND
Gamma (trans) Chlordane	1.3	NG/L		ND	ND	ND	ND	ND	ND	ND
Alpha Chlordene		NG/L		NA	NA	NA	NA	NA	NA	NA
Gamma Chlordene		NG/L		NA	NA	NA	NA	NA	NA	NA
Cis Nonachlor	4	NG/L		ND	ND	ND	ND	ND	ND	ND
Dieldrin	4.3	NG/L		ND	ND	ND	ND	ND	ND	ND
Endosulfan Sulfate	7	NG/L		ND	ND	ND	ND	ND	ND	ND
Alpha Endosulfan	1.5	NG/L		ND	ND	ND	ND	ND	ND	ND
Beta Endosulfan	3.1	NG/L		ND	ND	ND	ND	ND	ND	ND
Endrin	6	NG/L		ND	ND	ND	ND	ND	ND	ND
Endrin aldehyde	5.4	NG/L		ND	ND	ND	ND	ND	ND	ND
Heptachlor	.6	NG/L		ND	ND	ND	ND	ND	ND	ND
Heptachlor epoxide	9.4	NG/L		ND	ND	ND	ND	ND	ND	ND
Methoxychlor	20	NG/L		ND	ND	ND	ND	ND	ND	ND
Mirex	2.3	NG/L		ND	ND	ND	ND	ND	ND	ND
o,p-DDD	4	NG/L		ND	ND	ND	ND	ND	ND	ND
o,p-DDE	2	NG/L		ND	ND	ND	ND	ND	ND	ND
o,p-DDT	2.4	NG/L		ND	ND	ND	ND	ND	ND	ND
Oxychlordane	2	NG/L		ND	ND	ND	ND	ND	ND	ND
PCB 1016	250	NG/L		ND	ND	ND	ND	ND	ND	ND
PCB 1221	2000	NG/L		ND	ND	ND	ND	ND	ND	ND
PCB 1232	750	NG/L		ND	ND	ND	ND	ND	ND	ND
PCB 1242	250	NG/L		ND	ND	ND	ND	ND	ND	ND
PCB 1248	250	NG/L		ND	ND	ND	ND	ND	ND	ND
PCB 1254	500	NG/L		ND	ND	ND	ND	ND	ND	ND
PCB 1260	500	NG/L		ND	ND	ND	ND	ND	ND	ND
PCB 1262	500	NG/L		ND	ND	ND	ND	ND	ND	ND
p,p-DDD	4	NG/L		ND	ND	ND	ND	ND	ND	ND
p,p-DDE	1.4	NG/L		ND	22	ND	ND	ND	ND	ND
p,p-DDT	3	NG/L		ND	ND	ND	ND	ND	ND	ND
Toxaphene	250	NG/L		ND	ND	ND	ND	ND	ND	ND
Trans Nonachlor	1.1	NG/L		ND	ND	ND	ND	ND	ND	ND
<hr/>										
Aldrin + Dieldrin	4.3	NG/L	0	0	0	0	0	0	0	0
Hexachlorocyclohexanes	2	NG/L	0	0	0	0	0	0	0	0
DDT and derivatives	4	NG/L	0	22	0	0	0	0	0	0
Chlordane + related cmpds.	4	NG/L	0	0	0	0	0	0	0	0
Polychlorinated biphenyls	2000	NG/L	0	0	0	0	0	0	0	0
Endosulfans	7	NG/L	0	0	0	0	0	0	0	0
Heptachlors	9.4	NG/L	0	0	0	0	0	0	0	0
<hr/>										
Chlorinated Hydrocarbons	2000	NG/L	0	22	0	0	0	0	0	0

ND=not detected
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
Chlorinated Pesticide Analysis, EPA Method 608 (with additions)

Annual 2014

Source: Date: Analyte	MDL	Units	SEC	EFF	SEC	EFF	SEC	EFF	SEC	EFF
			04-FEB-2014 P695822	06-MAY-2014 P712581	05-AUG-2014 P723832	07-OCT-2014 P734819				
Aldrin	4	NG/L	ND	ND	ND	ND	ND	ND	ND	ND
BHC, Alpha isomer	.2	NG/L	ND	ND	ND	ND	ND	ND	ND	ND
BHC, Beta isomer	2	NG/L	ND	ND	ND	ND	ND	ND	ND	ND
BHC, Delta isomer	2	NG/L	ND	ND	ND	ND	ND	ND	ND	ND
BHC, Gamma isomer	.34	NG/L	ND	ND	ND	ND	ND	ND	ND	ND
Alpha (cis) Chlordane	1.4	NG/L	ND	ND	ND	ND	ND	ND	ND	ND
Gamma (trans) Chlordane	1.3	NG/L	ND	ND	ND	ND	ND	ND	ND	ND
Alpha Chlordene		NG/L	NA	NA	NA	NA	NA	NA	NA	NA
Gamma Chlordene		NG/L	NA	NA	NA	NA	NA	NA	NA	NA
Cis Nonachlor	4	NG/L	ND	ND	ND	ND	ND	ND	ND	ND
Dieldrin	4.3	NG/L	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan Sulfate	7	NG/L	ND	ND	ND	ND	ND	ND	ND	ND
Alpha Endosulfan	1.5	NG/L	ND	ND	ND	ND	ND	ND	ND	ND
Beta Endosulfan	3.1	NG/L	ND	ND	ND	ND	ND	ND	ND	ND
Endrin	6	NG/L	ND	ND	ND	ND	ND	ND	ND	ND
Endrin aldehyde	5.4	NG/L	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor	.6	NG/L	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor epoxide	9.4	NG/L	ND	ND	ND	ND	ND	ND	ND	ND
Methoxychlor	20	NG/L	ND	ND	ND	ND	ND	ND	ND	ND
Mirex	2.3	NG/L	ND	ND	ND	ND	ND	ND	ND	ND
o,p-DDD	4	NG/L	ND	ND	ND	ND	ND	ND	ND	ND
o,p-DDE	2	NG/L	ND	ND	ND	ND	ND	ND	ND	ND
o,p-DDT	2.4	NG/L	ND	ND	ND	ND	ND	ND	ND	ND
Oxychlordane	2	NG/L	ND	ND	ND	ND	ND	ND	ND	ND
PCB 1016	250	NG/L	ND	ND	ND	ND	ND	ND	ND	ND
PCB 1221	2000	NG/L	ND	ND	ND	ND	ND	ND	ND	ND
PCB 1232	750	NG/L	ND	ND	ND	ND	ND	ND	ND	ND
PCB 1242	250	NG/L	ND	ND	ND	ND	ND	ND	ND	ND
PCB 1248	250	NG/L	ND	ND	ND	ND	ND	ND	ND	ND
PCB 1254	500	NG/L	ND	ND	ND	ND	ND	ND	ND	ND
PCB 1260	500	NG/L	ND	ND	ND	ND	ND	ND	ND	ND
PCB 1262	500	NG/L	ND	ND	ND	ND	ND	ND	ND	ND
p,p-DDD	4	NG/L	ND	ND	ND	ND	ND	ND	ND	ND
p,p-DDE	1.4	NG/L	ND	ND	ND	ND	ND	ND	ND	ND
p,p-DDT	3	NG/L	ND	ND	ND	ND	ND	ND	ND	ND
Toxaphene	250	NG/L	ND	ND	ND	ND	ND	ND	ND	ND
Trans Nonachlor	1.1	NG/L	ND	ND	ND	ND	ND	ND	ND	ND
<hr/>										
Aldrin + Dieldrin	4.3	NG/L	0	0	0	0	0	0	0	0
Hexachlorocyclohexanes	2	NG/L	0	0	0	0	0	0	0	0
DDT and derivatives	4	NG/L	0	0	0	0	0	0	0	0
Chlordane + related cmpds.	4	NG/L	0	0	0	0	0	0	0	0
Polychlorinated biphenyls	2000	NG/L	0	0	0	0	0	0	0	0
Endosulfans	7	NG/L	0	0	0	0	0	0	0	0
Heptachlors	9.4	NG/L	0	0	0	0	0	0	0	0
<hr/>										
Chlorinated Hydrocarbons	2000	NG/L	0	0	0	0	0	0	0	0

ND=not detected
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
Chlorinated Pesticide Analysis, EPA Method 608 (with additions)

Annual 2014

Source: Date: Analyte	MDL	Units	RSL	RSL	RSL	RSL
			04-FEB-2014 P695836	06-MAY-2014 P712593	05-AUG-2014 P723846	07-OCT-2014 P734831
Aldrin	4	NG/L	ND	ND	ND	ND
BHC, Alpha isomer	.2	NG/L	ND	ND	ND	ND
BHC, Beta isomer	2	NG/L	ND	ND	ND	ND
BHC, Delta isomer	2	NG/L	ND	ND	ND	ND
BHC, Gamma isomer	.34	NG/L	ND	ND	ND	ND
Alpha (cis) Chlordane	1.4	NG/L	ND	ND	ND	ND
Gamma (trans) Chlordane	1.3	NG/L	ND	ND	ND	ND
Alpha Chlordene		NG/L	NA	NA	NA	NA
Gamma Chlordene		NG/L	NA	NA	NA	NA
Cis Nonachlor	4	NG/L	ND	ND	ND	ND
Dieldrin	4.3	NG/L	ND	ND	ND	ND
Endosulfan Sulfate	7	NG/L	ND	ND	ND	ND
Alpha Endosulfan	1.5	NG/L	ND	ND	ND	ND
Beta Endosulfan	3.1	NG/L	ND	ND	ND	ND
Endrin	6	NG/L	ND	ND	ND	ND
Endrin aldehyde	5.4	NG/L	ND	ND	ND	ND
Heptachlor	.6	NG/L	ND	ND	ND	ND
Heptachlor epoxide	9.4	NG/L	ND	ND	ND	ND
Methoxychlor	20	NG/L	ND	ND	ND	ND
Mirex	2.3	NG/L	ND	ND	ND	ND
o,p-DDD	4	NG/L	ND	ND	ND	ND
o,p-DDE	2	NG/L	ND	ND	ND	ND
o,p-DDT	2.4	NG/L	ND	ND	ND	ND
Oxychlordane	2	NG/L	ND	ND	ND	ND
PCB 1016	250	NG/L	ND	ND	ND	ND
PCB 1221	2000	NG/L	ND	ND	ND	ND
PCB 1232	750	NG/L	ND	ND	ND	ND
PCB 1242	250	NG/L	ND	ND	ND	ND
PCB 1248	250	NG/L	ND	ND	ND	ND
PCB 1254	500	NG/L	ND	ND	ND	ND
PCB 1260	500	NG/L	ND	ND	ND	ND
PCB 1262	500	NG/L	ND	ND	ND	ND
p,p-DDD	4	NG/L	ND	ND	ND	ND
p,p-DDE	1.4	NG/L	ND	ND	ND	ND
p,p-DDT	3	NG/L	ND	ND	ND	ND
Toxaphene	250	NG/L	ND	ND	ND	ND
Trans Nonachlor	1.1	NG/L	ND	ND	ND	ND
<hr/>						
Aldrin + Dieldrin	4.3	NG/L	0	0	0	0
Hexachlorocyclohexanes	2	NG/L	0	0	0	0
DDT and derivatives	4	NG/L	0	0	0	0
Chlordane + related cmpds.	4	NG/L	0	0	0	0
Polychlorinated biphenyls	2000	NG/L	0	0	0	0
Endosulfans	7	NG/L	0	0	0	0
Heptachlors	9.4	NG/L	0	0	0	0
<hr/>						
Chlorinated Hydrocarbons	2000	NG/L	0	0	0	0

ND=not detected
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
Chlorinated Pesticide Analysis, EPA Method 608 (with additions)

Annual 2014

Source: Date: Analyte	MDL	Units	REC_WATER	REC_WATER	REC_WATER	REC_WATER
			04-FEB-2014 P695838	06-MAY-2014 P712595	05-AUG-2014 P723848	07-OCT-2014 P734833
Aldrin	4	NG/L	ND	ND	ND	ND
BHC, Alpha isomer	.2	NG/L	ND	ND	ND	ND
BHC, Beta isomer	2	NG/L	ND	ND	ND	ND
BHC, Delta isomer	2	NG/L	ND	ND	ND	ND
BHC, Gamma isomer	.34	NG/L	ND	ND	ND	ND
Alpha (cis) Chlordane	1.4	NG/L	ND	ND	ND	ND
Gamma (trans) Chlordane	1.3	NG/L	ND	ND	ND	ND
Alpha Chlordene		NG/L	NA	NA	NA	NA
Gamma Chlordene		NG/L	NA	NA	NA	NA
Cis Nonachlor	4	NG/L	ND	ND	ND	ND
Dieldrin	4.3	NG/L	ND	ND	ND	ND
Endosulfan Sulfate	7	NG/L	ND	ND	ND	ND
Alpha Endosulfan	1.5	NG/L	ND	ND	ND	ND
Beta Endosulfan	3.1	NG/L	ND	ND	ND	ND
Endrin	6	NG/L	ND	ND	ND	ND
Endrin aldehyde	5.4	NG/L	ND	ND	ND	ND
Heptachlor	.6	NG/L	ND	ND	ND	ND
Heptachlor epoxide	9.4	NG/L	ND	ND	ND	ND
Methoxychlor	20	NG/L	ND	ND	ND	ND
Mirex	2.3	NG/L	ND	ND	ND	ND
o,p-DDD	4	NG/L	ND	ND	ND	ND
o,p-DDE	2	NG/L	ND	ND	ND	ND
o,p-DDT	2.4	NG/L	ND	ND	ND	ND
Oxychlordane	2	NG/L	ND	ND	ND	ND
PCB 1016	250	NG/L	ND	ND	ND	ND
PCB 1221	2000	NG/L	ND	ND	ND	ND
PCB 1232	750	NG/L	ND	ND	ND	ND
PCB 1242	250	NG/L	ND	ND	ND	ND
PCB 1248	250	NG/L	ND	ND	ND	ND
PCB 1254	500	NG/L	ND	ND	ND	ND
PCB 1260	500	NG/L	ND	ND	ND	ND
PCB 1262	500	NG/L	ND	ND	ND	ND
p,p-DDD	4	NG/L	ND	ND	ND	ND
p,p-DDE	1.4	NG/L	ND	ND	ND	ND
p,p-DDT	3	NG/L	ND	ND	ND	ND
Toxaphene	250	NG/L	ND	ND	ND	ND
Trans Nonachlor	1.1	NG/L	ND	ND	ND	ND
<hr/>						
Aldrin + Dieldrin	4.3	NG/L	0	0	0	0
Hexachlorocyclohexanes	2	NG/L	0	0	0	0
DDT and derivatives	4	NG/L	0	0	0	0
Chlordane + related cmpds.	4	NG/L	0	0	0	0
Polychlorinated biphenyls	2000	NG/L	0	0	0	0
Endosulfans	7	NG/L	0	0	0	0
Heptachlors	9.4	NG/L	0	0	0	0
<hr/>						
Chlorinated Hydrocarbons	2000	NG/L	0	0	0	0

ND=not detected
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
Organophosphorus Pesticides EPA Method 614/622 (with additions)

Annual 2014

Source:			INF	INF	EFF	EFF	COMB EFF
Date:			06-MAY-2014	07-OCT-2014	06-MAY-2014	07-OCT-2014	06-MAY-2014
Analyte	MDL	Units	P712561	P734799	P712566	P734804	P712571
Demeton O	.15	UG/L		ND	ND	ND	ND
Demeton S	.403	UG/L		ND	ND	ND	ND
Diazinon	.03	UG/L		ND	ND	ND	ND
Guthion	.15	UG/L		ND	ND	ND	ND
Malathion	.051	UG/L		ND	ND	ND	ND
Parathion	.032	UG/L		ND	ND	ND	ND
Dichlorvos	.05	UG/L		ND	ND	ND	ND
Disulfoton	.175	UG/L		ND	ND	ND	ND
Dimethoate	.189	UG/L		ND	ND	ND	ND
Stirophos	.034	UG/L	DNQ0.04		ND	ND	ND
Coumaphos	.15	UG/L		ND	ND	ND	ND
Chlorpyrifos	.034	UG/L		ND	ND	ND	ND
Thiophosphorus Pesticides	.15	UG/L		0.0	0.0	0.0	0.0
Demeton -O, -S	.403	UG/L		0.0	0.0	0.0	0.0
Total Organophosphorus Pesticides	.403	UG/L		0.0	0.0	0.0	0.0
Source:			COMB EFF	PRI EFF	PRI EFF	SEC EFF	SEC EFF
Date:			07-OCT-2014	06-MAY-2014	07-OCT-2014	06-MAY-2014	07-OCT-2014
Analyte	MDL	Units	P734809	P712576	P734814	P712581	P734819
Demeton O	.15	UG/L		ND	ND	ND	ND
Demeton S	.403	UG/L		ND	ND	ND	ND
Diazinon	.03	UG/L	DNQ0.07		ND	ND	ND
Guthion	.15	UG/L		ND	ND	ND	ND
Malathion	.051	UG/L		ND	ND	ND	ND
Parathion	.032	UG/L		ND	ND	ND	ND
Dichlorvos	.05	UG/L		ND	ND	DNQ0.1	ND
Disulfoton	.175	UG/L		ND	ND	ND	ND
Dimethoate	.189	UG/L		ND	ND	ND	ND
Stirophos	.034	UG/L		ND	ND	ND	ND
Coumaphos	.15	UG/L		ND	ND	ND	ND
Chlorpyrifos	.034	UG/L		ND	ND	ND	ND
Thiophosphorus Pesticides	.15	UG/L		0.0	0.0	0.0	0.0
Demeton -O, -S	.403	UG/L		0.0	0.0	0.0	0.0
Total Organophosphorus Pesticides	.403	UG/L		0.0	0.0	0.0	0.0
Source:			RSL	RSL	RECLAIM	RECLAIM	
Date:			06-MAY-2014	07-OCT-2014	06-MAY-2014	07-OCT-2014	
Analyte	MDL	Units	P712593	P734831	P712595	P734833	
Demeton O	.15	UG/L		ND	ND	ND	ND
Demeton S	.403	UG/L		ND	ND	ND	ND
Diazinon	.03	UG/L		ND	ND	ND	ND
Guthion	.15	UG/L		ND	ND	ND	ND
Malathion	.051	UG/L		ND	ND	ND	ND
Parathion	.032	UG/L		ND	ND	ND	ND
Dichlorvos	.05	UG/L		ND	ND	ND	ND
Disulfoton	.175	UG/L		ND	ND	ND	ND
Dimethoate	.189	UG/L		ND	ND	ND	ND
Stirophos	.034	UG/L		ND	ND	ND	ND
Coumaphos	.15	UG/L		ND	ND	ND	ND
Chlorpyrifos	.034	UG/L		ND	ND	ND	ND
Thiophosphorus Pesticides	.15	UG/L		0.0	0.0	0.0	0.0
Demeton -O, -S	.403	UG/L		0.0	0.0	0.0	0.0
Total Organophosphorus Pesticides	.403	UG/L		0.0	0.0	0.0	0.0

ND=not detected

DNQ=Detected not quantifiable, result value less than minimum level (ML) but greater or equal MDL.

SOUTH BAY WATER RECLAMATION PLANT
Priority Pollutants Base/Neutral Compounds, EPA Method 625

Annual 2014

Source:		SB_INF_02	SB_INF_02	SB_INF_02	SB_INF_02	
Date:		04-FEB-2014	06-MAY-2014	05-AUG-2014	07-OCT-2014	
Analyte	MDL	Units	P695802	P712561	P723812	P734799
Acenaphthene	1.8	UG/L	ND	ND	ND	ND
Acenaphthylene	1.77	UG/L	ND	ND	ND	ND
Anthracene	1.29	UG/L	ND	ND	ND	ND
Benzidine	1.52	UG/L	ND	ND	ND	ND
Benzo[a]anthracene	1.1	UG/L	ND	ND	ND	ND
3,4-Benzo(b)fluoranthene	1.35	UG/L	ND	ND	ND	ND
Benzo[k]fluoranthene	1.49	UG/L	ND	ND	ND	ND
Benzo[a]pyrene	1.25	UG/L	ND	ND	ND	ND
Benzo[g,h,i]perylene	1.09	UG/L	ND	ND	ND	ND
4-Bromophenyl phenyl ether	1.4	UG/L	ND	ND	ND	ND
Bis-(2-chloroethoxy) methane	1.01	UG/L	ND	ND	ND	ND
Bis-(2-chloroethyl) ether	1.38	UG/L	ND	ND	ND	ND
Bis-(2-chloroisopropyl) ether	1.16	UG/L	ND	ND	ND	ND
4-Chlorophenyl phenyl ether	1.57	UG/L	ND	ND	ND	ND
2-Chloronaphthalene	1.87	UG/L	ND	ND	ND	ND
Chrysene	1.16	UG/L	ND	ND	ND	ND
Dibenzo(a,h)anthracene	1.01	UG/L	ND	ND	ND	ND
Butyl benzyl phthalate	2.84	UG/L	ND	ND	3.4	2.9
Di-n-butyl phthalate	3.96	UG/L	ND	ND	4.0	ND
Bis-(2-ethylhexyl) phthalate	8.96	UG/L	17.2	28.8	19.6	18.0
Diethyl phthalate	3.05	UG/L	5.7	4.5	5.4	5.9
Dimethyl phthalate	1.44	UG/L	ND	ND	ND	ND
Di-n-octyl phthalate	1	UG/L	ND	ND	ND	ND
3,3-Dichlorobenzidine	2.44	UG/L	ND	ND	ND	ND
2,4-Dinitrotoluene	1.36	UG/L	ND	ND	ND	ND
2,6-Dinitrotoluene	1.53	UG/L	ND	ND	ND	ND
1,2-Diphenylhydrazine	1.37	UG/L	ND	ND	ND	ND
Fluoranthene	1.33	UG/L	ND	ND	ND	ND
Fluorene	1.61	UG/L	ND	ND	ND	ND
Hexachlorobenzene	1.48	UG/L	ND	ND	ND	ND
Hexachlorobutadiene	1.64	UG/L	ND	ND	ND	ND
Hexachlorocyclopentadiene	1.25	UG/L	ND	ND	ND	ND
Hexachloroethane	1.32	UG/L	ND	ND	ND	ND
Indeno(1,2,3-CD)pyrene	1.14	UG/L	ND	ND	ND	ND
Isophorone	1.53	UG/L	ND	ND	ND	ND
Naphthalene	1.65	UG/L	ND	ND	ND	ND
Nitrobenzene	1.6	UG/L	ND	ND	ND	ND
N-nitrosodimethylamine	1.27	UG/L	ND	ND	ND	ND
N-nitrosodi-n-propylamine	1.16	UG/L	ND	ND	ND	ND
N-nitrosodiphenylamine	3.48	UG/L	ND	ND	ND	ND
Phenanthrrene	1.34	UG/L	ND	ND	ND	ND
Pyrene	1.43	UG/L	ND	ND	ND	ND
1,2,4-Trichlorobenzene	1.52	UG/L	ND	ND	ND	ND
Polynuc. Aromatic Hydrocarbons	1.77	UG/L	0.0	0.0	0.0	0.0
Base/Neutral Compounds	8.96	UG/L	22.9	33.3	32.4	26.8

Additional analytes determined

Benzo[e]pyrene	1.44	UG/L	ND	ND	ND	ND
Biphenyl	2.29	UG/L	ND	ND	ND	ND
2,6-Dimethylnaphthalene	2.16	UG/L	ND	ND	ND	ND
1-Methylnaphthalene	2.18	UG/L	ND	ND	ND	ND
1-Methylphenanthrene	1.46	UG/L	ND	ND	ND	ND
2-Methylnaphthalene	2.14	UG/L	ND	ND	ND	ND
2,3,5-Trimethylnaphthalene	2.18	UG/L	ND	ND	ND	ND
Perylene	1.41	UG/L	ND	ND	ND	ND
Pyridine	3.33	UG/L	ND	ND	ND	ND

ND= not detected

SOUTH BAY WATER RECLAMATION PLANT
Priority Pollutants Base/Neutral Compounds, EPA Method 625

Annual 2014

Source:		SB_OUTFALL_01	SB_OUTFALL_01	SB_OUTFALL_01	SB_OUTFALL_01
Date:		04-FEB-2014	06-MAY-2014	05-AUG-2014	07-OCT-2014
Analyte	MDL Units	P695807	P712566	P723817	P734804
Acenaphthene	1.8 UG/L	ND	ND	ND	ND
Acenaphthylene	1.77 UG/L	ND	ND	ND	ND
Anthracene	1.29 UG/L	ND	ND	ND	ND
Benzidine	1.52 UG/L	ND	ND	ND	ND
Benzo[a]anthracene	1.1 UG/L	ND	ND	ND	ND
3,4-Benzo(b)fluoranthene	1.35 UG/L	ND	ND	ND	ND
Benzo[k]fluoranthene	1.49 UG/L	ND	ND	ND	ND
Benzo[a]pyrene	1.25 UG/L	ND	ND	ND	ND
Benzo[g,h,i]perylene	1.09 UG/L	ND	ND	ND	ND
4-Bromophenyl phenyl ether	1.4 UG/L	ND	ND	ND	ND
Bis-(2-chloroethoxy) methane	1.01 UG/L	ND	ND	ND	ND
Bis-(2-chloroethyl) ether	1.38 UG/L	ND	ND	ND	ND
Bis-(2-chloroisopropyl) ether	1.16 UG/L	ND	ND	ND	ND
4-Chlorophenyl phenyl ether	1.57 UG/L	ND	ND	ND	ND
2-Chloronaphthalene	1.87 UG/L	ND	ND	ND	ND
Chrysene	1.16 UG/L	ND	ND	ND	ND
Dibenzo(a,h)anthracene	1.01 UG/L	ND	ND	ND	ND
Butyl benzyl phthalate	2.84 UG/L	ND	ND	ND	ND
Di-n-butyl phthalate	3.96 UG/L	ND	ND	ND	ND
Bis-(2-ethylhexyl) phthalate	8.96 UG/L	ND	ND	ND	ND
Diethyl phthalate	3.05 UG/L	ND	ND	ND	ND
Dimethyl phthalate	1.44 UG/L	ND	ND	ND	ND
Di-n-octyl phthalate	1 UG/L	ND	ND	ND	ND
3,3-Dichlorobenzidine	2.44 UG/L	ND	ND	ND	ND
2,4-Dinitrotoluene	1.36 UG/L	ND	ND	ND	ND
2,6-Dinitrotoluene	1.53 UG/L	ND	ND	ND	ND
1,2-Diphenylhydrazine	1.37 UG/L	ND	ND	ND	ND
Fluoranthene	1.33 UG/L	ND	ND	ND	ND
Fluorene	1.61 UG/L	ND	ND	ND	ND
Hexachlorobenzene	1.48 UG/L	ND	ND	ND	ND
Hexachlorobutadiene	1.64 UG/L	ND	ND	ND	ND
Hexachlorocyclopentadiene	1.25 UG/L	ND	ND	ND	ND
Hexachloroethane	1.32 UG/L	ND	ND	ND	ND
Indeno(1,2,3-CD)pyrene	1.14 UG/L	ND	ND	ND	ND
Isophorone	1.53 UG/L	ND	ND	ND	ND
Naphthalene	1.65 UG/L	ND	ND	ND	ND
Nitrobenzene	1.6 UG/L	ND	ND	ND	ND
N-nitrosodimethylamine	1.27 UG/L	ND	ND	ND	ND
N-nitrosodi-n-propylamine	1.16 UG/L	ND	ND	ND	ND
N-nitrosodiphenylamine	3.48 UG/L	ND	ND	ND	ND
Phenanthrrene	1.34 UG/L	ND	ND	ND	ND
Pyrene	1.43 UG/L	ND	ND	ND	ND
1,2,4-Trichlorobenzene	1.52 UG/L	ND	ND	ND	ND
Polynuc. Aromatic Hydrocarbons	1.77 UG/L	0.0	0.0	0.0	0.0
Base/Neutral Compounds	8.96 UG/L	0.0	0.0	0.0	0.0

Additional analytes determined

Benzo[e]pyrene	1.44 UG/L	ND	ND	ND	ND
Biphenyl	2.29 UG/L	ND	ND	ND	ND
2,6-Dimethylnaphthalene	2.16 UG/L	ND	ND	ND	ND
1-Methylnaphthalene	2.18 UG/L	ND	ND	ND	ND
1-Methylphenanthrene	1.46 UG/L	ND	ND	ND	ND
2-Methylnaphthalene	2.14 UG/L	ND	ND	ND	ND
2,3,5-Trimethylnaphthalene	2.18 UG/L	ND	ND	ND	ND
Perylene	1.41 UG/L	ND	ND	ND	ND
Pyridine	3.33 UG/L	ND	ND	ND	ND

ND= not detected

SOUTH BAY WATER RECLAMATION PLANT
Priority Pollutants Base/Neutral Compounds, EPA Method 625

Annual 2014

Source:		SB_ITP_COMB_EFF	SB_ITP_COMB_EFF	SB_ITP_COMB_EFF	SB_ITP_COMB_EFF
Date:		04-FEB-2014	06-MAY-2014	05-AUG-2014	07-OCT-2014
Analyte	MDL Units	P695812	P712571	P723822	P734809
Acenaphthene	1.8 UG/L	ND	ND	ND	ND
Acenaphthylene	1.77 UG/L	ND	ND	ND	ND
Anthracene	1.29 UG/L	ND	ND	ND	ND
Benzidine	1.52 UG/L	ND	ND	ND	ND
Benzo[a]anthracene	1.1 UG/L	ND	ND	ND	ND
3,4-Benzo(b)fluoranthene	1.35 UG/L	ND	ND	ND	ND
Benzo[k]fluoranthene	1.49 UG/L	ND	ND	ND	ND
Benzo[a]pyrene	1.25 UG/L	ND	ND	ND	ND
Benzo[g,h,i]perylene	1.09 UG/L	ND	ND	ND	ND
4-Bromophenyl phenyl ether	1.4 UG/L	ND	ND	ND	ND
Bis-(2-chloroethoxy) methane	1.01 UG/L	ND	ND	ND	ND
Bis-(2-chloroethyl) ether	1.38 UG/L	ND	ND	ND	ND
Bis-(2-chloroisopropyl) ether	1.16 UG/L	ND	ND	ND	ND
4-Chlorophenyl phenyl ether	1.57 UG/L	ND	ND	ND	ND
2-Chloronaphthalene	1.87 UG/L	ND	ND	ND	ND
Chrysene	1.16 UG/L	ND	ND	ND	ND
Dibenzo(a,h)anthracene	1.01 UG/L	ND	ND	ND	ND
Butyl benzyl phthalate	2.84 UG/L	ND	ND	ND	ND
Di-n-butyl phthalate	3.96 UG/L	ND	ND	ND	ND
Bis-(2-ethylhexyl) phthalate	8.96 UG/L	ND	ND	ND	ND
Diethyl phthalate	3.05 UG/L	ND	ND	ND	ND
Dimethyl phthalate	1.44 UG/L	ND	ND	ND	ND
Di-n-octyl phthalate	1 UG/L	ND	ND	ND	ND
3,3-Dichlorobenzidine	2.44 UG/L	ND	ND	ND	ND
2,4-Dinitrotoluene	1.36 UG/L	ND	ND	ND	ND
2,6-Dinitrotoluene	1.53 UG/L	ND	ND	ND	ND
1,2-Diphenylhydrazine	1.37 UG/L	ND	ND	ND	ND
Fluoranthene	1.33 UG/L	ND	ND	ND	ND
Fluorene	1.61 UG/L	ND	ND	ND	ND
Hexachlorobenzene	1.48 UG/L	ND	ND	ND	ND
Hexachlorobutadiene	1.64 UG/L	ND	ND	ND	ND
Hexachlorocyclopentadiene	1.25 UG/L	ND	ND	ND	ND
Hexachloroethane	1.32 UG/L	ND	ND	ND	ND
Indeno(1,2,3-CD)pyrene	1.14 UG/L	ND	ND	ND	ND
Isophorone	1.53 UG/L	ND	ND	ND	ND
Naphthalene	1.65 UG/L	ND	ND	ND	ND
Nitrobenzene	1.6 UG/L	ND	ND	ND	ND
N-nitrosodimethylamine	1.27 UG/L	ND	ND	ND	ND
N-nitrosodi-n-propylamine	1.16 UG/L	ND	ND	ND	ND
N-nitrosodiphenylamine	3.48 UG/L	ND	ND	ND	ND
Phenanthrrene	1.34 UG/L	ND	ND	ND	ND
Pyrene	1.43 UG/L	ND	ND	ND	ND
1,2,4-Trichlorobenzene	1.52 UG/L	ND	ND	ND	ND
Polynuc. Aromatic Hydrocarbons	1.77 UG/L	0.0	0.0	0.0	0.0
Base/Neutral Compounds	8.96 UG/L	0.0	0.0	0.0	0.0

Additional analytes determined

Benzo[e]pyrene	1.44 UG/L	ND	ND	ND	ND
Biphenyl	2.29 UG/L	ND	ND	ND	ND
2,6-Dimethylnaphthalene	2.16 UG/L	ND	ND	ND	ND
1-Methylnaphthalene	2.18 UG/L	ND	ND	ND	ND
1-Methylphenanthrene	1.46 UG/L	ND	ND	ND	ND
2-Methylnaphthalene	2.14 UG/L	ND	ND	ND	ND
2,3,5-Trimethylnaphthalene	2.18 UG/L	ND	ND	ND	ND
Perylene	1.41 UG/L	ND	ND	ND	ND
Pyridine	3.33 UG/L	ND	ND	ND	ND

ND= not detected

SOUTH BAY WATER RECLAMATION PLANT
Priority Pollutants Base/Neutral Compounds, EPA Method 625

Annual 2014

Source:		SB_PRIEFF_10	SB_PRIEFF_10	SB_PRIEFF_10	SB_PRIEFF_10	
Date:		04-FEB-2014	06-MAY-2014	05-AUG-2014	07-OCT-2014	
Analyte	MDL	Units	P695817	P712576	P723827	P734814
Acenaphthene	1.8	UG/L	ND	ND	ND	ND
Acenaphthylene	1.77	UG/L	ND	ND	ND	ND
Anthracene	1.29	UG/L	ND	ND	ND	ND
Benzidine	1.52	UG/L	ND	ND	ND	ND
Benzo[a]anthracene	1.1	UG/L	ND	ND	ND	ND
3,4-Benzo(b)fluoranthene	1.35	UG/L	ND	ND	ND	ND
Benzo[k]fluoranthene	1.49	UG/L	ND	ND	ND	ND
Benzo[a]pyrene	1.25	UG/L	ND	ND	ND	ND
Benzo[g,h,i]perylene	1.09	UG/L	ND	ND	ND	ND
4-Bromophenyl phenyl ether	1.4	UG/L	ND	ND	ND	ND
Bis-(2-chloroethoxy) methane	1.01	UG/L	ND	ND	ND	ND
Bis-(2-chloroethyl) ether	1.38	UG/L	ND	ND	ND	ND
Bis-(2-chloroisopropyl) ether	1.16	UG/L	ND	ND	ND	ND
4-Chlorophenyl phenyl ether	1.57	UG/L	ND	ND	ND	ND
2-Chloronaphthalene	1.87	UG/L	ND	ND	ND	ND
Chrysene	1.16	UG/L	ND	ND	ND	ND
Dibenzo(a,h)anthracene	1.01	UG/L	ND	ND	ND	ND
Butyl benzyl phthalate	2.84	UG/L	ND	ND	ND	ND
Di-n-butyl phthalate	3.96	UG/L	ND	ND	ND	ND
Bis-(2-ethylhexyl) phthalate	8.96	UG/L	12.0	13.4	14.3	14.5
Diethyl phthalate	3.05	UG/L	4.4	5.1	4.5	ND
Dimethyl phthalate	1.44	UG/L	ND	ND	ND	ND
Di-n-octyl phthalate	1	UG/L	ND	ND	ND	ND
3,3-Dichlorobenzidine	2.44	UG/L	ND	ND	ND	ND
2,4-Dinitrotoluene	1.36	UG/L	ND	ND	ND	ND
2,6-Dinitrotoluene	1.53	UG/L	ND	ND	ND	ND
1,2-Diphenylhydrazine	1.37	UG/L	ND	ND	ND	ND
Fluoranthene	1.33	UG/L	ND	ND	ND	ND
Fluorene	1.61	UG/L	ND	ND	ND	ND
Hexachlorobenzene	1.48	UG/L	ND	ND	ND	ND
Hexachlorobutadiene	1.64	UG/L	ND	ND	ND	ND
Hexachlorocyclopentadiene	1.25	UG/L	ND	ND	ND	ND
Hexachloroethane	1.32	UG/L	ND	ND	ND	ND
Indeno(1,2,3-CD)pyrene	1.14	UG/L	ND	ND	ND	ND
Isophorone	1.53	UG/L	ND	ND	ND	ND
Naphthalene	1.65	UG/L	ND	ND	ND	ND
Nitrobenzene	1.6	UG/L	ND	ND	ND	ND
N-nitrosodimethylamine	1.27	UG/L	ND	ND	ND	ND
N-nitrosodi-n-propylamine	1.16	UG/L	ND	ND	ND	ND
N-nitrosodiphenylamine	3.48	UG/L	ND	ND	ND	ND
Phenanthrrene	1.34	UG/L	ND	ND	ND	ND
Pyrene	1.43	UG/L	ND	ND	ND	ND
1,2,4-Trichlorobenzene	1.52	UG/L	ND	ND	ND	ND
Polynuc. Aromatic Hydrocarbons	1.77	UG/L	0.0	0.0	0.0	0.0
Base/Neutral Compounds	8.96	UG/L	16.4	18.5	18.8	14.5

Additional analytes determined

Benzo[e]pyrene	1.44	UG/L	ND	ND	ND	ND
Biphenyl	2.29	UG/L	ND	ND	ND	ND
2,6-Dimethylnaphthalene	2.16	UG/L	ND	ND	ND	ND
1-Methylnaphthalene	2.18	UG/L	ND	ND	ND	ND
1-Methylphenanthrene	1.46	UG/L	ND	ND	ND	ND
2-Methylnaphthalene	2.14	UG/L	ND	ND	ND	ND
2,3,5-Trimethylnaphthalene	2.18	UG/L	ND	ND	ND	ND
Perylene	1.41	UG/L	ND	ND	ND	ND
Pyridine	3.33	UG/L	ND	ND	ND	ND

ND= not detected

SOUTH BAY WATER RECLAMATION PLANT
Priority Pollutants Base/Neutral Compounds, EPA Method 625

Annual 2014

Source:		SB_SEC_EFF_20	SB_SEC_EFF_20	SB_SEC_EFF_20	SB_SEC_EFF_20	
Date:		04-FEB-2014	06-MAY-2014	05-AUG-2014	07-OCT-2014	
Analyte	MDL	Units	P695822	P712581	P723832	P734819
Acenaphthene	1.8	UG/L	ND	ND	ND	ND
Acenaphthylene	1.77	UG/L	ND	ND	ND	ND
Anthracene	1.29	UG/L	ND	ND	ND	ND
Benzidine	1.52	UG/L	ND	ND	ND	ND
Benzo[a]anthracene	1.1	UG/L	ND	ND	ND	ND
3,4-Benzo(b)fluoranthene	1.35	UG/L	ND	ND	ND	ND
Benzo[k]fluoranthene	1.49	UG/L	ND	ND	ND	ND
Benzo[a]pyrene	1.25	UG/L	ND	ND	ND	ND
Benzo[g,h,i]perylene	1.09	UG/L	ND	ND	ND	ND
4-Bromophenyl phenyl ether	1.4	UG/L	ND	ND	ND	ND
Bis-(2-chloroethoxy) methane	1.01	UG/L	ND	ND	ND	ND
Bis-(2-chloroethyl) ether	1.38	UG/L	ND	ND	ND	ND
Bis-(2-chloroisopropyl) ether	1.16	UG/L	ND	ND	ND	ND
4-Chlorophenyl phenyl ether	1.57	UG/L	ND	ND	ND	ND
2-Chloronaphthalene	1.87	UG/L	ND	ND	ND	ND
Chrysene	1.16	UG/L	ND	ND	ND	ND
Dibenzo(a,h)anthracene	1.01	UG/L	ND	ND	ND	ND
Butyl benzyl phthalate	2.84	UG/L	ND	ND	ND	ND
Di-n-butyl phthalate	3.96	UG/L	ND	ND	ND	ND
Bis-(2-ethylhexyl) phthalate	8.96	UG/L	ND	ND	14.7	ND
Diethyl phthalate	3.05	UG/L	ND	ND	5.8	ND
Dimethyl phthalate	1.44	UG/L	ND	ND	ND	ND
Di-n-octyl phthalate	1	UG/L	ND	ND	ND	ND
3,3-Dichlorobenzidine	2.44	UG/L	ND	ND	ND	ND
2,4-Dinitrotoluene	1.36	UG/L	ND	ND	ND	ND
2,6-Dinitrotoluene	1.53	UG/L	ND	ND	ND	ND
1,2-Diphenylhydrazine	1.37	UG/L	ND	ND	ND	ND
Fluoranthene	1.33	UG/L	ND	ND	ND	ND
Fluorene	1.61	UG/L	ND	ND	ND	ND
Hexachlorobenzene	1.48	UG/L	ND	ND	ND	ND
Hexachlorobutadiene	1.64	UG/L	ND	ND	ND	ND
Hexachlorocyclopentadiene	1.25	UG/L	ND	ND	ND	ND
Hexachloroethane	1.32	UG/L	ND	ND	ND	ND
Indeno(1,2,3-CD)pyrene	1.14	UG/L	ND	ND	ND	ND
Isophorone	1.53	UG/L	ND	ND	ND	ND
Naphthalene	1.65	UG/L	ND	ND	ND	ND
Nitrobenzene	1.6	UG/L	ND	ND	ND	ND
N-nitrosodimethylamine	1.27	UG/L	ND	ND	ND	ND
N-nitrosodi-n-propylamine	1.16	UG/L	ND	ND	ND	ND
N-nitrosodiphenylamine	3.48	UG/L	ND	ND	ND	ND
Phenanthrrene	1.34	UG/L	ND	ND	ND	ND
Pyrene	1.43	UG/L	ND	ND	ND	ND
1,2,4-Trichlorobenzene	1.52	UG/L	ND	ND	ND	ND
Polynuc. Aromatic Hydrocarbons	1.77	UG/L	0.0	0.0	0.0	0.0
Base/Neutral Compounds	8.96	UG/L	0.0	0.0	20.5	0.0

Additional analytes determined

Benzo[e]pyrene	1.44	UG/L	ND	ND	ND	ND
Biphenyl	2.29	UG/L	ND	ND	ND	ND
2,6-Dimethylnaphthalene	2.16	UG/L	ND	ND	ND	ND
1-Methylnaphthalene	2.18	UG/L	ND	ND	ND	ND
1-Methylphenanthrene	1.46	UG/L	ND	ND	ND	ND
2-Methylnaphthalene	2.14	UG/L	ND	ND	ND	ND
2,3,5-Trimethylnaphthalene	2.18	UG/L	ND	ND	ND	ND
Perylene	1.41	UG/L	ND	ND	ND	ND
Pyridine	3.33	UG/L	ND	ND	ND	ND

ND= not detected

SOUTH BAY WATER RECLAMATION PLANT
Priority Pollutants Base/Neutral Compounds, EPA Method 625

Annual 2014

Source:		SB_REC_WATER_34	SB_REC_WATER_34	SB_REC_WATER_34	SB_REC_WATER_34	
Date:		04-FEB-2014	06-MAY-2014	05-AUG-2014	07-OCT-2014	
Analyte	MDL	Units	P695838	P712595	P723848	P734833
Acenaphthene	1.8	UG/L	ND	ND	ND	ND
Acenaphthylene	1.77	UG/L	ND	ND	ND	ND
Anthracene	1.29	UG/L	ND	ND	ND	ND
Benzidine	1.52	UG/L	ND	ND	ND	ND
Benzo[a]anthracene	1.1	UG/L	ND	ND	ND	ND
3,4-Benzo(b)fluoranthene	1.35	UG/L	ND	ND	ND	ND
Benzo[k]fluoranthene	1.49	UG/L	ND	ND	ND	ND
Benzo[a]pyrene	1.25	UG/L	ND	ND	ND	ND
Benzo[g,h,i]perylene	1.09	UG/L	ND	ND	ND	ND
4-Bromophenyl phenyl ether	1.4	UG/L	ND	ND	ND	ND
Bis-(2-chloroethoxy) methane	1.01	UG/L	ND	ND	ND	ND
Bis-(2-chloroethyl) ether	1.38	UG/L	ND	ND	ND	ND
Bis-(2-chloroisopropyl) ether	1.16	UG/L	ND	ND	ND	ND
4-Chlorophenyl phenyl ether	1.57	UG/L	ND	ND	ND	ND
2-Chloronaphthalene	1.87	UG/L	ND	ND	ND	ND
Chrysene	1.16	UG/L	ND	ND	ND	ND
Dibenzo(a,h)anthracene	1.01	UG/L	ND	ND	ND	ND
Butyl benzyl phthalate	2.84	UG/L	ND	ND	ND	ND
Di-n-butyl phthalate	3.96	UG/L	ND	ND	ND	ND
Bis-(2-ethylhexyl) phthalate	8.96	UG/L	ND	ND	ND	ND
Diethyl phthalate	3.05	UG/L	ND	ND	ND	ND
Dimethyl phthalate	1.44	UG/L	ND	ND	ND	ND
Di-n-octyl phthalate	1	UG/L	ND	ND	ND	ND
3,3-Dichlorobenzidine	2.44	UG/L	ND	ND	ND	ND
2,4-Dinitrotoluene	1.36	UG/L	ND	ND	ND	ND
2,6-Dinitrotoluene	1.53	UG/L	ND	ND	ND	ND
1,2-Diphenylhydrazine	1.37	UG/L	ND	ND	ND	ND
Fluoranthene	1.33	UG/L	ND	ND	ND	ND
Fluorene	1.61	UG/L	ND	ND	ND	ND
Hexachlorobenzene	1.48	UG/L	ND	ND	ND	ND
Hexachlorobutadiene	1.64	UG/L	ND	ND	ND	ND
Hexachlorocyclopentadiene	1.25	UG/L	ND	ND	ND	ND
Hexachloroethane	1.32	UG/L	ND	ND	ND	ND
Indeno(1,2,3-CD)pyrene	1.14	UG/L	ND	ND	ND	ND
Isophorone	1.53	UG/L	ND	ND	ND	ND
Naphthalene	1.65	UG/L	ND	ND	ND	ND
Nitrobenzene	1.6	UG/L	ND	ND	ND	ND
N-nitrosodimethylamine	1.27	UG/L	ND	ND	ND	ND
N-nitrosodi-n-propylamine	1.16	UG/L	ND	ND	ND	ND
N-nitrosodiphenylamine	3.48	UG/L	ND	ND	ND	ND
Phenanthrrene	1.34	UG/L	ND	ND	ND	ND
Pyrene	1.43	UG/L	ND	ND	ND	ND
1,2,4-Trichlorobenzene	1.52	UG/L	ND	ND	ND	ND
Polynuc. Aromatic Hydrocarbons	1.77	UG/L	0.0	0.0	0.0	0.0
Base/Neutral Compounds	8.96	UG/L	0.0	0.0	0.0	0.0

Additional analytes determined

Benzo[e]pyrene	1.44	UG/L	ND	ND	ND	ND
Biphenyl	2.29	UG/L	ND	ND	ND	ND
2,6-Dimethylnaphthalene	2.16	UG/L	ND	ND	ND	ND
1-Methylnaphthalene	2.18	UG/L	ND	ND	ND	ND
1-Methylphenanthrene	1.46	UG/L	ND	ND	ND	ND
2-Methylnaphthalene	2.14	UG/L	ND	ND	ND	ND
2,3,5-Trimethylnaphthalene	2.18	UG/L	ND	ND	ND	ND
Perylene	1.41	UG/L	ND	ND	ND	ND
Pyridine	3.33	UG/L	ND	ND	ND	ND

ND= not detected

SOUTH BAY WATER RECLAMATION PLANT
ACID EXTRACTABLE COMPOUNDS, EPA Method 625

Annual 2014

Source: Date: Analyte	MDL	Units	INFLUENT	INFLUENT	INFLUENT	INFLUENT
			04-FEB-2014 P695802	06-MAY-2014 P712561	05-AUG-2014 P723812	07-OCT-2014 P734799
2-Chlorophenol	1.32	UG/L	ND	ND	ND	ND
2,4-Dichlorophenol	1.01	UG/L	ND	ND	ND	ND
4-Chloro-3-methylphenol	1.67	UG/L	ND	ND	ND	ND
2,4,6-Trichlorophenol	1.65	UG/L	ND	ND	ND	ND
Pentachlorophenol	1.12	UG/L	ND	ND	ND	ND
Phenol	1.76	UG/L	39.4	39.8	47.0	48.3
2-Nitrophenol	1.55	UG/L	ND	ND	ND	ND
2,4-Dimethylphenol	2.01	UG/L	ND	ND	ND	ND
2,4-Dinitrophenol	2.16	UG/L	ND	ND	ND	ND
4-Nitrophenol	1.14	UG/L	ND	ND	ND	ND
2-Methyl-4,6-dinitrophenol	1.52	UG/L	ND	ND	ND	ND
Total Chlorinated Phenols	1.67	UG/L	0.0	0.0	0.0	0.0
Total Non-Chlorinated Phenols	2.16	UG/L	39.4	39.8	47.0	48.3
Total Phenols	2.16	UG/L	39.4	39.8	47.0	48.3

Additional analytes determined

		EFFLUENT		EFFLUENT		EFFLUENT	
Source: Date: Analyte	MDL	Units	04-FEB-2014 P695807	06-MAY-2014 P712566	05-AUG-2014 P723817	07-OCT-2014 P734804	
2-Chlorophenol	1.32	UG/L	ND	ND	ND	ND	
2,4-Dichlorophenol	1.01	UG/L	ND	ND	ND	ND	
4-Chloro-3-methylphenol	1.67	UG/L	ND	ND	ND	ND	
2,4,6-Trichlorophenol	1.65	UG/L	ND	ND	ND	ND	
Pentachlorophenol	1.12	UG/L	ND	ND	ND	ND	
Phenol	1.76	UG/L	ND	ND	ND	ND	
2-Nitrophenol	1.55	UG/L	ND	ND	ND	ND	
2,4-Dimethylphenol	2.01	UG/L	ND	ND	ND	ND	
2,4-Dinitrophenol	2.16	UG/L	ND	ND	ND	ND	
4-Nitrophenol	1.14	UG/L	ND	ND	ND	ND	
2-Methyl-4,6-dinitrophenol	1.52	UG/L	ND	ND	ND	ND	
Total Chlorinated Phenols	1.67	UG/L	0.0	0.0	0.0	0.0	
Total Non-Chlorinated Phenols	2.16	UG/L	0.0	0.0	0.0	0.0	
Total Phenols	2.16	UG/L	0.0	0.0	0.0	0.0	

Additional analytes determined

		EFFLUENT		EFFLUENT		EFFLUENT	
Source: Date: Analyte	MDL	Units	04-FEB-2014 P695807	06-MAY-2014 P712566	05-AUG-2014 P723817	07-OCT-2014 P734804	
2-Chlorophenol	1.32	UG/L	ND	ND	ND	ND	
2,4-Dichlorophenol	1.01	UG/L	ND	ND	ND	ND	
4-Chloro-3-methylphenol	1.67	UG/L	ND	ND	ND	ND	
2,4,6-Trichlorophenol	1.65	UG/L	ND	ND	ND	ND	
Pentachlorophenol	1.12	UG/L	ND	ND	ND	ND	
Phenol	1.76	UG/L	ND	ND	ND	ND	
2-Nitrophenol	1.55	UG/L	ND	ND	ND	ND	
2,4-Dimethylphenol	2.01	UG/L	ND	ND	ND	ND	
2,4-Dinitrophenol	2.16	UG/L	ND	ND	ND	ND	
4-Nitrophenol	1.14	UG/L	ND	ND	ND	ND	
2-Methyl-4,6-dinitrophenol	1.52	UG/L	ND	ND	ND	ND	
Total Chlorinated Phenols	1.67	UG/L	0.0	0.0	0.0	0.0	
Total Non-Chlorinated Phenols	2.16	UG/L	0.0	0.0	0.0	0.0	
Total Phenols	2.16	UG/L	0.0	0.0	0.0	0.0	

ND= not detected

NA= not analyzed

SOUTH BAY WATER RECLAMATION PLANT
ACID EXTRACTABLE COMPOUNDS, EPA Method 625

Annual 2014

Source:		COMB EFF	COMB EFF	COMB EFF	COMB EFF
Date:		04-FEB-2014	06-MAY-2014	05-AUG-2014	07-OCT-2014
Analyte	MDL Units	P695812	P712571	P723822	P734809
2-Chlorophenol	1.32 UG/L	ND	ND	ND	ND
2,4-Dichlorophenol	1.01 UG/L	ND	ND	ND	ND
4-Chloro-3-methylphenol	1.67 UG/L	ND	ND	ND	ND
2,4,6-Trichlorophenol	1.65 UG/L	ND	ND	ND	ND
Pentachlorophenol	1.12 UG/L	ND	ND	ND	ND
Phenol	1.76 UG/L	ND	ND	ND	ND
2-Nitrophenol	1.55 UG/L	ND	ND	ND	ND
2,4-Dimethylphenol	2.01 UG/L	ND	ND	ND	ND
2,4-Dinitrophenol	2.16 UG/L	ND	ND	ND	ND
4-Nitrophenol	1.14 UG/L	ND	ND	ND	ND
2-Methyl-4,6-dinitrophenol	1.52 UG/L	ND	ND	ND	ND
Total Chlorinated Phenols	1.67 UG/L	0.0	0.0	0.0	0.0
Total Non-Chlorinated Phenols	2.16 UG/L	0.0	0.0	0.0	0.0
Total Phenols	2.16 UG/L	0.0	0.0	0.0	0.0

Additional analytes determined

		PRI EFF	PRI EFF	PRI EFF	PRI EFF
Date:		04-FEB-2014	06-MAY-2014	05-AUG-2014	07-OCT-2014
Analyte	MDL Units	P695817	P712576	P723827	P734814
2-Chlorophenol	1.32 UG/L	ND	ND	ND	ND
2,4-Dichlorophenol	1.01 UG/L	ND	ND	ND	ND
4-Chloro-3-methylphenol	1.67 UG/L	ND	ND	ND	ND
2,4,6-Trichlorophenol	1.65 UG/L	ND	ND	ND	ND
Pentachlorophenol	1.12 UG/L	ND	ND	ND	ND
Phenol	1.76 UG/L	28.9	1.9	26.4	32.5
2-Nitrophenol	1.55 UG/L	ND	ND	ND	ND
2,4-Dimethylphenol	2.01 UG/L	ND	ND	ND	ND
2,4-Dinitrophenol	2.16 UG/L	ND	ND	ND	ND
4-Nitrophenol	1.14 UG/L	ND	ND	ND	ND
2-Methyl-4,6-dinitrophenol	1.52 UG/L	ND	ND	ND	ND
Total Chlorinated Phenols	1.67 UG/L	0.0	0.0	0.0	0.0
Total Non-Chlorinated Phenols	2.16 UG/L	28.9	1.9	26.4	32.5
Total Phenols	2.16 UG/L	28.9	1.9	26.4	32.5

Additional analytes determined

		PRI EFF	PRI EFF	PRI EFF	PRI EFF
Date:		04-FEB-2014	06-MAY-2014	05-AUG-2014	07-OCT-2014
Analyte	MDL Units	P695817	P712576	P723827	P734814
2-Chlorophenol	1.32 UG/L	ND	ND	ND	ND
2,4-Dichlorophenol	1.01 UG/L	ND	ND	ND	ND
4-Chloro-3-methylphenol	1.67 UG/L	ND	ND	ND	ND
2,4,6-Trichlorophenol	1.65 UG/L	ND	ND	ND	ND
Pentachlorophenol	1.12 UG/L	ND	ND	ND	ND
Phenol	1.76 UG/L	28.9	1.9	26.4	32.5
2-Nitrophenol	1.55 UG/L	ND	ND	ND	ND
2,4-Dimethylphenol	2.01 UG/L	ND	ND	ND	ND
2,4-Dinitrophenol	2.16 UG/L	ND	ND	ND	ND
4-Nitrophenol	1.14 UG/L	ND	ND	ND	ND
2-Methyl-4,6-dinitrophenol	1.52 UG/L	ND	ND	ND	ND
Total Chlorinated Phenols	1.67 UG/L	0.0	0.0	0.0	0.0
Total Non-Chlorinated Phenols	2.16 UG/L	28.9	1.9	26.4	32.5
Total Phenols	2.16 UG/L	28.9	1.9	26.4	32.5

ND= not detected

NA= not analyzed

SOUTH BAY WATER RECLAMATION PLANT
ACID EXTRACTABLE COMPOUNDS, EPA Method 625

Annual 2014

Source:		SEC	EFF	SEC	EFF	SEC	EFF	SEC	EFF*
Date:		04-FEB-2014	P695822	06-MAY-2014	P712581	05-AUG-2014	P723832	07-OCT-2014	P734819
Analyte	MDL	Units							
2-Chlorophenol	1.32	UG/L	ND	ND	ND	ND	ND	ND	ND
2,4-Dichlorophenol	1.01	UG/L	ND	ND	ND	ND	ND	ND	ND
4-Chloro-3-methylphenol	1.67	UG/L	ND	ND	ND	ND	ND	ND	ND
2,4,6-Trichlorophenol	1.65	UG/L	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	1.12	UG/L	ND	ND	ND	ND	ND	ND	ND
Phenol	1.76	UG/L	ND	ND	ND	ND	ND	ND	ND
2-Nitrophenol	1.55	UG/L	ND	ND	ND	ND	ND	ND	ND
2,4-Dimethylphenol	2.01	UG/L	ND	ND	ND	ND	ND	ND	ND
2,4-Dinitrophenol	2.16	UG/L	ND	ND	ND	ND	ND	ND	ND
4-Nitrophenol	1.14	UG/L	ND	ND	ND	ND	ND	ND	ND
2-Methyl-4,6-dinitrophenol	1.52	UG/L	ND	ND	ND	ND	ND	ND	ND
Total Chlorinated Phenols	1.67	UG/L	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Non-Chlorinated Phenols	2.16	UG/L	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Phenols	2.16	UG/L	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Additional analytes determined

Source:		RSL	RSL	RSL	RSL	
Date:		04-FEB-2014	06-MAY-2014	05-AUG-2014	07-OCT-2014	
Analyte	MDL	Units	P695836	P712593	P723846	P734831
2-Methylphenol	2.15	UG/L	ND	ND	ND	ND
3-Methylphenol(4-MP is unresolved)		UG/L	NA	NA	NA	NA
4-Methylphenol(3-MP is unresolved)	2.11	UG/L	ND	ND	ND	ND
2,4,5-Trichlorophenol	1.66	UG/L	ND	ND	ND	ND

Source:		RSL	RSL	RSL	RSL	
Date:		04-FEB-2014	06-MAY-2014	05-AUG-2014	07-OCT-2014	
Analyte	MDL	Units	P695836	P712593	P723846	P734831
2-Chlorophenol	1.32	UG/L	ND	ND	ND	ND
2,4-Dichlorophenol	1.01	UG/L	ND	ND	ND	ND
4-Chloro-3-methylphenol	1.67	UG/L	ND	ND	ND	ND
2,4,6-Trichlorophenol	1.65	UG/L	ND	ND	ND	ND
Pentachlorophenol	1.12	UG/L	ND	ND	ND	ND
Phenol	1.76	UG/L	135	328	259	108
2-Nitrophenol	1.55	UG/L	ND	ND	ND	ND
2,4-Dimethylphenol	2.01	UG/L	ND	ND	ND	ND
2,4-Dinitrophenol	2.16	UG/L	ND	ND	ND	ND
4-Nitrophenol	1.14	UG/L	ND	ND	ND	ND
2-Methyl-4,6-dinitrophenol	1.52	UG/L	ND	ND	ND	ND
Total Chlorinated Phenols	1.67	UG/L	0.0	0.0	0.0	0.0
Total Non-Chlorinated Phenols	2.16	UG/L	135	328	259	108
Total Phenols	2.16	UG/L	135	328	259	108

Additional analytes determined

Source:		RSL	RSL	RSL	RSL	
Date:		04-FEB-2014	06-MAY-2014	05-AUG-2014	07-OCT-2014	
Analyte	MDL	Units	P695836	P712593	P723846	P734831
2-Methylphenol	2.15	UG/L	ND	ND	ND	ND
3-Methylphenol(4-MP is unresolved)		UG/L	NA	NA	NA	NA
4-Methylphenol(3-MP is unresolved)	2.11	UG/L	243	692	552	260
2,4,5-Trichlorophenol	1.66	UG/L	ND	ND	ND	ND

*= This is a non-reportable sample due to QC failure.

ND= not detected

NA= not analyzed

SOUTH BAY WATER RECLAMATION PLANT
ACID EXTRACTABLE COMPOUNDS, EPA Method 625

Annual 2014

Source: Date: Analyte	MDL	Units	REC WATER	REC WATER	REC WATER	REC WATER
			04-FEB-2014 P695838	06-MAY-2014 P712595	05-AUG-2014 P723848	07-OCT-2014 P734833
2-Chlorophenol	1.32	UG/L	ND	ND	ND	ND
2,4-Dichlorophenol	1.01	UG/L	ND	ND	ND	ND
4-Chloro-3-methylphenol	1.67	UG/L	ND	ND	ND	ND
2,4,6-Trichlorophenol	1.65	UG/L	ND	ND	ND	ND
Pentachlorophenol	1.12	UG/L	ND	ND	ND	ND
Phenol	1.76	UG/L	ND	ND	ND	ND
2-Nitrophenol	1.55	UG/L	ND	ND	ND	ND
2,4-Dimethylphenol	2.01	UG/L	ND	ND	ND	ND
2,4-Dinitrophenol	2.16	UG/L	ND	ND	ND	ND
4-Nitrophenol	1.14	UG/L	ND	ND	ND	ND
2-Methyl-4,6-dinitrophenol	1.52	UG/L	ND	ND	ND	ND
Total Chlorinated Phenols	1.67	UG/L	0.0	0.0	0.0	0.0
Total Non-Chlorinated Phenols	2.16	UG/L	0.0	0.0	0.0	0.0
Total Phenols	2.16	UG/L	0.0	0.0	0.0	0.0
Additional analytes determined						
2-Methylphenol	2.15	UG/L	ND	ND	ND	ND
3-Methylphenol(4-MP is unresolved)		UG/L	NA	NA	NA	NA
4-Methylphenol(3-MP is unresolved)	2.11	UG/L	ND	ND	ND	ND
2,4,5-Trichlorophenol	1.66	UG/L	ND	ND	ND	ND

ND= not detected

NA= not analyzed

SOUTH BAY WATER RECLAMATION PLANT
Priority Pollutants Purgeable Compounds, EPA Method 624 & 8260B

Annual 2014

Source:		SB_INF_02	SB_INF_02	SB_INF_02	SB_INF_02
Date:		04-FEB-2014	06-MAY-2014	05-AUG-2014	07-OCT-2014
Analyte	MDL Units	P695805	P712564	P723815	P734802
<hr/>					
Acrolein	1.3 UG/L	ND	ND	ND	ND
Acrylonitrile	.7 UG/L	ND	ND	ND	ND
Benzene	.4 UG/L	ND	ND	ND	ND
Bromodichloromethane	.5 UG/L	ND	ND	ND	ND
Bromoform	.5 UG/L	ND	ND	ND	ND
Bromomethane	.7 UG/L	ND	ND	ND	ND
Carbon tetrachloride	.4 UG/L	ND	ND	ND	ND
Chlorobenzene	.4 UG/L	ND	ND	ND	ND
Chloroethane	.9 UG/L	ND	ND	ND	ND
2-Chloroethylvinyl ether	1.1 UG/L	ND	ND	ND	ND
Chloroform	.2 UG/L	1.8	3.4	2.0	1.7
Chloromethane	.5 UG/L	ND	ND	ND	ND
Dibromochloromethane	.6 UG/L	ND	ND	ND	ND
1,2-Dichlorobenzene	.4 UG/L	ND	ND	ND	ND
1,3-Dichlorobenzene	.5 UG/L	ND	ND	ND	ND
1,4-Dichlorobenzene	.4 UG/L	DNQ0.4	ND	ND	ND
Dichlorodifluoromethane	.66 UG/L	ND	ND	ND	ND
1,1-Dichloroethane	.4 UG/L	ND	ND	ND	ND
1,2-Dichloroethane	.5 UG/L	ND	ND	ND	ND
1,1-Dichloroethene	.4 UG/L	ND	ND	ND	ND
trans-1,2-dichloroethene	.6 UG/L	ND	ND	ND	ND
1,2-Dichloropropane	.3 UG/L	ND	ND	ND	ND
cis-1,3-dichloropropene	.3 UG/L	ND	ND	ND	ND
trans-1,3-dichloropropene	.5 UG/L	ND	ND	ND	ND
Ethylbenzene	.3 UG/L	DNQ1.0	ND	ND	ND
Methylene chloride	.3 UG/L	ND	DNQ1.0	1.8	DNQ0.9
1,1,2,2-Tetrachloroethane	.5 UG/L	ND	ND	ND	ND
Tetrachloroethene	1.1 UG/L	ND	ND	ND	ND
Toluene	.4 UG/L	3.4	DNQ0.7	DNQ0.7	DNQ0.9
1,1,1-Trichloroethane	.4 UG/L	ND	ND	ND	ND
1,1,2-Trichloroethane	.5 UG/L	ND	ND	ND	ND
Trichloroethene	.7 UG/L	ND	ND	ND	ND
Trichlorofluoromethane	.3 UG/L	ND	ND	ND	ND
1,2,4-Trichlorobenzene	.7 UG/L	ND	ND	ND	ND
Vinyl chloride	.4 UG/L	ND	ND	ND	ND
Halomethane Purgeable Cmpnds	.7 UG/L	0.0	0.0	0.0	0.0
Total Dichlorobenzenes	.5 UG/L	0.0	0.0	0.0	0.0
Total Chloromethanes	.5 UG/L	1.8	3.4	3.8	1.7
Purgeable Compounds	1.3 UG/L	1.8	3.4	3.8	1.7

Additional Analytes Determined

Acetone	4.5 UG/L	292	115	207	139
Allyl chloride	.6 UG/L	ND	ND	ND	ND
Benzyl chloride	1.1 UG/L	ND	ND	ND	ND
1,2-Dibromoethane	.3 UG/L	ND	ND	ND	ND
2-Butanone	6.3 UG/L	ND	ND	ND	ND
Carbon disulfide	.6 UG/L	2.2	4.3	2.7	1.6
Chloroprene	.4 UG/L	ND	ND	ND	ND
Isopropylbenzene	.3 UG/L	ND	ND	ND	ND
Methyl Iodide	.6 UG/L	ND	ND	ND	ND
Methyl methacrylate	.8 UG/L	ND	ND	ND	ND
4-Methyl-2-pentanone	1.3 UG/L	ND	ND	ND	ND
meta,para xylenes	.6 UG/L	4.2	ND	ND	ND
Methyl tert-butyl ether	.4 UG/L	ND	ND	DNQ0.6	ND
2-Nitropropane	12 UG/L	ND	ND	ND	ND
ortho-xylene	.4 UG/L	DNQ1.9	ND	ND	ND
Styrene	.3 UG/L	ND	ND	ND	ND

ND= not detected

DNQ= Detected not quantifiable, result value less than minimum level (ML) but greater or equal MDL.

SOUTH BAY WATER RECLAMATION PLANT
Priority Pollutants Purgeable Compounds, EPA Method 624 & 8260B

Annual 2014

Source:		SB_OUTFALL_01	SB_OUTFALL_01	SB_OUTFALL_01	SB_OUTFALL_01
Date:		04-FEB-2014	06-MAY-2014	05-AUG-2014	07-OCT-2014
Analyte	MDL Units	P695810	P712569	P723820	P734807
Acrolein	1.3 UG/L	ND	ND	ND	ND
Acrylonitrile	.7 UG/L	ND	ND	ND	ND
Benzene	.4 UG/L	ND	ND	ND	ND
Bromodichloromethane	.5 UG/L	ND	20.9	ND	ND
Bromoform	.5 UG/L	ND	1.9	ND	ND
Bromomethane	.7 UG/L	ND	ND	ND	ND
Carbon tetrachloride	.4 UG/L	ND	ND	ND	ND
Chlorobenzene	.4 UG/L	ND	ND	ND	ND
Chloroethane	.9 UG/L	ND	ND	ND	ND
2-Chloroethylvinyl ether	1.1 UG/L	ND	ND	ND	ND
Chloroform	.2 UG/L	DNQ0.8	20.3	DNQ0.9	ND
Chloromethane	.5 UG/L	ND	1.5	ND	ND
Dibromochloromethane	.6 UG/L	ND	12.3	ND	ND
1,2-Dichlorobenzene	.4 UG/L	ND	ND	ND	ND
1,3-Dichlorobenzene	.5 UG/L	ND	ND	ND	ND
1,4-Dichlorobenzene	.4 UG/L	ND	ND	ND	ND
Dichlorodifluoromethane	.66 UG/L	ND	ND	ND	ND
1,1-Dichloroethane	.4 UG/L	ND	ND	ND	ND
1,2-Dichloroethane	.5 UG/L	ND	ND	ND	ND
1,1-Dichloroethene	.4 UG/L	ND	ND	ND	ND
trans-1,2-dichloroethene	.6 UG/L	ND	ND	ND	ND
1,2-Dichloropropane	.3 UG/L	ND	ND	ND	ND
cis-1,3-dichloropropene	.3 UG/L	ND	ND	ND	ND
trans-1,3-dichloropropene	.5 UG/L	ND	ND	ND	ND
Ethylbenzene	.3 UG/L	ND	ND	ND	ND
Methylene chloride	.3 UG/L	ND	DNQ0.7	2.2	ND
1,1,2,2-Tetrachloroethane	.5 UG/L	ND	ND	ND	ND
Tetrachloroethene	1.1 UG/L	ND	ND	ND	ND
Toluene	.4 UG/L	ND	ND	ND	ND
1,1,1-Trichloroethane	.4 UG/L	ND	ND	ND	ND
1,1,2-Trichloroethane	.5 UG/L	ND	ND	ND	ND
Trichloroethene	.7 UG/L	ND	ND	ND	ND
Trichlorofluoromethane	.3 UG/L	ND	ND	ND	ND
1,2,4-Trichlorobenzene	.7 UG/L	ND	ND	ND	ND
Vinyl chloride	.4 UG/L	ND	ND	ND	ND
Halomethane Purgeable Cmpnds	.7 UG/L	0.0	3.4	0.0	0.0
Total Dichlorobenzenes	.5 UG/L	0.0	0.0	0.0	0.0
Total Chloromethanes	.5 UG/L	0.0	21.8	2.2	0.0
Purgeable Compounds	1.3 UG/L	0.0	56.9	2.2	0.0

Additional Analytes Determined

Acetone	4.5 UG/L	ND	ND	ND	ND
Allyl chloride	.6 UG/L	ND	ND	ND	ND
Benzyl chloride	1.1 UG/L	ND	ND	ND	ND
1,2-Dibromoethane	.3 UG/L	ND	ND	ND	ND
2-Butanone	6.3 UG/L	ND	ND	ND	ND
Carbon disulfide	.6 UG/L	ND	ND	ND	ND
Chloroprene	.4 UG/L	ND	ND	ND	ND
Isopropylbenzene	.3 UG/L	ND	ND	ND	ND
Methyl Iodide	.6 UG/L	ND	ND	ND	ND
Methyl methacrylate	.8 UG/L	ND	ND	ND	ND
4-Methyl-2-pentanone	1.3 UG/L	ND	ND	ND	ND
meta,para xylenes	.6 UG/L	ND	ND	ND	ND
Methyl tert-butyl ether	.4 UG/L	ND	ND	ND	ND
2-Nitropropane	12 UG/L	ND	ND	ND	ND
ortho-xylene	.4 UG/L	ND	ND	ND	ND
Styrene	.3 UG/L	ND	ND	ND	ND

ND= not detected

DNQ= Detected not quantifiable, result value less than minimum level (ML) but greater or equal MDL.

SOUTH BAY WATER RECLAMATION PLANT
Priority Pollutants Purgeable Compounds, EPA Method 624 & 8260B

Annual 2014

Source:		SB_ITP_COMB_EFF	SB_ITP_COMB_EFF	SB_ITP_COMB_EFF	SB_ITP_COMB_EFF
Date:		04-FEB-2014	06-MAY-2014	05-AUG-2014	07-OCT-2014
Analyte	MDL Units	P695815	P712574	P723825	P734812
Acrolein	1.3 UG/L	ND	ND	ND	ND
Acrylonitrile	.7 UG/L	ND	ND	ND	ND
Benzene	.4 UG/L	ND	ND	ND	ND
Bromodichloromethane	.5 UG/L	7.9	DNQ0.7	ND	ND
Bromoform	.5 UG/L	DNQ0.6	ND	ND	ND
Bromomethane	.7 UG/L	ND	ND	ND	ND
Carbon tetrachloride	.4 UG/L	ND	ND	ND	ND
Chlorobenzene	.4 UG/L	ND	ND	ND	ND
Chloroethane	.9 UG/L	ND	ND	ND	ND
2-Chloroethylvinyl ether	1.1 UG/L	ND	ND	ND	ND
Chloroform	.2 UG/L	10.8	2.0	1.1	ND
Chloromethane	.5 UG/L	ND	ND	ND	ND
Dibromochloromethane	.6 UG/L	4.3	ND	ND	ND
1,2-Dichlorobenzene	.4 UG/L	ND	ND	ND	ND
1,3-Dichlorobenzene	.5 UG/L	ND	ND	ND	ND
1,4-Dichlorobenzene	.4 UG/L	DNQ1.0	DNQ0.8	DNQ0.7	ND
Dichlorodifluoromethane	.66 UG/L	ND	ND	ND	ND
1,1-Dichloroethane	.4 UG/L	ND	ND	ND	ND
1,2-Dichloroethane	.5 UG/L	ND	ND	ND	ND
1,1-Dichloroethene	.4 UG/L	ND	ND	ND	ND
trans-1,2-dichloroethene	.6 UG/L	ND	ND	ND	ND
1,2-Dichloropropane	.3 UG/L	ND	ND	ND	ND
cis-1,3-dichloropropene	.3 UG/L	ND	ND	ND	ND
trans-1,3-dichloropropene	.5 UG/L	ND	ND	ND	ND
Ethylbenzene	.3 UG/L	ND	ND	ND	ND
Methylene chloride	.3 UG/L	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	.5 UG/L	ND	ND	ND	ND
Tetrachloroethene	1.1 UG/L	ND	ND	ND	ND
Toluene	.4 UG/L	ND	ND	ND	ND
1,1,1-Trichloroethane	.4 UG/L	ND	ND	ND	ND
1,1,2-Trichloroethane	.5 UG/L	ND	ND	ND	ND
Trichloroethene	.7 UG/L	ND	ND	ND	ND
Trichlorofluoromethane	.3 UG/L	ND	ND	ND	ND
1,2,4-Trichlorobenzene	.7 UG/L	ND	ND	ND	ND
Vinyl chloride	.4 UG/L	ND	ND	ND	ND
Halomethane Purgeable Cmpnds	.7 UG/L	0.0	0.0	0.0	0.0
Total Dichlorobenzenes	.5 UG/L	0.0	0.0	0.0	0.0
Total Chloromethanes	.5 UG/L	10.8	2.0	1.1	0.0
Purgeable Compounds	1.3 UG/L	23.0	2.0	1.1	0.0

Additional Analytes Determined

		SB_ITP_COMB_EFF	SB_ITP_COMB_EFF	SB_ITP_COMB_EFF	SB_ITP_COMB_EFF
Analyte	MDL Units	P695815	P712574	P723825	P734812
Acetone	4.5 UG/L	ND	ND	ND	ND
Allyl chloride	.6 UG/L	ND	ND	ND	ND
Benzyl chloride	1.1 UG/L	ND	ND	ND	ND
1,2-Dibromoethane	.3 UG/L	ND	ND	ND	ND
2-Butanone	6.3 UG/L	ND	ND	ND	ND
Carbon disulfide	.6 UG/L	ND	ND	ND	ND
Chloroprene	.4 UG/L	ND	ND	ND	ND
Isopropylbenzene	.3 UG/L	ND	ND	ND	ND
Methyl Iodide	.6 UG/L	ND	ND	ND	ND
Methyl methacrylate	.8 UG/L	ND	ND	ND	ND
4-Methyl-2-pentanone	1.3 UG/L	ND	ND	ND	ND
meta,para xylenes	.6 UG/L	ND	ND	ND	ND
Methyl tert-butyl ether	.4 UG/L	ND	ND	ND	ND
2-Nitropropane	12 UG/L	ND	ND	ND	ND
ortho-xylene	.4 UG/L	ND	ND	ND	ND
Styrene	.3 UG/L	ND	ND	ND	ND

ND= not detected

DNQ= Detected not quantifiable, result value less than minimum level (ML) but greater or equal MDL.

SOUTH BAY WATER RECLAMATION PLANT
Priority Pollutants Purgeable Compounds, EPA Method 624 & 8260B

Annual 2014

Source:		SB_SEC_EFF_20	SB_SEC_EFF_20	SB_SEC_EFF_20	SB_SEC_EFF_20
Date:		04-FEB-2014	06-MAY-2014	05-AUG-2014	07-OCT-2014
Analyte	MDL Units	P695825	P712584	P723835	P734822
Acrolein	1.3 UG/L	ND	ND	ND	ND
Acrylonitrile	.7 UG/L	ND	ND	ND	ND
Benzene	.4 UG/L	ND	ND	ND	ND
Bromodichloromethane	.5 UG/L	ND	ND	ND	ND
Bromoform	.5 UG/L	ND	ND	ND	ND
Bromomethane	.7 UG/L	ND	ND	ND	ND
Carbon tetrachloride	.4 UG/L	ND	ND	ND	ND
Chlorobenzene	.4 UG/L	ND	ND	ND	ND
Chloroethane	.9 UG/L	ND	ND	ND	ND
2-Chloroethylvinyl ether	1.1 UG/L	ND	ND	ND	ND
Chloroform	.2 UG/L	DNQ0.5	DNQ0.8	DNQ0.9	DNQ0.4
Chloromethane	.5 UG/L	ND	ND	ND	ND
Dibromochloromethane	.6 UG/L	ND	ND	ND	ND
1,2-Dichlorobenzene	.4 UG/L	ND	ND	ND	ND
1,3-Dichlorobenzene	.5 UG/L	ND	ND	ND	ND
1,4-Dichlorobenzene	.4 UG/L	ND	ND	ND	ND
Dichlorodifluoromethane	.66 UG/L	ND	ND	ND	ND
1,1-Dichloroethane	.4 UG/L	ND	ND	ND	ND
1,2-Dichloroethane	.5 UG/L	ND	ND	ND	ND
1,1-Dichloroethene	.4 UG/L	ND	ND	ND	ND
trans-1,2-dichloroethene	.6 UG/L	ND	ND	ND	ND
1,2-Dichloropropane	.3 UG/L	ND	ND	ND	ND
cis-1,3-dichloropropene	.3 UG/L	ND	ND	ND	ND
trans-1,3-dichloropropene	.5 UG/L	ND	ND	ND	ND
Ethylbenzene	.3 UG/L	ND	ND	ND	ND
Methylene chloride	.3 UG/L	ND	ND	2.1	ND
1,1,2,2-Tetrachloroethane	.5 UG/L	ND	ND	ND	ND
Tetrachloroethene	1.1 UG/L	ND	ND	ND	ND
Toluene	.4 UG/L	ND	ND	ND	ND
1,1,1-Trichloroethane	.4 UG/L	ND	ND	ND	ND
1,1,2-Trichloroethane	.5 UG/L	ND	ND	ND	ND
Trichloroethene	.7 UG/L	ND	ND	ND	ND
Trichlorofluoromethane	.3 UG/L	ND	ND	ND	ND
1,2,4-Trichlorobenzene	.7 UG/L	ND	ND	ND	ND
Vinyl chloride	.4 UG/L	ND	ND	ND	ND
Halomethane Purgeable Cmpnds	.7 UG/L	0.0	0.0	0.0	0.0
Total Dichlorobenzenes	.5 UG/L	0.0	0.0	0.0	0.0
Total Chloromethanes	.5 UG/L	0.0	0.0	2.1	0.0
Purgeable Compounds	1.3 UG/L	0.0	0.0	2.1	0.0

Additional Analytes Determined

Acetone	4.5 UG/L	ND	ND	ND	ND
Allyl chloride	.6 UG/L	ND	ND	ND	ND
Benzyl chloride	1.1 UG/L	ND	ND	ND	ND
1,2-Dibromoethane	.3 UG/L	ND	ND	ND	ND
2-Butanone	6.3 UG/L	ND	ND	ND	ND
Carbon disulfide	.6 UG/L	ND	ND	ND	ND
Chloroprene	.4 UG/L	ND	ND	ND	ND
Isopropylbenzene	.3 UG/L	ND	ND	ND	ND
Methyl Iodide	.6 UG/L	ND	ND	ND	ND
Methyl methacrylate	.8 UG/L	ND	ND	ND	ND
4-Methyl-2-pentanone	1.3 UG/L	ND	ND	ND	ND
meta,para xylenes	.6 UG/L	ND	ND	ND	ND
Methyl tert-butyl ether	.4 UG/L	ND	ND	ND	ND
2-Nitropropane	12 UG/L	ND	ND	ND	ND
ortho-xylene	.4 UG/L	ND	ND	ND	ND
Styrene	.3 UG/L	ND	ND	ND	ND

ND= not detected

DNQ= Detected not quantifiable, result value less than minimum level (ML) but greater or equal MDL.

SOUTH BAY WATER RECLAMATION PLANT
Priority Pollutants Purgeable Compounds, EPA Method 624 & 8260B

Annual 2014

Source:		SB_REC_WATER_34	SB_REC_WATER_34	SB_REC_WATER_34	SB_REC_WATER_34
Date:		04-FEB-2014	06-MAY-2014	05-AUG-2014	07-OCT-2014
Analyte	MDL Units	P695841	P712598	P723851	P734836
Acrolein	1.3 UG/L	ND	ND	ND	ND
Acrylonitrile	.7 UG/L	ND	ND	ND	ND
Benzene	.4 UG/L	ND	ND	ND	ND
Bromodichloromethane	.5 UG/L	10.1	26.0	68.1	1.0
Bromoform	.5 UG/L	1.1	2.3	1.7	ND
Bromomethane	.7 UG/L	ND	ND	ND	ND
Carbon tetrachloride	.4 UG/L	ND	ND	ND	ND
Chlorobenzene	.4 UG/L	ND	ND	ND	ND
Chloroethane	.9 UG/L	ND	ND	1.0	ND
2-Chloroethylvinyl ether	1.1 UG/L	ND	ND	ND	ND
Chloroform	.2 UG/L	11.0	25.7	103.0	2.8
Chloromethane	.5 UG/L	DNQ1.0	2.3	2.8	ND
Dibromochloromethane	.6 UG/L	6.0	15.4	27.7	ND
1,2-Dichlorobenzene	.4 UG/L	ND	ND	ND	ND
1,3-Dichlorobenzene	.5 UG/L	ND	ND	ND	ND
1,4-Dichlorobenzene	.4 UG/L	ND	ND	ND	ND
Dichlorodifluoromethane	.66 UG/L	ND	ND	ND	ND
1,1-Dichloroethane	.4 UG/L	ND	ND	ND	ND
1,2-Dichloroethane	.5 UG/L	ND	ND	ND	ND
1,1-Dichloroethene	.4 UG/L	ND	ND	ND	ND
trans-1,2-dichloroethene	.6 UG/L	ND	ND	ND	ND
1,2-Dichloropropane	.3 UG/L	ND	ND	ND	ND
cis-1,3-dichloropropene	.3 UG/L	ND	ND	ND	ND
trans-1,3-dichloropropene	.5 UG/L	ND	ND	ND	ND
Ethylbenzene	.3 UG/L	ND	ND	ND	ND
Methylene chloride	.3 UG/L	DNQ0.4	DNQ0.8	3.2	ND
1,1,2,2-Tetrachloroethane	.5 UG/L	ND	ND	ND	ND
Tetrachloroethene	1.1 UG/L	ND	ND	ND	ND
Toluene	.4 UG/L	ND	ND	ND	ND
1,1,1-Trichloroethane	.4 UG/L	ND	ND	ND	ND
1,1,2-Trichloroethane	.5 UG/L	ND	ND	ND	ND
Trichloroethene	.7 UG/L	ND	ND	ND	ND
Trichlorofluoromethane	.3 UG/L	ND	ND	ND	ND
1,2,4-Trichlorobenzene	.7 UG/L	ND	ND	ND	ND
Vinyl chloride	.4 UG/L	ND	ND	ND	ND
Halomethane Purgeable Cmpnds	.7 UG/L	1.1	4.6	4.5	0.0
Total Dichlorobenzenes	.5 UG/L	0.0	0.0	0.0	0.0
Total Chloromethanes	.5 UG/L	11.0	28.0	109	2.8
Purgeable Compounds	1.3 UG/L	28.2	71.7	207.5	3.8

Additional Analytes Determined

Acetone	4.5 UG/L	DNQ5.8	DNQ5.3	DNQ8.3	ND
Allyl chloride	.6 UG/L	ND	ND	ND	ND
Benzyl chloride	1.1 UG/L	ND	ND	ND	ND
1,2-Dibromoethane	.3 UG/L	ND	ND	ND	ND
2-Butanone	6.3 UG/L	ND	ND	ND	ND
Carbon disulfide	.6 UG/L	ND	ND	ND	ND
Chloroprene	.4 UG/L	ND	ND	ND	ND
Isopropylbenzene	.3 UG/L	ND	ND	ND	ND
Methyl Iodide	.6 UG/L	ND	ND	ND	ND
Methyl methacrylate	.8 UG/L	ND	ND	ND	ND
4-Methyl-2-pentanone	1.3 UG/L	ND	ND	ND	ND
meta,para xylenes	.6 UG/L	ND	ND	ND	ND
Methyl tert-butyl ether	.4 UG/L	ND	ND	ND	ND
2-Nitropropane	12 UG/L	ND	ND	ND	ND
ortho-xylene	.4 UG/L	ND	ND	ND	ND
Styrene	.3 UG/L	ND	ND	ND	ND

ND= not detected

DNQ= Detected not quantifiable, result value less than minimum level (ML) but greater or equal MDL.

SOUTH BAY WATER RECLAMATION PLANT
Priority Pollutants Purgeable Compounds, EPA Method 624 & 8260B

Annual 2014

Source:		SB_PRIEFF_10	SB_PRIEFF_10	SB_PRIEFF_10	SB_PRIEFF_10
Date:		04-FEB-2014	06-MAY-2014	05-AUG-2014	07-OCT-2014
Analyte	MDL Units	P695820	P712579	P723830	P734817
Acrolein	1.3 UG/L	ND	ND	ND	ND
Acrylonitrile	.7 UG/L	ND	ND	ND	ND
Benzene	.4 UG/L	DNQ1.1	ND	ND	ND
Bromodichloromethane	.5 UG/L	ND	DNQ0.6	ND	ND
Bromoform	.5 UG/L	ND	ND	ND	ND
Bromomethane	.7 UG/L	ND	ND	ND	ND
Carbon tetrachloride	.4 UG/L	ND	ND	ND	ND
Chlorobenzene	.4 UG/L	ND	ND	ND	ND
Chloroethane	.9 UG/L	ND	ND	ND	ND
2-Chloroethylvinyl ether	1.1 UG/L	ND	ND	ND	ND
Chloroform	.2 UG/L	1.3	2.2	1.2	1.4
Chloromethane	.5 UG/L	ND	ND	ND	ND
Dibromochloromethane	.6 UG/L	ND	ND	ND	ND
1,2-Dichlorobenzene	.4 UG/L	ND	ND	ND	ND
1,3-Dichlorobenzene	.5 UG/L	ND	ND	ND	ND
1,4-Dichlorobenzene	.4 UG/L	ND	ND	ND	ND
Dichlorodifluoromethane	.66 UG/L	ND	ND	ND	ND
1,1-Dichloroethane	.4 UG/L	ND	ND	ND	ND
1,2-Dichloroethane	.5 UG/L	ND	ND	ND	ND
1,1-Dichloroethene	.4 UG/L	ND	ND	ND	ND
trans-1,2-dichloroethene	.6 UG/L	ND	ND	ND	ND
1,2-Dichloropropane	.3 UG/L	ND	ND	ND	ND
cis-1,3-dichloropropene	.3 UG/L	ND	ND	ND	ND
trans-1,3-dichloropropene	.5 UG/L	ND	ND	ND	ND
Ethylbenzene	.3 UG/L	DNQ1.8	ND	ND	ND
Methylene chloride	.3 UG/L	DNQ0.6	DNQ0.6	3.2	DNQ0.7
1,1,2,2-Tetrachloroethane	.5 UG/L	ND	ND	ND	ND
Tetrachloroethene	1.1 UG/L	ND	ND	ND	ND
Toluene	.4 UG/L	7.9	DNQ0.9	DNQ0.6	DNQ0.5
1,1,1-Trichloroethane	.4 UG/L	ND	ND	ND	ND
1,1,2-Trichloroethane	.5 UG/L	ND	ND	ND	ND
Trichloroethene	.7 UG/L	ND	ND	ND	ND
Trichlorofluoromethane	.3 UG/L	ND	ND	ND	ND
1,2,4-Trichlorobenzene	.7 UG/L	ND	ND	ND	ND
Vinyl chloride	.4 UG/L	ND	ND	ND	ND
Halomethane Purgeable Cmpnds	.7 UG/L	0.0	0.0	0.0	0.0
Total Dichlorobenzenes	.5 UG/L	0.0	0.0	0.0	0.0
Total Chloromethanes	.5 UG/L	1.3	2.2	4.4	1.4
Purgeable Compounds	1.3 UG/L	9.2	2.2	4.4	1.4

Additional Analytes Determined

Acetone	4.5 UG/L	254	238	321	275
Allyl chloride	.6 UG/L	ND	ND	ND	ND
Benzyl chloride	1.1 UG/L	ND	ND	ND	ND
1,2-Dibromoethane	.3 UG/L	ND	ND	ND	ND
2-Butanone	6.3 UG/L	DNQ8.9	DNQ7.8	DNQ8.8	ND
Carbon disulfide	.6 UG/L	1.5	2.2	2.5	2.5
Chloroprene	.4 UG/L	ND	ND	ND	ND
Isopropylbenzene	.3 UG/L	ND	ND	ND	ND
Methyl Iodide	.6 UG/L	ND	ND	ND	ND
Methyl methacrylate	.8 UG/L	ND	ND	ND	ND
4-Methyl-2-pentanone	1.3 UG/L	ND	ND	ND	ND
meta,para xylenes	.6 UG/L	7.0	ND	ND	ND
Methyl tert-butyl ether	.4 UG/L	ND	ND	DNQ0.8	ND
2-Nitropropane	12 UG/L	ND	ND	ND	ND
ortho-xylene	.4 UG/L	3.4	ND	ND	ND
Styrene	.3 UG/L	ND	ND	ND	ND

ND= not detected

DNQ= Detected not quantifiable, result value less than minimum level (ML) but greater or equal MDL.

SOUTH BAY WATER RECLAMATION PLANT
Tributyl Tin Analysis

Annual 2014

Source:	INFLUENT	INFLUENT	INFLUENT	INFLUENT	EFFLUENT	EFFLUENT	EFFLUENT	
Date:	P695802	P712561	P723812	P734799	P695807	P712566	P723817	
Analyte	MDL Units	04-FEB-2014	06-MAY-2014	05-AUG-2014	07-OCT-2014	04-FEB-2014	06-MAY-2014	05-AUG-2014

Dibutyltin	7 UG/L	ND						
Monobutyltin	16 UG/L	ND						
Tributyltin	2 UG/L	ND						

Source:	EFFLUENT	COMB EFF	COMB EFF	COMB EFF	COMB EFF	PRI EFF	PRI EFF	
Date:	P734804	P695812	P712571	P723822	P734809	P695817	P712576	
Analyte	MDL Units	07-OCT-2014	04-FEB-2014	06-MAY-2014	05-AUG-2014	07-OCT-2014	04-FEB-2014	06-MAY-2014

Dibutyltin	7 UG/L	ND						
Monobutyltin	16 UG/L	ND						
Tributyltin	2 UG/L	ND						

Source:	PRI EFF	PRI EFF	SEC EFF	SEC EFF	SEC EFF	SEC EFF	REC WATER	
Date:	P723827	P734814	P695822	P712581	P723832	P734819	P695838	
Analyte	MDL Units	05-AUG-2014	07-OCT-2014	04-FEB-2014	06-MAY-2014	05-AUG-2014	07-OCT-2014	04-FEB-2014

Dibutyltin	7 UG/L	ND						
Monobutyltin	16 UG/L	ND						
Tributyltin	2 UG/L	ND						

Source:	REC WATER	REC WATER	REC WATER	
Date:	P712595	P723848	P734833	
Analyte	MDL Units	06-MAY-2014	05-AUG-2014	07-OCT-2014

Dibutyltin	7 UG/L	ND	ND	ND
Monobutyltin	16 UG/L	ND	ND	ND
Tributyltin	2 UG/L	ND	ND	ND

ND=not detected

SOUTH BAY WATER RECLAMATION PLANT
Dioxin and Furan Analysis

Annual 2014

Source:	MDL	Units	Equiv.	INFLUENT	INFLUENT	EFFLUENT	EFFLUENT
				TCDD	TCDD	TCDD	TCDD
Date:				04-FEB-2014	04-FEB-2014	04-FEB-2014	04-FEB-2014
Analytes				P695802	P695802	P695807	P695807
2,3,7,8-tetra CDD	.155	PG/L	1.000	ND	ND	ND	ND
1,2,3,7,8-penta CDD	.205	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8_hexa_CDD	.273	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDD	.291	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDD	.264	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDD	.53	PG/L	0.010	DNQ16.9	DNQ0.169	ND	ND
octa CDD	1.02	PG/L	0.001	140	0.14	DNQ6.41	DNQ0.006
2,3,7,8-tetra CDF	.164	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8-penta CDF	.187	PG/L	0.050	ND	ND	ND	ND
2,3,4,7,8-penta CDF	.178	PG/L	0.050	ND	ND	ND	ND
1,2,3,4,7,8-hexa CDF	.168	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDF	.173	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDF	.242	PG/L	0.100	ND	ND	ND	ND
2,3,4,6,7,8-hexa CDF	.188	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDF	.218	PG/L	0.010	DNQ3.48	DNQ0.035	ND	ND
1,2,3,4,7,8,9-hepta CDF	.317	PG/L	0.010	ND	ND	ND	ND
octa CDF	.579	PG/L	0.001	DNQ7.18	DNQ0.007	ND	ND

Source:	MDL	Units	Equiv.	INFLUENT	INFLUENT	EFFLUENT	EFFLUENT
				TCDD	TCDD	TCDD	TCDD
Date:				06-MAY-2014	06-MAY-2014	06-MAY-2014	06-MAY-2014
Analytes				P712561	P712561	P712566	P712566
2,3,7,8-tetra CDD	.155	PG/L	1.000	ND	ND	ND	ND
1,2,3,7,8-penta CDD	.205	PG/L	0.500	ND	ND	ND	ND
1,2,3,4,7,8_hexa_CDD	.273	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDD	.291	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDD	.264	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDD	.53	PG/L	0.010	DNQ11.3	DNQ0.113	ND	ND
octa CDD	1.02	PG/L	0.001	110	0.11	ND	ND
2,3,7,8-tetra CDF	.164	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8-penta CDF	.187	PG/L	0.050	ND	ND	ND	ND
2,3,4,7,8-penta CDF	.178	PG/L	0.050	ND	ND	ND	ND
1,2,3,4,7,8-hexa CDF	.168	PG/L	0.100	ND	ND	ND	ND
1,2,3,6,7,8-hexa CDF	.173	PG/L	0.100	ND	ND	ND	ND
1,2,3,7,8,9-hexa CDF	.242	PG/L	0.100	ND	ND	ND	ND
2,3,4,6,7,8-hexa CDF	.188	PG/L	0.100	ND	ND	ND	ND
1,2,3,4,6,7,8-hepta CDF	.218	PG/L	0.010	ND	ND	ND	ND
1,2,3,4,7,8,9-hepta CDF	.317	PG/L	0.010	ND	ND	ND	ND
octa CDF	.579	PG/L	0.001	ND	ND	ND	ND

ND= not detected

DNQ= (Detected but not quantified). Estimated analyte concentration below calibration range.

SOUTH BAY WATER RECLAMATION PLANT
Dioxin and Furan Analysis

Annual 2014

Source:				INFLUENT	INFLUENT	EFFLUENT	EFFLUENT
	Date:	MDL	Units	Equiv.	TCDD	TCDD	
					05-AUG-2014 P723812	05-AUG-2014 P723812	05-AUG-2014 P723817
2,3,7,8-tetra CDD	.155	PG/L	1.000		ND	ND	ND
1,2,3,7,8-penta CDD	.205	PG/L	0.500		ND	ND	ND
1,2,3,4,7,8_hexa_CDD	.273	PG/L	0.100		ND	ND	ND
1,2,3,6,7,8-hexa CDD	.291	PG/L	0.100		ND	ND	ND
1,2,3,7,8,9-hexa CDD	.264	PG/L	0.100		ND	ND	ND
1,2,3,4,6,7,8-hepta CDD	.53	PG/L	0.010		DNQ24.4	DNQ0.244	ND
octa CDD	1.02	PG/L	0.001		160	0.16	ND
2,3,7,8-tetra CDF	.164	PG/L	0.100		ND	ND	ND
1,2,3,7,8-penta CDF	.187	PG/L	0.050		ND	ND	ND
2,3,4,7,8-penta CDF	.178	PG/L	0.050		ND	ND	ND
1,2,3,4,7,8-hexa CDF	.168	PG/L	0.100		ND	ND	ND
1,2,3,6,7,8-hexa CDF	.173	PG/L	0.100		ND	ND	ND
1,2,3,7,8,9-hexa CDF	.242	PG/L	0.100		ND	ND	ND
2,3,4,6,7,8-hexa CDF	.188	PG/L	0.100		ND	ND	ND
1,2,3,4,6,7,8-hepta CDF	.218	PG/L	0.010		ND	ND	ND
1,2,3,4,7,8,9-hepta CDF	.317	PG/L	0.010		ND	ND	ND
octa CDF	.579	PG/L	0.001		ND	ND	ND

Source:				INFLUENT	INFLUENT	EFFLUENT	EFFLUENT
	Date:	MDL	Units	Equiv.	TCDD	TCDD	
					07-OCT-2014 P734799	07-OCT-2014 P734799	07-OCT-2014 P734804
2,3,7,8-tetra CDD	.155	PG/L	1.000		ND	ND	ND
1,2,3,7,8-penta CDD	.205	PG/L	0.500		ND	ND	ND
1,2,3,4,7,8_hexa_CDD	.273	PG/L	0.100		ND	ND	ND
1,2,3,6,7,8-hexa CDD	.291	PG/L	0.100		DNQ8.4	DNQ0.84	ND
1,2,3,7,8,9-hexa CDD	.264	PG/L	0.100		ND	ND	ND
1,2,3,4,6,7,8-hepta CDD	.53	PG/L	0.010		39.9	0.399	DNQ1.86
octa CDD	1.02	PG/L	0.001		250	0.25	DNQ10.7
2,3,7,8-tetra CDF	.164	PG/L	0.100		ND	ND	ND
1,2,3,7,8-penta CDF	.187	PG/L	0.050		ND	ND	ND
2,3,4,7,8-penta CDF	.178	PG/L	0.050		ND	ND	ND
1,2,3,4,7,8-hexa CDF	.168	PG/L	0.100		ND	ND	ND
1,2,3,6,7,8-hexa CDF	.173	PG/L	0.100		ND	ND	ND
1,2,3,7,8,9-hexa CDF	.242	PG/L	0.100		ND	ND	ND
2,3,4,6,7,8-hexa CDF	.188	PG/L	0.100		ND	ND	ND
1,2,3,4,6,7,8-hepta CDF	.218	PG/L	0.010		DNQ4.35	DNQ0.044	ND
1,2,3,4,7,8,9-hepta CDF	.317	PG/L	0.010		ND	ND	ND
octa CDF	.579	PG/L	0.001		DNQ12.5	DNQ0.013	ND

ND= not detected

DNQ= (Detected but not quantified). Estimated analyte concentration below calibration range.

SOUTH BAY WATER RECLAMATION PLANT
Dioxin and Furan Analysis

Annual 2014

Source:	Date:	Analytes	MDL	Units	Equiv.	COMB	EFF	COMB	EFF	COMB	EFF	COMB	EFF
						TCDD		TCDD		TCDD		TCDD	
						04-FEB-2014	P695812	04-FEB-2014	P695812	06-MAY-2014	P712571	06-MAY-2014	P712571
2,3,7,8-tetra CDD	.155 PG/L	1.000				ND		ND		ND		ND	
1,2,3,7,8-penta CDD	.205 PG/L	0.500				ND		ND		ND		ND	
1,2,3,4,7,8_hexa_CDD	.273 PG/L	0.100				ND		ND		ND		ND	
1,2,3,6,7,8-hexa CDD	.291 PG/L	0.100				ND		ND		ND		ND	
1,2,3,7,8,9-hexa CDD	.264 PG/L	0.100				ND		ND		ND		ND	
1,2,3,4,6,7,8-hepta CDD	.53 PG/L	0.010				ND		ND		ND		ND	
octa CDD	1.02 PG/L	0.001				ND		ND		ND		ND	
2,3,7,8-tetra CDF	.164 PG/L	0.100				ND		ND		ND		ND	
1,2,3,7,8-penta CDF	.187 PG/L	0.050				ND		ND		ND		ND	
2,3,4,7,8-penta CDF	.178 PG/L	0.050				ND		ND		ND		ND	
1,2,3,4,7,8-hexa CDF	.168 PG/L	0.100				ND		ND		ND		ND	
1,2,3,6,7,8-hexa CDF	.173 PG/L	0.100				ND		ND		ND		ND	
1,2,3,7,8,9-hexa CDF	.242 PG/L	0.100				ND		ND		ND		ND	
2,3,4,6,7,8-hexa CDF	.188 PG/L	0.100				ND		ND		ND		ND	
1,2,3,4,6,7,8-hepta CDF	.218 PG/L	0.010				ND		ND		ND		ND	
1,2,3,4,7,8,9-hepta CDF	.317 PG/L	0.010				ND		ND		ND		ND	
octa CDF	.579 PG/L	0.001				ND		ND		ND		ND	

Source:	Date:	Analytes	MDL	Units	Equiv.	COMB	EFF	COMB	EFF	COMB	EFF	COMB	EFF
						TCDD		TCDD		TCDD		TCDD	
						05-AUG-2014	P723822	05-AUG-2014	P723822	07-OCT-2014	P734809	07-OCT-2014	P734809
2,3,7,8-tetra CDD	.155 PG/L	1.000				ND		ND		ND		ND	
1,2,3,7,8-penta CDD	.205 PG/L	0.500				ND		ND		ND		ND	
1,2,3,4,7,8_hexa_CDD	.273 PG/L	0.100				ND		ND		ND		ND	
1,2,3,6,7,8-hexa CDD	.291 PG/L	0.100				ND		ND		ND		ND	
1,2,3,7,8,9-hexa CDD	.264 PG/L	0.100				ND		ND		ND		ND	
1,2,3,4,6,7,8-hepta CDD	.53 PG/L	0.010				ND		ND		ND		ND	
octa CDD	1.02 PG/L	0.001				ND		ND		ND		ND	
2,3,7,8-tetra CDF	.164 PG/L	0.100				ND		ND		ND		ND	
1,2,3,7,8-penta CDF	.187 PG/L	0.050				ND		ND		ND		ND	
2,3,4,7,8-penta CDF	.178 PG/L	0.050				ND		ND		ND		ND	
1,2,3,4,7,8-hexa CDF	.168 PG/L	0.100				ND		ND		ND		ND	
1,2,3,6,7,8-hexa CDF	.173 PG/L	0.100				ND		ND		ND		ND	
1,2,3,7,8,9-hexa CDF	.242 PG/L	0.100				ND		ND		ND		ND	
2,3,4,6,7,8-hexa CDF	.188 PG/L	0.100				ND		ND		ND		ND	
1,2,3,4,6,7,8-hepta CDF	.218 PG/L	0.010				ND		ND		ND		ND	
1,2,3,4,7,8,9-hepta CDF	.317 PG/L	0.010				ND		ND		ND		ND	
octa CDF	.579 PG/L	0.001				ND		ND		ND		ND	

ND= not detected

DNQ= (Detected but not quantified). Estimated analyte concentration below calibration range.

This page left blank intentionally

VII. Reclaimed Water Data Summary.

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

- A. Reclaimed Water Data Summaries
- B. Reclaimed Water Graphs
- C. Daily Values of Selected Parameters
- D. Total Coliforms Data Summaries
- E. UV Performance Report

This page left blank intentionally

A. Reclaimed Water Data Summaries

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

South Bay Water Reclamation Plant
Annual Recycled Water Turbidity Report - 2014

Data from in-plant meter ⁴

Date	Average Daily Turbidity (NTU)	Minimum Daily ¹ Turbidity (NTU)	Maximum Daily ² Turbidity (NTU)	Time over ³ 5 ntu's (minutes)
Jan	0.55	0.45	1.27	0
Feb	0.81	0.65	1.75	0
Mar	0.52	0.40	1.83	0
Apr	0.59	0.37	2.35	0
May	0.76	0.53	2.58	0
Jun	1.08	0.47	4.87	0
Jul	0.87	0.61	3.63	0
Aug	1.19	0..81	3.56	0
Sep	1.24	0.86	2.26	0
Oct	1.19	0.89	2.60	0
Nov	1.14	0.71	2.79	0
Dec	0.82	0.72	1.32	0
<hr/> Average:		0.90		

¹ Minimum Daily value is the average recorded for the month.

² Maximum Daily value is the average recorded value for the month.

³ Total time for the month.

⁴ Compliance monitoring point, values taken from the DCS Point (S29AI0203), located at the UV Vault in Area 29 (Tertiary UV Disinfection System)

SOUTH BAY WATER RECLAMATION PLANT

Annual 2014

Reclaim Water
(SB_REC_WATER_34)

Analyte:	Flow	pH	Biochemical Oxygen Demand	Total Suspended Solids (mg/L)	Volatile Suspended Solids (mg/L)	Total Dissolved Solids (mg/L)	Turbidity (NTU)
Units:	(mgd)		(mg/L)				
JANUARY -2014	2.15	7.34	2	<1.4	<1.6	958	NR
FEBRUARY -2014	1.17	7.32	3	<2.5	<2.5	972	0.58
MARCH -2014	1.47	7.38	<2	<2.5	<2.5	996	NR
APRIL -2014	3.34	7.45	2	<2.5	<2.5	988	NR
MAY -2014	4.90	7.44	<2	<2.5	<2.5	1000	1.14
JUNE -2014	4.92	7.45	3	<2.5	<2.5	948	NR
JULY -2014	5.54	7.36	2	<2.5	<2.5	830	NR
AUGUST -2014	5.02	7.48	3	<2.5	<2.5	839	0.93
SEPTEMBER -2014	4.69	7.48	4	<2.5	<2.5	905	NR
OCTOBER -2014	4.08	7.49	4	<2.5	<2.5	932	1.21
NOVEMBER -2014	2.31	7.34	3	<2.5	<2.5	952	NR
DECEMBER -2014	0.22	7.26	3	4.2	4.0	984	NR
Average	3.32	7.40	2	0.4	0.3	942	0.97

*= Not for compliance monitoring

ND=not detected
 NR=not required

SOUTH BAY WATER RECLAMATION PLANT
SB_REC_WATER_34 Reclaimed Water- Annual Averages

Annual 2014

Source:	Aluminum	Antimony	Arsenic	Barium	Beryllium	Boron
MDL:	47	2.9	.06	.7	.05	7
Units:	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
<hr/>						
JANUARY -2014	NR	NR	NR	NR	NR	276
FEBRUARY -2014	ND	ND	0.7	59.8	ND	296
MARCH -2014	NR	NR	NR	NR	NR	288
APRIL -2014	NR	NR	NR	NR	NR	288
MAY -2014	ND	ND	0.7	61.7	ND	288
JUNE -2014	NR	NR	NR	NR	NR	287
JULY -2014	NR	NR	NR	NR	NR	304
AUGUST -2014	ND	ND	0.6	43.3	ND	313
SEPTEMBER-2014	NR	NR	NR	NR	NR	310
OCTOBER -2014	26	ND	0.7	73.2	ND	293
NOVEMBER -2014	NR	NR	NR	NR	NR	293
DECEMBER -2014	NR	NR	NR	NR	NR	284
<hr/>						
Annual Average:	7	0.0	0.7	59.5	0.0	293

Source:	Cadmium	Chromium	Copper	Iron	Manganese	Mercury
MDL:	.53	1.2	2.16	37	.78	.005
Units:	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
<hr/>						
JANUARY -2014	NR	NR	NR	ND	9.0	NR
FEBRUARY -2014	ND	ND	8.4	ND	13.9	ND
MARCH -2014	NR	NR	NR	37	27.7	NR
APRIL -2014	NR	NR	NR	ND	30.9	NR
MAY -2014	ND	ND	7.2	41	20.9	ND
JUNE -2014	NR	NR	NR	54	25.9	NR
JULY -2014	NR	NR	NR	39	20.7	NR
AUGUST -2014	ND	1.13	7.2	46	23.9	ND
SEPTEMBER-2014	NR	NR	NR	76	39.1	NR
OCTOBER -2014	ND	1.23	6.3	55	32.0	ND
NOVEMBER -2014	NR	NR	NR	38	34.4	NR
DECEMBER -2014	NR	NR	NR	46	47.6	NR
<hr/>						
Annual Average:	0.0	0.59	7.3	36	27.2	0.0

Source:	Nickel	Selenium	Thallium	Chloride	Fluoride	Sulfate
MDL:	.53	.08	3.9	7	.05	9
Units:	UG/L	UG/L	UG/L	MG/L	MG/L	MG/L
<hr/>						
JANUARY -2014	NR	NR	NR	249	0.59	180
FEBRUARY -2014	5.71	0.55	ND	246	0.55	185
MARCH -2014	NR	NR	NR	273	0.56	182
APRIL -2014	NR	NR	NR	259	0.54	177
MAY -2014	3.83	0.52	ND	257	0.55	180
JUNE -2014	NR	NR	NR	254	0.54	161
JULY -2014	NR	NR	NR	213	0.54	147
AUGUST -2014	2.89	0.52	ND	207	0.51	148
SEPTEMBER-2014	NR	NR	NR	212	0.55	201
OCTOBER -2014	3.03	0.63	ND	230	0.57	193
NOVEMBER -2014	NR	NR	NR	214	0.55	230
DECEMBER -2014	NR	NR	NR	228	0.49	253
<hr/>						
Annual Average:	3.87	0.56	0.0	237	0.55	186

ND= Not Detected
NR= Not Required

SOUTH BAY WATER RECLAMATION PLANT
SB_REC_WATER_34 Reclaimed Water- Annual Averages

Annual 2014

Source:	Total Cyanides	MBAS (surfactants)	Percent Sodium	Calcium	Magnesium	Potassium
MDL:	.002	.03		.04	.1	.3
Units:	MG/L	MG/L	Calculated %	MG/L	MG/L	MG/L
JANUARY -2014	NR	0.12	60.2	69.3	30.5	18.6
FEBRUARY -2014	0.004	0.13	56.4	71.2	31.9	17.9
MARCH -2014	NR	0.10	56.4	75.7	34.1	17.4
APRIL -2014	NR	0.13	58.3	72.0	32.5	18.8
MAY -2014	0.003	0.14	57.6	73.9	32.1	18.0
JUNE -2014	NR	0.12	58.2	67.2	30.4	17.0
JULY -2014	NR	0.11	58.6	62.7	25.1	16.8
AUGUST -2014	0.003	0.12	60.3	51.4	18.7	15.5
SEPTEMBER-2014	NR	0.13	57.6	68.1	24.9	17.6
OCTOBER -2014	ND	0.10	56.9	74.3	26.2	16.7
NOVEMBER -2014	NR	0.11	58.3	76.1	27.3	18.8
DECEMBER -2014	NR	0.17	54.3	80.2	28.0	18.2
Annual Average:	0.003	0.12	57.8	70.2	28.5	17.6

Source:	Sodium	Calcium	Magnesium	Total Hardness	Total Dissolved Solids	Lithium
MDL:	1	.04	.1	.1	28	.002
Units:	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
JANUARY -2014	224	173	125	298	958	0.04
FEBRUARY -2014	197	178	131	309	972	0.03
MARCH -2014	209	189	140	329	996	0.03
APRIL -2014	217	180	133	313	988	0.03
MAY -2014	212	185	132	317	1000	0.04
JUNE -2014	201	168	125	293	948	0.03
JULY -2014	183	157	103	260	830	0.03
AUGUST -2014	157	129	77	206	839	0.04
SEPTEMBER-2014	184	170	102	272	905	0.04
OCTOBER -2014	191	186	107	293	932	0.05
NOVEMBER -2014	210	190	112	302	960	0.04
DECEMBER -2014	185	201	115	316	984	0.05
Annual Average:	198	176	117	292	943	0.04

Source:	Cobalt	Molybdenum	Vanadium	Nitrate	O-Phosphate	Total Alkalinity (bicarbonate)
MDL:	.85	.89	.64	.04	.2	20
Units:	UG/L	UG/L	UG/L	MG/L	MG/L	MG/L
JANUARY -2014	NR	NR	NR	30.7	4.3	195
FEBRUARY -2014	ND	2.64	0.87	32.8	5.9	175
MARCH -2014	NR	NR	NR	34.2	4.5	180
APRIL -2014	NR	NR	NR	40.3	1.6	176
MAY -2014	ND	3.21	ND	39.4	1.2	181
JUNE -2014	NR	NR	NR	36.5	1.8	311
JULY -2014	NR	NR	NR	35.3	3.2	141
AUGUST -2014	0.62	2.38	ND	34.2	3.4	125
SEPTEMBER-2014	NR	NR	NR	28.1	2.2	150
OCTOBER -2014	0.48	3.11	0.60	26.2	1.0	157
NOVEMBER -2014	NR	NR	NR	42.0	0.9	156
DECEMBER -2014	NR	NR	NR	40.9	1.0	169
Annual Average:	0.28	2.84	0.37	35.1	2.6	176

ND= Not Detected

NR= Not Required

SOUTH BAY WATER RECLAMATION PLANT
Reclaimed Water

Annual 2014

Source:		SB_REC_WATER_34	SB_REC_WATER_34	SB_REC_WATER_34	SB_REC_WATER_34
Date:		04-FEB-2014	06-MAY-2014	05-AUG-2014	07-OCT-2014
Sample ID:	MDL Units	P695838	P712595	P723848	P734833
Aluminum	.47 UG/L	ND	ND	ND	26
Antimony	2.9 UG/L	ND	ND	ND	ND
Arsenic	.06 UG/L	0.7	0.7	0.6	0.7
Barium	.7 UG/L	59.8	61.7	43.3	73.2
Beryllium	.05 UG/L	ND	ND	ND	ND
Boron	7 UG/L	296	288	313	293
Cadmium	.53 UG/L	ND	ND	ND	ND
Chromium	1.2 UG/L	ND	ND	1.1	1.2
Cobalt	.85 UG/L	ND	ND	0.62	0.48
Copper	2.16 UG/L	8	7	7	6
Iron	37 UG/L	ND	41	46	55
Lead	2 UG/L	ND	ND	2	2
Manganese	.78 UG/L	13.9	20.9	23.9	32.0
Mercury	.005 UG/L	ND	ND	ND	ND
Molybdenum	.89 UG/L	2.6	3.2	2.4	3.1
Nickel	.53 UG/L	5.71	3.83	2.89	3.03
Selenium	.08 UG/L	0.55	0.52	0.52	0.63
Silver	.73 UG/L	ND	ND	ND	ND
Thallium	3.9 UG/L	ND	ND	ND	ND
Vanadium	.64 UG/L	0.87	ND	ND	0.60
Zinc	4.19 UG/L	34.1	25.9	31.0	25.3
Bromide	.1 MG/L	0.4	0.3	0.2	0.2
Chloride	7 MG/L	242	259	203	230
Fluoride	.05 MG/L	0.57	0.55	0.50	0.59
Nitrate	.04 MG/L	35.4	39.7	41.4	21.9
Ortho Phosphate	.2 MG/L	6.7	1.2	3.2	1.1
Sulfate	9 MG/L	182	182	136	210
Calcium	.04 MG/L	71	74	51	74
Lithium	.002 MG/L	0.032	0.036	0.036	0.045
Magnesium	.1 MG/L	32	32	19	26
Potassium	.3 MG/L	18	18	16	17
Sodium	1 MG/L	197	212	157	191
Calcium Hardness	MG/L	178	185	128	186
Magnesium Hardness	MG/L	131	132	77	108
Total Hardness	MG/L	309	317	205	294
Cyanide, Total	.002 MG/L	0.004	0.003	0.003	ND
Sulfides-Total	.4 MG/L	ND	0.48	ND	ND
Total Kjeldahl Nitrogen	1.6 MG/L	1.9	2.2	ND	1.6
Ammonia-N	.3 MG/L	ND	ND	ND	ND
Adjusted Sodium Adsorption	MG/L	5.3	5.7	4.7	5.4
Percent Sodium	PERCENT	56.4	57.6	60.3*	56.9
Total Organic Carbon	MG/L	11.1	11.8	12.3	11.9

*= The percent sodium of the reclaimed water composite sample for August 5, 2014 was 60.3% at the daily maximum limit of 60%. The 30-day average on August 5, 2014 was at the limit of 60% with a value of 60%.

ND= Not Detected

NR= Not Required

SOUTH BAY WATER RECLAMATION PLANT
Radioactivity

Annual 2014

Source	Sample Date	Sample ID	Gross Alpha Radiation	Gross Beta Radiation
SB_REC_WATER_34	04-FEB-2014	P695838	-0.7 ± 4.8	18.7 ± 5.9
SB_REC_WATER_34	06-MAY-2014	P712595	0.1 ± 4.3	14.0 ± 4.8
SB_REC_WATER_34	05-AUG-2014	P723848	-0.6 ± -3.7	18.6 ± 3.8
SB_REC_WATER_34	07-OCT-2014	P734833	3.2 ± 3.8	21.5 ± 4.6

Units in picocuries per Liter (pCi/L)

South Bay Water Reclamation Plant
Chlorinated Pesticides

Reclaimed Water

Annual 2014

Date: Analyte	MDL	Units	04-FEB-2014 P695838	06-MAY-2014 P712595	05-AUG-2014 P723848	07-OCT-2014 P734833
Aldrin	4	NG/L	ND	ND	ND	ND
BHC, Alpha isomer	.2	NG/L	ND	ND	ND	ND
BHC, Beta isomer	2	NG/L	ND	ND	ND	ND
BHC, Delta isomer	2	NG/L	ND	ND	ND	ND
BHC, Gamma isomer	.34	NG/L	ND	ND	ND	ND
Alpha (cis) Chlordane	1.4	NG/L	ND	ND	ND	ND
Gamma (trans) Chlordane	1.3	NG/L	ND	ND	ND	ND
Alpha Chlordene		NG/L	NA	NA	NA	NA
Gamma Chlordene		NG/L	NA	NA	NA	NA
Cis Nonachlor	4	NG/L	ND	ND	ND	ND
Dieldrin	4.3	NG/L	ND	ND	ND	ND
Endosulfan Sulfate	7	NG/L	ND	ND	ND	ND
Alpha Endosulfan	1.5	NG/L	ND	ND	ND	ND
Beta Endosulfan	3.1	NG/L	ND	ND	ND	ND
Endrin	6	NG/L	ND	ND	ND	ND
Endrin aldehyde	5.4	NG/L	ND	ND	ND	ND
Heptachlor	.6	NG/L	ND	ND	ND	ND
Heptachlor epoxide	9.4	NG/L	ND	ND	ND	ND
Methoxychlor	20	NG/L	ND	ND	ND	ND
Mirex	2.3	NG/L	ND	ND	ND	ND
o,p-DDD	4	NG/L	ND	ND	ND	ND
o,p-DDE	2	NG/L	ND	ND	ND	ND
o,p-DDT	2.4	NG/L	ND	ND	ND	ND
Oxychlordane	2	NG/L	ND	ND	ND	ND
PCB 1016	250	NG/L	ND	ND	ND	ND
PCB 1221	2000	NG/L	ND	ND	ND	ND
PCB 1232	750	NG/L	ND	ND	ND	ND
PCB 1242	250	NG/L	ND	ND	ND	ND
PCB 1248	250	NG/L	ND	ND	ND	ND
PCB 1254	500	NG/L	ND	ND	ND	ND
PCB 1260	500	NG/L	ND	ND	ND	ND
PCB 1262	500	NG/L	ND	ND	ND	ND
p,p-DDD	4	NG/L	ND	ND	ND	ND
p,p-DDE	1.4	NG/L	ND	ND	ND	ND
p,p-DDT	3	NG/L	ND	ND	ND	ND
Toxaphene	250	NG/L	ND	ND	ND	ND
Trans Nonachlor	1.1	NG/L	ND	ND	ND	ND
Heptachlors	9.4	NG/L	0	0	0	0
Endosulfans	7	NG/L	0	0	0	0
Polychlorinated biphenyls	2000	NG/L	0	0	0	0
Chlordane + related cmpds.	4	NG/L	0	0	0	0
DDT and derivatives	4	NG/L	0	0	0	0
Hexachlorocyclohexanes	2	NG/L	0	0	0	0
Aldrin + Dieldrin	4.3	NG/L	0	0	0	0
Chlorinated Hydrocarbons	2000	NG/L	0	0	0	0

ND= Not Detected

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
Reclaimed Water

OrganoPhosphorous Analysis

Annual 2014

Date:	06-MAY-2014	
Analyte	MDL	Units
	P712595	
Demeton O	.15	UG/L
Demeton S	.08	UG/L
Diazinon	.03	UG/L
Guthion	.15	UG/L
Malathion	.03	UG/L
Parathion	.03	UG/L
Dichlorvos	.05	UG/L
Disulfoton	.02	UG/L
Dimethoate	.04	UG/L
Stirophos	.03	UG/L
Coumaphos	.15	UG/L
Chlorpyrifos	.03	UG/L
Thiophosphorus Pesticides	.15	UG/L
Demeton -O, -S	.15	UG/L
Total Organophosphorus Pesticides	.15	UG/L
		0.0

Date:	07-OCT-2014	
Analyte	MDL	Units
	P734833*	
Demeton O	.058	UG/L
Demeton S	.403	UG/L
Diazinon	.027	UG/L
Guthion	.104	UG/L
Malathion	.051	UG/L
Parathion	.032	UG/L
Dichlorvos	.036	UG/L
Disulfoton	.175	UG/L
Dimethoate	.189	UG/L
Stirophos	.034	UG/L
Coumaphos	.033	UG/L
Chlorpyrifos	.034	UG/L
Thiophosphorus Pesticides	.104	UG/L
Demeton -O, -S	.403	UG/L
Total Organophosphorus Pesticides	.403	UG/L
		0.0

*= This sample was analyzed using a GC/MS/MS.

ND= Not Detected

South Bay Water Reclamation Plant
Reclaimed Water

Organotins

Annual 2014

Source:	SB_REC_WATER_34	SB_REC_WATER_34	SB_REC_WATER_34	SB_REC_WATER_34		
Date:	04-FEB-2014	06-MAY-2014	05-AUG-2014	07-OCT-2014		
Analyte	MDL	Units	P695838	P712595	P723848	P734833
Tributyltin	2	UG/L	ND	ND	ND	ND
Dibutyltin	7	UG/L	ND	ND	ND	ND
Monobutyltin	16	UG/L	ND	ND	ND	ND

ND= Not Detected

South Bay Water Reclamation Plant
Reclaimed Water

Phenols

Annual 2014

Date:		04-FEB-2014 P695838	06-MAY-2014 P712595	05-AUG-2014 P723848	07-OCT-2014 P734833
Analyte	MDL Units				
2-Chlorophenol	1.32 UG/L	ND	ND	ND	ND
4-Chloro-3-methylphenol	1.67 UG/L	ND	ND	ND	ND
2,4-Dichlorophenol	1.01 UG/L	ND	ND	ND	ND
2,4-Dimethylphenol	2.01 UG/L	ND	ND	ND	ND
2,4-Dinitrophenol	2.16 UG/L	ND	ND	ND	ND
2-Methyl-4,6-dinitrophenol	1.52 UG/L	ND	ND	ND	ND
2-Nitrophenol	1.55 UG/L	ND	ND	ND	ND
4-Nitrophenol	1.14 UG/L	ND	ND	ND	ND
Pentachlorophenol	1.12 UG/L	ND	ND	ND	ND
Phenol	1.76 UG/L	ND	ND	ND	ND
2,4,6-Trichlorophenol	1.65 UG/L	ND	ND	ND	ND
Total Chlorinated Phenols	1.67 UG/L	0.0	0.0	0.0	0.0
Total Non-Chlorinated Phenols	2.16 UG/L	0.0	0.0	0.0	0.0
Total Phenols	2.16 UG/L	0.0	0.0	0.0	0.0
<hr/>					
Additional analytes determined					
2-Methylphenol	2.15 UG/L	ND	ND	ND	ND
3-Methylphenol(4-MP is unresolved)	UG/L	NA	NA	NA	NA
4-Methylphenol(3-MP is unresolved)	2.11 UG/L	ND	ND	ND	ND
2,4,5-Trichlorophenol	1.66 UG/L	ND	ND	ND	ND

ND= not detected

NA= not analyzed

South Bay Water Reclamation Plant
Reclaimed water

Base/Neutrals

Annual 2014

Date:		MDL	Units	04-FEB-2014 P695838	06-MAY-2014 P712595	05-AUG-2014 P723848	07-OCT-2014 P734833
Acenaphthene		1.8	UG/L	ND	ND	ND	ND
Acenaphthylene		1.77	UG/L	ND	ND	ND	ND
Anthracene		1.29	UG/L	ND	ND	ND	ND
Benzidine		1.52	UG/L	ND	ND	ND	ND
Benzo[a]anthracene		1.1	UG/L	ND	ND	ND	ND
3,4-Benzo(b)fluoranthene		1.35	UG/L	ND	ND	ND	ND
Benzo[k]fluoranthene		1.49	UG/L	ND	ND	ND	ND
Benzo[a]pyrene		1.25	UG/L	ND	ND	ND	ND
Benzo[g,h,i]perylene		1.09	UG/L	ND	ND	ND	ND
4-Bromophenyl phenyl ether		1.4	UG/L	ND	ND	ND	ND
Bis-(2-chloroethoxy) methane		1.01	UG/L	ND	ND	ND	ND
Bis-(2-chloroethyl) ether		1.38	UG/L	ND	ND	ND	ND
Bis-(2-chloroisopropyl) ether		1.16	UG/L	ND	ND	ND	ND
4-Chlorophenyl phenyl ether		1.57	UG/L	ND	ND	ND	ND
2-Chloronaphthalene		1.87	UG/L	ND	ND	ND	ND
Chrysene		1.16	UG/L	ND	ND	ND	ND
Dibenzo(a,h)anthracene		1.01	UG/L	ND	ND	ND	ND
Butyl benzyl phthalate		2.84	UG/L	ND	ND	ND	ND
Di-n-butyl phthalate		3.96	UG/L	ND	ND	ND	ND
Bis-(2-ethylhexyl) phthalate		8.96	UG/L	ND	ND	ND	ND
Diethyl phthalate		3.05	UG/L	ND	ND	ND	ND
Dimethyl phthalate		1.44	UG/L	ND	ND	ND	ND
Di-n-octyl phthalate		1	UG/L	ND	ND	ND	ND
3,3-Dichlorobenzidine		2.44	UG/L	ND	ND	ND	ND
2,4-Dinitrotoluene		1.36	UG/L	ND	ND	ND	ND
2,6-Dinitrotoluene		1.53	UG/L	ND	ND	ND	ND
1,2-Diphenylhydrazine		1.37	UG/L	ND	ND	ND	ND
Fluoranthene		1.33	UG/L	ND	ND	ND	ND
Fluorene		1.61	UG/L	ND	ND	ND	ND
Hexachlorobenzene		1.48	UG/L	ND	ND	ND	ND
Hexachlorobutadiene		1.64	UG/L	ND	ND	ND	ND
Hexachlorocyclopentadiene		1.25	UG/L	ND	ND	ND	ND
Hexachloroethane		1.32	UG/L	ND	ND	ND	ND
Indeno(1,2,3-CD)pyrene		1.14	UG/L	ND	ND	ND	ND
Isophorone		1.53	UG/L	ND	ND	ND	ND
Naphthalene		1.65	UG/L	ND	ND	ND	ND
Nitrobenzene		1.6	UG/L	ND	ND	ND	ND
N-nitrosodimethylamine		1.27	UG/L	ND	ND	ND	ND
N-nitrosodi-n-propylamine		1.16	UG/L	ND	ND	ND	ND
N-nitrosodiphenylamine		3.48	UG/L	ND	ND	ND	ND
Phenanthrene		1.34	UG/L	ND	ND	ND	ND
Pyrene		1.43	UG/L	ND	ND	ND	ND
1,2,4-Trichlorobenzene		1.52	UG/L	ND	ND	ND	ND
Polynuc. Aromatic Hydrocarbons		1.77	UG/L	0.0	0.0	0.0	0.0
Base/Neutral Compounds		8.96	UG/L	0.0	0.0	0.0	0.0

Additional analytes determined

Benzo[e]pyrene	1.44	UG/L	ND	ND	ND	ND
Biphenyl	2.29	UG/L	ND	ND	ND	ND
2,6-Dimethylnaphthalene	2.16	UG/L	ND	ND	ND	ND
1-Methylnaphthalene	2.18	UG/L	ND	ND	ND	ND
1-Methylphenanthrene	1.46	UG/L	ND	ND	ND	ND
2-Methylnaphthalene	2.14	UG/L	ND	ND	ND	ND
2,3,5-Trimethylnaphthalene	2.18	UG/L	ND	ND	ND	ND
Perylene	1.41	UG/L	ND	ND	ND	ND

ND= Not Detected

SOUTH BAY WASTEWATER TREATMENT PLANT
Annual Priority Pollutants Purgeable Compounds, EPA Method 624 Report

Annual 2014

Source:		SB_REC_WATER_34	SB_REC_WATER_34	SB_REC_WATER_34	SB_REC_WATER_34
Date:		04-FEB-2014	06-MAY-2014	05-AUG-2014	07-OCT-2014
Analyte	MDL Units	P695841	P712598	P723851	P734836
Dichlorodifluoromethane	.66 UG/L	ND	ND	ND	ND
Chloromethane	.5 UG/L	DNQ1.0	2.3	2.8	ND
Vinyl chloride	.4 UG/L	ND	ND	ND	ND
Bromomethane	.7 UG/L	ND	ND	ND	ND
Chloroethane	.9 UG/L	ND	ND	1.0	ND
Trichlorofluoromethane	.3 UG/L	ND	ND	ND	ND
Acrolein	1.3 UG/L	ND	ND	ND	ND
1,1-Dichloroethane	.4 UG/L	ND	ND	ND	ND
Methylene chloride	.3 UG/L	DNQ0.4	DNQ0.8	3.2	ND
trans-1,2-dichloroethene	.6 UG/L	ND	ND	ND	ND
1,1-Dichloroethene	.4 UG/L	ND	ND	ND	ND
Acrylonitrile	.7 UG/L	ND	ND	ND	ND
Chloroform	.2 UG/L	11.0	25.7	103.0	2.8
1,1,1-Trichloroethane	.4 UG/L	ND	ND	ND	ND
Carbon tetrachloride	.4 UG/L	ND	ND	ND	ND
Benzene	.4 UG/L	ND	ND	ND	ND
1,2-Dichloroethane	.5 UG/L	ND	ND	ND	ND
Trichloroethene	.7 UG/L	ND	ND	ND	ND
1,2-Dichloropropane	.3 UG/L	ND	ND	ND	ND
Bromodichloromethane	.5 UG/L	10.1	26.0	68.1	1.0
2-Chloroethylvinyl ether	1.1 UG/L	ND	ND	ND	ND
cis-1,3-dichloropropene	.3 UG/L	ND	ND	ND	ND
Toluene	.4 UG/L	ND	ND	ND	ND
trans-1,3-dichloropropene	.5 UG/L	ND	ND	ND	ND
1,1,2-Trichloroethane	.5 UG/L	ND	ND	ND	ND
Tetrachloroethene	1.1 UG/L	ND	ND	ND	ND
Dibromochloromethane	.6 UG/L	6.0	15.4	27.7	ND
Chlorobenzene	.4 UG/L	ND	ND	ND	ND
Ethylbenzene	.3 UG/L	ND	ND	ND	ND
Bromoform	.5 UG/L	1.1	2.3	1.7	ND
1,1,2,2-Tetrachloroethane	.5 UG/L	ND	ND	ND	ND
1,3-Dichlorobenzene	.5 UG/L	ND	ND	ND	ND
1,4-Dichlorobenzene	.4 UG/L	ND	ND	ND	ND
1,2-Dichlorobenzene	.4 UG/L	ND	ND	ND	ND
1,2,4-Trichlorobenzene	.7 UG/L	ND	ND	ND	ND
Halomethane Purgeable Cmpnds	.7 UG/L	1.1	4.6	4.5	0.0
Total Dichlorobenzenes	.5 UG/L	0.0	0.0	0.0	0.0
Total Chloromethanes	.5 UG/L	11.0	28.0	109	2.8
Purgeable Compounds	1.3 UG/L	28.2	71.7	208	3.8

Additional analytes determined

Methyl Iodide	.6 UG/L	ND	ND	ND	ND
Carbon disulfide	.6 UG/L	ND	ND	ND	ND
Acetone	4.5 UG/L	DNQ5.8	DNQ5.3	DNQ8.3	ND
Allyl chloride	.6 UG/L	ND	ND	ND	ND
Methyl tert-butyl ether	.4 UG/L	ND	ND	ND	ND
Chloroprene	.4 UG/L	ND	ND	ND	ND
1,2-Dibromoethane	.3 UG/L	ND	ND	ND	ND
2-Butanone	6.3 UG/L	ND	ND	ND	ND
Methyl methacrylate	.8 UG/L	ND	ND	ND	ND
2-Nitropropane	12 UG/L	ND	ND	ND	ND
4-Methyl-2-pentanone	1.3 UG/L	ND	ND	ND	ND
meta,para xylenes	.6 UG/L	ND	ND	ND	ND
ortho-xylene	.4 UG/L	ND	ND	ND	ND
Isopropylbenzene	.3 UG/L	ND	ND	ND	ND
Styrene	.3 UG/L	ND	ND	ND	ND
Benzyl chloride	1.1 UG/L	ND	ND	ND	ND

ND= not detected

DNQ= (Detected but not quantified). Estimated analyte concentration below calibration range.

South Bay Water Reclamation Plant
Reclaimed Water

Benzidines

Annual 2014

Source:	SB_REC_WATER_34	SB_REC_WATER_34	SB_REC_WATER_34	SB_REC_WATER_34	
Date:	04-FEB-2014	06-MAY-2014	05-AUG-2014	07-OCT-2014	
Analyte	MDL Units	P695838	P712595	P723848	P734833
3,3-Dichlorobenzidine	2.44 UG/L	ND	ND	ND	ND
Benzidine	1.52 UG/L	ND	ND	ND	ND

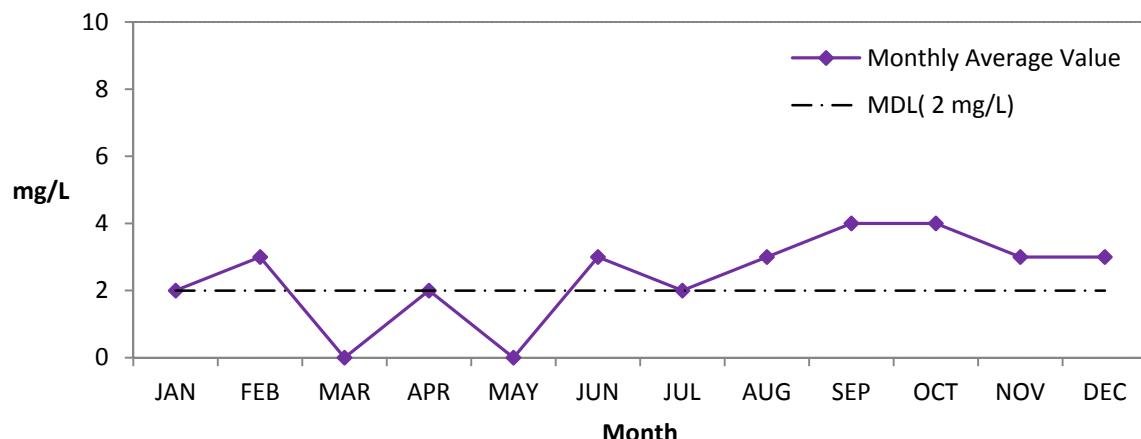
ND= Not Detected

B. Reclaimed Water Graphs

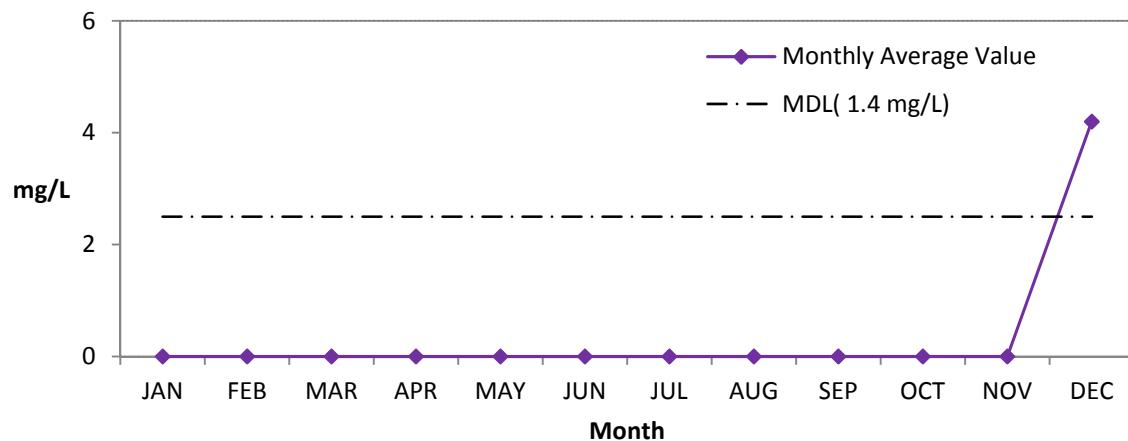
Graphs of monthly averages for permit parameters with measurable concentration averages.

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.

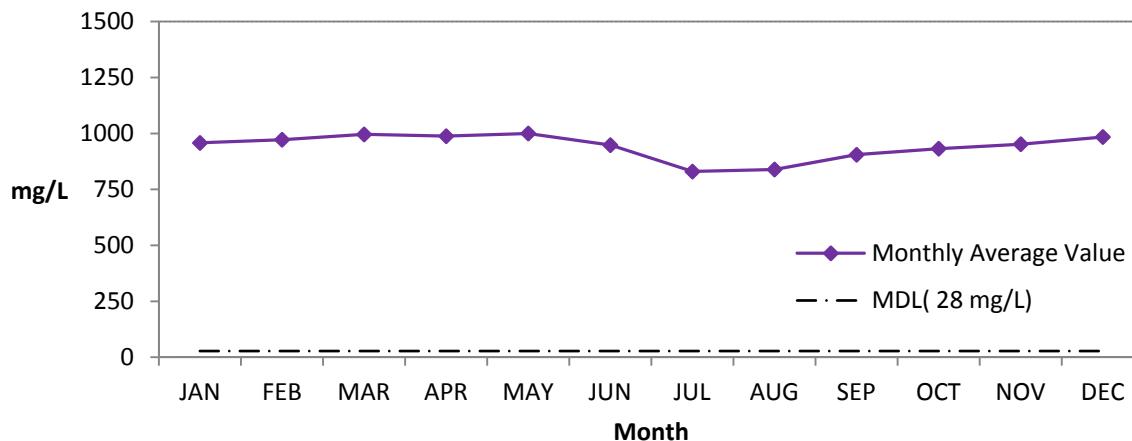
2014 South Bay Reclaimed Water Biological Oxygen Demand



Total Suspended Solids

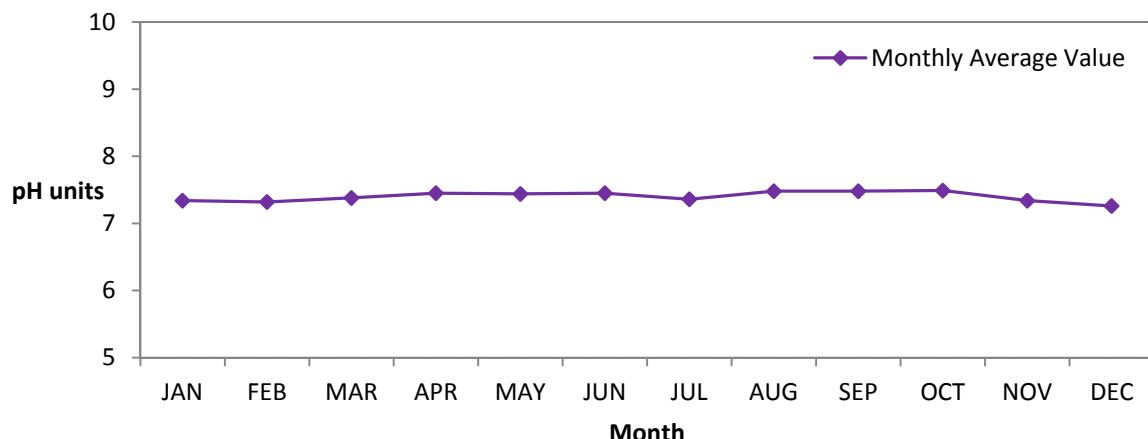


Total Dissolved Solids

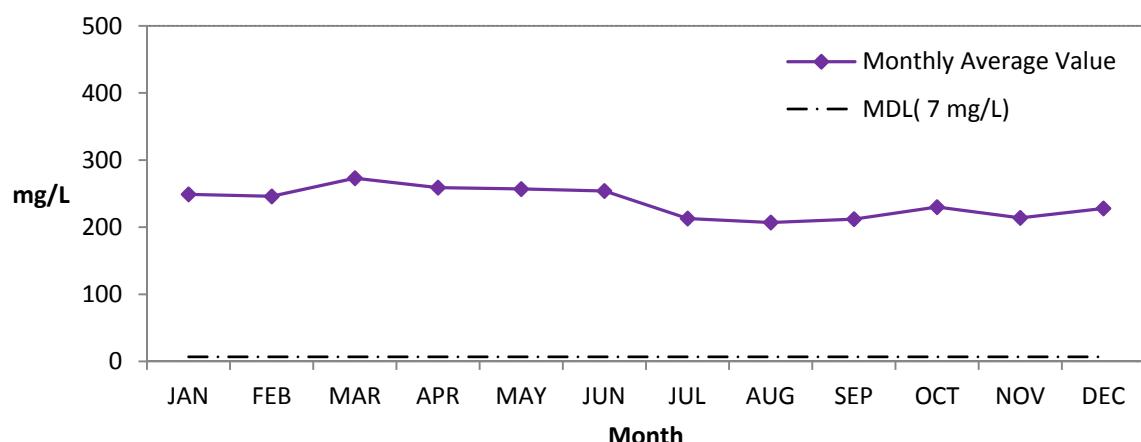


2014 South Bay Reclaimed Water

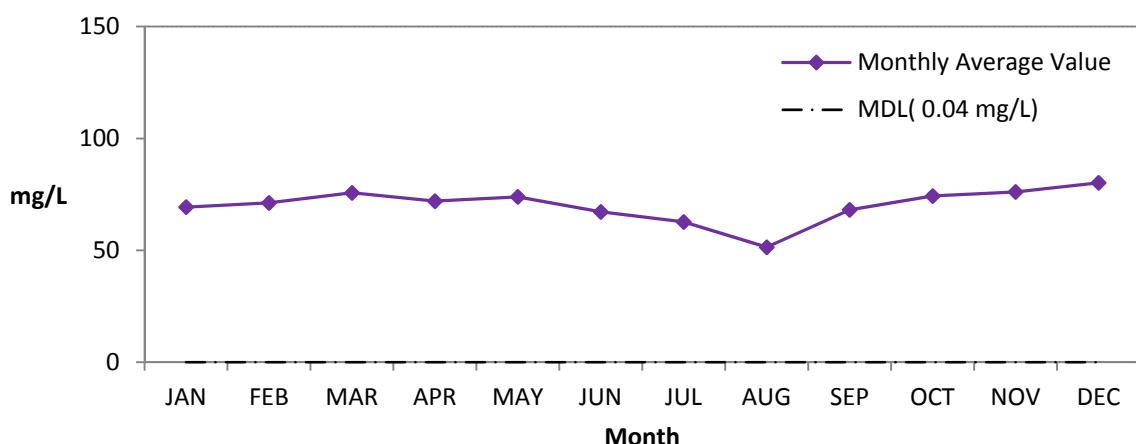
pH



Chloride

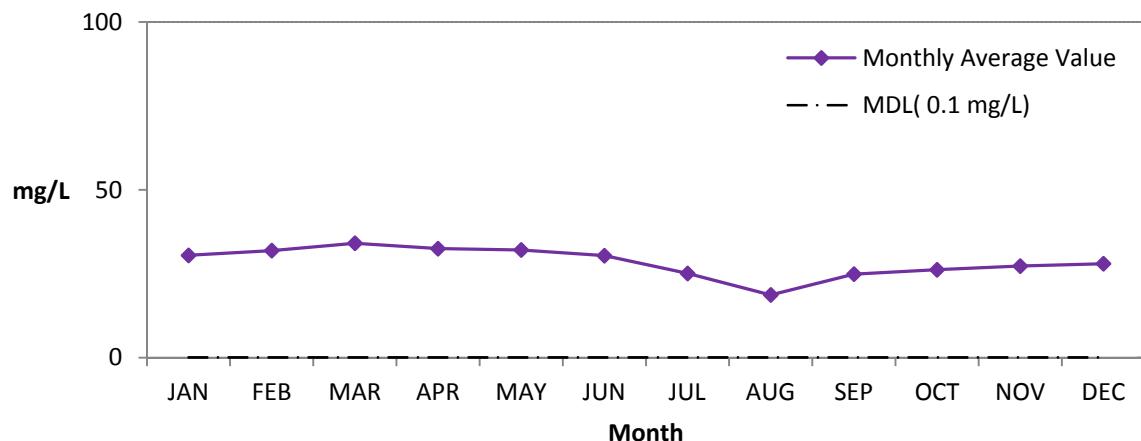


Calcium

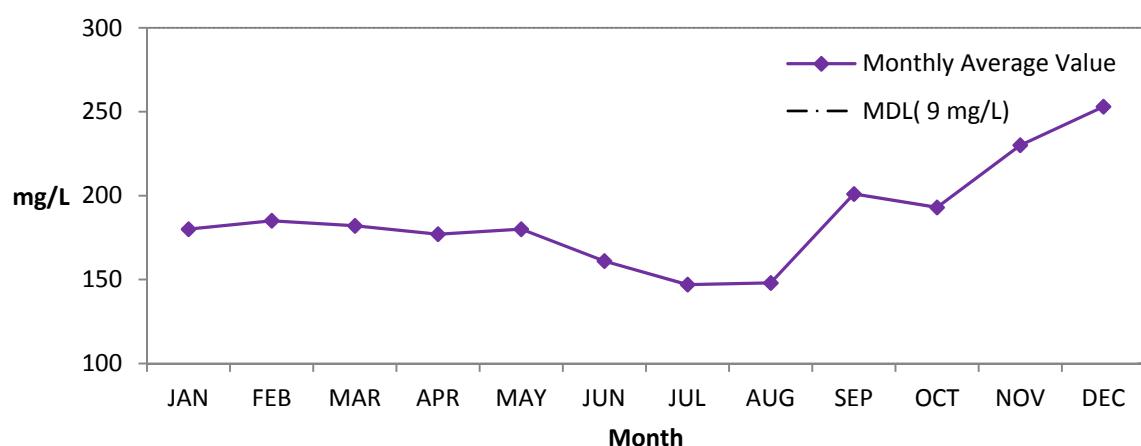


2014 South Bay Reclaimed Water

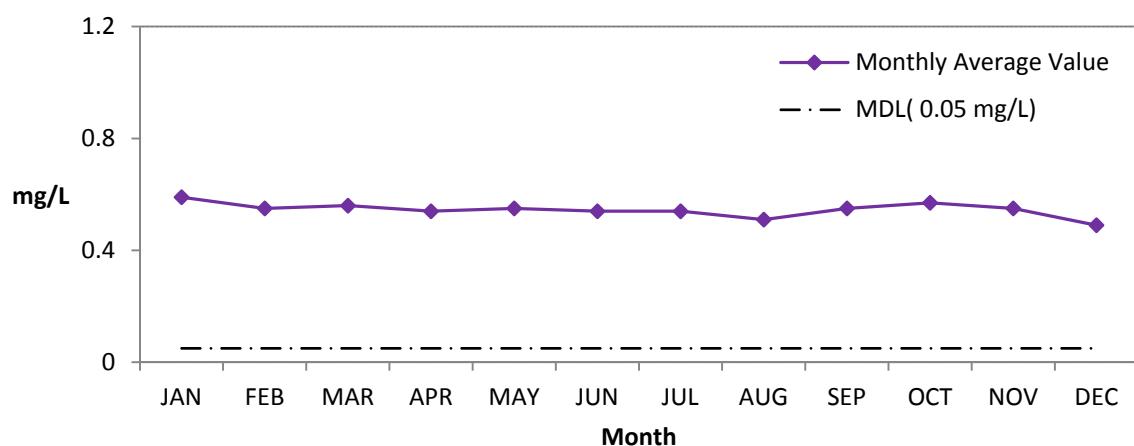
Magnesium



Sulfate

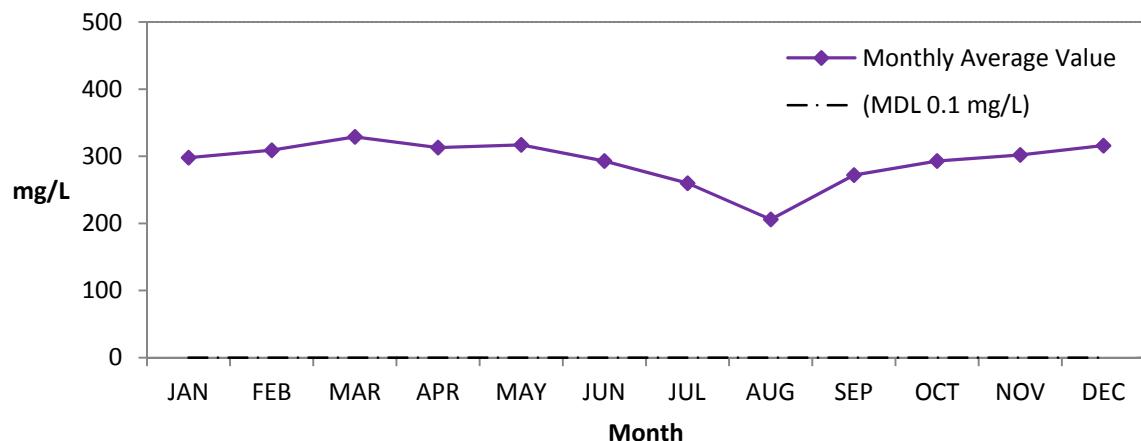


Fluoride

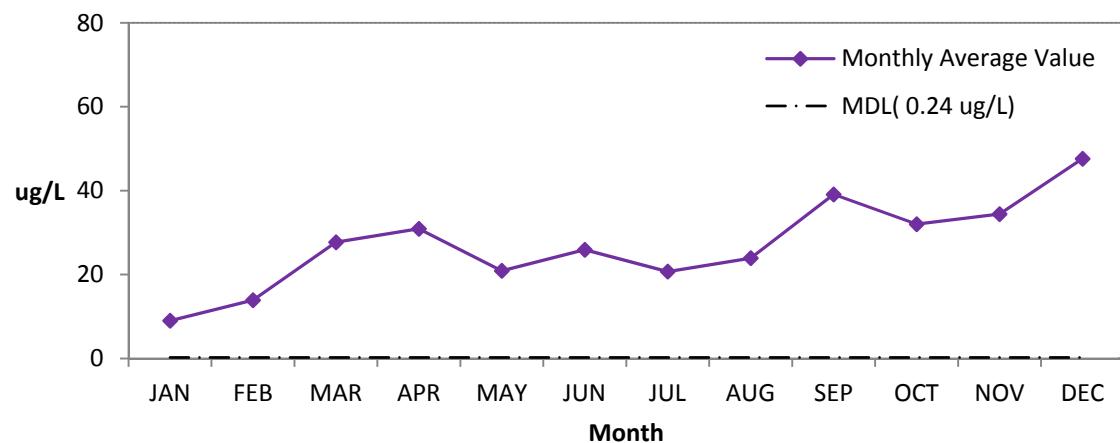


2014 South Bay Reclaimed Water

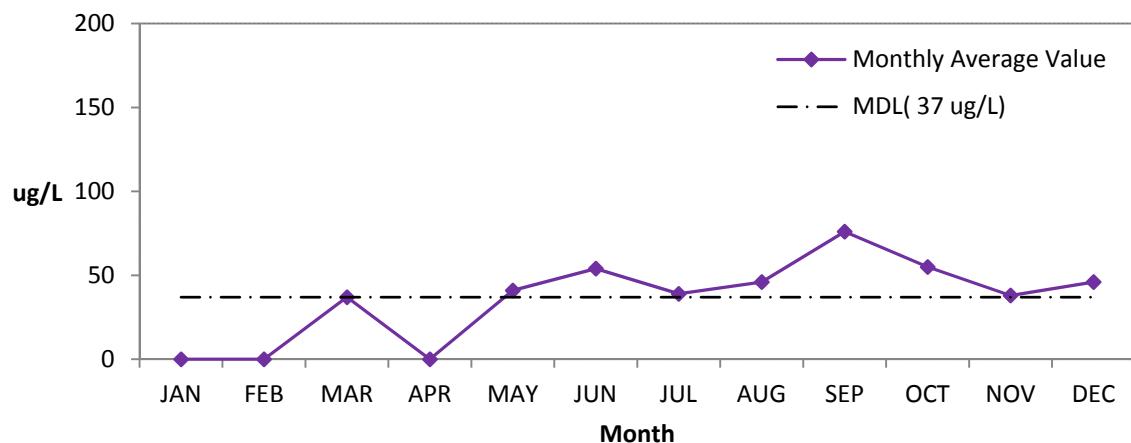
Total Hardness



Manganese

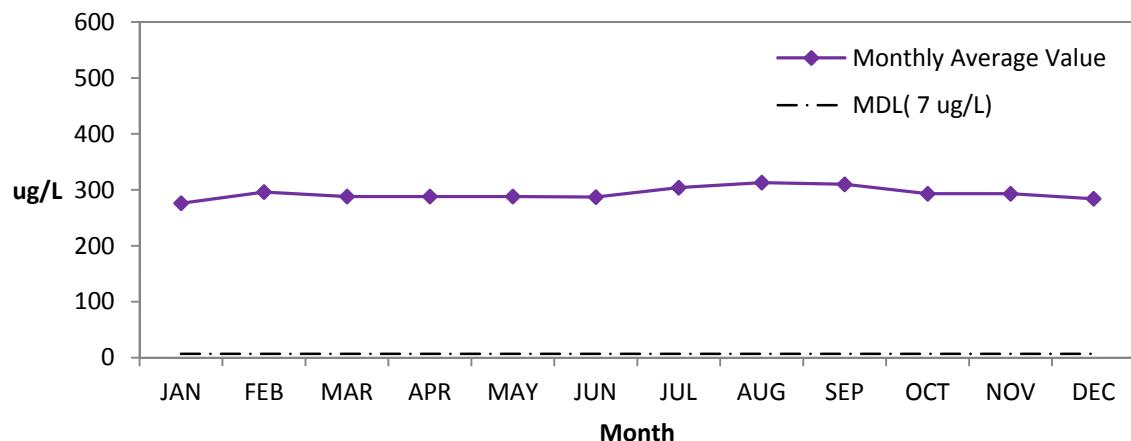


Iron

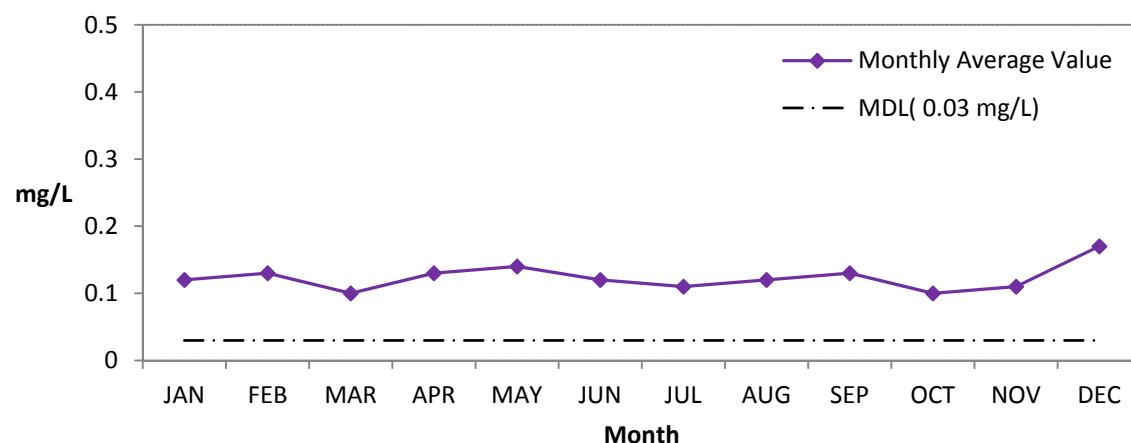


2014 South Bay Reclaimed Water

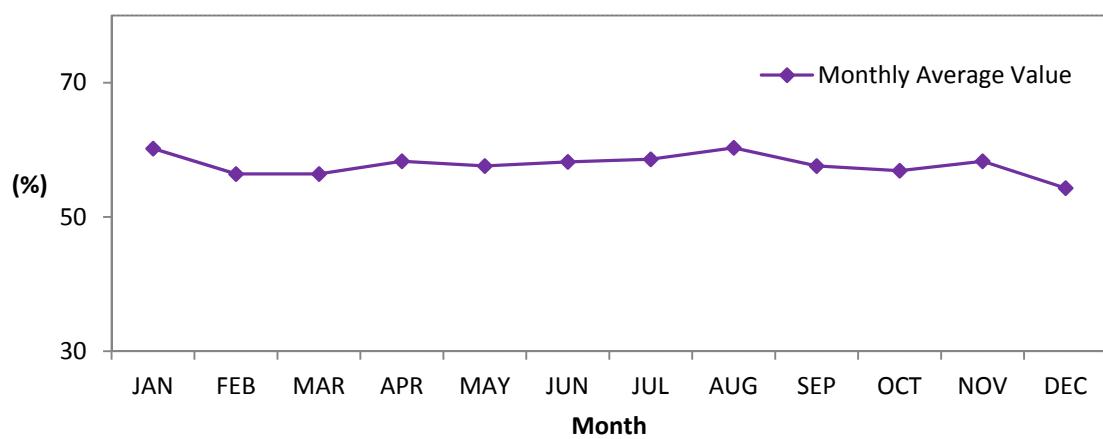
Boron



MBAS



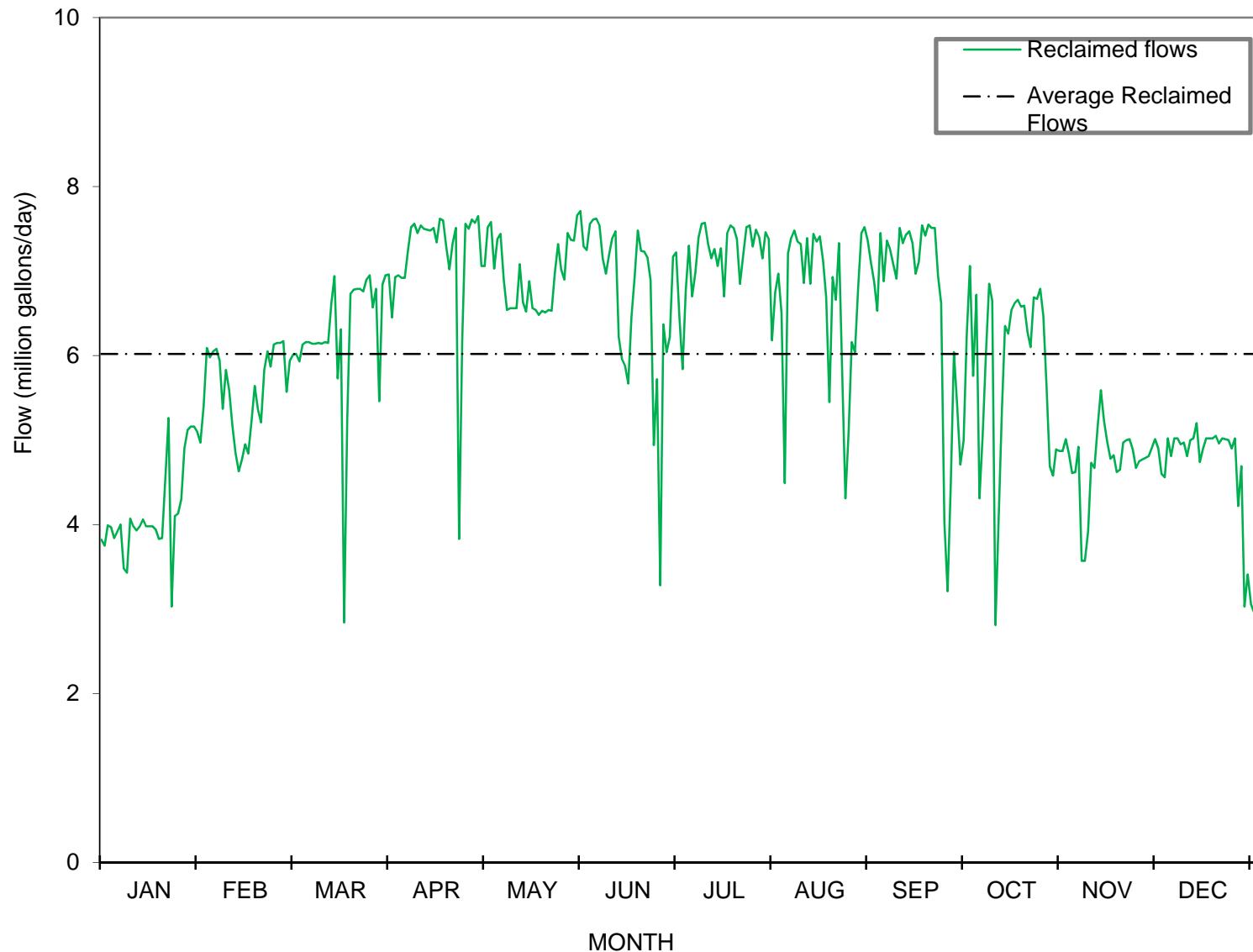
Percent Sodium



C. Daily Values of Selected Parameters.

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

South Bay Wastewater Reclamation Plant 2014 Reclaimed Production Flows



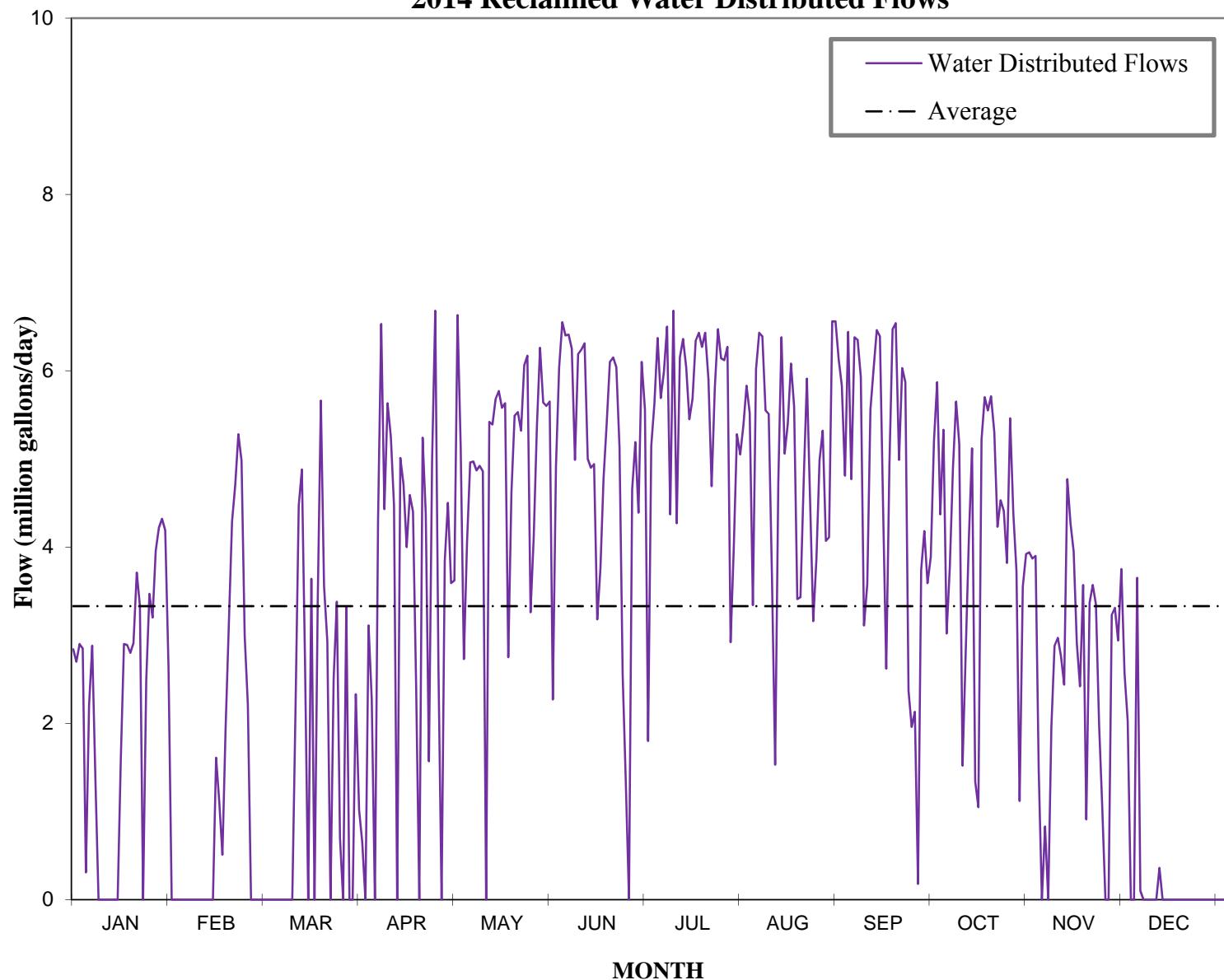
Daily Flows - Reclaimed Water Produced in 2014

Days	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	3.82	4.97	5.94	6.96	7.06	7.29	6.47	6.97	6.53	5.76	4.61	5.02
2	3.75	5.40	6.01	6.45	7.52	7.25	5.84	6.50	7.45	6.72	4.62	4.81
3	3.99	6.09	6.02	6.93	7.58	7.56	6.78	4.49	6.88	4.31	4.92	5.02
4	3.97	5.98	5.93	6.95	7.03	7.61	7.30	7.21	7.36	5.06	3.57	5.02
5	3.84	6.05	6.13	6.92	7.38	7.62	6.70	7.39	7.26	6.02	3.57	4.95
6	3.92	6.08	6.16	6.92	7.44	7.54	6.98	7.48	7.08	6.85	3.92	4.97
7	4.00	5.94	6.16	7.25	6.90	7.15	7.40	7.35	6.91	6.65	4.73	4.81
8	3.48	5.37	6.14	7.52	6.54	6.97	7.56	7.32	7.51	2.81	4.67	5.00
9	3.43	5.83	6.14	7.56	6.56	7.20	7.57	6.86	7.33	4.08	5.16	5.02
10	4.07	5.59	6.15	7.45	6.56	7.39	7.32	7.39	7.43	5.36	5.59	5.20
11	3.98	5.17	6.14	7.54	6.56	7.47	7.15	6.85	7.47	6.35	5.23	4.74
12	3.93	4.85	6.16	7.50	7.08	6.22	7.26	7.44	7.33	6.26	4.98	4.90
13	3.98	4.63	6.15	7.49	6.63	5.96	7.06	7.35	6.97	6.54	4.78	5.02
14	4.06	4.77	6.62	7.48	6.52	5.88	7.27	7.41	7.11	6.62	4.82	5.02
15	3.98	4.95	6.94	7.51	6.88	5.67	6.70	7.12	7.54	6.66	4.62	5.02
16	3.98	4.84	5.73	7.34	6.56	6.46	7.45	6.69	7.42	6.58	4.65	5.05
17	3.98	5.22	6.31	7.62	6.54	6.94	7.54	5.45	7.55	6.59	4.97	4.96
18	3.94	5.64	2.84	7.60	6.48	7.48	7.51	6.93	7.51	6.28	5.00	5.02
19	3.83	5.36	5.24	7.28	6.53	7.24	7.38	6.66	7.51	6.10	5.01	5.01
20	3.84	5.21	6.73	7.02	6.51	7.23	6.85	7.33	6.94	6.69	4.89	5.00
21	4.54	5.83	6.78	7.33	6.54	7.16	7.19	5.80	6.62	6.67	4.67	4.90
22	5.26	6.05	6.79	7.51	6.53	6.89	7.52	4.31	4.03	6.79	4.75	5.02
23	3.03	5.87	6.79	3.83	6.98	4.94	7.54	5.10	3.21	6.47	4.77	4.22
24	4.10	6.13	6.76	6.17	7.32	5.72	7.29	6.16	4.50	5.63	4.79	4.69
25	4.13	6.15	6.90	7.56	7.02	3.28	7.49	6.04	6.04	4.69	4.81	3.03
26	4.30	6.15	6.95	7.50	6.90	6.37	7.40	6.81	5.41	4.58	4.91	3.41
27	4.90	6.17	6.57	7.61	7.45	6.04	7.15	7.45	4.71	4.89	5.01	3.06
28	5.12	5.57	6.79	7.57	7.37	6.22	7.46	7.52	4.99	4.87	4.90	2.96
29	5.16		5.46	7.65	7.36	7.17	7.38	7.36	6.23	4.87	4.60	3.04
30	5.16		6.84	7.06	7.66	7.22	6.18	7.10	7.06	5.01	4.56	3.03
31	5.10		6.95		7.71		6.75	6.87		4.84		4.32
Average	4.15	5.57	6.23	7.17	6.96	6.70	7.14	6.73	6.60	5.73	4.74	4.56
Minimum	3.03	4.63	2.84	3.83	6.48	3.28	5.84	4.31	3.21	2.81	3.57	2.96
Maximum	5.26	6.17	6.95	7.65	7.71	7.62	7.57	7.52	7.55	6.85	5.59	5.20
Total	129	156	193	215	216	201	221	209	198	178	142	2199
												Annual Summary

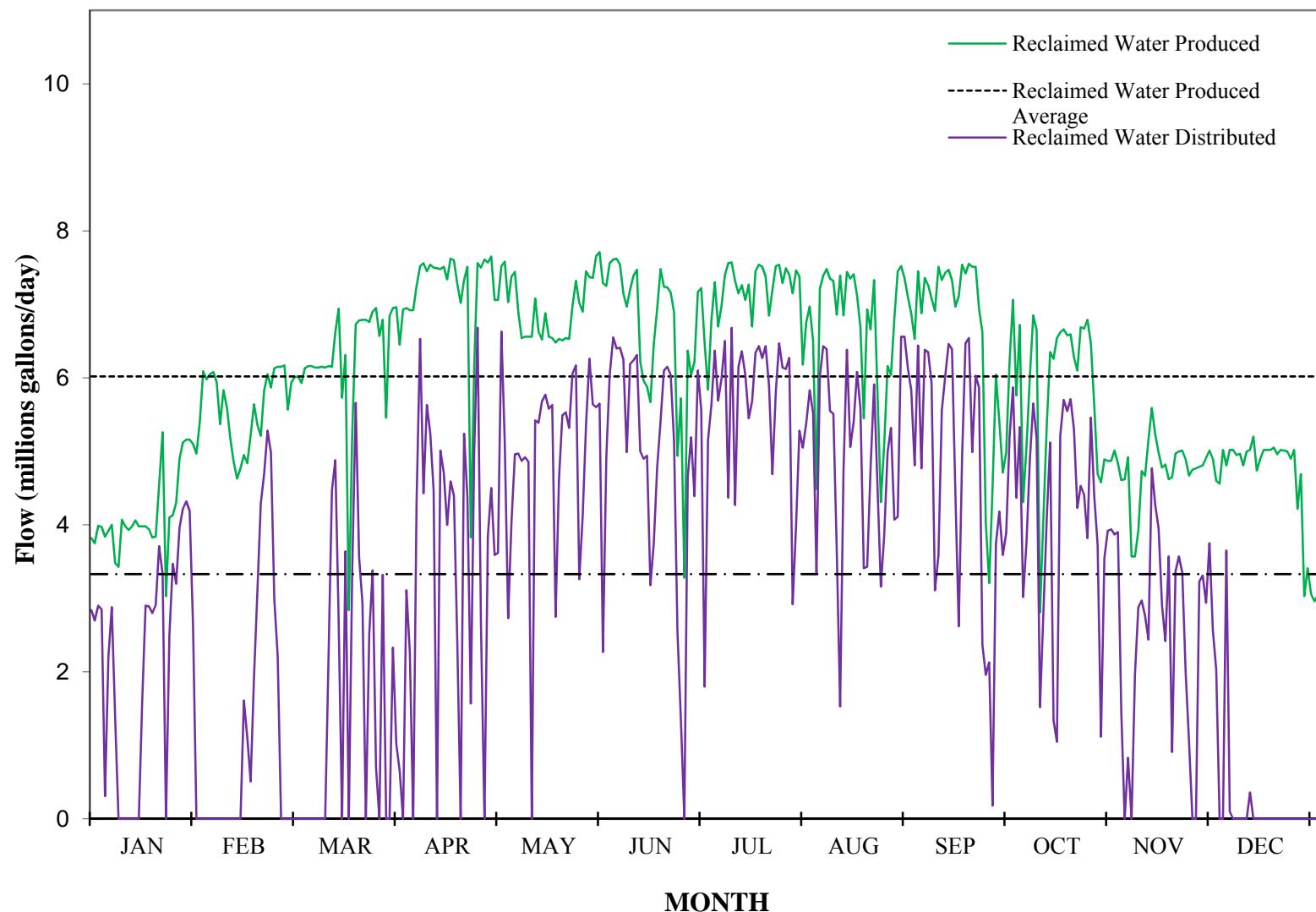
Daily Flows - Reclaimed Water Distributed in 2014

Days	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	2.84	0.00	0.00	1.02	3.62	2.27	1.80	5.83	4.81	4.37	1.46	0.00
2	2.70	0.00	0.00	0.65	6.63	4.92	5.15	5.52	6.44	5.33	0.00	3.65
3	2.90	0.00	0.00	0.00	5.13	6.04	5.63	3.34	4.77	3.02	0.83	0.10
4	2.85	0.00	0.00	3.11	2.73	6.55	6.37	6.02	6.38	3.76	0.00	0.00
5	0.31	0.00	0.00	2.27	4.05	6.40	5.69	6.43	6.35	4.89	1.96	0.00
6	2.20	0.00	0.00	0.00	4.96	6.41	5.99	6.39	5.93	5.65	2.88	0.00
7	2.88	0.00	0.00	4.32	4.97	6.25	6.50	5.55	3.11	5.17	2.97	0.00
8	1.38	0.00	0.00	6.53	4.87	4.99	4.37	5.51	3.58	1.52	2.76	0.00
9	0.00	0.00	0.00	4.43	4.92	6.19	6.68	3.65	5.56	2.80	2.44	0.36
10	0.00	0.00	0.00	5.63	4.86	6.24	4.27	1.53	6.02	4.10	4.77	0.00
11	0.00	0.00	0.00	5.25	0.00	6.31	6.15	4.74	6.46	5.12	4.27	0.00
12	0.00	0.00	2.20	4.47	5.42	5.00	6.36	6.38	6.39	1.34	3.95	0.00
13	0.00	0.00	4.47	0.00	5.39	4.90	6.04	5.06	4.45	1.05	2.91	0.00
14	0.00	0.00	4.88	5.01	5.68	4.94	5.45	5.40	2.62	5.22	2.42	0.00
15	0.00	1.61	2.67	4.71	5.77	3.18	5.68	6.08	4.93	5.70	3.57	0.00
16	1.60	1.11	0.00	4.00	5.58	3.75	6.34	5.59	6.47	5.55	0.91	0.00
17	2.90	0.51	3.64	4.59	5.63	4.78	6.43	3.41	6.54	5.71	3.37	0.00
18	2.89	1.94	0.00	4.40	2.75	5.41	6.27	3.43	4.99	5.30	3.57	0.00
19	2.80	3.10	3.37	2.41	4.62	6.10	6.43	4.77	6.03	4.23	3.35	0.00
20	2.91	4.29	5.66	0.00	5.49	6.15	5.90	5.91	5.87	4.53	1.99	0.00
21	3.71	4.70	3.56	5.24	5.53	6.04	4.69	4.53	2.37	4.41	1.05	0.00
22	3.33	5.28	2.93	4.37	5.32	5.13	5.80	3.16	1.96	3.82	0.00	0.00
23	0.00	4.98	0.00	1.57	6.06	2.55	6.47	3.86	2.13	5.46	0.00	0.00
24	2.49	2.99	2.51	4.99	6.17	1.32	6.14	4.99	0.18	4.39	3.23	0.00
25	3.47	2.21	3.38	6.68	3.26	0.00	6.12	5.32	3.74	3.73	3.31	0.00
26	3.20	0.00	0.70	2.65	4.11	4.65	6.27	4.07	4.18	1.12	2.94	0.00
27	3.96	0.00	0.00	0.00	5.36	5.19	2.92	4.11	3.59	3.55	3.75	0.00
28	4.22	0.00	3.32	3.84	6.26	4.39	3.99	6.56	3.89	3.92	2.57	0.00
29	4.32		0.00	4.50	5.64	6.10	5.28	6.56	5.20	3.94	2.03	0.00
30	4.19		0.00	3.59	5.60	5.56	5.05	6.13	5.87	3.87	0.00	0.00
31	2.63		2.33		5.65		5.38	5.83		3.90		2.75
Average	2.15	1.17	1.47	3.34	4.90	4.92	5.54	5.02	4.69	4.08	2.31	0.22
Minimum	0.00	0.00	0.00	0.00	0.00	1.80	1.53	0.18	1.05	0.00	0.00	0.00
Maximum	4.32	5.28	5.66	6.68	6.63	6.55	6.68	6.56	6.54	5.71	4.77	3.65
Total	66.7	32.7	45.6	100.2	152.0	147.7	171.6	155.7	140.8	126.5	69.3	6.9
												Annual Summary

**South Bay Wastewater Reclamation Plant
2014 Reclaimed Water Distributed Flows**

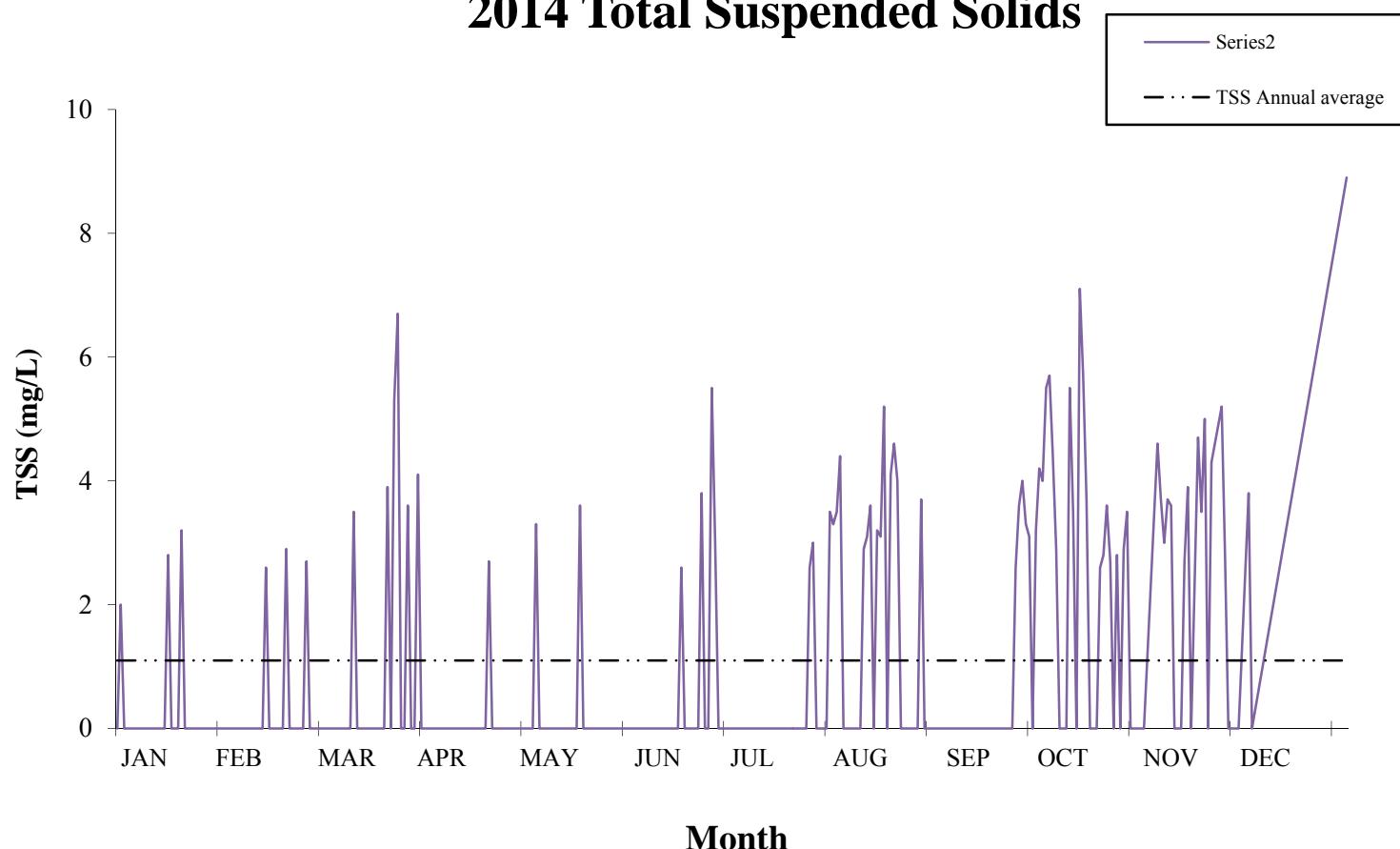


South Bay Wastewater Reclamation Plant
2014 Reclaimed Water Produced and Distributed Flows



This page left blank intentionally.

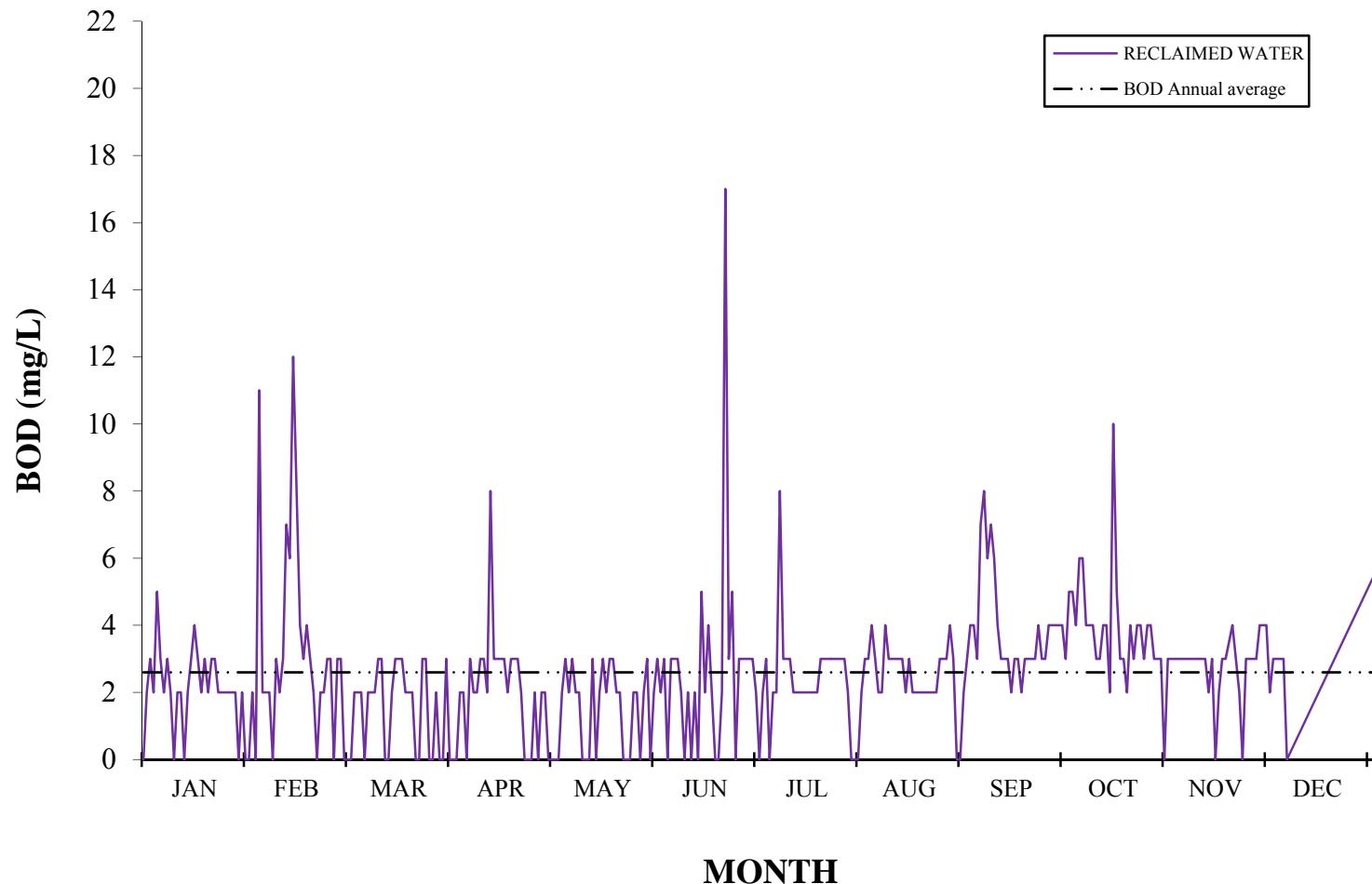
South Bay Wastewater Reclamation Plant 2014 Total Suspended Solids



Daily Reclaimed Water TSS Values in 2014

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	ND	3.3	ND	4.2	ND								
2	2.0	ND	ND	ND	ND	ND	ND	3.5	ND	4.0		3.8	
3	ND	4.4	ND	5.5		ND							
4	ND	5.7											
5	ND	ND	ND	ND	3.3	ND	ND	ND	ND	4.4	4.6		
6	ND	2.9	3.7										
7	ND	3.0											
8	ND	3.7											
9	ND	3.6											
10	ND	2.9	ND	5.5	ND								
11	ND	3.1	ND	3.5	ND								
12	ND	ND	3.5	ND	ND	ND	ND	3.6	ND	ND	ND		
13	ND	7.1	2.7										
14	ND	2.6	ND	ND	ND	ND	ND	3.2	ND	5.7	3.9		
15	ND	3.1	ND	3.7	ND								
16	2.8	ND	ND	ND	ND	ND	ND	5.2	ND	ND			
17	ND	ND	ND	ND	ND	2.6	ND	ND	ND	ND	4.7		
18	ND	ND	ND	ND	3.6	ND	ND	4.1	ND	ND	3.5		
19	ND	4.6	ND	2.6	5.0								
20	3.2	2.9	ND	ND	ND	ND	ND	4.0	ND	2.8	ND		
21	ND	ND	ND	2.7	ND	ND	ND	ND	ND	3.6	4.3		
22	ND	ND	3.9	ND	ND	ND	ND	ND	ND	2.7			
23	ND	ND	ND	ND	ND	3.8	ND	ND	ND	ND			
24	ND	ND	5.3	ND	ND	ND	ND	ND	2.6	2.8	5.2		
25	ND	ND	6.7	ND	ND	ND	2.6	ND	3.6	ND	2.8		
26	ND	2.7	ND	ND	ND	5.5	3.0	ND	4.0	2.9	ND		
27	ND	ND	ND	ND	ND	3.0	ND	3.7	3.3	3.5	ND		
28	ND	ND	3.6	ND	ND	ND	ND	ND	3.1	ND	ND		
29	ND		ND										
30	ND		ND	ND	ND	ND	ND	ND	3.2	ND			
31	ND		4.1	ND		3.5	ND		ND		8.9	Annual Summary	
Ave	0.3	0.3	0.9	0.1	0.2	0.5	0.3	1.6	0.7	2.4	2.2	4.2	0.9
Min	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max	3.2	2.9	6.7	2.7	3.6	5.5	3.5	5.2	4.0	7.1	5.2	8.9	8.9

South Bay Wastewater Reclamation Plant 2014 Biochemical Oxygen Demand



Daily Reclaimed Water BOD Values 2014

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	ND	ND	ND	ND	ND	3	ND	3	4	5	3	
2	2	2	ND	ND	ND	2	2	3	4	4		3
3	3	ND	ND	ND	ND	3	3	4	3	6		ND
4	2	11	2	2	2	ND	ND	3	7	6		
5	5	2	2	2	3	3	2	2	8	4	3	
6	3	2	2	ND	2	3	2	2	6	4	3	
7	2	2	ND	3	3	3	8	4	7	4	3	
8	3	ND	2	2	2	2	3	3	6	3	3	
9	2	3	2	2	2	ND	3	3	4	3	3	
10	ND	2	2	3	ND	2	3	3	3	4	2	
11	2	3	3	3	ND	ND	2	3	3	4	3	
12	2	7	3	2	ND	2		3	3	2	ND	
13	ND	6	ND	8	3	ND		2	2	10	2	
14	2	12	ND	3	ND	5	2	3	3	5	3	
15	3	8	2	3	2	2	2	2	3	3	3	
16	4	4	3	3	3	4	2	2	2	3		
17	3	3	3	3	2	2	2	2	3	2	4	
18	2	4	3	2	3	ND	2		3	4	3	
19	3	3	2	3	3	ND	3		3	3	2	
20	2	2	2	3	2	2	3	2	3	4	ND	
21	3	ND	2	3	2	17	3	2	4	4	3	
22	3	2	ND	2	ND	3	3	2	3	3		
23	2	2	ND	ND	ND	5	3	3	3	4		
24	2	3	3	ND	ND	ND	3	3	4	4	3	
25	2	3	3	ND	2	3	3	3	4	3	4	
26	2	ND	ND	2	2	3	3	4	4	3	4	
27	2	3	ND	ND	ND	3	2	3	4	3	4	
28	2	3	2	2	2	3	ND	ND	4	ND	2	
29	ND		ND	2	3	3	ND	ND	3	3	3	
30	2		ND	ND	ND	2	ND	2	5	3		
31	ND		3	2			2	3		3	6	Annual Summary
Ave	2	3	1	2	1	3	2	3	4	4	3	3
Min	0	0	0	0	0	0	0	0	2	0	0	0
Max	5	12	3	8	3	17	8	4	8	10	4	17

D. Total Coliform Data Summaries

**2014 Annual South Bay Water Reclamation Plant
Total Coliform Report (MPN/100 ml)**

Sample Date	MPN/ 100 ml	7-day Median	30-day Average	Sample Date	MPN/ 100 ml	7-day Median	30-day Average	Sample Date	MPN/ 100 ml	7-day Median	30-day Average
1-Jan-14	< 1.8	< 1.8	< 1.8	1-Mar-14	PSD	< 1.8	< 1.8	1-May-14	< 1.8	< 1.8	3.2
2-Jan-14	< 1.8	< 1.8	< 1.8	2-Mar-14	PSD	< 1.8	< 1.8	2-May-14	< 1.8	< 1.8	3.2
3-Jan-14	< 1.8	< 1.8	< 1.8	3-Mar-14	< 1.8	< 1.8	< 1.8	3-May-14	4.5	< 1.8	3.3
4-Jan-14	< 1.8	< 1.8	< 1.8	4-Mar-14	PSD	< 1.8	< 1.8	4-May-14	< 1.8	< 1.8	3.2
5-Jan-14	< 1.8	< 1.8	< 1.8	5-Mar-14	PSD	< 1.8	< 1.8	5-May-14	< 1.8	< 1.8	3.1
6-Jan-14	< 1.8	< 1.8	< 1.8	6-Mar-14	PSD	< 1.8	< 1.8	6-May-14	2	< 1.8	3.2
7-Jan-14	< 1.8	< 1.8	< 1.8	7-Mar-14	PSD	< 1.8	< 1.8	7-May-14	70	< 1.8	5.5
8-Jan-14	< 1.8	< 1.8	< 1.8	8-Mar-14	PSD	< 1.8	< 1.8	8-May-14	< 1.8	< 1.8	5.4
9-Jan-14	< 1.8	< 1.8	< 1.8	9-Mar-14	PSD	< 1.8	< 1.8	9-May-14	< 1.8	< 1.8	4.7
10-Jan-14	PSD	< 1.8	< 1.8	10-Mar-14	PSD	< 1.8	< 1.8	10-May-14	< 1.8	< 1.8	4.6
11-Jan-14	PSD	< 1.8	< 1.8	11-Mar-14	PSD	< 1.8	< 1.8	11-May-14	< 1.8	< 1.8	3.5
12-Jan-14	PSD	< 1.8	< 1.8	12-Mar-14	< 1.8	< 1.8	< 1.8	12-May-14	4.5	< 1.8	3.5
13-Jan-14	PSD	< 1.8	< 1.8	13-Mar-14	2	< 1.8	< 1.8	13-May-14	< 1.8	< 1.8	3.5
14-Jan-14	PSD	< 1.8	< 1.8	14-Mar-14	< 1.8	< 1.8	< 1.8	14-May-14	< 1.8	< 1.8	3.5
15-Jan-14	< 1.8	< 1.8	< 1.8	15-Mar-14	< 1.8	< 1.8	< 1.8	15-May-14	> 1,600	< 1.8	57
16-Jan-14	< 1.8	< 1.8	< 1.8	16-Mar-14	4.5	< 1.8	< 1.8	16-May-14	< 1.8	< 1.8	57
17-Jan-14	< 1.8	< 1.8	< 1.8	17-Mar-14	< 1.8	< 1.8	< 1.8	17-May-14	< 1.8	< 1.8	57
18-Jan-14	< 1.8	< 1.8	< 1.8	18-Mar-14	< 1.8	< 1.8	< 1.8	18-May-14	< 1.8	< 1.8	57
19-Jan-14	7.8	< 1.8	< 1.8	19-Mar-14	< 1.8	< 1.8	< 1.8	19-May-14	33	< 1.8	58
20-Jan-14	< 1.8	< 1.8	< 1.8	20-Mar-14	< 1.8	< 1.8	< 1.8	20-May-14	< 1.8	< 1.8	58
21-Jan-14	< 1.8	< 1.8	< 1.8	21-Mar-14	< 1.8	< 1.8	< 1.8	21-May-14	< 1.8	< 1.8	58
22-Jan-14	< 1.8	< 1.8	< 1.8	22-Mar-14	< 1.8	< 1.8	< 1.8	22-May-14	< 1.8	< 1.8	58
23-Jan-14	PSD	< 1.8	< 1.8	23-Mar-14	< 1.8	< 1.8	< 1.8	23-May-14	2	< 1.8	58
24-Jan-14	< 1.8	< 1.8	< 1.8	24-Mar-14	7.8	< 1.8	< 1.8	24-May-14	2	< 1.8	58
25-Jan-14	< 1.8	< 1.8	< 1.8	25-Mar-14	< 1.8	< 1.8	< 1.8	25-May-14	< 1.8	< 1.8	58
26-Jan-14	< 1.8	< 1.8	< 1.8	26-Mar-14	< 1.8	< 1.8	< 1.8	26-May-14	< 1.8	< 1.8	58
27-Jan-14	< 1.8	< 1.8	< 1.8	27-Mar-14	< 1.8	< 1.8	< 1.8	27-May-14	< 1.8	< 1.8	58
28-Jan-14	< 1.8	< 1.8	< 1.8	28-Mar-14	< 1.8	< 1.8	< 1.8	28-May-14	< 1.8	< 1.8	57
29-Jan-14	< 1.8	< 1.8	< 1.8	29-Mar-14	4.5	< 1.8	< 1.8	29-May-14	< 1.8	< 1.8	57
30-Jan-14	< 1.8	< 1.8	< 1.8	30-Mar-14	7.8	< 1.8	< 1.8	30-May-14	< 1.8	< 1.8	57
31-Jan-14	< 1.8	< 1.8	< 1.8	31-Mar-14	NS	< 1.8	< 1.8	31-May-14	< 1.8	< 1.8	57
1-Feb-14	2	< 1.8	< 1.8	1-Apr-14	< 1.8	< 1.8	< 1.8	1-Jun-14	< 1.8	< 1.8	57
2-Feb-14	2	< 1.8	< 1.8	2-Apr-14	< 1.8	< 1.8	< 1.8	2-Jun-14	< 1.8	< 1.8	57
3-Feb-14	< 1.8	< 1.8	< 1.8	3-Apr-14	PSD	< 1.8	< 1.8	3-Jun-14	< 1.8	< 1.8	57
4-Feb-14	PSD	< 1.8	< 1.8	4-Apr-14	2	< 1.8	< 1.8	4-Jun-14	< 1.8	< 1.8	57
5-Feb-14	PSD	< 1.8	< 1.8	5-Apr-14	4.5	2	< 1.8	5-Jun-14	< 1.8	< 1.8	57
6-Feb-14	PSD	< 1.8	< 1.8	6-Apr-14	< 1.8	2	< 1.8	6-Jun-14	< 1.8	< 1.8	55
7-Feb-14	PSD	< 1.8	< 1.8	7-Apr-14	< 1.8	< 1.8	< 1.8	7-Jun-14	< 1.8	< 1.8	55
8-Feb-14	PSD	< 1.8	< 1.8	8-Apr-14	2	< 1.8	< 1.8	8-Jun-14	< 1.8	< 1.8	55
9-Feb-14	2	< 1.8	< 1.8	9-Apr-14	23	2	1.9	9-Jun-14	< 1.8	< 1.8	55
10-Feb-14	PSD	< 1.8	< 1.8	10-Apr-14	2	2	2	10-Jun-14	< 1.8	< 1.8	55
11-Feb-14	PSD	< 1.8	< 1.8	11-Apr-14	33	2	3.1	11-Jun-14	< 1.8	< 1.8	55
12-Feb-14	PSD	< 1.8	< 1.8	12-Apr-14	4.5	2	3.3	12-Jun-14	< 1.8	< 1.8	55
13-Feb-14	PSD	< 1.8	< 1.8	13-Apr-14	< 1.8	2	3.3	13-Jun-14	< 1.8	< 1.8	55
14-Feb-14	PSD	< 1.8	< 1.8	14-Apr-14	< 1.8	2	3.2	14-Jun-14	< 1.8	< 1.8	55
15-Feb-14	< 1.8	< 1.8	< 1.8	15-Apr-14	< 1.8	2	3.2	15-Jun-14	< 1.8	< 1.8	55
16-Feb-14	2	2	< 1.8	16-Apr-14	< 1.8	< 1.8	3.2	16-Jun-14	< 1.8	< 1.8	55
17-Feb-14	< 1.8	2	< 1.8	17-Apr-14	4	< 1.8	3.2	17-Jun-14	< 1.8	< 1.8	55
18-Feb-14	< 1.8	< 1.8	< 1.8	18-Apr-14	< 1.8	< 1.8	3.2	18-Jun-14	< 1.8	< 1.8	55
19-Feb-14	2	< 1.8	< 1.8	19-Apr-14	2	< 1.8	3.2	19-Jun-14	< 1.8	< 1.8	55
20-Feb-14	< 1.8	< 1.8	< 1.8	20-Apr-14	< 1.8	< 1.8	3.2	20-Jun-14	< 1.8	< 1.8	55
21-Feb-14	< 1.8	< 1.8	< 1.8	21-Apr-14	2	< 1.8	3.3	21-Jun-14	< 1.8	< 1.8	55
22-Feb-14	1.8	< 1.8	< 1.8	22-Apr-14	< 1.8	< 1.8	3.3	22-Jun-14	< 1.8	< 1.8	55
23-Feb-14	4	< 1.8	< 1.8	23-Apr-14	< 1.8	< 1.8	3.3	23-Jun-14	< 1.8	< 1.8	55
24-Feb-14	7.8	1.8	< 1.8	24-Apr-14	< 1.8	< 1.8	3.3	24-Jun-14	< 1.8	< 1.8	55
25-Feb-14	< 1.8	1.8	< 1.8	25-Apr-14	7.8	< 1.8	3.3	25-Jun-14	NS	< 1.8	55
26-Feb-14	< 1.8	< 1.8	< 1.8	26-Apr-14	< 1.8	< 1.8	3.3	26-Jun-14	49	< 1.8	55
27-Feb-14	PSD	< 1.8	< 1.8	27-Apr-14	< 1.8	< 1.8	3.3	27-Jun-14	< 1.8	< 1.8	55
28-Feb-14	PSD	< 1.8	< 1.8	28-Apr-14	7.8	< 1.8	3.6	28-Jun-14	< 1.8	< 1.8	55
				29-Apr-14	< 1.8	< 1.8	3.6	29-Jun-14	< 1.8	< 1.8	55
				30-Apr-14	< 1.8	< 1.8	3.4	30-Jun-14	< 1.8	< 1.8	55

NS= not sampled

PSD= Plant shut down

2014 Annual South Bay Water Reclamation Plant
Total Coliform Report (MPN/100 ml)

Sample Date	MPN/ 100 ml	7-day Median	30-day Average	Sample Date	MPN/ 100 ml	7-day Median	30-day Average	Sample Date	MPN/ 100 ml	7-day Median	30-day Average
1-Jul-14	< 1.8	< 1.8	< 1.8	1-Sep-14	< 1.8	< 1.8	54	1-Nov-14	< 1.8	< 1.8	< 1.8
2-Jul-14	< 1.8	< 1.8	< 1.8	2-Sep-14	< 1.8	< 1.8	54	2-Nov-14	< 1.8	< 1.8	< 1.8
3-Jul-14	< 1.8	< 1.8	< 1.8	3-Sep-14	< 1.8	< 1.8	54	3-Nov-14	< 1.8	< 1.8	< 1.8
4-Jul-14	< 1.8	< 1.8	< 1.8	4-Sep-14	< 1.8	< 1.8	54	4-Nov-14	PSD	< 1.8	< 1.8
5-Jul-14	< 1.8	< 1.8	< 1.8	5-Sep-14	< 1.8	< 1.8	54	5-Nov-14	< 1.8	< 1.8	< 1.8
6-Jul-14	< 1.8	< 1.8	< 1.8	6-Sep-14	< 1.8	< 1.8	54	6-Nov-14	< 1.8	< 1.8	< 1.8
7-Jul-14	< 1.8	< 1.8	< 1.8	7-Sep-14	< 1.8	< 1.8	54	7-Nov-14	< 1.8	< 1.8	< 1.8
8-Jul-14	< 1.8	< 1.8	< 1.8	8-Sep-14	< 1.8	< 1.8	54	8-Nov-14	< 1.8	< 1.8	< 1.8
9-Jul-14	< 1.8	< 1.8	< 1.8	9-Sep-14	920	< 1.8	85	9-Nov-14	< 1.8	< 1.8	< 1.8
10-Jul-14	< 1.8	< 1.8	< 1.8	10-Sep-14	< 1.8	< 1.8	85	10-Nov-14	< 1.8	< 1.8	< 1.8
11-Jul-14	< 1.8	< 1.8	< 1.8	11-Sep-14	< 1.8	< 1.8	85	11-Nov-14	< 1.8	< 1.8	< 1.8
12-Jul-14	< 1.8	< 1.8	< 1.8	12-Sep-14	< 1.8	< 1.8	85	12-Nov-14	< 1.8	< 1.8	< 1.8
13-Jul-14	< 1.8	< 1.8	< 1.8	13-Sep-14	< 1.8	< 1.8	85	13-Nov-14	110	< 1.8	3.8
14-Jul-14	< 1.8	< 1.8	< 1.8	14-Sep-14	< 1.8	< 1.8	85	14-Nov-14	< 1.8	< 1.8	3.8
15-Jul-14	< 1.8	< 1.8	< 1.8	15-Sep-14	< 1.8	< 1.8	85	15-Nov-14	< 1.8	< 1.8	3.8
16-Jul-14	< 1.8	< 1.8	< 1.8	16-Sep-14	< 1.8	< 1.8	85	16-Nov-14	< 1.8	< 1.8	3.8
17-Jul-14	4.5	< 1.8	< 1.8	17-Sep-14	< 1.8	< 1.8	85	17-Nov-14	< 1.8	< 1.8	3.8
18-Jul-14	< 1.8	< 1.8	< 1.8	18-Sep-14	< 1.8	< 1.8	85	18-Nov-14	< 1.8	< 1.8	3.8
19-Jul-14	< 1.8	< 1.8	< 1.8	19-Sep-14	< 1.8	< 1.8	85	19-Nov-14	< 1.8	< 1.8	3.7
20-Jul-14	2	< 1.8	< 1.8	20-Sep-14	< 1.8	< 1.8	85	20-Nov-14	< 1.8	< 1.8	3.7
21-Jul-14	< 1.8	< 1.8	1.9	21-Sep-14	< 1.8	< 1.8	31	21-Nov-14	< 1.8	< 1.8	3.7
22-Jul-14	< 1.8	< 1.8	1.9	22-Sep-14	< 1.8	< 1.8	31	22-Nov-14	< 1.8	< 1.8	3.7
23-Jul-14	< 1.8	< 1.8	1.9	23-Sep-14	< 1.8	< 1.8	31	23-Nov-14	2	< 1.8	3.8
24-Jul-14	< 1.8	< 1.8	1.9	24-Sep-14	< 1.8	< 1.8	31	24-Nov-14	< 1.8	< 1.8	3.8
25-Jul-14	< 1.8	< 1.8	1.9	25-Sep-14	< 1.8	< 1.8	31	25-Nov-14	< 1.8	< 1.8	3.8
26-Jul-14	< 1.8	< 1.8	< 1.8	26-Sep-14	< 1.8	< 1.8	31	26-Nov-14	< 1.8	< 1.8	3.8
27-Jul-14	< 1.8	< 1.8	< 1.8	27-Sep-14	< 1.8	< 1.8	31	27-Nov-14	2	< 1.8	3.9
28-Jul-14	2	< 1.8	< 1.8	28-Sep-14	< 1.8	< 1.8	31	28-Nov-14	< 1.8	< 1.8	3.9
29-Jul-14	< 1.8	< 1.8	< 1.8	29-Sep-14	< 1.8	< 1.8	31	29-Nov-14	< 1.8	< 1.8	3.9
30-Jul-14	< 1.8	< 1.8	< 1.8	30-Sep-14	< 1.8	< 1.8	31	30-Nov-14	< 1.8	< 1.8	3.9
31-Jul-14	< 1.8	< 1.8	< 1.8	1-Oct-14	< 1.8	< 1.8	31	1-Dec-14	1.8	< 1.8	3.9
1-Aug-14	< 1.8	< 1.8	< 1.8	2-Oct-14	< 1.8	< 1.8	31	2-Dec-14	< 1.8	< 1.8	3.9
2-Aug-14	< 1.8	< 1.8	< 1.8	3-Oct-14	< 1.8	< 1.8	31	3-Dec-14	< 1.8	< 1.8	3.9
3-Aug-14	< 1.8	< 1.8	< 1.8	4-Oct-14	< 1.8	< 1.8	31	4-Dec-14	< 1.8	< 1.8	3.9
4-Aug-14	< 1.8	< 1.8	< 1.8	5-Oct-14	< 1.8	< 1.8	31	5-Dec-14	< 1.8	< 1.8	3.9
5-Aug-14	< 1.8	< 1.8	< 1.8	6-Oct-14	< 1.8	< 1.8	31	6-Dec-14	< 1.8	< 1.8	3.9
6-Aug-14	< 1.8	< 1.8	< 1.8	7-Oct-14	< 1.8	< 1.8	31	7-Dec-14	< 1.8	< 1.8	3.9
7-Aug-14	< 1.8	< 1.8	< 1.8	8-Oct-14	< 1.8	< 1.8	31	8-Dec-14	< 1.8	< 1.8	3.9
8-Aug-14	< 1.8	< 1.8	< 1.8	9-Oct-14	< 1.8	< 1.8	< 1.8	9-Dec-14	< 1.8	< 1.8	3.9
9-Aug-14	< 1.8	< 1.8	< 1.8	10-Oct-14	< 1.8	< 1.8	< 1.8	10-Dec-14	PSD	< 1.8	3.9
10-Aug-14	< 1.8	< 1.8	< 1.8	11-Oct-14	< 1.8	< 1.8	< 1.8	11-Dec-14	PSD	< 1.8	3.9
11-Aug-14	< 1.8	< 1.8	< 1.8	12-Oct-14	< 1.8	< 1.8	< 1.8	12-Dec-14	PSD	< 1.8	3.9
12-Aug-14	4.5	< 1.8	< 1.8	13-Oct-14	< 1.8	< 1.8	< 1.8	13-Dec-14	PSD	< 1.8	< 1.8
13-Aug-14	< 1.8	< 1.8	< 1.8	14-Oct-14	< 1.8	< 1.8	< 1.8	14-Dec-14	PSD	< 1.8	< 1.8
14-Aug-14	2	< 1.8	< 1.8	15-Oct-14	< 1.8	< 1.8	< 1.8	15-Dec-14	PSD	< 1.8	< 1.8
15-Aug-14	< 1.8	< 1.8	< 1.8	16-Oct-14	< 1.8	< 1.8	< 1.8	16-Dec-14	PSD	< 1.8	< 1.8
16-Aug-14	< 1.8	< 1.8	< 1.8	17-Oct-14	< 1.8	< 1.8	< 1.8	17-Dec-14	PSD	< 1.8	< 1.8
17-Aug-14	< 1.8	< 1.8	< 1.8	18-Oct-14	< 1.8	< 1.8	< 1.8	18-Dec-14	PSD	< 1.8	< 1.8
18-Aug-14	< 1.8	< 1.8	< 1.8	19-Oct-14	2	< 1.8	< 1.8	19-Dec-14	PSD	< 1.8	< 1.8
19-Aug-14	< 1.8	< 1.8	< 1.8	20-Oct-14	< 1.8	< 1.8	< 1.8	20-Dec-14	PSD	< 1.8	< 1.8
20-Aug-14	< 1.8	< 1.8	< 1.8	21-Oct-14	< 1.8	< 1.8	< 1.8	21-Dec-14	PSD	< 1.8	< 1.8
21-Aug-14	< 1.8	< 1.8	< 1.8	22-Oct-14	< 1.8	< 1.8	< 1.8	22-Dec-14	PSD	< 1.8	< 1.8
22-Aug-14	1600	< 1.8	54	23-Oct-14	< 1.8	< 1.8	< 1.8	23-Dec-14	PSD	< 1.8	< 1.8
23-Aug-14	< 1.8	< 1.8	54	24-Oct-14	< 1.8	< 1.8	< 1.8	24-Dec-14	PSD	< 1.8	< 1.8
24-Aug-14	23	< 1.8	54	25-Oct-14	< 1.8	< 1.8	< 1.8	25-Dec-14	PSD	< 1.8	< 1.8
25-Aug-14	< 1.8	< 1.8	54	26-Oct-14	< 1.8	< 1.8	< 1.8	26-Dec-14	PSD	< 1.8	< 1.8
26-Aug-14	< 1.8	< 1.8	54	27-Oct-14	< 1.8	< 1.8	< 1.8	27-Dec-14	PSD	< 1.8	< 1.8
27-Aug-14	< 1.8	< 1.8	54	28-Oct-14	< 1.8	< 1.8	< 1.8	28-Dec-14	PSD	< 1.8	< 1.8
28-Aug-14	< 1.8	< 1.8	54	29-Oct-14	< 1.8	< 1.8	< 1.8	29-Dec-14	PSD	< 1.8	< 1.8
29-Aug-14	< 1.8	< 1.8	54	30-Oct-14	< 1.8	< 1.8	< 1.8	30-Dec-14	PSD	< 1.8	< 1.8
30-Aug-14	< 1.8	< 1.8	54	31-Oct-14	1.8	< 1.8	< 1.8	31-Dec-14	< 1.8	< 1.8	< 1.8
31-Aug-14	< 1.8	< 1.8	54								

NS= not sampled

PSD= Plant shut down

E. UV Performance 2014

**UV PERFORMANCE REPORT
CY 2014
Monthly Averages**

Month	UV TRANSMITTANCE pct	UV DOSE mj/cm2	UV BANK #1 POWER pct	UV BANK #2 POWER pct	UV BANK #3 POWER pct	UV BANK #4 POWER pct
Jan 2014	58.27	184.80	30.84	31.52	26.52	32.87
Feb 2014	57.67	198.53	35.86	35.50	39.07	39.07
Mar 2014	64.88	189.28	42.32	41.00	42.58	41.68
Apr 2014	66.56	203.09	43.17	40.03	43.60	39.53
May 2014	62.35	185.93	37.65	35.06	38.55	45.19
Jun 2014	60.57	187.51	19.10	30.97	19.70	33.03
Jul 2014	62.48	188.08	38.26	37.68	38.06	40.10
Aug 2014	60.95	194.39	30.48	30.61	30.77	34.29
Sep 2014	60.89	194.29	27.20	31.53	29.63	31.63
Oct 2014	62.76	206.83	9.84	30.16	8.03	30.29
Nov 2014	61.51	203.19	22.80	25.63	22.63	24.63
Dec 2014	59.21	186.82	29.84	29.19	27.32	27.94
Average	61.51	193.56	30.61	33.24	30.54	35.02

VIII. Other Required Information.

- A. Notes on Specific Analysis
- B. Report of Operator Certification.

This page left blank intentionally

A. Notes on Specific Analyses:

1. It should be noted that some of the reference methods are equivalent. The organic priority pollutant analyses listed in E.P.A.'s Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846 (ref. c) are equivalent to the methods E.P.A. prescribes for water in Methods for Chemical Analysis for Water and Wastes, (ref.a). Specifically wastewater methods 3510 and 8270 (ref.d) together are the same as the water method 625 (ref.a), and Method 8260B (ref. c) is equivalent to Method 624 (ref.a). Methods 3550 and 8270 together are equivalent to the E.P.A. Contract Laboratory Program's (ref. aa) method for ultrasonication and gas chromatograph-mass spectrographic analysis. The E.P.A.'s metals analyses for water (ref.a) generally just refers to the procedure in Standard Methods (ref. b, bb).

B. Report of Operator Certification.

Operator Certifications:

The following lists all Wastewater Treatment Plant Operators working for the Operating Units of the Public Utilities Department and their California State certification status as of May 2015. Name, Classification, Certification Grade, Certification Number, and expiration date are shown for each operator.

South Bay Wastewater Reclamation Plant

OPERATOR CERTIFICATIONS

NAME	CERTIFICATION GRADE	EXPIRATION
ERNESTO MOLAS	GRADE V 7227	12/31/2015
KIP H. COOPER	GRADE V 9401	12/31/2015
LINDA RUIZ-LOPEZ	GRADE III 5660	12/31/2015
DOYLE R. SHANKLES	GRADE III 7232	6/30/2016
TERESA A. GARDNER	GRADE III 10657	12/31/2015
ALBERT J. JOHNSON	GRADE III 9638	6/30/2016
HERBERT A. DECATUR	GRADE III 28880	6/30/2015
CAROLD BRASSFIELD	GRADE II 9383	12/31/2015
DOUGLAS D. EVANS SR.	GRADE II 9844	6/30/2016
ROMEO C. MILLAN JR.	GRADE II 9846	6/30/2016
WILLIAM L. MERCADO	GRADE II 41838	10/20/2016

IX. Appendices

- A. Terms and Abbreviations used in this Report
- B. Methods of Analysis
- C. Frequency of Analysis and Type of Sample – 2014
- D. Laboratories Contributing Results used in this report
- E. Staff Contributing to this Report

This page left blank intentionally

A. Terms and Abbreviations used in this Report

Along with standard abbreviations the following is a list of local/uncommon abbreviations and terms for the readers' reference.

PLANT TERMS

U.S.EPA	- United States Environmental Protection Agency.
NPDES	- National Pollutant Discharge Elimination System.
WWTP	- Wastewater Treatment Plant.
WRP	- Water Reclamation Plant.
PLWTP or PLWWTP	- Pt. Loma Wastewater Treatment Plant
PLR	- Point Loma Raw (influent to the plant).
PLE	- Point Loma Effluent (effluent from the plant).
N-1-P	- North Digester Number 1, Primary, Pt. Loma
N-2-P	- North Digester Number 2, Primary, Pt. Loma
C-1-P	- Central Digester Number 1, Primary, Pt. Loma
C-2-P	- Central Digester Number 2, Primary, Pt. Loma
S-1-P	- South Digester Number 1, Primary, Pt. Loma
S-2-P	- South Digester Number 2, Primary, Pt. Loma
Dig 7	- Digester Number 7, Primary, Pt. Loma
Dig 8	- Digester Number 8, Primary, Pt. Loma
DIG COMP	- Digested Biosolids Composite; a composite of grabs taken from each of the in-service digesters.
RAW COMP	- A Composite of Raw Sludge taken over the preceding 24 hrs.
NCWRP	- North City Water Reclamation Plant
N01-PS_INF	- The plant primary Influent from Pump Station 64
N01-PEN	- The plant primary Influent from the Penasquitos pump station.
N30-DFE	- Disinfected Final Effluent
N34-REC WATER	- Reclaimed Water.
N10-PSP COMB	- raw sludge
N15-WAS LCP	- Waste Activated Sludge – low capacity pumps
SBOO	- South Bay Ocean Outfall or South Bay Outfall
SB_INF_02	- The plant Influent
SB_OUTFALL_01	- The plant discharge to ocean effluent
SB_ITP_COMB_EFF	-The plant discharge to ocean and International Waste Treatment Plant combined effluents
SB_PRI_EFF_01	- The plant primary Influent
SB_SEC_EFF_00	-The plant secondary Influent
SB_REC_WATER_34	- Reclaimed Water
SB_RSL_10	- The plant primary sedimentation tank to raw sludge line
MBC	- Metro Biosolids Center
MBCDEWCN	- Metro Biosolids Center Dewatering Centrifuges; typically the dewatered biosolids from these.
MBC_COMBCN	- MBC Combined Centrate; the centrate from all the dewatering centrifuges. (The return stream from MBC to the sewer system.)
MBC_NC_DSL	- North City to Metropolitan Biosolids Center (MBC) Digested Sludge Line.
Dig 1	- MBC Digester number 1.
Dig 2	- MBC Digester number 2.
Dig 3	- MBC Digester number 3.
Biosolids	- In most cases Biosolids and digested (a processed) Sludge is synonymous.
Field Replicate	- Separate samples collected at approximately the same time from the same sample site.

UNITS

mg/L milligrams per liter
ug/L micrograms per liter = 0.001 mg/L
ng/L nanograms per liter = 0.001 ug/L
mg/Kg..... milligrams per kilogram
ug/Kg..... micrograms per kilogram
ng/Kg..... nanograms per kilogram
pg/L picograms per liter
pg/Kg..... picograms per kilogram
pc/L or pCi/L.... pico curies per liter
TU toxicity units
ntu nephelometric turbidity units
°C degrees Celsius = degrees centigrade
MGD/mgd million gallons per day
umhos/cm. micromhos per centimeter
uS microsiemens = umhos
mils/100 mL millions per 100 milliliters
nd..... not detected
NA..... not analyzed (when in a data column)
NR..... not required
NS not sampled
LA lab accident

CHEMICAL TERMS & ABBREVIATIONS:

AA.....Atomic Absorption Spectroscopy
BOD Biochemical Oxygen Demand
CN⁻ Cyanide
COD Chemical Oxygen Demand
Cr⁶⁺ Hexavalent Chromium
D.O..... Dissolved Oxygen
DDD Dichlorodiphenyl dichloroethane
a.k.a. TDE-tetrachlorodiphenylethane
DDE Dichlorodiphenyl dichloroethylene
DDT Dichlorodiphenyl trichloroethane
FeCl₃ Ferric Chloride
G&O..... Grease and Oil
GC Gas chromatography.
GC-ECD.....-Electron Capture Detector.
GC-FID -Flame Ionization Detector.
GC-FPD -Flame Photometric Detector.
GC-MS -Mass Spectroscopy.
H₂S Hydrogen Sulfide
Hg..... Mercury
IC Ion Chromatography
Induct ICP-AES Inductively Coupled Plasma-
Atomic Emission Spectroscopy
MDL.....Method Detection Limit
MSD Mass Spectroscopy Detector
NH₃ Ammonia
NH₃-N Ammonia Nitrogen
NH₄⁺ Ammonium ion
NO₃⁻ Nitrate
PAD Pulsed Amperometric Detector
PCB Polychlorinated Biphenyls
PO₄³⁻ Phosphate
SO₄²⁻ Sulfate
SS Suspended Solids
TBT Tributyl tin
TCH Total Chlorinated Hydrocarbons
(i.e. chlorinated pesticides & PCB's)
TCLP.. Toxicity Characteristic Leaching Procedure
TDS Total Dissolved Solids
TQ Triple Quad
TS Total Solids
TVS Total Volatile Solids
VSS Volatile Suspended Solids

B. Methods of Analysis

WASTEWATER INFLUENT and EFFLUENT (General)

Analyte	Description	Instrumentation	Reference ¹
Alkalinity	Selected Endpoint Titration	Mettler DL-21 & 25 Titrator Orion 950	(i) 2320 B
Ammonia Nitrogen	Distillation and Titration	Buchi Distillation Unit K-314, B-324, K-350 Orion 950 pH Meter Mettler DL25 titrator	(i) 4500-NH3 B & C
Biochemical Oxygen Demand (BOD-5 Day)	Dissolved Oxygen Meter with Dissolved Oxygen Probe	YSI-5000 DO Meter YSI-5100 DO Meter YSI 59 DO Meter (5905 Probe)	(i) 5210 B
Biochemical Oxygen Demand (BOD-Soluble)	Dissolved Oxygen Probe	YSI-5000 DO Meter YSI-5100 DO Meter YSI 59 DO Meter (5905 Probe)	(i) 5210 B
Chemical Oxygen Demand (COD)	Closed Reflux / Colorimetric	Hach DR-2010 UV/Vis spectrophotometer	HACH 8000
Conductivity	Conductivity Meter with Wheatstone Bridge probe	YSI-3100, YSI-3200, Orion 115A, Orion 250, Accumet Model 150	(g) 2510 B
Cyanide	Acid Digest/ Distil./Colorimetric	Hach DR-4000/Vis	(i) 4500-CN E
Floating Particulates	Flotation Funnel	Mettler AX-105 Mettler AG 204 Balance	(g) 2530 B
Flow	Continuous Meter	Gould (pressure sensor), ADS (sonic sensor), or Venturi (velocity sensor)	
Hardness; Ca, Mg, Total	ICP-AES / Calculation	TJA IRIS	(a) 200.7 (h) 2340 B
Kjeldahl Nitrogen (TKN)	Macro-Digestion / Titration	Labconco digestion block Buchi B-324 distiller & Mettler DL25 titrator	(i) Digestion= 4500-Norg B
Oil and Grease	Hexane Extraction / Gravimetric	Mettler AX-105 Balance	(a) 1664A
Organic Carbon (TOC)	Catalytic Oxidation / IR Water Production Laboratory)	Shimadzu ASI-5000	(f) 5310 B
pH	Hydrogen+Reference Electrode	Various models of pH meters.	(i) 4500-H+ B
Radiation (alpha & beta)	Alpha Spectroscopy Gamma Spectroscopy	Canberra 7401 (alpha) Canberra GC25185 (beta)	(h) 7110 B
Solids, Dissolved-Total	Gravimetric @ 180°C using analytical balance	Mettler AG204,AX105,AB204	(i) 2540 C
Solids, Settleable	Volumetric	Imhoff Cone	(i) 2540 F
Solids, Suspended-Total	Gravimetric @ 103-105°C	Mettler AG204,AX105,AB204	(i) 2540 D
Solids, Suspended-Volatile	Gravimetric @ 500°C	Mettler AG204,AX105,AB204	(i) 2540 E
Solids, Total	Gravimetric @ 103-105°C	Mettler AG204,AX105,AB204	(a) 160.3
Solids, Total-Volatile	Gravimetric @ 500°C	Mettler AG204,AX105,AB204	(a) 160.4
Temperature	Direct Reading	Fisher Digital Thermometer	(g) 2550 B
Turbidity	Nephelometer Turbidimeter	Hach 2100-N Meter Hach 2100-AN Meter	(g) 2130 B
Bromide, Chloride, Fluoride, Nitrate, Phosphate, Sulfate	Ion Chromatography	Dionex ICS-3000	(d) 300.0

¹ Reference listing is found following this listing of analytical methods.

WASTEWATER INFLUENT and EFFLUENT (Metals)

Analyte	Description	Instrumentation	Reference ¹
Aluminum	Acid Digestion / ICP-AES	TJA IRIS	(e) 200.7
Antimony	Acid Digestion / ICP-AES	TJA IRIS	(e) 200.7
Arsenic	Hydride Generation / AA	Thermo iCE 3000	(h) 3114 C
Barium	Acid Digestion / ICP-AES	TJA IRIS	(e) 200.7
Beryllium	Acid Digestion / ICP-AES	TJA IRIS	(e) 200.7
Boron	Acid Digestion / ICP-AES	TJA IRIS	(e) 200.7
Cadmium	Acid Digestion / ICP-AES	TJA IRIS	(e) 200.7
Calcium	Acid Digestion / ICP-AES	TJA IRIS	(e) 200.7
Chromium	Acid Digestion / ICP-AES	TJA IRIS	(e) 200.7
Cobalt	Acid Digestion / ICP-AES	TJA IRIS	(e) 200.7
Copper	Acid Digestion / ICP-AES	TJA IRIS	(e) 200.7
Iron	Acid Digestion / ICP-AES	TJA IRIS	(e) 200.7
Lead	Acid Digestion / ICP-AES	TJA IRIS	(e) 200.7
Lithium	Acid Digestion / ICP-AES	TJA IRIS	(e) 200.7
Magnesium	Acid Digestion / ICP-AES	TJA IRIS	(e) 200.7
Manganese	Acid Digestion / ICP-AES	TJA IRIS	(e) 200.7
Mercury	Thermal / AA	Milestone DMA80	(g) 3112 B
Mercury	Cold Vapor Generation / AF	Leeman Hydra Gold	(w) 1613E and 245.7
Molybdenum	Acid Digestion / ICP-AES	TJA IRIS	(e) 200.7
Nickel	Acid Digestion / ICP-AES	TJA IRIS	(e) 200.7
Potassium	Acid Digestion / ICP-AES	TJA IRIS	(e) 200.7
Selenium	Hydride Generation / AA	Thermo iCE 3000	(h) 3114 C
Silver	Acid Digestion / ICP-AES	TJA IRIS	(e) 200.7
Sodium	Acid Digestion / ICP-AES	TJA IRIS	(e) 200.7
Thallium	Acid Digestion / ICP-AES	TJA IRIS	(e) 200.7
Vanadium	Acid Digestion / ICP-AES	TJA IRIS	(e) 200.7
Zinc	Acid Digestion / ICP-AES	TJA IRIS	(e) 200.7

¹ Reference listing is found following this listing of analytical

WASTEWATER INFLUENT and EFFLUENT (Organics)

Analyte	Description	Instrumentation	Reference ¹
Acrolein and Acrylonitrile	Purge & Trap, GC-MSD	O-I Analytical Eclipse 4660/4552 Agilent-6890NGC /5973N MSD Capillary J&W DB-624	(c) 8260 B
Base/Neutral Extractables	Basic / CH ₂ Cl ₂ continuous extraction, GC-MSD	HP-6890GC / 5973MSD Capillary DB-5.625	(a) 625
Benzidines	Basic / CH ₂ Cl ₂ continuous extraction, GC-MSD	HP-6890GC / 5973MSD Capillary DB-5.625	(a) 625
Chlorinated Compounds	CH ₂ Cl ₂ extraction, GC-ECD	Bruker 450-GC 300-MS TQ Mass Spectrometer DB-XLB	(a) 608
Dioxin	Outside Contract (Frontier)	VG/Micromass 70SE Fisons/Micromass Autospec M Waters /Micromass Autospec M	(w) 1613E
Organophosphorus Pesticides	CH ₂ Cl ₂ extraction, hexane exchange, GC-PFPD	Varian 3800 GC-PFPD RTX-1 :RTX-50	(a) 622
Phenolic Compounds	Acidic / CH ₂ Cl ₂ continuous extraction, GC-MSD	HP-6890GC / 5973MSD Capillary DB-5.625	(a) 625
Purgeables (VOCs)	Purge & Trap, GC-MSD	O-I Analytical Eclipse 4660/4552 Agilent-6890NGC /5973N MSD Capillary J&W DB-624	(a) 8260B
Tri, Di, and Monobutyl Tin	CH ₂ Cl ₂ extraction, derivatization, hexane exchange, GC-FPD	Varian 3400 GC-FPD DB-608/30m	(l)

¹ Reference listing is found following this listing of analytical methods.

LIQUID SLUDGE: Raw, Digested, and Filtrate (General)

Analyte	Description	Instrumentation	Reference ¹
Alkalinity	Selected Endpoint Titration	Mettler DL-25 Titrator Orion 950	(g) 2320 B
Cyanide	Acid Digest-Distil / Colorimetric	Hach DR/4000V	(h) 4500-CN E
pH	Hydrogen+Reference Electrode	Various models of pH meters.	(c) 9010 B
Radiation (alpha & beta)	Alpha Spectroscopy Gamma Spectroscopy	Canberra 7401 (alpha) Canberra GC25185 (beta)	(h) 7110 B
Sulfides	Acid Digest-Distil / Titration	Class A Manual Buret	(c) 9030 B
Sulfides, reactive	Distillation / Titration	Class A Manual Buret	(c) 7.3.4.2
Solids, Total	Gravimetric @ 103-105°C	Mettler PB 4002-S Mettler PG 5002-S Mettler AB204	(i) 2540 B
Solids, Total-Volatile	Gravimetric @ 500°C	Mettler PB 4002-S Mettler PG 5002-S Mettler AB204	(i) 2540 E

LIQUID SLUDGE: Raw, Digested, and Filtrate (Metals)

Analyte	Description	Instrumentation	Reference ¹
Aluminum	Acid Digestion / ICP-AES	TJA IRIS	(c) 6010 B
Antimony	Acid Digestion / ICP-AES	TJA IRIS	(c) 6010 B
Arsenic	Hydride Generation / AA	Thermo iCE 3000	(c) 7062
Beryllium	Acid Digestion / ICP-AES	TJA IRIS	(c) 6010 B
Barium	Acid Digestion / ICP-AES	TJA IRIS	(c) 6010 B
Boron	Acid Digestion / ICP-AES	TJA IRIS	(c) 6010 B
Cadmium	Acid Digestion / ICP-AES	TJA IRIS	(c) 6010 B
Chromium	Acid Digestion / ICP-AES	TJA IRIS	(c) 6010 B
Cobalt	Acid Digestion / ICP-AES	TJA IRIS	(c) 6010 B
Copper	Acid Digestion / ICP-AES	TJA IRIS	(c) 6010 B
Iron	Acid Digestion / ICP-AES	TJA IRIS	(c) 6010 B
Lead	Acid Digestion / ICP-AES	TJA IRIS	(c) 6010 B
Manganese	Acid Digestion / ICP-AES	TJA IRIS	(c) 6010 B
Mercury	Thermal / AA	Milestone DMA80	(c) 7471 A and 747.3
Mercury	TD / AA	Milestone DMA80	(c) 7471 A
Molybdenum	Acid Digestion / ICP-AES	TJA IRIS	(c) 6010 B
Nickel	Acid Digestion / ICP-AES	TJA IRIS	(c) 6010 B
Selenium	Hydride Generation / AA	Thermo iCE 3000	(c) 7742
Silver	Acid Digestion / ICP-AES	TJA IRIS	(c) 6010 B
Thallium	Acid Digestion / ICP-AES	TJA IRIS	(c) 6010 B
Vanadium	Acid Digestion / ICP-AES	TJA IRIS	(c) 6010 B
Zinc	Acid Digestion / ICP-AES	TJA IRIS	(c) 6010 B

1 Reference listing is found following this listing of analytical methods.

LIQUID SLUDGE: Raw, Digested, and Decant (Organics)

Analyte	Description	Instrumentation	Reference ¹
Acrolein and Acrylonitrile	Purge & Trap, GC-MSD	O-I Analytical Eclipse 4660/4552 Agilent-6890NGC /5973N MSD Capillary J&W DB-624	(c) 8260 B (b)
Base/Neutral Extractables	Basic / CH ₂ Cl ₂ continuous extraction, GC-MSD	HP-6890GC / 5973MSD Capillary DB-5.625	(a) 625 (b)
Benzidines	Basic / CH ₂ Cl ₂ continuous extraction, GC-MSD	HP-6890GC / 5973MSD Capillary DB-5.625	(a) 625
Chlorinated Pesticides	CH ₂ Cl ₂ extraction, GC-ECD	Varian 3800 GC-ECD RTX-5/60m : RTX-1701/60m Varian 3800-Saturn 2000 DB-XLB Bruker 300-MS TQ	(c) 8081 A
PCBs	CH ₂ Cl ₂ extraction, GC-ECD	Varian 3800 GC-ECD RTX-5/60m : RTX-1701/60m Varian 3800-Saturn 2000 DB-XLB Bruker 300-MS TQ	(c) 8082
Dioxin	CH ₂ Cl ₂ extraction	Varian GC-MS/MS	(c) 8280A
Organophosphorus Pesticides	CH ₂ Cl ₂ extraction, hexane exchange, GC-PFPD	Varian 3800 GC-PFPD RTX-1 : RTX-50	(a) 622
Phenolic Compounds	Acidic / CH ₂ Cl ₂ continuous extraction, GC-MSD	HP-6890GC / 5973MSD Capillary DB-5.625	(a) 625 (b)
Purgeables (VOCs)	Purge & Trap, GC-MSD	O-I Analytical Eclipse 4660/4552 Agilent-6890NGC /5973N MSD Capillary J&W DB-624	(c) 8260 B (b)
Tri, Di, and Monobutyl Tin	CH ₂ Cl ₂ extraction, derivatization, hexane exchange, GC-FPD	Varian 3400 GC-FPD DB-1/30m : RTX-50	(l)

LIQUID SLUDGE: Raw, Digested, and Decant (Digester Gases)

Analyte	Description	Instrumentation	Reference ¹
Methane	Gas Chromatography	SRI 8610C GC EG&G 100AGC	(i) 2720 C
Carbon Dioxide	Gas Chromatography	SRI 8610C GC EG&G 100AGC	(i) 2720 C
Hydrogen Sulfide	Colorimetric	Draeger H2S 2/a	

1 Reference listing is found following this listing of analytical methods.

DRIED SLUDGE: Metro Biosolids Center (General)

Analyte	Description	Instrumentation	Reference ¹
Cyanide	Acid Digest-Distillation Colorimetric	Hach DR/4000V UV/Vis	(c) 9010 A
Cyanide Reactive	Distillation / Colorimetric	Hach DR/4000V UV/Vis	(c) 7.3.3.2 and 9014
pH	Hydrogen+Reference Electrode	Various models of pH meters.	(c) 9045 C
Radiation (alpha & beta)	Alpha Spectroscopy Gamma Spectroscopy	Canberra 7401 (alpha) Canberra GC25185 (beta)	(h) 7110 B
Sulfides	Acid Digest-Distil / Titration	Class A Manual Buret	(c) 9030 B and 9034
Sulfides, reactive	Distillation / Titration	Class A Manual Buret	(c) 7.3.4.2 and 9034
Solids, Total	Gravimetric @ 103-105 C°	Denver PI-314, Mettler AB204	(i) 2540 B
Solids, Total-Volatile	Gravimetric @ 500 C°	Denver PI-314, Mettler AB204	(i) 2540 E

DRIED SLUDGE: Metro Biosolids Center (Metals)

Analyte	Description	Instrumentation	Reference ¹
Aluminum	Acid Digestion / ICP-AES	TJA IRIS INTREPID II	(c) 6010 B
Antimony	Acid Digestion / ICP-AES	TJA IRIS INTREPID II	(c) 6010 B
Arsenic	Hydride Generation / AA	TJA Solaar M6	(c) 7062
Barium	Acid Digestion / ICP-AES	TJA IRIS INTREPID II	(c) 6010 B
Beryllium	Acid Digestion / ICP-AES	TJA IRIS INTREPID II	(c) 6010 B
Boron	Acid Digestion / ICP-AES	TJA IRIS INTREPID II	(c) 6010 B
Cadmium	Acid Digestion / ICP-AES	TJA IRIS INTREPID II	(c) 6010 B
Chromium	Acid Digestion / ICP-AES	TJA IRIS INTREPID II	(c) 6010 B
Cobalt	Acid Digestion / ICP-AES	TJA IRIS INTREPID II	(c) 6010 B
Copper	Acid Digestion / ICP-AES	TJA IRIS INTREPID II	(c) 6010 B
Iron	Acid Digestion / ICP-AES	TJA IRIS INTREPID II	(c) 6010 B
Lead	Acid Digestion / ICP-AES	TJA IRIS INTREPID II	(c) 6010 B
Manganese	Acid Digestion / ICP-AES	TJA IRIS INTREPID II	(c) 6010 B
Mercury	Thermal / AA	Milestone DMA80	(c) 7471 A
Mercury	TD / AA	Leeman Hydra Gold	(c) 7471 A
Molybdenum	Acid Digestion / ICP-AES	TJA IRIS INTREPID II	(c) 6010 B
Nickel	Acid Digestion / ICP-AES	TJA IRIS INTREPID II	(c) 6010 B
Selenium	Hydride Generation / AA	TJA Solaar M6	(c) 7742
Silver	Acid Digestion / ICP-AES	TJA IRIS INTREPID II	(c) 6010 B
Thallium	Acid Digestion / ICP-AES	TJA IRIS INTREPID II	(c) 6010 B
Vanadium	Acid Digestion / ICP-AES	TJA IRIS INTREPID II	(c) 6010 B
Zinc	Acid Digestion / ICP-AES	TJA IRIS INTREPID II	(c) 6010 B

Waste Extraction Test (WET)	Extraction with Sodium Citrate ICP-AES	Burrel wrist action shaker TJA IRIS	(j) Section 66261.100
-----------------------------	---	--	-----------------------

1 Reference listing is found following this listing of analytical methods.

DRIED SLUDGE: Metro Biosolids Center (Organics)

Analyte	Description	Instrumentation	Reference¹
Acrolein and Acrylonitrile	Purge & Trap, GC-MSD	O-I Analytical Eclipse 4660/4552 Agilent-6890NGC /5973N MSD Capillary J&W DB-624	(c) 8260 B
Base/Neutral Extractables	CH ₂ Cl ₂ /Acetone sonication extraction, GC-MSD	Agilent-7890GC / 5975MSD Capillary DB-5.625	(c) 8270 C (c) 3550 A
Chlorinated Pesticides	CH ₂ Cl ₂ extraction, GC-ECD	Varian 3800 GC-ECD RTX-5/60m : RTX-1701/60m Varian 3800-Saturn 2000 DB-XLB Bruker 300-MS TQ	(c) 8081 A
PCBs	CH ₂ Cl ₂ extraction, GC-ECD	Varian 3800 GC-ECD RTX-5/60m : RTX-1701/60m Varian 3800-Saturn 2000 DB-XLB Bruker 300-MS TQ	(c) 8082
Dioxin	Outside Contact (Test America)	GC-MS	(a) 8290
Organophosphorus Pesticides	CH ₂ Cl ₂ extraction, hexane exchange, GC-PFPD	Varian 3800 GC-PFPD DB-1/30m DB-608/30m	(c) 8141 A
Phenolic Compounds	CH ₂ Cl ₂ / Acetone sonication extraction, GC-MSD	HP-5890GC / 5972MSD Agilent-78906GC / 5975MSD Capillary DB-5.625	(c) 8270 C (c) 3550 A
Purgeables (VOCs)	Purge & Trap, GC-MSD	O-I Analytical Eclipse 4660/4552 Agilent-6890NGC /5973N MSD Capillary J&W DB-624	(c) 8260 B
Tri, Di, and Monobutyl Tin	CH ₂ Cl ₂ extraction, derivatization, hexane exchange, GC-FPD	Varian 3400 GC-FPD DB-1/30m DB-608/30m	(l)
Total Nitrogen (TN)	Combustion / GC-TCD	Carlo-Erba NC-2500 Porapak QS	(m) 9060

1 Reference listing is found following this listing of analytical methods.

OCEAN SEDIMENT (General)

Analyte	Description	Instrumentation	Reference¹
Biochemical Oxygen Demand (BOD-5 Day)	Dissolved Oxygen Probe	YSI-5000 DO Meter	(g) 5210 B
Particle Size	Coarse fraction by sieve; fine fraction by laser scatter	Horiba LA-920	(q) 3-380
Sulfides	Acid Digest-Distil / IC-PAD	Dionex ICS 3000-PAD(Ag)	(k)
Solids, Total	Gravimetric @ 103-105 C°	AND HM-120	(g) 2540 B
Solids, Total-Volatile	Gravimetric @ 500 C°	AND HM-120	(g) 2540 E
Total Organic Carbon (TOC) and Total Nitrogen (TN)	Combustion / GC-TCD	Carlo-Erba NC-2500 Porapak QS	(c) 9060 (m)

OCEAN SEDIMENT (Metals)

Analyte	Description	Instrumentation	Reference¹
Aluminum	Acid Digestion / ICP-AES	TJA IRIS INTREPID II	(c) 6010 B
Antimony	Acid Digestion / ICP-AES	TJA IRIS INTREPID II	(c) 6010 B
Arsenic	Hydride Generation / AA	TJA Solaar M6	(c) 7062
Beryllium	Acid Digestion / ICP-AES	TJA IRIS INTREPID II	(c) 6010 B
Cadmium	Acid Digestion / ICP-AES	TJA IRIS INTREPID II	(c) 6010 B
Chromium	Acid Digestion / ICP-AES	TJA IRIS INTREPID II	(c) 6010 B
Copper	Acid Digestion / ICP-AES	TJA IRIS INTREPID II	(c) 6010 B
Iron	Acid Digestion / ICP-AES	TJA IRIS INTREPID II	(c) 6010 B
Lead	Acid Digestion / ICP-AES	TJA IRIS INTREPID II	(c) 6010 B
Manganese	Acid Digestion / ICP-AES	TJA IRIS INTREPID II	(c) 6010 B
Mercury	Thermal / AA	Milestone DMA80	(c) 7471 A
Mercury	Cold Vapor Generation / AF	Leeman Hydra Gold	(c) 7471 A
Nickel	Acid Digestion / ICP-AES	TJA IRIS INTREPID II	(c) 6010 B
Selenium	Hydride Generation / AA	TJA Solaar M6	(c) 7742
Silver	Acid Digestion / ICP-AES	TJA IRIS INTREPID II	(c) 6010 B
Thallium	Acid Digestion / ICP-AES	TJA IRIS INTREPID II	(c) 6010 B
Tin	Acid Digestion / ICP-AES	TJA IRIS INTREPID II	(c) 6010 B
Zinc	Acid Digestion / ICP-AES	TJA IRIS INTREPID II	(c) 6010 B

OCEAN SEDIMENT (Organics)

Analyte	Description	Instrumentation	Reference¹
Base/Neutral Extractables	CH ₂ Cl ₂ / Acetone ASE GC-MSD	Agilent-7890GC / 5975MSD Capillary DB-5.625	(c) 8270 C (b) 3545A
Chlorinated Compounds	CH ₂ Cl ₂ extraction, GC-MS/MS	Varian 3800 GC Saturn 2000 MS-Ion Trap DB-XLB/60m	(c) 8081 A 3545A
PCBs as Congeners	CH ₂ Cl ₂ extraction, GC-MS/MS	Varian 3800 GC Saturn 2000 MS-Ion Trap DB-XLB/60m	(c) 8082 3545A
Organophosphorus Pesticides	CH ₂ Cl ₂ extraction, hexane exchange, GC-PFPD	Varian 3800 GC-PFPD RTX-1 : RTX-50	(c) 8141 A
Tri, Di, and Monobutyl Tin	CH ₂ Cl ₂ extraction, derivatization, hexane exchange, GC-FPD	Varian 3400 GC-FPD DB-608/30m	(l)

1 Reference listing is found following this listing of analytical methods.

FISH TISSUE: Liver, Muscle, and Whole (General)

Analyte	Description	Instrumentation	Reference¹
Solids, Total	Freeze Drying Gravimetric	Labconco Freezone 6 Mettler AG-104 Balance	(n)
Lipids	Hexane/Acetone Extraction Gravimetric	Dionex ASE-200 Mettler AG-104 Balance	(o)

FISH TISSUE: Liver, Muscle, and Whole (Metals)

Analyte	Description	Instrumentation	Reference¹
Aluminum	Acid Digestion / ICP-AES	TJA IRIS INTREPID II	(e) 200.3 / 200.7
Antimony	Acid Digestion / ICP-AES	TJA IRIS INTREPID II	(e) 200.3 / 200.7
Arsenic	Acid Digestion / ICP-AES	TJA IRIS INTREPID II	(e) 200.3 / 200.7
Beryllium	Acid Digestion / ICP-AES	TJA IRIS INTREPID II	(e) 200.3 / 200.7
Cadmium	Acid Digestion / ICP-AES	TJA IRIS INTREPID II	(e) 200.3 / 200.7
Chromium	Acid Digestion / ICP-AES	TJA IRIS INTREPID II	(e) 200.3 / 200.7
Copper	Acid Digestion / ICP-AES	TJA IRIS INTREPID II	(e) 200.3 / 200.7
Iron	Acid Digestion / ICP-AES	TJA IRIS INTREPID II	(e) 200.3 / 200.7
Lead	Acid Digestion / ICP-AES	TJA IRIS INTREPID II	(e) 200.3 / 200.7
Manganese	Acid Digestion / ICP-AES	TJA IRIS INTREPID II	(e) 200.3 / 200.7
Mercury	Thermal / AA	Milestone DMA80	(e) 7473
Mercury	Cold Vapor Generation / AF	Leeman PS Hydra Gold	(w) 1631E
Nickel	Acid Digestion / ICP-AES	TJA IRIS INTREPID II	(e) 200.3 / 200.7
Selenium	Hydride Generation / AA	TJA Solaar M6	(c) 7742
Silver	Acid Digestion / ICP-AES	TJA IRIS INTREPID II	(e) 200.3 / 200.7
Thallium	Acid Digestion / ICP-AES	TJA IRIS INTREPID II	(e) 200.3 / 200.7
Tin	Acid Digestion / ICP-AES	TJA IRIS INTREPID II	(e) 200.3 / 200.7
Zinc	Acid Digestion / ICP-AES	TJA IRIS INTREPID II	(e) 200.3 / 200.7

FISH TISSUE: Liver, Muscle, and Whole (Organics)

Analyte	Description	Instrumentation	Reference¹
Base/Neutral Extractables	Basic / CH ₂ Cl ₂ ASE extraction, GC-MSD	Dionex ASE-200 Agilent-7890GC/5975 MSD Capillary DB-5625	(c) 3545 / 8270 C
Chlorinated Pesticides	CH ₂ Cl ₂ extraction, GC-ECD/MS/MS	Varian 3800 GC Saturn 2000 MS-Ion Trap DB-XLB/60m	(c) 3545 / 8081 A
PCBs	CH ₂ Cl ₂ extraction, hexane exchange, GC-ECD/MS/MS	Varian 3800 GC Saturn 2000 MS-Ion Trap DB-XLB/60m	(c) 3545 / 8082

1 Reference listing is found following this listing of analytical methods.

Method References: Methods of Analysis Used to Produce the Data Presented in this Report.

- a) Methods for Chemical Analysis of Water and Wastes,
EPA, Environmental Monitoring and Support Laboratory, Cincinnati, Ohio,
March 1979 (EPA-600/4-79-020), 1983 Revision, and March 1984 (EPA-600/4-84-017).
- b) U.S. EPA Contract Laboratory Program, Statement of Work for Organic Analysis,
Multi-Media, Multi-Concentration, 7/85 revision and 1/91 revision.
- c) Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,
U.S. EPA Office of Solid Waste and emergency Response,
Washington, D.C. 20460, November 1986, SW-846, Third Edition.
Revision 0 September 1994, December 1996, Revision 2
- d) The Determination of Inorganic Anions in Water by Ion Chromatography,
Revision 2.1, August 1993
- e) The Determination of Metals and Trace Elements in Water and Waste
Revision 4.4, EMMC Version, EMMC Methods Work Group, 1994
- f) Standard Methods for the Examination of Water and Wastewater,
APHA, AWWA, WPCF, 17th Edition, 1989.
- g) Standard Methods for the Examination of Water and Wastewater,
APHA, AWWA, WPCF, 18th Edition, 1992.
- h) Standard Methods for the Examination of Water and Wastewater,
APHA, AWWA, WPCF, 19th Edition, 1995.
- i) Standard Methods for the Examination of Water and Wastewater,
APHA, AWWA, WPCF, 20th Edition, 1998.
- j) Criteria for Identification of Hazardous and Extremely Hazardous Wastes,
California Code of Regulations (CCR), Title 22.
- k) DIONEX AU 107, R.D.Rocklin and E.L.Johnson, ANAL. CHEM., 1986, 55, 4
- l) Adaptation of method by the Naval Ocean Systems Center, San Diego, Marine Environment Branch, San
Diego, CA 92152-5000
- m) "TOC/TN in Marine Sediments...", SCCWRP Annual Report, 1990-1991, and 1991-1992.
- n) "A Guide to Freeze Drying for the Laboratory...", LABCONCO, 3-53-5/94-Rosse-5M-R3, 1994.
- o) "Lipids Content in Fish Tissues via Accelerated Solvent Extraction...", WWChem, EMTS/MWWD, 1998
- v) Procedures for Handling and Chemical Analysis of Sediment and Water Samples,
Russel H. Plumb, Jr., May 1981, EPA/Corp of Engineers Technical Committee on
Criteria for Dredged and Fill Material, EPA Contract 4805572010.
- w) Method 1631, Revision E;
Mercury in water by oxidation, purge and trap, and cold vapor atomic fluorescence spectrometry

C. Frequency of Analysis and Type of Sample - 2014

1. Definitions.

D= 1/Day W= 1/Week M= 1/Month Q= 1/Quarter S= Semi-Annual

Constituent	<i>Type of Sample</i>	FREQUENCY OF ANALYSIS			
		<i>Influent</i>	<i>Effluent</i>	<i>Comb_Effluent</i>	<i>Reclaim</i>
Permit Required Testing					
Flow	Recorder/Totalizer	Continuous	Continuous		Continuous
Biochemical Oxygen Demand - Total (5-day)	24hr Composite	W	D	Q	D
Oil and Grease	Grab		W	Q	
pH	Grab		D	Q	D
Settleable Solids	Grab		W	Q	
Temperature			W	Q	
Total Suspended Solids	24hr Composite	W	D	Q	D
Volatile Suspended Solids	24hr Composite				D
Total Dissolved Solids	24hr Composite				M
Turbidity	24hr Composite		W	Q	W
Dissolved Oxygen	Grab		W	Q	
Total Residual Chlorine	Grab		W	Q	
As,Cd,Cr,Cu,Pb,Hg,Ni,Ag,Zn	24hr Composite	M	M	Q	
Sb, Be, Tl	24hr Composite		M	Q	
Se	24hr Composite		M	Q	
Fe, Mn, B					M
Anions (Chloride, Sulfate, Nitrate as N, Fluoride)	24hr Composite				M
Ammonia-Nitrogen	24hr Composite		M	Q	
MBAS	24hr Composite				M
Cyanide	24hr Composite	M	M	Q	
Acrolein and Acrylonitrile	Grab		Q	Q	
Base/Neutral Compounds	24hr Composite		Q	Q	
Benzidines	24hr Composite		Q	Q	
Dioxin	24hr Composite		M	Q	
Percent Sodium	24hr Composite				M
Pesticides, chlorinated	24hr Composite		M	Q	
Phenols, non-chlorinated	24hr Composite		M	Q	
Phenols, chlorinated	24hr Composite		M	Q	
Polychlorinated Biphenyls	24hr Composite		Q	Q	
Purgeable (Volatile) Compounds	Grab		Q	Q	
Tri, Di, & monobutyl tins	24hr Composite		Q	Q	
Radiation	24hr Composite		M	Q	
Toxicity (Acute & Chronic)*	24hr Composite		W	Q	

*Reported monthly in the *Toxicity Testing Report* by the Biology Section.

D= 1/Day

W= 1/Week

M= 1/Month

Q= 1/Quarter

S= Semi-Annual

Constituent	<i>Type of Sample</i>	<i>FREQUENCY OF ANALYSIS</i>			
		<i>Influent</i>	<i>Effluent</i>	<i>Comb_Effluent</i>	<i>Reclaim</i>
<i>Additional Testing</i>					
Total Dissolved Solids	24hr Composite	D			
Volatile Suspended Solids	24hr Composite	D			
Pesticides, organophosphorus	24hr Composite	S	S	S	S
Cations (Ca ²⁺ , Mg ²⁺ , Li ⁺ ,Na ⁺ ,K ⁺)	24hr Composite	M	M	Q	M
Anions	24hr Composite	M	M	Q	
Fe	24hr Composite	M	M	Q	
Oil and Grease	Grab	Q			Q
pH	Grab	D			
Settleable Solids	Grab	Q			
MBAS	24hr Composite	Q	Q	Q	
Turbidity	24hr Composite	Q			Continuos
Sb, Be, Tl	24hr Composite	M			M
Se	24hr Composite	M			M
Ammonia-Nitrogen	24hr Composite	Q			Q
Cyanide	24hr Composite				Q
Acrolein and Acrylonitrile	Grab	Q			Q
Base/Neutral Compounds	24hr Composite	Q			Q
Benzidines	24hr Composite	Q			Q
Dioxin	24hr Composite	M			Q
Pesticides, chlorinated	24hr Composite	Q			Q
Phenols, non-chlorinated	24hr Composite	Q			Q
Phenols, chlorinated	24hr Composite	Q			Q
Polychlorinated Biphenyls	24hr Composite	Q			Q
Tri, Di, & monobutyl tins	24hr Composite	Q			Q
Percent Sodium	24hr Composite		M	Q	
Purgeable (Volatile) Compounds	Grab	Q			Q
Radiation	24hr Composite	M			Q

D. Laboratories Contributing Results used in this report.

- i) Metropolitan Wastewater Chemistry Laboratory
 (EPA Lab Code: CA00380, ELAP Certificate: 1609)
 5530 Kiowa Drive
 La Mesa, CA 91942
 (619)668-3212
All results except those listed below.
- ii) Point Loma Wastewater Chemistry Laboratory
 (EPA Lab Code: CA01435, ELAP Certificate: 2474)
 1902 Gatchell Road
 San Diego, CA 92106
 (619)221-8765
Process control analyses and wet methods for the plant.
- iii) North City Wastewater Chemistry Laboratory
 (EPA Lab Code: CA01436,
 ELAP Certificate: 2477)
 4949 Eastgate Mall
 San Diego, CA 92121
 (858)824-6009
Process control analyses and wet methods for the plant.
- iv) Metro Biosolids Center Chemistry Laboratory
 (EPA Lab Code: CA01437, ELAP Certificate: 2478)
 5240 Convoy Street
 San Diego, CA 92111
 (858)614-5834
Process control analyses and wet methods for the plant.
- v) South Bay Water Reclamation Plant
 (EPA Lab Code: CA01460, ELAP Certificate: 2539)
 2411 Dairy Mart Road
 San Diego, CA 92173
 619.428.7349
Process control analyses and wet methods for the plant.
- vi) City of San Diego - Water Quality Laboratory (EPA Lab Code: CA00080, ELAP Certificate: 1058)
 5530 Kiowa Drive
 La Mesa, CA 91942
 (619)668-3237
Total Organic Carbon in Wastewater
- vii) City of San Diego - Marine Microbiology and Vector Management
 (EPA LabCode: CA01393, ELAP Certificate: 2185)
 4918 Harbor Drive, Suite 101
 San Diego, CA 92106
 (619) 758-2311
Microbiology
- viii) City of San Diego – Toxicity Bioassay Laboratory
 (EPA Lab Code: CA01302, ELAP Certificate: 1989)
 4918 Harbor Drive, Suite 101
 San Diego, CA 92106
 (619) 758-2347
Bioassays
- ix) Frontier Analytical Laboratory
 5172 Hillsdale Circle
 El Dorado Hills, CA 95762
 ELAP Certification: 02113CA
 Telephone# (916) 934-0900
Dioxins/Furans
- x) Test America (EPA Lab code: WA00023, CA ELAP Certification: 2425
 2800 George Washington Way
 Richland, WA 99354-1613
 Telephone# (509) 375-3131
 Gross Alpha/Beta Radioactivity
- xi) Test America
 2960 Foster Creighton Drive
 Nashville, TN 37204
 NELAP Certification: 01168CA
 Telephone# (615) 726-0177

Summary and Overview:

The Environmental Chemistry Services section, Public Utilities Department, City of San Diego performs most of the NPDES and other permit and process control chemical and physical testing for the City of San Diego E.W. Bloom, Pt. Loma Wastewater Treatment Plant (PLWWTP), North City Water Reclamation Plant (NCWRP), South Bay Water Reclamation Plant (SBWRP), and the Metro Biosolids Center (MBC). We also perform the chemical/physical testing of ocean sediment and fish tissue samples for the Ocean monitoring program for the City of San Diego (PLWWTP Ocean Outfall and SBWRP Ocean Outfall) and the International Boundary and Water Commission, International Treatment Plant outfall. We also perform environmental testing for various customers, both internal to the City of San Diego and for other agencies.

The QA/QC activities of the Laboratory are comprehensive and extensive. Of the 42,023 samples received in the Laboratory in 2014, approximately 38.7% were Quality Control (QC) samples, such as blanks, check samples, standard reference materials, etc. 125 different analyses were performed throughout the year resulting in 253,687 analytical determinations. Of the determinations, 107,061 (~42.2%) were QC determinations (e.g. blanks, lab. replicates, matrix spikes, surrogates, etc.) used to determine the accuracy, precision, and performance of each analysis and batch.

We have 5 separate laboratory facility locations, each with its own California ELAP (Environmental Laboratory Accreditation Program) certification for the fields of testing required under California regulations and one of these laboratories is certified for fields of testing under the Arizona Department of Health Services (ADHS). These are rigorous programs involving continuing independent blind performance testing, biannual comprehensive audits, and extensive documentation requirements. Each of the 5 laboratory facilities in the Public Utilities Department are independently certified and copies of those certifications are included in Attachment 1. California ELAP and Arizona certifies fields of testing (methods/analytes) only for Water, Wastewater, and Hazardous materials for which methods are published in the Federal Register or specifically approved in regulation by U.S.EPA. Additionally, the Laboratory performs analyses using methods for which certification does not exist, such as ocean sediment and sea water determinations. Those methods have been developed in-house, derived from or in collaboration with other scientific laboratories (e.g. Scripps Institute of Oceanography, Southern California Coastal Water Research Project, et. al.) and have been used extensively in multi-agency EPA and State sponsored studies over the past several years. Many methods of analysis developed for matrices and applications not within ELAP jurisdiction have been adapted from ELAP listed methods. In all cases, we apply generally accepted standards of performance and quality control to methods.

Additionally, the operating division and all Public Utilities Department Laboratories maintained International Standards Organization (ISO) 14001 Environmental Management Systems certification.

Contract laboratories are also required to use only approved methods for which they hold certification for, and/or are approved by the appropriate regulatory agency (e.g. SDRWQCB). Copies of their certifications are included as Attachment 2.

The following report summarizes the QA/QC activities during 2014 and documents the laboratory information and certifications for those laboratories which provided data used in NPDES and other permit monitoring or environmental testing during the year.

Laboratories Contributing Results used in this report.

Laboratory Name	EPA Lab Code	ADHS Cert#	ELAP Cert.#	Address	Phone #	Contribution
Alvarado Environmental* Chemistry Laboratory	CA00380	AZ0783	ELAP 1609	5530 Kiowa Drive L Mesa, CA 91942	(619)668-3212	All results except those listed below.
Pt. Loma Wastewater Chemistry Laboratory	CA01435			1902 Gatchell Road 2474 San Diego, CA 92106	(619)221-8765	Process Control Ananlyses and wet mehtod for the treatment plant.
North City Wastewater Chemistry Laboratory	CA01436			4949 Eastgate Mall 2477 San Diego, CA 92121	(858)824-6009	Process Control Ananlyses and wet mehtod for the treatment plant.
Metro Biosolids Center Chemistry Laboratory	CA01437			5240 Convoy Street 2478 San Diego, CA 92111	(858)614-5834	Process Control Ananlyses and wet mehtod for the treatment plant.
South Bay Wastewater Chemistry Laboratory	CA00080			2411 Dairy Mart Road 2539 San Diego, CA 92173	(619)428-7349	Process Control Ananlyses and wet mehtod for the treatment plant.
City of San Diego Water Quality Laboratory	CA01393			5530 Kiowa Drive 1058 La Mesa, CA 91942	(619)668-3237	Total Organic Carbon in Wastewater
City of San Diego-Marine Microbiology	CA01302			2392 Kincaid Road 2185 San Diego, CA 92101	(619)758-2312	Microbiology
City of San Diego Toxicology Laboratory				2392 Kincaid Road 1989 San Diego, CA 92101	(619)758-2341	Bioassays
TestAmerica Laboratories, Inc				2800 George Washington 2425 Way, Richland, WA 99354	(509)375-3131	Gross Alpha/Beta Radioactivity
TestAmerica Nashville Division				2960 Foster Creighton Drive 01168CA Nashville, TN 37204	(615)756-0177	Herbicides (2011)
Frontier Analytical Laboratory				5172 Hillsdale Circle 02113CA El Dorado Hills, CA 95762	(916)934-0900	Dioxin/Furan Wastewater and Solids
* Licensed & certification as Arizona Out-of-State Laboratory						

Facilities & Scope:

Environmental Chemistry Services (ECS) comprises five geographically separated laboratories. The Section's main laboratory facilities and headquarters located at the Alvarado Joint Laboratory building in La Mesa and the four satellite chemistry laboratories located at MWWD treatment plants maintain individual California Department of Health Service, Environmental Laboratory Accreditation Program (ELAP) certification in their respective Fields of Testing (FoT). Each laboratory has its own U.S.EPA Lab Code as shown in the following table.

Laboratory Facility	Laboratory	Address	Phone	EPA Lab. Code	ELAP Cert. No.
Alvarado Laboratory	Wastewater Chemistry Laboratory	5530 Kiowa Drive, La Mesa CA 91942	619.668.3215	CA00380	1609
Point Loma Satellite Lab	Pt. Loma Wastewater Chemistry Laboratory	1902 Gatchell Rd., San Diego, CA 92106	619.221.8765	CA01435	2474
North City Water Reclamation Plant Satellite Lab	North City Wastewater Chemistry Laboratory	4949 Eastgate Mall, San Diego, CA 92121	858.824.6009	CA01436	2477
Metro Biosolids Center Satellite Lab	Metro Biosolids Center Wastewater Chemistry Lab	5240 Convoy Street, San Diego, CA 92111	858.614.5834	CA01437	2478
South Bay Water Reclamation Plant Satellite Lab	South Bay Wastewater Chemistry Laboratory	2411 Dairy Mart Rd., San Diego CA 92154	619.428.7349	CA01460	2539

The information presented in this report applies to ECS, including all of the laboratories listed above, unless specified otherwise. The main laboratory at Alvarado is the main office for ECS and contains the most extensive laboratory facilities of the several laboratories. Along with a variety of process control and wet chemistry analyses, this facility also handles all of the trace metals, pesticides/orgamics determinations, and other analyses. The satellite laboratories are primarily dedicated to process control, wet chemistry, and other analyses directly related to the support of the operations of the co-located wastewater treatment plant.

Environmental Chemistry Services performs most of the NPDES and other permit and process control chemical and physical testing for the:

- E.W. Blom, Pt. Loma Wastewater Treatment Plant (PLWWTP), NPDES No. CA0107409/ Order No. R9-2009-0001, including the ocean monitoring program.
- North City Water Reclamation Plant (NCWRP), Order No. 97-03.
- Metro Biosolids Center (MBC), no permit, but monitoring requirements contained in Permit No. R9-2009-0001.
- South Bay Water Reclamation Plant (SBWRP), NPDES No. CA0109045/ Order No. R9-2013-0006.
- Ocean monitoring program for the International Boundary and Water Commission, International Treatment Plant.
- Other environmental testing for various customers, both internal to the City of San Diego and other public agencies.

A small portion of the required monitoring testing was sub-contracted out to laboratories certified by ELAP for those analyses, specifically;

- Gross alpha- and Beta radiations are analyzed by Test America Laboratories, Inc., Richland Division
- Herbicides are analyzed by Test America Laboratories, Inc, Nashville Division
- Total organic carbon (TOC) and thallium in water are analyzed by the Water Quality Laboratory, City of San Diego, Public Utilities Department.
- Dioxin and Furans in solids and wastewater are analyzed by Frontier Analytical Laboratory.

Copies of these laboratories' ELAP certifications are included as Attachment 2. The City of San Diego pays for additional QC samples (replicates, blanks, and spikes) as a routine quality check on contracted laboratory work. This is beyond the usual and customary practices with contract laboratory work.

Ocean monitoring:

While there are no recognized State certifications for laboratory analyses of marine environmental samples (e.g. seawater, sediments, various tissues, etc.), the City of San Diego has been a leader in the development and standardization of analytical methods for determinations in these areas.

Many of the methods are novel approaches developed after extensive research and development from other published work (e.g. organo-tin analyses, sediment grain size, etc.) or adaptations of exiting EPA methods (e.g. SW 846 Method 8082 for PCB congeners in sediments, etc.). In all of these cases we participate in extensive inter-laboratory calibration studies. Some of the most extensive studies have involved the participation of several public, academic/research, and private laboratories under the umbrella of the Southern California Coastal Water Research Project (SCCWRP). These programs are repeated periodically as part of the Southern California Bight Regional Monitoring/Survey Project. This is a massive sampling and monitoring program participated in by all of the major Publicly Owned Treatment Works (POTWs), California Water Resource Control Boards, and research organizations.

Our laboratory is a reference (referee) laboratory for the NRCC (National Research Council of Canada) CARP-2 Certified Reference Material (CRM) for fish tissue. This was adopted as the standard reference material for QC QA for the Southern California Bight Regional Project. This sample is also used world-wide as a standard reference material. We have worked with NIST to develop a West Coast marine sediment and fish tissue standard reference material (SRM).

QA/QC Activities Summary:

Report for January 1, 2014 - December 31, 2014.

The sample distribution for 2014 is significantly changed from 2013; QC sample log numbers were changed in 2014 to account for individual QC samples in batches from a single stock solution. 253,687 analytical determinations were made on 42,023 samples received by the Laboratory in 2014 (see table A.). Of these 16,267 or 38.71% were Quality Control (QC) samples. 12.43% were blanks and 26.28% check or reference samples.

	2014	
	Number of Samples	Percent of total samples

Table A. Samples

Customer/Environmental samples	25,756	61.29%
Quality Control (QC) samples	16,267	38.71%
Total Samples	42,023	100.00%

QC Samples:

Blanks:

FIELD_BLANK	235	0.56%
REAGENT_BLANK	23	0.05%
TRIP BLANK	0	0.00%
METHOD_BLANK	4,965	11.81%
Total Blanks:	5,223	12.43%

Check samples:

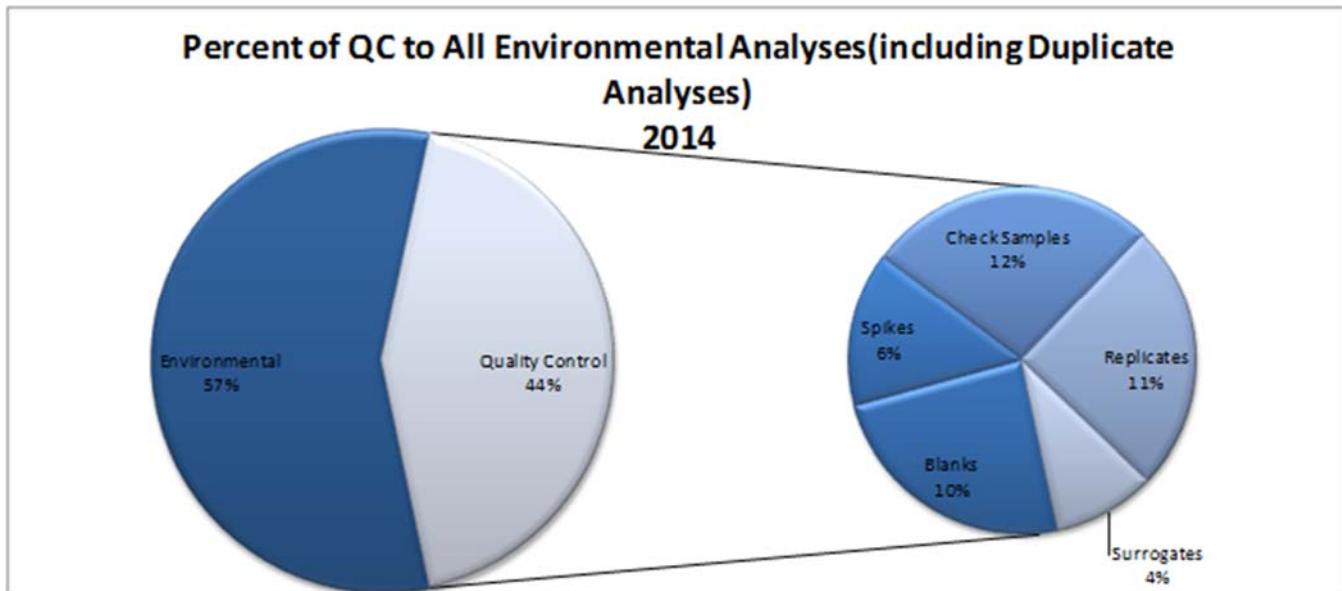
External Check samples	5,540	13.18%
Internal Check samples	5,403	12.86%
Low Level MDL Verification	53	0.13%
SRMs (Standard Reference Material)	48	0.11%
Total Check Samples:	11,044	26.28%
Total QC Samples:	16,267	38.71%

High levels of QC are used for laboratory determinations. 42.2% of the 253,687 determinations were QC (e.g. blanks, lab replicates, matrix spikes, surrogates, etc.). If calculated for the 238,664 customer determinations only, the percentage increases to 44.9%.

1.19% of total analytical determinations or of analytical batches did not meet internal QA review due to a variety of criteria, e.g. unsuccessful calibration, unacceptable QC performance, etc. Samples having analytical determinations that were rejected are reanalyzed, or, if that is not possible, the data is either not reported or reported but flagged as having not met data quality objectives and may not be suitable for compliance determination

Table A.2. Analyses (results) - 2014

	Number	Percent of total
Total number of analytes/results determined:	253,687	NA
Total results not complete ² :	9,057	3.6%
No. of results for Customer/Environmental Samples^{1,3}:	238,664	94.1%
Total number of rejected results:	15,023	6.28%
No. of results for blanks ³ :	25,753	10.2%
No. of results for matrix spikes ³ :	15,504	6.1%
No. of results for Check samples ³ :	28,868	11.4%
No. of results for Replicates ³ :	26,732	10.5%
No. of results for surrogates ³ :	10,204	4.0%
Total QC analyses run³ :	107,061	42.2%
		44.9%



1 – matrix spike, replicates, surrogates are also part of the total for Customer/Environmental samples.

2 – as of March 03, 2015.

3 – percent of QC samples calculated from grand total of 238,664.

NOTE: Analysis, for the purposes of the metrics used in this report generally refer to each analyte determined in each sample in a batch. For example, an analysis (determination) of several metals in a sample (e.g. iron, nickel, lead) would total as 3 analyses in the expression of totals such as those in the Analyses table on the preceding page. This method of calculation has been used for many years and, with batch and method, is useful comparative measure of laboratory performance and is one of the fundamental constants in applying quality control measures.

	No. of Batches	Percent of total
Total number of analytical batches:	15,203	98.59%
Total number of rejected analytical batches:	183	1.19%
Incomplete batches (as of March 3, 2015):	34	0.22%

Outside laboratories

A small number of permit required analyses were contracted out, as summarized below.

Results from sub-contracted labs.		
Laboratory	Analytes	Total in-house Analytes
Frontier Analytical	4658	1.95%
Test America	340	0.14%
Total outside results:	4,998	2.09%

QA Plan:

A copy of our Laboratory's current Quality Assurance Plan is included as Attachment 3. The Quality Assurance Plan was updated in March 2015.

Performance Testing (PT) Studies for 2014:

The Environmental Chemistry Laboratories participates in required ELAP and U.S.EPA PT studies throughout the year. We participated in 13 PT studies in 2014. Each of our geographically separated laboratory facilities participated individually (as required by ELAP). PT studies were purchased from ERA and Phenova and were successfully completed. When results submitted were determined to be outside of study acceptance limits the laboratory reviewed internal protocols, modified procedures were necessary and participated in a subsequent study for the analytes in question. A PT study was completed with satisfactory results for all analytes by in-house chemistry laboratories.

The results of the Laboratory PT studies for 2014 are summarized in the following tables.

Alvarado Environmental Chemistry Laboratory: See attachment 6 for copy of reports.

PT Study	Number of Analytes	Number of Acceptable results	Success Rate (%)
HW-0114	57	57	100%
HW-0414	107	107	100%
WP-0314	131	130	99.2%
WP-0414	10	10	100%
WP-0114	27	25	92.6%
Total analytes:	332	329	Overall: 99.1%

North City Chemistry Laboratory: See attachment 7 for copy of reports.

PT Study	Number of Analytes	Number of Acceptable results	Success Rate (%)
WP-0314	14	14	100%
Total analytes:	14	Overall:	100%

Metro Biosolids Center (MBC) Chemistry Laboratory: See attachment 8 for copy of reports.

PT Study	Number of Analytes	Number of Acceptable results	Success Rate (%)
WP-0415	5	5	100%
Total analytes:	5	Overall:	100%

Pt. Loma Environmental Chemistry Laboratory: See attachment 9 for copy of reports.

PT Study	Number of Analytes	Number of Acceptable results	Success Rate (%)
WP-0314	6	5	83.3%
WP-0414	7	7	100%
WP-0514	1	1	100%
Total analytes:	14	Overall:	92.9%

South Bay Wastewater Chemistry Laboratory: See attachment 10 for copy of reports.

PT Study	Number of Analytes	Number of Acceptable results	Success Rate (%)
WP-0114	19	19	100%
WS-0114	1	0	0.00%
WS-213	1	1	100%
Total analytes:	21	Overall	95.2%

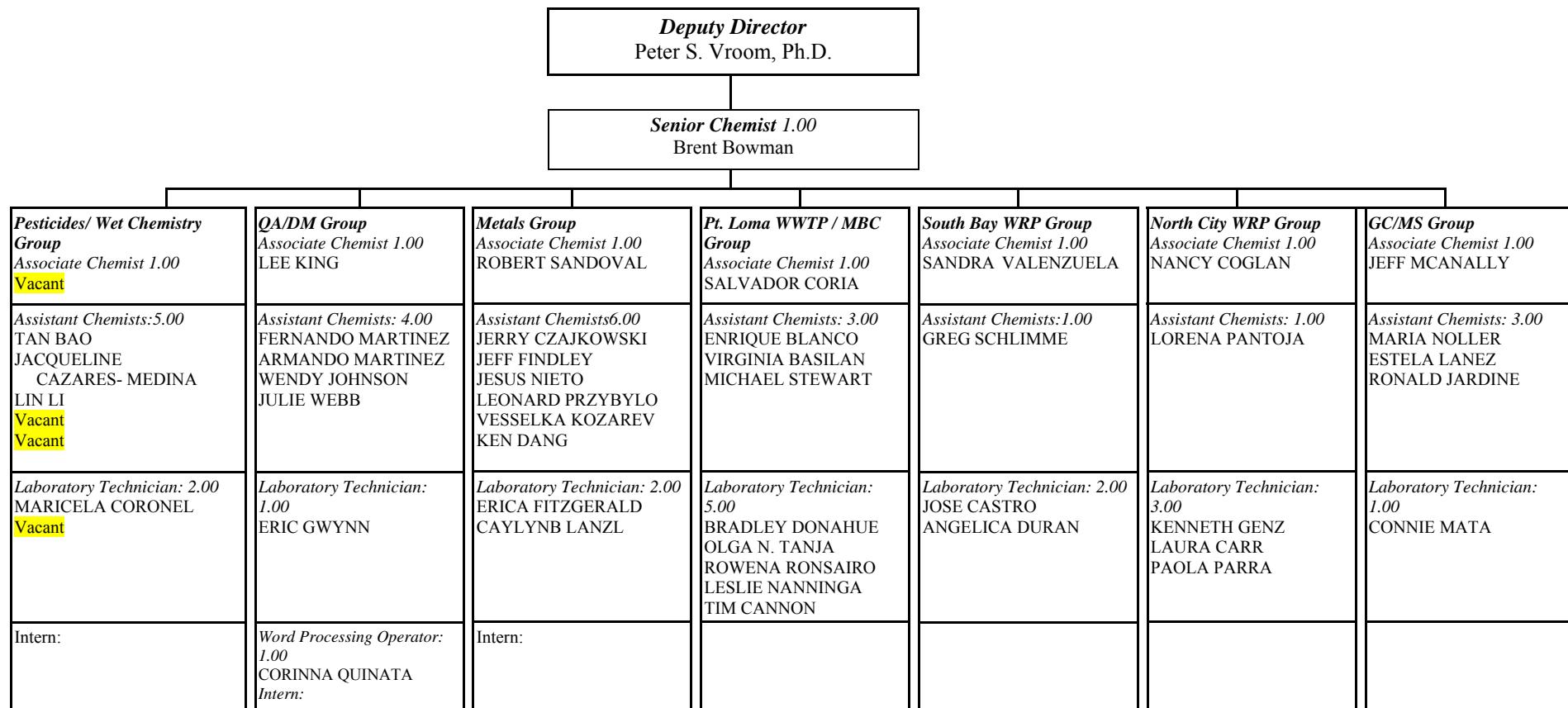
A. Staff Contributing to this Report

Staff Contributing to this Report in 2014

Initials	ID	First Name	Last Name	Signature
TB	TBAO	Tan	Bao	<i>Tan Bao</i>
VB	VBASILAN	Virginia	Basilan	<i>Virginia Basilan</i>
EB	EBLANCO	Enrique	Blanco	<i>Enrique Blanco</i>
BGB	BBOWMAN	Brent	Bowman	<i>Brent G. Bowman</i>
TC	TJCANNON	Tim	Cannon	<i>Tim Cannon</i>
LC	LCARR	Laura	Carr	<i>Laura E. Carr</i>
JC	JCASTRO	Jose	Castro	
JCM	JCAZARES	Jacqueline	Cazares-Medina	<i>Jacqueline Cazares Medina</i>
NC	NCOGLAN	Nancy	Coglan	<i>Nancy Coglan</i>
SC	SCORIA	Salvador	Coria	<i>Salvador Coria</i>
MC	MCORONEL	Maricela	Coronel	<i>Maricela Coronel</i>
JCM	JCZAJKOWSKI	Jerry	Czajkowski	<i>Jerry Czajkowski</i>
KD	KDANG	Ken	Dang	<i>Ken Dang</i>
BD	BDONAHUE	Brad	Donahue	<i>Brad Donahue</i>
HHD	HZD	Heather	Duckett	
ACD	ADURAN	Angelica	Duran	<i>Angelica Duran</i>
JTF	JFINDLEY	Jeff	Findley	<i>Jeff Findley</i>
EFITZ	EFITZGERALD	Erica	Fitzgerald	<i>Erica Fitzgerald</i>
KG	KGENZ	Kenneth	Genz	<i>Kenneth Genz</i>
EG	EGWYNN	Eric	Gwynn	<i>Eric Gwynn</i>
MH	MHANNA	Mona	Hanna	
RJ	RJARDINE	Ron	Jardine	<i>Ron Jardine</i>
WLJ	WLJOHNSON	Wendy	Johnson	<i>Wendy Johnson</i>
LK	LKING	Lee	King	<i>Lee N. King</i>
VK	VKOZAREV	Vesselka	Kozarev	<i>V. Kozarev</i>
EL	ELANEZ	Estela	Lanez	<i>Estela L. Lanez</i>
CL	CLANZL	Caylyn	Lanzl	<i>Caylyn Lanzl</i>
LL	LLI	Lin	Li	<i>Lin Li</i>
AM	AMARTINEZ	Armando	Martinez	<i>Armando Martinez</i>
FM	FMARTINEZ	Fernando	Martinez	<i>Fernando Martinez</i>
CGM	CONNIEM	Connie	Mata	<i>Connie Mata</i>
JM	JMCANALLY	Jeff	McAnally	
LN	LNANNINGA	Leslie	Nanninga	<i>Leslie Nanninga</i>
JN	JNIETO	Jesus	Nieto	<i>Jesus Nieto</i>
MN	MNOLLER	Maria	Noller	<i>Maria Noller</i>
LP	LPANTOJA	Lorena	Pantoja	<i>Lorena Pantoja</i>
PP	PPARRA	Paola	Parra	<i>Paola Parra</i>
LP	LPRZYBYLO	Leonard	Przybylo	<i>Leonard Przybylo</i>
CAQ	CQUINATA	Corinna	Quinata	<i>Corinna Quinata</i>
RR	RRONSAIRO	Rowena	Ronsairo	<i>Rowena Ronsairo</i>
KR	KRUEHRWEIN	Keith	Ruehrwein	
RS	RSANDOVAL	Robert	Sandoval	<i>Robert Sandoval</i>
DWS	DSCHLICKMAN	David	Schlickman	
GS	GSCHLIMME	Greg	Schlimate	<i>Greg Schlimate</i>
MRS	MSTEWART	Michael	Stewart	<i>Michael Stewart</i>
MIS	MSZETERLAK	Margot	Szeterlak	
OT	OTANJA	Olga	Tanja	
SV	SVALENZUELA	Sandra	Valenzuela	<i>Sandra Valenzuela</i>
ZV	ZACKV	Zachary	Vanslager	
JW	JWEBB	Julie	Webb	<i>Julie Webb</i>
KLW	KLW	Kristof	Witzczak	

Figure 1. Chemistry Laboratory Organization Chart.

Metropolitan Wastewater Department
 Environmental Monitoring and Technical Services Division
Environmental Chemistry Services



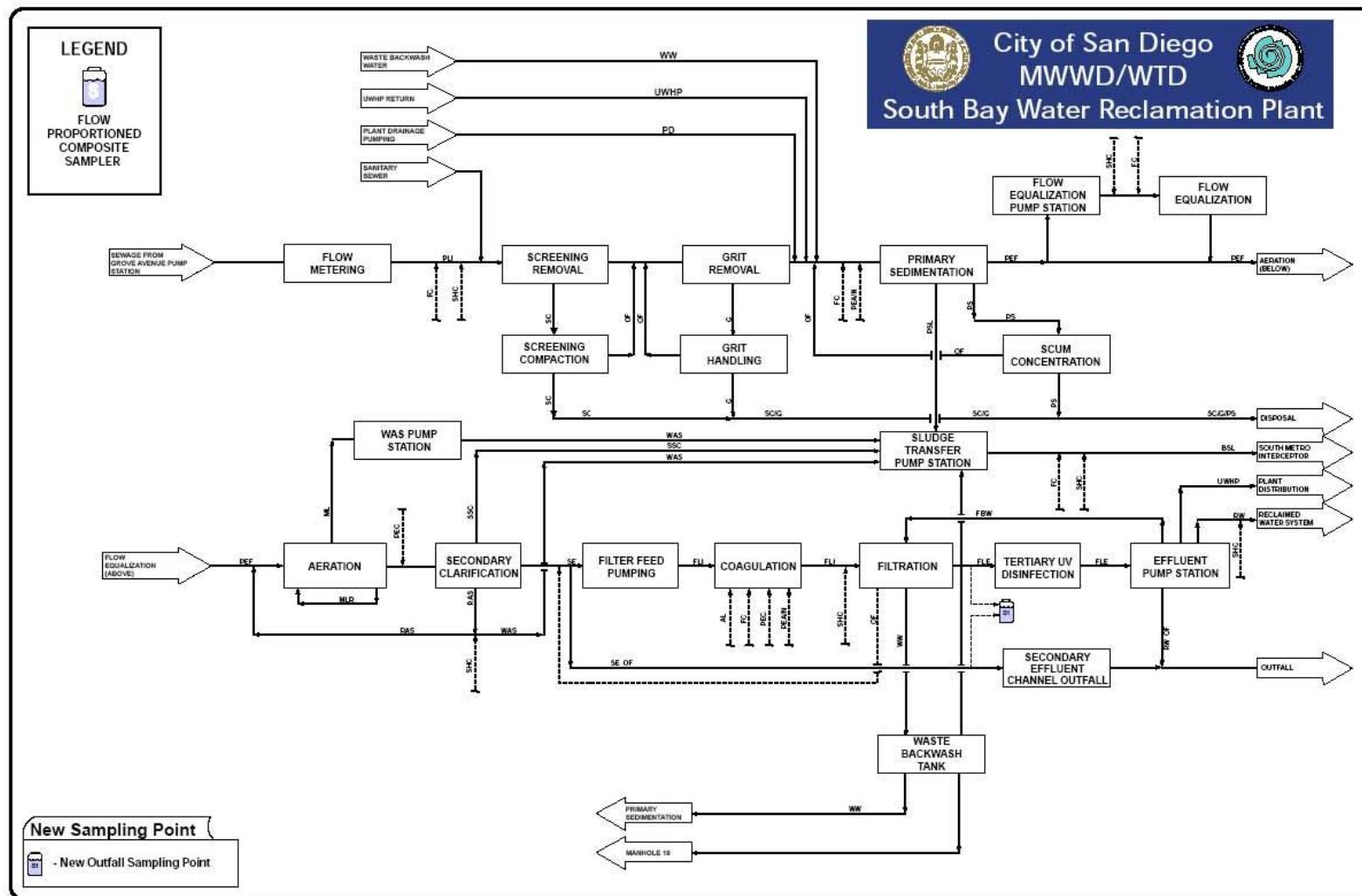


Figure 1 - New Effluent to Ocean Outfall Sample Point

South Bay Water Reclamation Plant
Effluent to Ocean Outfall Sampling System
June 2007

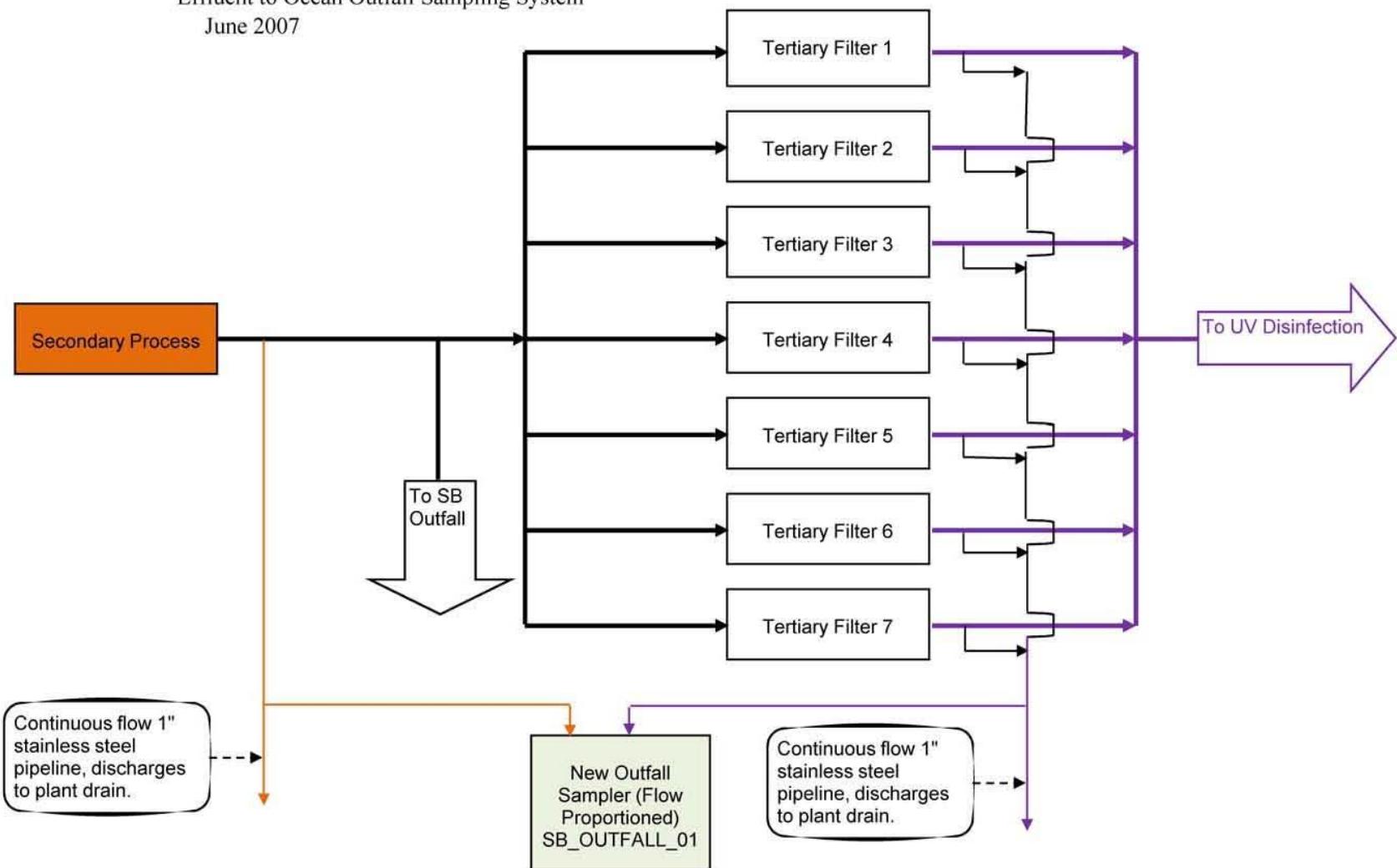


Figure 2 - Detail of Effluent Sampling System