



2018-19 Annual Report

RESOURCE PROTECTION DIVISION

PRETREATMENT PROGRAM



Orange County
Sanitation District

**POTW PRETREATMENT PROGRAM ANNUAL REPORT
CERTIFICATION STATEMENT**


NPDES Permit Holder: Orange County Sanitation District
Report Due Date: October 31, 2019
Period Covered by this Report: July 2018 through June 2019
Period Covered by Previous Report: July 2017 through June 2018*
Name of Wastewater Treatment Plant(s): Reclamation Plant No. 1, and Treatment Plant No. 2
NPDES Permit Number: CA0110604

Person to contact concerning information contained in this report:

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"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

October 31, 2019
Date



Engineering Manager, Resource Protection Division

* See Annual Report 2017-18, Orange County Sanitation District, submitted to EPA Region 9 and California Regional Water Quality Control Board, Santa Ana Region.

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Orange County Sanitation District

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October 31, 2019

Hope A. Smythe, Executive Officer
 California Regional Water Quality Control Board
 Santa Ana Region
 3737 Main Street, Suite 500
 Riverside, CA 92501-3339

Subject: Board Order No. R8-2012-0035, NPDES No. CA0110604
 FY 2018/19 Pretreatment Program Annual Report

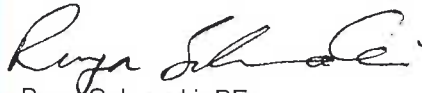
In accordance with the requirements of NPDES Permit No. CA0110604, attached please find the FY 2018/19 Pretreatment Program Annual Report which provides information on the Orange County Sanitation District's (OCSD) pretreatment program for the period July 1, 2018 through June 30, 2019.

The attached annual report provides an update on the status of OCSD's pretreatment program in achieving its requirements and objectives. Information is also provided on how the program is administered, the resources used to manage the program, the compliance status of industrial users, and the impact of source control efforts on wastewater and biosolids quality.

Some of the program's highlights for this fiscal year are summarized below:

- ▶ The program has continued to effectively reduce heavy metals discharges. Since 1976/77, the total mass of heavy metals entering OCSD's system has decreased by 86% while the mass of metals discharged to the marine environment has decreased by 99%. The influent heavy metals to OCSD's treatment plants meet our NPDES effluent standards before wastewater treatment has occurred.
- ▶ During FY 2018/19, 1,362 inspections of industrial facilities were conducted, and 3,235 samples were collected for analysis. In addition to warning notices and self-monitoring notices, 221 separate enforcement actions were taken against noncompliant industries in FY 2018/19, including compliance meetings and inspections, and the issuance of fees, penalties, enforcement orders and administrative complaint settlements. Over \$117,128 in noncompliance fees and penalties were issued.
- ▶ During FY 2018/19, OCSD continued its oversight of IRWD's and SAWPA's pretreatment programs. Information on IRWD and SAWPA can be found in Chapter 7 and Appendices G and H of this report.

Should you have any questions regarding the information provided in the report, or wish to meet with OCSD staff to discuss the report in more detail, please contact me at your convenience at (714) 593-7437.



Roya Sohanaki, PE
 Engineering Manager, Resource Protection Division

HTG:lam

c: EPA Region 9, CWA Compliance Office
 SWRCB Pretreatment Program Manager
 Submitted electronically to ciwqs.waterboards.ca.gov,
R9pretreatment@epa.gov, and NPDES_Wastewater@waterboards.ca.gov



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10844 Ellis Avenue, Fountain Valley, CA 92708

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October 31, 2019

Hope A. Smythe, Executive Officer
California Regional Water Quality Control Board
Santa Ana Region
3737 Main Street, Suite 500
Riverside, CA 92501-3339

Subject: Board Order No. R8-2012-0035, NPDES No. CA0110604
Pretreatment Program Semi-Annual Report for the Period of January 1
through June 30, 2019

As authorized by NPDES Permit No. CA0110604, the Pretreatment Program Semi-Annual Report information for January 1 through June 30, 2019 has been submitted as part of the Orange County Sanitation District's (OCSD) pretreatment program for the period July 1, 2018 through June 30, 2019. Enforcement action and compliance status information has been divided into appropriate six-month summaries.

Should you have any questions regarding the information provided in the report, or wish to meet with OCSD staff to discuss the report in more detail, please contact me at your convenience at (714) 593-7437.



Roya Sohanaki, PE
Engineering Manager, Resource Protection Division

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c: EPA Region 9, CWA Compliance Office
SWRCB Pretreatment Program Manager
Submitted electronically to ciwqs.waterboards.ca.gov,
R9pretreatment@epa.gov, and NPDES_Wastewater@waterboards.ca.gov



***Our Mission:** To protect public health and the environment by providing effective wastewater collection, treatment, and recycling.*

ANNUAL REPORT 2019

PRETREATMENT PROGRAM

**Orange County Sanitation District
10844 Ellis Avenue
Fountain Valley, CA 92708-7018
(714) 962-2411**

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EXECUTIVE SUMMARY

Background
Introduction

EXECUTIVE SUMMARY

E.1 BACKGROUND

Recognizing the need to control the quality and quantity of wastewaters discharged to the sewerage system, in February 1954, OCSD's Board of Directors adopted the first Ordinance regulating the use of the sewerage system. This Ordinance was subsequently revised and amended in February 1958, April 1970, July 1976, July 1983, September 1989, February 1992, July 1998, July 2008, and October 2009. The 1970 revision formally established OCSD's Industrial Waste Division to issue permits, set flow and quality limits, and monitor and inspect industrial discharges to the sewerage system. Substances monitored and regulated included: oil and grease of mineral and petroleum origin, organic materials, dissolved solids, suspended solids, phenolic compounds, radioactive wastes, combustible materials, and any other contaminants that had the potential to degrade wastewater treatment processes or cause problems in the sewerage facilities. In July 1976, the Ordinance was revised to include heavy metal limits.

In July 1983, the Ordinance was further amended to include enforcement of the EPA's Federal categorical limits and to modify OCSD's local discharge limits for cadmium, copper, polychlorinated biphenyls, pesticides, and total toxic organics. OCSD's pretreatment program was approved by the EPA in January 1984. In September 1989, the Ordinance was revised to streamline administrative and enforcement procedures, incorporate EPA regulations adopted since 1983, clarify the intent of the program through added definitions and procedures, and include special purpose discharge permit requirements and conditions. In February 1992, the Ordinance was amended to revise defined terms, initiate noncompliance sampling fees, and include language giving OCSD authority to levy administrative penalties according to changes to state law enacted in January 1992. In July 1998, revisions were made primarily for the deletion of Class III permits, which were issued for the collection of user charges for the discharge of domestic waste. In July 2008, revisions were made regarding the application of tax credits for user charges, and to include dry weather urban runoff permit requirements and conditions. In October 2009, the Ordinance was revised to provide clarification regarding transfer of permit ownership. The most recent revision was adopted in February 2016, and became effective in July 2016, updating the local limits among other sections of the Ordinance.

E.2 INTRODUCTION

The fiscal year (FY) 2018/19 OCSD Annual Report provides the following:

- Information about the industrial pretreatment program as required by OCSD's National Pollutant Discharge Elimination System (NPDES) permit issued by the California Regional Water Quality Control Board, Santa Ana Region (CRWQCB) and the Environmental Protection Agency (EPA); and
- Information on how OCSD's pretreatment program is administered; industrial permittees' compliance status; discharger's effect on OCSD's influent, effluent, and biosolids; the labor, equipment, and capital resources used for the program during the fiscal year; and other documentation.

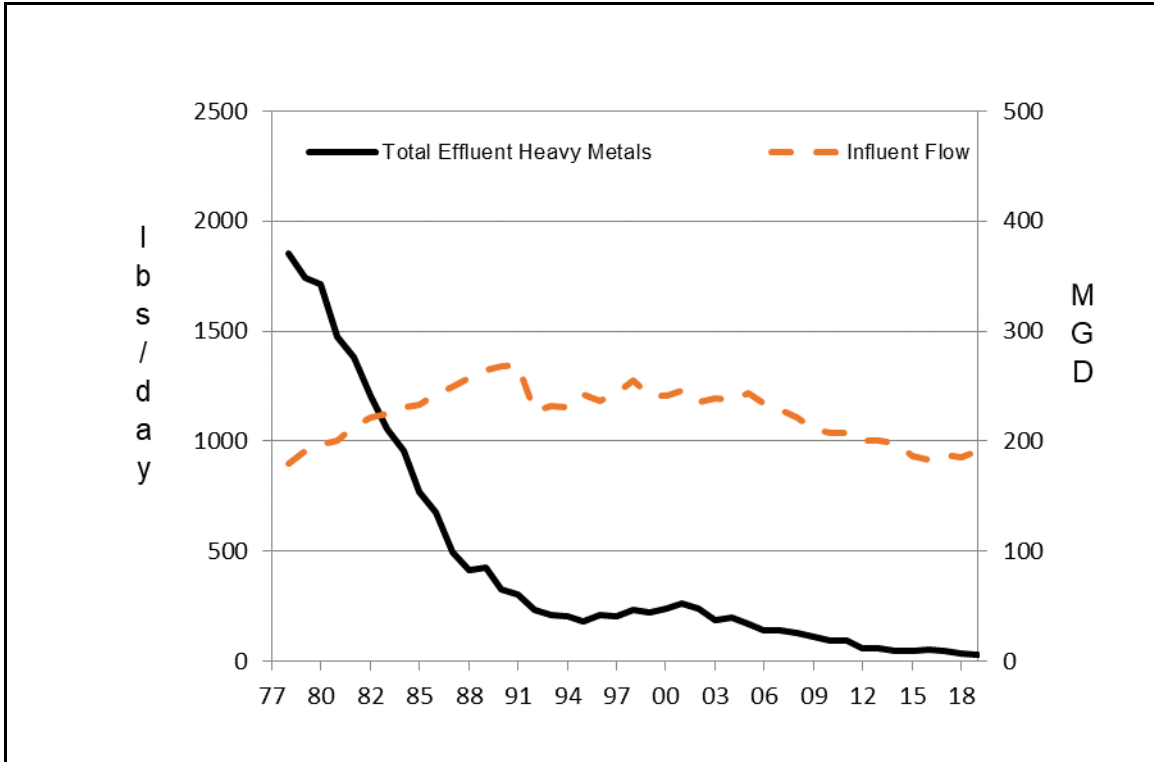


Figure ES-1 Average Effluent Total Heavy Metals and Flows for Past Fiscal Years
Orange County Sanitation District

E.2.1 Pretreatment Program Summary

Control of Pollutants

Since FY 1976/77, while Orange County’s population has grown, the pretreatment program has been successful in reducing the average daily pounds of metals entering OCSD’s system by 86% and metals discharged to the marine environment by 99%. Over this time, individual effluent metals including cadmium, chromium, copper, silver, and lead have been reduced by over 99%; nickel by 96%; and zinc by 97%. Long-term trends of effluent heavy metals show a steady decline since FY 1977 (see Figure ES-1).

OCSD’s pretreatment program has been effective in reducing the toxic priority pollutants discharged to the sewerage system. It has also been effective in protecting the collection, treatment, and disposal facilities from incidents of pass-through or interference, and it has enabled OCSD to meet its NPDES ocean discharge limits. The quality of OCSD’s influent, effluent, and biosolids are evidence of the program’s progress.

Permits

During FY 2018/19, OCSD administered 555 active permits, of which 339 were Class I permits, 22 Class II permits, 43 Wastehauler permits, 2 discharge certifications, 66 Special Purpose permits, 21 Urban Runoff permits, 39 FOG (Fat, Oil, and Grease) permits, and 23 zero discharge certifications. This level of permit activity represents no significant change

compared to the total number of active permits at the end of the previous fiscal year. Of the 339 Class I users, 188 were subject to Federal Categorical Pretreatment Standards.

Program Costs

The pretreatment program is funded by industrial permit fees, noncompliance sampling fees, and collection of user charges. The pretreatment program operating expenditures for the fiscal year, including laboratory analyses, totaled \$67,406,407. A total revenue of \$17,470,646 in sewer use charge payments was received and over \$117,128 in noncompliance fees and penalties, including Significant Noncompliance (SNC) reporting and publication fees, were issued through the pretreatment program.

Inspection, Sampling, and Enforcement

OCSD performed 1,362 industrial inspections during the fiscal year, with the collection of 3,235 samples. Sixty-nine (69) compliance inspections and fifteen (15) compliance meetings were held with significant industrial users (SIUs) in order to identify and assess noncompliance problems, and propose long-term solutions. OCSD conducted three covert downstream sampling projects. Fifteen (15) SIU permittees of the 339 (4%) that were active in FY 2018/19 and listed in the Monitoring and Compliance Status Appendix A were determined to be in significant non-compliance and their names were published in the newspaper.

Significant Changes in Operating the Pretreatment Program

There were no significant changes to the OCSD Pretreatment Program during FY 2018/19.

E.2.2 Pretreatment Program Elements

OCSD administers several different program elements designed to meet the goal of controlling discharges from industrial sources. These have a direct influence on OCSD's ability to meet federal, ocean discharge, biosolids reuse and disposal, and water reclamation requirements.

Public Participation

OCSD published those industries that were in significant non-compliance in the local newspaper.

Resource Protection Division staff routinely attend outside agency/association meetings, conferences, and workshops; serve on committees; and give presentations. Working with other agencies and associations benefits OCSD by keeping abreast of potential future regulation and trends which may be beneficial or have impacts that OCSD must prepare for, as well as providing information to the public about OCSD's programs. Please see Chapter 9 for more information.

Wastehauler Program

During FY 2018/2019, 43 wastehaulers were under permit with OCSD, having a total of 128 trucks. During the past fiscal year, 13.2 million gallons of waste were discharged by permitted wastehaulers at the Plant No. 1 Wastehauler Station.

Total Toxics Organics Waiver Program

Permittees who have not shown detectable levels of Total Toxic Organics (TTOs) based on their wastewater discharge analytical data for at least one year are eligible to waive the self-monitoring

requirement if they can certify that TTOs are not used or present at their facility. For FY 2018/19 OCSD granted 117 companies TTO waivers.

Industrial Operations and Maintenance Improvement Program

The ongoing trend in industrial permittee discharge violations have shown that most cases are due to inadequate operations and maintenance of industry's pretreatment systems as well as industrial operator error. This was recognized years ago, when the U.S. EPA audit findings of 1998 recommended that OCSD develop and implement an industrial operations and improvement program. In 1999/2000, OCSD developed a plan that included outreach and operator training, and enforcement of requirements for operator and operations and maintenance practices which is still in effect today.

In 2018, OCSD conducted an advanced training course for industrial wastewater treatment (pretreatment) operators currently employed by facilities holding a Class I Wastewater Discharge Permit. The course was conducted by an engineering services company (selected via bid process for a five-year contract in 2014). OCSD provided this training, free of charge, to assist permittees to obtain and retain a qualified pretreatment operator and to reduce or eliminate noncompliance due to operation and maintenance and/or operator problems. The training course consisted of two 4.5-hour classes and a follow-up wastewater audit at the operator facility to ensure proper implementation of operation and maintenance practices. Those class participants that attended both classes, passed the exam and quizzes, and successfully fulfilled the audit requirements, will receive Certificates of Completion.

As 2018 was the last year of the five-year contract, OCSD underwent the process of issuing a request for proposals to initiate a new contract for 2019, with an option to renew each year until 2024 (5 years total). OCSD will award the new 2019-2024 contract during the next reporting period.

Non-Industrial Source Control Program

The purpose of OCSD's Non-Industrial Source Control (NISC) Program is to promote and implement the application of waste management strategies and practices that will reduce or eliminate the generation of waste at the source, thereby reducing the volume and toxicity of waste streams entering OCSD's sewerage system. The NISC Program also addresses non-industrial pollution sources in our commercial and residential discharger community, more details are available in Chapter 9.

E.2.3 Compliance with NPDES Discharge Requirements

There were no plant upsets, interference, or pass-through incidents attributable to industrial users in FY 2018/19.

NPDES REQUIREMENTS - PRETREATMENT

**Pretreatment Requirements – Compliance with National Pollutant
Discharge Elimination System (NPDES) Permit Requirements**

NPDES REQUIREMENTS - PRETREATMENT**1.1 PRETREATMENT REQUIREMENTS - COMPLIANCE WITH NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT REQUIREMENTS**

This section is a summary of the pretreatment program requirements contained in OCSD's NPDES Permit No. CA0110604, Order No. R8-2012-0035, effective July 20, 2012, jointly issued by the CRWQCB and EPA Region IX. The requirements for the industrial pretreatment program are listed in Section VI (C)(4)(c) and Attachment E of the Permit. The requirements are shown below (in bold italics) using the appropriate numeration found in the permit. Each requirement is followed by a summary of the activity that has resulted in OCSD's compliance with the permit requirements, or a reference may be given where additional information can be found in this annual report.

NPDES Section VI. Provisions, C. Special Provisions, 4. Special Provisions for Municipal Facilities (POTWs Only), c. Pretreatment Program Requirements

- (2) The Discharger shall implement and enforce its approved pretreatment program, and all subsequent revisions, which are hereby made enforceable conditions of this Order/Permit. The Discharger shall enforce the requirements promulgated pursuant to Clean Water Act (CWA) Sections 307(b), 307(c), 307(d), and 402(b) with timely, appropriate and effective enforcement actions. The Discharger shall cause all nondomestic users subject to federal categorical standards to achieve compliance no later than the date specified in those requirements, or, in the case of a new nondomestic user, upon commencement of discharge.***

OCSD has an ongoing commitment to meet the provisions of this requirement, and all pretreatment requirements are enforced as discussed in Chapter 4 of this report. The *Wastewater Discharge Regulations* (Ordinance) contains specific provisions for new dischargers that are more stringent than those required by 40 CFR 403.

The ongoing quarterly inspection, sampling, and monitoring program for each Class I permittee (Significant Industrial User) ensures compliance with federal, state, and local regulations. The compliance statuses of all permittees subject to federal categorical standards are shown in the Fiscal Year 2018-2019 List of SIUs with Monitoring & Compliance Status, presented in Appendix A of this report.

- (3) The Discharger shall perform the pretreatment functions required by 40 CFR Part 403, including, but not limited to:***
- (a) Implement the necessary legal authorities as required by 40 CFR 403.8(f)(1).***

The legal authorities are contained in OCSD's July 1983 *Regulations for Use of District Sewerage Facilities* (Ordinance) which were approved by EPA in January 1984, and affirmed during the May 1986 audit. Revised *Wastewater Discharge Regulations* ordinances were adopted and became effective September 8, 1989, February 7, 1992, July 1, 1998, July 1, 2008 October 1, 2009, and most recently on July 1, 2016.

(b) Enforce the pretreatment requirements under 40 CFR 403.5 and 403.6.

The requirements to enforce and implement National Pretreatment Standards for general prohibitions and specific industrial subcategories are contained in OCSD's Ordinance. Chapter 4 of this report describes OCSD's enforcement efforts for FY 2018/19.

(c) Implement the programmatic functions as required by 40 CFR 403.8(f)(2).

The required functions include the identification, quantification, permitting, and enforcement of the standards set forth in OCSD's Ordinance. Chapters 3 and 4 of this report describe the permitting and enforcement efforts for FY 2018/19.

(d) Provide the requisite funding and personnel to implement the pretreatment program as provided in 40 CFR 403.8(f)(3).

The pretreatment program is funded by industrial permit fees, noncompliance sampling fees, and sewer use charges. The pretreatment program's operating expenditures for FY 2018/19, including laboratory analyses, total \$7,406,407. Chapter 5 of this report provides additional details.

(4) By October 31 of each year, the Discharger shall submit an annual pretreatment report to the Regional Water Board, US EPA, the State Water Board's Division of Water Quality-Regulations Unit, and the Orange County Department of Health Services' Hazardous Materials Division, describing its pretreatment activities over the previous fiscal year (July 1 through June 30). In the event the Discharger is not in compliance with any condition or requirement of this Order/Permit, or any pretreatment compliance inspection/audit requirements, the Discharger shall include the reasons for noncompliance and state how and when it will comply with such conditions and requirements. The annual report shall contain, but not be limited to, the following information:

(a) A summary of analytical results from representative, flow-proportioned, 24-hour composite sampling of the Discharger's influent and effluent for those pollutants US EPA has identified under CWA section 307(a) which are known or suspected to be discharged by nondomestic users. Representative grab sampling shall be employed for pollutants that may degrade after collection, or where the use of automatic sampling equipment may otherwise result in unrepresentative sampling; such pollutants include, but are not limited to, cyanide, oil and grease, volatile organic compounds, chlorine, phenol, sulfide, pH, and temperature. Wastewater sampling and analysis shall be performed in accordance with the minimum frequency of analysis required by the MRP (Attachment E). The Discharger shall also provide influent and effluent monitoring data for non-priority pollutants, which the Discharger believes may be causing or contributing to interference or pass through. The Discharger is not required to sample and analyze for asbestos. Sludge sampling and analysis is addressed elsewhere in this Order/Permit. Wastewater sampling and analysis shall be performed in accordance with 40 CFR 136.

The influent, effluent, and biosolids sampling information is provided in Chapters 2 and 8, and Appendix B of this annual report.

(b) A discussion of upset, interference, or pass through, if any, at the Discharger's facilities, which the Discharger knows or suspects were caused by nondomestic users of the POTW system. The discussion shall include the

reasons why the incidents occurred, any corrective actions taken, and, if known, the name and address of the responsible nondomestic user(s). The discussion shall also include a review of the applicable local pollutant limitations to determine whether any additional limitations, or changes to existing limitations, are necessary to prevent pass-through, interference, or noncompliance with sludge disposal requirements.

There were no plant upsets, interference, or pass-through incidents attributable to industrial users in FY 2018/19.

- (c) *An updated list of the Discharger's SIUs including their names and addresses, and a list of deletions, additions and SIU name changes keyed to the previously submitted list. The Discharger shall provide a brief explanation for each change. The list shall identify the SIUs subject to federal categorical standards by specifying which set(s) of standards are applicable to each SIU. The list shall also indicate which SIUs are subject to local limitations.*

Appendix A of this report, the Monitoring and Compliance Status Report, is an updated list of significant industrial users which identifies which local or set of categorical standards applies.

- (d) *The Discharger shall characterize the compliance status of each SIU by providing a list or table for the following:*

Name of SIU;

Category, if subject to categorical standards;

Type of wastewater treatment or control processes in place;

Number of samples taken by SIU during the year;

Number of samples and inspections by Discharger during the year;

For an SIU subject to discharge requirements for total toxic organics, whether all required certifications were provided;

A list of pretreatment standards (categorical or local) violated during the year, or any other violations;

SIUs in significant noncompliance (SNC) as defined at 40 CFR 403.8(f)(2)(viii), at any time during the year;

A summary of enforcement actions or any other actions taken against SIUs during the year. Describe the type of action, final compliance date, and the amount of fines and/or penalties collected, if any. Describe any proposed actions for bringing SIUs into compliance.

This annual report contains all of the items listed above. SIU names, categories, number of samples and inspections, violations, and SNC status are shown in Appendix A. SIU wastewater treatment is shown in Appendix J, Total Toxic Organic waivers are shown in Chapter 6, and enforcement actions are shown in Chapter 4 and Appendix D.

- (e) A brief description of any programs the Discharger implements to reduce pollutants from nondomestic users not classified as SIUs.**

The activities for OCSD's non-industrial source control and pollution prevention programs are discussed in Chapters 6 and 9.

- (f) A brief description of any significant changes in operating the pretreatment program which differ from the previous year, including, but not limited to, changes in the program's administrative structure, local limits, monitoring program, legal authority, enforcement policy, funding, and staffing levels.**

The description of significant changes to the pretreatment program, if any, are discussed in Chapter 6.

- (g) A summary of the annual pretreatment program budget, including the cost of pretreatment program functions and equipment purchases.**

For FY 2018/19, the operating expenses for the pretreatment program were approximately \$7,406,407. Additional information on pretreatment program costs and purchases are shown in Chapter 5 of this report.

- (h) A summary of activities to involve and inform the public of the pretreatment program, including a copy of the newspaper notice, if any, required by 40 CFR 403.8(f)(2)(vii)[sic].**

A copy of the significant non-compliance notice (SNC) for newspaper publication can be found in Appendix E.

- (i) A description of any changes in sludge disposal methods.**

Biosolids information can be found in Chapter 8 of this report.

- (j) A description of the program to quantify, characterize, regulate, and treat flow from low-flow urban runoff diversion systems and "first flush" industrial storm water diversion systems that are routed to the sanitary sewer collection system.**

Information on OCSD's urban runoff program is shown in Chapter 9 of this report.

- (k) A discussion of any concerns not described elsewhere in the annual report.**

There were no concerns for FY 2018/19.

(6) Nonindustrial Source Control Program and Public Education Program

The Discharger shall continue to develop and implement its nonindustrial source control program and public education program. The purpose of these programs is to eliminate the entrance of nonindustrial toxic pollutants and pesticides into the POTW. The nonindustrial source control program will be supplemented with an updated survey of industrial and nonindustrial contaminant sources. These programs shall be periodically reviewed and addressed in the annual report.

The non-industrial source control program (NISC) information can be found in Chapter 9 of this annual report.

ATTACHMENT E, SECTION VII. Effluent Mass Emission Benchmarks

The following mass emission benchmarks [Table E-5] have been established for the effluent discharge. For each parameter with a mass emission benchmark, the Discharger shall report the annual mass emission, and the effluent concentrations and flows used to calculate the annual mass emission, in the annual pretreatment report and annual receiving water monitoring report (effluent chapter).

The mass emission benchmark information is contained in Chapter 2 of this annual report.

OCSD's FACILITIES AND COMPLIANCE WITH DISCHARGE REQUIREMENTS

Introduction

Existing OCSD Facilities

**Compliance with National Pollutant Discharge Elimination
System (NPDES) Requirements**

Effluent Characteristics

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Mass Emission Benchmarks

OCSD FACILITIES AND COMPLIANCE WITH DISCHARGE REQUIREMENTS

2.1 INTRODUCTION

OCSD is responsible for collecting, transporting and treating wastewater, and reusing or disposing of the treated wastewater and the separated solids in accordance with all applicable federal, state and local laws and regulations. The following pages present a summary of the operation of the wastewater treatment and collection facilities, and the historical data and the regulatory compliance record for FY 2018/19 (July 1, 2018 through June 30, 2019). OCSD is also enrolled in the statewide Waste Discharge Requirements program for sanitary sewers.

OCSD operates and maintains Reclamation Plant No. 1 and Treatment Plant No. 2, 389 miles of sewers, and 15 outlying pump stations. The treatment plants and pump stations are supervised, operated, and maintained by highly trained professionals with appropriate certifications from the California State Water Resources Control Board for treatment plant operators, and the appropriate voluntary certification from the California Water Environment Association.

The treated wastewater is discharged into the Pacific Ocean in strict and consistent compliance with state and federal requirements as set forth in OCSD's NPDES permit, or directed to the Orange County Water District (OCWD) for reclamation. Approximately 117 million gallons per day (MGD) of treated wastewater was routed to facilities operated by the OCWD during FY 2018/19. The Groundwater Replenishment System (GWRS) produces purified recycled water used to recharge the Orange County Groundwater Basin and protect it from degradation due to seawater intrusion. Phase II of GWRS continues to produce 100 MGD of reclaimed water.

During FY 2018/19, OCSD beneficially recycled 98% of the dewatered biosolids for use as agricultural soil amendments and compost products. Total biosolids production for this fiscal year was approximately 254,405 wet tons, more than 12% reduction from 291,488 wet tons in 2017/18. This is mainly due to higher solids separation from the new centrifuge operations at Plant No. 1 and Plant No. 2 starting early 2019. As such, solids content has been increased to 20.9% for Plant No. 1 and 22.2% for Plant No. 2. Two management options (land application and composting) were utilized through four vendor contracts in two states and five counties. OCSD's Biosolids Management Compliance Report for calendar year 2018 describes the solids management program in more detail (ocsewers.com/503). Grit and screenings are transported under contract for landfill disposal. Debris and grit removed from the sewers during cleaning is dried at Plant No. 1 and then hauled to a landfill for disposal.

OCSD's primary and secondary treatment, digestion, and dewatering facilities were all operated within their respective design capacities for the entire fiscal year.

2.2 EXISTING OCSD FACILITIES

OCSD's operations start with the collection of wastewater from the residential, commercial, and industrial customers in 20 cities, four special districts, and portions of unincorporated Orange County. The average daily flow tributary to OCSD per year since 1997 is shown in Table 2.1.

TABLE 2.1 Average Daily Influent and Effluent Flow in Million Gallons Per Day (MGD) Fiscal Years 1997-2019 Orange County Sanitation District, Resource Protection Division					
Fiscal Year	Influent MGD	Effluent MGD	Fiscal Year	Influent MGD	Effluent MGD
1997	244	242	2009	211 ^a	167
1998	255 ^c	255	2010	207	152
1999	241	239	2011	207	152
2000	241	236	2012	201	139
2001	246	244	2013	200	137
2002	235	231	2014	198	137
2003	239	235	2015	187	117
2004	238	238	2016	183	92
2005	244	247 ^b	2017	188	101
2006	234	235	2018	185	88
2007	229	232 ^b	2019	191	104
2008	221 ^a	212 ^d			

a. Decrease due to drought; less infiltration due to drier soils and business recession.
 b. There was more effluent than influent due to in-plant construction dewatering that was discharged downstream of influent metering.
 c. El Niño (wet year).
 d. Beginning in 2008, more influent than effluent due to Groundwater Replenishment System

2.2.1 Description of Treatment Plants

Based on population served, OCSD is one of the largest wastewater facilities in the United States. The network of interceptor sewers, treatment units and disposal systems is quite complex. The following sections provide an overview of the treatment facilities.

2.2.1.1 Reclamation Plant No. 1

Reclamation Plant No. 1 is located in the City of Fountain Valley adjacent to the Santa Ana River. The metering and diversion structure, constructed in 1974, allows the excess wastewater from any of six trunk sewers tributary to Plant No. 1 to be diverted to Plant No. 2 to not overload the capacity of Plant No. 1 or to provide for maintenance or construction activities. The metering and diversion structure also contains pH meters, conductivity meters, and flow meters to monitor the incoming wastewater on each trunk sewer. This operational flexibility also allows Plant No. 1 to provide the highest quality of wastewater for reclamation at OCWD. Flows from the Santa Ana River Interceptor trunkline, which contains Santa Ana Watershed Project Authority brines, are diverted to Plant No. 2.

The wastewater flows through bar screens with 5/8-inch-wide openings where large solids (e.g., rags, non-dispersible materials, plastics, grease chunks) are removed. Wastewater is then pumped to aerated grit chambers where the velocity of the water is slowed to allow coffee grounds, seeds, sand, gravel, and other heavy particulate debris to settle out. All the screenings and grit are hauled by a contractor to a landfill for disposal. Foul air at the treatment plants is captured from the trunk sewers at the metering and diversion structure, headworks structures and grit chambers for treatment in the odor control chemical scrubbers. Four

on duty and one standby main sewage pumps lift flow to the grit chambers.

For improved performance, chemically enhanced primary treatment (CEPT) is done. Ferric chloride and anionic polymer are added to the primary clarifiers to enhance the settling of the organic solids. Each primary clarifier is covered to capture foul air for treatment in scrubbers. Plant No. 1 has a primary treatment capacity of 204 MGD.

During FY 2018/19, 100% of the Plant No. 1 primary effluent received secondary (biological) treatment in either conventional air activated sludge secondary treatment process or trickling filters. An average of 117 MGD of the secondary treated water was pumped to OCWD's GWRS and the Green Acres Project (GAP) for advanced tertiary treatment. Advanced tertiary treatment prepares the water for injection into the groundwater as a barrier against saltwater intrusion, and for percolation to the aquifer for water reclamation and reuse. OCWD also provides GAP water for industrial uses to OCSD. The balance of the Plant No. 1 secondary effluent flows by gravity to Plant No. 2 where it is blended with treated wastewater from Plant No. 2 prior to pumping and ocean disposal.

Solids collected in the primary and secondary clarifiers are pumped to anaerobic digesters for organic waste stabilization and pathogen destruction at 98 degrees Fahrenheit (°F). Following digestion, the sludge is dewatered using a centrifuge process. The centrifuge-dewatered biosolids are removed by private contractors. Stabilization results in the production of digester gas, a fuel which is approximately 63% methane and 36% carbon dioxide. This fuel has a heating value of about 631 Btu/cu.ft. The primary and secondary sludge is blended and thickened in the thickening centrifuge units prior to digestion. Digester gas is gathered, compressed, cleaned and distributed to the Central Power Generation System (CGS) at each plant as a renewable fuel for energy generation.

At Plant No. 1, natural gas and digester gas fuel three internal combustion engines that power 2,500 kilowatt (kW) electric generators. During winter months (Oct.-May) only two of the three engine generators operate at one time to meet air quality permit limits. During Summer months (June-Sept.) all three engines operate during peak hours to reduce Southern California Edison (SCE) electricity cost. Supplemental power was purchased from SCE to provide for the remainder of the Plant No. 1 energy demand. The internal combustion engines were fueled primarily with digester gas with a small amount (approximately 5-10%) of purchased natural gas added to aid combustion.

2.2.1.2 Treatment Plant No. 2

Treatment Plant No. 2 is located in the city of Huntington Beach near the mouth of the Santa Ana River. Five trunk sewers transport wastewater into Headworks D facility, which contains pH meters, conductivity meters, and flow meters, along with six mechanically cleaned bar screens, seven main sewage pumps and six grit tanks. All screenings and grit are hauled by a private contractor to a landfill for disposal. The foul air from the headworks, grit tanks, and primary sedimentation basins is collected for treatment in a combination of chemical scrubbers and biotowers.

Ferric chloride and anionic polymer are used to enhance the settling of solids during primary treatment. Settleable and suspended solids, and floatable particulates are removed from the wastewater in primary sedimentation basins and pumped to anaerobic digesters for stabilization. Plant No. 2 primary effluent receives 100% secondary treatment in either oxygen activated sludge process or trickling filters.

Sludge from the primary and secondary settling basins is treated in anaerobic digesters. Secondary sludge is thickened in DAF units prior to digestion. Following digestion, the sludge is dewatered using a dewatering centrifuge process. The centrifuge-dewatered biosolids are removed by private contractors.

The Plant No. 2 Central Power Generation System has five internal combustion engines that power five 3,000 kW electric generators and a 1,000-kW steam turbine powered by engine exhaust waste heat. Only two engine generators were usually operated at any one time based on digester gas availability. During periods of lower demand excess power was sold to SCE, while power was imported during periods of high demand. The internal combustion engines were fueled primarily with digester gas with a small amount (approximately 5-10%) of natural gas.

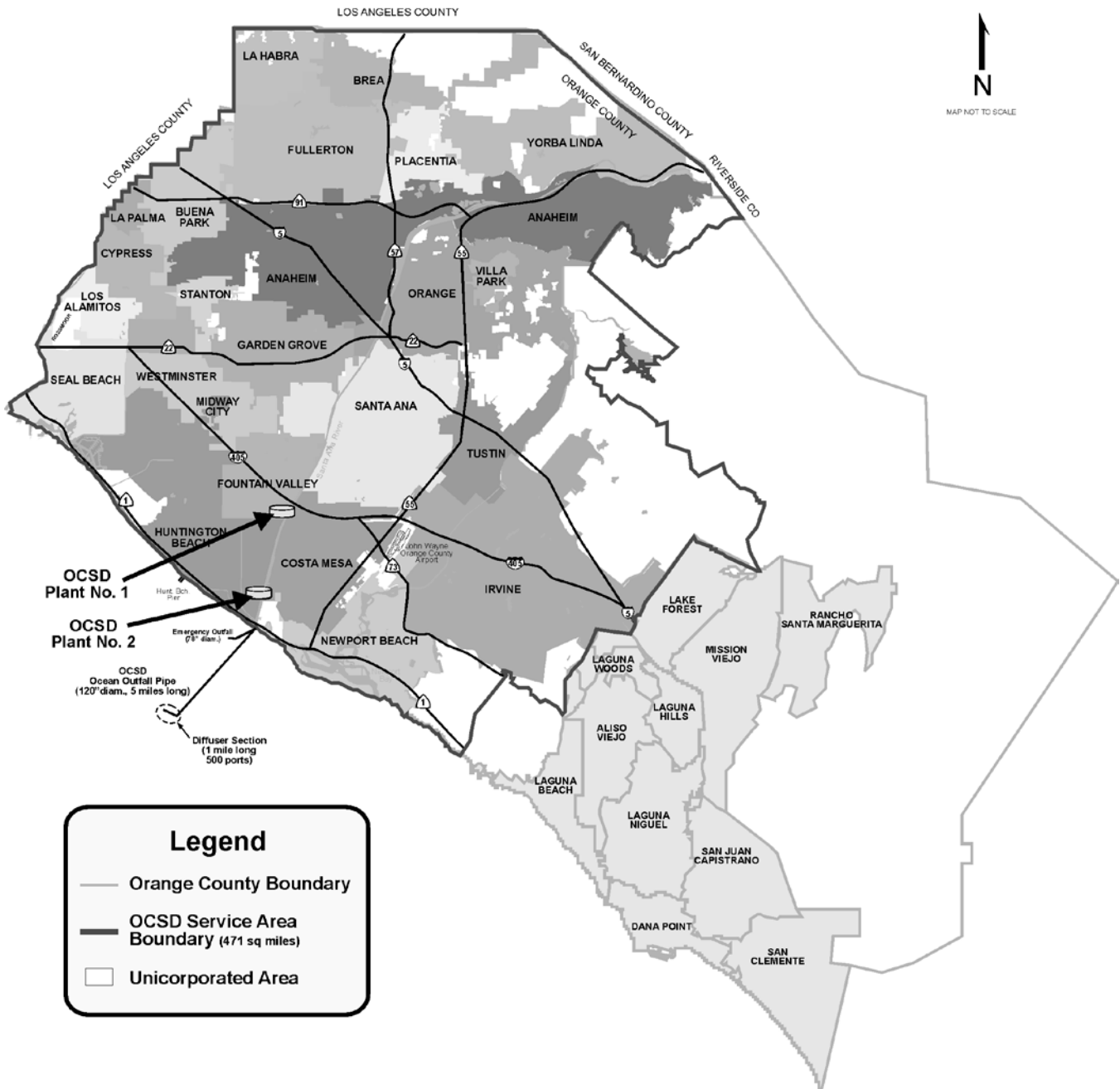


Figure 2-1 Map of Orange County Sanitation District's Service Area
 Orange County Sanitation District, Resource Protection Division

2.2.1.3 Joint Works Facilities

Facilities common to both plants are designated as Joint Works Facilities. These include the bypass sewer to divert wastewater from Plant No. 1 to Plant No. 2, effluent lines to convey treated wastewater from Plant No. 1 to Plant No. 2 for ocean discharge, a fiber optic cable line for interplant communication, digester gas transmission and storage line, two outfall pumping stations, two ocean outfalls (designated in the NPDES permit as Discharge Serial Nos. 001 and 002), and the emergency gravity overflow flap gate valves into the Santa Ana River (Discharge Serial No. 003).

Treated secondary effluent from Plants Nos. 1 and 2 is pumped to OCSD's main discharge point, the 120-inch diameter, 5-mile long ocean outfall (the last mile of which is a diffuser with 503 ports that provides a minimum of 250:1 dilution). During FY 2018/19 all influent received secondary treatment.

2.3 COMPLIANCE WITH NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) REQUIREMENTS

This section provides a summary of limitations contained in OCSD's NPDES permit (Order No. R8-2012-0035/NPDES Permit No. CA0110604, effective on July 20, 2012). Table 2.2 shows NPDES permit discharge requirements and OCSD's annual average influent and final effluent discharge values for this reporting period.

TABLE 2.2 NPDES Permit Discharge Requirements and OCSD's Annual Average Influent and Final Effluent Discharge Values for Fiscal Year 2018-19
Orange County Sanitation District, Resource Protection Division

Constituent	OCSD's Combined Influent Annual Average	NPDES Permit Discharge Requirement			Final Effluent Annual Average ¹	OCSD's Compliance with NPDES Permit Limits
		30-Day Average	7-Day Average	Daily Maximum		
Flow, MGD	191	--	--	--	104	NA
BOD-C, mg/L	190	25	40	--	4.8	Yes
BOD-C, lb./day	--	57,129	91,406	--	4,103	Yes
BOD-C percent removal	--	>85 ²	--	--	98.7	Yes
Suspended Solids, mg/L	382	30	45	--	5.7	Yes
Suspended Solids, lb./day	--	68,555	102,832	--	4,991	Yes
TSS percent removal	--	>75 ²	--	--	99.2	Yes
Grease and Oil, mg/L	43.6	25	40	75	0.2	Yes
Grease and Oil, lb./day	--	57,129	91,406	171,387	200	Yes
Settleable Solids, mL/L	--	1.0	1.5	3.0	ND	Yes
Toxicity, acute	--	--	--	Pass/Fail	P	Yes
Toxicity, chronic	--	--	--	Pass/Fail	P	Yes
Turbidity, NTU	--	75	100	225	2.5	Yes
pH	8.1	6.0 to 9.0	6.0 to 9.0	9.0	8.0	Yes
Total Chlorine Residual, mg/L	--	0.36 ³	--	1.45	0.08 ³	Yes
Total Chlorine Residual, lb./day	--	823 ³	--	3,313	60 ³	Yes
Benzidine, µg/L	ND	0.01249	--	--	ND	Yes
Benzidine, lb./day	--	0.0285	--	--	--	Yes
Chlordane, µg/L	ND	0.00416	--	--	ND	Yes
Chlordane, lb./day	--	0.0097	--	--	--	Yes
3,3-dichlorobenzidine, µg/L	ND	1.4661	--	--	ND	Yes
3,3-dichlorobenzidine, lb./day	--	3.3992	--	--	--	Yes
Hexachlorobenzene, µg/L	ND	0.0380	--	--	ND	Yes
Hexachlorobenzene, lb./day	--	0.0868	--	--	--	Yes
PAHs, µg/L	ND	1.5928	--	--	ND	Yes
PAHs, lb./day	--	3.6929	--	--	--	Yes
PCBs, µg/L	ND	0.0034	--	--	ND	Yes
PCBs, lb./day	--	0.0078	--	--	--	Yes
TCDD equivalents, pg/L	NR	0.706	--	--	ND	Yes
TCDD equivalents, Mlb/day	--	0.001613	--	--	--	Yes
Toxaphene, µg/L	NR	0.03801	--	--	ND	Yes
Toxaphene, lb./day	--	0.0869	--	--	--	Yes

Additional influent/effluent data is shown in Appendix B

-- Not determined

¹ Based on the average of the values reported in the monthly Discharge Monitoring Report. For values based on 30-day rolling maximum averages, refer to the Benchmark section of the Source Control and Ocean Monitoring Annual Reports.

² Monthly average minimum

³ 6-month median

ND Non-detectable

NR Not required. NPDES Permit requires monitoring and analysis of TCDD equivalents in effluent only.

NA Not Applicable

2.4 EFFLUENT CHARACTERISTICS

2.4.1 General

The OCSD National Pollutant Discharge Elimination System (NPDES) permit establishes water quality effluent constituent compliance limits for major wastewater parameters and toxic materials. The following sections represent a review of the current and historical compliance status for the major wastewater parameters. OCSD's annual average ocean discharge parameters for the past five fiscal years are shown in Table 2.3

2.4.2 Suspended Solids

During FY 2018/19, the suspended solids discharge was in complete compliance with our NPDES permit effluent limits. The final effluent monthly average suspended solids concentration of 5.7 mg/L for a monthly average discharge mass emissions rate of 4,991 pounds per day (lb./day) during FY 2018/19 is 19% of the allowable 30-day average concentration limit of 30 mg/L, and 7.3% of the mass emissions limit of 68,555 lb./day.

TABLE 2.3 Suspended Solids and BOD-C Annual Average Daily Influent and Final Effluent for Fiscal Years 2013-2019								
Orange County Sanitation District, Resource Protection Division								
Fiscal Year	SUSPENDED SOLIDS				BOD-C			
	Influent		Effluent		Influent		Effluent	
	mg/L	lb./day	mg/L	lb./day	mg/L	lb./day	mg/L	lb./day
2013-14	337	556,500	6.4	7,300	178	293,900	5.1	5,800
2014-15	342	533,400	5.7	5,600	187	291,600	4.8	4,700
2015-16	362	552,500	6.0	4,600	212	323,600	4.4	3,400
2016-17	396	620,900	5.3	4,500	212	332,400	4.8	4,000
2017-18	396	611,000	5.0	3,700	220	339,400	4.4	3,200
2018-19	382	611,700	5.7	4,990	214	342,700	4.8	4,200

2.4.3 Carbonaceous Biochemical Oxygen Demand (BOD-C)

The current 30-day average discharge permit limit for carbonaceous BOD is 25 mg/L. The discharge was in consistent compliance for FY 2018/19. The final effluent 30-day average for FY 2018/19 was 4.8 mg/L with a removal rate of 97%.

2.4.4 Oil and Grease

The NPDES 30-day effluent limit for oil and grease is 25 mg/L and 57,129 lb./day. Average oil and grease was measured at 0.2 mg/L in the treated effluent during this fiscal year.

2.4.5 Settleable Solids

The 30-day average permit limit for settleable solids is 1.0 milliliter per liter (mL/L) with a maximum at any time of 3.0 mL/L. The FY 2018/19 average for settleable solids was non-detectable. A summary of the annual average settleable solids data for the past five years is shown in Table 2.4.

2.4.6 Turbidity

Turbidity is a measurement of the microscopic suspended solids or finely divided silty particles in water discharged to the ocean. The compliance limit for turbidity is 75 nephelometric turbidity units (NTU) based on a 30-day average. The FY 2018/19 average turbidity was 2.5 NTU. A summary of the turbidity data for the past five years is shown in Table 2.4.

Fiscal Year	Settleable Solids mL/L	Turbidity NTU	pH
2013-14	ND	4.3	7.9
2014-15	ND	3.4	7.9
2015-16	ND	3.1	7.9
2016-17	ND	3.1	8.1
2017-18	ND	3.4	8.0
2018-19	ND	2.5	8.0

2.4.7 pH

According to OCSD's NPDES permit, the pH of the ocean discharge shall neither exceed 9.0 nor be less than 6.0. The effluent was in compliance throughout FY 2018/19. The annual mean pH was 8.0, well within the high and low pH effluent limits. The ocean discharge pH has remained relatively constant over the past six years, as summarized in Table 2.4.

2.4.8 Toxicity

OCSD's NPDES permit (Order No. R8-2012-0035) requires that the final effluent be tested once a month for chronic toxicity, and quarterly for acute toxicity. Results of acute and chronic toxicity tests are reported as either a "Pass" or "Fail" following the Test of Significant Toxicity hypothesis testing approach described in the *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, 2010).

Every calendar year the effluent must be tested using each of the species listed in the NPDES permit to determine which species are most sensitive to the effluent. The most sensitive test species are then used as the test organisms for monthly and quarterly testing. In October 2018, acute toxicity tests were performed to determine the more sensitive of two acute test species: the topsmelt fish, *Atherinops affinis* and mysid crustacean, *Americamysis bahia*. The tests demonstrated that the topsmelt was the more sensitive species for the acute test. All FY 2018/19 quarterly acute tests utilized the topsmelt.

In October 2018, chronic toxicity tests were performed to determine the most sensitive of three chronic test species: the giant kelp, *Macrocystis pyrifera*; the purple sea urchin, *Strongylocentrotus*

purpuratus; and the topsmelt, *Atherinops affinis*. The tests demonstrated that the purple sea urchin was the more sensitive species for the chronic test. All FY 2018/19 monthly chronic tests utilized the purple sea urchin.

Table 2.5 summarizes the toxicity testing results for fiscal years 2014/15 through 2018/19. All FY 2018/19 acute (n=4 tests) and chronic (n=12) toxicity tests passed indicating no final effluent toxicity.

Fiscal Year		Toxicity
2014/2015	Acute (<i>A. affinis</i>)	Pass
	Chronic (<i>S. purpuratus</i>)	Pass
2015/2016 ⁽¹⁾	Acute (<i>A. affinis</i>)	Pass
	Chronic (<i>S. purpuratus</i> & <i>A. affinis</i>)	Pass
2016/2017 ⁽²⁾	Acute (<i>A. affinis</i>)	Pass
	Chronic (<i>A. affinis</i> & <i>S. purpuratus</i>)	Pass
2017/2018	Acute (<i>A. affinis</i>)	Pass
	Chronic (<i>S. purpuratus</i>)	Pass
2018/2019	Acute (<i>A. affinis</i>)	Pass
	Chronic (<i>S. purpuratus</i>)	Pass

⁽¹⁾ FY 2015/16 monthly chronic testing was conducted using the purple sea urchin from July 2015 to December 2015 and the topsmelt from January 2016 to June 2016.

⁽²⁾ FY 2016/17 monthly chronic testing was conducted using topsmelt from July 2016 to October 2016 and the purple sea urchin from November 2016 to June 2017.

2.5 FACILITIES SPECIAL PROJECTS

2.5.1 Plant No. 1 and Plant No. 2 Thickening & Dewatering Centrifuge Facilities

OCSD has been commissioning new dewatering centrifuge processes at Plant No. 1 and Plant No. 2, which the belt-filter presses are to be replaced with. Plant No. 1 centrifuges started operation in Dec. 2018 and Plant No. 2 centrifuges started in Apr. 2019. Due to the improved dewaterability, both wet-tonnage solids and biosolids trucks have been reduced by one third and the total percentage solids have been increasing significantly, resulting in approximately 24% at Plant No. 1 and 27% at Plant No. 2. Plant No. 1. As a result, a significant saving in biosolids hauling cost has been observed. The project has also replaced the existing dissolved air floatation thickening units with the thickening centrifuges. The new thickening centrifuges co-thicken primary and secondary-blended sludge and the co-thickened sludge with up to 7% total solids is being fed into digesters. With the higher total percentage solids, up to 40% increased detention time of the digesters has been exhibited. This effort can also eliminate the potential future digester capital cost.

2.5.2 Plant No. 1 Trickling Filters Bleach Testing

Operations has been receiving odor complaints from odors generated in the trickling filters over the past years. Typically, the odor complaints increase during cooler weather (fall and winter). The Engineering Department has a project scheduled to install dome covers on the trickling filters, but this may not occur until 2030. For testing purposes, Process Engineering added bleach to the trickling filter feed flow to prevent anaerobic conditions within the trickling filter. If the test is proven successful, it may eliminate the need for OCSD to pursue the costly endeavor of placing dome covers on the trickling filters. Process Engineering staff evaluated the trickling filter performance at different bleach dosages, up to 4 mg/L, which resulted with minimal impacts to the trickling filter liquid performance parameters. The tests were

conducted for 5 hours at a time. The next step will be to conduct sustained bleach doses for consecutive days, where staff can collect odor data from the trickling filter stack and media and evaluate the impacts that bleach has on mitigating odors.

2.6 METALS

The concentrations of seven metals (cadmium, chromium, copper, lead, nickel, silver, and zinc) are monitored monthly by OCSD. The results of these analyses are used to evaluate efficiencies, trend inputs from discrete sources, and potential toxic concentrations in the secondary facilities, anaerobic digesters, and dewatered sludges.

The average metal concentrations in OCSD's influent and effluent for the last five years are shown in Table 2.6.

TABLE 2.6 Average Metal Concentrations and Mass in the Influent and Effluent for Fiscal Years 2015-2019 Orange County Sanitation District, Resource Protection Division										
Constituent	INFLUENT					EFFLUENT				
	14-15	15-16	16-17	17-18	18-19	14-15	15-16	16-17	17-18	18-19
Cadmium mg/L lb/day	0.00120 2	0.00142 1	0.00285 2	0.00301 2	0.00163 2	ND ND	ND ND	ND ND	ND ND	ND ND
Chromium mg/L lb/day	0.0076 12	0.0182 13	0.0175 13	0.0168 12	0.0160 12	0.00164 2	0.00074 6	0.00065 0.6	0.00065 0.5	0.00083 0.7
Copper mg/L lb/day	0.1076 168	0.2560 184	0.250 188	0.216 161	0.214 165	0.0103 10	0.0143 11	0.0098 8	0.0051 4	0.0037 3
Lead mg/L lb/day	0.00248 4	0.00540 4	0.00466 3	0.00594 4	0.00558 4	0.00005 0.0	0.00005 0.0	0.00005 0.0	0.00007 0.0	0.00006 0.0
Nickel mg/L lb/day	0.0179 28	0.0319 23	0.0306 23	0.0250 18	0.0214 16	0.0128 12	0.0188 14	0.0132 11	0.0114 8.4	0.0084 7
Silver mg/L lb/day	0.00139 2	0.00305 2	0.00324 2	0.00268 2	0.00259 2	0.00011 0.1	0.00003 0.0	0.00002 0.0	0.000049 0.0	ND ND
Zinc mg/L lb/day	0.1640 256	0.1710 297	0.4200 318	0.3870 286	0.3560 274	0.0213 21	0.0383 29	0.0318 27	0.0293 22	0.0234 20
Total Average lb/day	471	524	549	486	476	45	55	47	35	31
2014-15 Influent mass based on 187 MGD 2015-16 Influent mass based on 183 MGD 2016-17 Influent mass based on 188 MGD 2017-18 Influent mass based on 185 MGD 2018-19 Influent mass based on 191 MGD					2014-15 Effluent mass based on 117 MGD 2015-16 Effluent mass based on 92 MGD 2016-17 Effluent mass based on 101 MGD 2017-18 Effluent mass based on 88 MGD 2018-19 Effluent mass based on 104 MGD					

2.7 MASS EMISSION BENCHMARKS

OCSD's National Pollutant Elimination Discharge System (NPDES) permit (Order R8-2012-0035, NPDES Permit No. CA0110604, in effect during this July 1, 2018 through June 30, 2019 reporting period) contains Mass Emission Benchmarks for 72 constituents as identified in Section VII. Effluent Mass Emission Benchmarks, Table E-5 on pg. E-31 of Attachment E - Monitoring and Reporting Program. These mass emission benchmarks are not water quality-based effluent limits; however, OCSD will use this information as part of its annual evaluation of local limits.

The mass emission benchmarks report is required to compare each constituent's sample result with the minimum level (ML) for that constituent contained in the permit. According to the permit requirement, sample results that are less than the reported ML but greater than the method detection limit (MDL) are to be reported as zero prior to calculating the 12-month constituent average. Some of the values in the Mass Emission Benchmarks report differ from those found in the Priority Pollutants report since the former relies on the ML as the threshold of detection while the latter uses the MDL as the threshold for reporting.

Most of the heavy metal results fell in the range of 0.0% to 17% of their respective benchmarks with the exception of selenium which was 48%. Unlike many of the benchmarked organic constituents, OCSD had extensive historic heavy metals sampling frequencies and detectable levels on which to base its benchmarks. As a result, the heavy metal data has less statistical variance from the established benchmarks. With continuing improvements in the pretreatment program, the heavy metals benchmark results verify the decreasing mass emission trends since constituents are less than their historic values. Heavy metals are covered under existing local pretreatment limits. The local limits for those constituents were evaluated as part of the revised wastewater ordinance and local limits effective on July 1, 2016.

Most of the organic compounds with benchmarks were rarely detected in the effluent. As a result, 67 organic and metal constituents reached only a small fraction (<10%) of their respective benchmarks. More than half of the 72 constituents were not detected in OCSD's effluent, and are listed as zero (0) metric tons/year emitted and zero (0) percent of the benchmark. Historically, these constituents were rarely detected in OCSD's effluent, so the benchmarks could only be based on the method detection limits (MDL). As OCSD continues to increase the sensitivity of its detection limits, some constituents may be discernible in the future. As detection limits are lowered, there will likely be fewer zero-tons-emitted constituents in OCSD's list of benchmarks.

TABLE 2.7 Mass Emissions for All Benchmark Constituents – Fiscal Year 2018-19
 Orange County Sanitation District, Resource Protection Division

Constituent	2018-19 12-Mo. Avg Benchmark	2018-19 12-Mo. Avg Actual	2018-19 Percent of Benchmark	Min. Mass	Max. Mass	Sample Freq.	Freq. Detected	Avg. Flow
	MT/Year	MT/Year	Percent	Tons/Year	Tons/Year	Count	Count	MGD
1,1,1-trichloroethane	7.13	0	0	0	0	12	0	112.37
1,1,2,2-tetrachloroethane	1.92	0	0	0	0	12	0	112.37
1,1,2-trichloroethane	1.92	0	0	0	0	12	0	112.37
1,1-dichloroethylene	1.92	0	0	0	0	12	0	112.37
1,2-dichloroethane	1.92	0	0	0	0	12	0	112.37
1,2-diphenylhydrazine	15.4	0	0	0	0	12	0	119.65
1,3-dichloropropene	1.92	0	0	0	0	12	0	112.37
1,4-Dichlorobenzene	7.68	0	0	0	0	12	0	119.65
2,4,6-Trichlorophenol	7.68	0	0	0	0	12	0	119.65
2,4-Dinitrophenol	76.81	0	0	0	0	12	0	119.65
2,4-Dinitrotoluene	7.68	0	0	0	0	12	0	119.65
3,3'-Dichlorobenzidine	4.989	0	0	0	0	12	0	119.65
4,6-Dinitro-2-methylphenol	76.81	0	0	0	0	12	0	119.65
Acrolein	24.96	0	0	0	0	12	0	112.37
Acrylonitrile	18.06	0	0	0	0	12	0	112.37
Aldrin	0.08	0	0	0	0	2	0	93.95
Antimony	19.2	0.172	0.9	0.121031	0.211052	12	12	114.55
Arsenic	1.92	0.32	16.67	0.254689	0.389137	12	12	114.55
Benzene	3.23	0	0	0	0	12	0	112.37
Benzidine	76.81	0	0	0	0	12	0	119.65
Beryllium	1.92	0	0	0	0	12	0	114.55
bis(2-Chloroethoxy)methane	15.4	0	0	0	0	12	0	119.65
bis(2-Chloroethyl)ether	15.4	0	0	0	0	12	0	119.65
bis(2-Chloroisopropyl)ether	15.4	0	0	0	0	12	0	119.65
bis(2-Ethylhexyl)phthalate	36.67	0.067	0.18	0	0.459717	12	3	119.65
Cadmium	0.55	0	0	0	0	12	0	114.55
Carbon tetrachloride	1.92	0	0	0	0	12	0	112.37

TABLE 2.7 Mass Emissions for All Benchmark Constituents – Fiscal Year 2018-19
 Orange County Sanitation District, Resource Protection Division

Constituent	2018-19 12-Mo. Avg Benchmark	2018-19 12-Mo. Avg Actual	2018-19 Percent of Benchmark	Min. Mass	Max. Mass	Sample Freq.	Freq. Detected	Avg. Flow
	MT/Year	MT/Year	Percent	Tons/Year	Tons/Year	Count	Count	MGD
Chlordane total	0.76	0	0	0	0	2	0	93.95
Chlorobenzene	1.91	0	0	0	0	12	0	112.37
Chloroform	2.74	1.122	40.95	0	1.8968	12	11	112.37
Chromium	2.94	0.126	4.29	0.103731	0.171245	12	12	114.55
Copper	31.52	0.559	1.77	0.351503	0.870987	12	12	114.55
Cyanide	7.75	1.052	13.57	0.348682	5.638212	12	12	106.27
DDT	0.26	0	0	0	0	2	0	93.95
Dichlorobenzenes	15.4	0	0	0	0	12	0	119.65
Dichloromethane	19.2	0.039	0.2	0	0.158281	12	3	112.37
Dieldrin	0.08	0	0	0	0	2	0	93.95
Diethylphthalate	13.65	0.014	0.1	0	0.162137	12	1	119.65
Dimethylphthalate	7.68	0	0	0	0	12	0	119.65
Di-n-butylphthalate	15.39	0	0	0	0	12	0	119.65
Endosulfan	0.23	0	0	0	0	2	0	93.95
Endrin	0.04	0	0	0	0	2	0	93.95
Ethylbenzene	1.92	0	0	0	0	12	0	112.37
Fluoranthene	7.68	0	0	0	0	12	0	119.65
Halomethanes	13.44	0.01	0.07	0	0.11574	12	1	112.37
HCH	0.3	0	0	0	0	2	0	93.95
Heptachlor	0.08	0	0	0	0	4	0	93.95
Hexachlorobenzene	7.68	0	0	0	0	12	0	119.65
Hexachlorobutadiene	15.4	0	0	0	0	12	0	119.65
Hexachlorocyclopentadiene	15.4	0	0	0	0	12	0	119.65
Hexachloroethane	7.68	0	0	0	0	12	0	119.65
Isophorone	7.68	0	0	0	0	12	0	119.65
Lead	1.29	0.009	0.7	0	0.081887	12	2	114.55
Mercury	0.08	0.001	1.25	0.000438	0.001145	12	12	114.55
Nickel	10.55	1.262	11.96	1.118644	1.552482	12	12	114.55

TABLE 2.7 Mass Emissions for All Benchmark Constituents – Fiscal Year 2018-19
 Orange County Sanitation District, Resource Protection Division

Constituent	2018-19 12-Mo. Avg Benchmark	2018-19 12-Mo. Avg Actual	2018-19 Percent of Benchmark	Min. Mass	Max. Mass	Sample Freq.	Freq. Detected	Avg. Flow
	MT/Year	MT/Year	Percent	Tons/Year	Tons/Year	Count	Count	MGD
Nitrobenzene	7.68	0	0	0	0	12	0	119.65
n-Nitrosodimethylamine	4.61	0	0	0	0	12	0	119.65
n-Nitrosodiphenylamine	7.68	0	0	0	0	12	0	119.65
PAHs	99.854	0	0	0	0	12	0	119.65
PCB	13.44	0	0	0	0	2	0	93.95
Selenium	1.92	0.922	48.02	0.655031	1.47915	12	12	114.55
Silver	2.67	0	0	0	0	12	0	114.55
TCDD Equivalents	19.21	0	0	0	0	4	0	112.14
Tetrachloroethylene	1.92	0	0	0	0	12	0	112.37
Thallium	3.84	0	0	0	0	12	0	114.55
Toluene	3.98	0	0	0	0	12	0	112.37
Total Chlorinated Phenols	27.6	0	0	0	0	12	0	119.65
Total Non-Chlorinated Phenols	218	0	0	0	0	12	0	119.65
Toxaphene	1.92	0	0	0	0	2	0	93.95
trichloroethene	1.92	0	0	0	0	12	0	112.37
vinyl chloride	3.84	0	0	0	0	12	0	112.37
Zinc	40.7	3.494	8.58	2.598612	4.650292	12	12	114.55

chapter 3

PERMITS

Introduction

Permit Classifications

Permit Issuance

Discharge Limits

Establishing Mass Emission Rates (MER)

3.1 INTRODUCTION

The Orange County Sanitation District (OCSD) implements permitting and certification control mechanisms which contain effluent limits for all standards; statements of duration and non-transferability; self-monitoring, sampling, reporting, record-keeping and notification requirements; and statements of applicable civil and criminal penalties for discharge violations. The following sections describe the different classifications of permits, how new permittees are identified, and how discharge limits are established.

3.2 PERMIT CLASSIFICATIONS

There are seven permit and certification classifications for users that discharge to OCSD's sewerage system: Class I, Class II, Wastehaulers, Special Purpose, Urban Runoff, FOG (Fats, Oils, and Grease), and Discharge Certifications.

Class I Permits

Class I dischargers are defined as Significant Industrial Users (SIUs) in accordance with federal regulations. Examples of these users include plating shops, printed circuit board shops, large food processors, textile companies with high-volume flows, and industries capable of discharging non-compatible pollutants. A listing of the Class I permittees is given in Appendix A.

A Class I Permit is issued to any user who meets any one of the following conditions:

1. Is subject to federal Categorical Pretreatment Standards; or
2. Averages 25,000 gallons per day or more of regulated process wastewater; or
3. Has a reasonable potential for adversely affecting OCSD's operation or for violating any pretreatment standard, local limit, or discharge requirement; or
4. May cause pass through or interference with OCSD's sewerage facilities.

Class II Permits

Class II permittees include commercial enterprises such as restaurants, supermarkets, large entertainment/service venues, or other high-use non-significant users.

A Class II Permit is issued to any user who meets all of the following conditions:

1. Has a charge for use greater than the ad valorem tax basic levy allocated to OCSD; and
2. Discharges waste other than sanitary; and
3. Is not otherwise required to obtain a Class I permit.

Wastehauler Permits

Wastehauler permits are issued to those users who are engaged in vehicular transport and subsequent disposal of biodegradable waste into OCSD's system. Wastehauler permittees dispose of septic tank/cesspool, restaurant grease trap, and portable toilet wastes at OCSD's dedicated disposal facility located at Reclamation Plant No. 1 in Fountain Valley. The discharge of industrial wastewater by any wastehauler is prohibited unless written authorization from OCSD has been obtained.

Special Purpose Permits

Special Purpose permits are issued to dischargers for the purpose of discharging groundwater, surface run-off, subsurface drainage, or unpolluted water directly or indirectly to OCSD's facilities when no alternative method of disposal is reasonably available, or to mitigate an environmental risk or health hazard. This presently includes groundwater remediation and construction dewatering projects.

Urban Runoff Permits

Urban Runoff is contaminated water that is the result of daily activities such as over-irrigating landscape, cleaning streets and sidewalks, and washing cars. OCSD enforces wastewater discharge limits by issuing permits to urban runoff dischargers to ensure that the quality of wastewater does not compromise OCSD's facilities.

FOG (Fats, Oil, and Grease) Permits

OCSD is administering the local FOG Program for Food Service Establishments (FSEs) that discharge directly to OCSD owned sewer pipelines. Ordinance OCSD-25 provides for the establishment of the FOG program and the enforcement of program requirements by OCSD's Resource Protection Division. The goal of the program is to eliminate Sanitary Sewer Overflows (SSOs) which emanate from FSEs. Additional information can be found in Chapter 9.

Discharge Certifications

A Discharge Certification may be issued to non-categorical industries that generate wastewater containing pollutants of concern and have the potential for violating any pretreatment standard or requirement. Zero Discharge Certifications are issued to those industries that have operations subject to a federal category regulated by the EPA, but do not discharge industrial wastewater generated from these operations to the sewer.

3.3 PERMIT ISSUANCE

During FY 2018/19, the pretreatment program managed a total of 555 active permits/certifications. Fifty-two (52) permits were listed as void or expired during the fiscal year (most due to ownership, location, or class changes and subsequent re-issuances), including 20 Class I permits, 19 special purpose discharge permits, 1 Class 2 permit, 10 wastehauler permits, and 2 zero discharge certifications. Thirty-nine (39) new permits were issued, including 22 Class I permits, 1 Class 2 permit, 2 wastehauler permits, and 14 special purpose discharge permits. Of the 19 special purpose discharge permits that were voided/expired, and the 14 newly issued special purpose discharge permits, 7 of these were short-term issuances, i.e. new and void during the same reporting period.

This level of permit activity represents no significant change compared to the total number of active permits at the end of the previous fiscal year. Of the 339 Class I permits (significant industrial users), 188 were subject to Federal Categorical Pretreatment Standards, and the other 151 industrial permits (non-categorical) were issued to non-categorical users that discharge 25,000 gallons per day or more of

process water, or have a reasonable potential for adversely affecting OCSD's plant operations, or have a reasonable potential to violate any pretreatment standard or requirement.

3.3.1 Identification of New Permittees

OCSD checks various sources for companies that may be subject to Federal Categorical Standards or local limits. Wastewater permits are issued to those businesses as required. OCSD obtains new business information from the following:

- City Business Licensing Departments
- Santa Ana Regional Water Quality Control Board's permit database
- OCSD Engineering Department connection permits
- OCSD Finance Department new sewer service referrals
- OC Register newspaper
- Agency referrals during Strike Force meetings
- Currently permitted industries

Up until recently, the majority of new permittees had been identified by OCSD field inspectors during the course of inspecting existing permittees, and when following up on new industries that move into a former permittee's company location. During FY 2017/18, staff worked with all OCSD member agencies and set up an ongoing program to collect quarterly data on all new and renewed business licenses. Over 50,000 business records were received and a more detailed review was conducted on over 2,000 facilities, which resulted in planned inspections for nearly 200 facilities to confirm whether a control mechanism needs to be issued. The initial effort also included a plan for OCSD to identify industrial dischargers from county and unincorporated areas where business licenses are not issued. These areas require physical searches to ensure that OCSD's entire service area is covered to comply with EPA's requirements for comprehensive Industrial Waste Survey.

3.4 DISCHARGE LIMITS

3.4.1 Industrial

In 1976, OCSD established discharge limits for specific pollutants. These limits became increasingly restrictive over a three-phased implementation period designed to give industry adequate time to comply with the more stringent standards. The limits were adopted by OCSD's Boards of Directors in 1976 and were published in OCSD's *Regulations for Use of District Sewerage Facilities* (Ordinance). New concentration limits were adopted in the revised Ordinance, which became effective July 1, 1983.

On September 8, 1989, the Boards of Directors adopted a new ordinance entitled *Wastewater Discharge Regulations* which contained essentially the same concentration limits as the previous Ordinance. Revisions included the creation of a specific limit of 0.1 milligrams per liter (mg/L) for polychlorinated biphenyls (PCB), a limit of 0.1 mg/L for pesticides, and specific limits for waste haulers. It also included specific discharge limits for biochemical oxygen demand (BOD); the daily maximum BOD limit was 15,000 pounds per day (lb/day). These BOD limits were established to prevent pass-through and interference.

The 1989 Ordinance was subsequently revised in February 1992, July 1998, July 2007, July 2008 and October 2009, but with no change to the local discharge limits. Since the implementation of the Federal Categorical Standards in April 1984, OCSD applies either the Federal Categorical Standards or OCSD's local discharge limits, whichever are more stringent. In 2016, OCSD completed a local limits study and revised its Ordinance, per EPA audit findings, effective July 1, 2016. The 2016 Ordinance removed the

numeric BOD concentration limit, removed the cyanide amenable and total toxic organic limits, revised chromium and silver limits, and added 1,4-dioxane, molybdenum, and selenium limits. As of this reporting period, these limits are still in effect and shown in Table 3.1.

TABLE 3.1 OCSD's Maximum Allowable Discharge Limits in Milligrams Per Liter (mg/L) Orange County Sanitation District, Resource Protection Division			
Constituent	Limit (mg/L)	Constituent	Limit (mg/L)
1,4-Dioxane	1.0	Nickel	10.0
Arsenic	2.0	Oil and Grease of Mineral or Petroleum Origin	100.0
Cadmium	1.0	Pesticides	0.01
Chromium (Total)	20.0	Polychlorinated Biphenyls (PCB)	0.01
Copper	3.0	Selenium	3.9
Cyanide (Total)	5.0	Silver	15.0
Lead	2.0	Sulfide (Dissolved)	0.5
Mercury	0.03	Sulfide (Total)	5.0
Molybdenum	2.3	Zinc	10.0

3.4.2 Wastehaulers

After evaluating reference materials from the EPA and laboratory results from wastehauler samples taken by OCSD, pollutant limits were established for wastehaulers discharging domestic waste that express the maximum expected heavy metal concentrations from domestic wastes found in septic tank/cesspool wastes. These limits are shown in Table 3.2.

TABLE 3.2 OCSD's Maximum Allowable Discharge Limits in Milligrams Per Liter (mg/L) Orange County Sanitation District, Resource Protection Division	
Maximum Allowable Discharge Limits for Wastehaulers Discharging Domestic Septage to the OCSD Wastehauler Station	
Constituent	Limit (mg/L)
Cadmium	1.0
Chromium	35.0
Copper	25.0
Lead	10.0
Nickel	10.0
Zinc	50.0

3.5 ESTABLISHING MASS EMISSION RATES (MER)

OCSD uses a dual approach to regulating wastewater constituents. To encourage water conservation, waste minimization, and recycling; to limit the total mass of pollutants that enter the treatment facilities; and to deter facilities from achieving compliance through dilution; most Class 1 permits are issued both concentration-based limits and mass emission limits. For concentration limits, OCSD applies either the Federal Categorical Standards or OCSD's local discharge limits (shown in Table 3.1), whichever are more stringent. Allowable mass emission rates are calculated using the applicable concentration limits in combination with an industry's three-year average wastewater flow (referred to as a flow base rate). The flow base rate is determined at the time a permit is initially issued or reissued.

The volume of wastewater used in establishing a permittee's limits is based on water meter information or additional reports submitted to OCSD. Unless additional water losses can be substantiated, or another batch, process, or effluent meter measurement device is in place, 95% of the influent city water meter reading is considered to be discharged to the sewer. The remaining 5% is a standard allowance for losses in process, evaporation, and landscape use. An allowance for domestic waste is computed based on a daily usage rate of 25 gallons per employee per 8-hour shift. If there is documentation showing other water losses, such as product water loss or boiler loss, that are greater than the standard 5% deduction, then adjustments can be made to accommodate these losses. If water conservation beyond normal industrial practice takes place, the permitted flow may be adjusted to account for water conservation and/or water recycling.

The user's annual average industrial wastewater discharge, calculated as described above, is divided by the number of operational discharge days per year to yield the net discharge in gallons per day. Because the mass limit (expressed in lbs/day) provides a pollutant "ceiling," the user is prevented from introducing large quantities of water in an attempt to dilute concentrations to meet categorical requirements. If a discharger wishes to increase production by expanding capacity or increasing the number of hours worked, pretreatment capabilities must be increased to meet future requirements and ensure long-term compliance with the applicable limits.

If a permittee exceeds the MER or concentration discharge limits, the permittee is subject to enforcement action(s) in accordance with OCSD's *Wastewater Discharge Regulations Ordinance and Enforcement Response Plan*, which may include administrative penalties.

INSPECTION, SAMPLING, COMPLIANCE, ENFORCEMENT

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INSPECTION, SAMPLING, COMPLIANCE, & ENFORCEMENT

4.1 INTRODUCTION

This chapter details the inspection, sampling, and enforcement activities of the Orange County Sanitation District (OCSD) Industrial Pretreatment Program for FY 2018/19.

The goal of OCSD's Industrial Pretreatment Program is to ensure that dischargers maintain compliance with Federal Pretreatment Standards and OCSD's *Wastewater Discharge Regulations* (Ordinance) and discharge limits through monitoring and verification, in addition to controlling and reducing industrial pollutants.

An individual industrial discharge status summary of all Class I permittees is provided in the Monitoring and Compliance Status Report for FY 2018/19 (Appendix A of this report). The following sections describe OCSD's inspection, monitoring and enforcement efforts and summarize permittees' compliance with EPA Categorical Standards and OCSD's local limits.

4.2 ROUTINE INSPECTION AND SAMPLING

OCSD's Source Control Inspection group consists of 1 Supervisor, 1 Principal Environmental Specialist, 1 Lead Inspector, 9 Inspectors, 3 Technicians, and 1 Administrative Assistant. Inspectors provide a visible presence at industrial facilities and deter non-compliant conduct through on-site sampling and inspections. The Inspectors perform inspections at each permittee's facility at least once per calendar quarter. Discharge samples are taken during each inspection for all pertinent regulated constituents based on permit requirements.

Inspections may include an evaluation of manufacturing plant processes and pretreatment equipment to observe and discuss changes; verification of waste manifests and other waste disposal documents; measurement of industrial wastewater flows; field testing and sample collection of wastewater; and a review of regulations, policies, and procedures for the implementation of the pretreatment program.

Composite samples of a permittee's discharge are collected using automatic samplers and are time-composited over a 24-hour period. EPA sampling guidelines are used by the Source Control Inspectors for collecting and preserving samples. In conjunction with each Inspector's on-site observations, the results of laboratory analyses are used to verify compliance status, help disclose potential operational and housekeeping problems, evaluate the adequacy of pretreatment systems, and detect new sources of regulated substances. Grab samples are collected for the determination of compliance with TTOs, cyanides, Oil and Grease and pH.

During FY 2018/19, OCSD staff conducted 1,362 inspections and collected 3,235 samples. Compared to last fiscal year, the number of conducted inspections increased this year by 14% and the number of samples collected decreased by 5%.

TABLE 4.1 Summary of Inspections, Sampling, and Laboratory Analyses, Fiscal Years 2014-19 Orange County Sanitation District, Resource Protection Division					
Action/Status	Fiscal Years				
	2014-15	2015-16	2016-17	2017-2018	2018-2019
Inspections*	1,654	1,609	1,344	1,192	1,362
Samples Collected	3,933	2,252	2,263	3,406	3,235
* Site visits to facilities to address compliance.					

4.3 NON-ROUTINE SAMPLING AND INSPECTION

OCSD Source Control Inspection staff perform field duties beyond routine sampling and inspection, as summarized below:

- Enforcement inspections are performed in response to compliance problems and typically involve close cooperation with the permittee to identify and correct deficiencies. Source Control Inspectors resample noncompliant industries within 30 days from the date the violation is issued and submit compliance inspection reports to document corrective measures taken and to support enforcement actions.
- Inspectors participate in multi-agency operations such as warrant inspections and environmental audits. Cross-training with other agencies enables Inspectors to recognize potential problems in other regulatory areas such as air quality and hazardous waste.
- Chronic violators are subject to increased monitoring and inspection activity, which may include extended periods of on-site sampling.
- Source Control Inspectors perform routine sampling for cyanide at facilities that have cyanide treatment systems on site. The sampling occurs at the end of cyanide treatment or at the end of pipe, just prior to discharge. The purpose of this sampling is to confirm that all cyanide-bearing wastewater is treated.
- Random sampling throughout the collection system is performed in areas where there is an increased potential for illegal dumping by industries. These sampling events are generally precursors to downstream monitoring projects (described in Section 4.3.1) when illicit discharging is suspected.
- Field support is provided to the Non-Industrial Source Control (NISC) team within the Resource Protection Division in support of their ongoing programs including quarterly sampling at 21 dry-weather urban runoff diversions and inspections at 48 dry-cleaners.
- On a monthly basis, Source Control Inspection staff collect composite samples on each of OCSD's twelve trunklines at both OCSD Plants for several days to a week. This monitoring allows OCSD to identify any potential problems on individual trunk lines, as well as to study the correlation between our influent and our effluent and biosolids.

4.3.1 Downstream Sampling

Covert sampling is conducted downstream of an industry to verify continued discharge compliance or to identify illicit discharges. Sampling is conducted both upstream and downstream in order to isolate the

industry's discharge. This sampling is performed in manhole structures in local sewer systems over the course of several days.

Three downstream monitoring events were conducted during the period from July 1, 2018 through June 30, 2019. Industries investigated were Brasstech, Inc., Superior Plating and Advance Tech Plating, Inc.

4.4 ORANGE COUNTY HAZARDOUS MATERIALS STRIKE FORCE (STRIKE FORCE) AND JOINT AGENCY INSPECTIONS

The Orange County Strike Force is comprised of state, county, city, and other local agencies capable of identifying, investigating, and prosecuting dischargers of hazardous materials to the environment. The initial goals of the Strike Force were to define the roles and responsibilities of each participating agency; establish the scope of the cases to be handled; emphasize cooperative identification, investigation, and prosecution of violators; and develop protocols among all participating agencies to create a coordinated enforcement system. An overall protocol was adopted by the Orange County Board of Supervisors in June 1988. The Orange County District Attorney's Office conducts monthly Strike Force meetings to discuss investigative strategies, ongoing investigations/cases, and identification of potential new cases.

OCSD's staff spent approximately 140 hours assisting the Strike Force in FY 2018/19 by attending meetings and conducting fieldwork in support of Strike Force activities.

OCSD participates in joint agency inspections of industries suspected of violating hazardous waste and sewer discharge regulations. This cooperative effort involves other agencies such as the Orange County Health Care Agency and the Orange County's District Attorney's office, responsible for environmental management and citizen safety. These inspections aid in correcting existing and potential discharge problems and alerted each of the participating agencies to the concerns of the other cooperating agencies.

4.5 INDUSTRIAL COMPLIANCE STATUS WITH DISCHARGE LIMITS

OCSD monitors and evaluates the compliance status of all regulated industries to determine the applicability of additional enforcement actions. Analytical monitoring results are reviewed by the source control supervisor, and limit exceedances are investigated and re-sampled to determine if the cause is a chronic problem. Additionally, should the inspectors identify any deficiencies in an industry's process and/or discharge system, the industry is notified of the situation, findings are documented in inspection reports and discussed with permit engineers, and corrective measures as required are communicated to the industry to be implemented. A summary of the significant industrial users' compliance status for FY 2018/19 is shown in Appendix A.

4.5.1 Industries in Significant Noncompliance (SNC)

At the end of each quarter, OCSD is required to evaluate their industrial user's compliance status using a six-month time frame. Under this system, each industrial user is evaluated for SNC four times during the year, and the total evaluation period covers 15 months (i.e., beginning with the last quarter of the previous pretreatment year through the end of the current year). OCSD is required to annually publish in the local newspaper all industrial users that have been identified as SNC during the past year when the SNC criteria were met during any of the previous four quarters. If a facility has been determined to be in SNC based solely on violations which occurred in the first quarter of the 15-month evaluation (i.e., the last quarter of the previous pretreatment year) and the facility has demonstrated consistent compliance in the subsequent four quarters, then OCSD is not required to publish the Industrial User (IU) in the newspaper if the IU was published in the previous year for the same violations.

As of June 30, 2019, of the active 339 Class I permittees, there were 15 (4%) that had been classified as SNC; 9 of these were categorical industries, and 6 were non-categorical. An industry was determined to

be in SNC if it incurred a violation that met one or more of the criteria listed below as provided in 40 CFR, Part 403.

- Chronic violations of discharge limits are defined as those in which 66% or more of all measurements taken during a six-month period exceed (by any magnitude) the daily maximum or the average limits for the same pollutant.
- Acute violations of discharge limits are defined as those in which 33% or more of all measurements taken during a six-month period constitute a Technical Review Criteria violation of the daily maximum or the average limits.
- Any other violation of a pretreatment effluent limit that has caused, either alone or in combination with other discharges, interference or pass through.
- Any discharge of a pollutant that has caused imminent endangerment to human health, welfare, or the environment; or has resulted in OCSD's exercise of its emergency authorities.
- Failure to meet within 90 days after the scheduled date of a compliance schedule milestone contained in an enforcement order for starting construction, completing construction, or for attaining final compliance.
- Failure to provide required reports including, but not limited to, periodic self-monitoring reports and reports with compliance schedules within 45 days of the due date.
- Failure to accurately report noncompliance with discharge limits or any other requirements applicable to the user pursuant to OCSD's Ordinance.
- Any other violation or group of violations that will adversely affect the operation or implementation of OCSD's pretreatment program.

A summary of the permittees in SNC is presented in Table 4.2. The SNC list was published in the October 21, 2019 issue of The Orange County Register; a copy of the announcement is presented in Appendix E.

TABLE 4.2 Summary of Companies in Significant Noncompliance (SNC), Fiscal Year 2018-19 Orange County Sanitation District, Resource Protection Division			
Company Name	Permit No.	Category	City
<u>Industries SNC Due to Discharge Violations</u>			
Arconic Global Fasteners & Rings, Inc.	1-021081	Aluminum Forming, Metal Finishing, Nonferrous Metals Forming And Metal Powders	Fullerton
Bristol Industries	1-021226	Aluminum Forming, Metal Finishing, Nonferrous Metals Forming And Metal Powders	Brea
Catalina Cylinders, A Div. of APP	1-031021	Aluminum Forming	Garden Grove
Independent Forge Company	1-021401	Aluminum Forming	Orange
Kenlen Specialities, Inc.	1-021171	Metal Finishing	Fountain Valley
Patio and Door Outlet, Inc.	1-521783	Metal Finishing	Orange
Prima-Tex Industries Inc.	1-031036	OCSD Local Limits	Buena Park
Republic Waste Services	1-521827	OCSD Local Limits	Anaheim
Star Manufacturing LLC, dba Commercial Metal Forming	1-600653	OCSD Local Limits	Orange
<u>Industries SNC Due to Reporting Violations</u>			
Active Plating, Inc.	1-011115	Metal Finishing	Santa Ana
Coastline Metal Finishing Corp., A Division of Valence Surface Technologies	1-600708	Metal Finishing	Garden Grove
Hartwell Corporation	1-021381	OCSD Local Limits	Placentia
JD Processing, Inc.	1-511407	Metal Finishing	Santa Ana
Kraft Heinz Company	1-071056	OCSD Local Limits	Irvine
National Construction Rentals	1-600652	OCSD Local Limits	Santa Ana

4.6 ENFORCEMENT ACTIVITIES

During FY 2018/19, OCSD initiated or continued various enforcement actions to bring industries into compliance. This section describes the types of enforcement actions taken against noncompliant significant industrial users. In addition, Appendix J shows a listing of pretreatment equipment that has been installed by OCSD's permittees.

As provided in the Ordinance and Enforcement Response Plan (ERP), OCSD has a broad range of enforcement mechanisms available, including issuing noncompliance sampling fees, administrative penalties, Notices of Violation, compliance letters, Probation Orders, and Enforcement Compliance

Schedule Agreements (ECSA); and instituting Emergency Suspension Orders, Permit Suspension, and Permit Revocation Orders.

OCSD's enforcement program is designed to bring noncompliant industries back into compliance with federal pretreatment standards and OCSD's local discharge limits. If permittees violate a discharge limit, enforcement action is initiated. This includes the assessment and issuance of noncompliance sampling fees, and requiring the permittee to conduct additional sampling along with OCSD conducting additional sampling. Subsequent noncompliance may result in issuing an order/compliance requirement letter detailing corrective measures, requiring the installation of additional pretreatment equipment, requiring the implementation of pollution prevention measures, issuing Emergency Suspension Orders, or suspending or revoking the discharge permit.

4.6.1 Compliance Inspections

In order to identify and assess any noncompliance problems, corrective actions, and the progress of permittees operating under the terms of a Probation Order, Enforcement Compliance Schedule Agreement (ECSA), or any other enforcement action, an OCSD pretreatment program engineer and inspector conduct special compliance inspections.

During FY 2018/19 OCSD conducted **sixty-nine (69) compliance inspections**.

4.6.2 Compliance Meetings

Compliance meetings are held as a result of the permittee's inability to achieve compliance with discharge requirements or to comply with OCSD's Ordinance. The meetings are held with company representatives to discuss the discharge problems and proposed long-term solutions.

During FY 2018/19, OCSD conducted **fifteen (15) compliance meetings**.

4.6.3 Compliance Requirement Letters

Compliance requirement letters are issued to require a permittee to comply with a specific condition of the permit and/or Ordinance, or to notify the permittee of an enforcement in accordance with the Enforcement Response Plan, such as a compliance meeting.

During FY 2018/19, OCSD issued **twenty-six (26) compliance requirement letters**.

4.6.4 Order to Cease/Terminate Non-Compliance/Discharge

Orders are issued where a permittee is continually non-compliant or has committed one or more significant violations of the permit and/or Ordinance. The Order requires a permittee to comply with a specific condition of the permit and/or Ordinance and may notify the permittee of escalated enforcement in accordance with the Enforcement Response Plan, such as a compliance meeting.

During FY 2018/19, OCSD issued **ten (10) orders**.

4.6.5 Notices of Violation – Noncompliance Fees, Penalties

A Notice of Violation (NOV) is a written notification from OCSD that references findings from recent sampling programs and indicates that specific violations of the permittees' discharge limits have occurred. The NOV is usually accompanied by non-compliance sampling and/or processing fees. The NOV instructs the permittee to take immediate action to correct the problem.

During FY 2018/19, **ninety-six (96) notices of violations** were sent to **sixty-three (63) significant industrial users**.

When a permittee violates its permit limits or conditions, noncompliance fees are assessed at rates that have been adopted by OCSD's Board of Directors. For FY 2018/19, non-compliance fees, penalties, settlements, interest, and judgments totaling \$117,128 were issued to SIUs (for details see Appendix D). Fees also include those from SNC permittees whose names were published in the local newspaper, and for individual self-monitoring non-compliance fees.

4.6.6 Probation Orders

Upon determination that a permittee is in non-compliance with the terms and conditions specified in its permit or any provision of OCSD's Ordinance, OCSD may issue a Probation Order. The Probation Order contains conditions, requirements, and a compliance schedule. The term of a Probation Order does not exceed ninety (90) days. The permittee is required to comply with all conditions and requirements within the time specified, including the submittal of information pertaining to waste source characterizations, pretreatment modifications, and waste minimization alternatives; and the performance of accelerated self-monitoring.

During FY 2018/19, OCSD issued **three (3) probation orders**.

4.6.7 Enforcement Compliance Schedule Agreement

An Enforcement Compliance Schedule Agreement (ECSA) is an agreement between the permittee and OCSD specifying that pretreatment equipment is installed or pollution prevention measures are implemented by the permittee within a scheduled time period, and that the permittee remains in consistent compliance during the term of the ECSA. The ECSA contains terms and conditions by which the permittee must operate and specifies dates for construction or acquiring and installing the pretreatment equipment and/or implementing waste minimization to achieve compliance. During the ECSA, inspection and sampling of the facilities are conducted monthly by OCSD's inspectors to verify that all terms and conditions of the ECSA are met. In addition, the permittee is required to perform accelerated and extended self-monitoring.

During FY 2018/19, OCSD did not issue any enforcement compliance schedule agreement.

4.6.8 Regulatory Compliance Schedule Agreement

Subsequent to the issuance of an Industrial Wastewater Discharge Permit to an industrial user, federal Categorical Pretreatment Standards may be adopted or revised by the EPA, or OCSD may enact revised discharge limits. If the General Manager, or his or her designee, determines that a permittee would not be in compliance with the newly adopted or revised limits, the permittee may be required to enter into a Regulatory Compliance Schedule Agreement (RCSA) with OCSD. The terms and conditions of a RCSA require the permittee to achieve compliance with all new standards by a specific date. RCSAs have a maximum term of two-hundred-and-seventy (270) days.

The issuance of a RCSA may contain terms and conditions including but not limited to requirements for installation of pretreatment equipment and facilities, submittal of drawings or reports, waste minimization practices, or other provisions to ensure compliance with OCSD's Ordinance. While the RCSA is in effect, any discharge by the permittee in violation of the RCSA will require payment of non-compliance sampling fees in accordance with Article 6 of OCSD's Ordinance.

During FY 2018/19, OCSD did not issue any regulatory compliance schedule agreements.

4.6.9 Administrative Complaints, Penalties, and Settlement Agreements

Pursuant to the authority of California Government Code Section 54740.5, OCSD may issue administrative complaints and penalties against the responsible officer or owner of any company that violates any permit condition or effluent limit. In accordance with an OCSD Board of Directors Resolution, OCSD may also negotiate a Settlement Agreement in lieu of an administrative complaint, which includes corrective actions on the part of the industry and reduced administrative penalties.

During FY 2018/19, OCSD issued **two (2) administrative penalties in the form of settlement agreements, totaling \$71,000.00, including interest and processing fees.**

4.6.10 Permit Suspensions

When OCSD believes that grounds exist for permit suspension, the permittee is notified in writing of the reasons for permit suspension and the date of the permit suspension hearing. At the hearing, OCSD staff and the permittee are provided the opportunity to present evidence to a designated hearing officer. After the conclusion of the hearing, a written determination is made by the hearing officer. Upon issuance of a suspension order, the permittee must cease all discharges to the sewer for the duration of the suspension.

During FY 2018/19, OCSD did not issue any permit suspensions.

4.6.11 Permit Revocations

The last recourse in the chain of administrative enforcement provisions is permit revocation. A permittee with a critical noncompliance record or who has failed to pay fees and charges is notified in writing of the reasons for permit revocation and the date of the permit revocation hearing. At the hearing, OCSD staff and the permittee are provided the opportunity to present evidence to a designated hearing officer. After the conclusion of the hearing, the hearing officer makes a determination if permit revocation is warranted, and provides a written report to the General Manager for final determination. Should the General Manager determine that the noncompliance record is substantial, revocation of the industrial waste discharge permit and loss of sewer discharge privileges may result.

During FY 2018/19, OCSD did not issue any permit revocations.

4.6.12 Emergency Suspension Order

Pursuant to Section 614 of OCSD's Wastewater Discharge Regulations, an Emergency Suspension Order may be ordered to stop an actual or impending discharge which presents or may present an imminent or substantial endangerment to the health and welfare of persons, or to the environment, or may cause interference to OCSD's sewerage facilities, or may cause OCSD to violate any state or federal law or regulation.

During FY 2018/19, OCSD did not issue any emergency suspension orders.

4.6.13 Civil/Criminal Complaints

When a permittee intentionally or negligently violates any provision of the Ordinance, permit conditions, or discharge limits, OCSD may petition to the Superior Court for the issuance of a preliminary or permanent restraining order. In addition, OCSD can petition the Court to impose, assess, and recover civil penalties for each day that violation occurs or seek criminal penalties for illegal disposal in accordance with OCSD's Ordinance.

OCSD did not file any civil or criminal complaints during FY 2018/19.

4.7 ENFORCEMENT SUMMARY

This section summarizes various enforcement actions conducted for permittees during FY 2018/19. Potential enforcement actions include permit revocations, permit suspensions, compliance inspections, compliance meetings, probation orders, enforcement compliance schedule agreements (ECSA), and orders to cease, among others.

A & G Electropolish (Permit No.1-531422)

A & G Electropolish (A & G) is a job shop metal finishing facility. A & G performs electropolishing of stainless steel parts for all applications from aerospace to food production. A & G's operations include fabrication with general machining operations, bead blasting, and other dry processes. Wastewater is generated from wet process operations, which include deburring, passivation, and electropolishing. Wastewater is collected in a below grade sump and pumped to the batch treatment tank prior to discharge to the sewer. Batch treatment at A & G consists of pH adjustment utilizing caustic beads, settling, and filter pressing solids with the filtrate pH adjusted with phosphoric acid.

In November 2017, OCSD issued an Order to Cease Noncompliant Discharges to A&G for unauthorized hauling of wastewater generated in A&G's mobile passivation service conducted at various third-party sites, with the purpose of discharging through the facility sewer connection under A & G's discharge permit. A & G agreed to cease this operation immediately. In May 2018, OCSD conducted a compliance inspection to discuss delinquent permit required items, which include submittal of facility drawings and a slug discharge control plan, and hard plumbing of certain fixtures. During the inspection, OCSD confirmed that the company is no longer conducting mobile passivation.

July 1 – December 31, 2018

On **July 11, 2018**, OCSD issued a Compliance Requirement Letter. On **August 22, 2018**, OCSD conducted another Compliance Inspection to discuss the details of the letter. On **September 13, 2018**, OCSD conducted a follow-up Compliance Inspection to verify hard plumbing installation. A & G submitted required documents, including updated drawings and made corrections to plumbing configurations prior to the deadline of **September 24, 2018**. On **December 3, 2018**, OCSD conducted a final Compliance Inspection to confirm completion of all corrective actions.

January 1 – June 30, 2019

A & G had no further violations during this reporting period. OCSD will continue to monitor A & G's discharge and compliance status on a quarterly basis.

A & R Powder Coating, Inc. (Permit No. 1-021088)

A & R Powder Coating, Inc. (A & R) performs powder coating and painting. Cold rolled

steel and aluminum parts are brought in by outside customers. The parts are processed through an iron phosphate conversion coating line and then heated briefly in an oven to dry off residual moisture prior to spray painting or powder coating per customer requirements. A & R employs a batch holding tank to store wastewater from the iron phosphate wash line. The batch is reportedly allowed to sit overnight and checked for zinc concentration with a Hach field test kit periodically, with the results entered onto a logbook. After testing and inspection, the tank is drained the next morning into a small three-stage clarifier. The holding tank is opaque and has a conical bottom for ease of inspection and solids removal, and a cartridge filter system is installed on the inlet plumbing line to remove solids during transfer of the rinse water from the wash line.

January 1 – June 30, 2019

On **June 25, 2019**, A & R Powder Coating (A & R) had a molybdenum violation. OCSD will issue a Notice of Violation and conduct a Compliance Inspection to investigate the violation during the next quarter.

Accurate Circuit Engineering (Permit No. 1-011138)

Accurate Circuit Engineering (Accurate) is a printed circuit board (PCB) manufacturer with an in-house design and engineering team, as well as large scale manufacturing operations. Accurate manufactures various types of PCBs, including rigid single sided, rigid double-sided, and rigid multilayer. The effluent discharge at Accurate is primarily generated by developing operations, etching, scrubbing via hyoki, rinses, and other treated process solutions from alkaline cleaning, Co-bra bond micro-etch, black oxide line, electroless copper and electrolytic copper plating, screen wash booths, and cross-sectional grinding wastewater. Pretreatment consists of anion and cation ion exchange and hydroxide precipitation.

January 1 – June 30, 2019

On **April 25, 2019**, Accurate had a silver violation, for which a Notice of Violation was issued on **May 13, 2019**. In addition, Accurate had copper and silver monthly average discharge limit violations in the month of **April 2019**. On **May 29, 2019**, OCSD conducted a Compliance Inspection during which it was determined that the silver recovery unit was not operating properly and Accurate was not verifying silver compliance in batch treatment prior to discharge. Accurate has decided to wastehaul all silver developer wastewater moving forward.

OCSD will continue to monitor Accurate's discharge and compliance status on a quarterly basis.

Active Plating, Inc. (Permit No. 1-011115)

Active Plating, Inc. (Active Plating) is a job shop metal finishing facility. Active Plating

performs zinc plating with clear and gold chromate conversion coating on steel, and chemfilm operations on aluminum parts. Parts are generally used in electronics or computer applications. Wastewater is segregated between hexavalent chrome bearing operations and other metal-bearing/alkaline wastestreams. Pretreatment consists of chromium reduction, hydroxide precipitation, with settling and flocculation in two parallel clarification tanks. Active Plating has pH and ORP probes connected to an advanced programmable logic controller which automates the treatment system.

In April 2018, Active Plating had a zinc violation, and was issued a Notice of Violation. In May 2018, OCSD conducted a Compliance Inspection during which the pH and ORP probes were found not operating properly. Also noted during the inspection was that Active Plating periodically takes one of the clarification tanks off-line for batch treatment or solids removal. When this occurs, floc carry-over into the sample point becomes an issue due to reduced treatment capacity. In June 2018, OCSD held a Compliance Meeting with Active Plating during which the company was required to come up with a long-term solution for implementing effective process controls and treatment when one clarification tank is offline. The company was also required to submit detailed pretreatment system drawings and an updated facility plot plan.

July 1 – December 31, 2018

On **October 23, 2018**, Active Plating had another zinc violation, for which a Notice of Violation was issued on **November 20, 2018**. On **December 12, 2018**, OCSD conducted a Compliance Inspection during which treatment concerns involving hydraulic capacity of the system were identified. On **December 31, 2018**, OCSD issued a Compliance Requirements Letter to Active Plating.

January 1 – June 30, 2019

On **January 31, 2019**, OCSD held a Compliance Meeting with Active to discuss corrective actions. On **April 17, 2019**, OCSD issued a Probation Order providing deadlines for corrective actions. On **June 25, 2019**, OCSD issued another Compliance Requirement Letter extending Probation Order deadlines.

Active Plating had no further violations during this reporting period. OCSD will continue to monitor Active Plating's discharge and compliance status on a quarterly basis.

Advance Tech Plating, Inc. (Permit No. 1-021389)

Advance Tech Plating, Inc. (ATP) is a job shop metal finishing facility. The facility performs anodizing and passivation on steel and aluminum parts and some copper/brass parts. Operations at ATP start with precleaning and etching, then deoxidizing with muriatic acid and anodizing with sulfuric acid, followed by chem filming and dye coloring per customer specification. To protect the dyed surface, the parts are dipped in a clear anoseal followed by final rinsing and drying. Majority of the wastewater

is generated from the rinsing operations. ATP operates a continuous and a batch pretreatment system which consists of chrome reduction, pH adjustment, flocculation, metal precipitation and clarification. ATP utilizes a filter press for sludge dewatering.

January 1 – June 30, 2019

On **May 6, 2019**, ATP had major zinc, copper, nickel and pH violations. On **May 7, 2019**, ATP had another zinc violation. In addition, ATP had zinc, copper, and nickel monthly average limit violations in the month of **May 2019**. On **May 14, 2019**, OCSD conducted a Compliance Inspection during which ATP was directed to stop noncompliant discharges and to determine the cause of the violations. On **May 16, 2019**, OCSD issued ATP two Notices of Violation along with an Order to Cease Noncompliant Discharges due to the gravity of the violations. On **May 22, 2019**, ATP submitted a response letter indicating that a clogged discharge tube on the sodium hydroxide metering pump led to a low pH and, hence, incomplete treatment of metals. ATP's corrective actions included installation of a low pH alarm and a recirculation line, which would allow ATP to recirculate noncompliant wastewater back into the treatment tanks. On **June 13, 2019**, OCSD issued a Compliance Requirement Letter directing ATP to attend a Compliance Meeting to discuss the violations. On **June 26, 2019**, OCSD held the Compliance Meeting with ATP during which the company was directed to take the following additional corrective measures: automating the recirculation line with low pH, having a qualified operator present during all discharge hours, maintaining the pretreatment tanks, good housekeeping, and performing an hydraulic evaluation of the pretreatment system.

OCSD will issue a Notice of Violation for the May 2019 monthly violations, as well as a Compliance Requirement Letter to reiterate OCSD's additional requirements and give ATP a deadline for completing them, during the next quarter.

Alliance Medical Products, Inc. (Permit No. 1-541182)

Alliance Medical Products, Inc. (Alliance) is a manufacturer of medical surgical devices along with aqueous and injectable drugs which are produced under aseptic conditions. Medical devices include corneal storage media, ocular implants and other clinical products. Other manufactured items include medical delivery devices, sterile ointments and gels, as well as several clinical products that are considered combination products by the FDA. Wastewater is generated from the aseptic sterile filling process, cleaning of glassware in the labs, production of steam for the autoclaves, rinsing and cleaning of manufacturing equipment and tooling, and surplus injection water not utilized during a production run. The wastewater is discharged to the sewer without any form of pretreatment.

January 1 – June 30, 2019

On **June 13, 2019**, Alliance had a pH violation. OCSD will issue a Notice of Violation

and conduct a compliance inspection during the next quarter.

Alloy Die Casting Co. (Permit No. 1-531437)

Alloy Die Casting Co. (Alloy Die) is a non-ferrous metal former that manufactures diecast parts to customer's specifications from aluminum and zinc alloys. Molten metal is injected into a steel die cavity at a controlled temperature under high pressure. Once the metal part is cooled and has reached sufficient rigidity, the mold opens up and the part is ejected. After casting, the part will undergo manual pneumatic grinding or belt sanding, followed by wet deburring to clean, de-flash, and/or provide a surface finish. Alloy Die uses two batch treatment systems, both of which perform pH adjustment and metals removal through flocculation, while one performs oil & grease removal as well. The treated metal-bearing wastestream passes through a filter press, from which the filtrate is discharged to the sewer. The oil & grease wastestream is sent through an oil/water separator, from which the separated water is sent to the other batch treatment tank and the separated oil & grease is wastehailed.

July 1 – December 21, 2018

On **September 10, 2018**, Alloy Die had a pH violation, for which a Notice of Violation was issued on **October 4, 2018**. On **October 16, 2018**, OCSD conducted a Compliance Inspection during which Alloy die indicated that they could not to determine the direct cause of violation. Alloy die suspected that a janitorial staff may have dumped a mop bucket of spent solution containing hydrochloric acid cleaner to the oil/water separator, unbeknownst to the pretreatment operators. Alloy Die updated their janitorial procedures to prevent staff from adding mop water to the pretreatment system.

January 1 – June 30, 2019

Alloy Die had no further violations during this reporting period. OCSD will continue to monitor Alloy Die's discharge and compliance status on a quarterly basis.

Alloy Tech Electropolishing, Inc. (Permit No. 1-011036)

Alloy Tech Electropolishing, Inc. (Alloy Tech) is a job shop metal finishing facility. Alloy Tech performs electropolishing and passivation of stainless steel and titanium parts used in various applications. Wastewater from rinsing operations is directed to the batch treatment system where hydroxide precipitation removes heavy metals prior to discharge to the sewer.

In February 2018, Alloy Tech had a nickel violation, for which a Notice of Violation was issued. In April 2018, OCSD conducted a compliance inspection during which it was determined that the violation was an isolated event involving improper heat treatment of a 17-4 alloy steel. The company agreed to provide a report of all jobs conducted during

the time the wastewater batch was in noncompliance, and to sample for nickel from each batch in the following six months to demonstrate that the violation was indeed an isolated event.

July 1 – December 31, 2018

Alloy Tech's sampling events for nickel during this reporting period were within an acceptable range and below the permit discharge limit, indicating the nickel violation may have been an isolated event.

On **August 22, 2018**, Alloy Tech had a molybdenum violation, for which a Notice of Violation was issued on **September 28, 2018**. On **November 1, 2018**, OCSD conducted a Compliance Inspection but the source of the molybdenum could not be identified. During the Compliance Inspection, OCSD discovered that Alloy Tech conducted a second self-monitoring sampling event on **October 22, 2018**, which was not reported to OCSD, and the test result indicated another molybdenum violation. Hence, the company was informed they must submit all supplemental sampling results. Alloy Tech agreed to conduct further investigation of the molybdenum violations with a report to be submitted to OCSD by **December 1, 2018**, which the company failed to meet.

January 1 – June 30, 2019

OCSD gave Alloy Tech several opportunities and extensions to provide the required documents but Alloy Tech has failed to submit them. OCSD will issue a Compliance Requirement Letter during the next quarter to require Alloy Tech to submit the documents.

Amerimax Building Products, Inc. (Permit No. 1-021102)

Amerimax Building Products, Inc. (Amerimax) applies coatings on large rolls of aluminum sheet material (coils). The coils are attached horizontally to a conveyor track that passes through a heated alkaline pre clean line with spray rinsing, followed by a low-pressure spray / immersion bath for conversion coating of the aluminum surface prior to the final paint and coating application. Soft roll squeegees are installed after each process and rinse module to remove excess solution, then after final paint and coating application, the coil is run through an infrared curing oven unit before rolling up and packaging on pallets for shipment to outside customers. Wastewater generated at Amerimax consists of the rinsewater from the preclean line plus the water quench. Wastewater treatment at Amerimax consists of a small, three-stage above ground clarifier at the back of preclean line. After clarification, the wastewater flows out to an underground sewer connection and cleanout, which is used as the sample point.

January 1 – June 30, 2019

On **May 13, 2019**, OCSD issued Amerimax Building Products, Inc. (Amerimax) an Order to Cease Discharge without a Valid Permit for failure to submit their permit renewal application at least 30 days prior to the permit expiration. Amerimax continued to discharge wastewater after the permit expired on **May 31, 2019**. Therefore, on **June 6, 2019**, OCSD issued a Second Order to Cease Discharge Without a Valid Permit in which Amerimax was directed to attend a Compliance Meeting. Amerimax submitted their permit renewal application on the same day. On **June 19, 2019**, OCSD held the Compliance Meeting with Amerimax where OCSD reminded the company of the consequences and associated penalties for discharging without a valid permit and for failure to submit required reports in a timely manner. Amerimax explained that the company's responsible officer and designated signatory had resigned so the application was forwarded to their headquarters, which is located out of state, and hence the delay.

No further enforcement is necessary at this time.

Anchen Pharmaceuticals, Inc. - Goodyear (Permit No. 1-600359)

Anchen Pharmaceuticals, Inc. - Goodyear (Anchen) manufactures pharmaceutical tablets and capsules. The manufacturing process includes weighing, mixing, granulation, drying, blending, compression, coating, and encapsulation (for capsules). Wastewater is generated by the cleaning of the equipment used in the production operations. Anchen does not have a pretreatment system and relies solely on best management practices in handling solvents used at the facility. Out of the five volatile organic compounds regulated under the Pharmaceutical Manufacturing federal category, acetone is the main constituent of concern at Anchen. When acetone is used in a formulation, it is also used to clean out residues in the mixing/blending equipment.

January 1 – June 30, 2019

On **January 9, 2019**, Anchen had an acetone violation, for which a Notice of Violation was issued on **February 26, 2019**. On **March 20, 2019**, OCSD conducted a Compliance Inspection during which Anchen indicated that the company has not been able to determine the exact cause or source of the exceedance, although it can most likely be attributed to Anchen staff's failure to follow procedures. On **April 8, 2019**, OCSD issued Anchen a Compliance Requirement Letter directing the permittee to attend a Compliance Meeting. Anchen was issued a Notice of Violation for the January acetone violation on **April 16, 2019**. During the Compliance Meeting, which was held on **April 18, 2019**, Anchen indicated that they have reminded their staff to follow proper waste handling procedures. Anchen also reminded their Technical Services and QC Laboratory group leadership that discharge of chemicals into any building's floor drains, sinks, and fume hood cup sinks is prohibited. During the meeting, OCSD advised Anchen that the company may be required to install pretreatment equipment if the facility continues to be noncompliant. On **May 2, 2019**, Anchen notified OCSD via an email that

the main product line at the Goodyear facility has been transferred to Anchen's Fairbanks facility. On **May 13, 2019**, OCSD issued a Compliance Requirements Letter directing Anchen to increase the frequency of acetone self-monitoring from semi-annual to quarterly, effective **June 1, 2019**. OCSD revised Anchen's permit to reflect this increased self-monitoring frequency for acetone.

OCSD will continue to monitor Anchen's discharge and compliance status on a quarterly basis.

APCT Orange County (Permit No.1-600503)

APCT Orange County (APCT) acquired Cartel Electronics (Permit No 1-521814) in early 2018. APCT is a medium-sized full-service printed circuit board manufacturing facility. Circuit boards are manufactured from inner-layers through lamination and micro-drilling, then outer-layer photo-printing, developing, copper and tin pattern plating, and copper etching / tin stripping followed by soldermask coating, legend screening, and final routing and electrical testing before packaging and shipment to customers. APCT also offers electroless nickel and gold plating for final surface and connector tab coatings. Wastewater originates from the chemical etching and plating processes and their associated rinses. During multiple site visits in 2016 and 2017, it was observed that Cartel had significant concerns with various wastestreams in the shop. These concerns included frequent bypass of treatment, incorrect plumbing configurations, improper treatment, improper labeling, unknown piping schemes and wastewater characterization, and an overall general lack of control of the pretreatment operations. Between the months of November 2016 and June 2017, Cartel had been issued three Notices of Violation, an Order to Cease Noncompliant Discharges, a Compliance Letter, a Requirement to Attend a Compliance Meeting, and participate in a Compliance Inspection.

Between the months of November 2016 and June 2017, Cartel had been issued three Notices of Violation, an Order to Cease Noncompliant Discharges, a Compliance Letter, and a Requirement to Attend a Compliance Meeting and participate in a Compliance Inspection. From July to December 2017, Cartel underwent another two compliance inspections, was issued its Second and Third Cease Orders, and was issued a Notice of Violation for copper. During the month of September 2017, OCSD conducted a downstream investigation and monitoring of Cartel's discharge and identified 19 days of major copper and pH violations with copper concentrations up to 492 mg/L and pH level as low as 1.30 S.U. Two more compliance meetings were held, during which Cartel accepted OCSD's offer to enter into a Settlement Agreement to resolve the outstanding compliance issues. In December 2017, OCSD issued a Settlement Agreement to Cartel with penalties totaling \$80,965.80 (including 6% interest and processing fees associated with a 12-month payment plan). See Cartel Electronics' (Permit No. 1-521814) enforcement history on page 4.17 for more details on this reporting period. Due to the change in ownership that occurred in early 2018, APCT applied for a new permit in accordance with OCSD's Ordinance. APCT agreed to assume responsibility for Cartel

Electronics' outstanding enforcement requirements.

In April 2018, an Enforcement Compliance Schedule Agreement (ECSA) was finalized between APCT and OCSD. The ECSA outlined several requirements and milestones set forth for the company to implement corrective actions and achieve long-term compliance with their permit. While under the ECSA and just prior to the permit suspension from April 30 to May 14, 2018, a downstream sampling event indicated that the company discharged copper in violation of the permitted discharge limit from April 27 to April 28, 2018.

In May 2018, OCSD conducted an inspection to verify compliance with the terms of the ECSA and to investigate the copper violations. During the Inspection, the company was informed of the recent downstream result as well as issues with the maintenance logs for their batch treatment. An Order to Cease Noncompliant Discharges was issued to APCT afterwards for the downstream copper violations. In June 2018, OCSD held a compliance meeting with APCT where the company explained that the copper could have been from changes around the facility in response to the ECSA or it could have also been from an inadvertent dump from an employee. APCT agreed to sample consecutively for five days to verify compliance with the copper limit. OCSD issued a Compliance Requirement Letter to APCT outlining the requirements for multi-day compliance verification sampling and for submittal of a report for the source of the downstream copper violation.

July 1 – December 31, 2018

APCT continued to work on improving their compliance by completing the requirements in the previously issued ECSA. On **May 22, 2018** and **August 7, 2018**, APCT had further copper violations, which were associated with the start-up of their new treatment system and for which Notices of Violation were issued on **July 12, 2018** and **October 1, 2018**, respectively. On **October 17, 2018**, OCSD issued a Compliance Requirement Letter APCT requiring installation of hard plumbing for certain wastestreams.

January 1 – June 30, 2019

On **March 18, 2019**, OCSD conducted a Compliance Inspection and confirmed that APCT had completed all hard plumbing and other corrective actions. On May 10, 2019, APCT had another copper violation, for which a Notice of Violation was issued on **June 10, 2019**. The violation was corrected by adjusting the mixer operations associated with treatment. On **May 23, 2019**, OCSD conducted a Compliance Inspection and resampling during which OCSD verified implementation of the corrective action.

OCSD will continue to monitor APCT's discharge and compliance status on a quarterly basis.

Arconic Global Fasteners & Rings, Inc. (Permit No. 1-021081)

Arconic Global Fasteners & Rings, Inc. (Arconic) manufactures aluminum, titanium, and steel fasteners. Wastewater-generating processes include cadmium, copper, silver, nickel and zinc plating, potassium permanganate treatment, cyanide stripping, glycol lubricant coating, acid stripping, chromate conversion coating, deburring, quenching, miscellaneous cleaning (mop water), acid/alkaline cleaning, and air scrubbing. Arconic's continuous pretreatment system consists of pH adjustment, cyanide destruction, chromium reduction, clarification, and sludge dewatering using a filter press. Separate, dedicated pretreatment systems are used including electrowinning (for silver plating) and oil/water separation.

In September 2017, Arconic had a cyanide (amenable) violation. In December 2017, OCSD conducted a compliance inspection and routine sampling during which the sampling method/location for cyanide sampling was discussed and the cyanide treatment system was found to be adequately working. The sampling results showed compliance. In February 2018, Arconic sent OCSD a letter contesting the cyanide violation. After a comprehensive review, OCSD concluded that the sample result was valid, and therefore the violation was upheld.

January 1 – June 30, 2019

On **February 20, 2019**, Arconic had cadmium and molybdenum violations, for which a Notice of Violation for exceedance of monthly average limits was issued on **May 6, 2019** and a Notice of Violation was issued for exceedance of instantaneous and daily average limits on **June 10, 2019**. On **June 19, 2019**, OCSD conducted a Compliance Inspection and resampling, during which Arconic identified a lubricant product in use at the facility as the likely source of the molybdenum violation. The resampling results showed another molybdenum violation.

OCSD will issue a Notice of Violation and conduct another compliance inspection during the next reporting period.

Aseptic Technology, LLC (Permit No. 1-501002)

Aseptic has operated a beverage and dietary supplements manufacturing operation located at 24855 Corbit Place, Yorba Linda, CA, 92887, since 2013. Due to a delinquency in making timely payments for user charges, in January 2016, the OCSD Board of Directors approved a 12-month payment agreement with Aseptic in the amount of \$199,228.03. Aseptic made timely payments in accordance with the agreement, and completed the 12-month schedule as of January 2017. However, Aseptic Technology failed to make payments against quarterly invoices after January 2016; thus necessitating a second payment agreement request in July 2017 for delinquent amounts totaling \$451,161.54. The second payment agreement also required Aseptic to remit timely payments against new obligations occurring during the term of the agreement.

In January of 2018, Aseptic requested a third payment agreement for delinquencies owed in the amount of \$252,315.72. This payment agreement request was authorized, and it required a letter of credit and a stipulation that current invoices were to be paid in a timely manner. As a result of the payment agreement, a typical two-year Class 1 permit was not issued to Aseptic, and the permit was renewed for only three months-at-a-time.

January 1 – June 30, 2019

Due to Aseptic's repeated failure to make timely payments pursuant to this payment agreement, OCSD did not renew the permit which expired on **March 31, 2019**. However, Aseptic continued to discharge industrial wastewater to the sewer. An Order to Cease Discharge Without a Valid Permit was issued on **April 11, 2019**.

The permit which expired **March 31, 2019** was not renewed until **May 6, 2019** when a payment was received – the facility had discharged to OCSD without a permit throughout April and the first week of May – serious violations of OCSD's Wastewater Discharge Regulations Ordinance. When the May 2019 permit expired on May 31, 2019, it was not renewed due to the facility's non-payment of user charges. OCSD conducted Compliance Inspections on **April 30, 2019** and **May 2, 2019**. Another Order to Cease Discharge Without a Valid Permit was issued on **June 5, 2019**. OCSD met with Aseptic on **June 18, 2019**, and agreed to settle the violations associated with discharging without a permit.

OCSD will issue a Settlement Agreement to Aseptic and continue to monitor the permittee's compliance status in the next reporting period.

Aviation Equipment Processing (Permit No. 1-071037)

Aviation Equipment Processing manufactures, repairs, and assembles metal / composite structures for the aircraft and aerospace industries.

January 1 – June 30, 2019

On **April 16, 2019**, OCSD issued a Notice of Violation for the monthly average of January 2019 chromium sampling results that exceeded the monthly average limit. Aviation Equipment Processing could not determine the source of the violation, and it was noted that most sampling results prior had been well below monthly average limits and daily average limits, as were samples following the month in violation.

OCSD staff will continue to monitor Aviation Equipment Processing's discharge and compliance status during the next reporting period.

Bazz Houston Co. (Permit No. 1-031010)

Bazz Houston Company (Bazz) is a machining job-shop that manufactures various steel parts. Wastewater is generated by three identical deburring units used to finish the machined parts. Wastewater is directed to a below-ground clarifier prior to discharge to the sewer.

January 1 – June 30, 2019

On **April 11, 2019**, Bazz had an oil & grease violation, for which a Notice of Violation was issued on **May 9, 2019**. On **May 15, 2019**, OCSD conducted a Compliance Inspection during which Bazz indicated that at the time of the violation a plumbing contractor was repairing the sewer lines that had roots growing into them, and that this plumbing repair may have caused a disturbance in the day's discharge resulting in the violation. OCSD suggested that Bazz review the schedule for clarifier maintenance. Bazz had already pumped out the clarifier by the time of the inspection. Bazz also mentioned that a temporary employee working in the deburring area on the day of the violation may not have followed proper procedure for washing parts prior to deburring.

Bazz had no further violations during this reporting period. OCSD will continue to monitor Bazz's discharge and compliance status on a quarterly basis.

B. Braun Medical, Inc. (West/Lake) (Permit No. 1-541183)

B. Braun Medical, Inc. (West/Lake) (B. Braun West) manufactures pharmaceutical intravenous fluid and the packaging for the fluid. The manufacturing process includes mixing, filling, sterilization, and packaging of aqueous injectable and parenteral pharmaceutical products. The packages are sprayed and bath-sterilized before they are placed on pallets and collected for shipment. Waste from the sterilization process consists of condensate that builds on the packages during the cooling process and the water drained from the heat exchangers on a weekly basis.

July 1 – December 31, 2018

On **October 24, 2018**, B. Braun West had a pH violation, for which a Notice of Violation was issued on **November 21, 2018**. On **December 11, 2018**, OCSD conducted a Compliance Inspection during which B. Braun West indicated that multiple sources could have contributed to the pH violation as the shredding facility and the internal IV bag process both have the potential to produce low pH wastestreams. B. Braun West submitted a letter describing corrective actions, which included installation of a new pH adjustment system.

January 1 – June 30, 2019

OCSD directed B. Braun West to complete installation of the pH adjustment system by

January 31, 2019. B. Braun West failed to meet this deadline. On **April 9, 2019**, OCSD issued a Compliance Requirement Letter directing B. Braun to submit an interim compliance proposal by **April 30, 2019** and to install a temporary pH adjustment system by **May 31, 2019**. On **May 3, 2019**, OCSD received B. Braun West's interim compliance proposal which was adequate in the established requirements. On **May 28, 2019**, OCSD conducted a follow-up Compliance Inspection and confirmed that the temporary pH adjustment system had been installed and operating and appeared to be maintained. OCSD directed B. Braun to submit the permanent pretreatment system proposal by **June 30, 2019** and complete installation by **November 30, 2019**. B. Braun submitted the proposal on **June 28, 2019**, which appeared to be adequate for achieving long-term compliance with pH.

OCSD will conduct a follow-up compliance inspection during the next reporting period to determine B. Braun West's progress and compliance status.

Beo-Mag Plating (Permit No. 1- 511370)

Beo-Mag Plating (Beo-Mag) performs surface finishing on customer supplied parts made from aluminum, mild steel, and die-cast zinc. Beo-mag is a 40 CFR 433 Metal Finishing PSNS job shop specializing in decorative chrome and gold plating. The restoration of motorcycle and classic automobile parts accounts for approximately 80% of their business, the remaining percentage consists of small volume commercial work such as bathroom fixtures and other assorted parts. The processing of a steel or die-cast zinc part includes polishing, electrocleaning, cyanide copper strike, acid copper plating, manual buffing, alkaline cleaning to remove the buffing residue, nickel plating, and finally chrome plating. The chrome plating of a typical aluminum part proceeds by polishing, alkaline cleaning, Aluma acid etch, deoxidation, zincate, copper plating, buffing, alkaline cleaning to remove the buffing residue, nickel plating, and finally chrome plating. All wet operations are conducted manually using typical rack and wire plating techniques. The effluent discharge at Beo-Mag is generated by aqueous fume scrubbing, various spent process solutions, and the associated rinse wastestreams.

January 1 – June 30, 2019

On **January 24, 2019**, Beo-Mag had cyanide (total) violation, for which a Notice of Violation was issued on **February 26, 2019**. In addition, Beo-Mag had a cyanide monthly average discharge limit violation in the month of **January 2019**. On **March 25, 2019**, OCSD conducted a Compliance Inspection and noted that corrective actions have been implemented by the facility to address the cyanide issue. On **April 18, 2019**, OCSD issued a Notice of Violation for the January 2019 cyanide monthly violation.

OCSD will continue to monitor Beo-Mag's discharge and compliance status on a quarterly basis.

Bristol Industries (Permit No. 1-021226)

Bristol Industries (Bristol) manufactures military specification fasteners, including nuts, bolts, washers, and rivets, as well as airplane window channels. Wastewater is generated from the metal finishing and aluminum forming operations, which include acid/alkaline cleaning, plating (silver, copper, nickel, chromium, and cadmium), anodizing, deburring, and associated rinses. Bristol operates a batch and a continuous pretreatment system. The continuous pretreatment system consists of an equalization tank, chrome reduction, cyanide destruction, hydroxide precipitation, pH adjustment, an effluent pH controller and recorder, final polishing filter, filter press, Lamella clarifier, and an electrowinning system. The batch treatment system is used to treat spent process solutions.

In 2017, Bristol completed construction of a new building to house new process and rinse tanks that would eventually replace all their aging tanks. Bristol also completed installation of a new state-of-the-art pretreatment system which will also replace their existing one. The new system consists of a continuous ion exchange (IX) system for heavy metals removal, and batch treatment for IX regeneration waste, chrome reduction, and cyanide destruction. The new IX system allows Bristol to recycle most of their rinses and thus save water.

In June and July 2017, Bristol had cyanide (amenable) violations. In August 2017, Bristol had a cadmium violation. Bristol submitted a root cause analysis and corrective action report for the cyanide violations. The report attributed the violations to inadequate retention time due to high production and high flow rate during those two days, aggravated by low oxidation reduction potential (ORP) in stage 1 and high ORP in stage 2, thus causing incomplete destruction of cyanide. Bristol's corrective actions consisted of adjusting the ORP and pH in both stage 1 and stage 2 during heavy production days to ensure complete treatment of cyanide. Bristol conducted multi-day sampling to confirm the efficiency of their modifications / corrective actions and the test results all showed compliance.

In September 2017, OCSD conducted a compliance inspection and resampling, during which Bristol indicated that the pretreatment system operators had been trained on the proper pH and ORP settings for treatment of the cyanide-bearing wastestreams. However, the resampling results detected a nickel violation. Bristol submitted another root cause analysis and corrective action report to address the August 2017 cadmium violation. During the investigation, Bristol staff discovered that the blade in the batch treatment tank was not connected to the mixer shaft, and therefore no mixing was occurring in the batch tank. The mixer blade detached due to loosened fasteners. Bristol immediately fixed the problem and conducted resampling for cadmium. The resampling results showed compliance.

In October 2017, OCSD conducted resampling for nickel and the results showed compliance. Bristol submitted a third root cause analysis and corrective actions report to address the nickel violation. The report cited inadequate pH and ORP setpoints as the

cause of the violation. Corrective actions consisted of increasing the pH, reducing the ORP, and conducting in-house testing of each treated batch for compliance before discharging the effluent to the sewer.

In April 2018, Bristol had another cyanide (amenable) violation, for which a Notice of Violation was issued. In June 2018, OCSD conducted another compliance inspection, during which Bristol submitted another root cause analysis and corrective action report to address the violation. The report identified the source of the cyanide amenable violation to several operational issues and issues with ORP probes. Corrective actions consisted of weekly calibration of the ORP probes, maintenance of calibration record logs, updating of treatment unit operating instructions to include calibration frequency, additional operator training, and additional team leader verification for probe check and record-keeping.

July 1 – December 31, 2018

On **September 3, 2018**, Bristol had another cyanide violation, for which a Notice of Violation was issued on **September 4, 2018**. On **October 5, 2018**, OCSD issued an Order to Cease Noncompliant Discharges in response to the recurring violations. On **October 16, 2018**, OCSD held a Compliance Meeting with Bristol, during which the company attributed the source of the cyanide violation to an overflow situation at the cyanide treatment unit. On **November 8, 2018**, OCSD issued a Compliance Requirements Letter directing Bristol to submit a pretreatment system evaluation and proposal for improvements. On **November 26, 2018**, Bristol submitted a response indicating that Bristol will install an equalization tank in the cyanide treatment unit to provide adequate treatment capacity. On **December 6, 2018**, Bristol had another cadmium violation, for which a Notice of Violation was issued on **December 17, 2018**. Bristol also had a monthly cadmium mass limit violation in the month of **December 2018**.

On **December 21, 2018**, another cyanide violation occurred. Bristol submitted a root cause analysis and corrective action report to address the violation. The report identified the resin beds in the metal scavenger resin system for the cyanide treatment as the source of the cadmium violation. Bristol indicated that the resin beds were found to be fouling with a precipitant, which caused channeling in the resin beds allowing treated cyanide wastewater to travel through the beds with little to no contact with the resins for metal removal. Corrective actions consist of resin bed rotation and changes based on the analysis of effluent from cyanide and the metal scavenger system sample point.

January 1 – June 30, 2019

On **January 8, 2019**, Bristol had cadmium, cyanide (amenable and total) and silver violations. These violations led to monthly mass limit violations for all three constituents in the month of **January 2019**. On **February 4 and February 5, 2019**, Bristol had further cadmium, silver, and pH violations.

On **February 25, 2019**, OCSD issued Notices of Violation for the cyanide violation that

occurred in December 2018 and for the cadmium, cyanide (amenable and total) and silver violations that occurred in January 2019. On **February 26, 2019** and **March 18, 2019**, OCSD issued Notices of Violation for the cadmium, silver and pH violations that occurred in early February 2019. On **March 12, 2019**, OCSD issued a Notice of Violation for the monthly cadmium mass limit violation that occurred in December 2018.

On **March 18, 2019**, OCSD issued a Second Order to Cease Noncompliant Discharges in response to the recurring violations and repeated pretreatment system failure on site. On **March 26, 2019**, Bristol had another cadmium violation, for which a Notice of Violation was issued on **April 8, 2019**. Bristol also had a monthly cadmium mass limit violation in the month of March 2019. On **April 9, 2019**, a second Compliance Meeting was held to discuss the violations that occurred from June 2017 through March 2019. At the meeting, OCSD informed Bristol of the agency's determination that the recent compliance issues were caused by inadequate hydraulic capacity of Bristol's existing pretreatment system, lack of process control of the pretreatment equipment, disconnect between the upstream production processes and the pretreatment system processes, and the lack of a complete facility wastewater process review to correct the earlier violations. OCSD also informed Bristol of its intention to issue an Administrative Complaint to which Bristol chose to settle the violations that occurred from June 2017 through March 2019 with OCSD.

On **April 16, 2019**, OCSD issued a Notice of Violation for the January 2019 monthly mass limit violations for cadmium, cyanide (amenable and total), and silver.

On **June 6, 2019**, Bristol had another cyanide (total) violation. On **June 7, 2019**, OCSD issued a Notice of Violation for the monthly cadmium and silver mass limit violations that occurred in March 2019. On **June 25, 2019**, Bristol had further cadmium, silver, and pH violations, for which Notices of Violation will be issued in the next reporting period.

In general, OCSD has conducted multiple inspections at the facility during this reporting period and found that Bristol continues to experience pretreatment system failure and operational control issues onsite. Additionally, OCSD found that Bristol continued to make several process modifications onsite without prior notification to OCSD.

OCSD will issue a Third Order to Cease Noncompliant Discharges during the next reporting period and enter into a Settlement Agreement with Bristol for penalties totaling \$40,000.00. Additionally, OCSD will issue an Enforcement Compliance Schedule Agreement (ECSA) outlining several requirements and milestones set forth for the company to implement corrective actions and achieve long-term compliance with their permit.

Brothers International Desserts (West) (Permit No. 1-600582)

Brothers International Desserts (West) (Brothers) is an ice-cream and frozen novelty manufacturer. Most of the wastewater is generated by the cleaning and sanitizing of

equipment used for the manufacturing processes.

January 1 – June 30, 2019

On **June 26, 2019** and **June 27, 2019**, Brothers had pH violations. OCSD will issue a Notice of Violation and conduct a compliance inspection during the next quarter.

Cadillac Plating, Inc. (Permit No. 1-021062)

Cadillac Plating, Inc. (Cadillac) is a job shop metal finishing facility. Wastewater-generating processes include alkaline and acid chloride zinc plating, bright tin plating, bright nickel plating, sulfuric anodizing, alkaline cleaning, acid activation, chromate conversion coating, chemfilm, and associated rinses. The facility engages in rack plating only. The facility operates a continuous hydroxide pretreatment system that consists of pH adjustment, chrome reduction, flocculent addition, clarification, and sludge dewatering with a filter press. Spent solutions are treated in a batch pretreatment system, with the effluent routed through the continuous pretreatment system for further treatment.

In January 2017, OCSD conducted a compliance inspection during which numerous pretreatment system deficiencies and violations were found including: a measured pH value exceeding the upper limit of 12.0 S.U. in the facility's discharge; instrumentation out for repair or not operating; and lack of a qualified industrial wastewater treatment operator during wastewater discharge. OCSD issued an Order to Cease Noncompliant Discharges to Cadillac followed by a compliance meeting and issuance of a Probation Order in February 2017. In March 2017, OCSD conducted a joint probation search with representatives from the Orange County District Attorney's office, Occupational Safety & Health Administration (OSHA), and Orange County Health Care Agency (OCHCA). OSHA and OCHCA identified the following violations: high carbon monoxide levels outside the permissible limits; lack of proper personal protective equipment; illegal disposal of hazardous waste into general waste bins; unsafe electrical conditions; and general disregard for safety. As a result of numerous safety violations, OSHA issued an Order Prohibiting Use (OPU).

In August 2017, OCSD issued another Probation Order with the same requirements as the original probation order but with a different completion date since Cadillac was unable to meet the progress requirements of the compliance schedule due to OSHA's Order Prohibiting Use. From August through October 2017, OCSD conducted multiple compliance inspections to determine whether progress was being made towards the completion of the Probation Order requirements. OCSD issued two Notices of Violation in September 2017 – one for copper discharge violations and the other for failing to meet the deadline for completion of the reissued probation order requirements. OCSD also issued a Compliance Requirements Letter in October 2017 for Cadillac's failure to provide sufficient updates on their progress during the course of the Probation Order and the submitted deliverables were below acceptable standards. In November 2017, OCSD

held another compliance meeting with Cadillac to review the pretreatment system deficiencies and issued another Compliance Requirements Letter for the outstanding Probation Order requirements. In December 2017, OCSD conducted a compliance inspection to verify completion of the remaining items. Requirements related to pretreatment equipment deficiencies were completed; however, the documentation provided by Cadillac was not acceptable. OCSD sent comments to Cadillac to correct the Operations and Maintenance Manual by January 2018.

OCSD conducted another inspection in March 2018 to confirm the completion of the requirements from the Probation Order. The continuous pretreatment system was found to be operating in a safe and controlled manner with no indication of overflow, short-circuiting, or slug loading. The batch treatment system was operational as well and appeared to be properly maintained. Log sheets for the batch treatment system were being kept on site and were up to date.

July 1 – December 31, 2018

On **October 12, 2018**, Cadillac had a zinc violation, for which a Notice of Violation was issued on **December 4, 2018**. On **December 20, 2018**, OCSD conducted a Compliance Inspection during which multiple deficiencies were noted including missing or illegible process tank labels, a lack of pretreatment system vessel structural integrity that could lead to treatment bypass, and unidentified noncompliant wastewater. OCSD also noted that one of the pretreatment operators failed to obtain qualified treatment operator certification as required by the Probation Order. Cadillac had also failed to provide a wastewater characterization for the processing lines prior to using them.

January 1 – June 30, 2019

On **April 1, 2019**, OCSD issued a Compliance Requirements Letter to address the deficiencies noted during the last reporting period. On **April 3, 2019**, OCSD conducted a follow-up Compliance Inspection and observed further noncompliance issues including pH probes out of calibration; lack of an automated pH adjustment system and final pH chart recorder; prohibited use of flexible hosing; and process line modifications implemented without written notification to OCSD. On **April 15, 2019**, OCSD issued an Order to Cease Noncompliant Discharges directing Cadillac to attend a Compliance Meeting on **April 25, 2019**. On **May 9, 2019**, OCSD issued a second Compliance Requirements Letter requiring Cadillac to correct the noncompliance issues and deficiencies by **May 31, 2019**, as discussed during the compliance meeting. On **June 8, 2019**, OCSD conducted another Compliance Inspection and found remaining deficiencies. On **June 20, 2019**, OCSD conducted another Compliance Inspection during which OCSD had confirmed that Cadillac had finally completed all requirements.

OCSD will continue to monitor Cadillac's discharge and compliance status on a quarterly basis.

Cal-Aurum Industries, Inc. (Permit No. 1-111089)

Cal-Aurum Industries, Inc. (Cal-Aurum) is a large metal finishing job shop. Cal-Aurum specializes in precious metals plating, providing services for aerospace, communications, electronics, and military applications. The wet processing includes rack, barrel, and continuous reel-to-reel processes. Wastewater is generated from the cleaning, coating, common and precious metals electroplating, electroless plating, etching, finish stripping, and the rinsing of parts. Cal-Aurum utilizes a batch pretreatment system for treating spent solutions, and a continuous pretreatment system for all other waste streams. The metal-bearing rinses receive pH adjustment and hydroxide precipitation prior to discharge to the sewer. Cal-Aurum also uses a filter press for dewatering the sludge from the batch treatment operation. The filtrate is pumped to a final polishing filter then to a holding tank where it is tested for compliance prior to discharge.

During a permit renewal inspection in March 2017, OCSD noted changes in Cal-Aurum's process area, which triggered reclassification of Cal-Aurum's 10% New Source and 90% Existing Source status to 100% New Source. OCSD also noted that the sampling point for the cyanide-bearing waste stream was not separate from the non-cyanide bearing waste streams. In May 2017, OCSD held a compliance meeting with Cal-Aurum to discuss the cyanide sampling point issue and the reclassification to a New Source facility with more stringent limits. A subsequent meeting was held at the facility in June 2017, during which a dye test was conducted to determine the level of difficulty to separate drain lines and provide a separate sampling point for the cyanide-bearing waste stream. It was concluded that the existing drain lines are comingled and there is no straightforward way of separating the cyanide-bearing wastewater.

In July 2017, OCSD conducted another inspection during which OCSD notified Cal-Aurum of the impending New Source reclassification and the required separation of the cyanide-bearing waste stream from the non-cyanide bearing waste streams. In September 2017, OCSD held a compliance meeting with Cal-Aurum to discuss the inspection findings and provide a compliance schedule to remedy the issues mentioned above. In October 2017, OCSD issued a Probation Order requiring separation of the cyanide-bearing waste streams from the non-cyanide bearing waste streams, and submittal of a waste management proposal by the end of December 2017.

From January through April 2018, OCSD conducted multiple follow-up compliance inspections to verify compliance with the Probation Order requirements. Due to Cal-Aurum's failure to complete the requirements by the December 2017 deadline, Compliance Requirement Letters were issued in January and February 2018, followed by a compliance meeting and revision of compliance schedule dates. Cal-Aurum finally completed the separation of cyanide bearing waste streams and the installation of the cyanide treatment system in April 2018.

July 1 – December 31, 2018

On **July 17, 2018**, Cal-Aurum had cadmium concentration and mass limit violations, for which a Notice of Violation was issued on **July 26, 2018**. Cal-Aurum removed cadmium from the processing lines some years back and has not had cadmium violations since then. On **August 1, 2018**, OCSD received a response letter from Cal-Aurum presenting the results of their investigation. Cal-Aurum analyzed and confirmed the high levels of cadmium in their split sample. Since the cadmium has already been eliminated from Cal-Aurum's process, Cal-Aurum investigated the recently installed ion exchange system. Cal-Aurum determined that the treated water from the ion exchange system was being contaminated by resin that had not been fully regenerated. Cal-Aurum contacted the supplier of the ion exchange canisters and discussed improvements in the QA/QC procedure to prevent future resin contamination.

January 1 – June 30, 2019

Cal-Aurum had no further violations during this reporting period. OCSD will continue to monitor Cal-Aurum's discharge and compliance status on a quarterly basis.

Catalina Cylinders (Permit No. 1-031021)

Catalina Cylinders, a Div. of APP (Catalina Cylinders) manufactures high pressure gas cylinders from 6061 aluminum alloy material. The cylinders are produced in various sizes for the beverage, medical, and SCUBA diving industries. Wastewater is generated from the alkaline cleaning, hydrostatic pressure testing, and the iron phosphate conversion coating operations. Pretreatment at Catalina Cylinders is limited to a three-stage underground clarifier.

January 1 – June 30, 2019

On **January 4, 2019** Catalina Cylinders had an oil & grease mass violation, for which a Notice of Violation was issued on **March 28, 2019**. On **March 20, 2019**, OCSD conducted a Compliance Inspection during which OCSD explained to Catalina Cylinders that based on the manufacturing operations conducted onsite, the company's wastewater discharge is subject to the Aluminum Forming federal categorical pretreatment standards and, as a result, the oil & grease mass limits are production-based. OCSD explained further that to comply with the stringent production-based mass limits, the oil & grease concentration must be kept below 15 mg/L during an average day's flow, which would likely require pretreatment beyond the clarifier they presently operate.

On **April 1, 2019**, Catalina Cylinders had another oil & grease mass violation. On **May 16, 2019**, OCSD issued a Notice of Violation and conducted another Compliance Inspection to reiterate concerns about Catalina Cylinders' noncompliance with the oil & grease mass limits.

OCSD will pursue escalated enforcement during the next reporting period.

Central Powder Coating (Permit No. 1-021189)

Central Powder Coating (CPC) is a medium-sized job shop powder coater which employs a conveyerized iron phosphate wash line plus a large manual spray wash booth for cleaning and surface treatment/conversion coating of the parts before powder coating. Wastewater is generated from the manual spray booth plus intermittent discharges from the second chamber of the automated wash line. CPC's pretreatment system consists of a three-stage aboveground clarifier equipped with an automated pH controller and caustic solution addition into first stage of the clarifier.

July 1 – December 31, 2018

On **June 26, 2018**, CPC had a molybdenum violation, for which a Notice of Violation was issued on **July 18, 2018**. On **August 1, 2018**, OCSD conducted a Compliance Inspection during which CPC attributed the source of the molybdenum violation to the discharge of spent phosphate solution into the clarifier. As part of the investigation, CPC discovered that their liquid iron phosphate formulation contained sodium molybdate, which caused the molybdenum violation. On **August 10, 2018**, CPC submitted a corrective action plan to address the violation. Corrective actions included clarifier pump-out and replacement of the existing iron phosphate solution to a non-molybdate formulation. On **August 14, 2018**, CPC had another molybdenum violation, for which a Notice of Violation was issued on **October 2, 2018**. On **October 8, 2018**, CPC submitted a second corrective action letter indicating that the company has not completely replaced their iron phosphate solution; hence the second molybdenum violation. CPC has since then converted to a non-molybdate formulation and further OCSD sampling results showed compliance.

January 1 – June 30, 2019

CPC had no further violations during this reporting period. OCSD will continue to monitor CPC's discharge and compliance status on a quarterly basis.

City of Huntington Beach Fire Department (Permit No. 1-111015)

City of Huntington Beach Fire Department (HB Fire) operates three oil extraction wells. The extracted crude oil and groundwater mixture is routed to an oil/water separation tank. Crude oil is shipped offsite while the separated wastewater is routed through an aboveground clarifier prior to discharge to the sewer.

January 1 – June 30, 2019

On **April 1, 2019**, HB Fire had an oil & grease violation, for which a Notice of Violation was issued on **May 28, 2019**. HB Fire reported that the violation was due to a build-up of oil and grease in the sample port and failure of the operator to flush the port prior to sampling. Through an email dated **June 10, 2019**, HB Fire informed OCSD that they had installed a third stage for the clarifier and a separate sample box as a corrective measure.

OCSD will conduct a Compliance Inspection during the next quarter to confirm implementation of HB Fire's corrective measures.

CJ Foods Manufacturing Corp. (Permit No. 1- 521849)

CJ Foods Manufacturing Corp. (CJ Foods) manufactures, packages, and distributes dumplings. Wastewater is generated by the cleaning and sterilization of processing and packaging equipment along with some other miscellaneous washdown. Pretreatment consists of pH adjustment in a 5,000-gallon underground clarifier.

July 1 – December 31, 2018

On **July 30, 2018**, CJ Foods had a pH violation, for which a Notice of Violation was issued on **August 22, 2018**. On **August 28, 2018**, OCSD conducted a Compliance Inspection and resampling during which CJ Foods indicated that on the day of the violation, the caustic supply had run out. CJ Foods now maintains a backup drum for immediate replacement. The resampling result showed compliance.

January 1 – June 30, 2019

CJ Foods had no further violations during this reporting period. OCSD will continue to monitor CJ Foods' discharge and compliance status on a quarterly basis.

Cooper and Brain, Inc. (Permit No. 1-031070)

Cooper and Brain, Inc. (Cooper & Brain) produces crude oil for delivery to chemical processing plants and oil refineries located in Wilmington, CA. The crude oil is extracted with groundwater from ground formations at various depths. Resultant water is discharged to the sewerage system.

July 1 – December 31, 2018

On **July 13, 2018**, Cooper & Brain had an oil & grease violation, for which a Notice of Violation was issued on **September 10, 2018**. On **September 17, 2018**, Cooper & Brain submitted a corrective action report attributing the violation to a buildup of biomass and

oil on the outside of the sample hose that was used to fill the grab jars. As a corrective measure, Cooper & Brain has ensured that the sample hose was cleaned prior to sample collection. Results of subsequent sampling showed compliance.

January 1 – June 30, 2019

Cooper & Brain had no further violations during this reporting period. OCSD will continue to monitor Cooper & Brain's discharge and compliance status on a quarterly basis.

D.F. Stauffer Biscuit Co., Inc. (Permit No. 1-600414)

D.F. Stauffer Biscuit Co., Inc. (Stauffer) is a food processing facility where baked goods, including crackers and cookies, are produced. Wastewater is generated from the cleaning and sanitizing of equipment and processing rooms. All wastewater is collected through floor drains and directed to a three-stage clarifier with sample box.

Stauffer has issues maintaining pH compliance due to the acidic cleaning agents used onsite and fermentation of the high strength (BOD/TSS) wastewater in the clarifier prior to discharge.

In March 2018, Stauffer had a pH violation for which a Notice of Violation was issued. In June 2018, OCSD conducted a Compliance Inspection during which another pH violation was detected, indicating a chronic concern for pH exceedances. Later that month, Stauffer installed a caustic drip system in the washroom for interim compliance until a permanent long-term solution is installed.

July 1 – December 31, 2018

On **July 19, 2018**, OCSD issued a Notice of Violation for the June 2018 pH violation. D.F. Stauffer had started working on securing and installing a new permanent pH adjustment system, which was expected to be fully installed and operational by May 2019.

January 1 – June 30, 2019

On **June 17, 2019**, OCSD conducted a Compliance Inspection and confirmed the installation of the permanent pH adjustment system. Stauffer had no further pH violations during this reporting period. OCSD will continue to monitor D.F. Stauffer's discharge and compliance status on a quarterly basis.

Darling International, Inc (Permit No. 1-511378)

Darling International, Inc. (Darling) collects and treats waste from interceptors, clarifiers,

and grease traps of food service establishments within the Southern California Region. Hauled waste is transported to the facility yard, unloaded to a large underground sump, then pumped to aboveground batch treatment tanks where it is treated with lime and polymer to enhance separation of solids and liquids. The sludge is dewatered and allowed to air dry in large rectangular vessels. The treated wastewater is collected and discharged to the sewer. The wastewater discharge permit authorizes Darling to discharge wastewater from the treatment of grease trap waste from restaurants, cafeterias, or other similar facilities, but not yellow grease or cooking oil. In addition, processing of grease from industrial kitchens, car washing facilities, metal recycling yards, or other sources of industrial or hazardous wastes is prohibited. Any generator sources outside of OCSD's service area must have a profile submitted in advance to OCSD for review and acceptance.

July 1 – December 31, 2018

On **August 28, 2018**, Darling had a pH violation, for which a Notice of Violation was issued on **October 22, 2018**. On **November 16, 2018**, OCSD conducted a Compliance Inspection during which Darling stated that pH monitoring is achieved through the use of pH strips at various points in the process including the wastewater collection sump. However, no pH logs are kept. The pH violation occurred because the pH adjustment process was only manually completed by the operators and the level of monitoring using pH strips was inadequate. In addition, the pH fluctuates due to the biologic nature of the type of waste. OCSD required installation of a pH meter and a pH recorder and operator training.

January 1 – June 30, 2019

On **June 4, 2019**, Darling had another pH violation. OCSD will issue a Notice of Violation and conduct a Compliance Inspection during the next quarter and pursue escalated enforcement as a result of the continued noncompliance and lack of an effective pH adjustment system.

Dr. Smoothie Enterprises - DBA Bevolution Group (Permit No. 1-600131)

Dr. Smoothie Enterprises – DBA Bevolution Group (Dr. Smoothie) processes, packages and distributes fruit beverage concentrates. The operations performed include mixing of concentrates manufactured offsite, packaging, and distribution. Currently, the wastewater does not undergo pretreatment prior to discharge to the sewer.

July 1 – December 31, 2018

On **November 5, 2018**, Dr. Smoothie had a minor pH violation, for which a Notice of Violation was issued on **November 20, 2018**. On **December 6, 2018**, OCSD conducted a Compliance Inspection and resampling during which OCSD indicated that pH treatment may be necessary to ensure consistent compliance, particularly since the pH

levels of some of the fruit concentrate products they process are below the local limit of 6.0. The resampling result showed another pH violation, for which a Notice of Violation was issued on **December 17, 2018**.

January 1 – June 30, 2019

On **March 4, 2019**, OCSD held a Compliance Meeting with Dr. Smoothie during which the company reported that they have implemented manual pH adjustment on all wastestreams that are found to be acidic, with plans to install a large (500- gallon) collection tank where the acidic wastestreams can be collected and treated with an automated pH adjust system in the long run.

OCSD will continue to monitor Dr. Smoothie's discharge and compliance status on a quarterly basis.

Dunham Metal Processing (Permit No. 1-021325)

Dunham Metal Processing (Dunham) is a small metal finishing job shop that specializes in clear, color, and multicolor sulfuric anodizing of aluminum parts for the aerospace, automotive, electronics, medical, and sporting goods industries. Wastewater is generated from the various spent process solutions and associated rinses. Dunham treats rinses and dye solutions in a continuous pretreatment system that consists of pH adjustment, polymer addition, and clarification in a lamella clarifier. Filtrate from the filter press is recycled back to treatment while treated water from the clarifier is discharged to the sewer. Most concentrated spent solutions are either waste-hauled offsite and/or reused to make up new process solutions. The spent anodizing solutions are used to make up fresh deoxidizer. The dye solutions are mostly replenished but are sometimes bled in small amounts into the general waste stream which only undergoes pH adjustment prior to discharge to the sewer. Sludge from tank bottoms are pumped once every three or four years and waste-hauled offsite.

January 1 – June 30, 2019

On **January 9, 2019**, Dunham had copper and nickel violations, for which a Notice of Violation was issued on **January 18, 2019**. In addition, Dunham had copper and nickel monthly average limit violations in the month of **January 2019**. On **February 5, 2019**, OCSD conducted a Compliance Inspection during which Dunham indicated that the violation occurred due a faulty pH meter that may have also been out of calibration. As a corrective measure, Dunham replaced the pH meter and installed a larger propeller on the mixer in the precipitation tank to enhance mixing efficiency. Dunham reported that pH probes are cleaned on a daily basis. Dunham is also considering replacing the flat-bottom clarifier with one that has a conical bottom to enhance the settling of solids.

On **April 15, 2019**, OCSD issued a Notice of Violation for the January 2019 copper and nickel monthly violations. OCSD staff will continue to monitor Dunham's discharge and

compliance status during the next reporting period.

Electro Metal Finishing (Permit No.1-021158)

Electro Metal Finishing performs powder coating and liquid paint spraying on a variety of parts, typically aluminum or galvanized steel, that are received from outside customers. Power coating process at Electro Metal includes cleaning in heated iron phosphate solution followed by rinsing with city water. Wastewater generated from the powder coating line is pumped to a batch treatment tank once a week for pH adjustment followed by chemical precipitation of solids. After completion of treatment, a sample is sent to an outside laboratory to ensure compliance with zinc and copper limits before discharging the treated wastewater to the sewer.

July 1 – December 31, 2018

On **August 23, 2018**, Electro Metal Finishing had a molybdenum violation, for which a Notice of Violation was issued on **September 28, 2018**. On **October 9, 2018**, OCSD conducted a Compliance Inspection during which it was concluded the chemical used in iron phosphate bath was the source of the molybdenum violation. Electro Metal Finishing agreed to stop discharging and to search for an alternate chemical for their iron phosphate tank. While testing for a new chemical, the company hauled off all the wastewater generated at their facility.

January 1 – June 30, 2019

Electro Metal Finishing had no further violations during this reporting period. OCSD will continue to monitor Electro Metal's discharge and compliance status on a quarterly basis.

Excello Circuits Manufacturing Corp (Permit No. 1-521855)

Excello Circuits Manufacturing Corp. (Excello) is a full-service printed circuit board manufacturer. Wastewater is generated from the inner-layer preclean and photo resist develop, etch, and stripping processes and from the outer-layer electroless copper plating, photo print developing, and copper/tin pattern plating and etch and strip processes. Excello's pretreatment system consists of a continuous ion exchange (IX) recycling system for metal-bearing rinses, and a batch treatment system for spent process solutions, mainly acid precleaners. Spent copper etchant is wastehauled offsite along with other spent process solutions. Sludge from the batch treatment process is dewatered with a filter press and wastehauled offsite. Non-metal bearing processes wastestreams and rinsewater from the photo resist and soldermask developing, along with resist strip rinsing, are discharged to the sample point without treatment.

In June 2017, Excello had a copper violation. In August 2017, OCSD conducted a

compliance inspection during which OCSD noted that the continuous IX pretreatment system had been disconnected. The batch treatment system was still operational for some wastestreams. The company also had an inadequate collection sump causing metal-bearing wastewater to overflow to the non-metal bearing wastewater chamber and discharged directly to the sewer without treatment. Furthermore, several metal-bearing wastestreams were found connected to the non-metal bearing plumbing and bypassing treatment. In September 2017, OCSD conducted another compliance inspection and issued an Order to Cease Noncompliant Discharges.

In October 2017, Excello had another copper violation. Excello indicated that the copper exceedance was due to troubleshooting during the re-installation of their IX pretreatment system. OCSD conducted resampling and the results showed compliance. OCSD held a compliance meeting with Excello, during which OCSD directed Excello to segregate non-metal bearing and metal-bearing wastestreams and to operate the continuous pretreatment system at all times the facility is discharging. OCSD also required Excello to submit updated plans and drawings with an accompanying waste destination and tank schedule, and to perform wastewater characterization.

In December 2017, OCSD issued a Compliance Requirement Letter reiterating the items discussed during the October 2017 compliance meeting. Specifically, the letter addressed the need for an improved treatment system and operational controls, updated facility drawings, elimination of bypass wastestreams, and requirements for wastewater characterization.

In April 2018, OCSD detected further copper violations during a downstream monitoring conducted at Excello. In May 2018, OCSD issued an Order to Cease Noncompliant Discharges to Excello in regard to copper exceedances from the downstream sampling. In June 2018, OCSD held a compliance meeting with Excello to address the downstream results. Excello stated that the exceedances are due to errors in the batch treatment process, and that new treatment chemistry and a new filter press were going to be implemented to correct the no-compliance.

July 1 – December 31, 2018

On **July 23, 2018**, OCSD issued a Probation Order requiring Excello to implement corrective actions associated with the copper violations. On **July 31, 2018**, Excello had another copper violation, for which a Notice of Violation was issued on **August 23, 2018**. On **November 5, 2018**, OCSD conducted another Compliance Inspection. To meet the Probation Order requirements, the company replumbed several lines and modified treatment with new equipment and upgrades but failed to meet the compliance schedule dates. On **November 8, 2018**, OCSD issued another Compliance Requirement Letter for Excello's failure to meet Probation Order deadlines. Excello started bringing the new system on-line to be able to maintain compliance with appropriate operational control over treatment.

January 1 – June 30, 2019

On **March 18, 2019**, OCSD conducted a Compliance Inspection and confirmed that all Probation Order items have been completed. Excello had no further violations during this reporting period. OCSD will continue to monitor Excello's discharge and compliance status on a quarterly basis.

FMH Aerospace Corp DBA FMH Corporation (Permit No. 1-571331)

FMH Aerospace Corp (FMH) manufactures complex fabricated components including expansion and flexible joints, formed and welded metal bellows, high pressure (braided) gas or fluid transfer lines, and pressurized ducts for aerospace, commercial, industrial, military/defense, and transportation applications. Many of the fabricated parts require extensive production tooling; therefore, a large portion of the facility is dedicated to general machine shop operations. Wastewater is generated primarily from the rinses following the surface cleaning and finishing operations performed on the metal parts during the various manufacturing stages, contact cooling for seam (resistance) welding, and secondarily by hydrostatic testing and fluorescent penetrant inspection conducted on the assemblies. The pretreatment system at FMH consists solely of pH adjustment.

In October 2016, and April and May 2017, FMH had silver violations. In July 2017, FMH had another silver violation. In August 2017, FMH had chromium, copper, lead, nickel, silver, and zinc violations. In December 2017, OCSD issued an Order to Cease Noncompliant Discharges and held a compliance meeting with FMH during which FMH informed OCSD that the company had purchased and already installed a new silver recovery/electrowinning unit to prevent further silver violations. FMH also indicated that the heavy metal violations that occurred in August most likely resulted from cross-contamination from the dust generated during floor resurfacing in their machine shop. Fine metal particulates had accumulated on the floor over the years of machining operations, and during floor resurfacing, dust containing metal particulates found its way to the sample point.

In March 2018, FMH had another silver violation. In May 2018, OCSD conducted a compliance inspection during which FMH indicated that they plan to appeal the violation if their split sample result turns out to be compliant. However, the split sample result was also out of compliance. As a result, OCSD issued a Second Order to Cease Noncompliant Discharges. In June 2018, OCSD held a compliance meeting with FMH, during which FMH attributed the silver violation to internet connectivity failure that halted the silver recovery system. FMH informed OCSD that they have doubled the capacity of their silver recovery system and that all the filters will be replaced every quarter.

July 1 – December 31, 2018

On **July 11, 2018**, OCSD issued a Compliance Requirement Letter directing FMH to collect silver recovery waste in a batch discharge tank and maintain a batch discharge

log. FMH was required to test each batch for compliance and to discharge only if the testing demonstrated compliance with the silver limits. Additionally, FMH was required to maintain waste manifests and make them available to OCSD upon request. On **July 27, 2018**, FMH had another silver violation, for which a Notice of Violation was issued on **September 4, 2018**. On **September 25, 2018**, OCSD conducted a Compliance Inspection during which FMH indicated that they traced the violation to silver residue that was deposited on the floor of the X-Ray film processing room. Specifically, the drain that captures water from the processor rinse and rinse sink got clogged causing water to back up onto the floor. When the clog was removed, the water that backed up on the floor flowed back to the drain, thereby causing a silver violation. On **October 9, 2018**, FMH submitted a root cause corrective action report. Corrective actions consisted of replacing the rinse sink, cleaning the floor to remove silver residue which included waste hauling the residue and painting the floor, and setting up a closed loop system for the processor rinse and rinse sink.

January 1 – June 30, 2019

On **February 25, 2019**, OCSD conducted a follow-up Compliance Inspection and confirmed that the rinse sink was replaced, and the floor was re-painted. The new closed loop system for the processor rinse and rinse sink was operational and appeared to be maintained.

OCSD will continue to monitor FMH's discharge and compliance status on a quarterly basis.

Goodwin Co. (1-031043)

Goodwin Company (Goodwin) manufactures household cleaning and surface treatment products which are formulated from raw chemical feedstocks and soft water, dispensed into plastic containers, packaged, then sold to wholesale and retail distribution centers. Major chemicals used in the formulations include glycols, amines, and acetates. Simple Green, Pinesol, Anti-Freeze, Armor-All and ammonia-based windshield cleaners are some of the most popular products. Floor and equipment wash-downs represent the majority of the industrial wastewater generated by Goodwin, along with a small amount of soft water system reject. Floor run-off is collected in a trench system that flows to a sump in the middle of the production floor, and then pumped over to an equalization tank equipped with a pH monitoring and adjustment system.

January 1 – June 30, 2019

On **May 2, 2019**, Goodwin had an oil & grease violation, for which a Notice of Violation was issued on **June 4, 2019**. On **June 25, 2019**, OCSD conducted a Compliance Inspection and resampling during which Goodwin indicated that they were unable to identify the source of the violation as no specific system upset occurred during the previous sampling event. The resampling results showed compliance.

OCSD will continue to monitor Goodwin's discharge and compliance status on a quarterly basis.

Green Clean Water & Waste Services (Permit No. 1-521857)

Green Clean Water & Waste Services (Green Clean) is a centralized waste treatment facility. Non-hazardous wastewater from utility vaults is delivered to the facility for treatment and discharge to the sewer. Green Clean utilizes an equalization/holding tank and a packaged treatment system consisting of a three-stage cartridge filter system followed by final polishing with a 200-lb canister of carbon and metals adsorption media.

July 1 – December 31, 2018

On **April 2, 2018**, Green Clean had a titanium violation, for which a Notice of Violation was issued on **December 27, 2018**.

January 1 – July 31, 2019

Green Clean ceased operations in 2019 due to their facility lease expiring, having not discharged since August 2018.

Hanson-Loran (Permit No. 1-031107)

Hanson-Loran manufactures water-based floor finishers and specialty cleaners for distribution and sales by various independent contractors. The processes include dry blending (from which there is no wastewater discharge) and wet blending. The dry blending process is located inside the building, where dry powders are blended to produce Hanson-Loran's industrial cleaners. Wet blending is accomplished in four mixing tanks at the rear of the building. Products include floor cleaners, waxes, strippers, cleaners, degreasers, sanitizers, disinfectants, and soaps. Hanson-Loran's treatment system consists of an underground three-stage clarifier with manual pH adjustment using pH strips and addition of granulated citric acid.

In October 2017, Hanson-Loran had pH violations. In November 2017, OCSD conducted a compliance inspection and resampling, which showed compliance. However, noting that the treatment system lacked adequate control, OCSD advised Hanson-Loran to take corrective measures to prevent further pH noncompliance. Hanson-Loran installed an automated pH control system to prevent further pH violations. During OCSD's routine sampling in June 2018, a variation in pH readings was noted at different depths in the sample point, indicating a lack of proper mixing. Hanson-Loran was informed that the representative volume of wastewater being sampled should be sufficiently mixed so that the pH readings are consistent across the entire depth of the sample point.

July 1 – December 31, 2018

Hanson-Loran installed a second probe to verify the pH following adjustment in the clarifier. Hanson-Loran had no pH violations during this reporting period.

January 1 – June 30, 2019

On **March 7, 2019**, Hanson-Loran had another pH violation, for which a Notice of Violation was issued on **March 19, 2019**. On **April 3, 2019**, OCSD conducted a Compliance Inspection during which it was determined that the pH adjustment system's set points were not adequately set, therefore the system was over-dosing caustic to the clarifier. The pretreatment system operators were also manually adding citric acid to the final stage of the clarifier prior to the sample point in attempt to reduce the pH. However, due to lack of proper mixing of the chemical, a layer of citric acid had developed on the bottom of the clarifier.

On **April 4, 2019**, and **May 28, 2019**, Hanson-Loran had additional pH violations, for which Notices of Violation were issued on **May 9, 2019** and **June 12, 2019**, respectively. On **June 13, 2019**, OCSD issued Hanson-Loran a Compliance Requirement Letter for Hanson-Loran to attend a Compliance Meeting.

OCSD will conduct a Compliance Meeting and issue a Compliance Requirements Letter during the next quarter.

Harbor Truck Bodies, Inc. (Permit No. 1-021286)

Harbor Truck Bodies, Inc. (Harbor Truck) manufactures utility bodies, platform beds, toolboxes, and rear step-bumpers. The effluent discharge at Harbor Truck is generated from the soap cleaning and phosphate washing plus rinsing in the spray booth, with the wash water collected in a large trench and sump system installed in the wash chamber floor. From the sump, the wash water is pumped by liquid level control to the three stage pretreatment system on the west side of the facility, where pH is adjusted in the first stage using caustic, followed by polymer/floc addition for solids precipitation in the second stage, then overflow into a collection/solids settling tank before discharge by gravity out of the building to a three stage underground clarifier. Harbor Truck uses a filter press for dewatering of solids from the settling tank.

July 1 – December 31, 2018

In the month of **April 2019**, Harbor Truck had a monthly zinc violation. OCSD will issue a Notice of Violation during the next quarter.

Hightower Plating & Manufacturing Co. (Permit No. 1-021185)

Hightower Plating & Manufacturing Co. (Hightower) manufactures aerospace-quality washers by stamping steel, stainless steel, and aluminum coils. The parts are deburred and then processed through a variety of metal finishing steps depending on the material, to achieve the desired finish. Hightower's metal finishing operations include alkaline cleaning, acid activation, chromic and sulfuric anodizing, cadmium plating, acid zinc plating, nickel plating, caustic etching, deoxidation, chem film, dichromate sealing, and passivation.

Low concentration waste streams are being treated using two ion exchange systems - one for cyanide bearing waste streams and one for non-cyanide bearing waste streams. The treated water is returned to the process tanks for reuse. The regenerant wastes from both ion exchange systems are processed through an evaporator. Concentrated wastes (including but not limited to chromic acid from the anodizing tanks) are wastehailed off-site. A small number of waste streams from the sulfuric anodize and chem film lines are sent to a chromium collection tank and then treated using the chromium reduction system.

January 1 – June 30, 2019

On **May 8, 2018**, Hightower had cadmium concentration and mass violations, for which a Notice of Violation were issued on **June 10, 2019**. In a response letter dated **June 25, 2019**, Hightower stated that its investigation failed to identify a root cause, as no changes to its wastewater generating and treatment activities have occurred, and confirmation sampling conducted by Hightower on **May 29, 2019** and **June 3, 2019** showed compliance with the cadmium limits. Analysis of Hightower's split sample yielded a lower result but still in exceedance of the cadmium limit.

OCSD will conduct a Compliance Inspection during the next quarter to review Hightower's operations and pretreatment system.

Hixson Metal Finishing (Permit No. 1-061115)

Hixson Metal Finishing (Hixson) is a large metal finishing job shop. Various metallic parts from the aviation, automotive, and electronics industries are received for surface finishing through aluminum chemfilm and dyeing, cadmium, copper, and nickel electroplating, stainless-steel passivation, as well as a multitude of chemical precleaning and surface activation processes. Wastewater is generated from the rinses used in the various surface finish processes and fume hood wash water. Pretreatment consists of cyanide destruction and chrome reduction followed by heavy metals precipitation using caustic soda for pH adjustment, coagulant injection, followed by polymer/flocculation and solids settling in a lamella clarifier and removal to a sludge thickening tank. Overflow from the clarifier is discharged to the sample box. The sludge from the clarifier is dewatered with a filter press. Filtrate from the filter press is plumbed to the heavy metals

precipitation module for further treatment.

In October, November, and December 2017, Hixson had cadmium and nickel violations. In December 2017, OCSD held a compliance meeting with Hixson during which OCSD pointed out that increasing levels of water usage, as well as wastewater generation and discharge, were noted at the facility. The two sampling events in October and November 2017 reported effluent flows of 55,000 gallons and 60,000 gallons per day, respectively, which were well above the permit flow-base of 39,000 gallons per day. Hixson stated that the new anodize line that had been under construction for the past 3-4 years had finally come online over the summer, and that the facility was having issues with the conductivity rinse controls installed in various rinse tanks on the new line. The flow controllers were not shutting off due to unanticipated high TDS / mineral concentrations in the influent city water. OCSD highlighted the concern that Hixson's existing pretreatment system may be undersized for the higher flows, thereby losing its treatment efficiency and effectiveness for reduction of heavy metals, particularly cadmium and nickel, which are Hixson's primary metals of concern. The higher water consumption and outflows also created a dilution condition at the facility. Hixson acknowledged the situation and stated they were working on a solution.

In February 2018, OCSD issued an Order to Cease Noncompliant Discharges due to the numerous violations of cadmium, copper, chromium, and nickel detected during downstream monitoring of Hixson's discharge. In March 2018, OCSD held another compliance meeting with Hixson, where Hixson agreed to a Settlement Agreement to settle their continued noncompliance. OCSD conducted another compliance inspection during which pretreatment deficiencies were identified including lack of operating procedures and lack of pretreatment system control and maintenance. These deficiencies were addressed in the Settlement Agreement.

July 1 – December 31, 2018

The final Settlement Agreement was issued on **September 27, 2018** and became effective on **October 18, 2018**.

In the evening of **September 29, 2018**, a slug discharge occurred at Hixson, for which a notification was made to OCSD on **October 3, 2018**. Approximately 300 gallons of a 10% chromic acid solution was spilled into a secondary containment area due to a leak from a broken flange gasket going to the chiller pump from a process tank. An empty piping conduit in the wall between the secondary containment and the pretreatment area caused the spilled solution to enter the acid rinse holding tank, and through pretreatment system. On **October 2, 2018**, Hixson had chromium and silver violations coinciding with the slug discharge. On **October 11, 2018**, OCSD issued a Notice of Violation for the chromium and silver violations and conducted a Compliance Inspection during which OCSD had noted that the piping conduit between secondary containment and the pretreatment area had been capped. On **October 18, 2018**, OCSD conducted resampling which yielded compliant results.

On **November 28, 2018**, as required in the Settlement Agreement, Hixson submitted a Waste Management Plan, an Industrial Waste Characterization, an Operation and Maintenance Manual, and a proposal to install an Ion Exchange System. An Ion Exchange System was required as a result of a change from Pretreatment Standards of Existing Sources (PSES) to Pretreatment Standards of New Sources (PSNS).

January 1 – June 30, 2019

On **March 1, 2019**, Hixson's new permit limits under the Pretreatment Standards for New Sources (PSNS) became effective. On **May 14, 2019** and **June 18, 2019**, Hixson had cadmium violations.

OCSD will issue Notices of Violation and pursue escalated enforcement action during the next quarter.

Independent Forge Company (Permit No. 1-021401)

Independent Forge Company (Independent Forge) forges parts for commercial aviation, military specific applications, and other market sectors including bicycles, archery, jet ski, and motorcycle parts. Wastewater is generated from the deburring, caustic etching, acid cleaning, and dye penetrant testing operations and associated rinses. Independent uses a batch treatment system to treat the waste streams from the caustic etching and acid cleaning operations.

January 1 – June 30, 2019

On **February 7 and February 27, 2018**, Independent had zinc violations, for which Notices of Violation were issued on **March 7 and April 3, 2019**, respectively. In addition, Independent had a zinc monthly mass limit violation in the month of **February 2019**. Independent Forge claimed that the root cause of the violation was the filter press, citing the age of the mesh material on the plates caused a loss of removal efficiency. However, Independent Forge was unable to explain the increase of zinc from 12.4 mg/L to 36.6 mg/L between the two sample dates, despite Independent Forge's claim that it was the same batch of treated wastewater. On **April 10, 2019**, OCSD conducted a Compliance Inspection during which several deficiencies were noted including the lack of a functioning pH meter in the batch treatment system, excessive accumulation of metal-bearing solids in the batch treatment tank, the use of the batch treatment tank as the final holding tank prior to discharge, and the lack of an effective batch treatment procedure.

On **May 1, 2019**, OCSD issued a Notice of Violation for the February 2019 zinc monthly mass limit violation. On **May 9, 2019**, OCSD staff issued a Compliance Requirements Letter directing Independent Forge to attend a Compliance Meeting to discuss multiple non-compliance issues. The Compliance Meeting was held on **May 29, 2019**. On **June 27, 2019**, OCSD issued a Probation Order requiring Independent Forge to rectify the

compliance issues noted above.

OCSD will continue to monitor Independent's discharge and compliance status on a quarterly basis.

Industrial Metal Finishers (Permit No. 1-521828)

Industrial Metal Finishers (IMF) is a specialty processing job shop performing wet and dry surface finishing operations on customer supplied parts of aluminum, carbon and stainless steel, and titanium. IMF does not have any categorically regulated metal finishing operations and is therefore permitted exclusively under local limits. Parts are used in aerospace, commercial, communication, industrial, medical, and military/defense applications. Dry mechanical operations include shot peening, dry abrasive blasting, and liquid honing. Wastewater is generated through wet deburring or tumbling, and ultrasonic cleaning. Wastewater is directed to a batch tank treatment system where the pH is adjusted and flocculent is added to precipitate metals prior to discharge through a polishing micron filter into the floor sink sample point.

July 1 – December 31, 2018

On **December 7, 2018**, IMF had a pH violation.

January 1 – June 30, 2019

On **January 2, 2019**, OCSD issued a Notice of Violation for the pH noncompliance and conducted a Compliance Inspection on **January 22, 2019**, during which OCSD noted that IMF had already made the appropriate corrections.

IMF had no further violations during this reporting period. OCSD will continue to monitor IMF's discharge and compliance status on a quarterly basis.

J&J Marine Acquisitions, LLC (Permit No. 1-551152)

J&J Marine Acquisitions, LLC (J&J Marine) performs boat maintenance and repair work, including hull repairs and recoating, plus interior remodeling. Wastewater is generated from the boat washing and cleaning process. Pretreatment consists of bag filtration followed by electrocoagulation and final pH adjustment. J&J Marine also has the capability to collect, treat, store and reuse stormwater in the boat washing and cleaning process throughout the facility (rather than discharging to the Newport Beach Harbor).

January 1 – June 30, 2019

On **April 23, 2019**, J&J Marine had a copper violation, for which a Notice of Violation

was issued on **May 13, 2019**. On **May 28, 2019**, J&J Marine filed an appeal against the Notice of violation based on the analytical result of their split sample, which came out to be significantly lower than OCSD's result and the copper discharge limit.

OCSD will evaluate J&J's appeal request by analyzing the archived split sample.

Kenlen Specialties, Inc. (Permit No. 1-021171)

Kenlen Specialties, Inc. (Kenlen) is job shop powdercoater. The company works on aluminum and steel parts, which undergo a washing step prior to painting or powder coating. Washing is done through a three-stage conveyORIZED automated washing machine with iron phosphate solution to remove any oil or other contaminants on the parts, followed by a dragout rinse and final rinsing with deionized water. The rinsewater is discharged directly from the machine to the sewer through the above ground sample box.

July 1 – December 31, 2018

On **October 2, 2018**, Kenlen had molybdenum and zinc violations, for which a Notice of Violation was issued on **October 11, 2018**. On **October 30, 2018**, OCSD conducted a Compliance Inspection during which it was determined that the iron phosphate solution used by Kenlen contained molybdenum and that the violations were a result of dragout entering the rinsewater. Kenlen stated they would instruct their employees to use the dragout to replenish the process bath instead of emptying collected dragout into the rinse tank. OCSD directed Kenlen to not dispose of remaining molybdenum-based solution to the sewer without treatment. Kenlen is considering replacing their existing iron phosphate solution with a non-molybdate formulation.

OCSD will continue to monitor Kenlen's discharge and compliance status on a quarterly basis.

January 1 – June 30, 2019

Kenlen had no further violations during this reporting period. OCSD will continue to monitor Kenlen's discharge and compliance status on a quarterly basis.

Legendary Baking of California, LLC (Permit No. 1-600294)

Legendary Baking of California, LLC (Legendary Baking) is a pie manufacturing company. Operations include dough mixing, filling mixing, assembly, baking, freezing and packaging. Wastewater is generated from the washing of mixing and baking equipment and tools. Wastewater is sent to an underground clarifier for solids removal, then to a pH adjustment/recirculation system with a static mixer.

July 1 – December 31, 2018

On **September 4 & 5, 2018**, Legendary Baking had pH violations, for which a Notice of Violation was issued on **October 11, 2018**. On **October 18, 2018**, OCSD conducted a Compliance Inspection and resampling during which it was determined that the pH controller was malfunctioning, and a new one had been installed. On **November 5, 2018**, Legendary Baking had another pH violation, which was issued as a Notice of Violation on **January 9, 2019**. On **November 6 & 7, 2018**, OCSD conducted a follow-up inspection and resampling during which it was determined that the circulation pump inside the clarifier had been knocked over and unplugged. Legendary Baking hard-wired the circulation pump to directly to an outside power box to eliminate the pump being disconnected. Although OCSD's resampling results yielded positive results, data submitted by Legendary Baking indicated multiple days where the pH continued to be out of compliance. There seemed to be miscommunications regarding responsibilities between the facility, and their environmental consultant, Shepard Bros. (i.e. pretreatment system maintenance, troubleshooting, chemical inventory and supply, etc.).

January 1 – June 30, 2019

On **January 10, 2019**, OCSD issued a Compliance Requirement Letter directing Legendary Baking to attend a compliance meeting later that month. On **January 16, 2019**, OCSD learned through a phone call that Legendary Baking's production had discontinued in December 2018. On **January 22, 2019**, OCSD received a Close of Business form and had terminated Legendary Baking's permit accordingly.

Linco Industries

Linco Industries, Inc. (Linco) is a small metal parts stripping and cleaning facility. Parts are mostly automotive and motorcycle wheel rims and other accessories. Paint and other non-metallic coatings are stripped in high temperature (550°F) salt bath (blend of sodium hydroxide and sodium nitrate), or in cold (160°F) strip tanks (blend of ethanolamine, n-methylpyrrolidone and dibasic ester). Parts from the salt stripping process are rinsed in low volume overflow rinse, controlled and treated with a pH monitor and sulfuric acid solution to reduce the pH down to the 9.0 – 10.0 range, then pumped to an aboveground clarifier. Parts from the cold stripping process are rinsed by a manual high-pressure spray and wastewater from the wash pad area is collected and pumped into a tank for minimal solids settling and oil separation before pumping to the aboveground clarifier. The first stage of the clarifier is used for final pH adjustment with sulfuric acid and caustic. Water from the final stage of clarifier flows over a weir and into a drum where sampling is conducted. Absorbent pads are used in the drum to remove any excess oil.

January 1 – June 30, 2019

On **January 31, 2019**, Linco had an oil & grease violation, for which a Notice of Violation

was issued on **February 26, 2019**. On **March 12, 2019**, OCSD conducted a Compliance Inspection during which Linco discussed attributing the cause of violation to insufficient changing of the oil & grease absorbent pads that are placed on top of the tanks. Linco was directed to maintain a log sheet to record the frequency of replacing the absorbent pads. Additionally, Linco indicated the possibility of installing an oil skimmer in the near future.

OCSD will continue to monitor Linco's discharge and compliance status on a quarterly basis.

LM Chrome Corporation (Permit No. 1-511361)

LM Chrome Corporation (LM Chrome) is an automotive wheel plating facility. Wastewater generating operations include alkaline cleaning, zincate stripping, zincating, acid activation, copper plating, electrocleaning, anti-tarnish, nickel plating, and chrome plating, and associated rinses. LM Chrome utilizes a batch and a continuous pretreatment system (PTS). The continuous PTS consists of cyanide destruction, chromium reduction, neutralization, flocculation/settling, sludge holding, filter pressing, and final clarification. The batch treatment tank is used for manually treating spent cleaners.

In August 2017, LM Chrome had a cyanide (total) violation. Later that month, OCSD conducted resampling and the results also showed a cyanide (total) violation. In September 2017, LM Chrome sent OCSD a letter describing the corrective actions LM Chrome planned to implement, which included close monitoring of the chemical feed pumps to ensure delivery of the appropriate amount of chemicals for cyanide treatment; ensuring that the pH and ORP probes are operating optimally; and sampling each treated batch to ensure compliance (via analysis by an independent laboratory) prior to discharging to the sewer. In October 2017, OCSD conducted a compliance inspection and resampling during which OCSD noted that while LM Chrome was maintaining cyanide batch discharge logs, each treated batch is only tested for compliance using cyanide test strips. The resampling results showed compliance.

In January 2018, LM chrome had another cyanide violation. In May 2018, OCSD conducted another compliance inspection and routine sampling. OCSD noted that LM Chrome had started keeping daily logs of its pretreatment system operating parameters including the pH and ORP settings and the cyanide test strip results of each treated cyanide batch. The sample, however, yielded another cyanide violation.

July 1 – December 31, 2018

On **July 25, 2018**, OCSD issued LM Chrome an Order to Cease Noncompliant Discharges. On **August 7, 2018**, OCSD held a Compliance Meeting with LM Chrome to discuss corrective action for cyanide pretreatment. On **October 17, 2018**, OCSD sent LM chrome a Compliance Requirement Letter directing the company to install an

automated cyanide destruction system, perform multi-day verification sampling following system installation, and provide formal wastewater treatment training/certification for the pretreatment operators. On **November 28, 2018**, OCSD conducted a follow-up inspection and verified the installation of the automated cyanide destruction system. The results of multi-day verification sampling showed compliance.

January 1 – June 30, 2019

LM Chrome had no further cyanide violations during this reporting period. OCSD will continue to monitor LM Chrome's discharge and compliance status on a quarterly basis.

LSW Enterprises, LLC (Permit No. 1-521863)

LSW Enterprises, LLC (LSW) is a facility that receives, renders, and treats used cooking oil and grease trap waste from food service establishments. LSW removes solid particles and water from received waste; the used cooking oil and grease are then sold on secondary markets or exported to refineries for biofuel production. The wastewater is pH adjusted prior to discharge to the sewer.

In August 2017, the City of Anaheim reported solids blockage caused by the presence of oil and grease in the sewer downstream of LSW's facility. In response to the City of Anaheim's sewer blockage report, OCSD issued an Order to Cease Noncompliant Discharges (Cease Order) requiring LSW to take immediate action to ensure compliance with OCSD's Ordinance. In September 2017, OCSD held a compliance meeting with LSW, in which LSW agreed to discontinue certain practices which were thought to be causing the excessive discharge of oil and grease to the sewer.

In February 2018, the City of Anaheim reported another sewer blockage downstream of LSW's facility. OCSD immediately conducted a Compliance Inspection, during which OCSD observed an active flow of excessive amounts of oil and grease material downstream of LSW's facility. OCSD issued a second Cease Order requiring LSW to cease noncompliant discharge of excessive oil and grease into the OCSD's sewerage system. OCSD also issued a Compliance Requirement Letter requiring LSW to install a final holding tank and an effluent flow meter. LSW requested and OCSD granted an extension to complete the installation by June 2018, which LSW had failed to comply with.

OCSD conducted follow-up inspections of the facility from March through June 2018. During each inspection, LSW attempted to interfere, delay, resist, or refuse site access to OCSD staff. LSW had also refused to provide documentation related to the handling and disposition of wastewater generated at the facility. Furthermore, LSW accepted and treated material containing wastewater from outside OCSD's service area without prior approval, which is a violation of the special conditions in LSW's permit and OCSD's Ordinance. OCSD issued more Cease Orders in April and June 2018, and another Compliance Requirements Letter in May 2018, in response to LSW's ongoing

noncompliance with permit and Ordinance conditions.

July 1 – December 31, 2018

On **July 11, 2018**, OCSD held a Compliance Meeting with LSW and discussed the permittee's failure to make progress towards compliance over an extended period of time. As a result of their continued non-compliance, LSW ceased wastewater discharge and requested to discontinue the Class 1 permit, which became void as of **July 19, 2018**. LSW's permit is void and it is OCSD's understanding that wastewater discharge from the facility has ceased.

Marukome USA, Inc. (Permit No. 1-141023)

Marukome USA, Inc. (Marukome) is a manufacturer of miso paste from cooked soybeans and rice. The facility also makes a small amount of miso dressing produced from a vinegar base. Wastewater is generated from the draining of washed and soaked soybeans and rice and from the cleaning of the equipment used in the production operation. Cleaning occurs at least once a day and includes the food processing equipment as well as the transporting bins. Wastewater is pH adjusted prior to discharge to the sewer.

July 1 – December 31, 2018

On **August 8, 2018**, Marukome had a pH violation, for which a Notice of Violation was issued on **August 22, 2018**. On **September 6, 2018**, OCSD conducted a Compliance Inspection during which Marukome attributed the pH violation to an empty caustic soda barrel. During its investigation, Marukome discovered that the caustic soda barrel which is used to adjust pH was at its empty point. The line was temporarily shut off as there was not an extra drum available at hand. This caused pH to drop to noncompliant levels. Marukome submitted a corrective action letter indicating that they will have a representative employee who will closely monitor caustic soda levels and inform management if the levels drop to a level that can cause pH violations. Additionally, Marukome will keep an extra drum near the current drum to eliminate lag time in between caustic change-outs.

January 1 – June 30, 2019

Marukome had no further violations during this reporting period. OCSD will continue to monitor Marukome's discharge and compliance status on a quarterly basis.

Meggitt, Inc. (Permit No. 1-600006)

Meggitt, Inc. (Meggitt) produces sensing and monitoring systems that measure physical parameters in the extreme environments of aircraft, space vehicles, power generators,

nuclear, oil and gas installations, and test laboratories. Processes used in manufacturing operations include, but are not limited to, machining, sawing, coating, sandblasting, welding, brazing, and metal finishing. Parts worked on are made of Inconel, stainless steel and tungsten. Wastewater-generating processes include electro-polishing, passivation, etching, filament cleaning, ceramic dicing, ceramic dimensional polishing, ceramic tumbling, nickel bath plating, parts washing, and emergency only discharge of non-contact cooling water from the annealing furnace operations. Wastewater generated from the ceramic dimensional polishing operation, as well as the spent silver nitrate solution from the ceramic tumbling are wastehailed offsite. Rinses from these and the other wastewater generating operations go to a three-stage polypropylene aboveground tank, in which sodium hydroxide is added in the first and third compartments for pH adjustment, as most of the wastestreams are acidic in nature. pH-adjusted effluent is collected in a 750-gallon holding tank to facilitate batch discharge sampling.

July 1 – December 31, 2018

In the month of **March 2019**, Meggitt had lead and silver monthly discharge limit violations, for which a Notice of Violation was issued on **June 7, 2019**. On **June 13, 2019**, OCSD conducted a Compliance Inspection during which Meggitt specified that the only two possible sources for the exceedances are the rinse associated with the silver plating and ceramic dicing machine. OCSD directed Meggitt to implement an additional pre-cleaning step at the rinse associated with silver and the ceramic dicing machine. The permittee is currently in the process of buying a filtration system for the dicing machine to further reduce the lead concentration in the wastewater. In the month of **June 2019**, Meggitt had another lead monthly discharge limit violation, for which a Notice of Violation will be issued in the next quarter.

OCSD will continue to monitor Meggitt's discharge and compliance status on a quarterly basis.

Murrietta Circuits (Permit No. 1-521811)

Murrietta Circuits (Murrietta) is a printed circuit board manufacturer. Pretreatment consists of an ion exchange (IX) system for treatment of select rinse water streams and a batch hydroxide precipitation system for handling spent process chemicals plus drag-out rinses and IX regenerant waste. The IX system effluent is adjusted for pH before discharge to the sewer.

July 1 – December 31, 2018

On **December 10, 2018**, Murrietta Circuits had a pH violation.

January 1 – June 30, 2019

On **January 15, 2019**, OCSD issued a Notice of Violation for the pH violation. On **January 30, 2019**, OCSD conducted a Compliance Inspection during which Murrietta indicated that the violation was due to formation of deposits on the pH probe in the continuous pH adjustment system. On **February 26, 2019**, Murrietta submitted a corrective action letter indicating that they have added a new mixer, a chemical pump and a pH neutralization system to the final tank to monitor and adjust the pH before wastewater is routed to the sewer to prevent future incidents. Additionally, a log sheet was created to record pH probe cleaning and calibration dates and is posted next to the pH adjustment system.

OCSD will continue to monitor Murrietta's discharge and compliance status on a quarterly basis.

Nalco Cal Water, LLC (Permit No. 1-521748)

Nalco Cal Water, LLC (Nalco) performs ion exchange tank regeneration on both cation, anion, and mixed bed resins. Cation regeneration uses acidic solutions and anion regeneration uses alkaline solutions in the regeneration process. Wastewater from the regeneration process is discharged to floor drains, collected, and pumped to a 1025-gallon collection tank where it is directed into either an acidic or alkaline wastewater holding tank based on the pH set point of 8.5. Water is then blended and discharged through the sample point. Nalco stated the columns regenerated are only used in purifying fresh incoming city water, and no columns are used in treatment of industrial waste streams.

In September 2017, during a downstream operation along Petra Lane in Placentia, OCSD noted that significant variations in pH were observed with continuous pH data loggers. It was determined that the pH of wastewater discharged from Nalco exceeded both the high and low limits, with pH concentrations recorded as high as 13.71 S.U. and as low as 0.81 S.U. In October 2017, OCSD issued an Order to Cease Noncompliant Discharges to Nalco. OCSD also conducted a Compliance Inspection, which confirmed issues with overflow of non-neutralized wastewater through the sample point to the sewer, followed by a compliance meeting with Nalco where the company provided plans to rectify their wastewater discharge and treatment issues. During the meeting, Nalco provided OCSD with a proposal to address interim plans, as well as long-term plans, for compliance. Interim solutions included modification of pH set points and calibration procedures, continuous pH recording, and corrections to spill containment overflow. Long-term solutions included a timeline to install a reconfigured pretreatment system that would operate as a batch system rather than operating continuously.

In December 2017, OCSD held a second compliance meeting with Nalco to get an update on the plans, and to bring the Nalco's parent company, Ecolab, into discussions for the long-term solution. Nalco presented updated plans for a new batch treatment

system, complete with monitoring points installed for the purpose of maintaining compliance with the pH discharge limits.

In January 2018, OCSD issued a Compliance Requirement Letter to approve Nalco's project timeline and implementation of their new treatment system. Although Nalco did not meet the anticipated installation completion and system operational timeline of April 2018 due to equipment procurement issues, the company has made considerable progress in implementing various interim controls to stay in compliance. Nalco made biweekly progress reports as required and kept OCSD updated in advance of all operational changes.

July 1 – December 31, 2018

On **July 23, 2018**, OCSD conducted a Compliance Inspection to verify the updated treatment system configuration and implementation of new treatment. The company had made the required corrections and is expected to have greater control over the pH of their discharge.

OCSD will continue to monitor Nalco's discharge and compliance status on a quarterly basis.

January 1 – June 30, 2019

Nalco had no further cyanide violations during this reporting period.

National Construction Rentals (Permit No. 1-600652)

National Construction Rentals (National) is a supplier of temporary fencing, barricades, portable toilets, restroom trailers, mobile storage containers, and temporary power poles. Wastewater is generated from the washing and cleaning of portable toilets and restroom trailers. The wastewater is routed to a three-stage underground clarifier before discharge to the sewer.

January 1 – June 30, 2019

On **February 20, 2019** and **March 12, 2019**, National had pH violations for which Notices of Violation were issued on **May 10, 2019**. On **May 10, 2019**, OCSD issued National a Compliance Requirement Letter to attend a Compliance Meeting to discuss the non-compliant pH discharges, as well as the failure to submit several proposals and deliverables between December 2018 and February 2019. On **June 4, 2019**, OCSD held the Compliance Meeting with National during which National indicated that the source of the pH violations was a chemical containing hydrochloric acid used in the portable toilet washing process. National had since discontinued the use of the chemical from the washing process. On **June 13, 2019**, OCSD issued a Compliance Requirements Letter directing National to install an automated pH adjustment system,

propose a stormwater mitigation plan to prevent stormwater from entering the three-stage clarifier as prohibited by OCSD's Ordinance, and submit a Slug Discharge Control Plan. On **June 25, 2019**, OCSD issued an extension to the due dates listed in the Compliance Requirements Letter.

OCSD will continue to monitor National's discharge and compliance status on a quarterly basis.

O.C. Waste & Recycling (Permit No. 1-141018)

O.C. Waste & Recycling discharges condensate generated from the Coyote Canyon Landfill gas collection system and spring water collected in French drains onsite. The site has a batch treatment tank equipped with a manual pH adjustment system utilizing sodium hydroxide to adjust the pH of the gas condensate as needed. Bleach (Purechlor) is also added to the gas condensate to control odor.

January 1 – June 30, 2019

On **March 1, 2019**, O.C. Waste & Recycling had a pH violation, for which a Notice of Violation was issued on **April 3, 2019**. On **April 17, 2019**, OCSD conducted a Compliance Inspection during which O.C. Waste & Recycling indicated that the stratification of pH levels within the condensate tank and lack of proper mixing caused the pH violation. OCSD directed O.C. Waste & Recycling to update the Condensate Treatment Procedure to include a pre-mixing step to resolve the issue of stratification of pH levels within the tank, as well as measurement of pH prior to discharge to determine if pH is within compliant levels or further treatment is required. On **May 6, 2019**, O.C. Waste & Recycling submitted the updated procedure indicating that they have implemented the initial mixing step before measurement of pH. Additionally, O.C. Waste & Recycling has increased the pH level treatment threshold and changed the pH probes calibration procedure to further achieve compliance.

OCSD will continue to monitor O.C. Waste & Recycling's discharge and compliance status on a quarterly basis.

Patio and Door Outlet, Inc. (Permit No. 1-521783)

Patio and Door Outlet, Inc. (Patio) manufactures and sells high-end patio furniture. Aluminum tubing and sheeting are cut, bent, formed and welded in the manufacture of the framing for chairs and tables. After assembly, frames are washed, iron-phosphated, sealed, and powder-coated in various colors and textures. Patio also manufactures padding and furniture coverings from foam sheets and fabric covers. Wastewater from the iron-phosphate rinse is routed through a three-stage clarifier where it is pH adjusted prior to discharge to the sewer.

January 1 – June 30, 2019

On **February 21, 2019**, Patio had a molybdenum violation, for which a Notice of Violation was issued on **April 3, 2019**. On **April 24, 2019**, OCSD conducted a Compliance Inspection during which Patio investigated the violation and found that the iron-phosphate solution, which is used to prepare metal products for powder-coating, contains molybdenum. Patio purchased a new metal preparation solution that does not contain molybdenum and waste-hauled the molybdenum-bearing wastewater prior to restarting the powder coating preparation system. No violations have occurred since implementation of these corrective actions.

OCSD staff will continue to monitor Patio's discharge and compliance status during the next report period.

Patriot Wastewater, LLC (Permit No. 1-521861)

Patriot Wastewater, LLC (Patriot) is a centralized wastewater treatment (CWT) facility that accepts and treats non-hazardous waste from off-site generators. Patriot treats both CWT and non-CWT wastewater (as defined in 40 CFR 437.2), under separate permits and discharge points. As a subpart D facility, Patriot is able to treat wastes from Subparts A, B, and C: Metals, Oil, and Organics Treatment and Recovery. Depending on the wastewater that is received, Patriot can employ one of multiple on-site technologies including: (1) batch heavy metals precipitation; (2) oil water separation with emulsion breaker; and (3) granular activated carbon, treated organo-clay, and bag filters for organics treatment.

July 1 – December 31, 2018

On **December 5, 2018**, Patriot had a titanium violation. In addition, Patriot had a titanium monthly average limit violation in the month of **December 2018**.

January 1 – June 30, 2019

On **March 12, 2019**, OCSD issued a Notice of Violation for the December 2018 titanium violation. Patriot investigated the violation and reported that they received two batches that had titanium and the titanium concentrations were typical for those loads. Patriot stated that no abnormalities were encountered with the treatment process or with the internal testing. Patriot's corrective measures included increasing internal testing frequency and increasing the safety margin for the treatment process from 20% to 25%.

OCSD staff will continue to monitor Patriot's discharge and compliance status during the next reporting period.

Performance Powder, Inc. (Permit No. 1-011115)

Performance Powder precleans and powder coats aluminum and cold rolled steel parts brought in by outside customers, including very large and oversized parts such as metal cabinets and construction framework. Cleaning and surface treating process is performed in an automated conveyORIZED 6-stage wash line which includes alkaline cleaning, iron phosphate surface conversion followed by city water rinse, DI water rinse and RO water rinse. Wastewater is generated from the rinsing stages of the wash line and is pumped to a 3-stage above ground clarifier where it drains to the sewer from the final stage.

July 1 – December 31, 2018

On **October 9, 2018**, Performance Powder had a molybdenum violation, for which a Notice of Violation was issued on **October 22, 2018**. On **October 30, 2018**, OCSD conducted a Compliance Inspection and resampling during which it was concluded that overflow from the iron phosphate tank was the cause of the violation. Sodium Molybdate was present in the chemical used in the iron phosphate solution. Performance Powder proposed using an alternate non-molybdenum base chemical as a corrective action. Additionally, Performance Powder replaced the float valve in the iron phosphate tank to avoid future overflows. The resampling results showed compliance.

January 1 – June 30, 2019

Performance Powder had no further violations during this reporting period. OCSD will continue to monitor Performance Powder's discharge and compliance status on a quarterly basis.

Pioneer Circuits, Inc. (Permit No. 1-011262)

Pioneer Circuits, Inc. (Pioneer) is a manufacturer of multilayer rigid, rigid-flex, and flexible printed circuit boards and assemblies. The manufacturing of a multilayer board generally proceeds by cutting the copper clad materials, photoresist application, inner-layer circuit imaging, resist developing, cupric chloride etching, and alkaline resist stripping. This is followed by surface prep (Cobra Bond), lamination, and drilling. The holes are cleaned by either permanganate or plasma etching and made conductive through electroless copper plating. Outer-layer circuit development is conducted by pattern plate process steps including photoresist application, circuit imaging, resist developing, copper plating, tin/lead resist plating, ammonium etching, and solder stripping. Solder mask application and surface finishing such as hot air levelling or fuse-oil reflow complete Pioneers' wet process operations. Nickel/gold plating, if required, is outsourced.

The effluent discharge at Pioneer is generated by aqueous fume scrubbing, boiler blowdown, reverse osmosis reject, various spent process solutions, and the

associated rinse wastestreams.

January 1 – June 30, 2019

On **June 17, 2019**, Pioneer had a copper violation. OCSD will issue a Notice of Violation and conduct a compliance inspection during the next quarter.

Precious Metals Plating Co., Inc. (Permit No. 1-011265)

Precious Metals Plating Co., Inc. (PMP) is a precious metals plating job shop that provides specialty plating services for aerospace, electronics, industrial, medical, and military applications. Customer supplied parts include assorted items such as connectors, contacts, fasteners, pins, seals, switches, washers, and other commercial devices. The wet processing of the smaller bulk parts is conducted primarily through barrel plating techniques, although, a particular part or finish may occasionally require racking or wiring. The majority of rinse wastestreams are recycled through a recirculating I.X. system, therefore, PMP's effluent is generated primarily by the chelated rinse wastestreams which are discharged after going through a continuous I.X. pretreatment system utilizing special chelated resins.

January 1 – June 30, 2019

On **April 16, 2019**, OCSD issued a Notice of Violation for the monthly average of January 2019 silver sampling results that exceeded the monthly average limit. Precious Metals Plating could not determine the source of the violation, and it was noted that most sampling results prior had been well below monthly average limits and daily average limits, as were samples following the month in violation.

OCSD staff will continue to monitor Precious Metals Plating's discharge and compliance status during the next reporting period.

Precon, Inc. (Permit No. 1-021581)

Precon Inc. (Precon) performs general machining including band saw cutting, milling, grinding, deburring and drilling. Tumble and vibratory deburring are the two wet processes that generate wastewater. Rest of operations use a closed circulation system. Precon has a trench system that directs wastewater into a three-stage clarifier. Water from the last stage of clarifier is pumped through a bag filter prior to discharge to the sewer.

January 1 – June 30, 2019

On **February 26, 2019** and **March 13, 2019**, Precon had copper violations, for which Notices of Violation were issued on **April 3, 2019** and **April 4, 2019**, respectively. On

April 9, 2019, OCSD conducted a Compliance Inspection during which Precon indicated that the source of the violation was the unusually large batch of brass parts that was processed around the time of the violation. On **June 12, 2019**, OCSD issued a Compliance Requirement Letter directing Precon to evaluate the installed pretreatment system and propose improvements to achieve compliance by mid-August 2019.

OCSD will continue to monitor Precon's discharge and compliance status for copper on a monthly basis.

Primatex Industries, Inc. (Permit No. 1-031036)

Primatex Industries, Inc. (Primatex) performs rotary screen printing of fabrics. Water-based inks are applied to fabric by means of perforated print design screens using one of two rotary printers. The facility also has two Sanforizing machines (a method of stretching, shrinking, and fixing the woven cloth in both length and width, before cutting to reduce the shrinkage which would otherwise occur after washing), two drying machines to dry printed cloth, a sanding machine (used to break some of the small fibers on the exterior of the material which teases them out to produce a soft feel), a crinkling machine (to artificially wrinkle the cloth), and two industrial washing and drying machines, used to test the fabric quality when the cloth is supplied by the customer. Wastewater is generated by the washing of the printers and the washing of cloth in the industrial washing machines. Wastewater is collected in an outside sump from where it is pumped through a lint removal unit then to the inside of a rotating drum filter constructed of screen material. The lint is trapped on the inside, while wastewater passes through the screen and is discharged to a three-stage underground clarifier with sample box. A timed spray rinse above the drum cleans the outside of debris, which falls to a screen located directly below the drum.

July 1 – December 31, 2018

On **July 3, 2018**, Primatex had a zinc violation, for which a Notice of Violation was issued on **July 12, 2018**. An appeal to the Notice of Violation was received by OCSD on **July 27, 2018**, but it was denied on **August 9, 2018** since OCSD's archive sample test result was consistent with the original test result. On **August 6, 2018**, OCSD conducted resampling followed by a Compliance Inspection on **August 14, 2018**. During both the compliance inspection and resampling, OCSD reviewed all available material safety data sheets but could not identify the source of the zinc violation. It was later discovered that a discharge agent called Parolite (used in the production of bright prints on dark fabrics, the main ingredient being Zinc formaldehyde sulfoxylate), which had not been used in over two years, may have been added to the production process by mistake. The remaining Parolite was returned to Primatex's chemical supplier.

January 1 – June 30, 2019

Primatex had no further violations during this reporting period. OCSD will continue to

monitor Primatex's discharge and compliance status on a quarterly basis.

Republic Waste Services (Permit No. 1-521827)

Republic Waste Services washes the inside and outside of trash bins in a contained and partially covered area in this facility. Washwater is routed through a three-stage clarifier before discharge to the sewer. Clarifier maintenance includes regular skimming and annual pump out of the sludge buildup.

July 1 – December 31, 2018

On **October 3, 2018**, Republic Waste Services had cadmium, copper, zinc and lead violations, for which a Notice of Violation was issued on **October 25, 2018**. On **November 2, 2018**, OCSD conducted a Compliance Inspection during which Republic Waste Services indicated that no operational changes had been made onsite and, therefore, they were not able to identify any internal source for the violations. The company indicated that the only possible source would be the illicit discharge of materials, such as sand blasting dust or batteries, in the trash bins that were washed at the time of the violations. Republic Waste Services pumped out the clarifier on **November 6, 2018** as part of their corrective action. On **November 8, 2018**, OCSD conducted resampling and the results showed compliance.

January 1 – June 30, 2019

Republic Waste Services had no further violations during this reporting period. OCSD will continue to monitor Republic's discharge and compliance status on a quarterly basis.

Safran Electronics & Defense Avionics USA, LLC (Permit No. 1-571304)

Safran Electronics & Defense, Avionics USA LLC (Safran) is a medium size facility specializing in fabrication of pushbutton switches, indicators, and panel displays for aerospace, commercial aviation, and military/defense applications. The wet processes for surface treatment and cleaning/deburring include: vibratory deburring, caustic etch surface treatment line, legend marking of finished housings are screen painted and/or applied with a laser burner, soldering or wave soldering, ultrasonic cleaner (plastic parts), and an aqueous flux removal system with some miscellaneous cleanup as well. Wastewater drains through a two-pipe manifold into a two-stage above-ground clarifier located outside the building. Safran presently pumps out both chambers of the clarifier every two to three weeks.

July 1 – December 31, 2018

On **September 6, 2018**, Safran had a zinc violation, for which a Notice of Violation was issued on **October 9, 2018**. On **October 17, 2018**, OCSD conducted a Compliance

Inspection during which OCSD has determined that the most likely source of zinc was the deburring operations. Safran agreed to begin using bag filters on all the effluent from those units to remove any particulate zinc. Subsequent sampling showed compliance.

January 1 – June 30, 2019

Safran had no further violations during this reporting period. OCSD staff will continue to monitor Safran's discharge and compliance status during the next reporting period.

Sanmina Corporation (Airway & Redhill) (Permit Nos. 1-061008 & 1-061009)

Sanmina Corporation (Sanmina) operates two large scale, full-service printed circuit board shop in adjacent facilities in Costa Mesa. Industrial wastewater at Sanmina is generated from the processing of copper laminates into printed circuit boards. Sanmina operates a continuous pretreatment system which includes pH adjustment and multiple ion exchange resin beds, along with batch treatment (pH adjustment, flocculation, clarification followed by sludge dewatering with a filter press) is also performed on spent solutions including ion exchange backflush. Some concentrated wastestreams are wastehauled offsite.

July 1 – December 31, 2018

On **October 16, 2018** OCSD inspection staff attempted to conduct routine quarterly inspection and sampling at Sanmina but the inspector was asked to provide official identification (driver's license or passport) beyond the government official identification credentials issued by OCSD. On **October 22, 2018**, OCSD issued Compliance Requirement Letters to Sanmina reminding the company to comply with right to entry requirements in accordance with Permit Nos. 1-061008 & 1-061009 and OCSD Ordinance. If unable to permit entry without additional identification in accordance with third-party government or contracts, OCSD requested Sanmina to provide documentation demonstrating this requirement by **November 7, 2018**.

January 1 – June 30, 2019

Sanmina did not limit access to OCSD staff after receipt of the letter. No further enforcement is necessary.

Shur-Lok Company (Permit No. 1-600297)

Shur-Lok Company (Shur-Lok) manufactures mechanical fastening systems for commercial and defense aerospace industries. During the manufacture of metal parts, various finishing processes are used and include tumbling, polishing, surface preparation, and passivation. All the wastewater generated from the metal finishing

operations is routed to an evaporator where most of the liquid is evaporated and the residue hauled away as hazardous waste.

July 1 – December 31, 2018

On **July 26, 2018**, OCSD conducted a Compliance Inspection to investigate the sewer sediment build-up downstream of Shur-Lok's facility that was reported to OCSD by the Irvine Ranch Water District. During the inspection, OCSD evaluated Shur-Lok's operations and the sources of wastewater discharge onsite and was able to identify the source of the sewer sediment build-up to several bypasses within Shur-Lok's facility. One bypass was from Shur-Lok's water jet operations and other was from two new tee-splits routed to floor drains inside the facility. Furthermore, OCSD observed that Shur-Lok's pretreatment equipment was undersized.

While unrelated to the sewer sediment build-up, OCSD discovered an uncovered underground sump at the rear corner of the property which was receiving and discharging storm water run-off from Shur-Lok's parking lot into the sewer. On **August 20, 2018**, OCSD issued a Compliance Requirements Letter directing Shur-Lok to take the required corrective measures to ensure long-term compliance with OCSD's wastewater discharge regulations. On **September 12, 2018**, Shur-Lok informed OCSD that all required actions have been completed. On **September 13, 2018**, OCSD conducted a follow-up Compliance Inspection and confirmed that the bypasses have been eliminated and collected storm water run-off has been re-routed to the onsite evaporator. Shur-Lok has also added a new laminar filtering system to their pretreatment equipment and all the potential wastewater from the water jet operations now goes through the evaporator and not to the sample point.

January 1 – June 30, 2019

Shur-Lok had no further non-compliance issues during this reporting period. OCSD will continue to monitor Shur-Lok's discharge and compliance status on a quarterly basis.

South Coast Baking, LLC (Permit No. 1-600565)

South Coat Baking, LLC (South Coast Baking) manufactures frozen cookie dough. The manufacturing process uses ingredients such as flour, sugar, chocolate, butter, and flavors regularly. The facility also uses fruits such as raisins and cranberries. Wastewater is generated during cleaning/sanitation activities.

January 1 – June 30, 2019

On **April 3, 2019** and **April 4, 2019**, South Coast Baking had pH violations, for which a Notice of Violation was issued on **May 9, 2019**. On **May 21, 2019**, OCSD conducted a Compliance Inspection during which South Coast Baking indicated that the clarifier was

not pumped out as per the company's schedule; hence the poor maintenance of the clarifier resulted in the pH violations. During the inspection, OCSD reminded South Coast Baking that the company may be required to install pretreatment equipment if their facility's discharge continues to be noncompliant. On **May 29, 2019**, South Coast Baking submitted their corrective action plan, which included changing the waste hauler to maintain the clarifier frequently and implementing a daily pH level monitoring onsite.

OCSD will continue to monitor South Coast Baking's discharge and compliance status on a quarterly basis.

SPS Technologies LLC, DBA Cherry Aerospace (Permit No. 1-511381)

SPS Technologies LLC, DBA Cherry Aerospace (Cherry) is categorized as a non-ferrous metal former for titanium and nickel-cobalt, an aluminum former, and a metal finisher. Cherry conducts cold forming techniques to produce aerospace fasteners from materials made of aluminum, inconel, monel, stainless steel, and titanium. Cherry specializes in government and aerospace parts and is a major supplier of blind rivets. Wastewater is generated from plating, anodizing, washing, and other metal finishing operations, as well as forging, rolling, and drawing operations, and scrubber water. Cherry has high capacity segregated treatment trains, and all wastewater is discharged through the above ground flow monitored weir after-bay.

July 1 – December 31, 2018

On **June 7, 2018**, Cherry had a cyanide (total) violation, for which a Notice of Violation was issued on **July 26, 2018**. On **August 7, 2018**, OCSD conducted a Compliance Inspection during which corrective actions were required to be completed by the company. Corrective actions taken by Cherry included proper record keeping and calibration of equipment, and more frequent ion exchange replacement to prevent a reoccurrence of this violation. The company was also asked to prepare updated facility drawings and process diagrams, as well as treatment procedures. On **December 4, 2018**, Cherry had a cadmium violation, for which a Notice of Violation was issued on **December 17, 2018**. In addition, Cherry had cadmium monthly average discharge limit violation in the month of **December 2018**.

January 1 – June 30, 2019

On **January 29, 2019**, OCSD conducted a Compliance Inspection to verify updated process and treatment drawings submitted by Cherry and to confirm implementation of the other required items. On **March 12, 2019**, OCSD issued a Notice of Violation for the December 2018 cadmium monthly violation.

Cherry had no further violations during this reporting period. OCSD will continue to monitor Cherry's discharge and compliance status on a quarterly basis.

Star Manufacturing LLC, dba Commercial Metal Forming (Permit No. 1-600653)

Star Manufacturing LLC, dba Commercial Metal Forming (Star) is a metal forming shop that specializes in stamping and forming metal tank heads on mechanical and hydraulic presses for use in the manufacture of vessels. Star's ancillary operations include plasma cutting metal blanks, plasma and oxyacetylene trimming, metal heat treating, pressure washing finished tank heads, welding, steam cleaning, and part washing. Wastewater is generated from the steam cleaning and washing of production pieces, which are typically coated with lubricant. Wastewater is collected in an underground sump and then pumped to an equalization tank from which the wastewater is gravity-fed through bag filters before discharge to the sewer.

January 1 – June 30, 2019

On **February 15** and **March 21, 2019**, Star had oil & grease violations, for which Notices of Violation were issued on **April 4** and **June 3, 2019**, respectively. On **March 21, 2019**, OCSD conducted a Compliance Inspection to determine if Star had made any improvements to its existing treatment system. Star personnel stated that they were continuing to research various technologies to ensure long term compliance with their permit limits and requirements. Star was aware that the use of bag filters is inadequate as primary treatment to remove oil and grease. On **April 9, 2019**, OCSD issued a Compliance Requirements Letter requiring the submittal of a waste management proposal by **May 6, 2019**, and installation of the proposed pretreatment system by **June 15, 2019** after acceptance by OCSD. While Star met the deadline for submitting the proposal, they installed the system without prior acceptance from OCSD. Star installed a 7" diameter Multimedia filter tank with 7-14 Mesh Clinoptilolite Zeolite granules downstream of the existing 25-micron bag filters. The zeolite multimedia filter tank is equipped with a control valve that accommodates a backwash cycle to remove accumulated contaminants from the zeolite. However, the effectiveness of the backwash cycle using untreated gravity-fed water is unclear.

OCSD staff will continue to monitor Star's discharge and compliance status during the next reporting period.

Statek Corporation (Main) (Permit No. 1-021664)

Statek Corporation (Main) (Statek) manufactures surface mount and through hole, ultra-miniature quartz crystals and oscillators. Statek's products are utilized in communications, medical electronics, industrial controls, and precision military application devices. The wafer fab long and short lines produce wastewater which is treated using an ammonia pH adjustment system prior to discharge to the sewer.

January 1 – June 30, 2019

On **February 1, 2019**, Statek had a pH violation, for which a Notice of Violation was issued on **February 26, 2019**. On **March 26, 2019**, OCSD conducted a Compliance Inspection during which Statek reported that maintenance was being performed on the pH probe on the day the violation occurred. Statek indicated that no equipment malfunctions or chemical inventory deficiencies that might have adversely affected the pH adjustment system were encountered during the time of the violation. Statek was advised to schedule maintenance during days when impact on treatment system effectiveness would be minimal to ensure compliance during wastewater discharge.

OCSD staff will continue to monitor Statek's discharge and compliance status during the next reporting period.

Stepan Company (Permit No. 1-021674)

Stepan Company (Stepan) manufactures surfactants, for use in consumer and industrial cleaning compounds. Surfactants are used in the manufacture of shampoos, dishwasher and laundry detergents. Manufacturing utilizes three processes: continuous falling film sulfonation, detergent blending by batch processing of alkanolamides, and detergent blending by batch processing of betaine. Wastewater is generated from softener regeneration, warehouse rinses, wash down, tank calibration, cooling tower bleed, SO₃ scrubber bleed, and ammonia scrubber bleed. The pretreatment system consists of a 21,000-gallon round underground sump/clarifier. The wastewater is commingled and mixed by an agitator. Caustic soda is used to adjust the pH and defoamer is also added. Wastewater is then pumped to one of two tanks (20,000 and 24,000 gallons), where it is mixed using a recirculation pump.

July 1 – December 31, 2018

On June 1, 2018, Stepan had a 1,4-dioxane violation for which a Notice of Violation was issued on **July 18, 2018**. On **August 9, 2018**, OCSD conducted a Compliance Inspection during which OCSD noted that Stepan had installed pretreatment equipment for removal of 1,4-dioxane, which was based on a successful system in use at their east coast facility.

January 1 – June 30, 2019

Stepan had no further violations during this reporting period. OCSD will continue to monitor Stepan's discharge and compliance status on a quarterly basis,

Superior Plating (1-021090)

Superior Plating is a medium-sized plating shop serving both aerospace (95%) and commercial (5%) customers. Wastewater generating operations include acid activation, alkaline cleaning, alkaline tin plating, black chromate, bright dip, bright nickel plating, bright silver plating, bright tin plating, cadmium plating, chem film, clear chromate, copper plate, copper strike, electroless nickel plating, fuse oil, gold plating, hot D.I. rinsing, liquid water displacement, matte silver plating, nickel plating, nickel strike, nitric dip, olive drab, passivation, permanganate (descale), rinsing (countercurrent, running, & static), silver strike, tin / lead plating, yellow chromate, and zincate.

Superior operates a batch pretreatment system, which consists of pH adjustment, cyanide destruct, chemical precipitation, clarification, coagulation, filter press and final effluent filtration. The non-metal bearing wastestreams undergo pH adjustment only.

January 1 – June 30, 2019

From **January 28, 2019** through **February 28, 2019**, OCSD conducted covert downstream monitoring of Superior Plating's discharge during which cadmium, copper, lead, nickel, zinc and pH violations were detected. On **March 27, 2019**, OCSD issued an Order to Cease Noncompliant Discharges informing Superior Plating of OCSD's intention to initiate administrative proceedings against Superior Plating based on the discharge violations detected during the downstream monitoring. On **April 16, 2019**, OCSD held a Compliance Meeting with Superior during which the company chose to enter into a Settlement Agreement with OCSD to settle the violations and avoid administrative proceedings. The Settlement Agreement was issued on **May 29, 2019**, with a \$50,000 fine.

OCSD will issue a Probation Order during the next reporting period to give Superior time to conduct a proper evaluation of its pretreatment system and to make any necessary improvements to achieve consistent compliance.

Tayco Engineering, Inc. (Permit No. 1-031012)

Tayco Engineering, Inc. (Tayco) manufactures temperature sensors, flexible heaters, flat cables, high temperature heaters, and pressure switches for use in aerospace, satellite, military, and other general aviation applications. Rinsewater generated from the scrubbing of nickel and copper alloys is recirculated for approximately one week before discharge to a collection tank, then pumped over to the pretreatment system. Tayco uses a batch treatment system (hydroxide precipitation) for the etcher and scrub sink rinsewaters, spent developer/stripper solutions and rinses, and etcher fume scrubber bleed off. Spent etching solution and resist stripper solids are wastehailed offsite.

July 1 – December 31, 2018

On **December 19, 2018**, Tayco had a copper violation. In addition, Tayco had a copper monthly average limit violation in the month of **December 2018**.

January 1 – June 30, 2019

On **January 18, 2019**, OCSD issued a Notice of Violation for the copper violation. On **February 27, 2019**, OCSD conducted a Compliance Inspection during which Tayco attributed the violation to a wastewater treatment operator forgetting to check the wastewater for copper prior to batch discharge. Tayco's corrective action included additional checks for copper prior to batch discharge and better recordkeeping through a more detailed batch discharge log.

On **March 12, 2019**, OCSD issued a Notice of Violation for the December 2018 copper monthly violation. OCSD will continue to monitor Tayco's discharge and compliance status on a quarterly basis.

Taylor-Dunn Manufacturing Co. (1-021123)

Taylor-Dunn Manufacturing Co. (Taylor-Dunn) manufactures industrial electric utility carts, lifts and load carriers. Angle iron, flat bar and round stock are all cut, and all sheet steel is lasered and bent, to part number dimensions. The parts are welded into different sub-assemblies and then welded together for different product lines. Then the parts are sent to the chip and grind area where they are wire-wheeled and slightly grinded. Next, the parts are either sent out for powder coating or kept in-house for painting. The parts are washed with an iron phosphate solution and dried prior to painting. The finished painted product then goes to the assembly line for the installation of wheels, tires, motors, electronics, batteries, brakes, and upholstery.

Wastewater is generated from the iron phosphate conversion coating line and the outdoor wash pad used for rinsing parts. Pretreatment at Taylor-Dunn is limited to clarification.

January 1 – June 30, 2019

On **January 4, 2019**, Taylor-Dunn had a zinc violation, for which a Notice of Violation was issued on **February 26, 2019**. In addition, Taylor-Dunn had a zinc month average limit violation in the month of **January 2019**. On **April 2, 2019**, OCSD conducted a Compliance Inspection. The only apparent source of zinc is galvanized steel in the form of grinder waste from the area adjacent to the wash pad. While there is plastic sheeting intended to keep the grindings in that area some may be migrating to the adjacent area. OCSD suggested that Taylor-Dunn pump out the clarifier to remove any accumulated zinc-containing material and add a bag filter to the inlet pipe to the clarifier.

On **April 16, 2019**, OCSD issued a Notice of Violation for the January 2019 zinc monthly violation. OCSD will continue to monitor Taylor Dunn's discharge and compliance status on a quarterly basis.

Thompson Energy Resources, LLC (Permit No. 1-521773)

Thompson Energy Resources, LLC (Thompson Energy) produces crude oil by separating ground water from the oil/groundwater mixture extracted from multiple wells onsite through heating and chemical treatment. Resultant water is discharged to the sewer system.

July 1 – December 31, 2018

On **July 17, 2018**, Thompson Energy had an oil & grease violation, for which a Notice of Violation was issued on **August 20, 2018**. On **September 12, 2018**, OCSD conducted a Compliance Inspection and resampling during which Thompson Energy identified the source of violation to a bad batch of chemicals coupled with high temperature processing. On **September 14, 2018**, Thompson Energy submitted a corrective action report indicating that Thompson Energy had replaced its chemical vendor and implemented new chemicals at the facility. The resampling results showed compliance.

January 1 – June 30, 2019

On **June 13, 2019**, Thompson Energy had another oil & grease violation. OCSD will issue a Notice of Violation and conduct a compliance inspection during the next quarter.

TTM Technologies North America, LLC (Coronado) (Permit No. 1-521859)

TTM Technologies North America, LLC (TTM Technologies) is a large scale, full-service printed circuit board shop. Wastewater is generated from the processing of copper laminates into printed circuit boards. Wet processes include copper plating, electroless copper plating, nickel/gold plating, solder mask, alkaline cleaning, acid cleaning, scrubbing, developing, resist stripping, tin stripping, etching, screen cleaning, oxide coating, and miscellaneous cleanup/mop water. Rinse schemes practiced at the facility include significant use of static rinses in addition to running rinses. TTM Technologies operates a continuous pretreatment system to treat low concentration wastestreams and it consists of pH adjustment and multiple ion exchange resin beds, with a large portion of the effluent reused onsite. Batch treatment is performed on spent solutions and ion exchange backflush and it consists of pH adjustment, flocculation, clarification followed by sludge dewatering with a filter press. Concentrated wastestreams (etchant, spent plating solutions) are wastehailed offsite.

July 1 – December 31, 2018

On **August 17, 2018** and on **September 9 & 21, 2018**, TTM Technologies had copper violations, for which a Notices of Violation were issued on **October 2, 2018** and **November 8, 2018**, respectively. On **October 17, 2018**, OCSD issued a Compliance Requirements Letter requiring TTM to implement corrective actions and attend a Compliance Meeting. On **October 31, 2018**, OCSD held the Compliance Meeting with TTM, during which the company submitted information detailing efforts to review their pretreatment system and improvements that had been implemented up to the meeting. OCSD required TTM Technologies to submit an updated pretreatment system diagram and operations and maintenance manual (O&M) by **December 1, 2018**, which was extended to the following quarter due to delays.

January 1 – June 30, 2019

In **January 2019**, TTM submitted its O&M Manual which contained the updated pretreatment system schematics. On **June 19, 2019**, TTM had another copper violation. OCSD will issue a Notice of Violation and pursue escalated enforcement during the next quarter.

Ultra-Pure Metal Finishing, Inc. (Permit No. 1-021703)

Ultra-Pure Metal Finishing, Inc. (Ultra-Pure) is a metal finishing job shop. Customer-supplied parts made of aluminum and steel are received for anodizing or chemfilm application. Colored dyes are used on aluminum parts, while acid preclean and zinc plating are used on steel parts. Wastewater is generated from the rinse water tanks following the chemical process tanks. Pretreatment consists of hexavalent chrome reduction, hydroxide precipitation, coagulant addition, and polymer/flocculation for metals precipitation, and clarification. Solids from the clarifier are processed in a sludge thickening tank and filter press, with filtrate returning to the beginning of the pretreatment system.

January 1 – June 30, 2019

On **April 30, 2019**, Ultra-Pure had a zinc violation, for which a Notice of Violation was issued on **May 13, 2019**. In addition, Ultra-Pure had a zinc monthly average limit violation in the month of April 2019. On **May 24, 2019**, Ultra-Pure submitted a corrective action letter stating that the root cause of the violation was the processing of new parts that had trapped highly concentrated solutions. The high concentration drag-out was then carried to the rinses and caused the treatment system to be slug loaded. On **June 10, 2019**, OCSD conducted a Compliance Inspection and noted additional pretreatment issues including slug loading of the continuous treatment system with concentrated floor waste and inadequate record keeping of daily maintenance.

OCSD will issue a Notice of Violation for the April 2019 zinc monthly violation, as well as

a Compliance Requirements Letter to address the pretreatment issues noted above, during the next quarter.

United Pharma, LLC (Permit No. 1-531418)

United Pharma, LLC (United Pharma) is a manufacturer of various soft gelatin nutritional supplement capsules from customer-supplied bulk liquids. Products are not pharmaceutically active. Wastewater is generated from the cleaning and sterilization operations performed on mixing and dosing equipment used for gelatin capsules. Pretreatment is limited to an underground clarifier.

In August and September 2017, United Pharma had pH violations for which Notices of Violation were issued. In November 2017, OCSD conducted a couple of Compliance Inspections during which the pH was again out of compliance. The matter was discussed with United Pharma and the company indicated that manual pH adjustment was periodically performed. OCSD advised United Pharma that this practice was not adequate to ensure long term compliance with pH limits.

In February 2018, an Order to Cease Noncompliant Discharges was issued to United Pharma. In March 15, 2018, OCSD held a compliance meeting with United Pharma to discuss the continued pH issues. During the meeting, United Pharma agreed to install a continuous pH adjustment system and maintain improved attention to manually adjusting pH in the interim. In March 2018, OCSD issued a Compliance Requirements Letter requiring the installation of an automated treatment system by June 2018. As the compliance date neared, United Pharma requested more time due to contractor installation issues. Sampling performed since the meeting had been compliant.

July 1 – December 31, 2018

United Pharma installed the new treatment equipment after some delay. On **August 24, 2018**, OCSD conducted a follow-up inspection during which it was noted that the pH adjustment equipment was in place and operational.

January 1 – June 30, 2019

United Pharma had no further violations during this reporting period. OCSD will continue to monitor United Pharma's discharge and compliance status on a quarterly basis.

Van Law Food Products, Inc. (Permit No. 1-531439)

Van Law Food Products, Inc. (Van Law) blends, packages, stores, and distributes various sauces, condiments and beverage concentrates. Wastewater is generated by the steam cleaning of packaging equipment and washdown of loading and

packaging areas, along with some boiler blowdown. Pretreatment consists of equalization, continuous pH adjustment with caustic soda, polymer addition followed by solids removal.

July 1 – December 31, 2018

On **September 24, 2018**, Van Law had a pH violation, for which a Notice of Violation was issued on **October 11, 2018**. On **October 23, 2018**, OCSD conducted a Compliance Inspection and resampling. The resampling result showed another pH violation, for which a Notice of Violation was issued on **October 25, 2018**. On **November 5, 2018**, OCSD issued a Compliance Requirement Letter requiring Van Law to implement corrective actions and attend a compliance meeting. On **November 29, 2018**, OCSD held the Compliance Meeting with Van Law during which the company reported that they had implemented the following corrective actions: rescheduling bulk raw product deliveries to reduce spillage, additional staff training and installing a new controller on the pretreatment system which would alert staff via email in the event of low pH. During the meeting, Van Law also agreed to have pretreatment operators during all hours of operation and to install a pump and piping to redirect wastewater from the solids removal unit to the initial equalization tank in the event of low pH. On **December 18, 2018**, Van Law submitted a diagram of the proposed plumbing modification.

January 1 – June 30, 2019

On **March 11, 2019**, OCSD conducted a Compliance Inspection during which OCSD verified that the plumbing changes had been completed. Van Law had no further violations during this reporting period. OCSD will continue to monitor Van Law's discharge and compliance status on a quarterly basis.

Vit-Best Nutrition, Inc. (Permit No. 1-600010)

Vit-Best Nutrition, Inc. (Vit-Best) performs compounding of various vitamins and nutritional supplements from food grade components. The components for the vitamins are mixed in tanks and undergo further processing to create the final product. Wastewater discharge consists of unit washdowns and mop-water from general cleaning that occurs between product runs.

January 1 – June 30, 2019

On **June 24, 2019**, Vit-Best had a pH violation. OCSD will issue a Notice of Violation and conduct a compliance inspection during the next quarter.

**PRETREATMENT PROGRAM STAFFING,
COSTS, AND FIELD EQUIPMENT**

Introduction
Staffing, Revenues, and Costs
Field Equipment

PRETREATMENT PROGRAM STAFFING, COSTS, AND FIELD EQUIPMENT

5.1 INTRODUCTION

This chapter discusses the pretreatment program's staffing levels, program costs, payments to OCSD by permittees, and equipment used by the program.

5.2 STAFFING, REVENUES, AND COSTS

5.2.1 Staffing

The Resource Protection Division (RPD), a part of OCSD's Environmental Services Department (ESD), includes all the pretreatment program staff. Dedicated pretreatment staff for 2018/19 consists of 1 Manager, 3 Supervisors, 9 Engineers, 4 Environmental Specialists, 10 Field Inspectors, 3 Field Technicians, and 7 Administrative Support Personnel for a total of 37 staff members.

5.2.2 Revenues

During FY 2018/19 a total of \$17,470,646 in revenue payments were made to OCSD by Class I, Class II, Wastehauler, Special Purpose, and FOG permittees. The following amounts were collected for the discharge of wastewater, Biochemical Oxygen Demand pollutants, and Suspended Solid pollutants: Operation and Maintenance (O&M) fees totaled \$9,376,178; Supplemental Capacity Facilities Capacity Charge (SCFCC) fees totaled \$6,761,632; and Wastehauler User Fees totaled \$901,504. Permit fees in the amount of \$431,332 were collected, and over \$117,128 in noncompliance fees and penalties were issued. Due to a change in the OCSD's Financial Management Division's accounting practices, the O&M and SCFCC fees represent the prior fiscal year, FY 2017/18 and an estimate of FY 2018-19

The revenue collected offsets a portion of OCSD's treatment costs and the \$7,406,407 needed to administer the pretreatment program, including labor, supplies, equipment, and other overhead. These costs are associated with issuing permits, sampling, inspections, and laboratory analyses.

5.2.3 Program Costs

Overall pretreatment program implementation costs (including overtime) during the fiscal year increased 22.5% over the preceding year and show a 6.5% decrease from the program costs of five years ago. The cost per labor hour over the past five years has decreased 8.5%, which is an average 1.7% per year decrease. A comparison of pretreatment program costs for the past five years is shown in Table 5.1.

TABLE 5.1 Summary of Total Costs and Total Labor Hours for the Pretreatment Program, Fiscal Years 2014-19 Orange County Sanitation District, Resource Protection Division			
Fiscal Year	Total Cost	Labor Hours	Cost Per Labor Hour
2014-15	\$7,923,908	71,111	\$111.43
2015-16	\$7,536,949	72,439	\$104.05
2016-17	\$6,488,868	69,046	\$93.98
2017-18	\$6,044,009	69,606	\$86.83
2018-19	\$7,406,407	72,646	\$101.95

5.3 FIELD EQUIPMENT

5.3.1 Equipment Inventory

An inventory of major equipment used by the OCSD inspection staff for the Resource Protection Division is shown in Table 6.2. Thirteen field staff, each utilizing trucks and modern sampling equipment, maintain a high degree of visibility in the industrial community.

TABLE 5.2 Current Inventory of Major Equipment for the Pretreatment Program, Fiscal Year 2018-19 Orange County Sanitation District, Resource Protection Division	
Description	Quantity
<u>Vehicles</u>	11
<u>Equipment</u>	
Cellular Phones	13
Composite Samplers, General Use	43
Composite Samplers, Special Purpose	16
Portable Sample Pumps	9
pH Meters, Portable	16
Gas Meters	23

PRETREATMENT PROGRAM STATUS

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Significant Changes in Operating the Pretreatment Program

PRETREATMENT PROGRAM STATUS

6.1 INTRODUCTION

The Orange County Sanitation District (OCSD) administers several different program elements designed to meet the goal of controlling discharges from industrial and non-industrial sources. These have a direct influence on OCSD's ability to meet ocean discharge, biosolids reuse, and water reclamation requirements. This chapter outlines those program elements designed to enforce and enhance the federally approved Pretreatment Program, and include industrial discharger public participation, waste hauler monitoring, industrial inspection and sampling, quality assurance/quality control, total toxic organic (TTOs) waivers, special purpose discharge permits, self-monitoring, and industrial operations and maintenance improvement.

6.2 PUBLIC PARTICIPATION

A provision of 40 CFR 403.8 is to comply with the public participation requirements of 40 CFR Part 25 in the enforcement of National Pretreatment Standards. These procedures shall include provision for at least annual public notification in a newspaper(s) of general circulation that provides meaningful public notice within the jurisdiction(s) served by OCSD, of Industrial Users which, at any time during the previous 12 months, were in significant noncompliance with applicable pretreatment requirements. This public notice is shown in Appendix E.

6.3 WASTEHAULER PROGRAM

OCSD operates a dedicated discharge station at Reclamation Plant No. 1 for the disposal of septage, chemical toilets, brine, cesspool and non-industrial Food Service Establishment grease (FSE) interceptor wastes collected by independent waste haulers. The discharges are transferred via a major interplant sewer to Treatment Plant No. 2 for treatment. OCSD Treatment Plant No. 2 has a back-up discharge station to be used during Plant No. 1 service interruptions. The following sections provide the status of waste hauler permitting, discharges and monitoring conducted during FY 2018/19. Values provided in the tables are derived primarily from manifests provided by the waste hauler companies.

6.3.1 Waste hauler Permitting

Before a liquid waste pumper can obtain a Waste hauler Permit from OCSD, the waste hauling company must register with the Orange County Health Care Agency (OCHCA) and have all vehicles intended for discharge at OCSD inspected by OCSD staff. Numerical decals issued by both OCHCA and OCSD are affixed to all permitted vehicles. These decals aid in the identification of authorized dischargers. Permits include rules for use of the waste hauler station, with enforcement for violations. Waste haulers must conduct their business using methods to reduce or eliminate odors. During FY 2018/19, 43 waste hauler companies were under permit with OCSD, with a total of 128 trucks.

6.3.2 Waste hauler Discharges

During the past fiscal year, 13.2 million gallons (MG) of waste was discharged by permitted waste haulers at the OCSD Waste hauler Station. The volume of waste accepted at the station was 8.3% higher than the volume received during FY 2017/18. The number of loads received increased by 40.4% from FY 2017/18. As of January 18, 2016, OCSD started using a new pretreatment software and database (iPACS), which

allows for more accurate tracking and calculation of discharged volumes. The reported volume for FY 2015/16 through FY 2018/19 takes into account the self-reported volumes, instead of the maximum capacity volumes reported in previous years, which assumed all received tanks were full. Wastehauler discharge data for the last five years is summarized in Table 6.1.

TABLE 6.1 Summary of Wastehauler Loads and Volume Discharged into Plant No. 1 Disposal Station, Fiscal Years 2014-2019 Orange County Sanitation District, Resource Protection Division		
Fiscal Year	Loads Delivered	Volume Waste Received Millions of Gallons
2014-15	6,972	14.8
2015-16	7,472	14.2 ¹
2016-17	8,465	18.1 ¹
2017-18	4,844	12.1 ¹
2018-19	8,127	13.2 ¹

¹ Volume reported is based on Wastehauler self-reported volumes.

Wastehauler loads are classified into five types of waste: Brine, cesspool, chemical toilets, non-industrial Food Service Establishment (FSE) grease interceptor waste (i.e. restaurant grease trap waste), and septic tanks. The total volumes and number of loads for each type of waste are summarized in Table 6.2.

TABLE 6.2 Summary of Wastehauler Load Types Discharged into Plant No. 1 Disposal Station, Fiscal Year 2018/19 Orange County Sanitation District, Resource Protection Division			
Load Type	Loads Delivered	Waste Received in Millions of Gallons	Percent of Waste Received
Brine	18	<0.1	<1
Cesspool	104	0.2	1.2
Chemical Toilet	3,936	5.8	44.2
Food Service Establishment (FSE) Grease	2,939	5.4	41
Septic Tank	1,116	1.7	13.1
Other	14	<0.1	<1
Total All Types	8,127	13.2	100

During the past fiscal year, 5.4 million gallons of FSE grease was discharged by permitted wastehaulers at OCSD's Wastehauler Station. This represents a 6.9% decrease from the volume of grease discharged during FY 2017/18. The five-year trend for grease is presented in Table 6.3.

TABLE 6.3 Summary of Wastehauler Grease Wastewater Loads into OCSD's Disposal Station, Fiscal Years 2014-2019 Orange County Sanitation District, Resource Protection Division		
Fiscal Year	Loads Delivered	Millions of Gallons
2014-15	2,584	7.9
2015-16	2,565	7.21
2016-17	3,668	9.33
2017-18	3,100	5.8
2018-19	2,939	5.4

6.3.3 Wastehauler Monitoring

Random sampling of wastehauler loads is conducted to verify compliance with OCSD discharge limits. During FY 2018/19, the contents of 667 wastehauler vehicles (8.2% of all loads received) were sampled and 4,002 metal analyses were performed. The results of the sampling included 33 metal violations in 23 loads that originated from either domestic sources or grease hauling. This represents a 3.4% violation rate of the total samples taken and analyzed. The violations included nineteen copper, and sixteen zinc concentration exceedances. Some of the actions taken by OCSD as a response to these violations included generator verifications and inspections, investigations, Notice of Violation letters, and compliance meetings.

6.4 INSPECTION AND SAMPLING

OCSD schedules sampling and inspection of each Class I industry quarterly, and samples select Class II industries periodically. Permittees are sampled for metals, cyanide, organics, pH, oil and grease, biochemical oxygen demand (BOD), and suspended solids (SS). Inspections are conducted before and/or after each 24-hour composite sampling event, at the time of collecting a grab sample, and to determine compliance with other provisions of the *Wastewater Discharge Regulations* (Ordinance).

6.5 QUALITY ASSURANCE AND QUALITY CONTROL ACTIVITIES

6.5.1 Quality Assurance and Quality Control (QA/QC) Program Tasks

The objective of the QA/QC program is to ensure that all field sampling and monitoring is accurate and performed in accordance with Resource Protection Division's adopted policies and procedures. The QA/QC program includes the following components:

Equipment Blank – Composite samples of deionized water are collected monthly to evaluate the cleaning procedures and storage of automatic sampling equipment.

Archive Sample Check – Archived heavy metal samples are analyzed monthly, several months after collection, to evaluate the effects of sample storage conditions and whether those conditions impose analyte degradation or contamination.

Sample Collection Check – Duplicate composite samples are collected quarterly to evaluate the precision of the sample collection and preservation methods.

Trip Blank Evaluation – Samples made up of reagent water are collected to measure the potential contamination of EPA Method 624 samples during transport and storage.

Sample Collection and Inspection Audit – Periodic reviews are conducted to assure that the Inspectors conform to existing guidelines for inspection and sample collection, and that existing procedures continue to ensure representative data. Document reviews are completed to assess Inspector overall performance.

During FY 2018/19, 72 composite samples were collected for equipment blank verification, 48 archived samples were analyzed for comparison against previous analytical results, 0 composite samples were collected from industrial discharges to audit collection methods, and 12 trip blank samples were analyzed to verify the effectiveness of the transportation and storage methods of volatile organic compound samples. The test results for QA/QC samples collected are detailed in Appendix I. The overall results show that the procedures and their implementation for the collection of field samples are adequate to assure sample quality and consistency.

Calculation Methods

Equipment blank sampling is performed to find any concentration above the reporting limit (RL). Any detectable amount is considered an indicator of possible contamination in the deionized water supply, detergent, containers, storage, or other sources. The number of times a metal is detected above the RL is tracked.

Methods for calculating deviations were refined beginning with data generated during 2005 to be more consistent with accepted laboratory standards for quality control. The prior use of Pretreatment Standards for Existing Sources (PSES) discharge limits to calculate percent deviations for duplicate samples has been replaced with the relative percent difference (RPD) formula found in Standard Methods for the Examination of Water and Wastewater (hereafter Standard Methods), 22nd Edition, Part 1020 B, Section 12, Subsection f, entitled “Duplicate sample” (pg. 1-11).

Precision among duplicate samples is important for the archive samples and sample collection checks. The following metrics were determined based on the nature of the samples normally collected and the variables with matrix effects anticipated. The precision of low-level duplicates, with concentrations less than 20 times the RL is $\pm 25\%$ RPD. The precision of high-level duplicates, with concentrations greater than 20 times the RL, is $\pm 20\%$ RPD. These guidelines are used to present and calculate the archive sample data in the tables below. If the average of the two duplicate samples is greater than 20 times the RL, then the more restrictive limit of 20% is used to evaluate precision. Additionally, per Standard Methods, 22nd Edition, Part 1020B, Section 8, values where the average is below five (5) times the RL are not used for RPD calculation.

A study conducted in 2009, including a review of relevant literature and OCSD data, has confirmed that silver is relatively unstable under standard preservation and storage conditions, and cannot be used to evaluate precision and accuracy with the other metals listed below in archive samples. Consequently, silver has been removed from the list of metals used to evaluate precision and accuracy.

The current reporting limits (RLs) used by OCSD’s laboratory during FY 2018/19 are listed below. These reporting limits are used in calculations in tables where RLs appear.

	Cadmium	Chromium	Copper	Nickel	Lead	Zinc
RL (mg/L)	0.1	0.02	0.02	0.02	0.02	0.02

6.5.2 QA/QC Sampling Results

Evaluation of Equipment Blank Sampling Results

To check for contamination of sampler and field equipment, two composite samples are collected each quarter using clean, randomly chosen automatic samplers. The two samplers are set at the Source Control Inspection Group's technician room to collect composite samples from a deionized water supply placed in the sampler's 24 bottles. The QA/QC samples are composited and preserved in the same manner as compliance samples collected at permitted facilities. Each composite is split into three equal volumes, preserved, submitted to, and analyzed individually by OCSD's laboratory for heavy metal constituents.

The results of this study are summarized in Table 6.4. The statistics presented below show that 93.75% of the analyses (405 of the 432 analyses) are at or below the heavy metal constituents RL.

TABLE 6.4 Equipment Blank Sampling Results, Fiscal Year 2018/19 Orange County Sanitation District, Resource Protection Division					
Constituent	RL (mg/L)	Analyses at or Below Reporting Limit		Analyses Above Reporting Limits	Total Avg. Deviation
		No. of Analyses	Percentage	No. of Analyses	
Cadmium	0.1	72	100	0	0.000
Chromium	0.02	72	100	0	0.000
Copper	0.02	72	100	0	0.000
Nickel	0.02	72	100	0	0.000
Lead	0.02	72	100	0	0.000
Zinc	0.02	45	62.5	27	0.020
Summaries		405	93.75	27	0.010

27 of the Zinc samples had results above the RL. Of the results above the RL, all were just slightly above the RL. Zinc is common a contaminant and present in dust; OCSD continues to review equipment maintenance and storage procedures to try to minimize this low concentration contamination.

Evaluation of Archived Samples

Archived samples are submitted to OCSD's laboratory to evaluate the effects of sample splitting and storage techniques. The results of the archive sample analyses are compared with the original sample results and the relative percent difference (RPD) is calculated for each metal. Results at or below the RL are calculated as equal to the RL.

Statistics on the archived samples and relative percent differences (RPD) are summarized in Table 6.5. Of the 288 comparisons performed on 96 samples (48 archived samples and 48 original samples), 97.9% of the results were within the acceptable RPD.

TABLE 6.5 QA/QC Evaluation of Archived Samples, Fiscal Year 2018/19				
Orange County Sanitation District, Resource Protection Division				
Constituent	Comparisons within Acceptable RPD	Comparisons outside Acceptable RPD	Percent within Acceptable RPD	Average RPD (%)
Cadmium	48	0	100	0
Chromium	46	2	95.8	17.6
Copper	47	1	98	18.4
Nickel	47	1	98	7.3
Lead	47	1	98	3.6
Zinc	47	1	98	11.9
Summaries	282	6	97.9	9.8

The incidents of comparisons outside acceptable RPDs are believed to originate from sample splitting and/or preservation errors.

A review of archive sample handling procedures took place during FY 2016/17, and a new procedure for storing sample archives was implemented on July 1, 2016. OCSD's Laboratory is planning to perform analysis to study sample preservation and potential degradation or leaching.

Sample Collection Checks

Two composite samples are collected each quarter to verify the precision of the sample collection methods. In this study, two automatic samplers are installed adjacent to each other at a single industrial sample point to collect one composite sample from each sampler. Each composite sample is split into ten duplicate portions. Five duplicates from each sampler are analyzed by OCSD's laboratory for heavy metals and five are analyzed for total suspended solids (TSS).

The results for each constituent are evaluated by calculating the relative percent difference (RPD) for each group of metals. Values that exceed the accepted deviations for metals and TSS are investigated, and where causes are identified, corrective actions are taken. This comparison is used to confirm that the sample location is appropriate, that the samplers are maintained and are functioning properly, and that sample-splitting techniques are effective.

The statistics on the collection check samples and the sampler average deviations are summarized in Table 6.6. The comparisons show acceptable agreement both among the samples within the sampler and between samplers at the same site.

TABLE 6.6 QA/QC Collection Check Samples and Sampler Average Deviations, Fiscal Year 2018/19								
Orange County Sanitation District, Resource Protection Division								
Qtr.	Location	Average Deviations						
		Cadmium	Chromium	Copper	Nickel	Lead	Zinc	TSS
1	Sampler A	0.00	0.00	0.00	0.00	0.00	0.00	2.2
	Sampler B	0.00	0.00	0.00	0.00	0.00	0.00	1.8
	Site RPD	0.00	0.00	0.00	0.00	0.00	12.1	18.3
2	Sampler A	0.00	0.00	0.00	6.24	0.00	0.00	1.4
	Sampler B	0.00	14.9	12.2	42.6	0.00	0.00	0.9
	Site RPD	0.00	0.00	0.00	90.7	0.00	0.00	23
3	Sampler A	0.00	0.31	0.00	0.75	0.00	0.00	0.0
	Sampler B	0.00	0.25	0.20	0.67	0.00	.30	0.0
	Site RPD	0.00	14.8	17.3	15.2	0.00	0.00	0.0
4	Sampler A	0.00	0.02	0.00	0.05	0.00	0.00	4
	Sampler B	0.00	0.00	0.00	0.03	0.00	0.00	5.1
	Site RPD	0.00	13.81	29.65	2.65	0.00	0.00	9.1
Avg.	Site RPD	0.00	6.97	11.73	27.14	0.00	3.02	12.6
All results are in units of sampler average deviation. TSS = total suspended solids								

The variances between samples at the same site were mostly low however, there was a large difference in the second quarter for Chromium, Copper, Nickel, and TSS. It is unknown what caused the large difference but it seems there may be a possible data transposition. Collection check procedures are currently being evaluated and staff will be notified of any changes if necessary.

Trip Blank Evaluation for EPA Method 624 Analysis

Inspectors perform this study monthly. Containers prepared with reagent water are obtained from OCSD's laboratory and carried by inspectors with other samples during their workday. The containers are returned to the lab and analyzed for volatile organics. Eleven trip blanks were analyzed for volatile organics using EPA Method 624 with one month not collected due to scheduling errors.

Sample Collection and Inspection Audit

During FY 2018/19, the source control supervisor audited the sample collection and inspection procedures of individual inspectors. The audit of each inspector was accomplished by document review during performance evaluations. Opportunities for improvement were discussed with individual inspectors during their mid-year and annual performance reviews.

6.5.3 Conclusions

The following findings support the general conclusion that the sampling procedures are being followed and that the samples are representative and free of contamination:

- Results of the Equipment Blank Evaluation demonstrate that 93.75% of the equipment blank samples have concentrations at or below the heavy metal reporting limits. The remaining 6.25% contained low level Zinc contamination slightly above the RL.

- Results of the Archive Sample Evaluation demonstrate that 97.9% of the archive samples were within the acceptable percent deviation range.
- The Sample Collection Check results show good agreement for heavy metals among split samples for each sampler as well as between samplers at the same site. The sample locations and sample-splitting methods are adequate to provide representative samples for heavy metals.
- Eleven of twelve EPA Method 624 trip blanks were below reporting limits. Eleven trip blanks were analyzed for volatile organics using EPA Method 624 with one month not collected due to scheduling errors.
- The Sample Collection and Inspection Audit involved a broad review of inspection and sampling records. The results of the audits were discussed with individual inspectors during their performance reviews.

6.6 TOTAL TOXIC ORGANICS WAIVER PROGRAM

Permittees subject to Federal Categorical Standards were first notified of OCSD's Total Toxic Organics (TTOs) Control Program requirements on July 27, 1987. The current TTOs Program is summarized below:

- Categorical permittees who are required to conduct self-monitoring for Total Toxic Organics (TTOs) must collect composite samples at least twice a year. In accordance with OCSD's *Wastewater Discharge Regulations*, the composite sample typically consists of a minimum of four (4) grab samples where the concentration of a composite sample is obtained by analyzing the grab samples and compositing the results mathematically.
- Permittees who have not shown detectable levels of TTOs based on their wastewater discharge data for at least one year are eligible to waive the self-monitoring requirement if they can certify that TTOs are not used or present in the industrial wastewater discharge at their facility. The wastewater discharge data used in evaluating eligibility for this waiver includes data for samples obtained by OCSD during routine monitoring and the self-monitoring results obtained by the permittee. The evaluation of wastewater discharge to determine the permittees that are eligible for this waiver is conducted in December and June of each year. See Table 6.7 for those permittees that have successfully applied for a waiver. To be eligible for a waiver, the permittee must satisfy all of the following:
 - Permittee must demonstrate sampling results with TTO concentrations less than or equal to 0.05 mg/L for the monitoring period being considered.
 - Permit must have an initial permit issue date that is prior to the start of the baseline monitoring being considered.
 - Submission of an acceptable Toxic Organic Management Plan (TOMP).
- Subsequently, permittees who have a TTOs self-monitoring waiver renew their Certification of Non-Use of TTOs semi-annually during this period; otherwise, the waiver is cancelled. Issuance of a waiver does not constitute elimination of the self-monitoring requirement from the permit but merely a temporary discontinuance or suspension of the requirement.
- The self-monitoring requirement waiver for any permittee is cancelled if sampling results from the permittee's self-monitoring or OCSD's sampling demonstrate TTO concentrations above the 0.05

mg/L threshold. For these cases, the requirement to conduct self-monitoring at least twice a year is immediately reinstated.

- Newly permitted categorical users required to self-monitor will not be allowed to waive the self-monitoring requirement until meeting TTO reporting and waiver requirements for at least a year.

Table 6.7		
Permittees with TTOs Waivers, July 1, 2018 - June 30, 2019		
Orange County Sanitation District (OCSD) Resource Protection Division (RPD)		
Permit No.	Facility Name	Federal Categories
1-531422	A & G Electropolish	Metal Finishing PSNS
1-021088	A & R Powder Coating, Inc.	Metal Finishing PSNS
1-011138	Accurate Circuit Engineering	Metal Finishing PSNS
1-011115	Active Plating, Inc.	Metal Finishing PSNS
1-021389	Advance Tech Plating, Inc.	Metal Finishing PSNS
1-531404	Air Industries, A PCC Company (Knott)	Metal Finishing PSES
1-011073	Allied Electronics Services, Inc.	Metal Finishing PSNS
1-011036	Alloy Tech Electropolishing, Inc.	Metal Finishing PSNS
1-021249	American Circuit Technology, Inc.	Metal Finishing PSNS
1-521798	Andres Technical Plating	Metal Finishing PSNS
1-600295	AnoChem Coatings	Metal Finishing PSNS
1-511389	Anodyne, Inc.	Metal Finishing PSNS
1-011155	Anomil Ent. Dba Danco Metal Surfacing	Metal Finishing PSNS
1-021192	ARO Service	Metal Finishing PSNS
1-571295	Astech Engineered Products, Inc.	Metal Finishing PSNS
1-071037	Aviation Equipment Processing	Metal Finishing PSNS
1-521824	Beckman Coulter, Inc.	Metal Finishing PSNS
1-511370	Beo-Mag Plating	Metal Finishing PSNS
1-021213	Black Oxide Industries, Inc.	Metal Finishing PSNS
1-111018	Boeing Company (Graham)	Metal Finishing PSNS
1-511368	Brasstech, Inc.	Metal Finishing PSNS
1-021226	Bristol Industries	Metal Finishing PSES & PSNS and Nonferrous Metals Forming and Metal Powders PSNS
1-521770	Burlington Engineering, Inc.	Metal Finishing PSNS
1-021062	Cadillac Plating, Inc.	Metal Finishing PSNS
1-511076	CD Video, Inc.	Metal Finishing PSNS
1-511414	Chromadora, Inc.	Metal Finishing PSNS
1-521821	Circuit Technology, Inc.	Metal Finishing PSNS
1-111129	Coast to Coast Circuits, Inc.	Metal Finishing PSNS
1-531436	Coastline Metal Finishing	Metal Finishing PSNS
1-021290	Continuous Coating Corporation	Coil Coating PSNS and Metal Finishing PSNS
1-021289	Crest Coating, Inc.	Metal Finishing PSNS

Table 6.7	Permittees with TTOs Waivers, July 1, 2018 - June 30, 2019 Orange County Sanitation District (OCSD) Resource Protection Division (RPD)	
Permit No.	Facility Name	Federal Categories
1-021297	Custom Enamellers, Inc.	Metal Finishing PSNS
1-021379	Data Aire, Inc. #2	Metal Finishing PSNS
1-011142	Data Electronic Services, Inc.	Metal Finishing PSNS
1-521761	Data Solder, Inc.	Metal Finishing PSNS
1-021325	Dunham Metal Processing	Metal Finishing PSNS
1-011064	EFT Fast Quality Service, Inc.	Metal Finishing PSNS
1-021158	Electro Metal Finishing Corporation	Metal Finishing PSNS
1-071162	Electrolurgy, Inc.	Metal Finishing PSNS
1-021336	Electron Plating III, Inc.	Metal Finishing PSNS
1-021337	Electronic Precision Specialties, Inc.	Metal Finishing PSNS
1-521855	Excello Circuits Manufacturing Corp.	Metal Finishing PSNS
1-011068	Fabrication Concepts Corporation	Metal Finishing PSNS
1-021121	Fineline Circuits & Technology, Inc.	Metal Finishing PSNS
1-021352	Gomtech Electronics, Inc.	Metal Finishing PSNS
1-021286	Harbor Truck Bodies, Inc.	Metal Finishing PSNS
1-521790	Hi Tech Solder	Metal Finishing PSNS
1-021185	Hightower Plating & Manufacturing Co.	Metal Finishing PSNS
1-061115	Hixson Metal Finishing	Electroplating PSES
1-021041	Ideal Anodizing, Inc.	Metal Finishing PSNS
1-521756	Ikon Powder Coating, Inc.	Metal Finishing PSNS
1-031106	Imperial Plating	Metal Finishing PSNS
1-600243	Integral Aerospace, LLC	Metal Finishing PSNS
1-571328	Irvine Sensors Corporation	Electrical and Electronic Components PSNS
1-571292	Jazz Semiconductor	Electrical and Electronic Components PSNS
1-511407	JD Processing, Inc.	Metal Finishing PSNS
1-021428	Kryler Corporation	Electroplating PSES and Metal Finishing PSNS
1-600338	Lightning Diversion Systems LLC	Metal Finishing PSNS
1-511361	LM Chrome Corporation	Metal Finishing PSNS
1-031049	Logi Graphics, Inc.	Metal Finishing PSNS
1-111007	M.S. Bellows	Metal Finishing PSNS
1-531391	Magnetic Metals Corporation	Metal Finishing PSNS
1-600006	Meggitt, Inc.	Metal Finishing PSNS
1-021153	Micrometals, Inc.	Metal Finishing PSNS
1-521811	Murrietta Circuits	Metal Finishing PSNS
1-521772	Neutronic Stamping and Plating	Metal Finishing PSNS
1-521801	Nobel Biocare USA, LLC	Metal Finishing PSNS
1-021520	Omni Metal Finishing, Inc.	Metal Finishing PSNS

Table 6.7	Permittees with TTOs Waivers, July 1, 2018 - June 30, 2019 Orange County Sanitation District (OCSD) Resource Protection Division (RPD)	
Permit No.	Facility Name	Federal Categories
1-021070	Pacific Image Technology, Inc.	Metal Finishing PSNS
1-141002	Parker Hannifin Corporation	Metal Finishing PSNS
1-521783	Patio and Door Outlet, Inc.	Metal Finishing PSNS
1-521805	Performance Powder, Inc.	Metal Finishing PSNS
1-011262	Pioneer Circuits, Inc.	Metal Finishing PSNS
1-521852	Platinum Surface Coating, Inc.	Metal Finishing PSNS
1-600167	PowderCoat Services, LLC - Building E	Metal Finishing PSNS
1-600168	PowderCoat Services, LLC - Building J	Metal Finishing PSNS
1-521809	Precision Anodizing & Plating, Inc.	Metal Finishing PSNS
1-011008	Precision Circuits West, Inc.	Metal Finishing PSNS
1-061138	Railmakers, Inc.	Metal Finishing PSNS
1-011013	RBC Transport Dynamics Corp.	Metal Finishing PSNS
1-511376	Reid Metal Finishing	Metal Finishing PSNS
1-021187	Rigiflex Technology, Inc.	Metal Finishing PSNS
1-021033	Roto-Die Company, Inc.	Metal Finishing PSNS
1-061008	Sanmina Corporation (Airway)	Metal Finishing PSNS
1-061009	Sanmina Corporation (Redhill)	Metal Finishing PSNS
1-021016	Santana Services	Metal Finishing PSNS
1-031311	Scientific Spray Finishes, Inc.	Metal Finishing PSNS
1-600297	Shur-Lok Company	Metal Finishing PSNS
1-031341	Soldermask, Inc.	Metal Finishing PSNS
1-011069	South Coast Circuits, Inc. (Bldg 3500 A)	Metal Finishing PSNS
1-011030	South Coast Circuits, Inc. (Bldg 3506 A)	Metal Finishing PSNS
1-511365	South Coast Circuits, Inc. (Bldg 3512 A)	Metal Finishing PSNS
1-011054	South Coast Circuits, Inc. (Bldg 3524 A)	Metal Finishing PSNS
1-011310	SPS Technologies	Metal Finishing PSNS and Nonferrous Metals Forming and Metal Powders PSES
1-021672	Stainless Micro-Polish, Inc.	Metal Finishing PSNS
1-531425	Star Powder Coating, Inc.	Metal Finishing PSNS
1-021664	Statek Corporation (Main)	Electrical and Electronic Components PSES
1-521777	Statek Corporation (Orange Grove)	Electrical and Electronic Components PSNS
1-600012	Summit Interconnect, Inc.	Metal Finishing PSNS
1-600060	Summit Interconnect, Inc., Orange Division	Metal Finishing PSNS
1-021090	Superior Plating	Metal Finishing PSNS
1-021403	Superior Processing	Metal Finishing PSNS
1-031012	Tayco Engineering, Inc.	Metal Finishing PSNS
1-021123	Taylor-Dunn Manufacturing Company	Metal Finishing PSNS
1-571309	TC Cosmotronic, Inc., DBA Cosmotronic	Metal Finishing PSNS

Table 6.7	Permittees with TTOs Waivers, July 1, 2018 - June 30, 2019 Orange County Sanitation District (OCSD) Resource Protection Division (RPD)	
Permit No.	Facility Name	Federal Categories
1-021082	Techplate, Inc.	Metal Finishing PSNS
1-021282	Thermal-Vac Technology, Inc.	Metal Finishing PSNS
1-111132	Tiodize Company, Inc.	Metal Finishing PSNS
1-021202	Transline Technology, Inc.	Metal Finishing PSNS
1-141163	Tropitone Furniture Co., Inc.	Metal Finishing PSNS
1-521859	TTM Technologies North America, LLC. (Coronado)	Metal Finishing PSNS
1-511366	TTM Technologies North America, LLC. (Croddy)	Metal Finishing PSNS
1-511359	TTM Technologies North America, LLC. (Harbor)	Metal Finishing PSNS
1-021703	Ultra-Pure Metal Finishing, Inc.	Metal Finishing PSNS
1-521836	Universal Molding Co.	Metal Finishing PSNS
1-031035	Winonics (Brea)	Metal Finishing PSNS
1-021735	Winonics, Inc.	Metal Finishing PSNS

6.7 SPECIAL PURPOSE DISCHARGE PERMIT PROGRAM

A Special Purpose Discharge Permit (SPDP) is issued by OCSD for water and wastewater discharges to the sewerage system when no alternative discharge point exists other than the sewer system and/or considered alternate discharge methods pose an environmental impact or threat.

Wastewater discharges may include: 1) temporary facilities and projects such as groundwater cleanup and construction dewatering; 2) short-term or one-time water and wastewater discharges; 3) emergency discharges from facilities that have no other industrial or permitted discharge point; or 4) surface run-off from areas associated with an industrial or commercial facility.

6.7.1 Metrics and Trends

During FY 2018/19, there were fourteen new SPDPs issued, of which 7 were later voided, another 9 existing SPDPs were voided, and three SPDPs that were not renewed by the permittee. During the fiscal year, there were 66 active SPDPs, an increase from the previous fiscal year. Active SPDPs are renewed on a biannual basis.

The majority of the new SPDPs issued during FY 2018/19 were for short-term construction dewatering activities (i.e., typically less than a year). Formerly, the most common special purpose permitted facilities were gasoline service stations that required remediation of contaminated groundwater. Other dischargers affected include mobile cleaners, water features (e.g. pools), water-well purging disinfection, subsurface parking structure dewatering, etc.

OCSD staff continues to work with outside agencies such as the RWQCB-SAR8, OCHCA, and the cities within Orange County to both coordinate and offer guidance on the SPDP issuance process and OCSD's *Wastewater Discharge Regulations* (Ordinance).

6.7.2 SPDP Program Enforcement

For FY 2018/19, the Irvine Company Apartment Communities (ICAC) had a copper violation on November 26, 2018. A Notice of Violation with resampling requirement was issued to ICAC on January 16, 2019. The resampling showed compliance. It has previously been determined that the source of the violation was the mobile car washing activities in the parking structure. Upon receipt of the Notice of Violation, ICAC prohibited further car washing activities onsite. Should another violation occur, OCSD will pursue escalated enforcement action.

6.7.3 SPDP Regulatory Program

OCSD staff minimizes SPDP impacts to OCSD Reclamation Plant No. 1 and Treatment Plant No. 2. by diverting non-compatible discharges from Reclamation Plant 1 to Treatment Plant 2; coordinating more closely with Operations, Engineering and Safety on significant one-time discharges; requiring pretreatment for projects which may encounter known contaminated underground plumes; requiring best management practices for small nuisance dischargers; and requiring significant construction dewatering dischargers to stop discharging during a rain/storm event.

6.8 SELF-MONITORING PROGRAM

OCSD operates an extensive self-monitoring program, which is an integral part of the Resource Protection Division's monitoring and enforcement programs. OCSD's self-monitoring program exceeds the minimum requirements of 40 CFR 403. To obtain a broad perspective of a permittee's discharge quality and adequately determine their compliance status, OCSD takes a proactive approach to self-monitoring (per EPA recommendation) by requiring frequent sampling in most cases. OCSD determined that sampling quarterly or semi-annually is an effective method to generate sufficient data to make a fair determination of a permittee's compliance status; and balance the need for data against the related costs incurred by permittees. In addition, these sampling frequencies preclude permittees from being unduly classified as SNC for isolated process upsets.

OCSD's self-monitoring program is largely automated with self-monitoring results submitted on OCSD's standardized Self-Monitoring Report (SMR) forms. These forms are computer-generated with unique SMR numbers that allow tracking and automatic generation of reminders, late and incomplete notices, violation notices with resample forms, and SNC notices. This tracking system has enabled OCSD to ensure that permittees comply with self-monitoring requirements.

In January 2016, OCSD launched its new permitting, inspection, and monitoring software, which includes an automated online self-monitoring entry program component called GovOnline. However, GovOnline is currently not functional and OCSD has been working with the vendor to fix the technical issues.

6.9 INDUSTRIAL OPERATIONS AND MAINTENANCE IMPROVEMENT PROGRAM

To remain a vital part of the community, help businesses and industries in OCSD's service area maintain compliance, and to enable OCSD to attain its environmental goals, OCSD established an Industrial Operations and Maintenance Improvement Program. The program serves as both a resource for industry and a forum for discussing methods to carry out environmental requirements. The program consists of outreach and education, which includes publications addressing pretreatment program elements such as permitting, compliance and pollution prevention; OCSD staff presence at educational events and fairs; and OCSD-sponsored training opportunities.

Industrial Operations and Maintenance Improvement Program

The ongoing trend in industrial permittee discharge violations have shown that most cases are due to inadequate operations and maintenance of industry's pretreatment systems as well as industrial operator error. This was recognized years ago, when the U.S. EPA audit findings of 1998 recommended that OCSD develop and implement an industrial operations and improvement program. In 1999/2000, OCSD developed a plan that included outreach and operator training, and enforcement of requirements for operator and operations and maintenance practices which is still in effect today.

In 2018, OCSD conducted an advanced training course for industrial wastewater treatment (pretreatment) operators currently employed by facilities holding a Class I Wastewater Discharge Permit. The course was conducted by an engineering services company (selected via bid process for a five-year contract in 2014). OCSD provided this training, free of charge, to assist permittees to obtain and retain a qualified pretreatment operator and to reduce or eliminate noncompliance due to operation and maintenance and/or operator problems. The training course consisted of two 4.5-hour classes and a follow-up wastewater audit at the operator facility to ensure proper implementation of operation and maintenance practices. Those class participants that attended both classes, passed the exam and quizzes, and successfully fulfilled the audit requirements, will receive Certificates of Completion.

As 2018 was the last year of the five-year contract, OCSD underwent the process of issuing a request for proposals to initiate a new contract for 2019, with an option to renew each year until 2024 (5 years total). OCSD will award the new 2019-2024 contract during the next reporting period.

6.10 SIGNIFICANT CHANGES IN OPERATING THE PRETREATMENT PROGRAM

There were no significant changes to the OCSD Pretreatment Program during FY 2018/19.

INTERACTION WITH OTHER AGENCIES

Introduction

**Los Angeles Sanitation District Nos. 18 and 19 Flow Accommodation
Agreement
Irvine Ranch Water District (IRWD)
Santa Ana Watershed Project Authority (SAWPA)**

INTERACTION WITH OTHER AGENCIES

7.1 INTRODUCTION

The Orange County Sanitation District (OCSD) has entered into agreements and has developed Memorandums of Understanding (MOUs) with Los Angeles County Sanitation District (LACSD) Nos. 18 and 19, Irvine Ranch Water District (IRWD), and the Santa Ana Watershed Project Authority (SAWPA) for accepting their wastewater flows and implementing source control discharge, inspection, and enforcement requirements. Therefore, this chapter is divided into three sections below, the first section presents information on LACSD for FY 2018/19, the second section presents information on IRWD for FY 2018/19, and the third on SAWPA for FY 2018/19.

7.2 LOS ANGELES COUNTY SANITATION DISTRICT NOS. 18 AND 19 FLOW ACCOMMODATION AGREEMENT

In 1960, Los Angeles County Sanitation District Nos. 18 and 19 (LACSD) and County Sanitation District No. 3 of Orange County, predecessor to Orange County Sanitation District (OCSD), entered into a flow accommodation agreement by which each District agreed to receive wastewater from the other District, where the wastewater originated in one District's service area and discharged into the other District's sewerage system. The geographic areas subject to the agreement are located along the Los Angeles County/Orange County boundary and are characterized by the fact that they are physically isolated from the sewer system of their respective District's jurisdiction by Coyote Creek. The Districts entered into subsequent flow accommodation agreements for the 2010-11 and 2011-12 fiscal years. A current agreement was approved by the Board of Directors of both LACSD and OCSD on July 1, 2012.

The flow accommodation agreement is fee-based, focusing primarily on residential parcels and flows. For the few industrial dischargers, the fees are based on flow, biochemical oxygen demand, chemical oxygen demand and suspended solids. The originating District is responsible for administering and enforcing its industrial waste Pretreatment Program for industries in its service area, with terms and conditions of coordination and information exchange between the Districts.

For this fiscal year, OCSD has no industrial facilities discharging to LACSD. LACSD has four (4) non-categorical permittees discharging to OCSD:

- Chemetall Oakite Corp.
- Coyle Reproductions, Inc.
- RockTenn CP, LLC
- T. Hasegawa USA Inc.

Permit and sample information for the above companies has been submitted to OCSD.

7.3 IRVINE RANCH WATER DISTRICT (IRWD)

IRWD is a California Water District in central Orange County, California, which is served by several Revenue Zones within the jurisdiction of OCSD and other agencies. The northern and coastal parts of IRWD are served by OCSD. The pretreatment program in these sections is managed by OCSD. A small portion of the eastern part of IRWD, called Portola Hills, is currently sewered to Santa Margarita Water District, a member of the South Orange County Wastewater Authority (SOCWA). SOCWA administers the pretreatment program for its member agencies.

On January 1, 2001, the Los Alisos Water District (LAWD) consolidated with IRWD. LAWD owned and operated a 5.5-million-gallon-per-day (MGD) water recycling plant whose tertiary effluent is used under

permits granted by both Region 8 and Region 9 Water Quality Control Boards. Secondary wastewater effluent up to 7.5 MGD that is not recycled is discharged to the Aliso Creek Ocean Outfall in Laguna Beach. IRWD also uses its capacity in the Aliso Creek Ocean Outfall to dispose of brine from the Irvine Desalter and treated groundwater from its Shallow Groundwater Unit facility. SOCWA administers the pretreatment program for discharges to the ocean outfall.

Most of IRWD is in Orange County Sanitation Revenue Zone No. 14, which collects sewage for treatment at either IRWD's Michelson Water Recycling Plant (MWRP) or OCSD's Reclamation Plant No. 1. Currently, most of the sewage generated within Revenue Zone No. 14 is treated at MWRP, which is a tertiary treatment plant with a design capacity of 28 MGD. MWRP's highly treated effluent meets all of the State of California Title 22 regulations for the reuse of recycled water. Sludge from MWRP is pumped to an OCSD sewer for treatment and disposal.

7.3.1 IRWD Operating Permit, Regional Board Order 2015-0024

On June 19, 2015, the Santa Ana Regional Water Quality Control Board adopted Order No. R8-2015-0024, superseding Order No. R8-2007-0003. Monitoring and Reporting Program under Order No. R8-2015-0024 requires an annual full priority pollutant scan, with quarterly samples analyzed for those pollutants that were detected in the annual scan. Sludge monitoring is not one of the requirements of the Order.

IRWD organic priority pollutant analyses for influent, effluent, and sludge are provided following the narrative. IRWD has scheduled priority pollutant monitoring more frequently than required by permit in order to provide additional information to OCSD on the quality of wastewater and sludge in Revenue Zone 14. IRWD will continue to monitor the influent, effluent, and sludge quarterly.

On September 7, 2018, the Santa Ana Regional Water Quality Control Board adopted Order No. R8-2018-0070, amending Order No. R8-2015-0024, allowing for discharges to San Diego Creek under emergency conditions. IRWD is currently undergoing the process for permit renewal.

7.3.2 IRWD Analytical Reporting

Annually, the discharger shall submit...a summary of analytical results from representative, flow proportioned, 24-hour composite sampling of the POTW's influent and effluent for those pollutants EPA has identified under Section 307(a) of the Act.

The collection points for the influent, effluent and sludge samples are as follows:

Influent:	Collected at headworks after grit basins.
Effluent:	Collected at the end of the chlorine contact basin (CCB), but downstream of where the CCB effluent and ultraviolet (UV) disinfected effluent are combined, just prior to entering the recycled water distribution system.
Sludge:	Collected at the flow meter vault on the MPS-3 force main prior to ferrous chloride injection.

The sampling of influent, effluent, and sludge is performed by Regulatory Compliance personnel according to the following protocol:

1. Grab samples are collected quarterly for influent, effluent, and sludge samples and analyzed for volatile organic priority pollutants.
2. Composite samples are collected for BNA extractables, inorganic priority pollutants, pesticides/PCBs, and phenols at each location. This sampling is performed with a Sigma sampler that collects discrete samples at hourly intervals over a twenty-four-hour period. The discrete samples are composited according to flow, and aliquots are distributed into the appropriate sample

container. All the samples are collected in glass bottles and distributed into the appropriate glass or plastic bottle.

Some samples are refrigerated and shipped on ice to Weck Laboratories in City of Industry, California for analysis. Weck Labs supplies all containers with the proper preservatives.

The detection limits may vary from quarter to quarter due to matrix interference and sensitivity of the analytical equipment; however, the results for each quarter are valid for the detection limit reported. IRWD and its contract laboratories have endeavored to meet or exceed reporting levels established in permits.

7.3.3 Inorganic Pollutants

General Minerals

Because IRWD is a water recycling agency, MWRP effluent is subject to general mineral requirements to protect Basin Plan water quality criteria. IRWD utilizes local groundwater and imported water to supply its customer domestic water needs, and the quality of the recycled water is based on the quality of the domestic supply. The current Basin Plan standard for the Irvine Groundwater Basin is 910 mg/L Total Dissolved Solids (TDS), and the current TDS limit for discharges to recycled water reservoirs designated as “Waters of the State” is 720 mg/L. As a purveyor of recycled water, the IRWD goal is to provide high quality water regardless of standards applied in the basin and has implemented several projects which improve the quality of the domestic water supply, which results in improvement in the quality of recycled water. In 1991, IRWD prepared the Michelson Influent Wastewater Quality Improvement Plan which identifies procedures to be followed to produce the highest quality recycled water. An important feature of the plan was to maximize the delivery of high quality domestic water during the period of greatest recycled water consumption. In April 2002, IRWD commissioned its Deep Aquifer Treatment System plant, an 8-MGD membrane filtration plant, to provide additional high quality domestic water for its customers. The treatment plant removes natural organic matter in the form of color from a low TDS (250 mg/l on average) deep groundwater source. In January 2007, IRWD commissioned the Irvine Desalter Project-Potable Treatment Plant (PTP), a 5.5-MGD reverse osmosis plant and in March 2013 commissioned the Wells 21/22 Desalter Plant, a 6.3-MGD reverse osmosis plant, to provide high quality domestic water for its customers. Both desalter plants remove minerals from water in the Irvine Groundwater Basin to provide a target of 420 mg/L TDS in the final product water. All three treatment plants are designed to operate continuously, thereby decreasing consumption of high TDS imported water, and improving mineral quality of the MWRP effluent. IRWD still needs to import some higher TDS water to meet its water supply needs.

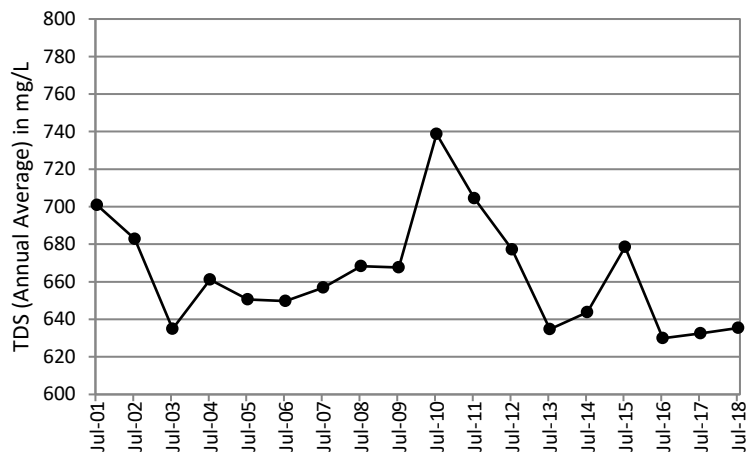


Figure 7. 1 MWRP Effluent Total Dissolved Solids (Annual Average)
Irvine Ranch Water District – Michelson Water Recycling Plant
Orange County Sanitation District

The minerals rejected by the reverse osmosis system for the PTP are discharged into the ocean through the Aliso Creek Ocean Outfall, and for the Wells 21/22 Desalter Plant are discharged to the sewer that goes to OCSD’s Reclamation Plant No. 1. For FY18/19, PTP operation has resulted in a net export of salt from the Irvine Groundwater Basin of approximately 2,177 tons. For FY18/19, the Wells 21/22 Desalter has resulted in a net export of salt from the Irvine Groundwater Basin of approximately 1,596 tons.

Additionally, IRWD has completed a Salt Management Plan that identifies management strategies, cost estimates for implementing recommended actions and provide recommendations for policies that may be

considered to manage recycled water salt concentrations throughout the District. Those policies addressed both current and future conditions that take into consideration changing source water conditions during ongoing drought as well as water conservation practices that can all impact the TDS concentrations of the sewage treated at MWRP.

The seasonal change in MWRP effluent mineral quality, on a fiscal year annual average, is also shown in Figure 7.1. The recycled water mineral quality, as expressed by total dissolved solids (TDS), varied by 110 mg/l during 2018/2019. The effect of providing higher quality domestic water can be seen in the gradual reduction in TDS of the recycled water over the last five years. The slight increase that occurred last fiscal year (2015/2016) could have been due to impacts from ongoing water conservation efforts and increased TDS concentrations from imported water supplies.

Total Heavy Metals

IRWD has been analyzing the heavy metals on the list of inorganic priority pollutants for the last 36 years at MWRP. During the 36-year period, the total mass of heavy metals has increased from 5 pounds per day (lbs/day) to the current 40.46 lbs/day in the influent, a 7.3% increase over the previous year, and has increased in the effluent from 2.8 to the current 12.4 pounds per day in 2018/2019, an increase of 8.9% from the previous fiscal year.

Of all the priority pollutant heavy metals, only two, copper and zinc, were found in significantly greater concentrations than remaining metals. The sum of mass of copper and zinc represents 94% of heavy metals found in the influent, and represents 86% of what is found in the effluent, with zinc being the overall heavy metal contributor. IRWD analyzes for metals by ICP-MS, which is capable of reporting metals in the sub part per billion range. Figure 7.2 shows the annual mass of total heavy metals in the influent and effluent of MWRP. The major contributing heavy metal is zinc.

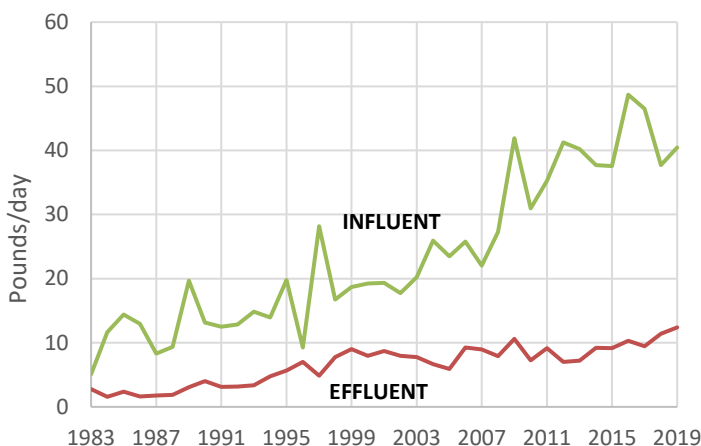


Figure 7. 2 MWRP Influent and Effluent Total Heavy Metals
Irvine Ranch Water District – Michelson Water Recycling Plant
Orange County Sanitation District

Copper

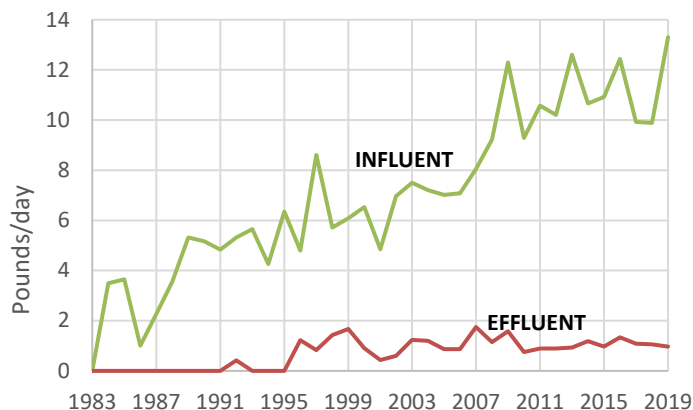


Figure 7. 3 MWRP Influent and Effluent Copper
Irvine Ranch Water District – Michelson Water Recycling Plant
Orange County Sanitation District

The major sources of copper are domestic water systems and the printed circuit board industry. Both residential and nonresidential water plumbing are predominantly copper. Currently, IRWD does not have printed circuit board manufacturing in the MWRP service area. The major commercial source of copper is believed to be radiator repair; however, copper from radiator repair activities is declining since many of the newer radiators are made from aluminum and plastic. Growth in the area tributary to MWRP has begun to increase over the last few years, and the increase in the amount of copper being discharged could potentially be from new copper plumbing.

Figure 7.3 shows that the mass of copper in the influent has increased over the 36-year period from 3.5 to 13.3 lbs/day during the 2018/2019 fiscal year. The mass of copper entering the treatment plant increased by 34.6% from the 2017/2018 daily average. However, the mass of copper in the effluent decreased by 8.5% from the previous fiscal year.

Zinc

Zinc is the predominant heavy metal detected in both the influent and effluent. The major sources of zinc are brass alloys used in domestic water systems, water and oil based paints used by the building industry, and in chemicals and coatings used by industry.

Figure 7.4 shows that the mass of zinc in the influent has increased from 4.6 lbs/day to 24.9 lbs/day over 36 years. The influent mass of zinc increased by 1.2 lbs/day or a 5.2% increase from the previous fiscal year. The mass of zinc in the effluent has increased from 1 lbs/day to 9.7 lbs/day over the last 36 years and saw an increase of 0.3 lbs/day, or 4.1%, from the previous fiscal year.

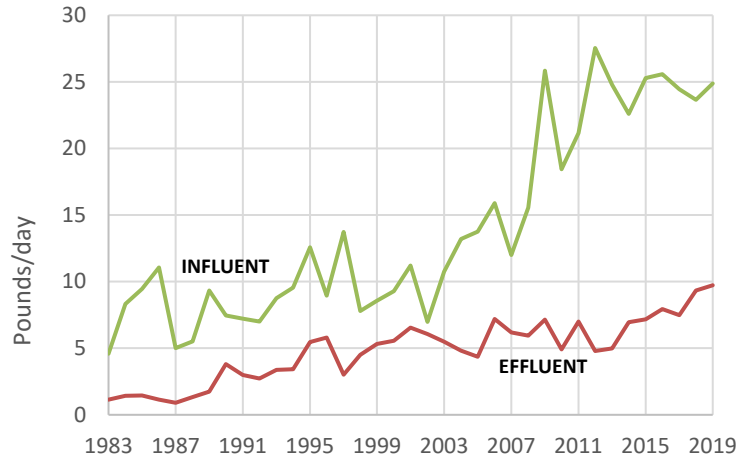


Figure 7.4 MWRP Influent and Effluent Zinc
Irvine Ranch Water District – Michelson Water Recycling Plant
Orange County Sanitation District

7.3.4 Organic Pollutants

IRWD has been analyzing for organic pollutants on the list of organic priority pollutants at MWRP since 1983. The sampling frequency has increased from once per year to quarterly sampling. Samples are collected from the influent, effluent, and sludge.

Figure 7.5 shows the annual mass of total organic pollutants in the influent and effluent of MWRP. Over the last 36 years, the annual mass of total organic pollutants entering MWRP has widely varied and has decreased from a high of 16.82 lbs/day to the current 1.1 lbs/day. The mass of total organic priority pollutants leaving MWRP decreased from 18.1 lbs/day in 2017/2018 to 15.8 lbs/day this fiscal year. The general increase in effluent organic pollutants above influent levels is attributed to an increase in trihalomethanes and other volatile organic compounds resulting from final effluent chlorination required to meet California Title 22 Water Recycling Criteria.

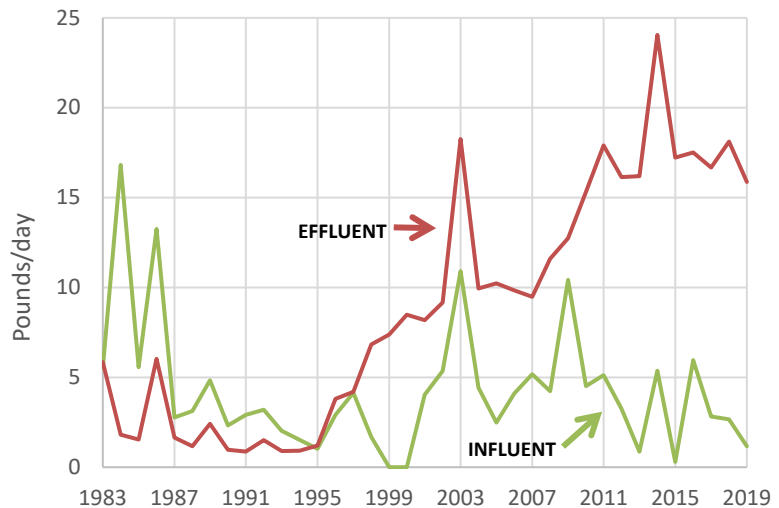


Figure 7.5 MWRP Influent and Effluent Total Toxic Organics
Irvine Ranch Water District – Michelson Water Recycling Plant
Orange County Sanitation District

IRWD has completed its 10 MGD biological nitrogen removal membrane filtration plant expansion at the MWRP and the plant is now operating within its design capacity. The UV Disinfection system went online November 2015 and the effluent total toxic organics concentration and mass has been reduced as the concentration of trihalomethanes and other volatile organic compounds resulting from effluent chlorination has been reduced. The reduction is not as great as expected as flows through the MBR were reduced over this last wet winter.

7.3.5 Report of Upset, Pass-Through and Interference Events

The discharger shall submit annually...a discussion of upset, interference, or pass-through incidents, if any, at the POTW which the discharger knows or suspects were caused by industrial users of the POTW system...

There were no upsets, interference or pass-through incidents caused by industrial users during the reporting period.

7.3.6 Discussion of the List of Industrial Users

The discharger shall submit annually...an updated list of the discharger's significant industrial users...

Table 7.1 summarizes those companies in Revenue Zones Nos. 7 and 14 which were under permit and in business as of June 30, 2019. Class I industrial users in Revenue Zone 7 discharge to the IRWD collection system and are treated at OCSD's treatment plant. Class I industrial users in Revenue Zone 14 discharge to the IRWD collection system and are treated at MWRP and at OCSD's treatment plant.

Table 7.1 Class 1 Industries Within Irvine Ranch Water District Service Areas					
Permit No.	Facility Name	Physical Address	NAICS Code	Classification	Plant
Z-371301	3M ESPE Dental Products	2111 McGaw Ave. (Irvine)	339114	Dental Equipment and Supplies Manufacturing	OCSD
1-541182	Alliance Medical Products, Inc.	9342 Jeronimo Rd. (Irvine)	325412	Pharmaceutical Preparation Manufacturing	IRWD
Z-361006	Ametek Aerospace, Inc.	17032 Armstrong Ave. (Irvine)	334511	Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing	OCSD
1-541180	Anchen Pharmaceuticals, Inc. (Fairbanks)	72 Fairbanks (Irvine)	325412	Pharmaceutical Preparation Manufacturing	IRWD
1-600359	Anchen Pharmaceuticals, Inc. (Goodyear)	5 Goodyear (Irvine)	325412	Pharmaceutical Preparation Manufacturing	IRWD
1-541179	Anchen Pharmaceuticals, Inc. (Jeronimo)	9601 Jeronimo Rd. (Irvine)	325412	Pharmaceutical Preparation Manufacturing	IRWD

Table 7.1 Class 1 Industries Within Irvine Ranch Water District Service Areas					
Permit No.	Facility Name	Physical Address	NAICS Code	Classification	Plant
1-571332	Avid Bioservices, Inc.	14191 Myford Rd. (Tustin)	325414	Biological Product (except Diagnostic) Manufacturing	IRWD
1-071054	B. Braun Medical, Inc. (East/Main)	2525 McGaw Ave. (Irvine)	325412	Pharmaceutical Preparation Manufacturing	OCSD
1-600382	B. Braun Medical, Inc. (North/Alton)	2206 Alton Parkway (Irvine)	325412	Pharmaceutical Preparation Manufacturing	OCSD
1-541183	B. Braun Medical, Inc. (West/Lake)	2525 McGaw Ave. (Irvine)	325412	Pharmaceutical Preparation Manufacturing	OCSD
1-600583	Brothers International Desserts (North)	1682 Kettering St. (Irvine)	311520	Ice Cream and Frozen Dessert Manufacturing	OCSD
1-600582	Brothers International Desserts (West)	1682 Kettering St. (Irvine)	311520	Ice Cream and Frozen Dessert Manufacturing	OCSD
1-600691	Ceradyne, Inc., a 3M Company	17466 Daimler St. (Irvine)	339114	Dental Equipment and Supplies Manufacturing	OCSD
1-571316	CP-Carrillo, Inc.	1902 McGaw Ave. (Irvine)	336310	Motor Vehicle Gasoline Engine and Engine Parts Manufacturing	OCSD
1-071162	Electrolurgy, Inc.	1121 Duryea Ave. (Irvine)	332813	Electroplating, Plating, Polishing, Anodizing, and Coloring	OCSD
1-571331	FMH Aerospace Corp DBA FMH Corporation	17072 Daimler St. (Irvine)	332912	Fluid Power Valve and Hose Fitting Manufacturing	OCSD
1-600585	FMH Aerospace Corp.	17072 Daimler St. (Irvine)	332912	Fluid Power Valve and Hose Fitting Manufacturing	OCSD
1-571314	Graphic Packaging International, Inc.	1600 Barranca Pkwy. (Irvine)	322212	Folding Paperboard Box Manufacturing	OCSD
1-541178	Imuraya USA, Inc.	2502 Barranca Pkwy. (Irvine)	311520	Ice Cream and Frozen Dessert Manufacturing	OCSD
1-571327	Irvine Ranch Water District	1221 Edinger Ave. (Tustin)	221310	Water Supply and Irrigation Systems	OCSD

Table 7.1 Class 1 Industries Within Irvine Ranch Water District Service Areas					
Permit No.	Facility Name	Physical Address	NAICS Code	Classification	Plant
1-071056	Kraft Heinz Company (formerly Todds, A Division of HJ Heinz, LLC)	2450 White Rd. (Irvine)	311941	Mayonnaise, Dressing, and Other Prepared Sauce Manufacturing	OCSD
1-071024	Maruchan, Inc. (Deere)	1902 Deere Ave. (Irvine)	311824	Dry Pasta, Dough, and Flour Mixes Manufacturing from Purchased Flour	OCSD
1-141015	Maruchan, Inc. (Laguna Cyn)	15800 Laguna Canyon Rd. (Irvine)	311824	Dry Pasta, Dough, and Flour Mixes Manufacturing from Purchased Flour	IRWD
1-141023	Marukome USA, Inc.	17132 Pullman St. (Irvine)	311991	Perishable Prepared Food Manufacturing	OCSD
1-600006	Meggitt, Inc.	14600 Myford Road (Irvine)	334519	Other Measuring and Controlling Device Manufacturing	OCSD
1-071038	Newport Corporation	1791 Deere Ave. (Irvine)	334516	Analytical Laboratory Instrument Manufacturing	OCSD
1-141012	Oakley, Inc.	1 Icon (Foothill Ranch)	339115	Ophthalmic Goods Manufacturing	IRWD
1-141002	Parker Hannifin Corporation	14300 Alton Pkwy. (Irvine)	332912	Fluid Power Valve and Hose Fitting Manufacturing	IRWD
1-071235	Prudential Overall Supply	16901 Aston St. (Irvine)	812332	Industrial Launderers	OCSD
1-571303	Rayne Dealership Corporation	17835 Sky Park Cir. (Irvine)	454390	Other Direct Selling Establishments	OCSD
1-600297	Shur-Lok Company	2541 White Road (Irvine)	332722	Bolt, Nut, Screw, Rivet, and Washer Manufacturing	OCSD
1-600565	South Coast Baking, LLC	1711 Kettering St. (Irvine)	311821	Cookie and Cracker Manufacturing	OCSD
1-571309	TC Cosmotronic, Inc., DBA Cosmotronic	16721 Noyes Ave. (Irvine)	334412	Bare Printed Circuit Board Manufacturing	OCSD
1-141007	Teva Parenteral Medicines, Inc.	19 Hughes (Irvine)	325412	Pharmaceutical Preparation Manufacturing	IRWD
1-141163	Tropitone Furniture Co., Inc.	5 Marconi (Irvine)	337124	Metal Household Furniture Manufacturing	IRWD

Table 7.1 Class 1 Industries Within Irvine Ranch Water District Service Areas					
Permit No.	Facility Name	Physical Address	NAICS Code	Classification	Plant
1-600010	Vit-Best Nutrition, Inc.	2832 Dow Ave. (Tustin)	325411	Medicinal and Botanical Manufacturing	IRWD

7.3.7 Discussion of Industrial User Compliance Status

The discharger shall submit annually...a list or table characterizing the industrial compliance status of each SIU...

The compliance status of each noncompliant SIU is shown in OCSD's Pretreatment Program Annual Report.

7.3.8 Summary of SIU Compliance

The District shall submit annually...a compliance summary table...

A summary of compliance is shown in OCSD's Pretreatment Program Annual Report.

7.3.9 Discussion of Significant Changes in the Pretreatment Program

The District shall submit annually...a short description of any significant changes in operating the pretreatment program which differ from the previous year...

There were no significant changes in operating the pretreatment program between the 2017/2018 and 2018/2019 fiscal years.

7.3.10 Pretreatment Program Costs

The District shall submit annually...a summary of the annual pretreatment budget and the pretreatment equipment purchases...

A financial summary of IRWD's pretreatment program is shown in Table 8.2. All of the expenses shown in Table 7.2 are related to the operation of IRWD's pretreatment program by IRWD staff. All expenses incurred by IRWD under the Memorandum of Understanding between IRWD and OCSD are summarized by OCSD.

Table 7.2 Summary of Irvine Ranch Water District Pretreatment Program Costs 2018-2019 and 2017-2018 Orange County Sanitation District/IRWD			
Project No.	Description	2018-2019	2017-2018
		Labor	Labor
3093	Quarterly PP	\$2,871	\$3,140
3094	Baseline PP	\$1,153	\$285
3095	PP Surveillance	\$552	\$2,294
3096	Compat. Surveillance	\$5,278	\$8,528
3098	Industry. Info. Collection	\$112,322	\$85,777
3099	Eval Data/Rpts.	\$1753	\$16,163
3100	OCSD/SOCWA	\$5,965	\$271
	Total	\$129,894	\$116,458

IRWD records expenses based on project numbers which represent specific activities or groups of related activities. During fiscal year 2018/2019, IRWD spent \$129,894 on the operation of its pretreatment program, which is an increase of \$13,436 from the previous year.

7.3.11 Equipment Purchases for FY 2018/2019

IRWD maintained its existing equipment inventory as shown in Table 7.3

Table 7.3 Summary of Irvine Ranch Water District Pretreatment Equipment, Fiscal Year 2018-2019 Orange County Sanitation District/IRWD	
Quantity	Description
1	Ford F250
1	Sigma Ultrasonic Flowmeters with Conductivity and pH
4	Sigma AS 950 portable compact Autosampler with pH
2	Sigma 900 Max Insulated Autosamplers with Conductivity and pH
1	Sigma SD 900 insulated Autosamplers
3	Sigma compact insulated auto sampler base (spare base) – 24 bottle configuration
3	Sigma large insulated autosampler base - 24 bottle configuration
2	Sigma large insulated autosampler base - 12 bottle configuration
6	Sigma Lead-Acid Gel Cell Battery
3	Sigma Battery Charger, 5 Stations
2	Sigma Data Transfer Unit (DTU) and Software
2	USB Flash drive
2	Digital pH probe
1	Analog pH probe
3	Analog Electrical conductivity probes
1	MSA gas detector

7.3.12 Discussion of Public Participation Activities

The District shall submit annually...a summary of public participation activities...

IRWD has a standing program of MWRP tours, where the public is instructed on the sewage collection and treatment, as well as proper hazardous waste disposal practices. As Revenue Zones Nos. 7 and 14, IRWD is represented by OCSD in its public participation activities. As an operator of a sewage collection system, IRWD is enrolled under the statewide general permit to manage fats, oils and grease discharges from food service establishments. The public participation program is administered by IRWD staff.

7.3.13 Discussion of Sludge Disposal Activities

The District shall submit annually...a description of any changes in sludge disposal methods...

IRWD has not made changes in sludge disposal methods at this time. However, IRWD began construction in October 2013 of its Biosolids and Resource Recovery Project, that will consist of solids thickening, acid-phase anaerobic digestion, dewatering, drying/pelletizing, energy generation using microturbines, and use of pellets as a fertilizer or e-fuel. With completion of this project towards the end of 2020, IRWD will no longer send its solids to OCSD for treatment.

7.3.14 IRWD Additional Information

The District shall submit annually...any concerns not described elsewhere in the report.

Michelson Water Recycling Plant Flow

Figure 7.6 shows the wastewater flow received by MWRP over the last 36 years. MWRP flow has generally increased over the years with a few exceptions. Average flow for the 2018/2019 fiscal year was 18.3 MGD, which was a 9.4% decrease from the previous fiscal year. The decrease in influent flow can be attributed to the wet winter experienced recently, where IRWD had to divert sewage at a higher volume than normal from MWRP to OCSD for treatment.

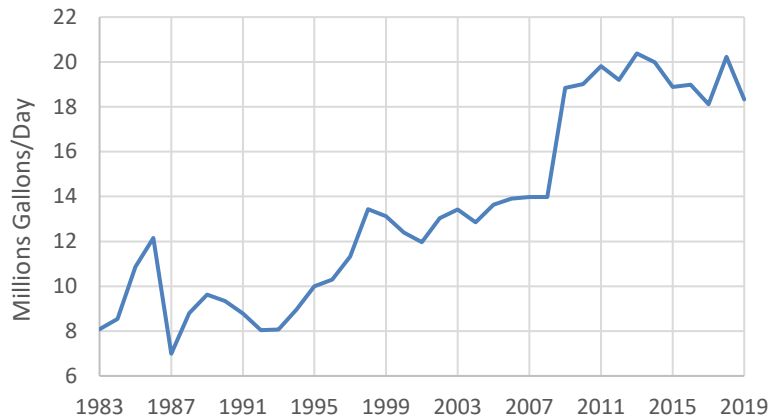


Figure 7.6 MWRP Influent Flow

Irvine Ranch Water District – Michelson Water Recycling Plant
Orange County Sanitation District

Nitrification/Denitrification Facilities

IRWD completed a significant upgrade to MWRP by installing a nitrification/denitrification system on its activated sludge system in the 1998-99 fiscal year. Plant effluent is now fully nitrified year round and substantially denitrified during the months when recycled water is stored in IRWD open storage reservoirs. A fully nitrified effluent means that IRWD maintains a free chlorine residual rather than a combined chlorine residual. A free chlorine residual causes a greater formation of trihalomethanes and related volatile organic compounds, which is evident by the presence of total toxic organic compounds in the effluent. Fortunately, the quality of plant effluent, detention time in the plant, and short time before storage or use, keeps the level of toxic organic compounds below regulatory criteria, even though a relatively high chlorine dose is required to maintain bacterial quality. The operation of the nitrification/denitrification system has improved activated sludge operations, which in turn, has increased the quality of recycled water.

Industrial Parks Development Status

Since the early 1980's, MWRP has been receiving increased industrial wastewater flows from the Irvine Spectrum. The industrial parks located with IRWD's service area are primarily the Irvine Spectrum, a large industrial park located near the former El Toro Marine Corps Air Station and the Foothill Ranch industrial area, located north and east of the El Toro Marine Corps Air Station. The El Toro Marine Corps Air Station is decommissioned and will be the site of the Great Park Development, a master planned community. IRWD sees the potential for gradually increasing levels of organic pollutants and heavy metals as the Irvine Spectrum industrial park and Foothill Ranch sites continue to expand and develop. The University of California, Irvine is expanding the University Research Park located on the southern portion of the university. IRWD sees a potential for organic priority pollutant and heavy metal discharges from the industrial/research parks.

Stormwater, Deminimis Discharges and Selenium

In May 2009, the Santa Ana Regional Water Quality Control Board adopted the fourth term *Waste Discharge Requirements for the County of Orange, Orange, County Flood Control District, and Incorporated Cities of Orange County Within the Santa Ana Region Areawide Stormwater Runoff Orange County, Order R8-2009-0030*. A condition of this permit is a requirement that non-stormwater discharges be prohibited from discharge into the storm drain system except for urban runoff and certain authorized non-stormwater discharges. As a result, there has been an increase of non-wastewater discharges into the sewer system. In general, these discharges contribute to the hydraulic loading to the sewer system and have not been a significant source of conventional and other pollutants.

The northeastern side of the Irvine Basin is dominated by coastal foothills, and historically runoff from the foothills deposited in a seasonal marsh called the Cienega de las Ranas. Natural weathering of the coastal foothills has exposed and eroded the Monterey Formation containing significant amounts of selenium, which over time have accumulated in the seasonal marsh. In addition to runoff, rising groundwater in the area of the seasonal marsh has raised the concentration of selenium in surface water well above the California Toxics Rule criterion of 5 µg/L. The seasonal marsh has been drained, first to promote agriculture, and then the agricultural land has been converted into urban development. Surface waters in the watershed are listed on the Section 303(d) list for selenium impairment, and discharges of water into the surface water system above 5 µg/L are regulated under the Basin Plan.

The effect of the additional prohibition of non-stormwater discharging into the storm drain system has resulted in additional non-stormwater flows being discharged into the sewer system containing significant levels of selenium from groundwater dewatering operations. Some of the discharges are tributary to OCSD's sewer system, and the selenium is ultimately returned into the ocean. However, some of the discharges are tributary to the IRWD sewer system. IRWD has been tracking the fate and transport of selenium since 2002 to garner knowledge on the effect of the additional non-stormwater discharges on MWRP effluent quality. During this last fiscal year, the average effluent selenium concentration was approximately 1.7 µg/L, a little under half the California Toxics Rule criterion. Prior to 2002, the concentration of selenium in the wastewater was negligible, because there was no selenium in the domestic water supply, there were

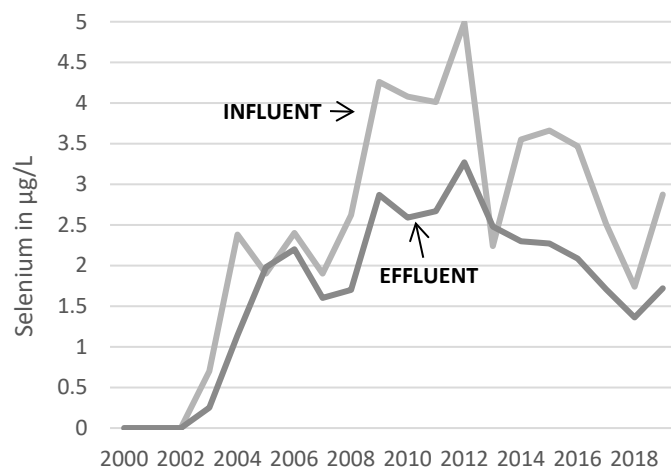


Figure 7.7 MWRP Influent and Effluent Selenium
Irvine Ranch Water District – Michelson Water Recycling Plant
Orange County Sanitation District

no industries discharging selenium and non-wastewater discharges into the sewer system were prohibited. Because selenium toxicity is based on concentration, IRWD will continue to monitor the concentration of selenium in the influent and effluent from the MWRP.

IRWD Oversight Activities

IRWD has monitored four major trunklines within its service area for priority pollutants. Commercial, residential and industrial areas were monitored on an annual basis. One purpose of this monitoring is to establish a long-term history of priority pollutant discharges into the sewer system. Phthalates are used to maintain flexibility in plastic products and are commonly found. The low concentrations of these constituents are common and are considered emerging pollutants of concern.

Additionally, within the IRWD service area, industrial activities are regulated by the City of Irvine General Plan and Zoning Ordinances, which confines industrial uses to specific zones and the City of Lake Forest, which is the agency currently responsible for the Foothill Ranch Master Plan. Currently, IRWD is reassessing its monitoring programs and locations.

The IRWD service area encompasses the San Diego Creek watershed, the largest watershed that is tributary to Newport Bay. Newport Bay and its tributary watersheds are subject to Total Maximum Daily Load (TMDL) allocations for sediment, nutrients, pathogens, and toxics. IRWD does not discharge wastewater into surface waters, other than its open storage reservoirs; however, as the sole purveyor of water and recycled water in the watershed, IRWD has chosen to become involved with water quality management in the watershed. IRWD is constructing and managing wetlands, under the Natural Treatment Systems Project, which will remove pollutants of concern to the TMDL allocations. IRWD extends its services to assist commercial and industrial users to recognize the importance of site runoff water quality, point out sources of contamination and areas of potential contamination, and advice on corrective measures.

Local Limits Study

Due to the completion of IRWD's Phase II Expansion at MWRP, as well as the construction of a solids and biosolids handling facility, IRWD decided to undertake a technical evaluation of its local limits that began in 2016, and was completed and submitted to the Regional Board for their approval in October 2016. The local limits study evaluated if IRWD's current limits are protective of not only the new unit processes within IRWD, but were also protective enough to ensure that IRWD can produce Class A EQ biosolids, as well as potentially evaluate additional pollutants of concern. IRWD received approval of its local limits by the Regional Board in 2018 and had them adopted by its Board in May 2018.

7.4 SANTA ANA WATERSHED PROJECT AUTHORITY (SAWPA)

OCSD has a National Pollutant Discharge Elimination System (NPDES) permit for ocean discharge and is the Control Authority for the Pretreatment Program required by federal regulations. Because SAWPA discharges to OCSD through the SARI Line, SAWPA is subject to OCSD's Pretreatment Program. Through a 1991 Memorandum of Understanding (1991 MOU), OCSD enabled SAWPA to be OCSD's Delegated Control Authority for the Pretreatment Program in SAWPA's SARI Service Area. SAWPA's responsibilities to run a Pretreatment Program on behalf of OCSD, ability to discharge to the SARI Line, and other financial factors are governed by agreements between OCSD and SAWPA, including the 1991 MOU and a 1996 Wastewater Treatment and Disposal Agreement (1996 Agreement), as amended and succeeded. OCSD routinely reviews all SAWPA Commission, Commission Workshop, and Project meeting agendas and minutes to stay current with the activities in the SAWPA area that may have an impact on the SAWPA Pretreatment Program. In addition, OCSD routinely meets with SAWPA to coordinate at administrative, technical, management, and leadership levels with varying levels of staff in attendance at each meeting to improve the coordination between OCSD's and

SAWPA's Pretreatment Programs and to enhance the working relationship with SAWPA in all areas of the 1991 MOU and 1996 Agreement.

SAWPA was formed in 1968 to develop a long-range plan for managing, preserving, and protecting the quality of water supplies in the Santa Ana Basin. SAWPA is a Joint Powers Authority (JPA) consisting of five agencies: Eastern Municipal Water District (EMWD), Inland Empire Utilities Agency (IEUA), Orange County Water District (OCWD), San Bernardino Valley Municipal Water District (Valley District), and Western Municipal Water District (WMWD). SAWPA's program in water quality management is integrated with those of other local, state, and federal agencies.

The Inland Empire Brine Line (Brine Line) is a pipeline that is designed to carry saline wastewater from the Upper Basin to the Orange County Sanitation District (OCSD) for disposal, after treatment, into the Pacific Ocean. This wastewater today consists primarily of desalter brine and saline wastewater from industrial uses, but also has some temporary domestic discharges. Wastewater from the Brine Line is transferred to the SARI Line in Orange County which transports the wastewater to OCSD Plant 2. A flow meter installed at the SARI Metering Station measures SAWPA's discharge. For the 12-month period from July 1, 2018 through June 30, 2019, a total of 3,728 MG was discharged into the Brine Line, for an average of 10.21 MGD, which leaves about 19.8 MGD of trunk line capacity available for future use. The flow meter/monitoring station at the Orange County line is sampled weekly by SAWPA and monthly by OCSD.

7.4.1 Brine Line System Pretreatment Program Overview

SAWPA has a wastewater discharge ordinance applicable to the Brine Line. It is essentially, with some appropriate modifications, substantially similar to OCSD's Wastewater Discharge Regulations Ordinance. In addition, a Memorandum of Understanding is in place to delineate pretreatment permitting, monitoring, enforcement, and reporting responsibilities between SAWPA and OCSD. SAWPA has entered into a Multijurisdictional Pretreatment Agreement (Agreement) with the Member Agencies, EMWD, IEUA, Valley District, and WMWD and Contract Agencies, Jurupa Community Services District (JCSD), San Bernardino Municipal Water Department (SBMWD), and Yucaipa Valley Water District (YVWD). This Agreement delineates the pretreatment responsibilities between SAWPA and the agencies to carry out and enforce a pretreatment program to control discharges from Industrial Users (IU) located in their service areas.

SAWPA owns and operates the Brine Line above or upstream of the Orange County line and has purchased 17 MGD of treatment and disposal capacity rights at OCSD's treatment facilities. SAWPA, through the MOU with OCSD, has the ultimate responsibility to ensure adequate implementation of Pretreatment Program responsibilities in the Upper Basin portion of the Brine Line. SAWPA issues permits to Direct and Indirect Dischargers jointly with Member and Contract Agencies and solely issues permits to all Member and Contract Agency owned or affiliated Direct and Indirect Dischargers. In addition, SAWPA has the Permitting responsibilities for all Liquid Waste Haulers (LWH) that use the four SAWPA-approved Collection Stations. The SAWPA LWH permits assign, for each discharger, a primary collection station and alternate collection stations should the primary collection station become unavailable due to repairs or closure.

Agency staff assists in the conduct of the program for non-agency permittees within their service area. SAWPA conducts all pretreatment oversight activities for agency owned or affiliated permittees. SAWPA has identified, categorized and summarized the permits herein by geographical location and support from the Member and Contract Agencies. Roles and responsibilities are defined in SAWPA's policies and procedures. SAWPA has two dedicated full-time pretreatment personnel and an additional 1.6 full-time equivalent (FTE) to assist with pretreatment responsibilities. Combined, the 3.6 FTE, along with additional personnel from both Member and Contract Agencies, prepared and issued permits, conducted inspections, prepared enforcement actions, and prepared monthly, quarterly, and annual reports by the date required.

Compliance and billing parameters are sampled at direct and indirect dischargers in accordance with SAWPA's policies and procedures. All samples are properly preserved and iced for transport to the laboratory. Chapter tables show the mass of pollutants as they were measured at OCSD's SARI Metering Station (SMS) at the Orange County line. The data is based on average daily flow unless otherwise noted.

During the reporting period SAWPA continued implementation of numerous program documents and worked to improve the operation and implementation of the Pretreatment Program. SAWPA and the Member and Contract Agencies use Pretreatment Program Control Documents (PPCDs) for uniform and consistent implementation of the Pretreatment Program. Updates to the PPCDs as well as the permit templates for Categorical Industrial Users (CIU), Significant Industrial Users (SIU), IU, and LWH are in development. A Data Management System (iPACS) continued to be used.

Reporting below is individually presented for each SAWPA Pretreatment Program Member and Contract Agency.

7.4.2 SAWPA, Member Agency, and Contract Agency Pretreatment Programs

7.4.2.1 Eastern Municipal Water District (EMWD)

Description of EMWD

EMWD is a Municipal Water District responsible for the implementation of certain pretreatment activities for the indirect and direct industries that discharge to EMWD's Non-Reclaimable Waste Line, which discharges to the Brine Line at Reach V. In the face of declining groundwater levels and continuing droughts, EMWD was formed in 1950 to secure additional water for a lightly populated area of western Riverside County. EMWD joined the Metropolitan Water District of Southern California a year later to augment its local supplies with recently available imported water. EMWD also provides sewer service throughout its area. The EMWD headquarters are located in Perris, California and serves the eastern portion of the watershed in Riverside County, as well as portions of the Santa Margarita Watershed, south of the Santa Ana River Watershed.

Enforcement Actions

There was no enforcement action during this reporting period.

7.4.2.2 Inland Empire Utilities Agency (IEUA)

Description of IEUA

IEUA is a Municipal Water District responsible for the implementation of certain pretreatment program activities for the direct and indirect industries located within IEUA's service area. IEUA, originally named the Chino Basin Municipal Water District (CBMWD), was formed in 1950 to supply supplemental water to the region. Since its formation, the Agency has expanded its areas of responsibility from a supplemental water supplier to a regional wastewater treatment agency with domestic and industrial disposal systems and energy recovery/production facilities. In addition, the Agency has become a recycled water purveyor, bio-solids/fertilizer treatment provider and continues as a leader in water supply salt management, for the purpose of protecting the region's vital groundwater supplies.

IEUA strives to enhance the quality of life in the Inland Empire by providing optimum water resources management for the area's customers while promoting conservation and environmental protection. IEUA covers 242-square miles, distributes imported water, provides industrial/municipal

wastewater collection and treatment services, and other related utility services to more than 850,000 people. The Agency's service area includes the Cities of Chino, Chino Hills, Fontana, Montclair, Ontario and Upland, as well as the Cucamonga Valley Water District and the Monte Vista Water District.

Enforcement Actions

- **California Institution for Men (Permit No. D1006-3)**

A Notice of Violation and Order for Corrective Action (NOV/OCA) was issued to California Institution for Men (CIM) on January 10, 2019 for failure to properly operate and maintain the nitric acid dosing system. The NOV/OCA required CIM to immediately replenish the acid holding tank and properly operate the dosing system, investigate the cause of the violation, and submit a written report detailing its findings along with a corrective action plan designed to bring the facility into consistent compliance with its wastewater permit. CIM provided the written report and corrective action plan on January 17, 2019, attributing the violation as a result of the nitric acid being ordered but not received due to the fact the contract with the chemical supplier had expired. Additionally, CIM attributed lack of communication to appropriate administrative personnel as the cause of the depletion of the acid tank. The acid tank was replenished on November 16, 2018. The corrective action plan stated CIM will report weekly to the Associate Warden of Business Services regarding chemical supplies and establish a trigger point for re-ordering acid. CIM Implemented the corrective actions identified above; subsequently, the enforcement action was closed. IEUA shall continue to conduct unannounced inspections and wastewater monitoring at CIM to ensure consistent compliance with permit requirements and SAWPA Ordinance No. 8.

- **California Institution for Women (Permit No. D1007-3)**

A Notice of Violation and Order for Corrective Action (NOV/OCA) was issued to California Institution for Women (CIW) on April 11, 2019 for a pollutant limitation violation. On July 19, 2018 CIW collected a wastewater sample from Monitoring Point 001. The Laboratory analysis result indicated a 1,4-Dioxane concentration of 140 mg/L, which exceeds the Local Daily Maximum Discharge Limitation of 1.0 mg/L as stated by Permit. The NOV/OCA required CIW to resample for 1,4-Dioxane. Furthermore, the permittee was required to investigate the cause of the violation, and submit a written report detailing its findings along with a corrective action plan designed to bring the facility into consistent compliance with its wastewater permit. CIW provided the report and corrective action plan on May 10, 2019, stating the permittee had reviewed the entire hazardous material and waste inventory and 1,4-Dioxane was not found in any of these materials. CIW believed the July 2018, 1,4-Dioxane result was incorrect as the constituent had previously never been detected in their wastewater and no changes have occurred at its facility which could cause this violation. After an extensive review of the historic 1,4-Dioxane results from samples taken at its facility, CIW believed the sample from July 19, 2018, may have been analyzed and/or reported incorrectly by the contract laboratory. Permittee stated its contract laboratory has added permit limits to its database so Permittee can be notified should another constituent violation occur. Implementation of the corrective actions identified above and follow-up sampling indicated compliance; subsequently, the enforcement action was closed. IEUA shall continue to conduct unannounced inspections and wastewater monitoring at CIW to ensure consistent compliance with permit requirements and SAWPA Ordinance No. 8.

- **Eastside Water Treatment Facility (Permit No. I1024-2.1)**

A Notice of Violation and Order for Corrective Action (NOV/OCA) was issued to Eastside Water Treatment Facility (Eastside) on June 26, 2019 for a pollutant limitation violation. On June 4, 2019, IEUA collected a wastewater sample from Monitoring Point 002. The pH field analysis indicated the pH was 5.3 SU which exceeded the Local Daily Minimum Discharge Limitation of 6.0 SU as stated by Permit. The NOV/OCA required Eastside to submit a written report detailing the cause of the violation and corrective actions on or before July 10, 2019. Furthermore, the permittee is required to test the pH of every wastewater load to ensure compliance prior to transporting them to the collection station.

- **ShawCor Pipe Protections, LLC (Permit No. I1077-2.1)**

A Notice of Violation and Order for Corrective Action (NOV/OCA) was issued to ShawCor Pipe Protections, LLC (ShawCor) on June 13, 2018 by SAWPA for the late submittal of SMR's for the months of May 2017, September 2017, November 2017, and April 2018. In addition, the NOV/OCA was also issued for the April 9, 2018 wastewater sample, collected at the IEUA Collection Station (MP 002), which indicated a Zinc analysis result of 3.93 mg/L and a Chromium analysis result of 4.42 mg/L violations of the Federal Daily Maximum Limitation of 2.61 mg/L for Zinc and 2.77 mg/L for Chromium and the Federal Monthly Average Discharge of 1.48 mg/L for Zinc and 1.71 mg/L for Chromium. The NOV/OCA required ShawCor to attend a Violation Meeting at SAWPA on July 2, 2018 to discuss the violations and for ShawCor to propose solutions prior to issuance of future enforcement if necessary. ShawCor responded as required on July 2, 2018 and attended the mandatory Violation Meeting the same day to present their response and corrective action plan. ShawCor attributed the late report submittals to staff turnover. New personnel were not made aware of the reporting requirements. ShawCor instituted new calendar procedures to ensure reports are submitted as required. ShawCor attributed the Zinc and Chromium violations to a buildup of solids in the batch discharge holding tanks. The tanks were cleaned to remove the excess solids and a standard cleaning procedure has been established going forward. Implementation of the corrective actions identified above and follow-up sampling indicated compliance; subsequently, the enforcement action was closed. IEUA shall continue to conduct unannounced inspections and wastewater monitoring at ShawCor to ensure consistent compliance with permit requirements and SAWPA Ordinance No. 8.

7.4.2.3 Jurupa Community Services District (JCSD)

Description of JCSD

JCSD is a public agency responsible for the implementation of certain pretreatment program activities for the direct industries connected to the Brine Line via JCSD's sewer collection system within its service area (Brine Line Reach IV-D). JCSD headquarters is located at 11201 Harrel Street in the City of Jurupa Valley. JCSD was formed in 1956 and provides water, sewer, park services, graffiti abatement, and street lighting. In 1988 the District formed the Community Facilities District No. 1 to provide for water, sewer, flood control and street infrastructure within the industrial portion of the Mira Loma area. The boundaries of CFD No. 1 expanded from 1,900 acres to 3,000 acres in 1992. In June 1989, JCSD contracted with WMWD for capacity in Reach IV-D of the Brine Line.

Enforcement Action

- **Del Real Foods, LLC (Permit No. D1021-2.1)**

A Notice of Violation and Order for Corrective Action (NOV/OCA) was issued to Del Real Foods, LLC (Del Real) by JCSD on February 1, 2019 for pollutant limitation and temperature exceedance violations. On January 27, 2019 Del Real LLC submitted pH and temperature data records from the pH meter Monitoring Point 001, the permitted monitoring point, via email as requested by JCSD staff. The pH of the industrial effluent discharged exceeded the Local Daily Minimum Discharge Limitation of 6.0 S.U. as defined by Permit on January 3, 4, 5, 6, 8, 9, 11, 13, 20, 25, and 26, 2019. Additionally, the temperature data submitted with the pH data records indicated several temperatures as high as 186 degrees Fahrenheit, exceeding the limit of 140 degrees Fahrenheit as stated in SAWPA Ordinance 8 Article 2 Section 201.0J. The NOV/OCA required Del Real to submit a written report detailing the cause of the violation and corrective actions to prevent recurrence of the violation on or before February 18, 2019. Permittee responded on February 18, 2019 and attributed the pH exceedances to erroneous readings of an unsecured probe in the Monitoring Point 001 Manhole. Del Real replaced the probe and secured it in place in Monitoring Point 001. Additional corrective actions taken by Del Real were to institute an hourly pH probe cleaning and weekly pH probe calibration frequencies, change the DAF set point from 6.5 to 8 S.U., installation of a pH dosing connection from the current DAF Caustic tank to the DAF effluent sample box at the exit of the DAF to immediately correct low pH discharges, and set the pH alarm to 7.0 S.U for the low alarm and 11.0 S.U for the high alarm. Additionally, Del Real is to install a new pH dosing control system at Interceptor 3 for additional pH control of the facility. A new automated chemical control system will incorporate a computer measured and controlled DAF chemical dosing system instead of the current manual control. Both of these measures are to be completed by August 15, 2019. Del Real identified the discharge of the boiler blowdown as the cause of the temperature exceedances. On February 22, 2019 Del Real completed installation of a new three-quarter inch thermostatic mixing valve for the boiler blowdown flash tank to allow for temperature regulation prior to discharge to Monitoring Point 001. No further temperature exceedances have been identified following the installation of the mixing valve. As of June 30, 2019, JCSD continues to conduct unannounced inspections and wastewater monitoring at Del Real to ensure consistent compliance with permit requirements and SAWPA Ordinance No. 8.

7.4.2.4 San Bernardino Municipal Water Department (SBMWD)

Description of SBMWD

SBMWD is a Municipal Water Department and is responsible for administering certain pretreatment program activities for indirect industries associated with the SBMWD Brine Line Collection Station. SBMWD provides potable water and sewerage services for the City of San Bernardino, in addition to sewerage service for the cities of Loma Linda and Highland, as well as, some isolated county areas. These services are augmented by the operation of a brine waste collection station which provides an alternate disposal site for industries which generate high strength brine waste. The SBMWD, under contract with the San Bernardino Valley Municipal Water District, is responsible for administering the pretreatment program associated with the SBMWD Brine Line Collection Station.

Enforcement Action

There was no enforcement action during this reporting period.

7.4.2.5 San Bernardino Valley Municipal Water District (Valley District)

Description of Valley District

Valley District is a Municipal Water District responsible for the implementation of certain pretreatment program activities for the direct industries connected to the Brine Line within its service area (Brine Line Reach IV-E). Valley District headquarters is located in the City of San Bernardino and serves most of the northern and eastern reaches of the watershed in San Bernardino County with a small portion of its service area in Riverside County. Valley District was formed in 1954 to plan long-range water supply for the San Bernardino Valley. It is the only State Water Contractor within SAWPA and imports water into its service area through participation in the California State Water Project while also managing groundwater storage within its boundaries. It was incorporated under the Municipal Water District Act of 1911 (California Water Code Section 7100 et seq., as amended). Its enabling act includes a broad range of powers to provide water, as well as wastewater, stormwater disposal, recreation, and fire protection services.

Enforcement Action

- **City of Colton - Agua Mansa Power Plant (Permit No. D1002-3.1)**

A Notice of Violation and Order for Corrective Action (NOV/OCA) was issued to City of Colton - Agua Mansa Power Plant (Agua Mansa) by Valley District on July 23, 2018 for failure to monitor as identified by Permit. Agua Mansa failed to sample within sampling period and failed to sample for Ammonia, Molybdenum, Selenium, and 1,4-Dioxane, the additional constituents added when their permit was amended on October 9, 2017. The NOV/OCA acknowledged the Agua Mansa had already instituted corrective action by scheduling the necessary sampling activities. The NOV/OCA required submittal of the analysis results for the deficient sampling activities. Sampling was conducted on July 8, 2018 and again on July 25, 2018 and the results were submitted on July 19, 2018 and August 2, 2018. The sampling indicated compliance; subsequently, the enforcement action was closed. Valley District shall continue to conduct unannounced inspections and wastewater monitoring at Agua Mansa to ensure consistent compliance with permit requirements and SAWPA Ordinance No. 8.

- **Mountainview Generating Station (Permit No. D1058-2)**

Mountainview Generating Station collected self-monitoring samples from Monitoring Point 002 on April 19, 2019 and May 3, 2019. Furthermore, Valley District collected a sample from Monitoring Point 002 on June 25, 2019. Analysis of the April 19, 2019, May 3, 2019, and June 25, 2019 samples indicated 126 Priority Pollutants concentrations of 0.071 mg/L, 0.1182 mg/L, and 0.1421 mg/L respectively. The maximum discharge limitation is for the 126 priority pollutants to have no detectable amount contained in the chemicals added for cooling tower maintenance. Mountainview Generating Station submitted a report with their analysis demonstrating the cooling tower maintenance chemicals have no detectable amount of the 126 priority pollutants, and therefore the sampling events to do not any violations. Valley District shall continue to conduct unannounced inspections and

wastewater monitoring at Mountainview Generating Station to ensure consistent compliance with permit requirements and SAWPA Ordinance No. 8.

7.4.2.6 Santa Ana Watershed Project Authority (SAWPA)

Description of SAWPA

SAWPA is a Joint Powers Authority, classified as a Special District under State of California law, responsible for the implementation of the pretreatment program for the industries connected to the Brine Line. SAWPA consists of five Member Agencies; Eastern Municipal Water District (EMWD), Inland Empire Utilities Agency (IEUA), Orange County Water District (OCWD), San Bernardino Valley Municipal Water District (Valley District), and Western Municipal Water District (WMWD). SAWPA, through the MOU with OCSD, has the ultimate responsibility to ensure adequate implementation of Pretreatment Program responsibilities in the Upper Basin portion of the Brine Line. SAWPA issues permits to Direct and Indirect Dischargers jointly with Member and Contract Agencies and solely issues permits to all Member and Contract Agency owned or affiliated Direct and Indirect Dischargers.

Enforcement Action

- **Chino II Desalter (Permit No. D1010-3.1)**

A Cease and Desist Order (Order) was issued to Chino II Desalter (Chino II) by SAWPA on July 24, 2018 due to an accidental discharge of clarifier solids from the equalization basin which entered the Brine Line through Monitoring Point 002. The Order required Chino II immediately cease and desist the discharge of the noncompliant wastewater to the Brine Line. Furthermore, Chino II was required to conduct and document Slug Discharge Prevention and Control Plan training by no later than August 20, 2018. On August 15, 2018 Chino II submitted their response which included the Slug Discharge Prevention Control Plan Training Sign-in Sheet, the Training Outline Summary, and documentation of the emergency contacts being posted in plant control rooms. Implementation of the corrective actions identified above indicated compliance; subsequently, the enforcement action was closed. SAWPA shall continue to conduct unannounced inspections and wastewater monitoring at Chino II to ensure consistent compliance with permit requirements and SAWPA Ordinance No. 8.

- **Del Real Foods, LLC (Permit No. D1021-2.1)**

A Notice of Violation and Order for Corrective Action (NOV/OCA) was issued to Del Real Foods, LLC (Del Real) by SAWPA on July 14, 2016 for a bypass in the pretreatment wet well and for exceedance of their Brine Line purchased capacity. The NOV/OCA required Del Real to submit a corrective action plan regarding the bypass and to apply for additional Brine Line capacity. Del Real repaired and made improvements to the existing alarm system to the wet well, which was verified by SAWPA during inspection. Del Real also installed and repaired screens for the production room drains. Del Real submitted a request for additional Brine Line capacity and a Water Balance Report which detailed water consumption and wastewater discharged to the Brine Line. Del Real agreed to purchase an additional 163,000 gallons of Brine Line capacity and submitted the Water Balance Report. Del Real has completed the requirements identified in the NOV/OCA. SAWPA shall close the Notice of Violation and Order for Corrective Action upon issuance of a

revised wastewater discharge permit, which shall include additional reporting requirements to ensure consistent compliance with SAWPA Ordinance No. 8 and SAWPA Local Limits (Resolution No. 2017-11), or any successors thereto. This is anticipated to be completed within the first quarter of FY19/20.

A Notice of Violation, Order for Corrective Action, and Significant Noncompliance Status (NOV) was issued to Del Real Foods, LLC (Del Real) by SAWPA on May 15, 2019 for a Local Daily Minimum Discharge Limitation violation for pH and failure to report said violation within 24 hours of becoming aware of the violation. Furthermore, the permittee failed to report said violation within 45 days of the required report due date placing the facility in Significant Noncompliance for the 2nd and 3rd quarters of the 2018-2019 fiscal year. The NOV/OCA required submittal of a written report detailing why the pH violation was not reported as required and what corrective action would be taken to ensure future violations of this nature do not occur again by May 29, 2019. The permittee responded requesting an extension of the deadline until June 3, 2019, which was granted. The permittee provided the report on June 3, 2019. The report identified the cause of the reporting violation as a failure of staff to properly identify the violation and therefore reporting was not made as required. The permittee will ensure proper personnel are present during laboratory field analyses and the contract laboratory will be directly notifying personnel should any further violations be identified so that notification can be made as required. Additional enforcement has been issued for ongoing pH issues and investigation into these violations is ongoing as required as identified in Section 8.6.2.3. Implementation of the corrective actions identified above indicated compliance; subsequently, the enforcement action is anticipated to be closed in July 2019. JCSD shall continue to conduct unannounced inspections and wastewater monitoring at Del Real to ensure consistent compliance with permit requirements and SAWPA Ordinance No. 8.

- **Inland Bioenergy, LLC (Permit No. D1072-3)**

A Cease and Desist, Compliance, and Civil Penalty Order (Order) was issued to Inland Bioenergy, LLC (Inland Bioenergy) by SAWPA on March 6, 2019 due to the January 2019 SMR indicating significantly high concentrations of BOD and TSS discharged to the Brine Line. These discharges were determined to be Slug Discharges as described by SAWPA Ordinance. Permittee was ordered to pay \$7,000 in penalties for the Slug Discharges and a supplemental charge for the excess BOD and TSS discharged. The permit was suspended until SAWPA had determined that Inland Bioenergy can meet all the requirements set forth in the Ordinance. On March 7, 2019 Inland Bioenergy issued a response refuting the determination of slug discharges, however provided no reasoning for such a response, and requested a meeting with SAWPA. On March 12, 2019 SAWPA issued a response to Inland Bioenergy reaffirming the determination of the slug discharges and scheduled a meeting to discuss further. The meeting was conducted on March 18, 2019 and SAWPA further demonstrated to Inland Bioenergy the determination of the slug discharges as defined by Ordinance. SAWPA followed up by providing a written record on March 20, 2019 of the meeting. Within the March 20, 2019 written record SAWPA revised the line cleaning costs that had previously been assessed on Inland Bioenergy.

A Civil Penalty Order, Notice of Significant Noncompliance, and Termination of Service was issued to Inland Bioenergy, LLC (Inland Bioenergy) by SAWPA on April 2, 2019 for violations of the Ordinance and Permit No. 1072-3. The permittee was ordered to: Immediately stop discharging to the Brine Line as all wastewater disposal services granted

to Inland Bioenergy pursuant to Permit No. D1072-3 were terminated; Provide manifests for the legal disposal of the facility sludge and digester solids from January, February, and March 2019 to SAWPA by April 4, 2019; and Provide an explanation for the water usage by the Inland Bioenergy facility in January and February 2019 to SAWPA by April 4, 2019. The water usage for the facility rose from 250,724 gallons per month in December of 2018 to 780,554 gallons per month in January 2019 and then again to 1,634,236 gallons per month in February 2019. The explanation was to document the reason for the increase in water usage as well as the disposal of the water from the site following its use at the facility. Any supporting documents, such as waste manifests were to be included with the explanation. Furthermore, Inland Bioenergy was ordered to pay to SAWPA on or before April 4, 2019, a penalty totaling \$47,000, pay the supplemental Biochemical Oxygen Demand (BOD) and Total Suspended Solids (TSS) charges incurred by SAWPA for the January and February 2019 Inland Bioenergy discharges, which totaled \$121,342.48 for January and February 2019. The permittee responded on April 3, 2019 requesting an extension of these deadlines until April 9, 2019. SAWPA granted this request on April 4, 2019. On April 9, 2019 the permittee provided their responses to the Order and requested a decrease in the penalty amount. The SAWPA General Manager agreed to this request and on April 9, 2019 revised the penalty amount to \$25,000. On April 9, 2019 the permittee completed payment of the penalty and subsequently completed closure of the facility and dissolution of the LLC. On April 11, 2019 the Order was closed.

- **JCSD Chandler Lift Station (Permit No. E1043-2.1)**

A Notice of Violation and Order for Corrective Action (NOV/OCA) was issued to JCSD Chandler Lift Station by SAWPA on November 15, 2018 for failure to sample for required background monitoring from the designated monitoring location. The NOV/OCA required a written report stating how future monitoring location violations will be prevented in the future by no later than November 29, 2018. On November 29, 2018 the permittee responded with a plan to request prior authorization from SAWPA prior to monitoring from any, not previously authorized, monitoring location. Implementation of the corrective actions identified above indicated compliance; subsequently, the enforcement action was closed. SAWPA shall continue to conduct unannounced inspections and wastewater monitoring at JCSD Chandler Lift Station to ensure consistent compliance with permit requirements and SAWPA Ordinance No. 8.

- **JCSD Roger D. Teagarden Ion Exchange Water Treatment Plant (Permit No. D1070-4)**

A Notice of Violation and Order for Corrective Action (NOV/OCA) was issued to JCSD Roger D. Teagarden Ion Exchange Water Treatment Plant (Teagarden) by SAWPA on November 15, 2018 for a violation of Permit. On October 23, 2018 JCSD personnel discovered an accidental spill of Sodium Hypochlorite at Teagarden. The spill did not enter the Brine Line and was properly cleaned and legally disposed of. However, during the inspection conducted by SAWPA personnel on October 23, 2018 it was observed that the spill containment wall was not sealed resulting in the spill, a violation of the requirements of the Wastewater Discharge Permit mandating the spill containment system be constructed of materials that are impermeable to the liquids being contained. The NOV/OCA required Teagarden to provide a written report which details how the spill

containment wall will be constructed to prevent leakage of chemical spills and a timeline for completion by November 29, 2018. The permittee requested an extension of the deadline which was granted until December 11, 2018. The permittee provided the written report on December 11, 2018 detailing a plan to seal the containment structure with a maximum timeline for completion of 6 weeks. SAWPA approved the plan on December 17, 2018. The permittee requested an extension on the final due date due to complications with the contractor bidding process. The request was granted by SAWPA until April 30, 2019. In the interim the facility did not operate, and chemicals were not stored in the containment structure to ensure no further spills. On May 9, 2019 SAWPA conducted a compliance inspection. The spill containment system was verified as repaired and in compliance with the Ordinance. Implementation of the corrective actions identified above indicated compliance; subsequently, the enforcement action was closed. SAWPA shall continue to conduct unannounced inspections and wastewater monitoring at Teagarden to ensure consistent compliance with permit requirements and SAWPA Ordinance No. 8.

7.4.2.6.1 SAWPA Waste Hauler Program

SAWPA solely permits the Waste Haulers allowing for the Waste Haulers to have only one permit to provide service to the four Member Agencies' Collection Stations. This also facilitates utilization of the Generator's regular Waste Hauler if an Alternate Collection Station must be used. SAWPA expects to revise its Ordinance in the next fiscal year including new language for the Waste Hauler Program.

Existing Permits – Permitted Waste Haulers

- **Alpha Petroleum Transport (Permit No. H1126-1)
22740 Temescal Canyon Road, Corona, CA 92883**
- **Environmental Management Technologies, Inc. (Permit No. H1025-3)
1456 S. Gage Street, San Bernardino, CA 92408**
- **Giuliano & Sons Briners, Inc. (Permit No. H1031-3)
10380 Alder Avenue, Bloomington, CA 92316**
- **Haz Mat Trans, Inc. (Permit No. H1033-3)
230 E. Dumas Street, San Bernardino, CA 92408**
- **Hazardous Waste Transportation Services (Permit No. H1034-3)
10600 South Painter Avenue, Santa Fe Springs, CA 90670**
- **Hidden Villa Ranch (Permit No. H1120-2)
1811 Mountain Avenue, Norco, CA 92860**
- **K-VAC Environmental Services, Inc. (Permit No. H1049-3)
8910 Rochester Avenue, Rancho Cucamonga, CA 91730**
- **Rayne Water Conditioning (Permit No. H1066-3.1)
939 West Reece Street, San Bernardino, CA 92411**
- **Western Environmental Services, Inc. (Permit No. H1098-3)
400 W. Foothill Blvd., Suite H, Glendora, CA 91740**

New Permits – Permitted Waste Haulers

- **Patriot Environmental Services, Inc. (Permit No. H1127-1)**
508 East E Street, Wilmington, CA 90744

Permit Issued July 5, 2018

Closed Permits – Permitted Waste Haulers

- **Ecology Control Industries, Inc. (Permit No. H1123-1.1)**
15707 S. Main Street, Gardena, CA 90248

Permit Closed July 25, 2018

Permit closed July 25, 2018 following the Waste Hauler's request to no longer be permitted.

Enforcement Action

- **Hidden Villa Ranch (Permit No. H1120-1)**

A Notice of Violation and Order for Corrective Action (NOV/OCA) was issued to Hidden Villa Ranch (Hidden Villa) by SAWPA on August 17, 2018 for failure to provide a manifest form to SAWPA detailing the legal disposal of a June 12, 2018 rejected load as required by permit. Hidden Villa was required to submit a written report to SAWPA detailing the cause of the reporting violation and the corrective action to prevent future violations by August 27, 2018. Hidden Villa responded on August 23, 2018 detailing that rejected load was disposed of at a secondary Hidden Villa location in Perris, CA and therefore no manifest was generated. The corrective action plan detailed training for proper notifications and reporting required by a rejected load as well as retraining at the Collection Station where the load was originally rejected. Following review of the Hidden Villa submittal SAWPA accepted the documents and subsequently the enforcement action was closed. SAWPA shall continue to conduct unannounced inspections at Hidden Villa and conduct monitoring at both the generator site and Collection Station to ensure compliance with all permit requirements and SAWPA Ordinance No. 8.

Waste Hauler Collection Stations

- **EMWD Collection Station (Permit No. D1055-2.2)**
29541 Murrieta Road, Menifee, CA 92586
SIU 40 CFR 403.5(d)

The EMWD Collection Station is located at 29541 Murrieta Road in Menifee, California. This Collection Station provides a brine disposal location for facilities located in EMWD service area. There are no PSES or PSNS Categorical Standards that apply except for general compliance with 40 Part 403. This facility is currently classified as a Significant Industrial User and therefore subject to the general and specific wastewater pollutant limits contained in SAWPA Ordinance No. 8 and SAWPA Local Limits (Resolution No. 2017-11), or any successors thereto. As this facility operates only as a brine disposal location and generates no wastewater any violation recorded at the Collection Station would apply to the Industrial Users that discharge to the Collection Station rather than the Collection Station itself.

During this reporting period (July 1, 2018 through June 30, 2019), the EMWD Collection Station received a total flow of 16.02 MG.

As of June 30, 2019, one (1) Industrial User is permitted to haul brine wastewater to the Collection Station.

1. Infineon Technologies Americas Corporation (Permit No. I1039-3)

- **IEUA Collection Station (Permit No. D1035-3.1)**
16400 El Prado Road, Chino, CA 91710

SIU 40 CFR 403.5(d)

The IEUA Collection Station is located at 16400 El Prado Road, Chino, California. This Collection Station provides a brine disposal location for facilities in the IEUA service area. There are no PSES or PSNS Categorical Standards that apply except for general compliance with 40 Part 403. This facility is currently classified as a Significant Industrial User and therefore subject to the general and specific wastewater pollutant limits contained in SAWPA Ordinance No. 8 and SAWPA Local Limits (Resolution No. 2017-11), or any successors thereto. As this facility operates only as a brine disposal location and generates no wastewater any violation recorded at the Collection Station would apply to the Industrial Users that discharge to the Collection Station rather than the Collection Station itself.

During this reporting period (July 1, 2018 through June 30, 2019), the IEUA Collection Station received a total flow of 2.79 MG.

As of June 30, 2019, five (5) Industrial Users are permitted to haul brine wastewater to the Collection Station.

1. C.C. Graber Co. (Permit No. I1005-2.1)
2. Eastside Water Treatment Plant (Permit No. I1024-2.1)
3. Niagara Bottling, LLC (Permit No. I1114-1.1)
4. San Antonio Regional Hospital (Permit No. I1096-2.1)
5. ShawCor Pipe Protection, LLC (Permit No. I1077-2.1)

- **SBMWD Collection Station (Permit No. D1076-3.1)**
399 Chandler Place, San Bernardino, CA 92408

SIU 40 CFR 403.5(d)

Valley District's Collection Station is located at the City of San Bernardino's Water Reclamation Plant Brine Line connection. This Collection Station provides a brine disposal location for facilities in the Valley District service area. There are no PSES or PSNS Categorical Standards that apply except for general compliance with 40 Part 403. This facility is currently classified as a Significant Industrial User and therefore subject to the general and specific wastewater pollutant limits contained in SAWPA Ordinance No. 8 and SAWPA Local Limits (Resolution No. 2017-11), or any successors thereto. As this facility operates only as a brine disposal location and generates no wastewater any violation recorded at the Collection Station would apply to the Industrial Users that discharge to the Collection Station rather than the Collection Station itself.

During this reporting period (July 1, 2018 through June 30, 2019), the SBMWD Collection Station received a total flow of 10.42 MG.

As of June 30, 2019, six (6) Industrial Users are permitted to haul brine wastewater to the Collection Station.

1. Angelica Textile Services (Permit No. I1003-3.1)
2. Farmdale Creamery (Permit No. I1026-2.1)
3. Loma Linda University Power Plant (Permit No. I1051-2.1)
4. Loma Linda Veterans Medical Center (Permit No. I1052-3.1)
5. Niagara Bottling, LLC (Permit No. I1111-1.2)
6. Rayne Water Conditioning (Permit No. I1066-2.1)

- **WMWD Collection Station (Permit No. D1087-3.1)**
2205 Railroad Street, Corona, CA 92880

SIU 40 CFR 403.5(d)

WMWD's Brine Line Collection Station is located at the City of Corona's WRF No. 1 at 2205 Railroad Street. This Brine Line Collection Station provides a brine disposal location for facilities in WMWD's service area. There are no PSES or PSNS Categorical Standards that apply except for general compliance with 40 Part 403. This facility is currently classified as a Significant Industrial User and therefore subject to the general and specific wastewater pollutant limits contained in SAWPA Ordinance No. 8 and SAWPA Local Limits (Resolution No. 2017-11), or any successors thereto. As this facility operates only as a brine disposal location and generates no wastewater any violation recorded at the Collection Station would apply to the Industrial Users that discharge to the Collection Station rather than the Collection Station itself.

During this reporting period (July 1, 2018 through June 30, 2019), the total flow to the Brine Line was 2.88 MG.

As of June 30, 2019, nine (9) Industrial Users are permitted to haul wastewater to the Brine Line Collection Station.

1. Corona Regional Medical Center (Permit No. I1016-3.1)
2. Decra Roofing, Inc. (Permit No. I1020-3)
3. Giuliano & Sons Briners, Inc. (Permit No. I1031-2.1)
4. Hidden Villa Ranch (Permit No. I1121-1.1)
5. La Sierra University (Permit No. I1050-3.1)
6. Prudential Overall Supply (Permit No. I1062-3)
7. Qualified Mobile, Inc. (Permit No. I1064-4)
8. Saratoga Food Specialties (Permit No. I1128-1)
9. Sierra Aluminum Company, Inc. (Permit No. I1078-4)

7.4.2.7 Western Municipal Water District (WMWD)

Description of WMWD

WMWD is a Municipal Water District responsible for the implementation of certain pretreatment program activities for the direct and indirect industries connected to the Brine Line within its service area. WMWD was formed in 1954 under the Municipal Water District Act of 1911 for the purpose of bringing supplemental water from the Metropolitan Water District of Southern California to a

growing western Riverside County. Western's service area covers 527 square miles, serving a population of approximately 900,000 people. The District serves 10 wholesale customers with imported water via the Colorado River and the State Water Project. WMWD also supplies imported water and groundwater directly to approximately 25,000 residential, commercial and agricultural customers in the areas of El Sobrante, Eagle Valley, Temescal Creek, Woodcrest, Orangecrest, Mission Grove, Lake Mathews, March Air Reserve Base, Rainbow Canyon and portions of the cities of Riverside and Murrieta. The Murrieta division provides water and wastewater services in a 6.5-square mile portion of Murrieta and relies on both groundwater and imported sources. WMWD headquarters is located in Riverside, California and serves the western Riverside County portion of the watershed, as well as portions of the Santa Margarita Watershed, south of the Santa Ana River Watershed.

Enforcement Action

- **La Sierra University (Permit No. I1050-3.1)**

A Notice of Violation and Order for Corrective Action (NOV/OCA) was issued to La Sierra University (La Sierra) by WMWD on March 12, 2019 for submittal of a late Self-Monitoring Report (SMR). On February 27, 2019 the permittee submitted the required January SMR a violation of the February 7, 2019 required submittal date. This is the second consecutive late SMR submittal. The permittee was previously issued a Written Warning for the first late submittal. The NOV/OCA required the permittee to investigate the cause of the violation and submit a written report detailing the findings of the investigation and submit a corrective action plan to bring the facility into consistent compliance. The permittee provided the required response on March 19, 2019 and detailed that the contract laboratory had collected the sample automatically without informing the permittee they were onsite to collect the sample. Further, the laboratory did not submit the results of the analysis to the permittee until after the required submittal date, which is when the permittee first discovered that a sample had been collected. The permittee detailed a corrective action plan that consisted of removing the automatic sample collection option with their contract laboratory to prevent further errors of this type from occurring again. Rather, each sample event will be scheduled with the contract laboratory by the permittee to ensure reports are submitted in a timely manner. Institution of the corrective actions identified above indicated compliance; subsequently, the enforcement action was closed. WMWD shall continue to conduct unannounced inspections and wastewater monitoring at La Sierra to ensure consistent compliance with permit requirements and SAWPA Ordinance No. 8.

- **Giuliano & Sons Briners, Inc. (Permit No. I1031-2.1)**

A Notice of Violation and Order for Corrective Action (NOV/OCA) was issued to Giuliano & Sons Briners, Inc. (Giuliano) by WMWD on July 25, 2018 following review of the self-monitoring report submitted on June 26, 2018. Review of the June 26, 2018 self-monitoring report data indicates a Copper analysis of 3.3 mg/L a violation of the Local Daily Maximum Discharge Limitation of 3.0 mg/L and a Zinc analysis of 14.0 mg/L, a violation of the Local Daily Maximum Discharge Limitation of 10.0 mg/L. Furthermore, as this was the only sampling event, more than 33% of the measurements taken exceeded the product of the daily maximum discharge limitations multiplied by the applicable Technical Review Criteria (TRC) of 1.2 for the January 2018 through June 2018 evaluation period. Therefore, Giuliano was determined to be in SNC for the 3rd and 4th quarter of the 2017 -2018 Fiscal

Year for TRC Violations for the parameters of Copper and Zinc. Giuliano was required to investigate the cause of the violation and submit a written report along with a Correction Action Plan designed to bring the facility into compliance. Furthermore, Giuliano was required to conduct sampling for Copper and Zinc for three consecutive weeks and submit the analysis within ten days of receipt. Giuliano responded with their written report on August 3, 2018. Giuliano attributed the possible cause of the violation to large quantities of scrap metal on site that may have been a source for the parameter violations. In response, Giuliano conducted a large cleanup of the facility removing any scrap metal from the site. Giuliano has since instituted a weekly cleanup of the facility to ensure no metal debris remains onsite that lead to any parameter violation. Review of the analysis results of the three consecutive weeks of sampling for Copper and Zinc by Giuliano indicated compliance. Institution of the corrective actions identified above, and follow-up sampling indicated compliance; subsequently, the enforcement action was closed. WMWD shall continue to conduct unannounced inspections and wastewater monitoring at Giuliano to ensure consistent compliance with permit requirements and SAWPA Ordinance No. 8.

7.4.2.8 Yucaipa Valley Water District (YVWD)

Description of YVWD

YVWD is a Water District responsible for the implementation of certain pretreatment program activities for the industries connected to the Brine Line within its service area. Currently there are no permitted users within the YVWD Service Area. YVWD was formed on September 14, 1971, when the Secretary of State of the State of California certified and declared formation of the District. The District operates under the County Water District Law, being Division 12 of the State of California Water Code. Although the immediate function of the District at the time was to provide water service, the YVWD currently provides a variety of services to residential, commercial and industrial customers. The YVWD provides sewer collection and sewer treatment services. Sewer treatment takes place at the highly advanced Wochholz Regional Water Recycling Facility that provides advanced treatment, including the capability to demineralize the recycled water. The demineralization process involves a reverse osmosis system that separates small molecules from the recycled water supply. In 2012, the YVWD completed an extension of the Inland Empire Brine Line operated by the Santa Ana Watershed Project Authority. The brine disposal facility is critical to insure the YVWD meets the stringent water quality objectives set by the Regional Water Quality Control Board for the Yucaipa Management Zone, Beaumont Management Zone and the San Timoteo Management Zone.

Although YVWD currently has no permitted industries discharging to the Brine Line they have participated in Brine Line activities, including training conducted by SAWPA personnel, since 2013. They conduct the industrial user survey upstream of the Henry Wochholz Regional Water Recycling Facility that began discharge to the Brine Line in July of 2016, in accordance with SAWPA policies and procedures. The Henry Wochholz Regional Water Recycling Facility service area includes three industrial permittees:

- Sorensen Engineering with Permit No. CP-001-03, Class I – CIU per 40 CFR 433.17 (PSNS) Metal Finishing issued by the YVWD for a maximum flow of 20,000 gallons per day. It should be noted that in most cases the YVWD local limits are more stringent than the categorical limits, especially for metals and cyanide. Self-monitoring requirements are specified by pollutant on a semi-annual basis. The Sorensen permit clearly denotes the most stringent limits that apply.
- Skat-Trak Performance Products with Permit No. CP-003-03, Class II – Non-Significant CIU per 40 CFR 464.15 (PSES), Subpart A, for Aluminum Casting and 40 CFR 464.35

(PSES), Subpart C, for Ferrous Casting issued by YVWD as a zero-discharge permit. The no discharge requirement is clearly noted in the permit and the applicable categorical limit tables are provided in the permit as informational items.

- Yucaipa Valley Regional Water Filtration Facility (YVRWFF) with Permit No. SP 001-04, is a Class I – SIU per 40 CFR. YVRWFF is a surface water treatment facility with an initial capacity of 12 MGD and provisions for expansion to 36MGD. The water treatment includes automatic strainers and free surface flow distribution structure, manual strainers, microfiltration membrane system, nano-filtration membrane system, blending structure, a membrane room, a DAF and a CIP process. The YVRWFF produces high quality potable water.

Enforcement Action

There was no enforcement action during this reporting period.

7.4.3 Self-Monitoring Program

A self-monitoring program is required of permittees discharging to the Brine Line. The self-monitoring reports (SMRs) are delivered to the applicable agency for review and action if required. The SMR water quality data is included in the SAWPA Data Management System.

7.4.4 Field Inspection, Sampling, and Monitoring QA/QC

SAWPA conducts sampling QA/QC in accordance with EPA requirements including equipment blanks and field blanks. Analysis of the QA/QC data indicated samples collected were representative and free of contamination.

7.4.5 Identification of New Permittees

SAWPA requires a wastewater discharge permit for all facilities with discharge to the Brine Line, except for certain areas in the JCSD and WMWD service areas, therefore new permittees are identified upon their completion of a wastewater discharge permit application. Most new companies identified by SAWPA or upstream agencies in areas upstream of emergency connections are discovered by field inspectors responding to completed industrial user surveys that indicate an inspection is warranted or during inspections of previously unoccupied warehouse and facility spaces. Facilities identified upstream of emergency connections requiring a permit are responded to by the upstream agency with oversight by SAWPA. These permitted facilities are listed in the emergency permit fact sheet and in the corresponding agency's Annual Reports.

EMWD

In the EMWD service area all new proposed connections or proposed new indirect dischargers must complete a permit application that is thoroughly reviewed by EMWD and SAWPA prior to developing a permit. The draft permit is then reviewed and commented on by SAWPA and OCSD before issuing a final permit.

IEUA

In the IEUA service area, IEUA collaborates with the City of Chino to identify industries that may be subject to Federal Categorical Standards or local limits. No industries are allowed to connect to the Brine Line until they have entered into a capacity right agreement with IEUA and obtained a wastewater discharge permit issued by IEUA and SAWPA as required. IEUA in partnership with the City of Chino obtains new business information from the following:

- City business licensing departments
- Industrial User Survey questionnaires
- City utility service requests
- City referrals during storm water inspections

Most new companies that could potentially connect to the Brine Line are identified by IEUA field inspectors while out inspecting current permittees and when following up on tips provided by the City of Chino Source Control division. Facilities identified upstream of an emergency connection are listed in the emergency permit fact sheet and in the IEUA Annual Report.

JCSD

In the JCSD service area SAWPA checks various sources for companies that may be subject to Federal Categorical Standards or local limits. Wastewater permits are issued by SAWPA and JCSD as required. SAWPA or JCSD obtains new business information from the following:

- The building department and business license process
- Industrial User Survey (IUS) questionnaires are completed by new water/sewer customers, the IUS is verified by site inspections
- Agency utility service requests and high-water users are inspected for wastewater generating activities
- Industry, trade, or association magazines
- Internet searches & field observations
- New construction/tenant improvement—plan checks

JCSD will conduct regular inspections of all customers connected to the Inland Empire Brine Line (Brine Line) to verify the type of wastewater generated at their location. In addition, any closed-circuit TV (CCTV) revealing a possible illegal connection will be investigated. The majority of new companies identified by SAWPA or upstream agencies in these scenarios are discovered by field inspectors responding to completed industrial user surveys that indicate an inspection is warranted or during inspections of previously unoccupied warehouse and facility spaces. A priority determination is assigned as follows: High Priority – any non-permitted facility generating industrial wastewater is inspected and monitored annually for local limits, Medium Priority – any dry manufacturing facility is inspected every 2 years unless changes to manufacturing and Low Priority – warehouse/commercial business is inspected every 5 years. Facilities identified in the JCSD service area requiring a permit is reviewed by SAWPA with final permit concurrence by OCSD. Facilities identified upstream of emergency connections in other jurisdictions requiring a permit are reviewed to by the upstream agency with oversight by SAWPA. These permitted facilities are listed in the emergency permit fact sheet and in the corresponding agency's Annual Reports.

SBMWD

In the SBMWD service area all new proposed connections or proposed new indirect dischargers must complete a permit application that is thoroughly reviewed by SBMWD and SAWPA prior to developing a permit. The draft permit is then reviewed and commented on by SAWPA and OCSD before issuing a final permit.

Valley District

In the Valley District service area, all new proposed connections must complete a permit application that is thoroughly reviewed by Valley District and SAWPA prior to developing a permit. The draft permit is then reviewed and commented on by SAWPA and OCSD before issuing a final permit.

WMWD

In the WMWD service area, except for the areas upstream of the Corona WRF No. 1 and WRCWRA SRPS, all new proposed connections or proposed new indirect dischargers must complete a permit application that is thoroughly reviewed by WMWD and SAWPA prior to developing a permit. The draft permit is then reviewed and commented on by SAWPA and OCSD before issuing a final permit. For the Corona WRF No. 1 permit WMWD directs the City of Corona, with oversight by SAWPA, through their industrial survey process. The City of Corona is alerted of any new business moving into their jurisdiction through the building department and business license process. New businesses are given a pretreatment questionnaire which is returned to the Pretreatment Department and reviewed. Pretreatment personnel visit the site to verify the information submitted in the questionnaire.

In the WMWD service area with potential to discharge to the Brine Line in an emergency condition from the WRCRWA SRPS, WRCRWA checks for various sources for companies that may be subject to Federal Categorical Standards or local limits. Wastewater permits are issued by WRCRWA agencies as required. WRCRWA obtains new business information from the following:

- The building department and business license process
- Industrial User Survey (IUS) questionnaires are completed by new water/sewer customers, the IUS is verified by site inspections
- Agency utility service requests and high-water users are inspected for wastewater generating activities
- Industry, trade, or association magazines
- Internet searches & field observations
- New construction/tenant improvement—plan checks

YVWD

In the YVWD service area upstream of the Henry Wochholz Regional Water Recycling Facility, YVWD checks various sources for companies that may be subject to Federal Categorical Standards or local limits. Wastewater permits are issued by YVWD as required. YVWD obtains new business information from the following:

- The building department and business license process
- Industrial User Survey (IUS) questionnaires are completed by new water/sewer customers, the IUS is verified by site inspections
- Agency utility service requests and high-water users are inspected for wastewater generating activities
- Industry, trade, or association magazines

- Internet searches & field observations
- New construction/tenant improvement—plan checks

7.4.6 Future Projects that will Affect Quantity of Discharge to the Brine Line

Aramark is a uniforms and apparel provider in Jurupa Valley, CA that discharges to the local Publicly Owned Treatment Works (POTW). The POTW has recently revised their Total Dissolved Solids limitation to a level Aramark, due to the nature of their business, is unable to feasibly meet. As of June 30, 2019, Aramark was given a Brine Line Wastewater Discharge Permit Application at their request and it is anticipated they will seek discharge to the Brine Line in late 2019.

California Institution for Women (CIW) which is primarily domestic (reclaimable) wastewater will be diverted to the Pine Avenue Sewer, away from the Brine Line, when the diversion project is completed. Diversion of the CIW wastewater to the Pine Avenue Sewer away from the Brine Line is anticipated for Fiscal Year 2019/2020.

City of Beaumont Has completed plans and commenced construction to upgrade the City's existing wastewater treatment plant. These plans include a salinity management strategy to comply with basin plan objectives set by the Regional Water Quality Control Board for the Beaumont and San Timoteo Groundwater Management Zones. The improvements are contingent on the ability to tie the discharge from the treatment plant upgrade to the Brine Line for brine conveyance. The City of Beaumont is not within the Brine Line Service Area, so therefore requires authorization from OCSD General Manager prior to discharge. The City of Beaumont submitted an official request to discharge to the Brine Line in late 2016. SAWPA requested additional information before submitting to OCSD a request for authorization for the discharge from the City of Beaumont to the Brine Line from OCSD in early 2017. OCSD requested additional information from the City of Beaumont and SAWPA prior to deciding on the request, which the City of Beaumont and SAWPA has since provided. OCSD responded on October 24, 2018 identifying four (4) requirements the City of Beaumont and SAWPA must meet in order to receive OCSD's acceptance of the discharge from outside of the Brine Line Service Area. As of June 30, 2019, the City of Beaumont and SAWPA have completed one (1) of these requirements and continued work on the remaining requirements.

Rialto Bioenergy is a food waste-to-energy facility in Rialto, California, which has submitted a wastewater discharge permit application to SAWPA and Valley District. The facility is expected to come online and begin discharge to the Brine Line sometime in 2020 following issuance of a wastewater discharge permit.

7.4.7 SAWPA Special Projects

SAWPA conducted the following Special Project efforts during the reporting period:

1. Dewatering sealed maintenance access structures, repair of corroded blind flanges, and replacement of gaskets was conducted in Reach 4A Upper of the Brine Line.
2. Continued Inspection of Reach 4A Upper Maintenance Access Structures throughout the reporting period.
3. Repaired damaged Air Release and Vacuum Valve (AV-0440).
4. Cleaned the Pine Avenue Siphon on Reach 4A Upper.
5. Inspected and completed condition assessment of a portion of Reach 4D. It was determined additional assessment will be required within five years.

7.4.8 SAWPA Member and Contract Agency Ordinances and Resolutions

- SAWPA adopted Ordinance No. 8 and Local Limits Resolution 2017-11 on September 19, 2017.

- EMWD adopted EMWD Ordinance No. 91.3, incorporating the changes made for SAWPA Ordinance No. 8 on May 2, 2018.
- IEUA adopted IEUA Ordinance No. 106, incorporating the changes made for SAWPA Ordinance No. 8 on February 21, 2018.
- JCSD adopted the JCSD Brine Line Ordinance 423 on January 8, 2018, incorporating the changes made for SAWPA Ordinance No. 8. JCSD adopted JCSD Brine Line Ordinance 424, incorporating the changes made for SAWPA Resolution 2017-11 on January 22, 2018.
- SBMWD adopted SAWPA Resolution No. 2017-11 with SBMWD Resolution No. 918 on October 17, 2017. SBMWD adopted SAWPA Ordinance No. 8 with SBMWD Resolution No. 919 on October 17, 2017.
- Valley District adopted Valley District Ordinance No. 80, incorporating the changes made for SAWPA Ordinance No. 8 on June 19, 2018.
- WMWD adopted WMWD Brine Line Ordinance No. 389, incorporating the changes made for SAWPA Ordinance No. 8 on March 21, 2018.
- YVWD adopted SAWPA Ordinance No. 8 by Resolution on October 3, 2017. YVWD adopted SAWPA Resolution No. 2017-11 by Resolution on February 6, 2018.

7.4.9 Public Participation

None.

7.4.10 Permittees in Significant Noncompliance (SNC)

Summary of SAWPA and Member/Contract Agency Permittees in SNC		
July 1, 2018 – June 30, 2019		
EMWD Permittees		
Company Name	Permit No.	Reporting or Discharge Violation
None		
IEUA Permittees		
Company Name	Permit No.	Reporting or Discharge Violation
California Institution for Women	D1007-3	Discharge Violation
JCSD Permittees		
Company Name	Permit No.	Reporting or Discharge Violation
Del Real Foods, LLC	D1021-2.1	Failure to Report Pollutant Violation
SBMWD Permittees		
Company Name	Permit No.	Reporting or Discharge Violation
None		
Valley District Permittees		
Company Name	Permit No.	Reporting or Discharge Violation
None		
SAWPA Permittees		
Company Name	Permit No.	Reporting or Discharge Violation
Inland Bioenergy, LLC	D1072-3	Discharge Violation
WMWD Permittees		
Company Name	Permit No.	Reporting or Discharge Violation
None		

7.4.10.1 Summary of Permittees in SNC Newspaper Notice

- **California Institution for Women (CIW) (Permit No. D1007-3)**

California Institution for Women (CIW) conducted a required self-monitoring event on July 19, 2018. Review of the July 19, 2018 self-monitoring report data indicated a 1,4-Dioxane concentration of 140 mg/L, a violation of the Local Daily Maximum Discharge Limitation of 1.0 mg/L as stated by Permit. Furthermore, as 100% of the measurements taken exceeded the daily maximum discharge limitations for the April 2018 through December 2018 evaluation period CIW is determined to be in SNC for the fourth quarter of the 2017 – 2018 Fiscal Year and the first and second quarters of the 2018 – 2019 Fiscal Year for Chronic Violations for the parameter of 1,4-Dioxane.

- **Del Real Foods, LLC (Permit No. D1021-2.1)**

Del Real Foods, LLC (Del Real) conducted a required semi-annual self-monitoring event on August 10, 2018. The reported pH from the sampling event, Lab Sample B8H1399-10 dated August 24, 2018 was 5.4 S.U. a violation of the daily minimum discharge limitation of 6.0 S.U. for the parameter of pH. Del Real did not notify JCSD of the pH violation until January 7, 2019, 136 days after the violation. Del Real failed to report said violation within 45 days of the required report due date placing the facility in Significant Noncompliance for the second and third quarters of the 2018-2019 Fiscal Year.

- **Inland Bioenergy, LLC (Permit No. D1072-3)**

Inland Bioenergy, LLC (Inland Bioenergy) submitted January, February, and March 2019 Self-Monitoring Reports (SMR) indicating significantly high concentrations of BOD and TSS discharged to the Brine Line. These discharges were determined to be Slug Discharges as described by SAWPA Ordinance. Furthermore, pursuant to the Ordinance Section 103.0 Definitions, 109, Significant Noncompliance (SNC) D. shall mean any other violations or group of violations, which may include a violation of Best Management Practices, which the POTW or SAWPA determines will adversely affect the operation and implementation of SAWPA's Pretreatment Program or the Brine Line or tributaries thereto. As such, Inland Bioenergy has been determined to be in Significant Noncompliance for the third quarter of the 2018-2019 Fiscal Year.

7.4.11 Non-Industrial Source Control and Public Education Programs

EMWD supports an extensive education program designed to provide a useful academic experience at all grade levels.

IEUA educates its permittees during site inspections when applicable for typical outreach efforts such as FOG and hazardous waste education.

JCSD's Pretreatment staff coordinates public outreach in cooperation with JCSD's Community Affairs Staff. The public outreach occurs in community newsletters, public outreach events such as JCSD's Open House and Wellness Events, and JCSD's website. Topics include FOG Control, root control, hazardous waste disposal and Sewer System Management Plan components. Information is provided to the dischargers during the permit renewal process and site inspections.

SBMWD implements a number of outreach programs to educate industry and to minimize pollutants discharged. Field inspectors provide Best Management Practice (BMP) brochures during site inspections

to educate industry and minimize the discharge of pollutants. SBMWD operates a quarterly Silver Waste Disposal Program to provide a disposal site for small quantity silver generators within the service area.

Valley District provides public educational information to their customers to encourage the efficient use of water through advertising, classroom instruction, contests, paying 25% of retail water agency rebates, etc. In collaboration with its retail water agencies, iEfficient.com was created, which provides water-saving tips and information on water issues. Valley District conducts regular Board Meetings which are open to the public on the 1st and 3rd Tuesday of each Month. Valley District also provides public information via their website at <http://www.sbvmd.com/> which includes scheduled events and other opportunities for public participation on a variety of issues.

WMWD provides public educational information to their customers to encourage the efficient use of water through advertising, rebates, programs, and workshops.

7.4.12 Other Public Participation

SAWPA Agency Dental Amalgam Programs

Eastern Municipal Water District (EMWD)

EMWD has no areas of discharge to the Brine Line which have dental facilities.

Inland Empire Utilities Agency (IEUA)

IEUA has no direct connections from dental facilities within their jurisdiction. In the IEUA jurisdiction area there is one Emergency Permit with an area that has dental facilities that can discharge to the Brine Line in the event of an emergency, the IEUA Los Serranos area. As of June 30, 2019, IEUA has completed the inventory of dentists that discharge from the Los Serranos area. IEUA sent the one-time compliance report survey to these dentists and are in the process of reviewing the reports that have been submitted.

Jurupa Community Services District (JCSD)

JCSD has no dental facilities from the areas with direct connections to the Brine Line. In the JCSD jurisdiction area there are various Emergency Permits that have dental facilities that can discharge to the Brine Line in the event of an emergency. As of June 30, 2019, JCSD has issued surveys to all dental facilities that discharge within the Emergency Permitted service area. All open facilities have submitted their one-time compliance report (OTCR) and have been inspected to verify compliance.

San Bernardino Municipal Water Department (SBMWD)

SBMWD has no direct connections from dental facilities within their jurisdiction. In the SBMWD jurisdiction area there is one Emergency Permit with an area that has dental facilities that can discharge to the Brine Line in the event of an emergency, the SBMWD WRP. As of June 30, 2019, SBMWD has issued surveys to all dental facilities that discharge within this area that may discharge to the Brine Line in the event of an emergency. SBMWD is awaiting full submittal of the issued surveys to develop a plan for implementation of the DIU regulations.

San Bernardino Valley Municipal Water District (Valley District)

Valley District has no areas of discharge to the Brine Line which have dental facilities.

Western Municipal Water District (WMWD)

WMWD has no direct connections from dental facilities within their jurisdiction. In the WMWD jurisdiction area there are two Emergency Permits with areas that have dental facilities that can discharge to the Brine Line in the event of an emergency:

- **Corona WRF No. 1**

As of June 30, 2019, the City of Corona has issued surveys to all dental facilities that discharge to the Corona WRF No. 1 and have received those surveys back from the dental facilities. Corona is now in the process of follow-up inspections and compiling missing information as necessary.

- **WRCRWA SRPS**

WRCRWA has three agency jurisdictions that discharge to the WRCRWA SRPS: WMWD, Home Gardens, and City of Norco. The WMWD area is residential and no dental facilities have been identified. As of June 30, 2019, Home Gardens has issued surveys to all dental facilities that discharge to the WRCRWA SRPS from within their jurisdiction and are awaiting all to be returned. As of June 30, 2019, the City of Norco has identified all the dental facilities that discharge to the WRCRWA SRPS from within their jurisdiction and has issued surveys to these facilities.

Yucaipa Valley Water District (YVWD)

YVWD has no direct connections from dental facilities within their jurisdiction. YVWD has one permit, issued by SAWPA, for the Henry Wochholz Water Reclamation Facility that discharges Brine Wastewater from a reclamation process for the wastewater treatment plant. As of June 30, 2019, for the area that discharges to the YVWD Henry Wochholz Water Reclamation Facility YVWD is in the process of issuing surveys to all dental facilities and have received approximately three-quarters of those back at this time. YVWD will be visiting the dental offices that have not returned their surveys during the next area survey.

7.4.13 Changes to the SAWPA Pretreatment Program

SAWPA has continued to refine a new Pretreatment Program developed in 2013. SAWPA staff consists of a Manager of Permitting and Pretreatment and a Senior Pretreatment Program Specialist, with an additional 1.6 full-time equivalent consisting of other SAWPA personnel. SAWPA oversees the Brine Line program with assistance from Pretreatment Program managers, senior management, and inspectors from the Member and Contract Agencies. A full description of personnel available to the Brine Line program is detailed in 7.4.14.

Two working groups made up of 1) Pretreatment Program managers; and 2) managers and senior management met during the year to coordinate work of the Pretreatment Program team. Working group meetings are utilized to review Brine Line procedures, discuss upcoming pretreatment issues, and provide training on various topics related to the program. SAWPA continued an Inter-Agency training program to promote the continued growth of all agency inspectors. Inspectors from each agency accompany a different agency on an inspection each quarter to observe inspection practices, but also see new types of facilities, broadening each inspector's experience.

SAWPA conducted covert downstream monitoring of dischargers where concerns of potential non-compliance issues were present. Although to date no non-compliance issues have been discovered due to this sampling, SAWPA will continue the practice in FY 2019/20.

SAWPA conducted audits of its member/Contract Agencies in late 2018 and early 2019. During these audits SAWPA personnel ensure agencies were performing inspection, monitoring, permitting, and enforcement activities in line with the SAWPA policies and procedures. SAWPA personnel reviewed documentation for completeness, accuracy, and adherence to SAWPA policies and consistency between agency programs. SAWPA personnel also accompanied agency personnel on inspection and sampling events to observe techniques and ensure adherence to SAWPA procedures and consistency between agency programs. SAWPA observed no major findings at any of the member or Contract Agencies.

SAWPA Draft Pretreatment Program Control Documents Submittal

SAWPA Submitted draft updates to the Pretreatment Program Control Documents (PPCDs), also known as the SAWPA Policy and Procedures, for OCSD's review on April 2, 2018. These documents have been updated to incorporate OCSD's outstanding comments from their 2013 review of the PPCDs, to incorporate changes due to SAWPA Ordinance No. 8 and Local Limits Resolution 2017-11, as well as to incorporate any program changes SAWPA has made since 2013. In addition, SAWPA utilized this submission to continue discussions with OCSD on four items; Permit Durations, a Collection Station MOU, the SAWPA Stormwater Policy, and Permit Templates.

SAWPA has engaged OCSD regarding a potential Memorandum of Understanding (MOU) for operation of the Brine Line Collection Stations (Collection Stations) as an alternative for a wastewater discharge permit. As discussed previously the Collection Station is not generating wastewater and is instead merely a conveyance point for the wastewater discharge. As such, a permit is not an ideal control mechanism for their operation. SAWPA's intent was to employ a MOU with a corresponding Standard Operating Procedure (SOP) to ensure consistent operation of each Collection Station in accordance with the SAWPA Policies and Procedures. SAWPA had previously shared the draft Collection Station MOU with OCSD. SAWPA understands that OCSD wished to withhold any potential concurrence on this document until a template SOP for the Collection Stations could be reviewed. These documents were submitted alongside the Draft Pretreatment Program Control Documents submittal on April 2, 2018.

SAWPA has engaged OCSD regarding a potential Stormwater Policy based on the OCSD Business Washpad Rule. SAWPA's intent was to employ the Policy requiring a SOP for facilities that had potential to discharge stormwater as outlined in the draft Policy. SAWPA has previously shared the draft Stormwater Policy with OCSD. SAWPA understands that OCSD wished to withhold any potential concurrence on this document until a template SOP for the Stormwater Policy could be reviewed. These documents were submitted alongside the Draft Pretreatment Program Control Documents submittal on April 2, 2018.

SAWPA has also discussed with OCSD the submittal of a new Permit Template for each of SAWPA's permit types for OCSD concurrence. It is SAWPA's goal to gain concurrence from OCSD on each of our individual permit templates. This should allow for a more streamlined concurrence process for each permit as the OCSD review can focus only on the unique language for the individual permittee rather than the standard language, format, etc. within each template. SAWPA submitted a new draft Liquid Waste Hauler Permit Template to OCSD on December 4, 2017. As discussed in the December 4, 2017 submittal SAWPA is continuing to withhold submitting additional templates to OCSD for review until we have received comments, if any, on the Liquid Waste Hauler Permit template. As the structure and content of each template is similar, SAWPA will incorporate changes necessary to all templates prior to sending them on for concurrence and receiving the same comments again. In a letter dated February 15, 2019 OCSD responded to the December 4, 2017 submittal stating OCSD would not work on that template with SAWPA at this time. SAWPA has since commenced work on preparing alternative Permit Templates for submittal to OCSD in the following reporting period.

In a letter dated February 15, 2019 OCSD responded to the April 2, 2018 Draft Pretreatment Program Control Documents submittal with submittal review comments. As of June 30, 2019, SAWPA is awaiting to meet with OCSD to review these comments in more detail.

7.4.14 Pretreatment Program Budget

Staffing – EMWD

As of June 30, 2019, the Pretreatment Program staff consisted of 1 manager, 2 analysts, 1 senior inspector, 6 field inspectors, and 1 administrative support personnel for a total of 11 staff members. Traditionally, EMWD designates 20% of the departmental budget to the Brine Line Pretreatment Program. The total estimated budget for Brine Line FY 2018/19 was \$329,700.

Staffing – IEUA

As of June 30, 2019, the Pretreatment Program staff consists of 1 manager, 1 supervisor, 1 engineer, 4 field inspectors, and 1 administrative support personnel for a total of 8 staff members. The total estimated budget for FY 2018/19 was \$185,880. This represents the total estimated budget dedicated to Brine Line activities.

Staffing – JCSD

As of June 30, 2019, the Pretreatment Program staff consists of 1 supervisor, 2 field inspectors and a sewer sample technician for a total of 4 staff members. The JCSD Pretreatment Budget for FY 2018/19 was \$313,543 for the Brine Line Service Area. The Agency does not differentiate within its budget between Brine Line and non-Brine Line activities.

Staffing – SBMWD

As of June 30, 2019, the Pretreatment Program staff consists of 1 manager, 2 field technicians, 1 collection station operator, and 1 administrative support personnel for a total of 5 staff members. Total budget for the entire Pretreatment Program including the brine program for 2018/19 for staff and equipment was \$707,014. The Agency does not differentiate within its budget between Brine Line and non-Brine Line activities.

Staffing – Valley District

As of June 30, 2019, the Pretreatment Program staff consists of 1 manager and 2 consultant provided personnel for a total of 3 staff members. The consulting budget for FY 2018/19 was \$24,056. Valley District management time is estimated at approximately 10% of the program implementation budget, or \$2,405.60. The Agency does not track time to differentiate between Brine Line and non-Brine Line activities. Pretreatment Program sampling and monitoring costs are under a separate contract with Western Municipal Water District (WMWD) in the amount of about \$13,000. Total cost for FY 2018/19 was approximately \$28,441.

Staffing – SAWPA

As of June 30, 2019, the Pretreatment Program staff consisted of 1 manager and 1 specialist. An additional 1.6 FTE is contributed from 2 engineers, and 3 technical support personnel. The actual Brine Line activity expenditures for FY 2018/19 were \$1,079,201.

Staffing – WMWD

As of June 30, 2019, the Pretreatment Program staff consists of 1 manager, and 2 Source Control Specialists for a total of 3 staff members. Estimated budget for FY 2018/19 was \$300,000 (this figure does not include sampling costs, which are assigned to the customer as a pass-through charge). The District does not differentiate within its budget between Brine Line and non-Brine Line activities.

7.4.15 Equipment Inventory Listing

The Summary of Pretreatment Equipment used by and available to SAWPA in Pretreatment Activities, such as field inspection and sampling activities, is provided in the following table. The quantities listed in each Member and Contract Agency column below represents the total resources available for Brine Line activities. The Member and Contract Agencies do not track time to differentiate between Brine Line and non-Brine Line activities or resource allocations. A summary of the pretreatment equipment used by the dischargers is shown in Appendix H titled “SAWPA Pretreatment Program Permittees with Pretreatment Equipment”.

TABLE 7.4 Santa Ana Watershed Project Authority – Summary of Pretreatment Equipment for Fiscal Year 2018/19						
Equipment Description	Quantity					
	EMWD	IEUA	JCSD	SBMWD	SAWPA	WMWD
Vehicles	7	4	4	3	2	8
Automated Samplers	11	16	8	16	6*	14*
Handheld Portable Samplers				5		
Sampler Batteries	24	19		24	6	8
Sampler Battery Chargers	12	12		2	1	2
Sampler Batter Power Packs					1	
Portable Area/Velocity Flow Meters		5	6	1		
Gas Meters/Detectors with Pumps	6	4		2		2
Laboratory Dishwashers		1	1			
Ice Machines		1	2			
Portable pH Meters		8	4	4		7
Sulfide Test Kits		7				
SONDE Trunk Line Monitoring Devices		4				
Laptop Computers		4	1			
Continuous H2S Trunk Line Monitoring Devices		2				
Spill Response Kits				3		

*NOTE: Samplers listed under SAWPA are employed directly by SAWPA personnel. A portion of the samplers listed under WMWD were purchased by SAWPA for use by WMWD personnel for sampling conducted on SAWPA's behalf at non-WMWD locations.

7.4.16 SAWPA Pretreatment Program Training

SAWPA, EMWD, IEUA, WMWD, SBMWD, Valley District, and JCSD staff attended training classes and workshops presented by the California Water Environment Association (CWEA), including the P3S conference, and Southern California Alliance of Publicly Owned Treatment Works (SCAP) pretreatment committee meetings.

Inter-Agency training was conducted each quarter throughout the 2018/2019 fiscal year to promote the continued growth of all agency inspectors. Inspectors from each agency accompany a different agency on an inspection each quarter to observe inspection practices, but also see new types of facilities, broadening each inspector's experience.

Additional training was conducted throughout the 2018/2019 fiscal year by SAWPA for member/Contract Agencies. The following training classes were conducted with all SAWPA agencies represented:

- SAWPA Agency Guidance for iPACS Pollutant Data Entry Training – July 19, 2018
- SAWPA Agency IPACS Nomenclature Training – December 20, 2018
- SAWPA Agency OERP Refresher Training – February 12, 2019
- SAWPA New Grease Interceptors Review Training – February 21, 2019
- SAWPA Cannabis Facility Tour Review Training – April 18, 2019
- SAWPA Brine Line Overview Training – May 16, 2019

SOLIDS MANAGEMENT PROGRAM

Introduction
Biosolids Quality

SOLIDS MANAGEMENT PROGRAM

8.1 INTRODUCTION

This section provides an overview of OCSD's Biosolids Program, focusing on the biosolids quality with respect to metals. Biosolids are nutrient-rich, treated organic matter recovered through the treatment of wastewater. These solids are considered a resource because of their nutrient and energy values, and they are recyclable in part because of their low metal content. The pretreatment program is a key element in ensuring the recyclability of OCSD's biosolids by minimizing the discharge of heavy metals and other undesirable constituents into the collection system and ultimately the treated solids, which are used to fertilize farms.

OCSD's annual biosolids compliance report was completed, submitted to regulators, and posted online in February. Visit OCSD.com/503 to access the most recent document that contains Biosolids Program information, regulations, quantities, policies, guiding principles, and how and where biosolids are recycled.

8.2 BIOSOLIDS QUALITY

Biosolids quality plays an important role in ensuring the continued recyclability of OCSD's biosolids. OCSD's pretreatment program has been extremely effective in reducing and maintaining levels of pollutants (e.g., OCSD's influent sewage meets drinking water standards for the biosolids monitoring metals). The ceiling concentrations and EQ (exceptional quality) concentrations promulgated by the EPA's biosolids regulations (40 CFR 503) are presented in the figures as a reference. For FY 2018/19, OCSD biosolids met the EQ limits for all the regulated parameters.

TABLE 8.1 Trends in Trace Metal Content of Biosolids, Fiscal Years 2010-2019 (Concentration in mg/kg, dry weight) Orange County Sanitation District, Resource Protection Division								
Metal	Fiscal Year	Exceptional Quality Limits	Plant 1			Plant 2		
			Min.	Max.	Avg	Min.	Max	Avg.
Arsenic		41						
	2009-10		2.0	10	5.2	4.4	10	7.2
	2010-11		7.2	9.7	8.4	8.6	12	10
	2011-12		2.3	11	7.4	6.6	66	22
	2012-13		0	7.8	4.7	2.0	10	7.0
	2013-14*		3.5	9.5	5.8	5.4	11	8.4
	2014-15		4.5	11	7.2	7.8	12	9.3
	2015-16*		6.3	12	8.3	6.2	12	9.2
	2016-17*		6.7	12	8.1	5.6	12	8.6
	2017-18*		7.2	16	9.9	7.9	16	11
2018-19*		7.3	23.5	16	9.4	23.5	18	

TABLE 8.1 Trends in Trace Metal Content of Biosolids, Fiscal Years 2010-2019 (Concentration in mg/kg, dry weight) Orange County Sanitation District, Resource Protection Division								
Metal	Fiscal Year	Exceptional Quality Limits	Plant 1			Plant 2		
			Min.	Max.	Avg.	Min.	Max.	Avg.
Cadmium		39						
	2009-10		1.1	4.4	2.9	1.0	4.8	2.8
	2010-11		1.2	3.8	2.6	1.4	5.0	2.5
	2011-12		0.8	6.0	3.8	1.1	4.4	3.6
	2012-13		2.6	7.8	4.7	1.9	4.4	3.1
	2013-14*		1.6	11	3.9	2.1	6.0	3.5
	2014-15		2.7	7.8	5.1	3.1	5.8	4.0
	2015-16*		1.3	4.7	2.5	2.0	4.5	3.0
	2016-17		2.6	3.1	2.3	2.0	3.8	3.0
	2017-18*		1.7	4.4	3.0	2.5	7.7	5.1
2018-19*		1.2	3.0	1.6	2.7	8.4	4.2	
Metal	Fiscal Year	Exceptional Quality Limits	Plant 1			Plant 2		
			Min.	Max.	Avg.	Min.	Max.	Avg.
Chromium		**						
	2009-10		29	56	44	30	54	47
	2010-11		41	58	47	50	66	59
	2011-12		42	74	52	40	70	56
	2012-13		42	56	49	42	59	49
	2013-14		39	52	45	40	53	46
	2014-15		30	51	40	34	70	46
	2015-16		31	89	46	28	60	46
	2016-17		30	89	49	29	67	46
	2017-18		27	38	34	38	54	44
2018-19		29	58	39	32	53	45	
Metal	Fiscal Year	Exceptional Quality Limits	Plant 1			Plant 2		
			Min.	Max.	Avg.	Min.	Max.	Avg.
Copper		1,500						
	2009-10		420	620	540	370	560	500
	2010-11		520	600	570	500	720	570
	2011-12		430	670	520	380	720	520
	2012-13		480	640	540	500	640	540
	2013-14		460	540	510	470	540	500
	2014-15		320	570	470	320	560	470
	2015-16		380	560	460	340	570	480
	2016-17		400	560	460	340	570	490
	2017-18		320	500	420	380	590	460
2018-19		355	600	470	335	665	510	

TABLE 8.1 Trends in Trace Metal Content of Biosolids, Fiscal Years 2010-2019 (Concentration in mg/kg, dry weight) Orange County Sanitation District, Resource Protection Division								
Metal	Fiscal Year	Exceptional Quality Limits	Plant 1			Plant 2		
			Min.	Max.	Avg.	Min.	Max.	Avg.
Lead		300						
	2009-10		9.0	44	23	9.0	20	17
	2010-11		21	24	23	9.0	30	20
	2011-12		ND	25	9.0	ND	32	13
	2012-13		7.5	19	15	7.5	17	14
	2013-14*		13	17.5	14	13	17	14
	2014-15*		8.7	15	13	9.0	17	13
	2015-16*		8.3	20	12	8.0	17	13
	2016-17*		7.9	20	11	7.5	17	12
	2017-18*		8.9	19	12	10	16	13
2018-19		9.9	15	12	10.4	15	13	
Mercury		17						
	2009-10		1.0	3.2	1.4	0.9	1.6	1.3
	2010-11		0.8	2.2	1.3	0.8	2.3	1.2
	2011-12		0.8	1.4	1.2	0.8	2.6	1.3
	2012-13		0.7	4.1	1.5	0.8	3.8	1.4
	2013-14		0.8	1.2	1.0	0.7	2.8	1.4
	2014-15		1.0	1.5	1.1	1.0	1.5	1.0
	2015-16		0.6	1.7	0.93	0.64	1.2	1.0
	2016-17		0.53	1.7	0.90	0.70	1.2	0.90
	2017-18		0.66	1.1	0.85	0.34	1.1	0.79
2018-19		0.6	1.1	0.86	0.6	1.0	0.77	
Molybdenum		**						
	2008-09		12	16	15	8.0	16	14
	2009-10		6.0	16	13	6.0	14	10
	2010-11		12	19	15	4.8	18	14
	2011-12		6.5	18	13	12	20	17
	2012-13		9.8	20	14	12	20	15
	2013-14		12	18	15	14	18	15
	2014-15		9.4	18	15	12	20	16
	2015-16*		11	18	15	11	23	16
	2016-17		12	18	15	11	23	16
	2017-18*		10	16	14	13	18	15
	2018-19		13	20	16	15	22	18

TABLE 8.1 Trends in Trace Metal Content of Biosolids, Fiscal Years 2010-2019 (Concentration in mg/kg, dry weight) Orange County Sanitation District, Resource Protection Division								
Metal	Fiscal Year	Exceptional Quality Limits	Plant 1			Plant 2		
			Min.	Max.	Avg.	Min.	Max.	Avg.
Nickel		420						
	2009-10		12	36	28	9	27	21
	2010-11		28	46	37	14	38	32
	2011-12		15	48	35	20	39	31
	2012-13		34	48	40	23	41	30
	2013-14		36	55	43	28	56	37
	2014-15		26	47	37	26	41	34
	2015-16*		29	45	38	20	41	33
	2016-17		25	45	36	21	41	32
	2017-18		28	37	32	31	39	34
2018-19		23	44	33	29	44	37	
Metal	Fiscal Year	Exceptional Quality Limits	Plant 1			Plant 2		
			Min.	Max.	Avg.	Min.	Max.	Avg.
Selenium		100						
	2009-10		2.7	18	7.3	2.8	16	5.6
	2010-11		2.8	26	11	3.7	26	9.8
	2011-12		ND	26	9.0	ND	19	9.0
	2012-13		0	20	9.0	0	20	8.0
	2013-14*		3.5	13	7.9	4.2	13	8.3
	2014-15*		4.1	13	7.1	4.5	15	7.3
	2015-16*		4.4	11	8.1	3.7	10	7.6
	2016-17*		4.1	10	8.4	4.8	10	8.0
	2017-18*		3.0	7.8	4.9	2.7	8.0	4.9
2018-19*		2.5	48	6.6	2.3	2.9	2.7	
Metal	Fiscal Year	Exceptional Quality Limits	Plant 1			Plant 2		
			Min.	Max.	Avg.	Min.	Max.	Avg.
Silver		**						
	2009-10		10	18	15	7.4	13	10
	2010-11		10	17	13	5.2	12	9.6
	2011-12		7	14	10	4.0	12	8.5
	2012-13		6.2	14	8.6	6.4	13	8.6
	2013-14*		2.9	7.6	5.3	3.6	9.1	6.3
	2014-15*		3.3	7.8	5.8	3.4	8.6	6.5
	2015-16*		2.4	7.7	5.6	2.5	7.9	5.6
	2016-17*		2.7	5.6	4.4	2.5	6.8	4.9
	2017-18*		3.2	5.1	3.9	3.7	5	4.2
2018-19*		2.9	5.1	4.0	3.5	5.8	4.3	

TABLE 8.1 Trends in Trace Metal Content of Biosolids, Fiscal Years 2010-2019 (Concentration in mg/kg, dry weight) Orange County Sanitation District, Resource Protection Division								
Metal	Fiscal Year	Exceptional Quality Limits	Plant 1			Plant 2		
			Min.	Max.	Avg.	Min.	Max.	Avg.
Zinc		2,800						
	2009-10		560	810	740	520	790	710
	2010-11		630	740	700	700	830	740
	2011-12		560	880	710	560	910	750
	2012-13		640	860	720	680	880	770
	2013-14		590	730	670	620	750	700
	2014-15		420	720	620	470	740	670
	2015-16		500	770	620	520	890	730
	2016-17		550	770	610	520	890	740
	2017-18		470	680	600	590	910	720
	2018-19		515	805	604	500	790	720

*Calculations included data below the reporting limit, but above the method detection limit, and were therefore flagged as “detected not quantified” or the method detection limit was substituted for non-detect values.

**EPA’s extensive health risk analysis determined that no limits were needed for these metals (EPA 40CFR 503).

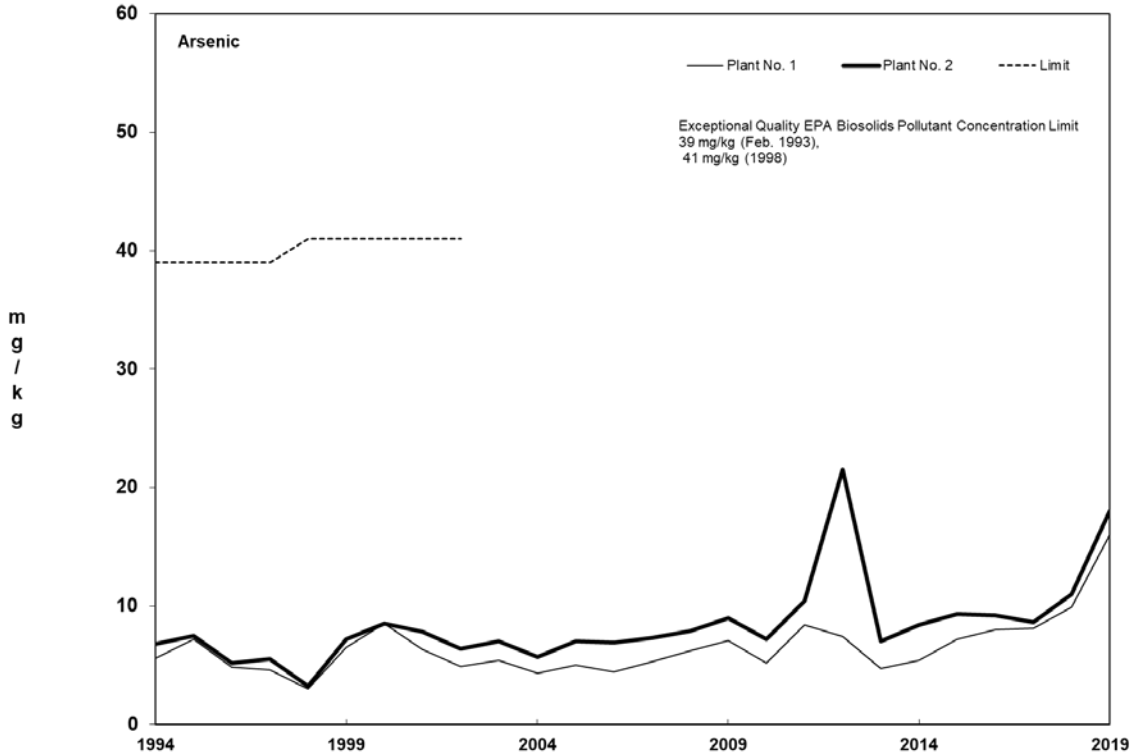


Figure 8-1 Trends in Concentrations of Arsenic in Biosolids, Fiscal Years 1994-2019 Orange County Sanitation District, Resource Protection Division

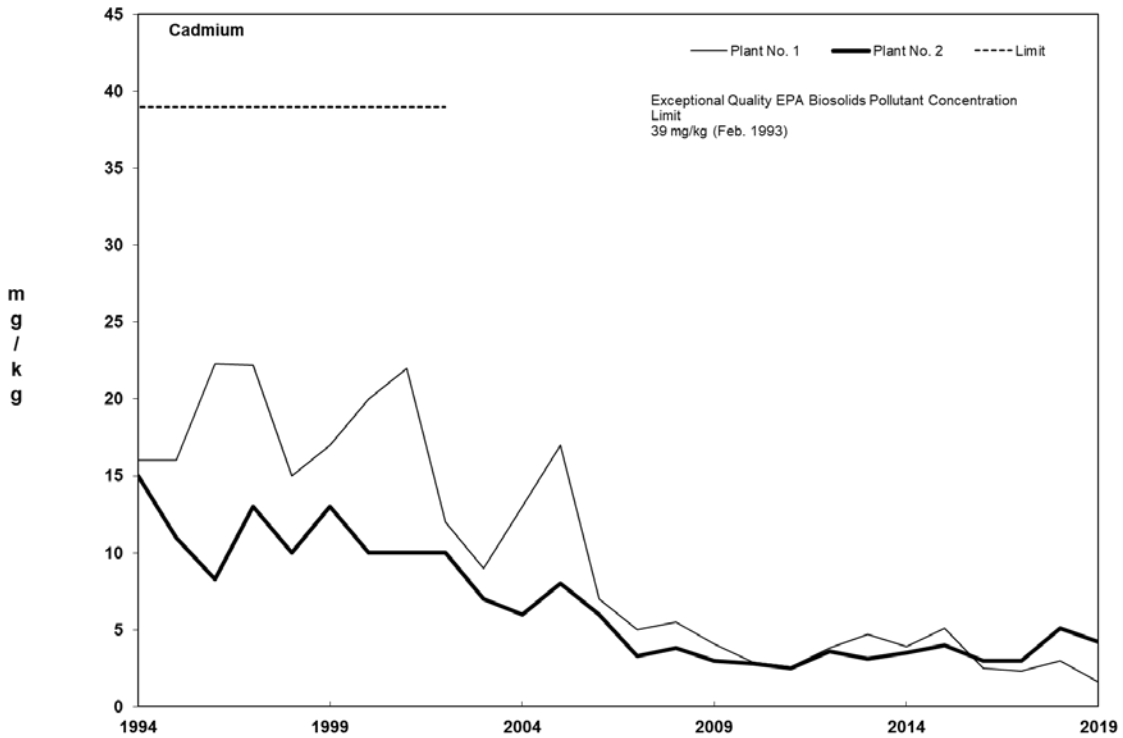


Figure 8-2 Trends in Concentrations of Cadmium in Biosolids, Fiscal Years 1994-2019 Orange County Sanitation District, Resource Protection Division

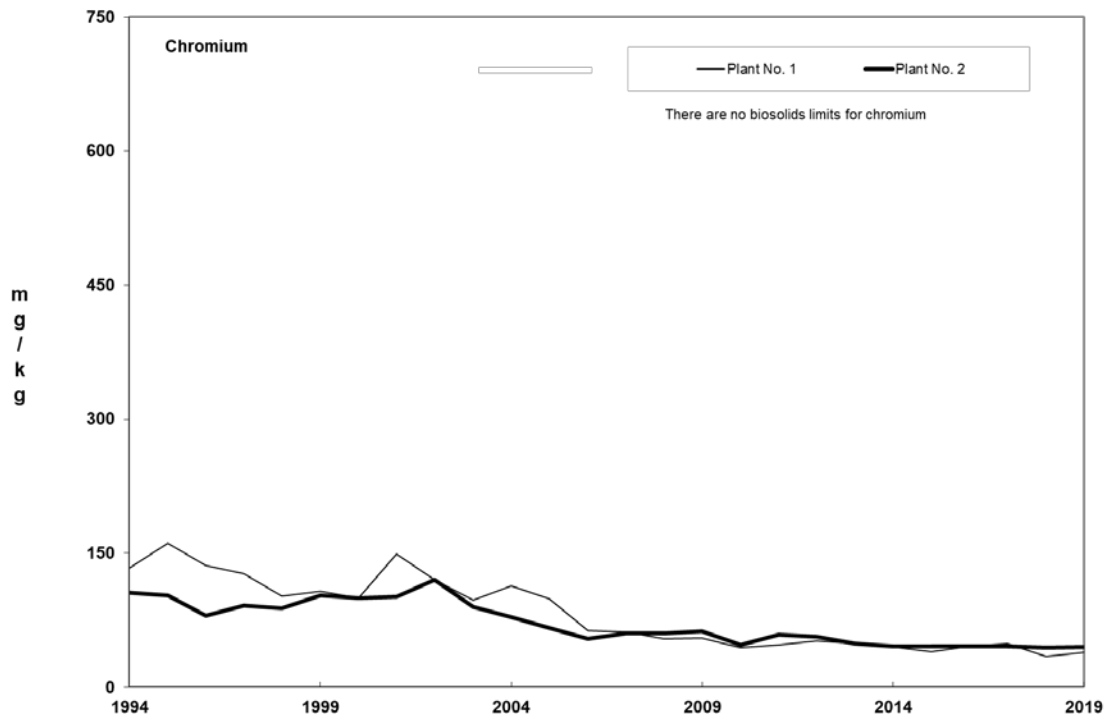


Figure 8-3 Trends in Concentrations of Chromium in Biosolids, Fiscal Years 1994-2019 Orange County Sanitation District, Resource Protection Division

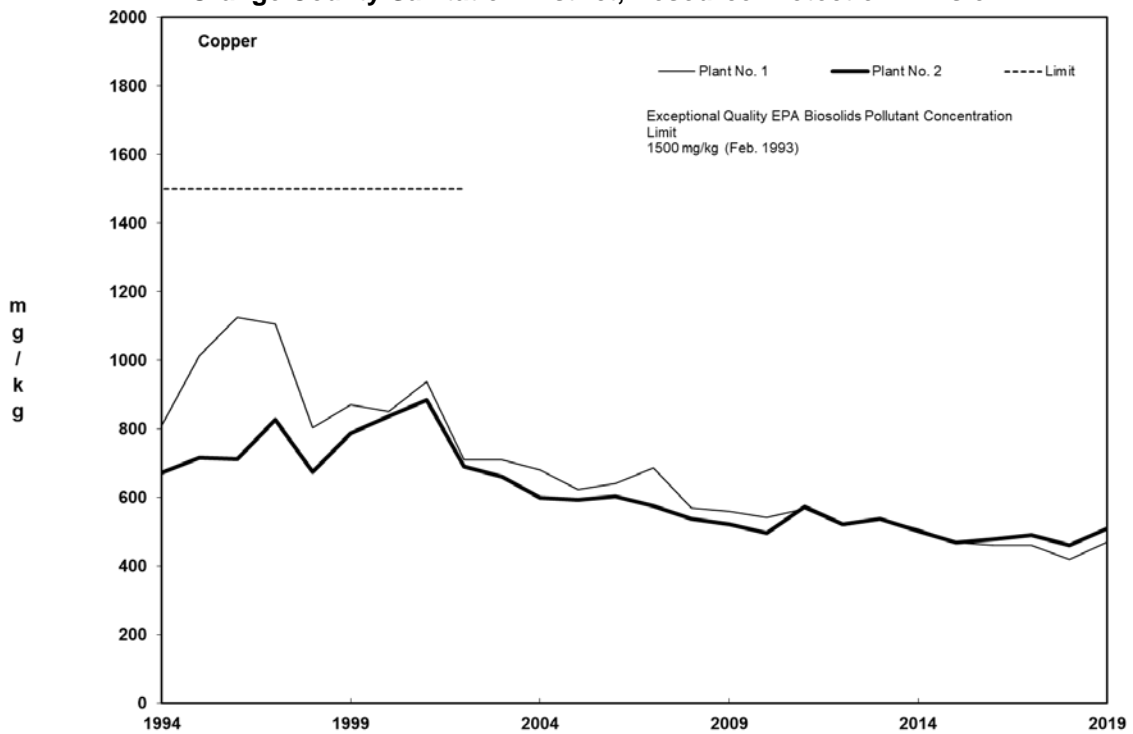


Figure 8-4 Trends in Concentrations of Copper in Biosolids, Fiscal Years 1994-2019 Orange County Sanitation District, Resource Protection Division

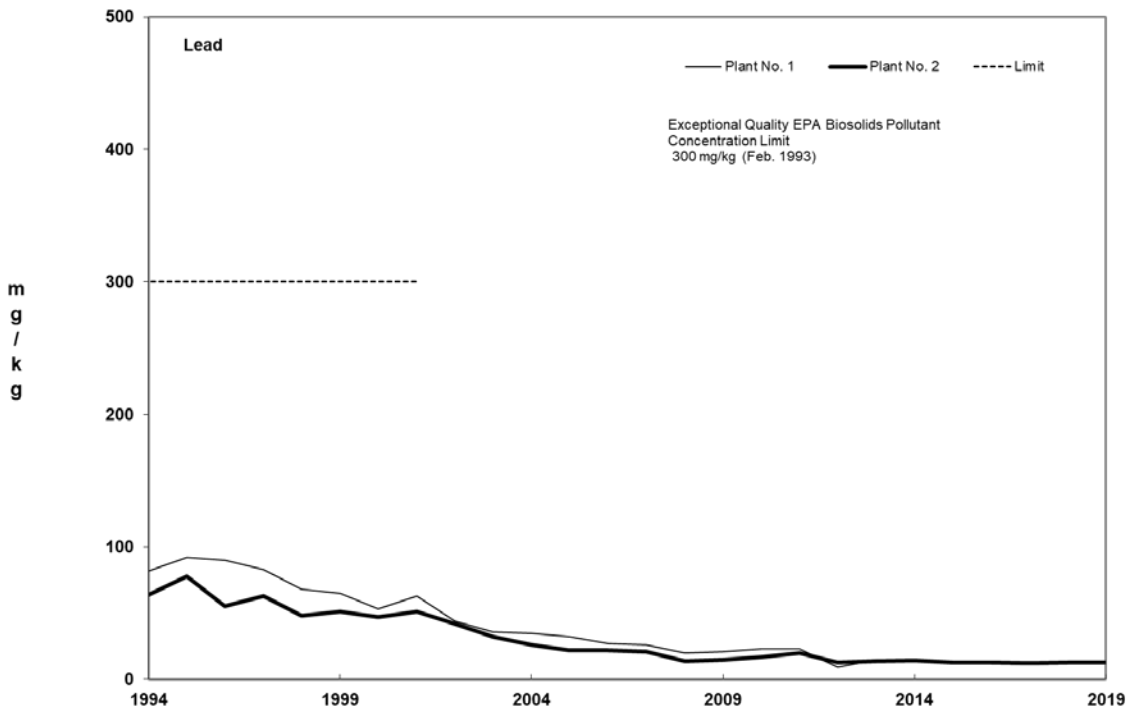


Figure 8-5 Trends in Concentrations of Lead in Biosolids, Fiscal Years 1994-2019 Orange County Sanitation District, Resource Protection Division

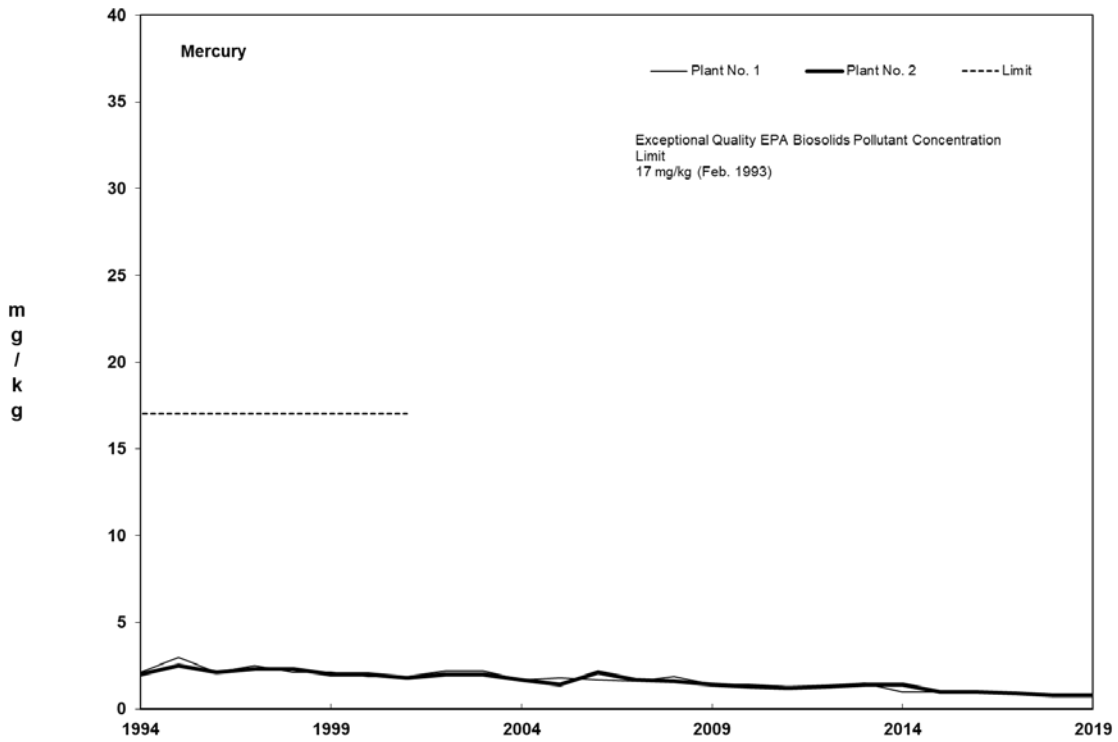


Figure 8-6 Trends in Concentrations of Mercury in Biosolids, Fiscal Years 1994-2019 Orange County Sanitation District, Resource Protection Division

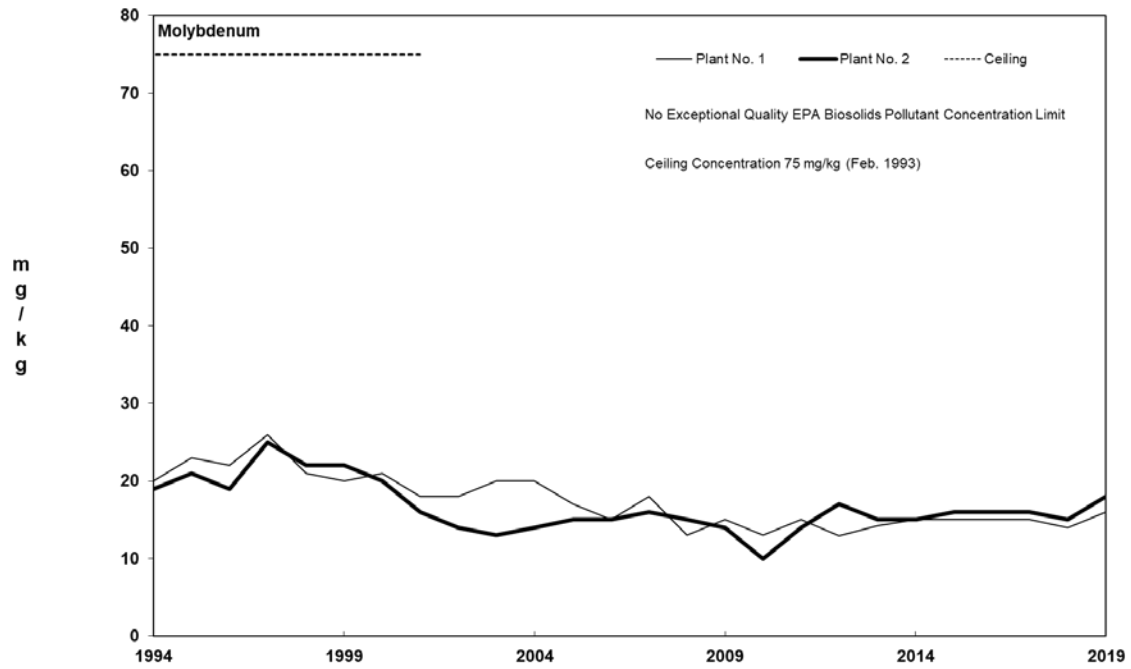


Figure 8-7 Trends in Concentrations of Molybdenum in Biosolids, Fiscal Years 1994-2019 Orange County Sanitation District, Resource Protection Division

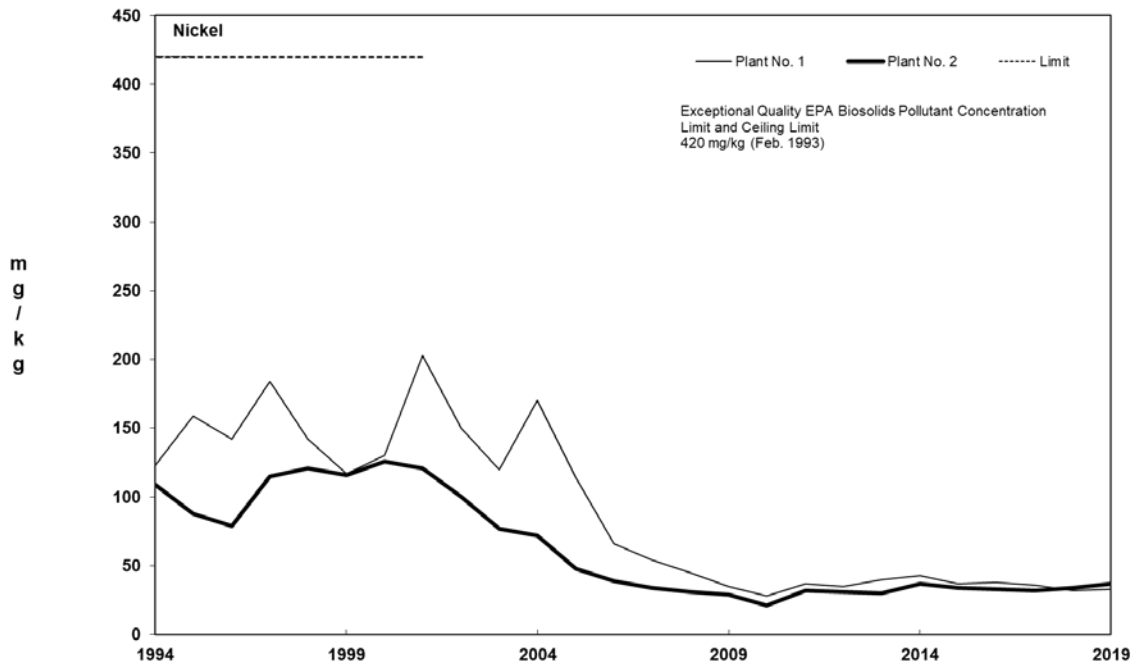


Figure 8-8 Trends in Concentrations of Nickel in Biosolids, Fiscal Years, 1994-2019 Orange County Sanitation District, Resource Protection Division

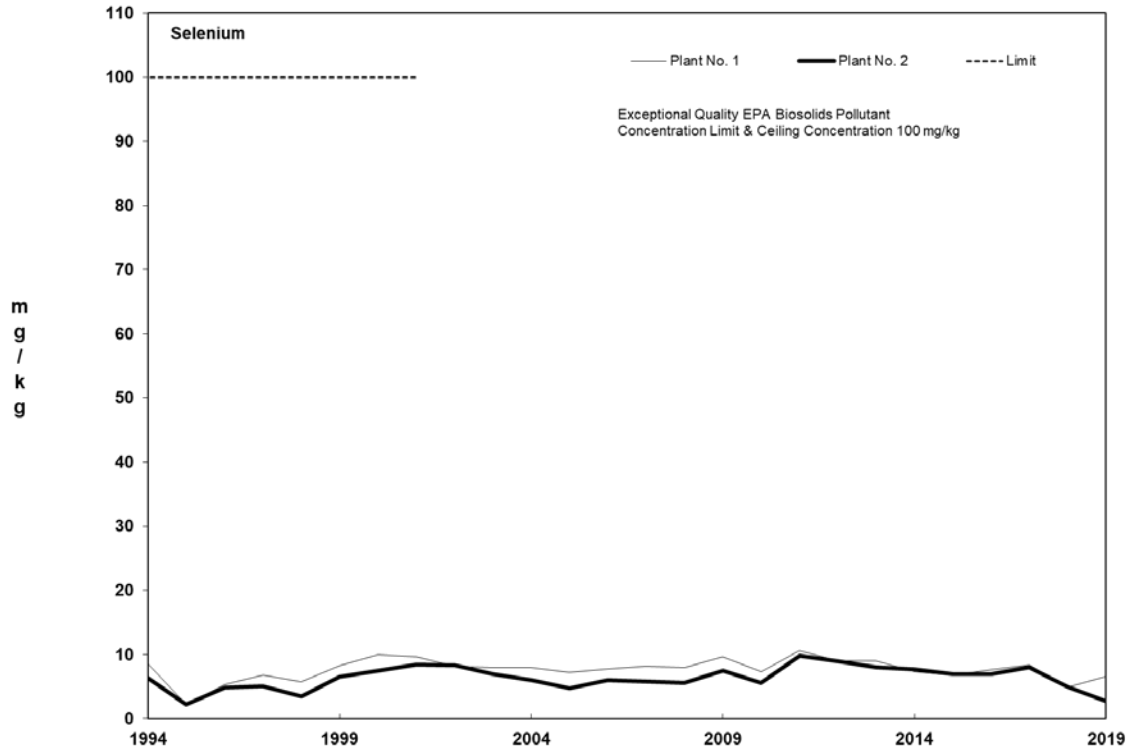


Figure 8-9 Trends in Concentrations of Selenium in Biosolids, Fiscal Years 1994-2019 Orange County Sanitation District, Resource Protection Division

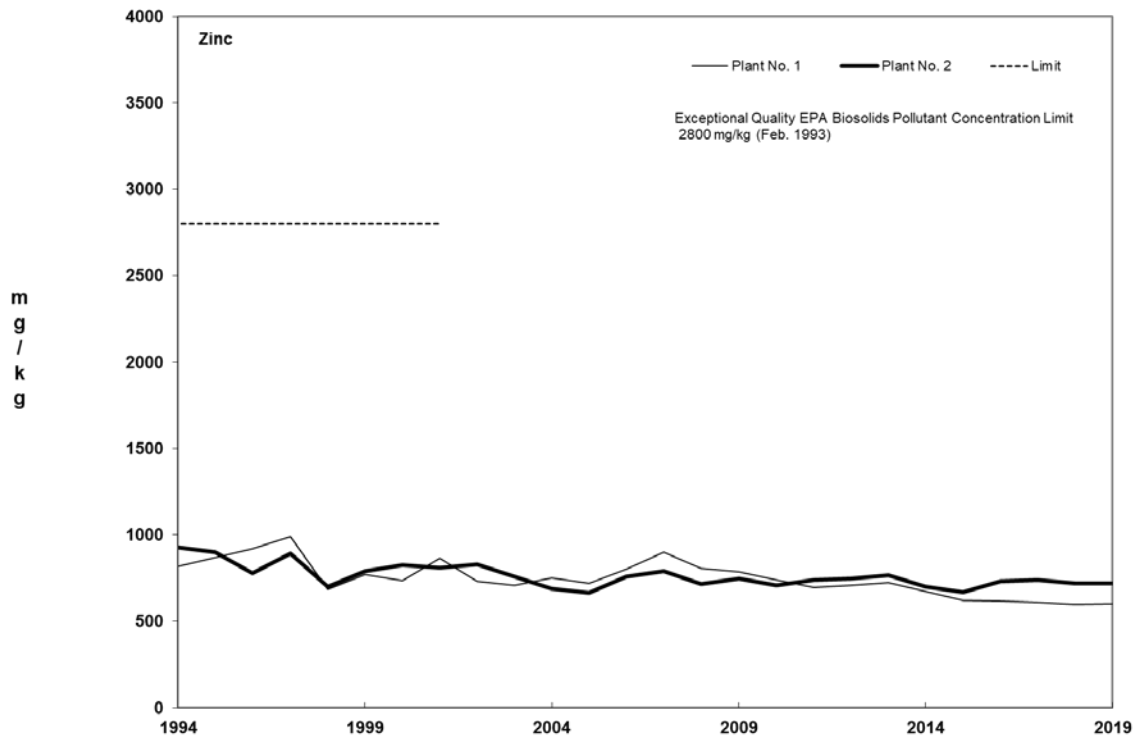


Figure 8-10 Trends in Concentrations of Zinc in Biosolids, Fiscal Years 1994-2019 Orange County Sanitation District, Resource Protection Division

NON-INDUSTRIAL SOURCE CONTROL (NISC) PROGRAM AND PUBLIC EDUCATION PROGRAMS

Introduction

Fats, Oils, and Grease (FOG) Control Programs

Radiator Shops

Dry Cleaners

Urban Runoff

Dental Amalgam

Public Education

NON-INDUSTRIAL SOURCE CONTROL AND PUBLIC EDUCATION PROGRAMS

9.1 INTRODUCTION

In response to regulatory requirements in support of water reuse through the Orange County Sanitation District's (OCSD) partnership with the Orange County Water District (OCWD) for the Groundwater Replenishment System (GWRS), as well as concerns regarding pollutants which pose potential impacts to OCSD's collection system, treatment works, personnel, biosolids, National Pollutant Discharge Elimination System (NPDES) discharge, or which aid diversion of Urban Runoff to OCSD's treatment facilities, OCSD's Pretreatment Program was expanded to include non-industrial sources. The non-industrial programs are listed in Table 9.1.

TABLE 9.1 Non-Industrial Programs, FY 2018/19 Orange County Sanitation District, Resource Protection Division
Programs
Fats, Oils, and Grease Control
Radiator Shops
Dry Cleaners
Urban Runoff
Dental Amalgam

9.2 FATS, OILS, AND GREASE (FOG) CONTROL PROGRAMS

9.2.1 Fats, Oils, and Grease Control

Background

A frequent cause of Sanitary Sewer Overflows (SSOs) is grease accumulation in the small- to medium-sized sewer lines typically owned and operated by cities and local sewerage agencies. In April 2002, the California Regional Water Quality Control Board, Santa Ana Region (RWQCB) issued Order No. R8-2002-0014, *General Waste Discharge Requirements* (WDR), which required Orange County cities and sewerage agencies, known as WDR Co-Permittees, to monitor and control SSOs. Specifically, the order required WDR Co-Permittees to develop a Sewer System Management Plan (SSMP), one element of which was a Fats, Oils, and Grease Control Program (FOG program). On November 17, 2004, OCSD passed FOG Ordinance No. OCSD-25 establishing the legal authority to prohibit food service establishments (FSEs) from discharging FOG to the sewer system. OCSD implemented its FOG program for FSEs in its direct service area starting January 1, 2005.

In May 2006, the State Water Resources Control Board (SWRCB) adopted *Statewide General Waste Discharge Requirements for Sanitary Sewer Systems*, Water Quality Order No. 2006-0003 (Statewide WDR), which required a similar effort statewide. In December 2006, the RWQCB rescinded its WDR in lieu of the Statewide WDR. OCSD submitted its SSMP to the SWRCB in May 2009. OCSD completed its most recent audit of the SSMP in May 2019. More specifics on the county-wide FOG program can be found in Chapter VIII of the SSMP. The following sections detail OCSD's FOG control efforts in FY 2018/19.

Program Administration

The Commercial FOG program is administered through a combination of permitting, inspection, compliance tracking, report monitoring, and enforcement. The main elements of the FOG program include:

- 1) Ordinance No. OCSD-25 - Fats, Oils, and Grease Ordinance for Food Service Establishments;
- 2) FOG Wastewater Discharge Permits to define and communicate permittees' responsibilities regarding FOG discharges;
- 3) Required Best Management Practices (BMPs) to minimize FOG-bearing wastewater discharges;
- 4) Installation and/or required maintenance of grease interceptors (G.I.s), when applicable;
- 5) Semi-annual monitoring of BMP implementation and G.I. maintenance;
- 6) Screening and evaluation of all inspection and monitoring reports to identify violations and/or deficiencies;
- 7) Inspection of FSE facilities to verify compliance; and
- 8) Enforcement Response Plan to respond to violations in a consistent and timely manner.

Permitting

During the initial phases of the program, OCSD conducted an examination of the FOG trouble spots, as well as an inspection of the FSEs in the service area to collect operational information. A scheme was developed to categorize the distinct types of facilities based upon their potential to discharge FOG, the need to enforce the regulatory requirements of the FOG Ordinance, and the potential of each FSE to impact known or potential trouble spots. Using the combination of inspection data and trouble spot information, FSEs were categorized into the following six groups:

Category 1 - FSEs with a G.I. installed.

Category 2 - FSEs without a G.I. installed, that are a significant contributor to a FOG trouble spot and probably need to install a G.I. due to their FOG impact to the sewer.

Category 3 - FSEs without a G.I. installed, that are considered a less significant contributor to a FOG trouble spot but may still need to install a G.I. in the future due to their proximity.

Category 4 - FSEs without a G.I. installed, that are not considered a significant contributor of FOG, are not upstream of a trouble spot, and probably will not need a G.I. installed.

Category 5 - FSEs found to be an insignificant source of FOG that will not be required to have a permit.

Category 6 - Commercial property owners that maintain a G.I. common to multiple FSEs.

After creating the six categories and examining the FSEs' operations and discharge configurations, it became obvious that there needed to be different FOG Wastewater Discharge Permit (permit) alternatives to cover the various conditions encountered. The six categories eventually produced three permit variations. The first permit, Type 1, covers FSEs that have FOG pretreatment, typically considered to be a below-ground G.I. The second variety, Type 2, is issued to FSEs without pretreatment, categories 2, 3, and 4. Type 2 permits include a Conditional Waiver from the FOG pretreatment requirement, as mandated for all FSEs by OCSD's FOG Ordinance. The third permit variation, Type 6, was developed for the strip mall or food court owners who have several FSEs plumbed to a common G.I. The Type 6 permit only requires G.I. maintenance and does not include any BMP requirements. The individual FSEs connected to the common interceptor at a Type 6 location are still issued a Type 2 permit that requires BMP implementation.

Permits are currently issued for two-year terms. Prior to permit renewal, the FSE is required to complete and submit an updated permit application and pay the permit application fee. Ownership changes also trigger a permit re-issuance as the permit is non-transferable.

Table 9.2 reflects the current number of FSEs in OCSD's direct service area.

TABLE 9.2 FSE Count by Category, FY 2018/19 Orange County Sanitation District, Resource Protection Division	
FSEs by Category	Count
Category 1 – G.I. installed	15
Category 2 – No G.I. but contributing to a trouble spot	0
Category 3 – No G.I. and not a significant contributor to a trouble spot	6
Category 4 – Not a significant FOG source, no G.I. required at this time	18
Category 5 – Insignificant FOG discharger, not permitted	18
Category 6 – Property owner maintains a shared G.I.	0
Total FSEs in OCSD Program (Categories 1-6)	57

Self-Monitoring Report

As a condition of the FOG permits, FSEs are required to implement the BMPs, maintain their G.I.s if applicable, keep records/logs of employee training and yellow grease disposal, and submit periodic self-monitoring reports to inform OCSD of their BMP efforts and G.I. maintenance activities. Submitted reports are evaluated and used to determine compliance.

Table 9.3 summarizes the BMP and G.I. monitoring compliance for the annual reporting period. The results for FY 2018/2019 show 94.8% of the BMP reports being received and 96.7% of the G.I. Maintenance reports being received. The four outstanding BMP non-submittals belonged to La Casita de L.C. (F-OR-1026), My Pho Restaurant (F-OR-1503), and Pizza Hut #32009 (F-OR-1506), and the single G.I. non-submittal belonged to My Pho Restaurant (F-OR-1503).

TABLE 9.3 FSE Monitoring Reports, FY 2018/19 Orange County Sanitation District, Resource Protection Division			
FSEs by Category	Issued	Received	Percent Received
BMPs Monitoring Reports	77	73	94.8%
G.I. Monitoring Reports	30	29	96.7%

Inspection

Regular FSE inspections are an integral and essential part of the FOG program, because they serve as a regulatory reminder to implement the required BMPs, and for FSEs with G.I.s to maintain their FOG pretreatment devices. Every inspection presents an opportunity to provide educational outreach to the FSE community by further reinforcing the importance of the kitchen BMPs and strengthening the cooperative effort ultimately needed to effectively control FOG discharges to the sewer. The FOG program includes two distinct types of inspections, 1) a kitchen BMP inspection conducted by the Orange County Health Care Agency (OCHCA), and 2) a compliance inspection conducted by OCSD staff. The verification that G.I.s are periodically pumped out and in compliance with the 25% rule is now accomplished through the *Semi-Annual G.I. Wastehauling Report* submittals. With the transfer of the local sewers to East Orange County Water District in August 2016, the number of FOG permittees fell to 39, with 15 of those establishments having a G.I. installed. As a result, OCSD eliminated the private contractor in lieu of OCSD compliance inspections and OCHCA BMP Inspections.

Compliance

Violation of a permit requirement or a provision of the FOG Ordinance, or the failure to submit a required report can lead to issuance of a Corrective Action Notice (CAN). The CAN is followed by a Notice of Violation which includes the assessment of noncompliance fees if the deficiency is not corrected in a timely manner. OCSD issued 12 CANs and conducted 6 follow-up inspections to resolve the non-compliance issues. Six follow-up inspections are pending as of the end of the FY 2018/19 cycle. A total of two NOVs were issued, Pizza Hut #32009 (F-OR-1506) and Chipotle Mexican Grill #1641 (F-OR-1499), after repeated attempts failed to resolve their self-monitoring report non-submittal issues.

Table 9.4 summarizes the BMP and G.I. inspection activity, the number of CANs issued, as well as the official compliance and inventory management visits.

TABLE 9.4 FSE Compliance Inspection Activities, FY 2018/19 Orange County Sanitation District, Resource Protection Division	
Actions Taken	Count
BMPs Inspections*	37
G.I. Inspections@	0
CANs issued*	12
Compliance Follow-Up Inspections*!	6
Notice of Violations issued*	2
OCHCA FOG Inspections [∞]	63
Deficient BMPs/G.I. Monitoring Report Inspection*	2
Late BMPs/G.I. Monitoring Report Submittal Inspection*	0
Late Permit Application (Renewal) Submittal Inspection*	2
FSE Inventory Management Inspection*	0
Total Actions Taken	124
* Conducted by OCSD Staff @ Conducted by Private Contractor ∞ Conducted by OCHCA ! Six follow-up inspections are pending for CANs issued this reporting period	

FOG Program Effectiveness

Monitoring the effectiveness of the FOG program enables OCSD to refine its program implementation as necessary to comply with its requirement to eliminate preventable SSOs. OCSD uses a geographic information system (GIS) to analyze the relationship between trouble spots, FSEs, and SSOs. Areas of concern are evaluated and prioritized based on the impact of FSE proximity, tributary residential density, and FOG accumulation in the sewer line, as determined by both CCTV and field crew observations. OCSD coordinates with the Collection Facilities staff to maintain an effective Commercial FOG program by keeping trouble spots under surveillance and following up on grease accumulations before they reach a critical stage. Table 9.5 summarizes the SSO data from the past two reporting periods. This data demonstrates the effectiveness of the FOG program at reducing the frequency of SSO events.

**TABLE 9.5 FOG Program Effectiveness, FY 2017/19
Orange County Sanitation District, Resource Protection Division**

Spills	FY 2017/18	FY 2018/19
OCSD system spills attributable to FSE FOG	0	0
OCSD system spills attributable to residential FOG	0	0
Private lateral spills attributable to FOG	0	0
Total FOG-related Spills	0	0

9.3 RADIATOR SHOPS

The Radiator Shop Certification Program aims to prevent heavy metal-bearing liquids, oil and grease, spent antifreeze/coolant, as well as any other hazardous wastes from being discharged to the sewer. The program requires shops that rebuild and repair radiators to biennially certify the following:

- No industrial wastewater or spent antifreeze/coolant is discharged to the sewer,
- Floor drains are permanently sealed and secured from spills or accidental discharges,
- Water recycling systems are close-looped with no connection to the sewer, and
- Wastehauling records are maintained on-site and available for review upon request.

FY 2018/19 was a non-certification year; the next certification cycle is scheduled for October 2019. The following paragraphs summarize the activities of the FY 2017/18 cycle.

Twenty notification letters, which contained certification forms, were mailed in October 2017. At the end of the reporting period, 15 shops submitted certification forms. OCSD staff conducted audit inspections in January, February, and March of 2018 to verify information in the submitted certifications. The follow-up inspections went well, and no new owners were encountered. The inspections serve not only to check wastehauling records and waste management practices, but also to provide an opportunity to educate the shop owners on the OCWD GWRS and OCSD's other reclamation efforts. The personal interaction between the shop owners and OCSD staff reinforces the concept that their facility's waste management efforts are contributing to both high-quality drinking water, as well as a clean environment.

The four facilities that hadn't returned their certification forms, A - A Auto Service in Fullerton, Brea Brake & Radiator in Brea, Orange County Radiator in Santa Ana, and Orange Radiator in Orange, were all determined to be out of business (OOB). A drive-by was conducted of the industrial park where the owner of Hal's Radiator had moved his belongings two years ago. There was still no sign of a functioning radiator repair business, so Hal's Radiator will be placed on the OOB list, and no further follow-up is planned. No new repair facilities were discovered since the previous certification cycle setting the current facility count at 15.

Table 9.6 summarizes FY 2017/18 certification activity.

Activity	Count
Notification letter/certification forms sent	20
Certifications submitted	15
Audit inspections conducted	20
Shops listed as OOB during FY 2017/18	5*
Active shops not returning a certification	0
* A - A Auto Service (Fullerton), Brea Brake & Radiator (Brea), Orange County Radiator (Santa Ana), Orange Radiator (Orange), and Hal's Radiator (Anaheim)	

9.4 DRY CLEANERS

Initially implemented to prevent soil and groundwater contamination by perchloroethylene (Perc) exfiltration from sewers, the Dry Cleaner Certification Program was revitalized as an important outreach tool to help protect the GWRS. The program tracks the solvent usage and facility ownership within the dry cleaner community to prevent the discharge of solvent-containing wastes from dry cleaning operations. Rather than just examining the spent solvent disposal, additional emphasis is placed on the contaminated water from the solvent/water separator, which is typically managed either by wastehauling off-site or by performing on-site evaporation. The program requires dry cleaning establishments to annually certify the following:

- 1) No waste solvent is discharged to the sewer,
- 2) Dry cleaning machines and auxiliary equipment are not connected to the sewer,
- 3) Floor drains are secured from spills and accidental discharges,
- 4) Solvent waste is wastehauled off-site for disposal in accordance with all applicable laws, and
- 5) Solvent contaminated separator water is wastehauled and/or evaporated.

Table 9.7 summarizes the number of facilities using each of the various cleaning solvent types.

Type of Facilities	Count
Perc Facilities	41
Hydrocarbon (Petroleum) Facilities	166
Green Earth (D5-Siloxane) Facilities	28
KTEX Facilities	2
Solvon K4 Facilities	4
Facility uses Solvon K4 and Green Earth	1
Facility uses Solvon K4 and Hydrocarbon	1
Garment collection facilities (dry cleaning equipment is still on-site)*	16
Total Facilities	259
* Garment collection facilities with dry cleaning equipment on site receive a certification form to track whether the facility reinstates the processing of garments.	

Certifications are mailed to every dry-cleaning facility at the beginning of the annual cycle. After the completed certifications are returned, audit inspections are conducted to verify the information. Dry cleaning facilities must maintain their wastehauling records on site and make them available for review during inspection. Although all active facilities and garment collection facilities with equipment on-site receive a certification form, only Perc users are routinely inspected by OCSD. During the FY 2018/19 cycle, OCSD did not conduct any Perc facility inspections.

There were 9 facility ownership changes reported during the FY 2018/19 certification cycle. With one new facility added, the overall total stands at 259 including two facilities under eviction watch until their equipment is removed permanently. At the end of the reporting period, the number of operating Perc facilities had decreased by ten, the result of one facility going OOB, two moving to Hydrocarbon solvent, five changing to non-operating agency status, and the two under eviction. KTEX solvent users remained steady at two, Solvon K4 users remained at four, or six including two facilities with multiple machines and solvents. An OOB facility accounted for one less Green Earth user. Hydrocarbon (HC) users decreased overall by three with seven facilities going OOB, two Perc facilities moving to HC, one new HC facility added, and one changing to non-operating agency status. The garment collection facilities, also known as agencies, increased by six as previously operating facilities ceased using their equipment. Agency facilities are kept in the certification program until the dry-cleaning equipment is permanently removed from the site.

Table 9.8 summarizes the dry cleaner certification and inspection activities.

TABLE 9.8 Dry Cleaner Certification Activity, FY 2018/19 Orange County Sanitation District, Resource Protection Division	
Activity	Count
Notification letters/certifications sent	265
Certifications submitted	260
Perc facility inspections conducted	0
Certification inspections conducted	43
Facilities listed as OOB during FY 2018/19	9
Operating facilities failing to submit the certification	5*
* Two dry cleaning facilities that did not return certification forms were posted with eviction signs when inspected. These facilities are not included in the OOB total as the dry-cleaning equipment remains onsite and the businesses could eventually reopen.	

Staff conducted forty-three certification inspections, representing 16% of the dry cleaners in the program, to collect certifications not submitted, or to clarify missing or incomplete information on the submitted forms.

At the end of this reporting period report, three operating dry-cleaning facilities failed to submit a *Certification of Zero Discharge* for FY 2018/19: Mr. Green Cleaners - Cert. #300-0595, Springdale Cleaners - Cert. #397-0895, and Superior Cleaners - Cert. #018-0295. Several attempts to personally contact the facility owners to get the certification returned were unsuccessful as they are not normally on-site, and the facility managers or counter clerks either didn't have the owner's phone number or wouldn't provide it to OCSD staff. Since this is not a regulatory mandated program, no enforcement activity is planned; however, extra effort to contact the legal owners of these facilities will be made during the next certification cycle. Two facilities failing to submit the FY 2018/2019 certification, Apple Cleaners - Cert. #079-0395, and Artistic Cleaners - Cert. #517-0702, were found to be closed due to evictions.

9.5 URBAN RUNOFF

OCSD accepts the diversion of urban runoff to the sewer for treatment to remediate various public health and environmental issues which are impractical to control through traditional stormwater BMPs. Urban runoff is

water that is generated by daily activities such as lawn irrigation, hosing down sidewalks, and car washing. As the water flows across the urban landscapes and through the storm drain system, the water becomes contaminated with nutrients, pesticides, heavy metals, toxic chemicals, bacteria, and viruses. Once the contaminated water reaches our creeks, rivers, and shoreline, the pollutants carry the potential to harm wildlife and native vegetation, spoil recreational opportunities, and even cause human illness through contact with recreational waters.

Investigation into the bacterial contamination along the Huntington Beach shoreline in 1999 suggested that, dry weather urban runoff flowing into the ocean from the surrounding watersheds may have caused or contributed to the resulting beach closures. Recognizing that County beaches were being affected by pollution carried by urban runoff, the OCSD Board of Directors adopted a series of resolutions agreeing to accept dry weather urban runoff into the sewer system. Resolution No. 01-07, adopted March 28, 2001, declared that OCSD will initially waive fees and charges associated with authorized discharges of dry weather urban runoff to the sewer system until the total volume of all runoff discharges exceeds 4 million gallons per day (MGD) calculated on a monthly average. In June 2002, Assembly Bill 1892 amended OCSD's charter to formally allow the diversion and management of dry weather urban runoff flows. For the first 12 years of the Urban Runoff Program, the average monthly flow averages remained less than the 4 MGD threshold, thus avoiding user fee costs being assessed to the diversion permittees. In 2012, OCSD received several diversion proposals to deal with bacteria, nitrogen, and selenium loading to the Upper Newport Bay. The discharge from the additional proposed diversions combined with the existing diversion flows would eventually exceed the fee threshold. On June 12, 2013, the Board of Directors adopted Urban Runoff Resolution No. 13-09 which expanded the waiver of fees or charges on the treatment of dry weather urban runoff from 4 MGD to 10 MGD. This latest policy opened the door to additional flows to help remediate other environmental problems, including the excessive loading in the Upper Newport Bay Watershed. The latest resolution's adoption once again demonstrated OCSD's commitment to protecting public health and the environment.

Under Resolution No. 13-09, the cities or agencies are authorized to divert a maximum of 10 MGD for all permitted urban runoff diversions combined. OCSD continues to work closely with Orange County Watersheds, the lead agency that coordinates the cities' efforts in implementing the Water Quality Management Plan required by the County of Orange's NPDES permit. Before a diversion is implemented, the proposed project is presented to OC Watersheds' Technical Advisory Committee. The committee evaluates the proposal, and, if approved, puts the diversion on their Dry Weather Diversion Priority List. This approval step ensures that the program's limited capacity is effectively utilized to improve coastal water quality.

Once OC Watersheds accepts a new diversion proposal, OCSD will initiate an *Agreement for Dry Weather Urban Runoff Discharge* with the responsible entity. The agreement cites the reasons that the discharge is being accepted and details the responsibilities of the entity, or agency, that will be maintaining and operating the diversion. The agreement stipulates that the quality and quantity of the Dry Weather Urban Runoff from the Drainage Area shall meet all terms, conditions, and discharge limits contained in OCSD's Wastewater Discharge Regulations.

In addition to the agreement, the Resource Protection Division administers the Urban Runoff Program through the issuance of a discharge permit for each of the diversion structures. The permit establishes discharge limits, constituent monitoring, and flow metering requirements, as well as provides guidelines that specifically prohibit storm runoff, thus authorizing discharge only during periods of dry weather.

9.5.1 Dry Weather Diversion Systems and Urban Runoff Flow

Currently there are 21 active urban runoff diversion structures, 3 owned and operated by the County of Orange, 11 owned and operated by the City of Huntington Beach, 3 owned and operated by the City of Newport Beach, 3 owned and operated by the Irvine Ranch Water District (IRWD), and 1 owned and operated by PH Finance, who is the present owner of the Pelican Hill Resort.

Table 9.9 shows the range of monthly diversion discharges and the total discharge over the past six years.

July through June	Gallons Discharged (MG)	Monthly Average Flow Range (MGD)
2013 – 2014	386	0.59 to 1.72
2014 – 2015	412	0.71 to 1.49
2015 – 2016	262	0.32 to 1.21
2016 – 2017	369	0.18 to 1.58
2017 – 2018	461	0.29 to 1.90
2018 – 2019	337	0.28 to 1.56

The diversions cumulatively discharged 337 million gallons (MG) of urban runoff, with a normalized discharge of 1.03 MGD, and a monthly flow range between 0.28 and 1.56 MGD. The flow volume trended downward by 124 MG from the previous year, after two years of consecutive increases. A number of items appear to have contributed to this decrease in flow. The temporary cessation of the drought during FY 2018/19 translated to a total of 89 days, over 8 events, when the diversions were deactivated due to wet weather. That is up from a total of 49 days and just 3 events during FY 2017/18. Forty fewer potential discharge days at the normalized flow rate of 1.03 MGD account for 41 MG, a third of the decrease, while another 51 MG appears to be due to operational difficulties at a number of Huntington Beach diversions, including two diversions which were non-operational for the entire year.

Flows for the eleven City of Huntington Beach diversions decreased 51.0 MG from FY 2017/18 totals. Flows for the three active Orange County Public Works (OCPW) diversions, Huntington Beach, Greenville Channel, and Santa Ana River, decreased 20.9 MG from the previous year. The Greenville Channel diverted flow to the Fairview Park wetlands in the City of Costa Mesa for 10 months in FY 2018/19, and ended the year diverting a total of 4.0 MG to OCSD in November and June, a 3.4 MG decrease from FY 2017/18. OCPW's HB Diversion experienced the largest decrease at 16.3 MG despite having a continuous year-round discharge. The flow from the three IRWD diversions, Muddy Canyon, Los Trancos Canyon, and Peters Canyon, decreased 60.6 MG overall, with the Peters Canyon Diversion contributing a majority 46.5 MG to the decrease. Since it is not likely reduced surface flows would coincide with this high rainfall year, the high number of deactivation days appears the most probable cause for the majority of this flow decrease. The flow from the City of Newport Beach diversions increased 8.4 MG over the previous year, with the Big Canyon and Mid Big Canyon Diversions contributing approximately equal volumes, 7.6 and 7.3 MG respectively, to the Newport Beach 15.4 MG flow total. The Pelican Point Diversion flow continues to remain consistent with previous report periods.

Only three of the twenty-one diversions, the Santa Ana River, the Peters Canyon Pipeline, and a portion of the Scenario Diversion flow to Plant 1. Due to the multiple paths that the Scenario flows can take to reach OCSD Plant 1 or Plant 2 simultaneously, it is not possible to accurately determine how much water from this diversion is available for the GWRS. The remaining 18 diversions are located closer to the coast flow to Plant 2 and are not currently available for reclamation. The Santa Ana River and Peters Canyon Pipeline Diversions discharged a total of 120 MG to Plant 1 in FY 2018/19. These two diversions account for 35.7% of the total urban runoff diverted to the OCSD's collection system in FY 2018/19 and contributed an average of 10 MG per month to GWRS.

OCSD expects to receive between 400 and 600 MG this coming year if current discharge trends continue. During the past 20 years, OCSD treated 9.8 billion gallons of dry weather urban runoff that would have otherwise gone into the ocean without treatment. Since OCSD's Urban Runoff Program began, total treatment cost has reached approximately \$10.6 million, based upon applicable industrial user fee rates over this period. OCSD currently waives all fees and charges associated with authorized discharges of Dry Weather Urban Runoff.

Table 9.10 details the current diversion locations, trunkline/tributary destinations, and the average discharge volume of each individual location for this reporting period.

TABLE 9.10 Average Urban Runoff Discharge Volume by Diversion, FY 2018/19 Orange County Sanitation District, Resource Protection Division					
Urban Runoff Diversions		Location	Trunkline	Tributary	Average Discharge* (MGD)¹
No.	Description				
<i>Owned and Managed by City of Huntington Beach</i>					
1	Atlanta Diversion	8151 Atlanta Avenue	Coast (via Atlanta Interceptor)	Plant 2	0.162
2	Banning Diversion	2201 Malibu Lane	Miller-Holder	Plant 2	0.074 ^A
3	Newland Diversion	8612 Hamilton Street	Coast (via Atlanta Interceptor)	Plant 2	0.000 ^B
4	Indianapolis Diversion	9221 Indianapolis	Miller-Holder	Plant 2	0.048
5	Hamilton Diversion	10101 Hamilton Avenue	Miller-Holder	Plant 2	0.000 ^C
6	Meredith Diversion	20192 Mainland Lane	Miller-Holder	Plant 2	0.015 ^D
7	Flounder Diversion	9731 Flounder Drive	Bushard	Plant 2	0.011 ^E
8	Yorktown Diversion	9211 Yorktown Avenue	Miller-Holder	Plant 2	0.005
9	Adams Diversion	19661 Chesapeake Lane	Miller-Holder	Plant 2	0.035 ^F
10	Scenario Diversion	4742 Scenario Drive	Knott	Plant 1 & 2 ⁻	0.022
11	1 st Street CDS	103 Pacific Coast Hwy	Coast	Plant 2	0.008
<i>Owned and Managed by County of Orange</i>					
12	Greenville-Banning Channel	2501 Placentia Avenue	Interplant	Plant 2	0.033 ^G
13	Huntington Beach Channel	8092 Adams Avenue	Coast	Plant 2	0.108
14	Santa Ana River	10844 Ellis Avenue	Sunflower	Plant 1	0.036 ^H
<i>Owned and Managed by Irvine Ranch Water District</i>					
15	Los Trancos Diversion	Pacific Coast Highway (Crystal Cove State Park)	South Coast	Plant 2	0.092
16	Muddy Canyon Diversion	Pacific Coast Highway (El Moro State Park)	South Coast	Plant 2	0.019
17	Peters Canyon Diversion	3001 Main Street	Main Street	Plant 1	0.306
<i>Owned and Managed by City of Newport Beach</i>					
18	Newport Dunes Diversion (Gravity Flow)	1131 Back Bay Drive	South Coast (via Back Bay)	Plant 2	0.003 ^I
19	Big Canyon	15 Rue Verte Lane	South Coast	Plant 2	0.040 ^J
20	Mid Big Canyon	1851 Jamboree Road	South Coast (via Back Bay)	Plant 2	0.040 ^K
<i>Owned and Managed by PH Finance, LLC</i>					
21	Pelican Point Diversion	36 Pelican Point Drive	South Coast	Plant 2	0.007
Sum of the Average Daily Discharges (FY 2018/19)					1.026 / MGD¹

TABLE 9.10 Average Urban Runoff Discharge Volume by Diversion, FY 2018/19 Orange County Sanitation District, Resource Protection Division				
Urban Runoff Diversions	Location	Trunkline	Tributary	Average Discharge* (MGD)[†]
* Individual daily averages calculated using the formula - cumulative flow total for the year / number of discharge days ~ Scenario flows to Plant 1 and Plant 2 simultaneously due to Bushard-Ellis junction box † Million Gallons per Day A. Banning: System off-line Nov, Feb through Jun (six-month average) B. Newland: System off-line for the entire year C. Hamilton: System off-line for the entire year D. Meredith: System off-line Jul, Oct through Dec (eight-month average) E. Flounder: System off-line in Sep (eleven-month average) F. Adams: System off-line Nov through Jun (four-month average) G. Greenville: System off-line Jul, Aug, Dec through May (four-month average) H. Santa Ana: System off-line Dec through Mar (eight-month average) I. Newport Dunes: System off-line in Nov through Apr (six-month average) J. Big Canyon: System off-line Nov through Apr (six-month average) K. Mid Big Canyon: System off-line Nov through Apr (six-month average)				

Table 9.11 summarizes several significant Urban Runoff Program statistics.

TABLE 9.11 Urban Runoff Program, FY 2018/19 Orange County Sanitation District, Resource Protection Division	
Item	Count
New permits generated	21*
Permitted diversions	21
Total average daily discharge	1.03 MGD
Monthly average daily discharge range	0.28 - 1.56 MGD
Proposed diversions	2**
Estimated combined discharge for proposed/pending diversions	2.4 MGD
Maximum combined urban runoff discharge allowance	10 MGD***
* All urban runoff permits generated this reporting period were permit renewals, no new diversion permits issued. ** Reduced from three on previous annual report as the Arches diversion moved from proposed to pending status. *** Resolution No. 13-09 accommodates 10 MGD of urban runoff without cost to permittees.	

9.5.2 Proposed Urban Runoff Diversion Systems

The City of Newport Beach's Arches Diversion project consists of two diversions near the intersection of Newport Boulevard and Pacific Coast Highway. The project has already been vetted with OC Watershed's Technical Advisory Committee and is in the final design stage. For the past year, OCSD's Engineering Planning Division has been working with the City of Newport Beach on the design specifications for the first diversion on Newport Boulevard.

Construction on the Santa Ana-Delhi Channel Diversion in the City of Santa Ana is nearing completion and will likely go on-line within the next fiscal year. OCSD is currently working on the agreement for the Santa

Ana-Delhi Channel dry weather urban runoff diversion discharge to be executed between OCSD and Orange County Flood Control District/Orange County Public Works. The Santa Ana-Delhi Channel Diversion is projected to add an additional 1.4 MGD of flow to OCSD's Plant 1. There are two additional flood control channel diversions in the City of Santa Ana in the proposal stage, the Santa Fe and the Lane which are both proposed to be 0.5 MGD diversions. A recent inquiry about the Lane Channel Diversion suggests this may be the next diversion project pursued.

9.5.3 Dry Weather Urban Runoff Quality

OCSD requires self-monitoring of the urban runoff discharges and also conducts semi-annual sampling and analysis to ensure discharge limit compliance for various regulated constituents.

Overall, the monitoring of the urban runoff discharges shows very consistent compliance with OCSD's Local Limits. The Urban Runoff Program recorded a single Total Sulfide exceedance at the Yorktown Diversion during this reporting period. That monitoring event indicated a Total Sulfide analytical result of 9.45 mg/L, 4.45 mg/L over the Local Discharge Limit of 5.0 mg/L. Although the Dissolved Sulfide at the same monitoring event was also elevated, 0.28 mg/L, it was still below the Local Discharge Limit of 0.5 mg/L. The subsequent monitoring event at that diversion reported a Total Sulfide value of non-detect. The sulfide resample monitoring for the 1st Street Continuous Deflective Separation (CDS) Diversion, pending as of the previous period's close, confirmed the diversion back in compliance with a Total Sulfide result of 4.49 mg/L, and a non-detect value for Dissolved Sulfide. Due to the sporadic but reoccurring sulfide exceedances at the City of Huntington Beach locations, the City has finally proposed a rotating cleaning schedule for the diversion wet wells and CDS chamber to remove the settled debris. The cleaning is expected to also help prevent the more extreme weather events from mobilizing the sediment and transporting it to the receiving waters.

During this report period, a single pesticide constituent, diazinon, with a value of 13 ng/L, just slightly above the detectable limit, was submitted for the OCPW-Huntington Beach Diversion. The detectable value was well within the Local Discharge Limit of 0.01 mg/L. This one result is down from four detected values the previous reporting period. None of the fifty Environmental Protection Agency (EPA) Method 624 grab samples collected for total toxic organics (TTOs) had any detectable constituents. Although OCSD no longer has a local limit for TTOs since the adoption of Ordinance No. OCSD-48 in 2016, the Resource Protection Division continues to monitor for TTOs as a safety measure to screen for pollutants of concern.

A detectable concentration of Oil and Grease of Mineral or Petroleum Origin was found in only one sample out of 41 samples collected, 2.4%. The reported value of 2.31 mg/L was well within the Local Discharge Limit of 100.0 mg/L. Monitoring results for the metal constituents were all well within the Local Discharge Limits.

Table 9.12 summarizes the minimum and maximum concentrations detected in the urban runoff during the reporting period. OCSD's latest Instantaneous Discharge Limits are included for comparison.

**TABLE 9.12 Urban Runoff Compliance, FY 2018/19
Orange County Sanitation District, Resource Protection Division**

Constituent	Minimum Concentration Reported* (mg/l)	Maximum Concentration Reported (mg/L)	Instantaneous Discharge Limit (mg/L)
Ammonia N	ND (<0.05)	2.82	None
BOD	ND (<20)	33	None
TSS	ND (<10)	189**	None
Cadmium	ND (<0.007)	0.06	1.0
Chromium	ND (<0.01)	0.06	20.0
Copper	ND (<0.01)	0.70	3.0
Lead	ND (<0.02)	0.07	2.0
Molybdenum	ND (<0.01)	0.62	2.3
Nickel	ND (<0.01)	0.26	10.0
Selenium	ND (<0.01)	0.52	3.9
Zinc	ND (<0.02)	1.51	10.0
Oil & Grease Min.	ND (<0.7)	2.31	100
Sulfide (Dissolved)	ND (<0.1)	0.28	0.5
Sulfide (Total)	ND (<0.1)	9.45	5.0
Pesticides	ND (<0.00025)	0.000013***	0.01
Total Toxic Organics	ND (<0.01)	No Detectable Values Reported	None
<p>* ND - Non-Detectable (below analytical detection limits). ** Two outliers of 530 and 408 mg/l (not included above) were likely not representative of actual discharges, and likely the result of poor monitoring probe placement or sample collection techniques. *** Detectable analytical value due entirely to Diazinon.</p>			

OCSD's Urban Runoff Program continues its success in helping to maintain the quality of the receiving waters along the Orange County Coastline. For a third year in a row, Orange County's beaches have received very favorable ratings from Heal the Bay's annual report. Overall, Summer Dry and Winter Dry grades were on par with the five-year average, with 97% A or B grades for the Dry Weather periods, and 93% A or B grades for the Wet Weather Dry, matching the 93% for 2016/17. Southern California received a total of 76 inches of rain, 43% higher than the historical average of 53 inches, which probably caused the decrease in Wet Weather Grades overall. The lingering effects of the rain likely had a negative impact on the Winter Dry Grades as well.

OCSD's Urban Runoff Program provides an important economic benefit to the Orange County economy by maintaining the coastline's reputation as a desirable tourist destination. By helping to keep our beaches open, the program continues to provide a significant benefit to the beach-going public.

The role of the Urban Runoff Program expanded with the addition of diversions issued to the Big Canyon permit on February 1, 2015; Peters Canyon on July 1, 2016; and Mid Big Canyon on August 9, 2017. Constructed to reduce selenium-laden waters reaching the Upper Newport Bay, these diversions enhance the estuarine environment for the threatened and endangered species that inhabit the area. Based upon Orange County Watersheds' estimate, diversion of the various Peters Canyon Wash and Big Canyon tributaries will decrease the amount of selenium reaching the bay by 150 to 250 pounds annually. Based upon the flow and monitoring data received for these three diversions, 60.6 pounds of selenium were diverted from the bay during the FY 2018/19 reporting period.

This rerouting of urban runoff from stormwater pump stations, flood control channels, and natural conveyances before it reaches receiving waters, allows OCSD to provide essential regional public health and water quality protection. In this manner, the program is instrumental in providing vital protection to the Areas of Special Biological Significance along Orange County's coastline.

9.5.4 Urban Runoff Diversion Locations

The diversion systems are located in four different watersheds in Orange County: Anaheim Bay-Huntington Harbor, Lower Santa Ana River, Newport Bay, and Newport Coastal. These watersheds encompass a variety of designated land uses such as residential, commercial, industrial, and agriculture.

9.6 DENTAL AMALGAM

On June 14, 2017, the EPA published technology-based Pretreatment Standards under the Clean Water Act to reduce discharges of mercury from dental offices into municipal sewage treatment plants known as Publicly Owned Treatment Works. The new Dental Office Point Source Category requires dental offices to utilize amalgam separators and implement two BMPs. The Dental Office Point Source Category became effective on July 14, 2017.

New dental facilities opened on or after July 14, 2017, designated Pretreatment Standards New Sources (PSNS), must immediately comply with pretreatment standards, including the installation of amalgam separators. A One-Time Compliance Report must be submitted to OCSD no later than 90 days following the introduction of wastewater to OCSD. Although PSNS does not include the purchase of an existing dental facility, those facilities changing ownership must also submit their report no later than 90 days following the transfer. Existing facilities designated as Pretreatment Standards Existing Sources that started before July 14, 2017 without amalgam separators on June 14, 2017, must install amalgam separators by July 14, 2020 and submit their One-Time Compliance Reports by October 12, 2020. Existing dental facilities with amalgam separators on June 14, 2017 must replace those separators by June 14, 2027 or whenever the amalgam separator needs to be replaced, whichever is earlier.

To conform to this federal Pretreatment Program requirement, OCSD implemented a Dental Amalgam Source Control Program to enable the dental offices to comply with this new regulation. OCSD developed and posted Dental Office Point Source Category information on the OCSD website (www.ocsd.com) complete with links to the EPA's development document, effluent guidelines, fact sheet, and the applicable Dental Category regulation. This information was present on the website as of August 2017. Two compliance reports forms were developed for the dental facilities: a comprehensive form for facilities that place or remove amalgam, and a second exempt/limited form for facilities that only remove amalgam on a limited or emergency basis. The forms were first made available in September 2017.

As required by the regulation, OCSD implemented procedures for receiving, reviewing, and retaining dental office Compliance Reports. OCSD conducted its first mass mailing to 922 dental offices in OCSD's service area in January 2018, and as of the end of this reporting period, has received and processed 195 reports. OCSD is currently assisting the dental offices with their report submittal and expects this activity to continue until the required amalgam separator installation and report submittal deadlines are reached, July 14, 2020 and October 12, 2020 respectively. OCSD plans to continue reaching out to the dental community and assisting the dental offices with the new regulation during this critical compliance period.

9.7 PUBLIC EDUCATION AND OUTREACH

Resource Protection Division staff routinely works with its Member Agencies, attends outside agency/association meetings, conferences, and workshops; serves on committees; and gives presentations. Working with Member Agencies and outside agencies and associations benefits OCSD by keeping abreast of potential future regulation and trends which may be beneficial or have impacts that OCSD must prepare for, as well as providing information to the public about OCSD's programs. Listed below are public outreach activities for FY 2018/19.

9.7.1 Industrial Environmental Coalition of Orange County

On January 24, 2019, a Pretreatment Program staff member presented an OCSD Regulatory

Update at the Industrial Environmental Coalition of Orange County (IEC/OC) Annual Regulatory Update meeting. The IEC/OC provides a forum for communication between industry and government on environmental health and safety issues. The Pretreatment Program staff member informed about 75 members about OCSD's NPDES Permit renewal and Dental Amalgam Program, Poly- and Perfluoroalkyl Substances (PFAS) issues, pending Nutrient Regulation, Constituents of Emerging Concern, infrastructure financing, and EPA's strategic initiatives.

appendices

Monitoring and Compliance Status Report
Summary of Priority Pollutants and Trace Constituents Analyses
Priority Pollutants
Fees/Penalties for Non-Compliances
Public Notice of Significantly Non-Compliant Industries
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Santa Ana Watershed Project Authority (SAWPA) Reports, Data, SNC Notice
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appendix a

**MONITORING AND COMPLIANCE
STATUS REPORT**

Orange County Sanitation District (OCSD) - Resource Protection Division
 Fiscal Year 2018-2019 List of SIUs with Monitoring & Compliance Status



Facility	Permit No.	Address	NAICS Code	Regulation	No. of Inspections	Agency Samples	SMR Samples	Pollutant(s) in Discharge Violation	SNC Status	Comment
9W Halo Western opCo, L.P.	1-600378	1575 N.Case St, Orange, CA 92867	812332	403.5(d)	4	18	3			
A & G Electropolish	1-531422	18330 Ward St, Fountain Valley, CA 92708	332813	433.17(a)	4	16	7			
A & K Deburring and Tumbling, Inc.	1-511362	2008 S.Yale St, H Unit, Santa Ana, CA 92704	332812	403.5(d)	4	21	4			
A & R Powder Coating, Inc.	1-021088	1198 N.Grove St, B Unit, Anaheim, CA 92806	332812	433.17(a)	4	18	7	Molybdenum		
Access Business Group, LLC	1-531435	5600 Beach Blvd, Buena Park, CA 90621	325412	439.47	4	11	10			
Accurate Circuit Engineering	1-011138	3019 Kilson Dr, Santa Ana, CA 92707	334412	433.17(a)	6	24	8	Silver		
Active Plating, Inc.	1-011115	1411 E.Pomona St, Santa Ana, CA 92705	332813	433.17(a)	5	37	29	Zinc	Published as Significantly Non-Compliant (SNC) for Reporting Violation(s)	
Advance Tech Plating, Inc.	1-021389	1061 N.Grove St, Anaheim, CA 92806	332813	433.17(a)	6	43	7	Zinc		
Air Industries Company, A PCC Company (Chapman)	1-031013	7100 Chapman Ave, Garden Grove, CA 92841	332722	403.5(d)	4	6	6			
Air Industries Company, A PCC Company (Knott)	1-531404	12570 Knott St, Garden Grove, CA 92841	332722	433.15(a), 471.64(a), 471.65(a)	4	41	64			
Alex C. Fergusson	1-031186	8371 Monroe Ave, Stanton, CA 90680	325611	417.166, 417.176, 417.36	4	23	4			
Alexander Oil Company	1-581185	19065 Stewart St, Huntington Beach, CA 92648	211111	403.5(d)	4	23	4			
All Metals Processing of O.C., Inc.	1-031110	8401 Standustrial St, Stanton, CA 90680	332813	433.17(a)	4	34	28			
Alliance Medical Products, Inc.	1-541182	9342 Jeronimo Rd, Irvine, CA 92618	325412	439.47	4	15	10			
Allied Electronics Services, Inc.	1-011073	1342 E.Borchard Unk, Santa Ana, CA 92705	334412	433.17(a)	4	31	8			

Orange County Sanitation District (OCSD) - Resource Protection Division
 Fiscal Year 2018-2019 List of SIUs with Monitoring & Compliance Status



Facility	Permit No.	Address	NAICS Code	Regulation	No. of Inspections	Agency Samples	SMR Samples	Pollutant(s) in Discharge Violation	SNC Status	Comment
Alloy Die Casting Co.	1-531437	6550 Caballero Blvd, Buena Park, CA 90620	331523	464.15(a), 464.15(b), 464.15(c), 464.15(h), 464.45(a), 464.45(b), 464.45(d)	4	24	16			
Alloy Tech Electropolishing, Inc.	1-011036	2220 S.Huron Dr, Santa Ana, CA 92704	332812	433.17(a)	5	20	14	Molybdenum		
Alsco, Inc.	1-021656	1755 S.Anahem Blvd, Anaheim, CA 92802	812331	403.5(d)	4	23	16			
Aluminum Forge - Div. of Alum. Precision	1-071035	502 E.Alton Ave, Santa Ana, CA 92707	332112	467.46	3	15	22			
Aluminum Precision Products, Inc. (Central)	1-011038	3132 W.Central Unk, Santa Ana, CA 92704	332112	467.45	4	15	10			
Aluminum Precision Products, Inc. (Susan)	1-011100	2621 S.Susan St, Santa Ana, CA 92704	332112	467.45, 467.46	4	20	16			
Aluminum Precision Products, Inc. (Warner)	1-511387	3323 W.Warner Ave, Santa Ana, CA 92704	332112	467.46	4	15	10			
American Circuit Technology, Inc.	1-021249	5330 E.Hunter Ave, Anaheim, CA 92807	334412	433.17(a)	3	20	8			
Amerimax Building Products, Inc.	1-021102	1411 N.Daly St, Anaheim, CA 92806	332812	465.35	4	14	8			
Ameripecc, Inc.	1-031057	6965 Aragon Cir, Buena Park, CA 90620	312111	403.5(d)	4	20	2			
Anaheim Extrusion Co., Inc.	1-021168	1330 & 1340 N.Kraemer Blvd, Anaheim, CA 92806	331318	467.35(c)	4	16	7			
Anchen Pharmaceuticals, Inc. (Fairbanks)	1-541180	72 Fairbanks Unk, Irvine, CA 92618	325412	439.47	4	13	9			
Anchen Pharmaceuticals, Inc. (Goodyear)	1-600359	5 Goodyear Unk, Irvine, CA 92618	325412	439.47	4	12	10	acetone		
Anchen Pharmaceuticals, Inc. (Jeronimo)	1-541179	9601 Jeronimo Rd, Irvine, CA 92618	325412	439.47	4	13	13			
Andres Technical Plating	1-521798	1055 Ortega Way, C Unit, Placentia, CA 92870	332813	433.17(a)	4	13	22			
AnoChem Coatings	1-600295	1102 East Washington Ave, Santa Ana, CA 92701	332813	433.17(a)	4	31	13			
Anodyne, Inc.	1-511389	2230 S.Susan St, Santa Ana, CA 92704	332813	433.17(a)	4	26	73			

Orange County Sanitation District (OCSD) - Resource Protection Division
 Fiscal Year 2018-2019 List of SIUs with Monitoring & Compliance Status



Facility	Permit No.	Address	NAICS Code	Regulation	No. of Inspections	Agency Samples	SMR Samples	Pollutant(s) in Discharge Violation	SNC Status	Comment
Anomil Ent. Dba Danco Metal Surfacing	1-011155	401 Rowland Unk, Santa Ana, CA 92707	332813	433.17(a)	4	31	20			
APCT Orange County	1-600503	1900 Petra Ln, C Unit, Placentia, CA 92870	334412	433.17(a)	6	40	68	Copper		
Arconic Global Fasteners & Rings, Inc.	1-021081	800 S.State College Blvd, Fullerton, CA 92831	332722	433.15(a), 433.17(a), 467.46, 471.65(i), 471.65(j), 471.65(m), 471.65(n), 471.65(o), 471.65(p), 471.65(q), 471.65(r), 471.65(s), 471.65(w), 471.65(x)	5	66	32	Cadmium, Molybdenum	Published as Significantly Non-Compliant (SNC) for Discharge Violation(s)	
ARO Service	1-021192	1186 N.Grove St, Anaheim, CA 92806	336411	433.17(a)	5	16	7			
Arrowhead Products Corporation	1-031137	4411 Katella Ave, Los Alamitos, CA 90720	336413	433.17(a)	4	28	19			
Aseptic Technology LLC	1-600716	4940 E.Landon Dr, Anaheim, CA 92807	31193	403.5(d)	2	6	3			New Class 1 Permit Issued
Aseptic Technology, LLC	1-501002	24855 Corbit Pl, Yorba Linda, CA 92887	31193	403.5(d)	3	14	11			Class 1 Permit Deactivated
Astech Engineered Products, Inc.	1-571295	3030 Red Hill Ave, Santa Ana, CA 92705	336412	433.17(a)	4	26	20			
Auto-Chlor System of Washington, Inc.	1-511384	530 Goetz Ave, Santa Ana, CA 92707	325611	417.166	4	20	10			
Aviation Equipment Processing	1-071037	1571 MacArthur Blvd, Costa Mesa, CA 92626	336413	433.17(a)	4	18	8			
Avid Bioservices, Inc.	1-571332	14191 Myford Rd, Tustin, CA 92780	325414	439.17, 439.27	4	12	4			
B. Braun Medical, Inc. (East/Main)	1-071054	2525 Mcgaw Ave, Irvine, CA 92614	325412	439.47, 463.26, 463.36	4	22	5			
B. Braun Medical, Inc. (North/Alton)	1-600382	2206 Alton Pkwy, Irvine, CA 92614	325412	439.47	4	17	5			
B. Braun Medical, Inc. (West/Lake)	1-541183	2525 Mcgaw Ave, Irvine, CA 92614	325412	439.47, 463.16, 463.26, 463.36	5	21	5			
Basic Electronics, Inc.	1-031094	11371 Monarch St, Garden Grove, CA 92841	334412	433.17(a)	4	18	11			
Bazz Houston Co.	1-031010	12700 Western Ave, Garden Grove, CA 92841	33211	403.5(d)	4	26	13	O&G min.		

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Beckman Coulter, Inc.	1-521824	200 S.Kraemer Blvd, Brea, CA 92821	334516	433.17(a)	4	16	8			
Beo-Mag Plating	1-511370	3313 W.Harvard St, Santa Ana, CA 92704	332813	433.17(a)	4	17	29	CN		
Bimbo Bakeries Usa, Inc.	1-521838	500 S.Placentia Ave, Placentia, CA 92870	311812	403.5(d)	4	22	4			
Black Oxide Industries, Inc.	1-021213	1735 N.Orangethorpe Park, Anaheim, CA 92801	332812	433.17(a)	4	16	7			
Blue Lake Energy	1-521785	5837 Casson Dr, Yorba Linda, CA 92886	211111	403.5(d)	4	17	4			
Bodycote Thermal Processing	1-031120	7474 Garden Grove Blvd, Westminster, CA 92683	332811	403.5(d)	5	29	4			
Boeing Company (Graham)	1-111018	15400 Graham St, Huntington Beach, CA 92649	33641	433.17(a)	4	21	8			
Brasstech, Inc	1-600316	1301 E.Wilshire Ave, Santa Ana, CA 92705	332813	433.17(a)	3	11	11			New Class 1 Permit Issued
Brasstech, Inc.	1-511368	3230 S.Standard Ave, Santa Ana, CA 92705	332813	433.17(a)	1	5	4			Class 1 Permit Deactivated
Brea Power II, LLC	1-521837	1935 Valencia Ave, Brea, CA 92823	221112	403.5(d)	4	23	5			
Bridge Energy, LLC	1-600398	2744 Valencia Ave, Brea, CA 92821	211111	403.5(d)	4	19	6			
Bridgemark Corporation	1-521844	2930 E.Frontera St, A Unit, Anaheim, CA 92806	211111	403.5(d)	3	14	4			
Brindle/Thomas - Bradley	1-531428	221 1st St, Huntington Beach, CA 92648	211111	403.5(d)	3	29	4			
Brindle/Thomas - Brooks & Kohlbush	1-531429	18462 Edwards St, Huntington Beach, CA 92648	211111	403.5(d)	4	29	4			
Brindle/Thomas - Catalina & Copeland	1-531430	18851 Stewart Ln, Huntington Beach, CA 92648	211111	403.5(d)	3	29	4			
Brindle/Thomas-Dabney & Patton	1-531427	19192 Stewart Ln, Huntington Beach, CA 92648	211111	403.5(d)	3	29	4			

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Bristol Industries	1-021226	630 E.Lambert Rd, Brea, CA 92821	332722	433.17(a), 467.36(c), 471.35(dd), 471.35(ee), 471.35(ff), 471.35(i), 471.35(r), 471.35(s), 471.35(t), 471.35(u), 471.35(v)	6	59	25	Cadmium, CN, CN amen., Silver	Published as Significantly Non-Compliant (SNC) for Discharge Violation(s)	
Broncs, Inc., dba WesCoast Textiles, Inc.	1-600519	12641 Industry St, Garden Grove, CA 92841	313310	403.5(d)	4	0	0			
Brothers International Desserts (North)	1-600583	1682 Kettering St, Irvine, CA 92614	311520	403.5(d)	3	14	3			New Class 1 Permit Issued
Brothers International Desserts (West)	1-600582	1682 Kettering St, Irvine, CA 92614	311520	403.5(d)	3	14	3			New Class 1 Permit Issued
Burlington Engineering, Inc.	1-521770	220 W.Grove Ave, Orange, CA 92865	332811	433.17(a)	4	14	6			
Cadillac Plating, Inc.	1-021062	1147 W.Struck Ave, Orange, CA 92867	332813	433.17(a)	7	28	58	Nickel, Zinc		
Cal-Aurum Industries, Inc.	1-111089	15632 Container Ln, Huntington Beach, CA 92649	332813	433.17(a)	4	38	31	Cadmium		
California Gasket and Rubber Corporation	1-521832	533 W.Collins Ave, Orange, CA 92867	339991	428.66(a)	4	13	4			
Cargill, Inc.	1-031060	600 N.Gilbert St, Fullerton, CA 92833	311225	403.5(d)	4	15	12			
Catalina Cylinders, A Div. of APP	1-031021	7300 Anaconda Ave, Garden Grove, CA 92841	331318	467.46	4	19	10	O&G min.	Published as Significantly Non-Compliant (SNC) for Discharge Violation(s)	
CD Video, Inc.	1-511076	12650 Westminster Ave, Garden Grove, CA 92706	334613	433.17(a)	4	18	8			
Central Powder Coating	1-021189	593 Explorer St, Brea, CA 92821	332812	433.17(a)	6	29	8	Molybdenum		
Ceradyne, Inc., a 3M Company	1-600691	17466 Daimler St, Irvine, CA 92614	339114	403.5(d)	1	7	0			New Class 1 Permit Issued
Chromadora, Inc.	1-511414	2515 S.Birch St, Santa Ana, CA 92707	332813	433.17(a)	4	17	20			

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Circuit Technology, Inc.	1-521821	1911 N.Main St, Orange, CA 92865	334112	433.17(a)	3	18	7			
Cirtech, Inc.	1-021133	250 E.Emerson Ave, Orange, CA 92865	334112	433.17(a)	2	15	16			Class 1 Permit Deactivated
Cirtech, Inc.	1-600689	250 E.Emerson Ave, Orange, CA 92865	334112	433.17(a)	2	14	8			New Class 1 Permit Issued
City of Anaheim - Public Utilities Dept	1-021073	6751 E.Walnut Canyon Rd, Anaheim, CA 92807	221310	403.5(d)	4	4	22			
City Of Anaheim - Public Utilities Dept.	1-521862	1144 N.Kraemer Blvd, Anaheim, CA 92806	221112	403.5(d)	4	7	1			
City of Anaheim Public Utilities (Water Services WRDF)	1-521843	210 S.Anaheim Blvd, Anaheim, CA 92805	221320	403.5(d)	4	6	0			
City of Anaheim, Canyon Power Plant	1-600296	3071 E.Miraloma Ave, Anaheim, CA 92806	221112	403.5(d)	4	17	2			
City of Huntington Beach Fire Department	1-111015	19081 Huntington St, Huntington Beach, CA 92648	211111	403.5(d)	4	21	6			
City of Newport Beach	1-600584	5810 West Coast Hwy, Newport Beach, CA 92660	211111	403.5(d)	3	0	2			New Class 1 Permit Issued
City of Tustin - Maintenance Yard	1-071058	1472 Service Rd, Tustin, CA 92780	921190	403.5(d)	4	22	5			
City of Tustin Water Service (17Th St.)	1-071013	18602 E.17th St, Tustin, CA 92705	221310	403.5(d)	2	10	1			
City of Tustin, Water Service (Main St)	1-071268	235 E.Main St, Tustin, CA 92780	221310	403.5(d)	0	0	0			
CJ Foods Manufacturing Corp.	1-521849	500 State College Blvd, Fullerton, CA 92831	311824	403.5(d)	4	18	12			
Coast to Coast Circuits, Inc.	1-111129	5332 Commercial St, Huntington Beach, CA 92649	334412	433.17(a)	4	27	19			
Coastline Metal Finishing	1-531436	7061 Patterson Dr, Garden Grove, CA 92841	332813	433.17(a)	3	18	12			Class 1 Permit Deactivated

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Coastline Metal Finishing Corp., A Division of Valence Surface Technologies	1-600708	7061 Patterson Dr, Garden Grove, CA 92841	332813	433.17(a)	1	5	3		Published as Significantly Non-Compliant (SNC) for Reporting Violation(s)	New Class 1 Permit Issued
Coca-Cola Company -Anaheim Water Plant	1-021392	2121 E.Winston Rd, Anaheim, CA 92806	312112	403.5(d)	2	8	2			
Columbine Associates	1-521784	4660 San Antonio Rd, E. on B St Dir, Yorba Linda, CA 92886	211111	403.5(d)	4	13	4			
Continuous Coating Corporation	1-021290	520 W.Grove Ave, Orange, CA 92865	332812	433.17(a), 465.15	7	31	20			
Cooper and Brain, Inc.	1-031070	1390 Site Dr, Brea, CA 92821	211111	403.5(d)	4	19	11	O&G min.		
Corru-Kraft Buena Park	1-600806	6200 Caballero Blvd, Buena Park, CA 90620	322211	403.5(d)	1	14	12			New Class 1 Permit Issued
CP-Carrillo, Inc. (McGaw)	1-571316	1902 McGaw Ave, Irvine, CA 92614	336310	403.5(d)	4	18	7			
Crest Coating, Inc.	1-021289	1361 S.Allec St, Anaheim, CA 92805	332812	433.17(a)	4	21	7			
CRH California Water, Inc.	1-011051	502 S.Lyon St, Santa Ana, CA 92701	561990	403.5(d)	2	9	4			
Custom Enamellers, Inc.	1-021297	18340 Mount Baldy Cir, Fountain Valley, CA 92708	332812	433.17(a)	4	24	8			
D.F. Stauffer Biscuit Co., Inc.	1-600414	4041 W.Garry Ave, Santa Ana, CA 92704	311821	403.5(d)	5	17	4			
Dae Shin USA, Inc.	1-031102	610 N.Gilbert St, Fullerton, CA 92833	313310	403.5(d)	4	22	1			
DAH Oil, LLC	1-581173	18962 Stewart Ln, Huntington Beach, CA 92648	211111	403.5(d)	2	13	4			
Darling International, Inc.	1-511378	2624 Hickory St, Santa Ana, CA 92707	562219	403.5(d)	4	23	9			
Data Aire, Inc. #2	1-021379	230 W.Blueridge Ave, Orange, CA 92865	332322	433.17(a)	4	21	8			
Data Electronic Services, Inc.	1-011142	410 Nantucket Pl, Santa Ana, CA 92703	334412	433.17(a)	4	23	8			

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Data Solder, Inc.	1-521761	2915 Kilson Dr, Santa Ana, CA 92707	334412	433.17(a)	4	16	8			
Dayton Flavors, LLC	1-600038	580 S.Melrose Unk, Placentia, CA 92870	311930	403.5(d)	4	12	4			
DCOR, LLC	1-111013	4541 Heil Ave, Huntington Beach, CA 92649	211111	403.5(d)	4	21	8			
Diamond Environmental Services, LP	1-600244	1801 Via Burton None, B Unit, Fullerton, CA 92832	532490	403.5(d)	4	19	6			
Dr. Smoothie Enterprises - DBA Revolution Group	1-600131	1730 Raymer Ave, Fullerton, CA 92833	311930	403.5(d)	4	21	4			
DRS Network & Imaging Systems, LLC	1-531405	10600 Valley View St, Cypress, CA 90630	334413	469.18(a)	4	15	10			Formerly listed as DRS Sensors & Targeting Systems, Inc.
DS Services of America	1-021393	1522 N.Newhope St, Santa Ana, CA 92703	312112	403.5(d)	3	17	4			
Ducommun Aerostructures, Inc.	1-021105	1885 N.Batavia St, Orange, CA 92865	336413	433.17(a)	4	26	28			
Dunham Metal Processing	1-021325	936 N.Parker St, Orange, CA 92867	332813	433.17(a)	5	36	8	Copper, Nickel		
E&B Natural Resources-Angus Petroleum Corporation	1-600254	1901 California St, Huntington Beach, CA 92648	211111	403.5(d)	4	26	7			
EFT Fast Quality Service, Inc.	1-011064	2328 S.Susan St, Santa Ana, CA 92704	334112	433.17(a)	4	16	8			
Electro Metal Finishing Corporation	1-021158	1194 N.Grove St, Anaheim, CA 92806	332812	433.17(a)	5	17	5	Molybdenum		
Electrolurgy, Inc.	1-071162	1121 Duryea Ave, Irvine, CA 92614	332813	433.17(a)	4	23	67			
Electron Plating Inc.	1-021336	13932 Enterprise Dr, Garden Grove, CA 92843	332813	433.17(a)	4	33	20			Formerly listed as Electron Plating III, Inc.
Electronic Precision Specialties, Inc.	1-021337	537 Mercury Ln, Brea, CA 92821	332813	433.17(a)	4	25	20			
Embee Processing (Anodize)	1-600456	2148 S.Hathaway St, Santa Ana, CA 92705	332813	413.14(c), 413.54(c), 413.64(c), 433.17(a)	4	30	24			
Embee Processing (Plate)	1-600457	2144 S.Hathaway St, Santa Ana, CA 92705	332813	413.14(c), 413.54(c), 413.64(c), 413.74(c), 433.17(a)	4	30	24			

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Excello Circuits Manufacturing Corp.	1-521855	1924 Nancita Cir, Placentia, CA 92870	334412	433.17(a)	5	41	56	Copper		
Expo Dyeing and Finishing, Inc.	1-031322	1365 Knollwood Cir, Anaheim, CA 92801	313310	403.5(d)	4	17	1			
Fabrica International, Inc.	1-011278	3201 S.Susan St, Santa Ana, CA 92704	314110	428.46	4	21	2			
Fabrication Concepts Corporation	1-011068	1800 E.Saint Andrew Pl, Santa Ana, CA 92705	332114	433.17(a)	5	31	8			
Fineline Circuits & Technology, Inc.	1-021121	594 Apollo St, Brea, CA 92821	334412	433.17(a)	4	25	8			
FMH Aerospace Corp DBA FMH Corporation	1-571331	17072 Daimler St, Irvine, CA 92614	332912	433.17(a)	1	10	7	Silver		Class 1 Permit Deactivated
FMH Aerospace Corp.	1-600585	17072 Daimler St, Irvine, CA 92614	332912	433.17(a)	3	18	62			New Class 1 Permit Issued
Gaffoglio Family Metalcrafters	1-600443	11161 Slater Ave, Fountain Valley, CA 92708	336111	426.66	4	14	2			
Gallade Chemical, Inc.	1-011257	1230 E.Saint Gertrude Pl, Santa Ana, CA 92707	422690	403.5(d)	4	22	4			
Gemini Industries, Inc.	1-071172	2311 Pullman St, Santa Ana, CA 92705	331492	415.24, 421.265(a)	5	35	19			
General Container Corporation	1-031042	5450 Dodds Ave, Buena Park, CA 90621	322211	403.5(d)	4	13	7			
GKN Aerospace Transparency Systems	1-531401	12122 Western Ave, Garden Grove, CA 92841	336413	403.5(d)	4	20	8			
Gomtech Electronics, Inc.	1-021352	990 N.Enterprise St, M Unit, Orange, CA 92867	334412	433.17(a)	4	29	8			
Goodwin Company	1-031043	12361 Monarch St, Garden Grove, CA 92841	325611	403.5(d)	4	28	17	O&G min.		
Graphic Packaging International, Inc.	1-571314	1600 Barranca Pkwy, Irvine, CA 92606	322212	403.5(d)	4	11	4			
Green Clean Water & Waste Services	1-521857	1227 S.Claudina St, Anaheim, CA 92805	562219	437.47(b)	0	0	2			Class 1 Permit Deactivated

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Hanson-Loran Co., Inc.	1-031107	6700 Caballero Blvd, Buena Park, CA 90620	325612	417.166, 417.176	6	42	8			
Harbor Truck Bodies, Inc.	1-021286	255 Voyager Ave, Brea, CA 92821	336370	433.17(a)	4	26	21			
Harry's Dye & Wash, Inc.	1-521746	1015 E.Orangethorpe Ave, Anaheim, CA 92801	313310	403.5(d)	4	19	12			
Hartwell Corporation	1-021381	900 Richfield Rd, Placentia, CA 92870	332999	403.5(d)	4	23	2		Published as Significantly Non- Compliant (SNC) for Reporting Violation(s)	
Hellman Properties, LLC	1-600273	1650 Adolfo Lopez Dr, Seal Beach, CA 90740	211111	403.5(d)	3	17	3			New Class 1 Permit Issued
Hi Tech Solder	1-521790	700 Monroe Way, Placentia, CA 92870	334412	433.17(a)	4	23	8			
Hightower Plating & Manufacturing Co.	1-021185	2090 N.Glassell Unk, Orange, CA 92865	332813	433.17(a)	4	32	19	Cadmium		
Hixson Metal Finishing	1-061115	829 Production Pl, Newport Beach, CA 92663	332813	413.14(c), 413.14(g), 413.24(c), 413.24(g), 413.44(c), 413.44(g), 413.54(c), 413.54(g), 413.64(c), 413.64(g), 433.17(a)	6	35	81	Cadmium, Chromium, Silver		
House Foods America Corporation	1-031072	7351 Orangewood Ave, Garden Grove, CA 92841	311224	403.5(d)	3	20	2			
Ideal Anodizing, Inc.	1-021041	1250 & 1270 N.Blue Gum St, Anaheim, CA 92806	332813	433.17(a)	4	24	7			
Ikon Powder Coating, Inc.	1-521756	1375 N.Miller St, Anaheim, CA 92806	332812	433.17(a)	4	13	7			
Image Technology, Inc.	1-521755	1380 N.Knollwood Cir, Anaheim, CA 92801	325611	417.86	4	9	3			
Imperial Plating	1-031106	2007 Raymer Ave, N Ste, Fullerton, CA 92833	332813	433.17(a)	4	28	62			

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Imuraya USA, Inc.	1-541178	2502 Barranca Pkwy, Irvine, CA 92606	311520	403.5(d)	4	19	4			
Independent Forge Company	1-021401	692 N.Batavia St, Orange, CA 92868	332112	467.45	5	14	7	Zinc	Published as Significantly Non-Compliant (SNC) for Discharge Violation(s)	
Industrial Metal Finishing, Inc.	1-521828	1941 Petra Ln, Placentia, CA 92870	332813	403.5(d)	4	16	8			
Intec Products, Inc.	1-021399	1145 N.Grove St, Anaheim, CA 92806	314999	403.5(d)	4	23	4			
Integral Aerospace, LLC	1-600243	2036 E.Dyer Rd, Santa Ana, CA 92705	336413	433.17(a)	4	20	20			
International Paper Company (Anaheim)	1-521820	601 E.Ball Rd, Anaheim, CA 92805	322211	403.5(d)	4	26	4			
International Paper Company (Buena Park Bag)	1-531419	6485 Descanso Ave, Buena Park, CA 90620	322224	403.5(d)	3	20	7			
International Paper Company (Buena Park Container)	1-031171	6211 Descanso Ave, Buena Park, CA 90620	322211	403.5(d)	4	10	3			
Irvine Ranch Water District (Wells 21/22 Desalter)	1-571327	1221 Edinger Ave, Tustin, CA 92780	221310	403.5(d)	2	13	2			
Irvine Ranch Water District - DATS	1-011075	1704 W.Segerstrom Ave, Santa Ana, CA 92704	221310	403.5(d)	4	20	6			
Irvine Sensors Corporation	1-571328	3001 Red Hill Ave, 3108 Unit, Costa Mesa, CA 92626	541712	469.18(a)	2	13	2			Class 1 Permit Deactivated
J & R Metal Finishing Co.	1-521823	307 N.Euclid Way, H1 Bldg, Anaheim, CA 92801	332812	403.5(d)	4	20	6			
J&J Marine Aquisitions, LLC	1-551152	151 Shipyard Way, 7 Unit, Newport Beach, CA 92663	336611	403.5(d)	4	15	6	Copper		
Jazz Semiconductor	1-571292	4311 Jamboree Rd, Newport Beach, CA 92660	334413	469.18(a)	4	24	2			

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JD Processing, Inc.	1-511407	2220 Cape Cod Way, Santa Ana, CA 92703	332813	433.17(a)	4	26	18		Published as Significantly Non-Compliant (SNC) for Reporting Violation(s)	
Jelco Container, Inc.	1-021402	1151 N.Tustin Ave, Anaheim, CA 92807	322212	403.5(d)	4	18	6			
John A. Thomas- Bolsa Oil	1-031065	18701 Edwards St, Huntington Beach, CA 92648	211111	403.5(d)	4	33	8			
Joint Forces Training Base, Los Alamitos	1-031270	Orangewood Gate, Northwest Corner of the Base, Los Alamitos, CA, 90720	928110	403.5(d)	4	30	1			
Kenlen Specialities, Inc.	1-021171	11691 Coley River Cir, Fountain Valley, CA 92708	332812	433.17(a)	5	21	8	Molybdenum, Zinc	Published as Significantly Non-Compliant (SNC) for Discharge Violation(s)	
Kimberly Clark Worldwide Inc., Fullerton Mill	1-021425	2001 E.Orangethorpe Unk, Fullerton, CA 92831	322121	430.127	4	19	2			
Kinsbursky Brothers Supply, Inc.	1-021424	1314 N.Anahaim Blvd, Anaheim, CA 92801	423930	403.5(d)	4	21	5			
Kirkhill TA Company (North)	1-021426	300 E.Cypress St, Brea, CA 92821	339991	428.76(a)	1	5	2			Class 1 Permit Deactivated
Kirkhill TA Company (South)	1-021052	300 E.Cypress St, Brea, CA 92821	339991	428.76(a)	1	5	2			Class 1 Permit Deactivated
Kirkhill, Inc. (North)	1-600608	300 E.Cypress St, Brea, CA 92821	339991	428.76(a)	3	19	6			New Class 1 Permit Issued
Kirkhill, Inc. (South)	1-600609	300 E.Cypress St, Brea, CA 92821	339991	428.76(a)	3	19	6			New Class 1 Permit Issued

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Kraft Heinz Company	1-071056	2450 White Rd, Irvine, CA 92614	311941	403.5(d)	5	20	3		Published as Significantly Non-Compliant (SNC) for Reporting Violation(s)	
Kryler Corporation	1-021428	1217 E.Ash Ave, Fullerton, CA 92831	332813	413.14(b), 413.14(f), 433.17(a)	4	31	7			
Kyocera Precision Tools, Inc.	1-511385	3565 Cadillac Ave, Costa Mesa, CA 92626	333515	403.5(d)	4	17	4			
La Habra Bakery	1-031029	850 S.Cypress St, La Habra, CA 90631	311812	403.5(d)	4	19	12			
Legendary Baking of California, LLC	1-600294	3102 W.Adams St, Santa Ana, CA 92704	311812	403.5(d)	3	11	2			Class 1 Permit Deactivated
Lightning Diversion Systems LLC	1-600338	16572 Burke Ln, Huntington Beach, CA 92647	334412	433.17(a)	4	15	8			
Linco Industries, Inc.	1-021253	528 S.Central Park Ave, West Dir, Anaheim, CA 92802	332812	403.5(d)	5	28	12	O&G min.		
LM Chrome Corporation	1-511361	654 Young St, Santa Ana, CA 92705	332813	433.17(a)	4	31	29			
Logi Graphics, Inc.	1-031049	17592 Metzler Ln, Huntington Beach, CA 92647	334412	433.17(a)	4	28	4			
LSW Enterprises, LLC	1-521863	1215 N.Grove St, Anaheim, CA 92806	562219	403.5(d)	1	0	0			Class 1 Permit Deactivated
M.S. Bellows	1-111007	5322 Mcfadden Ave, Huntington Beach, CA 92649	332813	433.17(a)	4	19	8			
Magnetic Metals Corporation	1-531391	2475 W.La Palma Ave, Anaheim, CA 92801	335311	433.17(a)	5	22	8			
Manufactured Packaging Products	1-521793	3200 Enterprise St, Brea, CA 92821	322211	403.5(d)	4	16	2			
Manufactured Packaging Products (MPP Fullerton)	1-021681	1901 E.Rossllyn Ave, Fullerton, CA 92831	322211	403.5(d)	3	20	4			
Markland Manufacturing, Inc.	1-011046	1111 E.Mcfadden Ave, Santa Ana, CA 92705	332813	433.17(a)	4	32	28			

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Maruchan, Inc. (Deere)	1-071024	1902 Deere Ave, Irvine, CA 92606	311824	403.5(d)	5	15	4			
Maruchan, Inc. (Laguna Cyn)	1-141015	15800 Laguna Canyon Rd, Irvine, CA 92618	311824	403.5(d)	6	13	8			
Marukome USA, Inc.	1-141023	17132 Pullman St, Irvine, CA 92614	311991	403.5(d)	6	18	4			
Master Wash, Inc.	1-511399	3120 Kilson St, Santa Ana, CA 92707	811192	403.5(d)	3	7	4			
Mckenna Labs, Inc.	1-021422	1601 E.Orangethorpe Ave, Fullerton, CA 92831	325620	417.86	4	16	4			
MCP Foods, Inc.	1-021029	424 S.Atchison St, Anaheim, CA 92805	311942	403.5(d)	4	13	2			
Medtronic Heart Valves, Inc.	1-071051	1851 E.Deere Ave, Santa Ana, CA 92705	334510	403.5(d)	3	24	4			Class 1 Permit Deactivated
Meggitt, Inc.	1-600006	14600 Myford Rd, Irvine, CA 92606	334519	433.17(a)	4	14	8			
Mercial, Inc.	1-521840	233 E.Bristol Ln, Orange, CA 92865	325412	439.47	1	4	7			Class 1 Permit Deactivated
Mercial, LLC	1-600655	233 E.Bristol Ln, Orange, CA 92865	325412	439.47	2	11	7			New Class 1 Permit Issued
Mesa Water District	1-061007	1350 Gisler Ave, Costa Mesa, CA 92626	221310	403.5(d)	4	13	9			
Micrometals, Inc.	1-021153	5615 E.La Palma Ave, Anaheim, CA 92807	334416	433.17(a)	4	18	8			
Murrietta Circuits	1-521811	5000 E.Landon St, Anaheim, CA 92807	334412	433.17(a)	6	29	7			
Nalco Cal Water, LLC	1-521748	1961 Petra Ln, Placentia, CA 92870	561990	403.5(d)	4	18	4			
National Construction Rentals	1-600652	1550 E.Chestnut Ave, Santa Ana, CA 92701	562991	403.5(d)	2	17	0		Published as Significantly Non-Compliant (SNC) for Reporting Violation(s)	New Class 1 Permit Issued
Neutronic Stamping and Plating	1-521772	10535 Lawson River Ave, Fountain Valley, CA 92708	334417	433.17(a)	4	18	8			

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Newport Corporation	1-071038	1791 Deere Ave, Irvine, CA 92606	334516	403.5(d)	4	13	2			
Nobel Biocare USA, LLC	1-521801	22725 Savi Ranch Pkwy, Yorba Linda, CA 92887	339114	433.17(a)	4	21	8			
Nor-Cal Beverage Co., Inc. (Main)	1-021284	1226 N.Olive St, Anaheim, CA 92801	312111	403.5(d)	4	17	2			
Nor-Cal Beverage Co., Inc. (NCB)	1-021283	1226 N.Olive St, Anaheim, CA 92801	312111	403.5(d)	4	17	2			
O'Donnell Oil Company, LLC	1-581191	7800 Palin Cir, Huntington Beach, CA 92648	211111	403.5(d)	2	8	4			
O.C. Waste & Recycling	1-141018	20661 Newport Coast Dr, Newport Beach, CA 92657	562910	403.5(d)	4	20	5			
Oakley, Inc.	1-141012	1 Icon Unk, Foothill Ranch, CA 92610	339115	463.16, 463.26, 463.36	5	13	3			
Omni Metal Finishing, Inc.	1-021520	11665 Coley River Cir, Fountain Valley, CA 92708	332813	433.17(a)	5	29	19			
Orange County Chemical Supply, Inc.	1-600766	10680 Fern Ave, Stanton, CA 90680	325611	417.86	3	7	1			New Class 1 Permit Issued
Pacific Image Technology, Inc.	1-021070	1875 S.Santa Cruz St, Anaheim, CA 92805	334112	433.17(a)	4	26	7			
Pacific Western Container	1-511371	4044 W.Garry Ave, Santa Ana, CA 92704	322211	403.5(d)	4	12	5			
Parker Hannifin Corporation	1-141002	14300 Alton Pkwy, Irvine, CA 92618	332912	433.17(a)	5	1	0			
Patio and Door Outlet, Inc.	1-521783	410 W.Fletcher Ave, Orange, CA 92865	332812	433.17(a)	7	30	7	Molybdenum	Published as Significantly Non-Compliant (SNC) for Discharge Violation(s)	
Patriot Wastewater, LLC (Freedom CWT)	1-521861	314 W.Freedom Ave, Orange, CA 92865	562219	437.47(b)	4	28	32			
Patriot Wastewater, LLC (Freedom Non-CWT)	1-600147	314 W.Freedom Ave, Orange, CA 92865	562219	403.5(d)	3	18	16			

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Pepsi-Cola Bottling Group	1-031295	6261 Caballero Blvd, Buena Park, CA 90620	312111	403.5(d)	3	9	2			Class 1 Permit Deactivated
Performance Powder, Inc.	1-521805	2920 E.La Jolla St, Anaheim, CA 92806	332812	433.17(a)	5	25	8	Molybdenum		
Petroprize Corporation	1-581180	319 20th St, Huntington Beach, CA 92648	211111	403.5(d)	4	22	4			
Pier Oil Company, Inc.	1-581178	201 2nd St, Huntington Beach, CA 92648	211111	403.5(d)	4	20	4			
Pioneer Circuits, Inc.	1-011262	3010 S.Shannon St, Santa Ana, CA 92704	334412	433.17(a)	4	26	20			
Platinum Surface Coating, Inc.	1-521852	1173 N.Fountain Way, Anaheim, CA 92806	332813	433.17(a)	4	19	10			
Plegel Oil Company (Blattner/Joe Johnson)	1-521864	900 Mammoth Way, Placentia, CA 92870	211111	403.5(d)	3	15	4			
Plegel Oil Company - (A.H.A.)	1-021176	16801 Rumson St, Yorba Linda, CA 92886	211111	403.5(d)	3	15	4			
Powdercoat Services, LLC (Bldg E / Plant 1)	1-600167	800 N.State College Blvd, Fullerton, CA 92831	332812	433.17(a)	4	22	8			
Powdercoat Services, LLC (Bldg J / Plant 3)	1-600168	237 N.Euclid Way, J Bldg, Anaheim, CA 92801	332812	433.17(a)	4	22	7			
Power Distribution, Inc.	1-511400	4011 W.Carriage Dr, Santa Ana, CA 92704	335311	403.5(d)	4	20	6			
Powerdrive Oil & Gas Company, LLC (16th)	1-600246	613 16th St, Huntington Beach, CA 92648	211111	403.5(d)	3	2	0			
Powerdrive Oil & Gas Company, LLC (2nd)	1-600248	120 2nd St, Huntington Beach, CA 92648	211111	403.5(d)	1	1	0			New Class 1 Permit Issued
Powerdrive Oil & Gas Company, LLC (Surveyor)	1-600245	21632 Surveyor Cir, Huntington Beach, CA 92646	211111	403.5(d)	3	2	0			
Precious Metals Plating Co., Inc.	1-011265	2635 Orange Ave, Santa Ana, CA 92707	332813	433.17(a)	4	27	8			
Precision Anodizing & Plating, Inc.	1-521809	1601 N.Miller St, Anaheim, CA 92806	332813	433.17(a)	4	36	20			

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Precision Circuits West, Inc.	1-011008	3310 W.Harvard St, Santa Ana, CA 92704	334412	433.17(a)	4	23	8			
Precision Resource, California Division	1-111002	5803 Engineer St, Huntington Beach, CA 92649	332710	403.5(d)	4	22	4			
Precon, Inc.	1-021581	3131 E.La Palma Ave, Anaheim, CA 92806	332721	403.5(d)	5	27	20	Copper		
Prima-Tex Industries Inc.	1-031036	6237 Descanso Cir, Buena Park, CA 90620	313310	403.5(d)	5	13	7	Zinc	Published as Significantly Non-Compliant (SNC) for Discharge Violation(s)	
Prudential Overall Supply	1-071235	16901 Aston St, Irvine, CA 92606	812332	403.5(d)	4	24	7			
Pulmuone Wildwood, Inc.	1-531397	2315 Moore Ave, Fullerton, CA 92833	311991	403.5(d)	4	17	1			
Q-Flex Inc.	1-600337	1301 E.Hunter Ave, Santa Ana, CA 92705	334418	433.17(a)	4	18	9			
Quality Aluminum Forge, LLC (Cypress North)	1-521833	814 N.Cypress St, Orange, CA 92867	332112	467.45	4	20	10			
Quality Aluminum Forge, LLC (Cypress South)	1-600272	794 N.Cypress St, Orange, CA 92867	332112	467.46	4	29	10			
Quikturn Professional Screenprinting	1-521858	567 S.Melrose St, Placentia, CA 92870	333249	403.5(d)	4	18	4			
Railmakers, Inc.	1-061138	864 W.18th St, Costa Mesa, CA 92627	332323	433.17(a)	1	6	4			Class 1 Permit Deactivated
Rayne Dealership Corporation	1-571303	17835 Sky Park Cir, M Ste, Irvine, CA 92614	454390	403.5(d)	4	20	2			
RBC Transport Dynamics Corp.	1-011013	3131 W.Segerstrom Ave, Santa Ana, CA 92704	336413	433.17(a)	3	17	8			
Reid Metal Finishing	1-511376	3110 W.Harvard St, Santa Ana, CA 92704	332813	433.17(a)	4	29	30			
Remora Operating CA, LLC	1-581192	219 1st St, Huntington Beach, CA 92648	211111	403.5(d)	4	21	4			

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Republic Waste Services	1-521827	2727 Coronado St, Anaheim, CA 92806	56211	403.5(d)	5	33	5	Cadmium, Copper, Lead, Zinc	Published as Significantly Non-Compliant (SNC) for Discharge Violation(s)	
Republic Waste Services of So. Cal., LLC	1-021169	1235 N.Blue Gum St, Anaheim, CA 92806	562111	403.5(d)	4	23	5			
Rich Products Corp.	1-511404	3401 W.Segerstrom Ave, Santa Ana, CA 92704	311812	403.5(d)	4	16	4			
Rigiflex Technology, Inc.	1-021187	1166 N.Grove St, Anaheim, CA 92806	334418	433.17(a)	4	30	7			
Robinson Pharma, Inc. (Croddy)	1-511413	2632 S.Croddy Way, Santa Ana, CA 92704	325411	439.47	4	0	0			
Robinson Pharma, Inc. (Harbor North)	1-600126	2811 S.Harbor Blvd, Santa Ana, CA 92704	325412	439.47	4	22	18			
Robinson Pharma, Inc. (Harbor South)	1-511412	3330 S.Harbor Blvd, Santa Ana, CA 92704	325412	439.47	4	22	22			
Rolls-Royce HTC	1-600212	5730 Katella Ave, Cypress, CA 90630	541712	403.5(d)	4	11	7			
Rolls-Royce HTC (fume scrubber)	1-600213	5730 Katella Ave, Cypress, CA 90630	541712	403.5(d)	4	15	4			
Roto-Die Company, Inc.	1-021033	712 N.Valley St, B Ste, Anaheim, CA 92801	332710	433.17(a)	4	30	7			
Rountree / Wright Enterprises, LLC	1-111028	114 14th St, 12&14/113 LotBlk, Huntington Beach, CA 92648	211111	403.5(d)	3	16	4			
S & C Oil Co., Inc.	1-581175	18742 Goldenwest St, Huntington Beach, CA 92649	211111	403.5(d)	4	23	4			
Safran Electronics & Defense, Avionics USA, LLC.	1-571304	3184 Pullman St, Costa Mesa, CA 92626	335931	433.17(a)	5	28	10	Zinc		
Sanmina Corporation (Airway)	1-061008	2955 Airway Ave, Costa Mesa, CA 92626	334412	433.17(a)	4	27	20			

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Sanmina Corporation (Redhill)	1-061009	2950 Red Hill Ave, Costa Mesa, CA 92626	334412	433.17(a)	4	27	20			
Santana Services	1-021016	1224 E.Ash Ave, Fullerton, CA 92831	332813	433.17(a)	4	18	8			
Schreiber Foods, Inc.	1-021049	1901 Via Burton None, Fullerton, CA 92831	311511	403.5(d)	4	9	2			
Scientific Spray Finishes, Inc.	1-031311	315 S.Richman Ave, Fullerton, CA 92832	332812	433.17(a)	4	22	8			
Semicoa	1-571313	333 McCormick Ave, Costa Mesa, CA 92626	334413	469.18(a)	3	22	10			
Serrano Water District	1-021137	5454 Taft Ave, Orange, CA 92867	221310	403.5(d)	4	26	1			
SFPP, LP	1-021619	1350 N.Main St, Orange, CA 92867	493190	403.5(d)	2	5	2			
Shepard Bros., Inc.	1-031034	503 S.Cypress St, La Habra, CA 90631	325611	417.166, 417.176	4	22	4			
Shur-Lok Company	1-600297	2541 White Rd, Irvine, CA 92614	332722	433.17(a)	4	1	0			
Simply Fresh Foods, Inc.	1-531426	6535 Caballero Blvd, Buena Park, CA 90620	311421	403.5(d)	2	10	5			Class 1 Permit Deactivated
Simply Fresh, LLC	1-600709	6535 Caballero Blvd, Buena Park, CA 90620	311421	403.5(d)	2	11	6			New Class 1 Permit Issued
Sirco Industrial, Inc.	1-600706	5312 System Dr, Huntington Beach, CA 92649	423830	403.5(d)	2	11	3			New Class 1 Permit Issued
Soldermask, Inc.	1-031341	17905 Metzler Ln, Huntington Beach, CA 92647	334412	433.17(a)	4	26	20			
South Coast Baking, LLC	1-600565	1711 Kettering St, Irvine, CA 92614	311821	403.5(d)	4	22	3			New Class 1 Permit Issued
South Coast Circuits, Inc. (Bldg 3500 A)	1-011069	3500 W.Lake Center Dr, A Unit, Santa Ana, CA 92704	334412	433.17(a)	4	34	20			
South Coast Circuits, Inc. (Bldg 3506 A)	1-011030	3506 W.Lake Center Dr, A Bldg, Santa Ana, CA 92704	334412	433.17(a)	4	24	8			

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South Coast Circuits, Inc. (Bldg 3512 A)	1-511365	3512 W.Lake Center Dr, A Unit, Santa Ana, CA 92704	334412	433.17(a)	4	34	20			
South Coast Circuits, Inc. (Bldg 3524 A)	1-011054	3524 W.Lake Center Dr, A Unit, Santa Ana, CA 92704	334412	433.17(a)	4	26	8			
South Coast Water	1-511405	401 S.Santa Fe St, Santa Ana, CA 92705	333318	403.5(d)	4	15	4			
Southern California Edison #1 (Mt)	1-031014	7301 Fenwick Ln, Westminster, CA 92683	811310	403.5(d)	4	15	2			
Southern California Edison #2 (Das)	1-031015	7351 Fenwick Ln, Westminster, CA 92683	811310	403.5(d)	4	17	2			
Southern California Edison #3 (Lars)	1-031016	7455 Fenwick Ln, Westminster, CA 92683	811310	403.5(d)	4	15	2			
SPS Technologies	1-011310	2701 S.Harbor Blvd, Santa Ana, CA 92704	332722	433.17(a), 471.34(a)	4	30	33			
SPS Technologies LLC, DBA Cherry Aerospace	1-511381	1224 E.Warner Ave, Santa Ana, CA 92705	332722	433.17(a), 467.46, 471.34(a), 471.65(a)	6	35	40	Cadmium		Formerly listed as Cherry Aerospace
Stainless Micro-Polish, Inc.	1-021672	1286 N.Grove St, Anaheim, CA 92806	332813	433.17(a)	4	31	8			
Star Manufacturing LLC, dba Commercial Metal Forming	1-600653	341 W.Collins Ave, Orange, CA 92867	332119	403.5(d)	2	5	4	O&G min.	Published as Significantly Non-Compliant (SNC) for Discharge Violation(s)	New Class 1 Permit Issued
Star Powder Coating, Inc.	1-531425	7601 Park Ave, Garden Grove, CA 92841	332812	433.17(a)	4	22	8			
Statek Corporation (Main)	1-021664	512 N.Main St, Orange, CA 92868	334419	469.26(a)	5	35	6			
Statek Corporation (Orange Grove)	1-521777	1449 W.Orange Grove Ave, B Unit, Orange, CA 92868	334419	469.28(a)	4	31	1			
Stepan Company	1-021674	1208 N.Patt St, Anaheim, CA 92801	325613	417.106, 417.96	6	19	9			

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Stremicks Heritage Foods, LLC	1-021028	4002 Westminster Ave, Santa Ana, CA 92703	311511	403.5(d)	4	21	2			
Summit Interconnect, Inc.	1-600012	223 N.Crescent Way, Anaheim, CA 92801	334412	433.17(a)	4	31	20			
Summit Interconnect, Inc., Orange Division	1-600060	230 W.Bristol Ln, Orange, CA 92865	334412	433.17(a)	4	34	20			
Sunny Delight Beverages Co.	1-021045	1230 N.Tustin Ave, Anaheim, CA 92807	312111	403.5(d)	3	15	2			
Superior Plating	1-021090	1901 E.Cerritos Ave, Anaheim, CA 92805	332813	433.17(a)	4	34	20			
Superior Processing	1-021403	1115 Las Brisas Pl, Placentia, CA 92870	334412	433.17(a)	4	20	8			
Tayco Engineering, Inc.	1-031012	10874 Hope St, Cypress, CA 90630	334513	433.17(a)	5	21	7	Copper		
Taylor-Dunn Manufacturing Company	1-021123	2114 Ball Rd, Anaheim, CA 92804	333924	433.17(a)	4	24	12	Zinc		
TC Cosmotronic, Inc., DBA Cosmotronic	1-571309	16721 Noyes Ave, Irvine, CA 92606	334412	433.17(a)	0	0	2			Class 1 Permit Deactivated
Techplate, Inc.	1-021082	1571 S.Sunkist St, H Ste, Anaheim, CA 92806	332813	433.17(a)	1	0	0			Class 1 Permit Deactivated
Teva Parenteral Medicines, Inc.	1-141007	19 Hughes Unk, Irvine, CA 92618	325412	439.47	4	11	10			
Thermal-Vac Technology, Inc.	1-021282	1221 W.Struck Ave, Orange, CA 92867	332410	433.17(a)	4	26	20			
Thompson Energy Resources, LLC	1-521773	3351 E.Birch St, Brea, CA 92821	211111	403.5(d)	5	31	6	O&G min.		
Timken Bearing Inspection, Inc.	1-531415	4422 Corporate Center Dr, Los Alamitos, CA 90720	336412	433.17(a)	4	17	6			
Tiodize Company, Inc.	1-111132	15701 Industry Ln, Huntington Beach, CA 92649	332813	433.17(a)	4	20	20			
Toyota Racing Development	1-071059	335 Baker St, Costa Mesa, CA 92626	336310	403.5(d)	4	16	36			
Transline Technology, Inc.	1-021202	1106 S.Technology Cir, Anaheim, CA 92805	334412	433.17(a)	4	26	8			
Tropitone Furniture Co., Inc.	1-141163	5 Marconi Unk, Irvine, CA 92618	337124	433.17(a)	4	15	7			

Orange County Sanitation District (OCSD) - Resource Protection Division
 Fiscal Year 2018-2019 List of SIUs with Monitoring & Compliance Status



Facility	Permit No.	Address	NAICS Code	Regulation	No. of Inspections	Agency Samples	SMR Samples	Pollutant(s) in Discharge Violation	SNC Status	Comment
TTM Technologies North America, LLC. (Coronado)	1-521859	3140 E. Coronado St, Anaheim, CA 92806	334412	433.17(a)	4	32	48	Copper		Formerly listed as Viasystems Technologies Corporation, LLC
TTM Technologies North America, LLC. (Croddy)	1-511366	2645 Croddy Way, Santa Ana, CA 92704	334412	433.17(a)	5	41	20			
TTM Technologies North America, LLC. (Harbor)	1-511359	2640 S. Harbor Blvd, Santa Ana, CA 92704	334412	433.17(a)	4	34	20			
Ultra-Pure Metal Finishing, Inc.	1-021703	1764 N. Case St, Orange, CA 92865	332813	433.17(a)	5	32	20	Zinc		
United Pharma, LLC	1-531418	2317 Moore Ave, Fullerton, CA 92833	325412	403.5(d)	5	17	4			
Universal Alloy Corp.	1-021706	2871 La Mesa Ave, Anaheim, CA 92806	331318	467.35(c)	4	23	10			
Universal Molding Co.	1-521836	1551 E. Orangethorpe Ave, Fullerton, CA 92831	332812	433.17(a)	4	29	8			
UOP, LLC	1-521751	2100 E. Orangethorpe Ave, Anaheim, CA 92806	326113	403.5(d)	3	11	4			
Van Law Food Products, Inc.	1-531439	2325 Moore Ave, Fullerton, CA 92833	311941	403.5(d)	4	16	2			Class 1 Permit Deactivated
Van Law Food Products, Inc.	1-600810	2325 Moore Ave, Fullerton, CA 92833	311941	403.5(d)	0	0	0			New Class 1 Permit Issued
Vi-Cal Metals, Inc.	1-521846	1400 N. Baxter St, Anaheim, CA 92806	562920	403.5(d)	4	12	6			
Vit-Best Nutrition, Inc.	1-600010	2832 Dow Ave, Tustin, CA 92780	325411	439.47	5	24	14			
Weber Precision Graphics	1-011354	2730 Shannon St, Santa Ana, CA 92704	323113	403.5(d)	3	17	2			
Weidemann Water Conditioners, Inc.	1-021653	1702 E. Rossllynn Ave, Fullerton, CA 92831	333318	403.5(d)	4	21	4			
West Newport Oil Company	1-061110	1080 W. 17th St, Costa Mesa, CA 92627	211111	403.5(d)	4	23	16			
Western Yarn Dyeing, Inc.	1-031114	2011 Raymer Ave, Fullerton, CA 92833	313110	403.5(d)	3	13	9			Class 1 Permit Deactivated
Wilco-Placentia Oil Operator, LLC	1-521829	550 Richfield Rd, Placentia, CA 92870	211111	403.5(d)	4	17	4			
Winonics (Brea)	1-031035	660 N. Puente St, Brea, CA 92821	334412	433.17(a)	2	13	17			

Orange County Sanitation District (OCSD) - Resource Protection Division
 Fiscal Year 2018-2019 List of SIUs with Monitoring & Compliance Status



Facility	Permit No.	Address	NAICS Code	Regulation	No. of Inspections	Agency Samples	SMR Samples	Pollutant(s) in Discharge Violation	SNC Status	Comment
Winonics, Inc.	1-021735	1257 State College Blvd, Fullerton, CA 92831	334412	433.17(a)	4	24	20			
Yakult USA, Inc.	1-521850	17235 Newhope St, Fountain Valley, CA 92708	311511	403.5(d)	4	21	12			

**SUMMARY OF PRIORITY POLLUTANTS AND
TRACE CONSTITUENTS ANALYSES**

Orange County Sanitation District Priority Pollutant Summary, Fiscal Year 2018/19

MONITORING LOCATION	ANALYSIS	TOT AVG CONC	UNITS	Flow (MGD)	Mass (lbs/day)
EFF-001	Ag	ND	µg/L	104	ND
EFF-001	As	2.15	µg/L	104	1.87
EFF-001	Be	ND	µg/L	104	ND
EFF-001	CN	7.57	µg/L	104	6.59
EFF-001	Cd	ND	µg/L	104	ND
EFF-001	Cr	0.829	µg/L	104	0.722
EFF-001	Cu	3.69	µg/L	104	3.21
EFF-001	Hg	4.73	ng/L	104	0.004
EFF-001	Ni	8.39	µg/L	104	7.31
EFF-001	ORG	13.5	µg/L	104	11.8
EFF-001	Pb	0.061	µg/L	104	0.053
EFF-001	Sb	1.18	µg/L	104	1.03
EFF-001	Se	6.12	µg/L	104	5.33
EFF-001	TI	ND	µg/L	104	ND
EFF-001	Zn	23.4	µg/L	104	20.4
INF-001	Ag	1.11	µg/L	120	1.11
INF-001	As	2.36	µg/L	120	2.35
INF-001	Be	ND	µg/L	120	ND
INF-001	CN	0.897	µg/L	120	0.894
INF-001	Cd	0.351	µg/L	120	0.350
INF-001	Cr	5.65	µg/L	120	5.63
INF-001	Cu	95.0	µg/L	120	94.7
INF-001	Hg	146	ng/L	120	0.146
INF-001	Ni	8.73	µg/L	120	8.70
INF-001	ORG	35.2	µg/L	120	35.1
INF-001	Pb	2.60	µg/L	120	2.59
INF-001	Sb	1.36	µg/L	120	1.36
INF-001	Se	2.57	µg/L	120	2.56
INF-001	TI	ND	µg/L	120	ND
INF-001	Zn	156	µg/L	120	155
INF-002	Ag	1.48	µg/L	71.3	0.880
INF-002	As	4.11	µg/L	71.3	2.44
INF-002	Be	ND	µg/L	71.3	ND
INF-002	CN	2.09	µg/L	71.3	1.24
INF-002	Cd	1.28	µg/L	71.3	0.761
INF-002	Cr	10.4	µg/L	71.3	6.19
INF-002	Cu	119	µg/L	71.3	70.8
INF-002	Hg	147	ng/L	71.3	0.088
INF-002	Ni	12.7	µg/L	71.3	7.55
INF-002	ORG	21.6	µg/L	71.3	12.9
INF-002	Pb	2.98	µg/L	71.3	1.77
INF-002	Sb	1.33	µg/L	71.3	0.791
INF-002	Se	6.72	µg/L	71.3	4.00
INF-002	TI	ND	µg/L	71.3	ND
INF-002	Zn	200	µg/L	71.3	119

Orange County Sanitation District Priority Pollutants Analyses Results, Fiscal Year 2018/19

MONITORING LOCATION	NAME	Jul-18		Aug-18		Sep-18		Oct-08		Nov-18		Dec-18		Jan-19		Feb-19		Mar-19		Apr-19		May-19		Jun-19	
EFF-001	Silver	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Arsenic	2.38	µg/L	2.89	µg/L	1.53	µg/L	1.21	µg/L	2.58	µg/L	2.21	µg/L	2.39	µg/L	1.90	µg/L	2.22	µg/L	2.14	µg/L	1.36	µg/L	2.97	µg/L
	Beryllium	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Cadmium	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Cyanide	5.03	µg/L	3.92	µg/L	3.08	µg/L	5.85	µg/L	4.64	µg/L	4.70	µg/L	3.91	µg/L	4.03	µg/L	4.19	µg/L	2.43	µg/L	44	µg/L	5.06	µg/L
	Chromium	0.930	µg/L	1.07	µg/L	0.640	µg/L	0.610	µg/L	0.880	µg/L	0.970	µg/L	0.880	µg/L	0.640	µg/L	0.740	µg/L	0.970	µg/L	0.670	µg/L	0.950	µg/L
	Copper	2.80	µg/L	2.80	µg/L	2.04	µg/L	2.46	µg/L	4.11	µg/L	4.78	µg/L	4.80	µg/L	4.62	µg/L	3.60	µg/L	6.07	µg/L	2.47	µg/L	3.75	µg/L
	Mercury	5.1	ng/L	4	ng/L	3.5	ng/L	3.4	ng/L	5.8	ng/L	3.8	ng/L	5	ng/L	6.4	ng/L	4.31	ng/L	7.1	ng/L	3.4	ng/L	4.9	ng/L
	Nickel	8.91	µg/L	9.46	µg/L	6.24	µg/L	5.52	µg/L	9.49	µg/L	10.7	µg/L	8.61	µg/L	8.68	µg/L	8.45	µg/L	10.5	µg/L	5.14	µg/L	8.97	µg/L
	1,1,1-Trichloroethane	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	1,1,2,2-Tetrachloroethane	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	1,1,2-Trichloroethane	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	1,1-Dichloroethane	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	1,2-Dichlorobenzene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	1,2-Dichloroethane	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	1,2-Dichloropropane	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	1,3-Dichlorobenzene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	1,4-Dichlorobenzene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	2,3,7,8-Tetrachlorodibenzo-P-Dioxin	ND	pg/L					ND	pg/L					ND	pg/L					ND	pg/L				
	2,4,6-Trichlorophenol	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	2,4-Dichlorophenol	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	2,4-Dimethylphenol	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	2,4-Dinitrophenol	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	2,4-Dinitrotoluene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	2,6-Dinitrotoluene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	2-Chloronaphthalene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	2-Chlorophenol	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	2-Nitrophenol	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	2-Chloroethylvinylether	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	3,3-Dichlorobenzidine	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	2-Methyl-4,6-Dinitrophenol	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	4-Bromophenyl-Phenyl Ether	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	4-Chloro-3-Methylphenol	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L

Orange County Sanitation District Priority Pollutants Analyses Results, Fiscal Year 2018/19

MONITORING LOCATION	NAME	Jul-18		Aug-18		Sep-18		Oct-08		Nov-18		Dec-18		Jan-19		Feb-19		Mar-19		Apr-19		May-19		Jun-19	
		ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	4-Chlorophenyl-Phenyl Ether	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	4-Nitrophenol	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Acenaphthene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Acenaphthylene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Aldrin	ND	µg/L											ND	µg/L										
	Anthracene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	1,2-Diphenylhydrazine	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Benzo (a) Anthracene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Benzidine	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Benzo (a) Pyrene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Benzo (b) Fluoranthene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Benzo (g,h,i) Perylene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Benzo (k) Fluoranthene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Butyl Benzyl Phthalate	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Chlordane	ND	µg/L											ND	µg/L										
	Chrysene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Di-n-Butyl Phthalate	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Di-n-Octyl Phthalate	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Dibenzo (a,h) Anthracene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Dieldrin	ND	µg/L											ND	µg/L										
	Diethylphthalate	ND	µg/L	0.760	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Dimethylphthalate	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Endosulfan	ND	µg/L											ND	µg/L										
	Endosulfan I	ND	µg/L											ND	µg/L										
	Endosulfan II	ND	µg/L											ND	µg/L										
	Endosulfan Sulfate	ND	µg/L											ND	µg/L										
	Endrin	ND	µg/L											ND	µg/L										
	Fluroanthene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Fluorene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Heptachlor	ND	µg/L											ND	µg/L										
	Hexachlorobenzene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Hexachlorobutadiene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Hexachlorocyclopentadiene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L

Orange County Sanitation District Priority Pollutants Analyses Results, Fiscal Year 2018/19

MONITORING LOCATION	NAME	Jul-18		Aug-18		Sep-18		Oct-08		Nov-18		Dec-18		Jan-19		Feb-19		Mar-19		Apr-19		May-19		Jun-19	
		ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Hexachloroethane	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Indeno (1,2,3-cd) Pyrene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Isophorone	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Nitrobenzene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	PCB - 1016	ND	µg/L											ND	µg/L										
	PCB - 1221	ND	µg/L											ND	µg/L										
	PCB - 1232	ND	µg/L											ND	µg/L										
	PCB - 1242	ND	µg/L											ND	µg/L										
	PCB - 1248	ND	µg/L											ND	µg/L										
	PCB - 1254	ND	µg/L											ND	µg/L										
	PCB - 1260	ND	µg/L											ND	µg/L										
	Pentachlorophenol	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Phenanthrene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Phenol	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Pyrene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Acrolein	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Acrylonitrile	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Alpha-BHC	ND	µg/L											ND	µg/L										
	Benzene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Beta-BHC	ND	µg/L											ND	µg/L										
	Bis (2-Chloroethoxy) Methane	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Bis (2-Chloroethyl) Ether	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Bis (2-Ethylhexyl) Phthalate	0.860	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	3.90	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	1.63	µg/L	ND	µg/L	ND	µg/L
	Bromodichloromethane	1.61	µg/L	3.53	µg/L	ND	µg/L	2.07	µg/L	6.34	µg/L	4.34	µg/L	5.83	µg/L	3.42	µg/L	6.54	µg/L	5.06	µg/L	ND	µg/L	3.71	µg/L
	Bromoform	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Bromomethane	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Carbon Tetrachloride	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Chlorobenzene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Chloroethane	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Chloroform	7.25	µg/L	8.26	µg/L	ND	µg/L	4.87	µg/L	12.7	µg/L	10.5	µg/L	11.2	µg/L	7.63	µg/L	10.8	µg/L	9.09	µg/L	4.29	µg/L	8.06	µg/L
	cis-1,3-Dichloropropene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Delta-BHC	ND	µg/L											ND	µg/L										
	Dibromochloromethane	ND	µg/L	1.52	µg/L	ND	µg/L	0.760	µg/L	2.33	µg/L	1.34	µg/L	2.27	µg/L	1.18	µg/L	2.30	µg/L	1.87	µg/L	ND	µg/L	1.20	µg/L

Orange County Sanitation District Priority Pollutants Analyses Results, Fiscal Year 2018/19

MONITORING LOCATION	NAME	Jul-18		Aug-18		Sep-18		Oct-18		Nov-18		Dec-18		Jan-19		Feb-19		Mar-19		Apr-19		May-19		Jun-19		
			µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L	
	Ethylbenzene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	
	Gamma-BHC	ND	µg/L											ND	µg/L											
	Methylene Chloride	1.30	µg/L	1.20	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	0.900	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	
	N-Nitrosodiprophylamine	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	
	N-Nitrosodimethylamine	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	
	N-Nitrosodiphenylamine	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	
	4,4'-DDD	ND	µg/L												ND	µg/L										
	4,4'-DDE	ND	µg/L												ND	µg/L										
	4,4'-DDT	ND	µg/L												ND	µg/L										
	Tetrachloroethene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	
	Toluene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	
	trans-1,2-Dichloroethene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	
	trans-1,3-Dichloropropene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	
	Trichloroethene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	
	Vinyl Chloride	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	
	Lead	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	0.620	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	0.110	µg/L	ND	µg/L	
	Antimony	1.36	µg/L	1.14	µg/L	0.590	µg/L	0.610	µg/L	1.70	µg/L	1.73	µg/L	1.47	µg/L	1.18	µg/L	1.01	µg/L	1.29	µg/L	0.580	µg/L	1.54	µg/L	
	Selenium	7.08	µg/L	7.52	µg/L	3.76	µg/L	3.01	µg/L	6.67	µg/L	5.80	µg/L	5.62	µg/L	8.27	µg/L	7.27	µg/L	8.11	µg/L	3.85	µg/L	6.49	µg/L	
	Thallium	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	
	Zinc	23.7	µg/L	20.7	µg/L	14.3	µg/L	12.5	µg/L	28.5	µg/L	28.0	µg/L	28.3	µg/L	26.0	µg/L	25.6	µg/L	30.2	µg/L	14.6	µg/L	28.0	µg/L	
	INF-001	Silver	1.05	µg/L	1.18	µg/L	0.830	µg/L	1.34	µg/L	1.08	µg/L	0.950	µg/L	0.860	µg/L	1.36	µg/L	1.12	µg/L	1.05	µg/L	0.700	µg/L	1.83	µg/L
		Arsenic	2.40	µg/L	2.49	µg/L	2.32	µg/L	2.05	µg/L	2.52	µg/L	2.13	µg/L	2.24	µg/L	3.04	µg/L	2.33	µg/L	2.23	µg/L	2.10	µg/L	2.42	µg/L
		Beryllium	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
		Cadmium	0.430	µg/L	0.390	µg/L	0.330	µg/L	0.320	µg/L	0.380	µg/L	0.450	µg/L	0.330	µg/L	0.330	µg/L	0.390	µg/L	0.300	µg/L	0.230	µg/L	0.330	µg/L
		Cyanide	2.26	µg/L	ND	µg/L	ND	µg/L	1.36	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	1.86	µg/L	ND	µg/L	2.7	µg/L	2.58	µg/L
Chromium		5.65	µg/L	6.20	µg/L	8.19	µg/L	7.02	µg/L	4.42	µg/L	4.86	µg/L	5.57	µg/L	4.70	µg/L	4.65	µg/L	5.12	µg/L	5.89	µg/L	5.58	µg/L	
Copper		97.5	µg/L	102	µg/L	101	µg/L	99.8	µg/L	90.5	µg/L	83.9	µg/L	90.9	µg/L	98.2	µg/L	88.1	µg/L	93.4	µg/L	95.4	µg/L	99.6	µg/L	
Mercury		140	ng/L	140	ng/L	150	ng/L	74	ng/L	200	ng/L	100	ng/L	100	ng/L	201	ng/L	118	ng/L	160	ng/L	210	ng/L	160	ng/L	
Nickel		9.68	µg/L	11.5	µg/L	9.16	µg/L	8.58	µg/L	7.40	µg/L	8.45	µg/L	9.59	µg/L	8.38	µg/L	6.67	µg/L	8.47	µg/L	8.22	µg/L	8.63	µg/L	
1,1,1-Trichloroethane		ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	
1,1,2,2-Tetrachloroethane		ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	
1,1,2-Trichloroethane		ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	
1,1-Dichloroethane		ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	

Orange County Sanitation District Priority Pollutants Analyses Results, Fiscal Year 2018/19

MONITORING LOCATION	NAME	Jul-18		Aug-18		Sep-18		Oct-18		Nov-18		Dec-18		Jan-19		Feb-19		Mar-19		Apr-19		May-19		Jun-19	
		ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	1,2-Dichlorobenzene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	1,2-Dichloroethane	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	1,2-Dichloropropane	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	1,3-Dichlorobenzene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	1,4-Dichlorobenzene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	2,4,6-Trichlorophenol	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	2,4-Dichlorophenol	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	2,4-Dimethylphenol	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	2,4-Dinitrophenol	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	2,4-Dinitrotoluene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	2,6-Dinitrotoluene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	2-Chloronaphthalene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	2-Chlorophenol	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	2-Nitrophenol	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	2-Chloroethylvinylether	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	3,3-Dichlorobenzidine	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	2-Methyl-4,6-Dinitrophenol	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	4-Bromophenyl-Phenyl Ether	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	4-Chloro-3-Methylphenol	ND	µg/L	ND	µg/L	3.62	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	4-Chlorophenyl-Phenyl Ether	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	4-Nitrophenol	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Acenaphthene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Acenaphthylene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Aldrin	ND	µg/L										ND	µg/L											
	Anthracene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	1,2-Diphenylhydrazine	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Benzo (a) Anthracene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Benzidine	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Benzo (a) Pyrene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Benzo (b) Fluoranthene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Benzo (g,h,i) Perylene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Benzo (k) Fluoranthene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Butyl Benzyl Phthalate	2.07	µg/L	2.01	µg/L	2.13	µg/L	1.61	µg/L	3.06	µg/L	1.76	µg/L	1.27	µg/L	1.65	µg/L	1.63	µg/L	1.13	µg/L	1.13	µg/L	1.38	µg/L

Orange County Sanitation District Priority Pollutants Analyses Results, Fiscal Year 2018/19

MONITORING LOCATION	NAME	Jul-18		Aug-18		Sep-18		Oct-08		Nov-18		Dec-18		Jan-19		Feb-19		Mar-19		Apr-19		May-19		Jun-19	
			µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L
	Chlordane	ND	µg/L											ND	µg/L										
	Chrysene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Di-n-Butyl Phthalate	1.01	µg/L	1.32	µg/L	1.34	µg/L	1.20	µg/L	1.35	µg/L	1.46	µg/L	1.12	µg/L	0.960	µg/L	0.780	µg/L	0.820	µg/L	1.20	µg/L	1.11	µg/L
	Di-n-Octyl Phthalate	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Dibenzo (a,h) Anthracene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Dieldrin	ND	µg/L											ND	µg/L										
	Diethylphthalate	4.04	µg/L	3.09	µg/L	3.11	µg/L	2.62	µg/L	7.95	µg/L	3.70	µg/L	3.63	µg/L	2.65	µg/L	2.22	µg/L	1.78	µg/L	2.87	µg/L	2.77	µg/L
	Dimethylphthalate	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Endosulfan	ND	µg/L											ND	µg/L										
	Endosulfan I	ND	µg/L											ND	µg/L										
	Endosulfan II	ND	µg/L											ND	µg/L										
	Endosulfan Sulfate	ND	µg/L											ND	µg/L										
	Endrin	ND	µg/L											ND	µg/L										
	Fluroanthene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Fluorene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Heptachlor	ND	µg/L											ND	µg/L										
	Hexachlorobenzene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Hexachlorobutadiene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Hexachlorocyclopentadiene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Hexachloroethane	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Indeno (1,2,3-cd) Pyrene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Isophorone	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Nitrobenzene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	PCB - 1016	ND	µg/L											ND	µg/L										
	PCB - 1221	ND	µg/L											ND	µg/L										
	PCB - 1232	ND	µg/L											ND	µg/L										
	PCB - 1242	ND	µg/L											ND	µg/L										
	PCB - 1248	ND	µg/L											ND	µg/L										
	PCB - 1254	ND	µg/L											ND	µg/L										
	PCB - 1260	ND	µg/L											ND	µg/L										
	Pentachlorophenol	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Phenanthrene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Phenol	13.4	µg/L	18.1	µg/L	14.1	µg/L	14.1	µg/L	16.4	µg/L	15.5	µg/L	15.2	µg/L	10.6	µg/L	12.9	µg/L	13.6	µg/L	18.0	µg/L	18.2	µg/L

Orange County Sanitation District Priority Pollutants Analyses Results, Fiscal Year 2018/19

MONITORING LOCATION	NAME	Jul-18		Aug-18		Sep-18		Oct-08		Nov-18		Dec-18		Jan-19		Feb-19		Mar-19		Apr-19		May-19		Jun-19	
			µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L
	Pyrene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Acrolein	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Acrylonitrile	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Alpha-BHC	ND	µg/L											ND	µg/L										
	Benzene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Beta-BHC	ND	µg/L											ND	µg/L										
	Bis (2-Chloroethoxy) Methane	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Bis (2-Chloroethyl) Ether	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Bis (2-Ethylhexyl) Phthalate	7.95	µg/L	5.97	µg/L	7.44	µg/L	6.64	µg/L	11.6	µg/L	8.07	µg/L	7.97	µg/L	4.65	µg/L	5.35	µg/L	4.58	µg/L	6.90	µg/L	8.19	µg/L
	Bromodichloromethane	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Bromoform	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Bromomethane	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Carbon Tetrachloride	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Chlorobenzene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Chloroethane	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Chloroform	2.85	µg/L	3.33	µg/L	2.99	µg/L	2.93	µg/L	3.21	µg/L	2.89	µg/L	2.69	µg/L	2.90	µg/L	1.83	µg/L	2.84	µg/L	2.20	µg/L	4.33	µg/L
	cis-1,3-Dichloropropene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Delta-BHC	ND	µg/L											ND	µg/L										
	Dibromochloromethane	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Ethylbenzene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Gamma-BHC	ND	µg/L											ND	µg/L										
	Methylene Chloride	2.40	µg/L	ND	µg/L	15.4	µg/L	5.00	µg/L	2.50	µg/L	ND	µg/L	2.10	µg/L	ND	µg/L	ND	µg/L	5.40	µg/L	1.10	µg/L	ND	µg/L
	N-Nitrosodiprophylamine	ND	ng/L	ND	µg/L	ND	µg/L	ND	ng/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	ng/L	ND	µg/L	ND	µg/L	ND	µg/L
	N-Nitrosodimethylamine	56.0	ng/L	ND	µg/L	ND	µg/L	35.0	ng/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	152	ng/L	ND	µg/L	ND	µg/L	ND	µg/L
	N-Nitrosodiphenylamine	ND	ng/L	ND	µg/L	ND	µg/L	ND	ng/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	ng/L	ND	µg/L	ND	µg/L	ND	µg/L
	4,4'-DDD	ND	µg/L											ND	µg/L										
	4,4'-DDE	ND	µg/L											ND	µg/L										
	4,4'-DDT	ND	µg/L											ND	µg/L										
	Tetrachloroethene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Toluene	ND	µg/L	1.75	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	1.60	µg/L	ND	µg/L	ND	µg/L	2.36	µg/L	1.50	µg/L	ND	µg/L	2.16	µg/L
	trans-1,2-Dichloroethene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	trans-1,3-Dichloropropene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Trichloroethene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L

Orange County Sanitation District Priority Pollutants Analyses Results, Fiscal Year 2018/19

MONITORING LOCATION	NAME	Jul-18		Aug-18		Sep-18		Oct-08		Nov-18		Dec-18		Jan-19		Feb-19		Mar-19		Apr-19		May-19		Jun-19	
			µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L
	Vinyl Chloride	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Lead	2.11	µg/L	2.13	µg/L	2.29	µg/L	2.24	µg/L	2.06	µg/L	2.11	µg/L	2.88	µg/L	5.53	µg/L	2.87	µg/L	1.99	µg/L	1.99	µg/L	2.96	µg/L
	Antimony	1.62	µg/L	0.880	µg/L	1.31	µg/L	1.32	µg/L	1.76	µg/L	1.79	µg/L	1.19	µg/L	1.25	µg/L	1.10	µg/L	1.55	µg/L	1.10	µg/L	1.42	µg/L
	Selenium	2.83	µg/L	2.43	µg/L	2.46	µg/L	2.63	µg/L	2.42	µg/L	2.44	µg/L	2.02	µg/L	3.52	µg/L	2.48	µg/L	3.30	µg/L	2.77	µg/L	1.50	µg/L
	Thallium	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Zinc	165	µg/L	172	µg/L	159	µg/L	186	µg/L	161	µg/L	150	µg/L	152	µg/L	127	µg/L	132	µg/L	155	µg/L	151	µg/L	166	µg/L
INF-002	Silver	0.890	µg/L	1.91	µg/L	1.25	µg/L	1.80	µg/L	1.68	µg/L	1.10	µg/L	0.980	µg/L	0.920	µg/L	0.930	µg/L	0.790	µg/L	4.29	µg/L	1.25	µg/L
	Arsenic	3.25	µg/L	4.68	µg/L	4.14	µg/L	3.87	µg/L	4.36	µg/L	3.82	µg/L	4.29	µg/L	4.18	µg/L	3.55	µg/L	3.37	µg/L	5.80	µg/L	4.04	µg/L
	Beryllium	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Cadmium	0.420	µg/L	0.730	µg/L	0.840	µg/L	0.540	µg/L	1.21	µg/L	0.770	µg/L	0.920	µg/L	0.910	µg/L	0.580	µg/L	0.530	µg/L	6.11	µg/L	1.80	µg/L
	Cyanide	2.90	µg/L	1.25	µg/L	3.23	µg/L	ND	µg/L	3.49	µg/L	ND	µg/L	ND	µg/L	1.25	µg/L	2.08	µg/L	ND	µg/L	8.2	µg/L	2.64	µg/L
	Chromium	6.40	µg/L	10.4	µg/L	11.2	µg/L	11.1	µg/L	12.1	µg/L	7.75	µg/L	8.17	µg/L	8.61	µg/L	7.25	µg/L	7.51	µg/L	25.8	µg/L	8.67	µg/L
	Copper	67.3	µg/L	126	µg/L	122	µg/L	112	µg/L	143	µg/L	96.4	µg/L	110	µg/L	97.6	µg/L	81.2	µg/L	84.0	µg/L	279	µg/L	113	µg/L
	Mercury	120	ng/L	120	ng/L	120	ng/L	80	ng/L	170	ng/L	130	ng/L	130	ng/L	121	ng/L	148	ng/L	140	ng/L	360	ng/L	130	ng/L
	Nickel	8.41	µg/L	12.5	µg/L	21.6	µg/L	9.57	µg/L	18.8	µg/L	9.21	µg/L	9.23	µg/L	11.5	µg/L	8.62	µg/L	12.5	µg/L	21.1	µg/L	9.45	µg/L
	1,1,1-Trichloroethane	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	1,1,2,2-Tetrachloroethane	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	1,1,2-Trichloroethane	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	1,1-Dichloroethane	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	1,2-Dichlorobenzene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	1,2-Dichloroethane	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	1,2-Dichloropropane	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	1,3-Dichlorobenzene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	1,4-Dichlorobenzene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	2,4,6-Trichlorophenol	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	2,4-Dichlorophenol	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	2,4-Dimethylphenol	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	2,4-Dinitrophenol	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	2,4-Dinitrotoluene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	2,6-Dinitrotoluene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	2-Chloronapthalene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	2-Chlorophenol	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	2-Nitrophenol	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L

Orange County Sanitation District Priority Pollutants Analyses Results, Fiscal Year 2018/19

MONITORING LOCATION	NAME	Jul-18		Aug-18		Sep-18		Oct-08		Nov-18		Dec-18		Jan-19		Feb-19		Mar-19		Apr-19		May-19		Jun-19	
		ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	2-Chloroethylvinylether	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	3,3-Dichlorobenzidine	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	2-Methyl-4,6-Dinitrophenol	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	4-Bromophenyl-Phenyl Ether	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	4-Chloro-3-Methylphenol	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	4-Chlorophenyl-Phenyl Ether	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	4-Nitrophenol	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Acenaphthene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Acenaphthylene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Aldrin	ND	µg/L										ND	µg/L											
	Anthracene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	1,2-Diphenylhydrazine	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Benzo (a) Anthracene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Benzidine	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Benzo (a) Pyrene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Benzo (b) Fluoranthene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Benzo (g,h,i) Perylene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Benzo (k) Fluoranthene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Butyl Benzyl Phthalate	2.37	µg/L	1.89	µg/L	1.94	µg/L	1.29	µg/L	3.32	µg/L	ND	µg/L	0.950	µg/L	1.38	µg/L	1.74	µg/L	1.16	µg/L	1.08	µg/L	1.14	µg/L
	Chlordane	ND	µg/L										ND	µg/L											
	Chrysene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Di-n-Butyl Phthalate	0.850	µg/L	1.33	µg/L	1.45	µg/L	0.950	µg/L	1.18	µg/L	1.27	µg/L	0.670	µg/L	0.710	µg/L	0.660	µg/L	0.740	µg/L	0.770	µg/L	0.680	µg/L
	Di-n-Octyl Phthalate	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Dibenzo (a,h) Anthracene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Dieldrin	ND	µg/L											ND	µg/L										
	Diethylphthalate	2.22	µg/L	1.61	µg/L	2.55	µg/L	1.55	µg/L	2.96	µg/L	1.96	µg/L	1.78	µg/L	1.59	µg/L	1.28	µg/L	1.33	µg/L	2.31	µg/L	1.70	µg/L
	Dimethylphthalate	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Endosulfan	ND	µg/L											ND	µg/L										
	Endosulfan I	ND	µg/L											ND	µg/L										
	Endosulfan II	ND	µg/L											ND	µg/L										
	Endosulfan Sulfate	ND	µg/L											ND	µg/L										
	Endrin	ND	µg/L											ND	µg/L										
	Fluroanthene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L

Orange County Sanitation District Priority Pollutants Analyses Results, Fiscal Year 2018/19

MONITORING LOCATION	NAME	Jul-18		Aug-18		Sep-18		Oct-08		Nov-18		Dec-18		Jan-19		Feb-19		Mar-19		Apr-19		May-19		Jun-19	
			µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L
	Fluorene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Heptachlor	ND	µg/L											ND	µg/L										
	Hexachlorobenzene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Hexachlorobutadiene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Hexachlorocyclopentadiene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Hexachloroethane	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Indeno (1,2,3-cd) Pyrene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Isophorone	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Nitrobenzene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	PCB - 1016	ND	µg/L											ND	µg/L										
	PCB - 1221	ND	µg/L											ND	µg/L										
	PCB - 1232	ND	µg/L											ND	µg/L										
	PCB - 1242	ND	µg/L											ND	µg/L										
	PCB - 1248	ND	µg/L											ND	µg/L										
	PCB - 1254	ND	µg/L											ND	µg/L										
	PCB - 1260	ND	µg/L											ND	µg/L										
	Pentachlorophenol	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Phenanthrene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Phenol	3.12	µg/L	2.12	µg/L	1.19	µg/L	4.57	µg/L	2.74	µg/L	3.37	µg/L	4.66	µg/L	4.45	µg/L	4.59	µg/L	7.12	µg/L	6.90	µg/L	6.54	µg/L
	Pyrene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Acrolein	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Acrylonitrile	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Alpha-BHC	ND	µg/L											ND	µg/L										
	Benzene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Beta-BHC	ND	µg/L											ND	µg/L										
	Bis (2-Chloroethoxy) Methane	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Bis (2-Chloroethyl) Ether	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Bis (2-Ethylhexyl) Phthalate	8.82	µg/L	9.33	µg/L	12.9	µg/L	5.18	µg/L	13.5	µg/L	8.13	µg/L	6.05	µg/L	4.15	µg/L	4.18	µg/L	5.59	µg/L	7.81	µg/L	5.09	µg/L
	Bromodichloromethane	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Bromoform	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Bromomethane	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Carbon Tetrachloride	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Chlorobenzene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L

Orange County Sanitation District Priority Pollutants Analyses Results, Fiscal Year 2018/19

MONITORING LOCATION	NAME	Jul-18		Aug-18		Sep-18		Oct-08		Nov-18		Dec-18		Jan-19		Feb-19		Mar-19		Apr-19		May-19		Jun-19	
		ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Chloroethane	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Chloroform	2.32	µg/L	2.73	µg/L	1.17	µg/L	2.80	µg/L	2.49	µg/L	3.65	µg/L	4.18	µg/L	2.80	µg/L	2.20	µg/L	2.68	µg/L	1.95	µg/L	2.54	µg/L
	cis-1,3-Dichloropropene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Delta-BHC	ND	µg/L											ND	µg/L										
	Dibromochloromethane	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Ethylbenzene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Gamma-BHC	ND	µg/L											ND	µg/L										
	Methylene Chloride	ND	µg/L	4.30	µg/L	1.30	µg/L	2.40	µg/L	2.60	µg/L	1.90	µg/L	ND	µg/L	ND	µg/L	4.10	µg/L	2.10	µg/L	1.60	µg/L	ND	µg/L
	N-Nitrosodiprophylamine	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	N-Nitrosodimethylamine	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	N-Nitrosodiphenylamine	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	4,4'-DDD	ND	µg/L											ND	µg/L										
	4,4'-DDE	ND	µg/L											ND	µg/L										
	4,4'-DDT	ND	µg/L											ND	µg/L										
	Tetrachloroethene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Toluene	1.99	µg/L	1.63	µg/L	1.93	µg/L	4.52	µg/L	ND	µg/L	1.59	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	1.95	µg/L
	trans-1,2-Dichloroethene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	trans-1,3-Dichloropropene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Trichloroethene	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Vinyl Chloride	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Lead	1.65	µg/L	2.97	µg/L	3.08	µg/L	2.81	µg/L	3.36	µg/L	2.37	µg/L	3.19	µg/L	2.90	µg/L	2.20	µg/L	2.43	µg/L	6.23	µg/L	2.52	µg/L
	Antimony	1.08	µg/L	1.20	µg/L	1.14	µg/L	1.13	µg/L	1.56	µg/L	1.21	µg/L	2.04	µg/L	1.16	µg/L	0.980	µg/L	1.18	µg/L	1.67	µg/L	1.60	µg/L
	Selenium	6.33	µg/L	7.59	µg/L	6.56	µg/L	6.03	µg/L	6.75	µg/L	6.78	µg/L	5.69	µg/L	7.11	µg/L	6.67	µg/L	6.59	µg/L	8.01	µg/L	6.58	µg/L
	Thallium	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L	ND	µg/L
	Zinc	115	µg/L	223	µg/L	206	µg/L	198	µg/L	238	µg/L	185	µg/L	178	µg/L	161	µg/L	151	µg/L	142	µg/L	432	µg/L	176	µg/L

appendix c

PRIORITY POLLUTANTS

ORANGE COUNTY SANITATION DISTRICT

PRIORITY POLLUTANTS LIST

<u>Elements</u>	<u>Purgeable Organic Compounds</u> (EPA Method 624)	<u>Base/Neutral Extractable Organic</u> <u>Compounds (Continued)</u>
Antimony	Acrolein	Butyl Benzyl Phthalate
Arsenic	Acrylonitrile	2-Chloronaphthalene
Beryllium	Benzene	4-Chlorophenyl-Phenyl Ether
Cadmium	Bromomethane	Chrysene
Chromium	Bromodichloromethane	Dibenzo (a,h) Anthracene
Copper	Bromoform	Di-N-Butyl Phthalate
Lead	Carbon Tetrachloride	1,3-Dichlorobenzene
Mercury	Chlorobenzene	1,4-Dichlorobenzene
Nickel	2-Chloroethylvinylether	1,2-Dichlorobenzene
Selenium	Chloroform	3,3-Dichlorobenzidine
Silver	Chloromethane	Diethylphthalate
Thallium	Dibromochloromethane	Dimethylphthalate
Zinc	1,1-Dichloroethane	2,4-Dinitrotoluene
	1,2-Dichloroethane	2,6-Dinitrotoluene
	1,1-Dichloroethene	Di-N-Octyl Phthalate
<u>Other Constituents</u>	<u>Trans</u> -1,2-Dichloroethene	1,2-Diphenylhydrazine
Asbestos	1,2-Dichloropropane	Fluoroanthene
Cyanide	<u>Cis</u> -1,3-Dichloropropene	Fluorene
	<u>Trans</u> -1,3-Dichloropropene	Hexachlorobenzene
<u>Pesticides and PCB's</u> (EPA Method 608)	Ethylbenzene	Hexachlorobutadiene
	Methylene Chloride	Hexachloroethane
Aldrin	1,1,2,2-Tetrachloroethane	Hexachlorocyclopentadiene
Alpha-BHC	Tetrachloroethene	Indeno (1,2,3-cd) Pyrene
Beta-BHC	1,1,1-Trichloroethane	Isophorone
Delta-BHC	1,1,2-Trichloroethane	Naphthalene
Gamma-BHC	Trichloroethene	Nitrobenzene
Chlordane	Toluene	N-Nitrosodimethylamine
4,4'-DDD	Vinyl Chloride	N-Nitrosodiprophylamine
4,4'-DDE		N-Nitrosodiphenylamine
4,4'-DDT	<u>Base/Neutral Extractable Organic</u> <u>Compounds (EPA Method 625)</u>	Phenanthrene
Dieldrin	Acenaphthene	Pyrene
Endosulfan I	Acenaphthylene	2,3,7,8-Tetrachlorodibenzo-P-Dioxin
Endosulfan II	Anthracene	1,2,4-Trichlorobenzene
Endosulfan Sulfate	Benzidene	
Endrin	Benzo (a) Anthracene	<u>Acid Extractable Organic</u> <u>Compounds (EPA Method 625)</u>
Endrin Aldehyde	Benzo (b) Fluoroanthene	4-Chloro-3-Methylphenol
Heptachlor	Benzo (k) Fluoroanthene	2-Chlorophenol
Heptachlor Epoxide	Benzo (a) Pyrene	2,4-Dichlorophenol
PCB-1016	Benzo (g,h,i) Perylene	2,4-Dimethylphenol
PCB-1221	Bis (2-Chloroethyl) Ether	2,4-Dinitrophenol
PCB-1232	Bis (2-Chloroethoxy) Methane	2-Methyl-4,6-Dinitrophenol
PCB-1242	Bis (2-Ethylhexyl) Phthalate	2-Nitrophenol
PCB-1248	Bis (dichloroisopropyl) Ether	4-Nitrophenol
PCB-1254	4-Bromophenyl-Phenyl Ether	Pentachlorophenol
PCB-1260		Phenol
Toxaphene		2,4,6-Trichlorophenol

FEES/PENALTIES FOR NON-COMPLIANCES

**Orange County Sanitation District
Fees / Penalties for Non-Compliances
Fiscal Year 2018-2019**

Facility	Issue Date	Amount	Item	Enforcement ID
9W Halo Western opCo, L.P.	10/17/2018	\$815.00	Significant Non-Compliance Publication	2018-00025952
Accurate Circuit Engineering	05/13/2019	\$525.00	Notice of Violation	2019-00029479
Active Plating, Inc.	11/20/2018	\$725.00	Notice of Violation	2018-00026420
Advance Tech Plating, Inc.	05/16/2019	\$757.00	Notice of Violation	2019-00029508
Alloy Die Casting Co.	10/04/2018	\$483.00	Notice of Violation	2018-00025882
Alloy Tech Electropolishing, Inc.	09/28/2018	\$510.00	Notice of Violation	2018-00025489
Anchen Pharmaceuticals, Inc. (Goodyea	02/26/2019	\$675.00	Notice of Violation	2019-00028024
APCT Orange County	07/12/2018	\$260.00	Notice of Violation	2018-00024547
APCT Orange County	10/01/2018	\$400.00	Notice of Violation	2018-00025128
APCT Orange County	06/10/2019	\$525.00	Notice of Violation	2019-00029653
Arconic Global Fasteners & Rings, Inc.	06/10/2019	\$575.00	Notice of Violation	2019-00029866
Astech Engineered Products, Inc.	10/17/2018	\$980.00	Significant Non-Compliance Publication	2018-00025953
B. Braun Medical, Inc. (West/Lake)	11/21/2018	\$707.00	Notice of Violation	2018-00026419
Bazz Houston Co.	05/09/2019	\$400.00	Notice of Violation	2019-00029457
Beo-Mag Plating	02/26/2019	\$675.00	Notice of Violation	2019-00028356
Bristol Industries	09/04/2018	\$675.00	Notice of Violation	2018-00025129
Bristol Industries	12/17/2018	\$725.00	Notice of Violation	2018-00027001
Bristol Industries	02/25/2019	\$200.00	Notice of Violation	2019-00027737
Bristol Industries	02/25/2019	\$400.00	Notice of Violation	2019-00028036
Bristol Industries	02/26/2019	\$807.00	Notice of Violation	2019-00028355
Bristol Industries	03/18/2019	\$725.00	Notice of Violation	2019-00028387
Bristol Industries	04/08/2019	\$400.00	Notice of Violation	2019-00028922
Cadillac Plating, Inc.	12/04/2018	\$200.00	Notice of Violation	2018-00026761
Cal-Aurum Industries, Inc.	07/26/2018	\$535.00	Notice of Violation	2018-00024788
Catalina Cylinders, A Div. of APP	03/28/2019	\$400.00	Notice of Violation	2019-00028639
Catalina Cylinders, A Div. of APP	05/16/2019	\$400.00	Notice of Violation	2019-00029506
Central Powder Coating	07/18/2018	\$535.00	Notice of Violation	2018-00024596
Central Powder Coating	10/02/2018	\$200.00	Notice of Violation	2018-00025143
City of Huntington Beach Fire Departme	05/28/2019	\$400.00	Notice of Violation	2019-00029538
CJ Foods Manufacturing Corp.	08/22/2018	\$483.00	Notice of Violation	2018-00025126
Cooper and Brain, Inc.	09/10/2018	\$400.00	Notice of Violation	2018-00025485
D.F. Stauffer Biscuit Co., Inc.	07/19/2018	\$233.00	Notice of Violation	2018-00024595
Darling International, Inc.	10/22/2018	\$507.00	Notice of Violation	2018-00025962
Dr. Smoothie Enterprises - DBA Bevolut	11/20/2018	\$507.00	Notice of Violation	2018-00026418
Dr. Smoothie Enterprises - DBA Bevolut	12/17/2018	\$400.00	Notice of Violation	2018-00026999
Dunham Metal Processing	01/18/2019	\$775.00	Notice of Violation	2019-00027760
Electro Metal Finishing Corporation	09/28/2018	\$710.00	Notice of Violation	2018-00025486
Excello Circuits Manufacturing Corp.	08/23/2018	\$710.00	Notice of Violation	2018-00025136
FMH Aerospace Corp DBA FMH Corpora	09/04/2018	\$200.00	Notice of Violation	2018-00025361
Goodwin Company	06/04/2019	\$400.00	Notice of Violation	2019-00029823
Green Clean Water & Waste Services	10/17/2018	\$815.00	Significant Non-Compliance Publication	2018-00025954
Green Clean Water & Waste Services	12/27/2018	\$225.00	Notice of Violation	2018-00027367
Hanson-Loran Co., Inc.	03/19/2019	\$507.00	Notice of Violation	2019-00028623
Hanson-Loran Co., Inc.	05/09/2019	\$200.00	Notice of Violation	2019-00029410

**Orange County Sanitation District
Fees / Penalties for Non-Compliances
Fiscal Year 2018-2019**

Facility	Issue Date	Amount	Item	Enforcement ID
Hanson-Loran Co., Inc.	06/12/2019	\$707.00	Notice of Violation	2019-00029879
Hightower Plating & Manufacturing Co.	06/10/2019	\$525.00	Notice of Violation	2019-00029519
Hixson Metal Finishing	10/11/2018	\$775.00	Notice of Violation	2018-00025891
Hixson Metal Finishing	10/18/2018	\$21,000.00	Administrative Complaint Settlement Agreement	2018-00023606
Independent Forge Company	03/07/2019	\$400.00	Notice of Violation	2019-00028547
Independent Forge Company	04/03/2019	\$725.00	Notice of Violation	2019-00028607
Industrial Metal Finishing, Inc.	01/02/2019	\$507.00	Notice of Violation	2018-00027375
Irvine Company Apartment Communities	01/16/2019	\$400.00	Notice of Violation	2019-00027748
J&J Marine Aquisitions, LLC	05/13/2019	\$725.00	Notice of Violation	2019-00029477
Kenlen Specialities, Inc.	10/11/2018	\$775.00	Notice of Violation	2018-00025890
Legendary Baking of California, LLC	10/11/2018	\$507.00	Notice of Violation	2018-00025912
Legendary Baking of California, LLC	01/09/2019	\$507.00	Notice of Violation	2019-00027625
Linco Industries, Inc.	02/26/2019	\$756.00	Notice of Violation	2019-00028357
Manufactured Packaging Products	10/17/2018	\$485.00	Significant Non-Compliance Publication	2018-00025504
Marukome USA, Inc.	08/22/2018	\$483.00	Notice of Violation	2018-00025130
Murrietta Circuits	01/15/2019	\$707.00	Notice of Violation	2019-00027735
National Construction Rentals	05/10/2019	\$200.00	Notice of Violation	2019-00028989
National Construction Rentals	05/10/2019	\$707.00	Notice of Violation	2019-00029523
O.C. Waste & Recycling	04/03/2019	\$507.00	Notice of Violation	2019-00028605
Only Cremations for Pets	07/18/2018	\$508.00	Notice of Violation	2018-00024597
Patio and Door Outlet, Inc.	04/03/2019	\$725.00	Notice of Violation	2019-00028608
Patriot Wastewater, LLC (Freedom CWT)	03/12/2019	\$200.00	Notice of Violation	2019-00028436
Performance Powder, Inc.	10/22/2018	\$725.00	Notice of Violation	2018-00025990
Precon, Inc.	04/03/2019	\$725.00	Notice of Violation	2019-00028606
Precon, Inc.	04/04/2019	\$200.00	Notice of Violation	2019-00028846
Prima-Tex Industries Inc.	07/12/2018	\$535.00	Notice of Violation	2018-00024548
Republic Waste Services	10/25/2018	\$875.00	Notice of Violation	2018-00026108
Safran Electronics & Defense, Avionics	10/09/2018	\$400.00	Notice of Violation	2018-00025895
South Coast Baking, LLC	05/09/2019	\$507.00	Notice of Violation	2019-00029412
SPS Technologies LLC, DBA Cherry Aero	07/26/2018	\$225.00	Notice of Violation	2018-00024786
SPS Technologies LLC, DBA Cherry Aero	12/17/2018	\$725.00	Notice of Violation	2018-00027000
Star Manufacturing LLC, dba Commercial	04/04/2019	\$400.00	Notice of Violation	2019-00028878
Star Manufacturing LLC, dba Commercial	06/03/2019	\$756.00	Notice of Violation	2019-00029712
Statek Corporation (Main)	02/26/2019	\$707.00	Notice of Violation	2019-00028358
Superior Plating	05/29/2019	\$50,000.00	Administrative Complaint Settlement Agreement	2019-00029509
Tayco Engineering, Inc.	01/18/2019	\$725.00	Notice of Violation	2019-00027759
Taylor-Dunn Manufacturing Company	02/26/2019	\$725.00	Notice of Violation	2019-00027756
Thompson Energy Resources, LLC	08/20/2018	\$549.00	Notice of Violation	2018-00025086
TTM Technologies North America, LLC.	10/02/2018	\$400.00	Notice of Violation	2018-00025778
TTM Technologies North America, LLC.	11/08/2018	\$400.00	Notice of Violation	2018-00026116
TTM Technologies North America, LLC.	11/08/2018	\$400.00	Notice of Violation	2018-00026320
Ultra-Pure Metal Finishing, Inc.	05/13/2019	\$725.00	Notice of Violation	2019-00029474
Van Law Food Products, Inc.	10/11/2018	\$707.00	Notice of Violation	2018-00025910
Van Law Food Products, Inc.	10/25/2018	\$200.00	Notice of Violation	2018-00026119

**PUBLIC NOTICE OF SIGNIFICANTLY
NON-COMPLIANT INDUSTRIES**

The Orange County Register

2190 S. Towne Centre Place Suite 100
Anaheim, CA 92806
714-796-2209

5190301

OC SANITATION DIST DIRECT
10844 ELLIS AVE
FOUNTAIN VALLEY, CA 92708-7018

AFFIDAVIT OF PUBLICATION

STATE OF CALIFORNIA, }
County of Orange } SS.

I am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the above entitled matter. I am the principal clerk of The Orange County Register, a newspaper of general circulation, published in the city of Santa Ana, County of Orange, and which newspaper has been adjudged to be a newspaper of general circulation by the Superior Court of the County of Orange, State of California, under the date of November 19, 1905, Case No. A-21046, that the notice, of which the annexed is a true printed copy, has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to wit:

10/21/2019

I certify (or declare) under the penalty of perjury under the laws of the State of California that the foregoing is true and correct:

Executed at Anaheim, Orange County, California, on
Date: October 21, 2019.



Signature

PROOF OF PUBLICATION

Legal No. 0011326591

PUBLIC NOTICE

In accordance with the public participation requirements of 40 CFR Part 25 in the enforcement of National Pretreatment Standards and as defined by 40 CFR 403.8(f)(2)(viii), the Orange County Sanitation District (OCSD) is hereby publishing the following list of permittees who, during July 1, 2018 through June 30, 2019, were identified as industries in significant noncompliance with wastewater discharge standards. An industry in significant noncompliance is defined as follows:

- Chronic violations of discharge limits occurring when 66% or more of all measurements exceed the discharge limits for the same pollutant.
- Acute violations of discharge limits occurring when 33% or more of all measurements are a major violation of the discharge limits.
- Any other violation that OCSD determines has caused, alone or in combination with other discharges, interference or pass through.
- Any discharge of a pollutant that has caused imminent endangerment to human health, welfare or to the environment or has resulted in OCSD's exercise of its emergency authority to halt or prevent such a discharge.
- Failure to meet, within 90 days after the schedule date, a compliance schedule milestone.
- Failure to provide required reports including, but not limited to, periodic self-monitoring reports and reports with compliance schedules within 45 days of the due date.
- Failure to accurately report noncompliance with discharge limits or any other requirements applicable to the user pursuant to OCSD's Wastewater Discharge Regulations (Ordinance).
- Any other violation or group of violations, which OCSD determines will adversely affect the implementation of the pretreatment program.

OCSD has taken enforcement action against these permittees. The majority of the permittees listed below have implemented adequate corrective actions and may be in compliance with the wastewater discharge standards as of the date of this publication.

Company Name	Permit No.	Category	City
Industries SNC Due to Discharge Violations			
Azonic Global Fasteners & Rings, Inc.	1-021061	Aluminum Finishing, Metal Finishing, Nonferrous Metals Forming And Metal Products	Fountain Valley
Batal Industries	1-025226	Aluminum Finishing, Metal Finishing, Nonferrous Metals Forming And Metal Products	Irvine
Catalina Cylinders, A Div. of APP	1-033021	Aluminum Finishing	Garden Grove
Independent Forge Company	1-021431	Aluminum Finishing	Orange
Kerten Specialties, Inc.	1-021171	Metal Finishing	Fountain Valley
Palco and Door Outlet, Inc.	1-021738	Metal Finishing	Orange
Plyme Tex Industries Inc.	1-021036	OCSD Local Limits	Brea Park
Republic Waste Services	1-021697	OCSD Local Limits	Anaheim
Star Manufacturing LLC, dba Commercial Metal Forming	1-000053	OCSD Local Limits	Orange
Industries SNC Due to Reporting Violations			
Autze Plating, Inc.	1-011133	Metal Finishing	Santa Ana
Coastline Metal Finishing Corp., A Division of Valencia Surface Technologies	1-002739	Metal Finishing	Garden Grove
Hartwell Corporation	1-021561	OCSD Local Limits	Placentia
JD Processing, Inc.	1-011407	Metal Finishing	Santa Ana
Mill Metal Company	1-011096	OCSD Local Limits	Irvine
National Construction Rentals	1-000052	OCSD Local Limits	Santa Ana

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appendix g

IRWD SAMPLING

APPENDIX G

2018/19 Irvine Ranch Water District (IRWD) Quarterly Priority Pollutant Monitoring

Sampling is performed quarterly by Regulatory Compliance personnel on the influent, effluent, and sludge. The results for MWRP influent, effluent, and sludge are shown in this appendix. Two types of sampling are performed:

1. Grab samples are collected at each location for Volatile Organic Priority Pollutants and cyanide.
2. Composite samples are collected for Base/Neutrals and Acids Extractables, Inorganic Priority Pollutants, Pesticides/Polychlorinated Biphenyls at each location. This sampling is performed with an automatic sampler that collects discrete, flow-paced samples over a 24-hour period. The composite samples are collected in 5-gallon glass bottles, and then distributed out into the appropriate glass or plastic bottle for preservation and storage.

The collection points for the samples are as follows:

- Influent: Collected from the headworks, just downstream of grit basin.
- Effluent: Collected at the end of the chlorine contact basin (CCB) but downstream of where the CCB effluent and ultraviolet (UV) disinfected effluent are combined, just prior to entering the recycled water distribution system.
- Sludge: Collected at the flow meter vault on the MPS-3 force main.

Cyanide analyses are performed by Weck Laboratories in the City of Industry, California. All remaining analyses are preserved, refrigerated, and analyzed by IRWD. IRWD supplies all analysis containers with the proper preservative.

The detection limits shown in the results are the limits for that particular sample. The detection limit may vary from the laboratory and from sample to sample based on QA/QC analysis and the degree of sample dilution.

APPENDIX G
 INFLUENT, FINAL EFFLUENT AND SLUDGE LINE
 MICHELSON WATER RECYCLING PLANT
 SUMMARY OF INORGANIC PRIORITY POLLUTANT ANALYSES FOR INFLUENT, EFFLUENT AND SLUDGE
 (all test results in ug/l except as noted)

Sample Date	7/11/2018	10/17/2018	1/16/2019	4/3/2019	AVERAGE 2018-2019	AVERAGE 2017-2018	ML						MIN ML
INFLUENT													
Antimony	ND	ND	ND	0.742	0.186	ND	0.50	2.50	2.50	2.50	0.500	0.50	0.50
Arsenic	ND	ND	ND	2.47	0.618	ND	1.00	5.00	5.00	5.00	1.00	1.00	1.00
Beryllium	ND	ND	ND	ND	ND	ND	0.50	2.50	2.50	2.50	0.500	0.50	0.50
Cadmium	ND	ND	ND	ND	ND	ND	0.25	1.25	1.25	1.25	0.250	0.25	0.25
Chromium	2.81	ND	3.27	2.25	2.08	0.958	0.50	2.50	2.50	2.50	0.500	0.50	0.50
Copper	121	55.0	95.6	76.6	87.1	58.6	0.50	2.50	2.50	2.50	0.500	0.50	0.50
Lead	ND	ND	ND	1.39	0.348	ND	0.50	2.50	2.50	2.50	0.500	0.50	0.50
Mercury	0.106	0.037	0.060	ND	0.051	0.023	0.01	0.010	0.010	0.050	0.010	0.01	0.01
Nickel	5.85	4.15	4.71	3.17	4.47	7.48	0.50	2.50	2.50	2.50	0.500	0.50	0.50
Selenium	3.30	2.95	2.84	2.40	2.87	1.74	0.50	2.50	2.50	2.50	0.500	0.50	0.50
Silver	ND	ND	ND	3.11	0.78	ND	0.25	1.25	1.25	1.25	0.250	0.25	0.25
Thallium	ND	ND	ND	ND	ND	ND	1.00	5.00	5.00	5.00	1.00	1.00	1.00
Total Cyanide	14.0	ND	ND	ND	3.50	14.5	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Zinc	221	137	118	175	163	140	0.50	2.50	2.50	2.50	0.500	0.50	0.50
EFFLUENT													
Antimony	ND	ND	ND	ND	ND	ND	0.50	0.500	0.500	0.500	0.500	0.50	0.50
Arsenic	1.44	1.88	2.24	1.63	1.80	1.13	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Beryllium	ND	ND	ND	ND	ND	ND	0.50	0.500	0.500	0.500	0.500	0.50	0.50
Cadmium	ND	ND	ND	ND	ND	ND	0.25	0.250	0.250	0.250	0.250	0.25	0.25
Chromium	0.546	ND	0.510	ND	0.270	ND	0.50	0.500	0.500	0.500	0.500	0.50	0.50
Copper	6.67	7.28	7.23	4.26	6.36	6.30	0.50	0.500	0.500	0.500	0.500	0.50	0.50
Lead	ND	ND	ND	ND	ND	ND	0.50	0.500	0.500	0.500	0.500	0.50	0.50
Mercury	ND	ND	ND	ND	ND	ND	0.01	0.010	0.01	0.01	0.01	0.01	0.01
Nickel	6.58	4.97	2.71	1.89	4.04	3.30	0.50	0.500	0.500	0.500	0.500	0.50	0.50
Selenium	1.49	2.05	2.02	1.32	1.72	1.36	0.50	0.500	0.500	0.500	0.500	0.50	0.50
Silver	ND	ND	ND	ND	ND	ND	0.25	0.250	0.250	0.250	0.250	0.25	0.25

APPENDIX G
 INFLUENT, FINAL EFFLUENT AND SLUDGE LINE
 MICHELSON WATER RECYCLING PLANT
 SUMMARY OF INORGANIC PRIORITY POLLUTANT ANALYSES FOR INFLUENT, EFFLUENT AND SLUDGE
 (all test results in ug/l except as noted)

Sample Date	7/11/2018	10/17/2018	1/16/2019	4/3/2019	AVERAGE	AVERAGE	ML						MIN ML
					2018-2019	2017-2018							
Thallium	ND	ND	ND	ND	ND	ND	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Total Cyanide	ND	ND	ND	13.0	3.25	ND	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Zinc	66.3	67.2	65.4	55.7	63.7	55.4	0.50	0.500	0.500	0.500	0.500	0.500	0.50
SLUDGE													
Antimony	5.60	7.63	ND	ND	3.31	2.27	5.00	5.00	5.00	10.00	12.50	5.00	5.00
Arsenic	22.2	34.7	24.0	42.1	30.8	11.9	10.00	10.00	10.00	20.00	25.00	10.00	10.00
Beryllium	ND	ND	ND	ND	ND	ND	5.00	5.00	5.00	10.00	12.50	5.00	5.00
Cadmium	3.20	3.77	ND	ND	1.74	1.34	2.50	2.50	2.50	5.00	6.25	2.50	2.50
Chromium	42.1	64.0	71.4	81.6	64.8	39.2	5.00	5.00	5.00	10.00	12.50	5.00	5.00
Copper	1530	2790	1470	3890	2420	1596	5.00	5.00	5.00	10.00	12.50	5.00	5.00
Lead	26.1	30.3	28.7	55.4	35.1	15.3	5.00	5.00	5.00	10.00	12.50	5.00	5.00
Mercury	0.334	1.28	ND	3.63	1.31	0.88	0.01	0.20	0.50	0.50	0.01	0.01	0.01
Nickel	62.2	165	86.9	163	119	79.4	5.00	5.00	5.00	10.00	12.50	5.00	5.00
Selenium	29.9	70.1	31.7	105	59.2	31.1	5.00	5.00	5.00	10.00	12.50	5.00	5.00
Silver	9.8	27.3	9.17	26.4	18.2	15.0	2.50	2.50	2.50	5.00	6.25	2.50	2.50
Thallium	ND	ND	ND	ND	ND	ND	10.00	10.00	10.00	20.00	25.00	10.00	10.00
Total Cyanide	ND	ND	ND	10.0	2.50	ND	5.00	5.00	5.00	50.00	10.00	5.00	5.00
Zinc	3200	3100	2620	5430	3588	3194	5.00	5.00	5.00	10.00	12.50	5.00	5.00

ML = Method Limit
 ND = Not Detected
 NA = Not Analyzed
 * = Estimated Concentration

APPENDIX G
INFLUENT
MICHELSON WATER RECYCLING PLANT
SUMMARY OF ORGANIC PRIORITY POLLUTANT ANALYSES FOR INFLUENT
ORGANIC ANALYSES PERFORMED BY IRWD AND WECK LABORATORIES
(all test results in ug/l except as noted)

Sample Date	7/11/2018	10/17/2018	1/16/2019	4/3/2019	AVERAGE	AVERAGE	ML	7/11/2018	10/17/2018	1/16/2019	4/3/2019	ML-Minimum
	9/18/2018				2018-2019	2017-2018		9/18/2018				
VOLATILE PRIORITY POLLUTANTS:												
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	0.50	0.50	0.50	0.50	0.50	0.50
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	0.50	0.50	0.50	0.50	0.50	0.50
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	0.50	0.50	0.50	0.50	0.50	0.50
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	0.50	0.50	0.50	0.50	0.50	0.50
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	0.50	0.50	0.50	0.50	0.50	0.50
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	0.50	0.50	0.50	0.50	0.50	0.50
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	0.50	0.50	0.50	0.50	0.50	0.50
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	0.50	0.50	0.50	0.50	0.50	0.50
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	0.50	0.50	0.50	0.50	0.50	0.50
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	0.50	0.50	0.50	0.50	0.50	0.50
Acrolein	ND	ND	ND	ND	ND	ND	5.00	5.00	5.00	5.00	5.00	5.00
Acrylonitrile	ND	ND	ND	ND	ND	ND	2.00	2.00	2.00	2.00	2.00	2.00
Benzene	ND	ND	ND	ND	ND	ND	0.50	0.50	0.50	0.50	0.50	0.50
Bromodichloromethane	ND	ND	ND	ND	ND	ND	0.50	0.50	0.50	0.50	0.50	0.50
Bromoform	ND	ND	ND	ND	ND	ND	0.50	0.50	0.50	0.50	0.50	0.50
Bromomethane	ND	ND	ND	ND	ND	ND	0.50	0.50	0.50	0.50	0.50	0.50
Carbon tetrachloride	ND	ND	ND	ND	ND	ND	0.50	0.50	0.50	0.50	0.50	0.50
Chlorobenzene	ND	ND	ND	ND	ND	ND	0.50	0.50	0.50	0.50	0.50	0.50
Chloroethane	ND	ND	ND	ND	ND	ND	0.50	0.50	0.50	0.50	0.50	0.50
Chloroform	0.96	0.78	1.07	1.42	1.06	1.45	0.50	0.50	0.50	0.50	0.50	0.50
Chloromethane	ND	ND	ND	ND	ND	ND	0.50	0.50	0.50	0.50	0.50	0.50
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	0.50	0.50	0.50	0.50	0.50	0.50
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	0.50	0.50	0.50	0.50	0.50	0.50
Dibromochloromethane	ND	ND	0.78	0.70	0.37	ND	0.50	0.50	0.50	0.50	0.50	0.50
Ethylbenzene	ND	ND	ND	ND	ND	ND	0.50	0.50	0.50	0.50	0.50	0.50
Methylene chloride	ND	ND	ND	ND	ND	ND	2.00	2.00	2.00	2.00	2.00	2.00
Tetrachloroethene	ND	ND	ND	ND	ND	ND	0.50	0.50	0.50	0.50	0.50	0.50
Toluene	1.16	1.44	0.74	0.71	1.01	0.48	0.50	0.50	0.50	0.50	0.50	0.50
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	0.50	0.50	0.50	0.50	0.50	0.50
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	0.50	0.50	0.50	0.50	0.50	0.50
Trichloroethylene	ND	ND	ND	ND	ND	ND	0.50	0.50	0.50	0.50	0.50	0.50
Trichlorofluoromethane	ND	ND	ND	ND	ND	ND	0.50	0.50	0.50	0.50	0.50	0.50
Vinyl chloride	ND	ND	ND	ND	ND	ND	0.50	0.50	0.50	0.50	0.50	0.50

VOLATILE POLLUTANTS - HAZARDOUS SUBSTANCES:

APPENDIX G
 INFLUENT
 MICHELSON WATER RECYCLING PLANT
 SUMMARY OF ORGANIC PRIORITY POLLUTANT ANALYSES FOR INFLUENT
 ORGANIC ANALYSES PERFORMED BY IRWD AND WECK LABORATORIES
 (all test results in ug/l except as noted)

Sample Date	7/11/2018				AVERAGE		ML	7/11/2018				ML-Minimum
	9/18/2018	10/17/2018	1/16/2019	4/3/2019	2018-2019	2017-2018		9/18/2018	10/17/2018	1/16/2019	4/3/2019	
2-Hexanone	ND	ND	ND	ND	ND	ND	10.00	10.00	10.00	10.00	10.00	10.00
4-Methyl-2-pentanone	ND	ND	ND	ND	ND	ND	10.00	10.00	10.00	10.00	10.00	10.00
Acetone	101.00	56.60	317.00	93.00	141.90	665.75	2.00	2.00	2.00	2.00	2.00	2.00
Carbon disulfide	ND	ND	ND	ND	ND	1.57	1.00	1.00	1.00	1.00	1.00	1.00
m+p-Xylenes	ND	ND	ND	ND	ND	ND	0.50	0.50	0.50	0.50	0.50	0.50
Methyl ethyl ketone	2.09	ND	ND	4.78	1.72	3.04	2.00	2.00	2.00	2.00	2.00	2.00
o-Xylene	ND	ND	ND	ND	ND	ND	0.50	0.50	0.50	0.50	0.50	0.50
Styrene	ND	ND	ND	ND	ND	ND	0.50	0.50	0.50	0.50	0.50	0.50
Tetrahydrofuran	ND	ND	ND	ND	ND	ND	10.00	10.00	10.00	10.00	10.00	10.00
Vinyl acetate	ND	ND	ND	ND	ND	ND	0.05	0.05	0.05	0.05	0.05	0.05

BASE/NEUTRAL EXTRACTABLE PRIORITY POLLUTANTS:

1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	10.00	10.00	25.00	25.00	25.00	10.00
1,2-Diphenylhydrazine	ND	ND	ND	ND	ND	ND	5.00	10.00	5.00	5.00	5.00	5.00
2,4-Dinitrotoluene	ND	ND	ND	ND	ND	ND	10.00	10.00	25.00	25.00	25.00	10.00
2,6-Dinitrotoluene	ND	ND	ND	ND	ND	ND	10.00	10.00	25.00	25.00	25.00	10.00
2-Chloronaphthalene	ND	ND	ND	ND	ND	ND	10.00	10.00	50.00	50.00	50.00	10.00
3,3'-Dichlorobenzidine	ND	ND	ND	ND	ND	ND	25.00	50.00	25.00	25.00	25.00	25.00
4-Bromophenyl phenyl	ND	ND	ND	ND	ND	ND	10.00	10.00	25.00	25.00	25.00	10.00
4-Chlorophenyl phenyl ether	ND	ND	ND	ND	ND	ND	10.00	10.00	25.00	25.00	25.00	10.00
Acenaphthene	ND	ND	ND	ND	ND	ND	5.00	10.00	5.00	5.00	5.00	5.00
Acenaphthylene	ND	ND	ND	ND	ND	ND	10.00	10.00	50.00	50.00	50.00	10.00
Anthracene	ND	ND	ND	ND	ND	ND	10.00	10.00	25.00	25.00	25.00	10.00
Benzidine	ND	ND	ND	ND	ND	ND	25.00	100.00	25.00	25.00	25.00	25.00
Benzo(a)anthracene	ND	ND	ND	ND	ND	ND	10.00	10.00	25.00	25.00	25.00	10.00
Benzo(a)pyrene	ND	ND	ND	ND	ND	ND	10.00	10.00	50.00	50.00	50.00	10.00
Benzo(b)fluoranthene	ND	ND	ND	ND	ND	ND	10.00	10.00	50.00	50.00	50.00	10.00
Benzo(g,h,i)perylene	ND	ND	ND	ND	ND	ND	20.00	20.00	25.00	25.00	25.00	20.00
Benzo(k)fluoranthene	ND	ND	ND	ND	ND	ND	10.00	10.00	50.00	50.00	50.00	10.00
Bis(2-chloroethoxy)methane	ND	ND	ND	ND	ND	ND	10.00	10.00	25.00	25.00	25.00	10.00
Bis(2-Chloroethyl) ether	ND	ND	6.20	ND	1.55	ND	5.00	10.00	5.00	5.00	5.00	5.00
Bis(2-Chloroisopropyl) ether	ND	ND	ND	ND	ND	ND	10.00	10.00	10.00	10.00	10.00	10.00
Bis(2-Ethylhexyl) phthalate	ND	ND	ND	ND	ND	ND	25.00	50.00	25.00	25.00	25.00	25.00
Butyl benzyl phthalate	ND	ND	ND	ND	ND	ND	10.00	10.00	50.00	50.00	50.00	10.00
Chrysene	ND	ND	ND	ND	ND	ND	10.00	10.00	50.00	50.00	50.00	10.00
Dibenzo(a,h)anthracene	ND	ND	ND	ND	ND	ND	20.00	20.00	50.00	50.00	50.00	20.00
Diethyl phthalate	ND	ND	ND	ND	ND	ND	10.00	10.00	10.00	10.00	10.00	10.00
Dimethyl phthalate	ND	ND	ND	ND	ND	ND	10.00	10.00	10.00	10.00	10.00	10.00

APPENDIX G
 INFLUENT
 MICHELSON WATER RECYCLING PLANT
 SUMMARY OF ORGANIC PRIORITY POLLUTANT ANALYSES FOR INFLUENT
 ORGANIC ANALYSES PERFORMED BY IRWD AND WECK LABORATORIES
 (all test results in ug/l except as noted)

Sample Date	7/11/2018	10/17/2018	1/16/2019	4/3/2019	AVERAGE	AVERAGE	ML	7/11/2018	10/17/2018	1/16/2019	4/3/2019	ML-Minimum
	9/18/2018				2018-2019	2017-2018		9/18/2018				
Di-N-Butylphthalate	ND	ND	ND	ND	ND	ND	10.00	10.00	50.00	50.00	50.00	10.00
Di-N-Octylphthalate	ND	ND	ND	ND	ND	ND	10.00	10.00	50.00	50.00	50.00	10.00
Fluoranthene	ND	ND	ND	ND	ND	ND	5.00	10.00	5.00	5.00	5.00	5.00
Fluorene	ND	ND	ND	ND	ND	ND	10.00	10.00	50.00	50.00	50.00	10.00
Hexachlorobenzene	ND	ND	ND	ND	ND	ND	5.00	10.00	5.00	5.00	5.00	5.00
Hexachlorobutadiene	ND	ND	ND	ND	ND	ND	5.00	10.00	5.00	5.00	5.00	5.00
Hexachlorocyclopentadiene	ND	ND	ND	ND	ND	ND	25.00	50.00	25.00	25.00	25.00	25.00
Hexachloroethane	ND	ND	ND	ND	ND	ND	5.00	10.00	5.00	5.00	5.00	5.00
Indeno(1,2,3-cd)pyrene	ND	ND	ND	ND	ND	ND	20.00	20.00	50.00	50.00	50.00	20.00
Isophorone	ND	ND	ND	ND	ND	ND	5.00	10.00	5.00	5.00	5.00	5.00
Naphthalene	ND	ND	ND	ND	ND	ND	5.00	10.00	5.00	5.00	5.00	5.00
Nitrobenzene	ND	ND	ND	ND	ND	ND	5.00	10.00	5.00	5.00	5.00	5.00
N-Nitrosodimethylamine	ND	ND	ND	ND	ND	ND	10.00	10.00	25.00	25.00	25.00	10.00
N-Nitrosodi-n-propylamine	ND	ND	ND	ND	ND	ND	10.00	10.00	25.00	25.00	25.00	10.00
N-Nitrosodiphenylamine	ND	ND	ND	ND	ND	ND	5.00	10.00	5.00	5.00	5.00	5.00
Phenanthrene	ND	ND	ND	ND	ND	ND	10.00	10.00	25.00	25.00	25.00	10.00
Pyrene	ND	ND	ND	ND	ND	ND	10.00	10.00	50.00	50.00	50.00	10.00

ACID EXTRACTABLE PRIORITY POLLUTANTS:

2,4,6-Trichlorophenol	ND	ND	ND	ND	ND	ND	10.00	10.00	50.00	50.00	50.00	10.00
2,4-Dichlorophenol	ND	ND	ND	ND	ND	ND	10.00	10.00	25.00	25.00	25.00	10.00
2,4-Dimethylphenol	ND	ND	ND	ND	ND	ND	10.00	10.00	10.00	10.00	10.00	10.00
2,4-Dinitrophenol	ND	ND	ND	ND	ND	ND	25.00	100.00	25.00	25.00	25.00	25.00
2-Chlorophenol	ND	ND	ND	ND	ND	ND	10.00	10.00	25.00	25.00	25.00	10.00
2-Nitrophenol	ND	ND	ND	ND	ND	ND	10.00	10.00	50.00	50.00	50.00	10.00
4,6-Dinitro-o-cresol	ND	ND	ND	ND	ND	ND	25.00	50.00	25.00	25.00	25.00	25.00
4-Nitrophenol	ND	ND	ND	ND	ND	ND	50.00	50.00	50.00	50.00	50.00	50.00
p-Chloro-m-cresol	ND	ND	ND	ND	ND	ND	5.00	10.00	5.00	5.00	5.00	5.00
Pentachlorophenol	ND	ND	ND	ND	ND	ND	10.00	10.00	25.00	25.00	25.00	10.00
Phenol	ND	14.70	ND	ND	3.68	13.88	5.00	10.00	5.00	5.00	5.00	5.00

BNA EXTRACTABLE POLLUTANTS - HAZARDOUS SUBSTANCES

2,4,5-Trichlorophenol	NA	ND	ND	ND	ND	ND	25.00	-	25.00	25.00	25.00	25.00
2-Methylnaphthalene	NA	ND	ND	ND	ND	ND	25.00	-	25.00	25.00	25.00	25.00
2-Methylphenol	NA	ND	ND	ND	ND	ND	25.00	-	25.00	25.00	25.00	25.00
2-Nitroaniline	NA	ND	ND	ND	ND	ND	50.00	-	50.00	50.00	50.00	50.00
3-Nitroaniline	NA	ND	ND	ND	ND	ND	100.00	-	100.00	100.00	100.00	100.00

APPENDIX G
 INFLUENT
 MICHELSON WATER RECYCLING PLANT
 SUMMARY OF ORGANIC PRIORITY POLLUTANT ANALYSES FOR INFLUENT
 ORGANIC ANALYSES PERFORMED BY IRWD AND WECK LABORATORIES
 (all test results in ug/l except as noted)

Sample Date	7/11/2018					AVERAGE	AVERAGE	ML	7/11/2018					ML-Minimum
	9/18/2018	10/17/2018	1/16/2019	4/3/2019	2018-2019	2017-2018	9/18/2018		10/17/2018	1/16/2019	4/3/2019			
4-Chloroaniline	NA	ND	ND	ND	ND	ND	25.00	-	25.00	25.00	25.00	25.00	25.00	
3&4-Methylphenol	NA	49.60	24.30	38.20	37.37	25.70	5.00	-	5.00	5.00	5.00	5.00	5.00	
4-Nitroaniline	NA	ND	ND	ND	ND	ND	100.00	-	100.00	100.00	100.00	100.00	100.00	
Aniline	NA	ND	ND	ND	ND	ND	25.00	-	25.00	25.00	25.00	25.00	25.00	
Benzoic acid	NA	ND	ND	ND	ND	ND	250.00	-	250.00	250.00	250.00	250.00	250.00	
Benzyl alcohol	NA	ND	ND	ND	ND	ND	25.00	-	25.00	25.00	25.00	25.00	25.00	
Dibenzofuran	NA	ND	ND	ND	ND	ND	25.00	-	25.00	25.00	25.00	25.00	25.00	
PRIORITY POLLUTANT PESTICIDES:														
4,4'-DDD	ND	ND	ND	ND	ND	ND	0.25	0.50	0.25	5.00	5.00	0.25	0.25	
4,4'-DDE	ND	ND	ND	ND	ND	ND	0.25	0.50	0.25	5.00	5.00	0.25	0.25	
4,4'-DDT	ND	ND	ND	ND	ND	ND	0.05	0.10	0.05	1.00	1.00	0.05	0.05	
Aldrin	ND	ND	ND	ND	ND	ND	0.05	0.05	0.05	0.50	0.50	0.05	0.05	
Alpha-BHC	ND	ND	ND	ND	ND	ND	0.05	0.10	0.05	1.00	1.00	0.05	0.05	
Beta-BHC	ND	ND	ND	ND	ND	ND	0.05	0.05	0.05	0.50	0.50	0.05	0.05	
Chlordane	ND	ND	ND	ND	ND	ND	0.50	5.00	0.50	10.00	10.00	0.50	0.50	
Delta-BHC	ND	ND	ND	ND	ND	ND	0.05	0.05	0.05	0.50	0.50	0.05	0.05	
Dieldrin	ND	ND	ND	ND	ND	ND	0.05	0.10	0.05	1.00	1.00	0.05	0.05	
Endosulfan sulfate	ND	ND	ND	ND	ND	ND	0.25	0.50	0.25	5.00	5.00	0.25	0.25	
Endosulfan-I	ND	ND	ND	ND	ND	ND	0.10	0.20	0.10	2.00	2.00	0.10	0.10	
Endosulfan-II	ND	ND	ND	ND	ND	ND	0.05	0.10	0.05	1.00	1.00	0.05	0.05	
Endrin	ND	ND	ND	ND	ND	ND	0.05	0.10	0.05	1.00	1.00	0.05	0.05	
Endrin aldehyde	ND	ND	ND	ND	ND	ND	0.05	0.10	0.05	1.00	1.00	0.05	0.05	
Heptachlor	ND	ND	ND	ND	ND	ND	0.05	0.10	0.05	1.00	1.00	0.05	0.05	
Heptachlor epoxide	ND	ND	ND	ND	ND	ND	0.05	0.10	0.05	1.00	1.00	0.05	0.05	
Lindane	ND	ND	ND	ND	ND	ND	0.10	0.20	0.10	2.00	2.00	0.10	0.10	
Methoxychlor	NA	ND	NA	NA	ND	ND	0.25	-	0.25	-	-	0.25	0.25	
PCB-1016	ND	ND	ND	ND	ND	ND	2.50	25.00	2.50	50.00	50.00	2.50	2.50	
PCB-1221	ND	ND	ND	ND	ND	ND	2.50	25.00	2.50	50.00	50.00	2.50	2.50	
PCB-1232	ND	ND	ND	ND	ND	ND	2.50	25.00	2.50	50.00	50.00	2.50	2.50	
PCB-1242	ND	ND	ND	ND	ND	ND	2.50	25.00	2.50	50.00	50.00	2.50	2.50	
PCB-1248	ND	ND	ND	ND	ND	ND	2.50	25.00	2.50	50.00	50.00	2.50	2.50	
PCB-1254	ND	ND	ND	ND	ND	ND	2.50	25.00	2.50	50.00	50.00	2.50	2.50	
PCB-1260	ND	ND	ND	ND	ND	ND	2.50	25.00	2.50	50.00	50.00	2.50	2.50	
Toxaphene	ND	ND	ND	ND	ND	ND	2.50	25.00	2.50	50.00	50.00	2.50	2.50	

ML = Method Limit

APPENDIX G
 INFLUENT
 MICHELSON WATER RECYCLING PLANT
 SUMMARY OF ORGANIC PRIORITY POLLUTANT ANALYSES FOR INFLUENT
 ORGANIC ANALYSES PERFORMED BY IRWD AND WECK LABORATORIES
 (all test results in ug/l except as noted)

Sample Date	7/11/2018	10/17/2018	1/16/2019	4/3/2019	AVERAGE 2018-2019	AVERAGE 2017-2018	ML	7/11/2018 9/18/2018	10/17/2018	1/16/2019	4/3/2019	ML-Minimum
ND = Not Detected												
NA = Not Analyzed												
* = Estimated Concentration												

APPENDIX G
 FINAL EFFLUENT
 MICHELSON WATER RECYCLING PLANT
 SUMMARY OF ORGANIC PRIORITY POLLUTANT ANALYSES FOR FINAL EFFLUENT
 ORGANIC ANALYSES PERFORMED BY IRWD AND WECK LABORATORIES
 (all test results in ug/l except as noted)

Sample Date	7/11/2018 9/18/2018	10/17/2018	1/16/2019	4/3/2019	AVERAGE 2018-2019	AVERAGE 2017-2018	ML
VOLATILE PRIORITY POLLUTANTS:							
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	0.50
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	0.50
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	0.50
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	0.50
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	0.50
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	0.50
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	0.50
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	0.50
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	0.50
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	0.50
Acrolein	ND	ND	ND	ND	ND	ND	5.00
Acrylonitrile	ND	ND	ND	ND	ND	ND	2.00
Benzene	ND	ND	ND	ND	ND	ND	0.50
Bromodichloromethane	28.5	26.3	19.2	21.5	23.9	24.7	0.50
Bromoform	0.55	ND	ND	ND	0.14	0.14	0.50
Bromomethane	ND	ND	ND	ND	ND	ND	0.50
Carbon tetrachloride	ND	ND	ND	ND	ND	ND	0.50
Chlorobenzene	ND	ND	ND	ND	ND	ND	0.50
Chloroethane	ND	ND	ND	ND	ND	ND	0.50
Chloroform	63.4	75.6	69.5	85.8	73.6	76.2	0.50
Chloromethane	ND	ND	ND	ND	ND	ND	0.50
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	0.50
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	0.50

APPENDIX G
 FINAL EFFLUENT
 MICHELSON WATER RECYCLING PLANT
 SUMMARY OF ORGANIC PRIORITY POLLUTANT ANALYSES FOR FINAL EFFLUENT
 ORGANIC ANALYSES PERFORMED BY IRWD AND WECK LABORATORIES
 (all test results in ug/l except as noted)

Sample Date	7/11/2018				AVERAGE	AVERAGE	ML
	9/18/2018	10/17/2018	1/16/2019	4/3/2019	2018-2019	2017-2018	
Dibromochloromethane	8.01	6.43	4.92	5.61	6.24	6.41	0.50
Ethylbenzene	ND	ND	ND	ND	ND	ND	0.50
Methylene chloride	ND	ND	ND	ND	ND	ND	2.00
Tetrachloroethene	ND	ND	ND	ND	ND	ND	0.50
Toluene	ND	ND	ND	ND	ND	ND	0.50
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	0.50
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	0.50
Trichloroethylene	ND	ND	ND	ND	ND	ND	0.50
Trichlorofluoromethane	ND	ND	ND	ND	ND	ND	0.50
Vinyl chloride	ND	ND	ND	ND	ND	ND	0.50

VOLATILE POLLUTANTS - HAZARDOUS SUBSTANCES:

2-Hexanone	ND	ND	ND	ND	ND	ND	10.00
4-Methyl-2-pentanone	ND	ND	ND	ND	ND	ND	10.00
Acetone	ND	ND	ND	2.10	0.525	0.520	2.00
Carbon disulfide	ND	ND	ND	ND	ND	ND	1.00
m+p-Xylenes	ND	ND	ND	ND	ND	ND	0.50
Methyl ethyl ketone	ND	ND	ND	ND	ND	ND	2.00
o-Xylene	ND	ND	ND	ND	ND	ND	0.50
Styrene	ND	ND	ND	ND	ND	ND	0.50
Tetrahydrofuran	ND	ND	ND	ND	ND	ND	10.00
Vinyl acetate	ND	ND	ND	ND	ND	ND	0.05

BASE/NEUTRAL EXTRACTABLE PRIORITY POLLUTANTS:

APPENDIX G
 FINAL EFFLUENT
 MICHELSON WATER RECYCLING PLANT
 SUMMARY OF ORGANIC PRIORITY POLLUTANT ANALYSES FOR FINAL EFFLUENT
 ORGANIC ANALYSES PERFORMED BY IRWD AND WECK LABORATORIES
 (all test results in ug/l except as noted)

Sample Date	7/11/2018				AVERAGE	AVERAGE	ML
	9/18/2018	10/17/2018	1/16/2019	4/3/2019	2018-2019	2017-2018	
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	2.00
1,2-Diphenylhydrazine	ND	ND	ND	ND	ND	ND	1.00
2,4-Dinitrotoluene	ND	ND	ND	ND	ND	ND	2.00
2,6-Dinitrotoluene	ND	ND	ND	ND	ND	ND	2.00
2-Chloronaphthalene	ND	ND	ND	ND	ND	ND	2.00
3,3'-Dichlorobenzidine	ND	ND	ND	ND	ND	ND	5.00
4-Bromophenyl phenyl ether	ND	ND	ND	ND	ND	ND	2.00
4-Chlorophenyl phenyl ether	ND	ND	ND	ND	ND	ND	2.00
Acenaphthene	ND	ND	ND	ND	ND	ND	1.00
Acenaphthylene	ND	ND	ND	ND	ND	ND	2.00
Anthracene	ND	ND	ND	ND	ND	ND	2.00
Benzidine	ND	ND	ND	ND	ND	ND	5.00
Benzo(a)anthracene	ND	ND	ND	ND	ND	ND	2.00
Benzo(a)pyrene	ND	ND	ND	ND	ND	ND	2.00
Benzo(b)fluoranthene	ND	ND	ND	ND	ND	ND	2.00
Benzo(g,h,i)perylene	ND	ND	ND	ND	ND	ND	4.00
Benzo(k)fluoranthene	ND	ND	ND	ND	ND	ND	2.00
Bis(2-chloroethoxy)methane	ND	ND	ND	ND	ND	ND	2.00
Bis(2-Chloroethyl) ether	ND	ND	ND	ND	ND	ND	1.00
Bis(2-Chloroisopropyl) ether	ND	ND	ND	ND	ND	ND	2.00
Bis(2-Ethylhexyl) phthalate	ND	ND	ND	ND	ND	ND	5.00
Butyl benzyl phthalate	ND	ND	ND	ND	ND	ND	2.00
Chrysene	ND	ND	ND	ND	ND	ND	2.00
Dibenzo(a,h)anthracene	ND	ND	ND	ND	ND	ND	4.00
Diethyl phthalate	ND	ND	ND	ND	ND	ND	2.00
Dimethyl phthalate	ND	ND	ND	ND	ND	ND	2.00

APPENDIX G
 FINAL EFFLUENT
 MICHELSON WATER RECYCLING PLANT
 SUMMARY OF ORGANIC PRIORITY POLLUTANT ANALYSES FOR FINAL EFFLUENT
 ORGANIC ANALYSES PERFORMED BY IRWD AND WECK LABORATORIES
 (all test results in ug/l except as noted)

Sample Date	7/11/2018				AVERAGE	AVERAGE	ML
	9/18/2018	10/17/2018	1/16/2019	4/3/2019	2018-2019	2017-2018	
Di-N-Butylphthalate	ND	ND	ND	ND	ND	ND	2.00
Di-N-Octylphthalate	ND	ND	ND	ND	ND	ND	2.00
Fluoranthene	ND	ND	ND	ND	ND	ND	1.00
Fluorene	ND	ND	ND	ND	ND	ND	2.00
Hexachlorobenzene	ND	ND	ND	ND	ND	ND	1.00
Hexachlorobutadiene	ND	ND	ND	ND	ND	ND	1.00
Hexachlorocyclopentadiene	ND	ND	ND	ND	ND	ND	5.00
Hexachloroethane	ND	ND	ND	ND	ND	ND	1.00
Indeno(1,2,3-cd)pyrene	ND	ND	ND	ND	ND	ND	4.00
Isophorone	ND	ND	ND	ND	ND	ND	1.00
Naphthalene	ND	ND	ND	ND	ND	ND	1.00
Nitrobenzene	ND	ND	ND	ND	ND	ND	1.00
N-Nitrosodimethylamine	ND	ND	ND	ND	ND	ND	2.00
N-Nitrosodi-n-propylamine	ND	ND	ND	ND	ND	ND	2.00
N-Nitrosodiphenylamine	ND	ND	ND	ND	ND	ND	1.00
Phenanthrene	ND	ND	ND	ND	ND	ND	2.00
Pyrene	ND	ND	ND	ND	ND	ND	2.00

ACID EXTRACTABLE PRIORITY POLLUTANTS:

2,4,6-Trichlorophenol	ND	ND	ND	ND	ND	ND	2.00
2,4-Dichlorophenol	ND	ND	ND	ND	ND	ND	2.00
2,4-Dimethylphenol	ND	ND	ND	ND	ND	ND	2.00
2,4-Dinitrophenol	ND	ND	ND	ND	ND	ND	5.00
2-Chlorophenol	ND	ND	ND	ND	ND	ND	2.00
2-Nitrophenol	ND	ND	ND	ND	ND	ND	2.00

APPENDIX G
 FINAL EFFLUENT
 MICHELSON WATER RECYCLING PLANT
 SUMMARY OF ORGANIC PRIORITY POLLUTANT ANALYSES FOR FINAL EFFLUENT
 ORGANIC ANALYSES PERFORMED BY IRWD AND WECK LABORATORIES
 (all test results in ug/l except as noted)

Sample Date	7/11/2018				AVERAGE	AVERAGE	ML
	9/18/2018	10/17/2018	1/16/2019	4/3/2019	2018-2019	2017-2018	
4,6-Dinitro-o-cresol	ND	ND	ND	ND	ND	ND	5.00
4-Nitrophenol	ND	ND	ND	ND	ND	ND	10.00
p-Chloro-m-cresol	ND	ND	ND	ND	ND	ND	1.00
Pentachlorophenol	ND	ND	ND	ND	ND	ND	2.00
Phenol	ND	ND	ND	ND	ND	ND	1.00

BNA EXTRACTABLE POLLUTANTS - HAZARDOUS SUBSTANCES

2,4,5-Trichlorophenol	NA	ND	ND	ND	ND	ND	5.00
2-Methylnaphthalene	NA	ND	ND	ND	ND	ND	5.00
2-Methylphenol	NA	ND	ND	ND	ND	ND	5.00
2-Nitroaniline	NA	ND	ND	ND	ND	ND	10.00
3-Nitroaniline	NA	ND	ND	ND	ND	ND	20.00
4-Chloroaniline	NA	ND	ND	ND	ND	ND	5.00
3&4-Methylphenol	NA	ND	ND	ND	ND	ND	1.00
4-Nitroaniline	NA	ND	ND	ND	ND	ND	20.00
Aniline	NA	ND	ND	ND	ND	ND	5.00
Benzoic acid	NA	ND	ND	ND	ND	ND	50.00
Benzyl alcohol	NA	ND	ND	ND	ND	ND	5.00
Dibenzofuran	NA	ND	ND	ND	ND	ND	5.00

PRIORITY POLLUTANT PESTICIDES:

4,4'-DDD	ND	ND	ND	ND	ND	ND	0.05
4,4'-DDE	ND	ND	ND	ND	ND	ND	0.05
4,4'-DDT	ND	ND	ND	ND	ND	ND	0.01

APPENDIX G
 FINAL EFFLUENT
 MICHELSON WATER RECYCLING PLANT
 SUMMARY OF ORGANIC PRIORITY POLLUTANT ANALYSES FOR FINAL EFFLUENT
 ORGANIC ANALYSES PERFORMED BY IRWD AND WECK LABORATORIES
 (all test results in ug/l except as noted)

Sample Date	7/11/2018				AVERAGE	AVERAGE	ML
	9/18/2018	10/17/2018	1/16/2019	4/3/2019	2018-2019	2017-2018	
Aldrin	ND	ND	ND	ND	ND	ND	0.01
Alpha-BHC	ND	ND	ND	ND	ND	ND	0.01
Beta-BHC	ND	ND	ND	ND	ND	ND	0.01
Chlordane	ND	ND	ND	ND	ND	ND	0.10
Delta-BHC	ND	ND	ND	ND	ND	ND	0.01
Dieldrin	ND	ND	ND	ND	ND	ND	0.01
Endosulfan sulfate	ND	ND	ND	ND	ND	ND	0.05
Endosulfan-I	ND	ND	ND	ND	ND	ND	0.02
Endosulfan-II	ND	ND	ND	ND	ND	ND	0.01
Endrin	ND	ND	ND	ND	ND	ND	0.01
Endrin aldehyde	ND	ND	ND	ND	ND	ND	0.01
Heptachlor	ND	ND	ND	ND	ND	ND	0.01
Heptachlor epoxide	ND	ND	ND	ND	ND	ND	0.01
Lindane	ND	ND	ND	ND	ND	ND	0.02
Methoxychlor	NA	ND	NA	NA	ND	ND	0.05
PCB-1016	ND	ND	ND	ND	ND	ND	0.50
PCB-1221	ND	ND	ND	ND	ND	ND	0.50
PCB-1232	ND	ND	ND	ND	ND	ND	0.50
PCB-1242	ND	ND	ND	ND	ND	ND	0.50
PCB-1248	ND	ND	ND	ND	ND	ND	0.50
PCB-1254	ND	ND	ND	ND	ND	ND	0.50
PCB-1260	ND	ND	ND	ND	ND	ND	0.50
Toxaphene	ND	ND	ND	ND	ND	ND	0.50

ML = Method Limit

APPENDIX G
 FINAL EFFLUENT
 MICHELSON WATER RECYCLING PLANT
 SUMMARY OF ORGANIC PRIORITY POLLUTANT ANALYSES FOR FINAL EFFLUENT
 ORGANIC ANALYSES PERFORMED BY IRWD AND WECK LABORATORIES
 (all test results in ug/l except as noted)

Sample Date	7/11/2018	9/18/2018	10/17/2018	1/16/2019	4/3/2019	AVERAGE 2018-2019	AVERAGE 2017-2018	ML
ND = Not Detected								
NA = Not Analyzed								
* = Estimated Concentration								

APPENDIX G
 SLUDGE LINE
 MICHELSON WATER RECYCLING PLANT
 SUMMARY OF ORGANIC PRIORITY POLLUTANT ANALYSES FOR SLUDGE LINE
 ORGANIC ANALYSES PERFORMED BY IRWD AND WECK LABORATORIES
 (all test results in ug/l except as noted)

Sample Date	7/11/2018	10/17/2018	1/16/2019	4/3/2019	AVERAGE	AVERAGE	ML	7/11/2018	10/17/2018	1/16/2019	4/3/2019	MIN ML
	9/18/2018				2018-2019	2017-2018		9/18/2018				
VOLATILE PRIORITY POLLUTANTS:												
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	0.50	1.00	0.50	0.50	0.50	0.50
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	0.50	1.00	0.50	0.50	0.50	0.50
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	0.50	1.00	0.50	0.50	0.50	0.50
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	0.50	1.00	0.50	0.50	0.50	0.50
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	0.50	1.00	0.50	0.50	0.50	0.50
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	0.50	1.00	0.50	0.50	0.50	0.50
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	0.50	1.00	0.50	0.50	0.50	0.50
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	0.50	1.00	0.50	0.50	0.50	0.50
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	0.50	1.00	0.50	0.50	0.50	0.50
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	0.50	1.00	0.50	0.50	0.50	0.50
Acrolein	ND	ND	ND	ND	ND	ND	5.00	10.00	5.00	5.00	5.00	5.00
Acrylonitrile	ND	ND	ND	ND	ND	ND	2.00	4.00	2.00	2.00	2.00	2.00
Benzene	ND	ND	ND	ND	ND	ND	0.50	1.00	0.50	0.50	0.50	0.50
Bromodichloromethane	ND	ND	ND	ND	ND	1.75	0.50	1.00	0.50	0.50	0.50	0.50
Bromoform	ND	ND	ND	ND	ND	ND	0.50	1.00	0.50	0.50	0.50	0.50
Bromomethane	ND	ND	ND	ND	ND	ND	0.50	1.00	0.50	0.50	0.50	0.50
Carbon tetrachloride	ND	ND	ND	ND	ND	ND	0.50	1.00	0.50	0.50	0.50	0.50
Chlorobenzene	ND	ND	ND	ND	ND	ND	0.50	1.00	0.50	0.50	0.50	0.50
Chloroethane	ND	ND	ND	ND	ND	ND	0.50	1.00	0.50	0.50	0.50	0.50
Chloroform	4.51	0.87	1.86	2.35	2.40	7.96	0.50	1.00	0.50	0.50	0.50	0.50
Chloromethane	ND	ND	ND	ND	ND	ND	0.50	1.00	0.50	0.50	0.50	0.50
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	0.50	1.00	0.50	0.50	0.50	0.50
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	0.50	1.00	0.50	0.50	0.50	0.50
Dibromochloromethane	ND	ND	ND	ND	ND	0.43	0.50	1.00	0.50	0.50	0.50	0.50
Ethylbenzene	ND	ND	ND	ND	ND	ND	0.50	1.00	0.50	0.50	0.50	0.50
Methylene chloride	ND	ND	ND	ND	ND	ND	2.00	4.00	2.00	2.00	2.00	2.00
Tetrachloroethene	ND	ND	ND	ND	ND	ND	0.50	1.00	0.50	0.50	0.50	0.50
Toluene	6.33	5.03	2.46	ND	3.46	4.05	0.50	1.00	0.50	0.50	0.50	0.50
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	0.50	1.00	0.50	0.50	0.50	0.50
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	0.50	1.00	0.50	0.50	0.50	0.50
Trichloroethylene	ND	ND	ND	ND	ND	ND	0.50	1.00	0.50	0.50	0.50	0.50

APPENDIX G
 SLUDGE LINE
 MICHELSON WATER RECYCLING PLANT
 SUMMARY OF ORGANIC PRIORITY POLLUTANT ANALYSES FOR SLUDGE LINE
 ORGANIC ANALYSES PERFORMED BY IRWD AND WECK LABORATORIES
 (all test results in ug/l except as noted)

Sample Date	7/11/2018				AVERAGE	AVERAGE	ML	7/11/2018				MIN ML
	9/18/2018	10/17/2018	1/16/2019	4/3/2019	2018-2019	2017-2018		9/18/2018	10/17/2018	1/16/2019	4/3/2019	
Trichlorofluoromethane	ND	ND	ND	ND	ND	ND	0.50	1.00	0.50	0.50	0.50	0.50
Vinyl chloride	ND	ND	ND	ND	ND	ND	0.50	1.00	0.50	0.50	0.50	0.50
VOLATILE POLLUTANTS - HAZARDOUS SUBSTANCES:												
2-Hexanone	ND	ND	ND	ND	ND	ND	10.00	20.00	10.00	10.00	10.00	10.00
4-Methyl-2-pentanone	ND	ND	ND	ND	ND	ND	10.00	20.00	10.00	10.00	10.00	10.00
Acetone	126	2.20	34.3	ND	40.6	25.7	2.00	4.00	2.00	2.00	2.00	2.00
Carbon disulfide	356	ND	119	ND	119	178	1.00	2.00	1.00	1.00	1.00	1.00
m+p-Xylenes	ND	ND	ND	ND	ND	ND	0.50	1.00	0.50	0.50	0.50	0.50
Methyl ethyl ketone	ND	ND	ND	ND	ND	1.61	2.00	4.00	2.00	2.00	2.00	2.00
o-Xylene	ND	ND	ND	ND	ND	ND	0.50	1.00	0.50	0.50	0.50	0.50
Styrene	ND	ND	ND	ND	ND	ND	0.50	1.00	0.50	0.50	0.50	0.50
Tetrahydrofuran	ND	ND	ND	ND	ND	ND	10.00	20.00	10.00	10.00	10.00	10.00
Vinyl acetate	ND	ND	ND	ND	ND	ND	0.05	0.10	0.05	0.05	0.05	0.05
BASE/NEUTRAL EXTRACTABLE PRIORITY POLLUTANTS:												
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	50.00	100.00	50.00	50.00	50.00	50.00
1,2-Diphenylhydrazine	ND	ND	ND	ND	ND	ND	10.00	100.00	10.00	10.00	10.00	10.00
2,4-Dinitrotoluene	ND	ND	ND	ND	ND	ND	50.00	100.00	50.00	50.00	50.00	50.00
2,6-Dinitrotoluene	ND	ND	ND	ND	ND	ND	50.00	100.00	50.00	50.00	50.00	50.00
2-Chloronaphthalene	ND	ND	ND	ND	ND	ND	100.00	100.00	100.00	100.00	100.00	100.00
3,3'-Dichlorobenzidine	ND	ND	ND	ND	ND	ND	50.00	500.00	50.00	50.00	50.00	50.00
4-Bromophenyl phenyl ether	ND	ND	ND	ND	ND	ND	50.00	100.00	50.00	50.00	50.00	50.00
4-Chlorophenyl phenyl ether	ND	ND	ND	ND	ND	ND	50.00	100.00	50.00	50.00	50.00	50.00
Acenaphthene	ND	ND	ND	ND	ND	ND	10.00	100.00	10.00	10.00	10.00	10.00
Acenaphthylene	ND	ND	ND	ND	ND	ND	100.00	100.00	100.00	100.00	100.00	100.00
Anthracene	ND	ND	ND	ND	ND	ND	50.00	100.00	50.00	50.00	50.00	50.00
Benzidine	ND	ND	ND	ND	ND	ND	50.00	1000.00	50.00	50.00	50.00	50.00
Benzo(a)anthracene	ND	ND	ND	ND	ND	ND	50.00	100.00	50.00	50.00	50.00	50.00
Benzo(a)pyrene	ND	ND	ND	ND	ND	ND	100.00	100.00	100.00	100.00	100.00	100.00
Benzo(b)fluoranthene	ND	ND	ND	ND	ND	ND	100.00	100.00	100.00	100.00	100.00	100.00
Benzo(g,h,i)perylene	ND	ND	ND	ND	ND	ND	50.00	200.00	50.00	50.00	50.00	50.00

APPENDIX G
 SLUDGE LINE
 MICHELSON WATER RECYCLING PLANT
 SUMMARY OF ORGANIC PRIORITY POLLUTANT ANALYSES FOR SLUDGE LINE
 ORGANIC ANALYSES PERFORMED BY IRWD AND WECK LABORATORIES
 (all test results in ug/l except as noted)

Sample Date	7/11/2018				AVERAGE	AVERAGE	ML	7/11/2018				MIN ML
	9/18/2018	10/17/2018	1/16/2019	4/3/2019	2018-2019	2017-2018		9/18/2018	10/17/2018	1/16/2019	4/3/2019	
Benzo(k)fluoranthene	ND	ND	ND	ND	ND	ND	100.00	100.00	100.00	100.00	100.00	100.00
Bis(2-chloroethoxy)methane	ND	ND	ND	ND	ND	ND	50.00	100.00	50.00	50.00	50.00	50.00
Bis(2-Chloroethyl) ether	ND	ND	ND	ND	ND	ND	10.00	100.00	10.00	10.00	10.00	10.00
Bis(2-Chloroisopropyl) ether	ND	ND	ND	ND	ND	ND	20.00	100.00	20.00	20.00	20.00	20.00
Bis(2-Ethylhexyl) phthalate	ND	ND	71.0	64.7	33.9	155	50.00	500.00	50.00	50.00	50.00	50.00
Butyl benzyl phthalate	ND	ND	ND	ND	ND	ND	100.00	100.00	100.00	100.00	100.00	100.00
Chrysene	ND	ND	ND	ND	ND	ND	100.00	100.00	100.00	100.00	100.00	100.00
Dibenzo(a,h)anthracene	ND	ND	ND	ND	ND	ND	100.00	200.00	100.00	100.00	100.00	100.00
Diethyl phthalate	ND	ND	ND	ND	ND	ND	20.00	100.00	20.00	20.00	20.00	20.00
Dimethyl phthalate	ND	ND	ND	ND	ND	ND	20.00	100.00	20.00	20.00	20.00	20.00
Di-N-Butylphthalate	ND	ND	ND	ND	ND	ND	100.00	100.00	100.00	100.00	100.00	100.00
Di-N-Octylphthalate	ND	ND	ND	ND	ND	ND	100.00	100.00	100.00	100.00	100.00	100.00
Fluoranthene	ND	ND	ND	ND	ND	ND	10.00	100.00	10.00	10.00	10.00	10.00
Fluorene	ND	ND	ND	ND	ND	ND	100.00	100.00	100.00	100.00	100.00	100.00
Hexachlorobenzene	ND	ND	ND	ND	ND	ND	10.00	100.00	10.00	10.00	10.00	10.00
Hexachlorobutadiene	ND	ND	ND	ND	ND	ND	10.00	100.00	10.00	10.00	10.00	10.00
Hexachlorocyclopentadiene	ND	ND	ND	ND	ND	ND	50.00	100.00	50.00	50.00	50.00	50.00
Hexachloroethane	ND	ND	ND	ND	ND	ND	10.00	500.00	10.00	10.00	10.00	10.00
Indeno(1,2,3-cd)pyrene	ND	ND	ND	ND	ND	ND	100.00	200.00	100.00	100.00	100.00	100.00
Isophorone	ND	ND	ND	ND	ND	ND	10.00	100.00	10.00	10.00	10.00	10.00
Naphthalene	ND	ND	ND	ND	ND	ND	10.00	100.00	10.00	10.00	10.00	10.00
Nitrobenzene	ND	ND	ND	ND	ND	ND	10.00	100.00	10.00	10.00	10.00	10.00
N-Nitrosodimethylamine	ND	ND	ND	ND	ND	ND	50.00	100.00	50.00	50.00	50.00	50.00
N-Nitrosodi-n-propylamine	ND	ND	ND	ND	ND	ND	50.00	100.00	50.00	50.00	50.00	50.00
N-Nitrosodiphenylamine	ND	ND	ND	ND	ND	ND	10.00	100.00	10.00	10.00	10.00	10.00
Phenanthrene	ND	ND	ND	ND	ND	ND	50.00	100.00	50.00	50.00	50.00	50.00
Pyrene	ND	ND	ND	ND	ND	ND	100.00	100.00	100.00	100.00	100.00	100.00
ACID EXTRACTABLE PRIORITY POLLUTANTS:												
2,4,6-Trichlorophenol	ND	ND	ND	ND	ND	ND	100.00	100.00	100.00	100.00	100.00	100.00
2,4-Dichlorophenol	ND	ND	ND	ND	ND	ND	50.00	100.00	50.00	50.00	50.00	50.00
2,4-Dimethylphenol	ND	ND	ND	ND	ND	ND	20.00	100.00	20.00	20.00	20.00	20.00
2,4-Dinitrophenol	ND	ND	ND	ND	ND	ND	50.00	1000.00	50.00	50.00	50.00	50.00

APPENDIX G
 SLUDGE LINE
 MICHELSON WATER RECYCLING PLANT
 SUMMARY OF ORGANIC PRIORITY POLLUTANT ANALYSES FOR SLUDGE LINE
 ORGANIC ANALYSES PERFORMED BY IRWD AND WECK LABORATORIES
 (all test results in ug/l except as noted)

Sample Date	7/11/2018				AVERAGE	AVERAGE	ML	7/11/2018				MIN ML
	9/18/2018	10/17/2018	1/16/2019	4/3/2019	2018-2019	2017-2018		9/18/2018	10/17/2018	1/16/2019	4/3/2019	
2-Chlorophenol	ND	ND	ND	ND	ND	ND	50.00	100.00	50.00	50.00	50.00	50.00
2-Nitrophenol	ND	ND	ND	ND	ND	ND	100.00	100.00	100.00	100.00	100.00	100.00
4,6-Dinitro-o-cresol	ND	ND	ND	ND	ND	ND	50.00	500.00	50.00	50.00	50.00	50.00
4-Nitrophenol	ND	ND	ND	ND	ND	ND	100.00	500.00	100.00	100.00	100.00	100.00
p-Chloro-m-cresol	ND	ND	ND	ND	ND	ND	10.00	100.00	10.00	10.00	10.00	10.00
Pentachlorophenol	ND	ND	ND	ND	ND	ND	50.00	100.00	50.00	50.00	50.00	50.00
Phenol	ND	ND	11.0	ND	2.75	69.7	10.00	100.00	10.00	10.00	10.00	10.00

BNA EXTRACTABLE POLLUTANTS - HAZARDOUS SUBSTANCES

2,4,5-Trichlorophenol	NA	ND	ND	ND	ND	ND	50.00	-	50.00	50.00	50.00	50.00
2-Methylnaphthalene	NA	ND	ND	ND	ND	ND	50.00	-	50.00	50.00	50.00	50.00
2-Methylphenol	NA	ND	ND	ND	ND	ND	50.00	-	50.00	50.00	50.00	50.00
2-Nitroaniline	NA	ND	ND	ND	ND	ND	100.00	-	100.00	100.00	100.00	100.00
3-Nitroaniline	NA	ND	ND	ND	ND	ND	200.00	-	200.00	200.00	200.00	200.00
4-Chloroaniline	NA	ND	ND	ND	ND	ND	50.00	-	50.00	50.00	50.00	50.00
3&4-Methylphenol	NA	ND	53.0	ND	17.7	833	10.00	-	10.00	10.00	10.00	10.00
4-Nitroaniline	NA	ND	ND	ND	ND	ND	200.00	-	200.00	200.00	200.00	200.00
Aniline	NA	ND	ND	ND	ND	ND	50.00	-	50.00	50.00	50.00	50.00
Benzoic acid	NA	ND	ND	ND	ND	ND	500.00	-	500.00	500.00	500.00	500.00
Benzyl alcohol	NA	ND	ND	ND	ND	ND	50.00	-	50.00	50.00	50.00	50.00
Dibenzofuran	NA	ND	ND	ND	ND	ND	50.00	-	50.00	50.00	50.00	50.00

PRIORITY POLLUTANT PESTICIDES:

4,4'-DDD	ND	ND	ND	ND	ND	ND	0.50	1.00	0.50	5.00	10.00	0.50
4,4'-DDE	ND	ND	ND	ND	ND	ND	0.50	1.00	0.50	5.00	10.00	0.50
4,4'-DDT	ND	ND	ND	ND	ND	ND	0.10	0.20	0.10	1.00	2.00	0.10
Aldrin	ND	ND	ND	ND	ND	ND	0.10	0.10	0.10	0.50	1.00	0.10
Alpha-BHC	ND	ND	ND	ND	ND	ND	0.10	0.20	0.10	1.00	2.00	0.10
Beta-BHC	ND	ND	ND	ND	ND	ND	0.10	0.10	0.10	0.50	1.00	0.10
Chlordane	ND	ND	ND	ND	ND	ND	1.00	2.00	1.00	10.00	20.00	1.00
Delta-BHC	ND	ND	ND	ND	ND	ND	0.10	0.10	0.10	0.50	1.00	0.10
Dieldrin	ND	ND	ND	ND	ND	ND	0.10	0.20	0.10	1.00	2.00	0.10

APPENDIX G
 SLUDGE LINE
 MICHELSON WATER RECYCLING PLANT
 SUMMARY OF ORGANIC PRIORITY POLLUTANT ANALYSES FOR SLUDGE LINE
 ORGANIC ANALYSES PERFORMED BY IRWD AND WECK LABORATORIES
 (all test results in ug/l except as noted)

Sample Date	7/11/2018				AVERAGE		ML	7/11/2018				MIN ML
	9/18/2018	10/17/2018	1/16/2019	4/3/2019	2018-2019	2017-2018		9/18/2018	10/17/2018	1/16/2019	4/3/2019	
Endosulfan sulfate	ND	ND	ND	ND	ND	ND	0.50	1.00	0.50	5.00	10.00	0.50
Endosulfan-I	ND	ND	ND	ND	ND	ND	0.20	0.40	0.20	2.00	4.00	0.20
Endosulfan-II	ND	ND	ND	ND	ND	ND	0.10	0.20	0.10	1.00	2.00	0.10
Endrin	ND	ND	ND	ND	ND	ND	0.10	0.20	0.10	1.00	2.00	0.10
Endrin aldehyde	ND	ND	ND	ND	ND	ND	0.10	0.20	0.10	1.00	2.00	0.10
Heptachlor	ND	ND	ND	ND	ND	ND	0.10	0.20	0.10	1.00	2.00	0.10
Heptachlor epoxide	ND	ND	ND	ND	ND	ND	0.10	0.20	0.10	1.00	2.00	0.10
Lindane	ND	ND	ND	ND	ND	ND	0.20	0.40	0.20	2.00	4.00	0.20
Methoxychlor	NA	ND	NA	NA	ND	ND	0.50	-	0.50	-	-	0.50
PCB-1016	ND	ND	ND	ND	ND	ND	5.00	10.00	5.00	50.00	100.00	5.00
PCB-1221	ND	ND	ND	ND	ND	ND	5.00	10.00	5.00	50.00	100.00	5.00
PCB-1232	ND	ND	ND	ND	ND	ND	5.00	10.00	5.00	50.00	100.00	5.00
PCB-1242	ND	ND	ND	ND	ND	ND	5.00	10.00	5.00	50.00	100.00	5.00
PCB-1248	ND	ND	ND	ND	ND	ND	5.00	10.00	5.00	50.00	100.00	5.00
PCB-1254	ND	ND	ND	ND	ND	ND	5.00	10.00	5.00	50.00	100.00	5.00
PCB-1260	ND	ND	ND	ND	ND	ND	5.00	10.00	5.00	50.00	100.00	5.00
Toxaphene	ND	ND	ND	ND	ND	ND	5.00	10.00	5.00	50.00	100.00	5.00

ML = Method Limit

ND = Not Detected

NA = Not Analyzed

* = Estimated Concentration

**SANTA ANA WATERSHED PROJECT AUTHORITY
(SAWPA) REPORTS, DATA, SNC NOTICE**

APPENDIX H
Santa Ana Watershed Project Authority (SAWPA) July 1, 2018 - June 30, 2019
List of SIUs with Monitoring Compliance Status

Facility Name	Member/ Contract Agency	Direct / Indirect Discharger	Permit No.	Physical Address	NAICS Code	Classification	Regulation	TTO Waiver Issued	No. of Inspections	Agency Samples	SMR Samples	Pollutant(s) in Discharge Violation	SNC Status	Comment
Anita B. Smith Treatment Facility	WMWD	Direct	D1074-3.1	2100 Fleetwood Drive Riverside, CA 92509	221310	SIU	403.5(d)	-	4	6	4			
C.C. Graber Company	IEUA	Indirect	I1005-2.1	315 E. 4th Street Ontario, CA 91764	311421	CIU	407.64	-	4	0	0			
California Institution for Men	IEUA	Direct	D1006-3	14901 Central Avenue Chino, CA 91710	922140	SIU	403.5(d)	-	4	14	29			
Chino I Desalter	SAWPA	Direct	D1081-3.1	6905 Kimball Avenue Chino, CA 91708	221310	SIU	403.5(d)	-	4	8	4			
Chino II Desalter	SAWPA	Direct	D1010-3.1	11251 Harrel Street Jurupa Valley, CA 91752	221310	SIU	403.5(d)	-	4	16	10			
City of Colton - Agua Mansa Power Plant	VALLEY	Direct	D1002-3.1	2040 W. Agua Mansa Road Colton, CA 92324	221122	SIU	403.5(d)	-	4	8	12			
City of Corona Ion Exchange Treatment Plant	WMWD	Direct	D1125-2	410 Rimpau Avenue Corona, CA 92882	221310	SIU	403.5(d)	-	4	4	2			
City of Corona's Water Reclamation Facility No.1	WMWD	Direct - Emergency	E1013-2.1	2205 Railroad Street Corona, CA 92880	221310	SIU	403.5(d)	-	1	0	0			
Dart Container Corporation	WMWD	Direct	D1019-3	150 S. Maple Street Corona, CA 92880	326140	SIU	403.5(d)	-	4	24	4			
Del Real Foods, LLC	JCSD	Direct	D1021-2.1	11041 Inland Avenue Jurupa Valley, CA 91752	311991	SIU	403.5(d)	-	66	38	14	pH (Local)	Published as SNC for Reporting Violations	
EMWD Collection Station	SAWPA	Direct	D1055-2.2	29541 Murrieta Road Menifee, CA 92586	221320	SIU	403.5(d)	-	4	8	4			
EMWD Energy Dissipater	SAWPA	Direct - Emergency	E1068-2.1	636 Minthorn Street Lake Elsinore, CA 92530	221320	SIU	403.5(d)	-	2	0	5			
EMWD Perris & Menifee Desalination Facility	SAWPA	Direct	D1061-3	29541 Murrieta Road Menifee, CA 92586	221310	SIU	403.5(d)	-	5	8	6			
EMWD Railroad Canyon Pipeline	SAWPA	Direct - Emergency	E1067-3.1	Railroad Canyon Road Canyon Lake, CA 92587	221320	SIU	403.5(d)	-	2	0	9			
IEUA Collection Station	SAWPA	Direct	D1035-3.1	16400 El Prado Road Chino, CA 91710	221320	SIU	403.5(d)	-	3	8	6			
IEUA Los Serranos	SAWPA	Direct - Emergency	E1037-2.1	6075 Kimball Avenue Chino, CA 91708	221320	SIU	403.5(d)	-	2	0	0			
Infineon Technologies Americas Corporation	EMWD	Indirect	I1039-3	41915 Business Park Drive Temecula, CA 92590	334413	CIU	469.18	Y	4	8	8			
Inland Bioenergy, LLC	SAWPA	Direct	D1072-3	16090 Mountain Avenue Chino, CA 91710	562219	SIU	403.5(d)	-	4	10	170	Sulfide-Total (Local), Sulfide-Dissolved (Local), pH (Local)	Published as SNC for Discharge Violations	Permit Deactivated
Inland Empire Energy Center	EMWD	Direct	D1036-3	26226 Antelope Road Menifee, CA 92585	221112	CIU	423.17	-	4	20	16			
JCSD Celebration Metering Station	SAWPA	Direct - Emergency	E1042-2.1	5972 Hamner Avenue Eastvale, CA 92880	221320	SIU	403.5(d)	-	2	0	0			
JCSD Etiwanda Metering Station	SAWPA	Direct	D1044-3.1	Etiwanda Avenue and N. of Bellegrove Avenue	221320	SIU	403.5(d)	-	4	42	16			
JCSD Hamner Lift Station	SAWPA	Direct - Emergency	E1046-2.3	7302 Hamner Avenue Eastvale, CA 92880	221320	SIU	403.5(d)	-	2	0	0			
JCSD Hamner Metering Station	SAWPA	Direct	D1045-3.1	5410 Hamner Avenue Eastvale, CA 91752	221320	SIU	403.5(d)	-	4	16	16			
JCSD Harrison Metering Station	SAWPA	Direct - Emergency	E1047-2.3	6998 Harrison Avenue Eastvale, CA 92880	221320	SIU	403.5(d)	-	2	0	0			

APPENDIX H
Santa Ana Watershed Project Authority (SAWPA) July 1, 2018 - June 30, 2019
List of SIUs with Monitoring Compliance Status

Facility Name	Member/ Contract Agency	Direct / Indirect Discharger	Permit No.	Physical Address	NAICS Code	Classification	Regulation	TTO Waiver Issued	No. of Inspections	Agency Samples	SMR Samples	Pollutant(s) in Discharge Violation	SNC Status	Comment
JCSD Roger D. Teagarden Ion Exchange Water Treatment Plant	SAWPA	Direct	D1070-4	4150 Etiwanda Avenue Mira Loma, CA 91752	221310	SIU	403.5(d)	-	6	5	4			
JCSD Scholar Way Metering Station	SAWPA	Direct - Emergency	E1113-1.1	6980 Scholar Way Eastvale, CA 92880	221320	SIU	403.5(d)	-	2	0	0			
JCSD Wells 17 & 18 Ion Exchange Treatment Facility	SAWPA	Direct	D1040-3.1	3474 De Forest Circle Jurupa Valley, CA 91752	221310	SIU	403.5(d)	-	4	9	7			
JCSD Wineville Metering Station	SAWPA	Direct	D1048-3.1	5101 Wineville Avenue Jurupa Valley, CA 91752	221320	SIU	403.5(d)	-	4	30	16			
Metal Container Corporation	JCSD	Direct	D1056-2.1	10980 Inland Avenue Jurupa Valley, CA 91752	332431	CIU	465.45(d)	-	4	40	24			
Mission Linen Supply	IEUA	Direct	D1057-3.1	5400 Alton Street Chino, CA 91710	812332	SIU	403.5(d)	-	4	52	44			
Mountainview Generating Station	VALLEY	Direct	D1058-2	2492 W. San Bernardino Ave. Redlands, CA 92374	221112	CIU	423.17	-	4	28	35			
OLS Energy - Chino	IEUA	Direct	D1059-2.2	5601 Eucalyptus Avenue Chino, CA 91708	221112	CIU	423.17	-	4	32	55			
Rayne Water Conditioning	SBMWD	Indirect	I1066-2.1	939 W. Reece Street San Bernardino, CA 92411	561990	SIU	403.5(d)	-	3	9	8			
Repet, Inc.	IEUA	Direct	D1069-3.1	14207 Monte Vista Avenue Chino, CA 91710	423930	SIU	403.5(d)	-	4	39	44			
SBMWD Collection Station	SAWPA	Direct	D1076-3.1	399 Chandler Place San Bernardino, CA 92408	221310	SIU	403.5(d)	-	4	8	4			
SBMWD Water Reclamation Plant	SAWPA	Direct - Emergency	E1075-2.2	399 Chandler Place San Bernardino, CA 92408	221320	SIU	403.5(d)	-	2	0	0			
ShawCor Pipe Protection, LLC	IEUA	Indirect	I1077-2.1	14000 San Bernardino Avenue Fontana, CA 92335	332812	CIU	433.17	N	4	36	75			
Stringfellow Pretreatment Facility	SAWPA	Direct	D1079-3	3400 Pyrite Street Jurupa Valley, CA 92509	562910	SIU	403.5(d)	-	4	47	274			
Temescal Desalter	WMWD	Direct	D1012-3	755 Public Safety Way Corona, CA 92880	221310	SIU	403.5(d)	-	4	8	6			
WMWD Arlington Desalter	SAWPA	Direct	D1088-3.1	11611 Sterling Avenue Riverside, CA 92503	221310	SIU	403.5(d)	-	4	8	4			
WMWD Collection Station	SAWPA	Direct	D1087-3.1	2205 Railroad Street Corona, CA 92880	221320	SIU	403.5(d)	-	4	6	4			
WRCRWA South Regional Pumping Station	SAWPA	Direct - Emergency	E1089-2.1	671 N. Lincoln Avenue Corona, CA 92883	221310	SIU	403.5(d)	-	2	0	0			
YVWD Henry Wochholz Regional Water Recycling Facility	SAWPA	Direct	D1090-3	880 W. County Line Lane Calimesa, CA 92320	221320	SIU	403.5(d)	-	4	10	17			

APPENDIX H
SAWPA Pretreatment Program
Permittees with Pretreatment Equipment

Permit Number	Permittees	Category	Flow Base (MGD)	Aluminum Chip Reactor	Cyanide Destruction	Ion Exchange	Final Polishing Filter	Electroless Nickel Dechelating	Hex. Chrome Reduction	Cross-flow Filtration (Memtek)	Equalization	None	pH Adjustment	Below Ground Clarifier	Electrowinning/Plate-out	Ozone Treatment Reactor	Oil/Water-Separator	Carbon Adsorption	Centrifugation	Final pH Adjust	Batch Treatment	Clarifier/lamella Setting	Coagulation/Flocculation	Hydroxide Precipitation	Filter Press	Sludge Thickening Tank	Sorption Filter (Lancy)	Air Floatation	Other
I1003-3.1	Angelica Textile Services	IU 40 CFR 403.5(d)	N/A									X																	
D1074-3.1	Anita B. Smith Treatment Facility	SIU 40 CFR 403.5(d)	0.030									X																	
I1005-2.1	C.C. Graber Company	CIU 40 CFR 403.64	N/A										X																Sand Filters, Cartridge Filters
D1006-3	California Institution for Men	SIU 40 CFR 403.5(d)	0.194										X																
D1007-3	California Institution for Women	IU 40 CFR 403.5(d)	0.400											X															Grease interceptor & Sewage Grinder
D1081-3.1	Chino I Desalter	CIU 40 CFR 403.5(d)	2.050										X																
D1010-3.1	Chino II Desalter	CIU 40 CFR 403.5(d)	1.620										X																
D1011-3.1	Chino Development Corporation	CIU 40 CFR 403.5(d)	1.000									X																	Permit Void 12/4/18
D1002-3.1	City of Colton - Agua Mansa Power Plant	SIU 40 CFR 403.5(d)	0.062														X												Ultra-Filtration & Reverse Osmosis
D1125-2	City of Corona's Ion Exchange Treatment Plant	IU 40 CFR 403.5(d)	0.200									X																	

**APPENDIX H
SAWPA Pretreatment Program
Permittees with Pretreatment Equipment**

Permit Number	Permittees	Category	Flow Base (MGD)	Aluminum Chip Reactor	Cyanide Destruction	Ion Exchange	Final Polishing Filter	Electroless Nickel Dechelating	Hex. Chrome Reduction	Cross-flow Filtration (Memtek)	Equalization	None	pH Adjustment	Below Ground Clarifier	Electrowinning/Plate-out	Ozone Treatment Reactor	Oil/Water-Separator	Carbon Adsorption	Centrifugation	Final pH Adjust	Batch Treatment	Clarifier/lamella Setting	Coagulation/Flocculation	Hydroxide Precipitation	Filter Press	Sludge Thickening Tank	Sorption Filter (Lancy)	Air Floatation	Other
E1013-2.1	City of Corona Water Reclamation Facility No. 1	SIU 40 CFR 403.5(d)	N/A									X																	
I1016-3.1	Corona Regional Medical Center	IU 40 CFR 403.5(d)	N/A									X																	
D1019-3	Dart Container Corporation	SIU 40 CFR 403.5(d)	0.030								X		X							X	X								
I1020-3	Decra Roofing Systems	IU 40 CFR 403.5(d)	N/A								X		X								X		X		X				
D1021-2.1	Del Real Foods, LLC	SIU 40 CFR 403.5(d)	0.190			X					X		X	X						X			X					X	DAF & Automated Chemical Feed
I1024-2.1	Eastside Water Treatment Plant	IU 40 CFR 403.5(d)	N/A									X																	
D1055-2.2	EMWD Collection Station	SIU 40 CFR 403.5(d)	2.500									X																	
E1068-2.1	EMWD Energy Dissipater	SIU 40 CFR 403.5(d)	9.500									X																	
D1061-3	EMWD Perris & Menifee Desalination Facility	SIU 40 CFR 403.5(d)	9.500										X																pH adjustment for CIP discharge
E1067-3.1	EMWD Railroad Canyon Pipeline	SIU 40 CFR 403.5(d)	9.500									X																	

APPENDIX H
SAWPA Pretreatment Program
Permittees with Pretreatment Equipment

Permit Number	Permittees	Category	Flow Base (MGD)	Aluminum Chip Reactor	Cyanide Destruction	Ion Exchange	Final Polishing Filter	Electroless Nickel Dechelating	Hex. Chrome Reduction	Cross-flow Filtration (Memtek)	Equalization	None	pH Adjustment	Below Ground Clarifier	Electrowinning/Plate-out	Ozone Treatment Reactor	Oil/Water-Separator	Carbon Adsorption	Centrifugation	Final pH Adjust	Batch Treatment	Clarifier/lamella Setting	Coagulation/Flocculation	Hydroxide Precipitation	Filter Press	Sludge Thickening Tank	Sorption Filter (Lancy)	Air Floatation	Other
I1107-2.1	EMWD RWRF Scrubber Waste	IU 40 CFR 403.5(d)	N/A									X																	Permit Void 6/3/19
I1026-2.1	Farmdale Creamery, Inc.	IU 40 CFR 403.5(d)	N/A									X																	EC Meter
D1029-2.1	Frutarom USA	IU 40 CFR 403.5(d)	0.005								X		X																
I1031-2.1	Giuliano & Sons Briners	IU 40 CFR 403.5(d)	0.010								X		X							X	X		X			X			
I1122-1.1	Grapeland Peaker Generating Station	IU 40 CFR 403.5(d)	N/A														X												Permit Void 5/20/19
D1032-2.1	Green River Golf Club	IU 40 CFR 403.5(d)	N/A											X															Grease Interceptor
I1121-1.1	Hidden Villa Ranch	IU 40 CFR 403.5(d)	N/A									X																	
D1035-3.1	IEUA Collection Station	SIU 40 CFR 403.5(d)	2.500									X																	
E1037-2.1	IEUA Los Serranos	SIU 40 CFR 403.5(d)	9.000									X																	
I1039-3	Infineon Technologies Americas Corporation	CIU 40 CFR 469.18	N/A										X							X					X				

APPENDIX H
SAWPA Pretreatment Program
Permittees with Pretreatment Equipment

Permit Number	Permittees	Category	Flow Base (MGD)	Aluminum Chip Reactor	Cyanide Destruction	Ion Exchange	Final Polishing Filter	Electroless Nickel Dechelating	Hex. Chrome Reduction	Cross-flow Filtration (Memtek)	Equalization	None	pH Adjustment	Below Ground Clarifier	Electrowinning/Plate-out	Ozone Treatment Reactor	Oil/Water-Separator	Carbon Adsorption	Centrifugation	Final pH Adjust	Batch Treatment	Clarifier/lamella Setting	Coagulation/Flocculation	Hydroxide Precipitation	Filter Press	Sludge Thickening Tank	Sorption Filter (Lancy)	Air Floatation	Other
D1072-3	Inland Bioenergy, LLC	SIU 40 CFR 403.5(d)	0.200										X										X						DAF; Permit Void 4/2/19
D1036-3	Inland Empire Energy Center	CIU 40 CFR 423.17	1.200														X												
E1041-2.1	JCSD Archibald Metering Station	IU 40 CFR 403.5(d)	1.115									X																	
E1042-2.1	JCSD Celebration Metering Station	SIU 40 CFR 403.5(d)	0.170									X																	
E1043-2.1	JCSD Chandler Lift Station	IU 40 CFR 403.5(d)	1.115									X																	
D1044-3.1	JCSD Etiwanda Metering Station	SIU 40 CFR 403.5(d)	1.155									X																	
E1046-2.3	JCSD Hamner Lift Station	SIU 40 CFR 403.5(d)	0.940									X																	
D1045-3.1	JCSD Hamner Metering Station	SIU 40 CFR 403.5(d)	1.155									X																	
E1047-2.3	JCSD Harrison Metering Station	SIU 40 CFR 403.5(d)	0.940									X																	
D1070-4	JCSD Roger D. Teagarden Ion Exchange Water Treatment Plant	SIU 40 CFR 403.5(d)	0.300							X																			

**APPENDIX H
SAWPA Pretreatment Program
Permittees with Pretreatment Equipment**

Permit Number	Permittees	Category	Flow Base (MGD)	Aluminum Chip Reactor	Cyanide Destruction	Ion Exchange	Final Polishing Filter	Electroless Nickel Dechelating	Hex. Chrome Reduction	Cross-flow Filtration (Memtek)	Equalization	None	pH Adjustment	Below Ground Clarifier	Electrowinning/Plate-out	Ozone Treatment Reactor	Oil/Water-Separator	Carbon Adsorption	Centrifugation	Final pH Adjust	Batch Treatment	Clarifier/lamella Setting	Coagulation/Flocculation	Hydroxide Precipitation	Filter Press	Sludge Thickening Tank	Sorption Filter (Lancy)	Air Floatation	Other
E1113-1.1	JCSD Scholar Way Metering Station	SIU 40 CFR 403.5(d)	1.115									X																	
D1040-3.1	JCSD Wells 17 & 18 Ion Exchange Treatment Facility	SIU 40 CFR 403.5(d)	0.300									X																	
D1048-3.1	JCSD Wineville Metering Station	SIU 40 CFR 403.5(d)	1.155									X																	
I1050-3.1	La Sierra University	IU 40 CFR 403.5(d)	N/A																	X									Grease Interceptor
I1051-2.1	Loma Linda University Power Plant	IU 40 CFR 403.5(d)	N/A									X																	EC Meter
I1052-3.1	Loma Linda Veterans Medical Center	IU 40 CFR 403.5(d)	N/A									X																	TDS Meter
D1053-2.1	Magnolia Foods	IU 40 CFR 403.5(d)	0.004											X						X									
D1056-2.1	Metal Container Corporation	CIU 40 CFR 465.45	0.150								X		X				X					X	X		X	X			Oil Skimming
D1057-3.1	Mission Linen Supply	SIU 40 CFR 403.5(d)	0.713								X		X										X		X				Shaker Screens
D1058-2	Mountainview Generating Station	CIU 40 CFR 423.17	0.432										X				X			X		X		X					Filtration

APPENDIX H
SAWPA Pretreatment Program
Permittees with Pretreatment Equipment

Permit Number	Permittees	Category	Flow Base (MGD)	Aluminum Chip Reactor	Cyanide Destruction	Ion Exchange	Final Polishing Filter	Electroless Nickel Dechelating	Hex. Chrome Reduction	Cross-flow Filtration (Memtek)	Equalization	None	pH Adjustment	Below Ground Clarifier	Electrowinning/Plate-out	Ozone Treatment Reactor	Oil/Water-Separator	Carbon Adsorption	Centrifugation	Final pH Adjust	Batch Treatment	Clarifier/lamella Setting	Coagulation/Flocculation	Hydroxide Precipitation	Filter Press	Sludge Thickening Tank	Sorption Filter (Lancy)	Air Floatation	Other
I1114-1.1	Niagra Bottling, LLC (IEUA)	IU 40 CFR 403.5(d)	N/A									X																	
I1111-1.2	Niagra Bottling, LLC (SBMWD)	IU 40 CFR 403.5(d)	N/A									X																	
D1059-2.2	OLS Energy - Chino	CIU 40 CFR 423.17	0.129										X			X													
I1060-2.1	Patton State Hospital	IU 40 CFR 403.5(d)	N/A																									EC Meter; Permit Void 9/26/18	
I1062-3	Prudential Overall Supply	IU 40 CFR 403.5(d)	N/A									X																	
I1064-4	Qualified Mobile, Inc.	IU 40 CFR 403.5(d)	N/A										X							X	X							Permit Void 12/21/18	
I1066-2.1	Rayne Water Conditioning	SIU 40 CFR 403.5(d)	N/A			X																						EC Meter	
D1069-3.1	Repet, Inc.	SIU 40 CFR 403.5(d)	0.043							X		X										X		X				GEM, Drum & Shaker Screens	
I1096-2.1	San Antonio Regional Hospital	IU 40 CFR 403.5(d)	N/A									X																	
I1128-1	Saratoga Foods, Inc.	IU 40 CFR 403.5(d)	N/A									X																	

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SAWPA Pretreatment Program
Permittees with Pretreatment Equipment**

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D1076-3.1	SBMWD Collection Station	SIU 40 CFR 403.5(d)	0.250																										Rock Box
E1075-2.2	SBMWD Water Reclamation Plant	SIU 40 CFR 403.5(d)	2.500									X																	
I1077-2.1	ShawCor Pipe Protection, LLC	CIU 40 CFR 433.17	N/A										X									X	X						
I1078-4	Sierra Aluminum Company, Inc.	IU 40 CFR 403.5(d)	N/A									X																	
D1079-3	Stringfellow Pretreatment Facility	SIU 40 CFR 403.5(d)	0.259								X		X				X								X				Air Strippers, pesticide coprecipitation, inline cloth filter, Granulated Activated Carbon Absorption
D1012-3	Temescal Desalter	SIU 40 CFR 403.5(d)	2.350								X		X							X	X								
D1086-2.1	Wellington Foods, Inc.	IU 40 CFR 403.5(d)	0.020								X		X							X	X								
D1088-3.1	WMWD Arlington Desalter	SIU 40 CFR 403.5(d)	1.400								X																		

**APPENDIX H
SAWPA Pretreatment Program
Permittees with Pretreatment Equipment**

Permit Number	Permittees	Category	Flow Base (MGD)	Aluminum Chip Reactor	Cyanide Destruction	Ion Exchange	Final Polishing Filter	Electroless Nickel Dechelating	Hex. Chrome Reduction	Cross-flow Filtration (Memtek)	Equalization	None	pH Adjustment	Below Ground Clarifier	Electrowinning/Plate-out	Ozone Treatment Reactor	Oil/Water-Separator	Carbon Adsorption	Centrifugation	Final pH Adjust	Batch Treatment	Clarifier/lamella Setting	Coagulation/Flocculation	Hydroxide Precipitation	Filter Press	Sludge Thickening Tank	Sorption Filter (Lancy)	Air Floatation	Other	
D1087-3.1	WMWD Collection Station	SIU 40 CFR 403.5(d)	N/A									X																		
E1089-2.1	WRCRWA South Regional Pumping Station	SIU 40 CFR 403.5(d)	N/A									X																		
D1090-3	YVWD – Henry Wochholz Regional Water Recycling Facility	SIU 40 CFR 403.5(d)	0.595									X																		

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PUBLIC NOTICE

In accordance with the public participation requirements of 40 Code of Federal Regulations (CFR) Part 25 in the enforcement of National Pretreatment Standards and as defined by 40 CFR 403.8(f)(2)(vii), the Santa Ana Watershed Project Authority (SAWPA) is hereby publishing the following list of permittees who, during July 1, 2018 through June 30, 2019, were identified as industries in significant noncompliance with wastewater discharge standards. An industry is in significant noncompliance if their violation meets one or more of the following criteria:

- Chronic violations of discharge limits occurring when 66% or more of all measurements exceed the discharge limits for the same pollutant during a six month period.
- Technical Review Criteria violations of discharge limits occurring when 33% or more of all measurements equal or exceed the product of the numeric Pretreatment Standard or Requirement multiplied by the applicable TRC during a six month period.
- Any other violation of a Pretreatment Standard or Requirement that the POTW determines has caused Interference or Pass Through.
- Any discharge of a pollutant that has caused imminent endangerment to human health, welfare or to the environment.
- Failure to meet within 90 days after the schedule date, a compliance schedule milestone.
- Failure to provide required reports including, but not limited to, periodic self-monitoring reports and reports with compliance schedules within 45 days of the due date.
- Failure to accurately report noncompliance with discharge limits or any other requirements applicable to the user pursuant to SAWPA's Wastewater Discharge Regulations (Ordinance).
- Any other violation or group of violations, which the wastewater treatment plant determines will adversely affect the operation or implementation of the Pretreatment Program.

Summary of Permittees in Significant Noncompliance Fiscal Year 2018-2019

Permittee with Discharge Violation
Company Name // Permit No. // City
Inland Bioenergy, LLC // D1072-3 // Chino

Permittee with Reporting Violation
Company Name // Permit No. // City
Del Real, LLC // D1021-2.1 // Jurupa Valley
9/3/19
CNS-3289263#
THE PRESS ENTERPRISE



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- Failure to meet within 90 days after the schedule date, a compliance schedule milestone.
- Failure to provide required reports including, but not limited to, periodic self-monitoring reports and reports with compliance schedules within 45 days of the due date.
- Failure to accurately report noncompliance with discharge limits or any other requirements applicable to the user pursuant to SAWPA's Wastewater Discharge Regulations (Ordinance).
- Any other violation or group of violations, which the wastewater treatment plant determines will adversely affect the operation or implementation of the Pretreatment Program.

Summary of Permittees in Significant Noncompliance Fiscal Year 2018-2019

Permittee with Discharge Violation

Company Name // Permit No. // City
California Institution for Women // D1007-3 // Corona 9/13/19
CNS-3292869#
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appendix i

QA/QC ANALYSIS RESULTS

**ORANGE COUNTY SANITATION DISTRICT
SOURCE CONTROL DIVISION
QA/QC ANALYSIS RESULTS FOR JULY 2018**

Equipment Blank Evaluation

Equipment	Sample #	Cd	Cr	Cu	Ni	Pb	Zn	Reporting Limit (RL) (mg/L)
		0.1	0.02	0.02	0.02	0.02	0.02	
Sampler A	2072300	0.1	0.02	0.02	0.02	0.02	0.02	
	2072302	0.1	0.02	0.02	0.02	0.02	0.02	
	2072303	0.1	0.02	0.02	0.02	0.02	0.02	
Sampler B	2072304	0.1	0.02	0.02	0.02	0.02	0.03	
	2072305	0.1	0.02	0.02	0.02	0.02	0.07	
	2072306	0.1	0.02	0.02	0.02	0.02	0.03	
		0.0	0.00	0.00	0.00	0.00	1.28	Avg. Deviation
Analysis results are reported in mg/L. Results above the RL are shown in bold font.							0.21	Table Average Deviation

Archive Sample Evaluation

Permit #	Archive #	Original #	Cd	Cr	Cu	Ni	Pb	Zn	Relative % Difference
1-511378	2072268		0.1	0.02	0.02	0.02	0.02	0.04	
		2045730	0.1	0.02	0.02	0.02	0.02	0.04	
1-031114	2072269		0.1	0.02	0.08	0.02	0.02	0.67	
		2045883	0.1	0.04	0.09	0.02	0.02	0.68	1.48
1-521790	2072270		0.1	0.02	0.38	0.02	0.66	0.03	
		2045148	0.1	0.02	0.38	0.02	0.67	0.03	
			0.0	0.00	0.00	0.00	1.50	0.00	Relative % Difference
1-021379	2072271		0.1	0.11	0.29	0.02	0.02	0.62	
		2041748	0.1	0.07	0.27	0.02	0.02	0.61	
					7.14		1.63		Relative % Difference
			0%	0%	4%	0%	2%	1%	Analyte Avg. RPD
							1%		Table Average RPD

Results and RLs reported in mg/L. Results at or below the Reporting Limits are shown as the RLs. Bold numbers are results above the RLs. Italic bold numbers are greater than 20 times the RLs. Comparisons are made only for results greater than 5 times the Reporting Limit.

**ORANGE COUNTY SANITATION DISTRICT
SOURCE CONTROL DIVISION
QA/QC ANALYSIS RESULTS FOR AUGUST 2018**

Equipment Blank Evaluation

Equipment	Sample #	Cd	Cr	Cu	Ni	Pb	Zn	Reporting Limit (RL) (mg/L)	
		0.1	0.02	0.02	0.02	0.02	0.02		
Sampler A	2084255	0.1	0.02	0.02	0.02	0.02	0.02		
	208456	0.1	0.02	0.02	0.02	0.02	0.02		
	208457	0.1	0.02	0.02	0.02	0.02	0.02		
Sampler B	208458	0.1	0.02	0.02	0.02	0.02	0.05		
	208459	0.1	0.02	0.02	0.02	0.02	0.05		
	208460	0.1	0.02	0.02	0.02	0.02	0.06		
		0.0	0.0	0.0	0.0	0.0	1.7	Avg. Deviation	
Analysis results are reported in mg/L. Results above the RL are shown in bold font.								0.3	Table Average Deviation

Archive Sample Evaluation

Permit #	Archive #	Original #	Cd	Cr	Cu	Ni	Pb	Zn	Relative % Difference	
1-021428	2084262		0.1	0.03	0.02	0.02	0.02	0.02		
		2051182	0.1	0.03	0.02	0.02	0.09	0.02		
1-521783	2051194		0.1	0.02	0.04	0.02	0.02	0.09		
		2051194	0.1	0.02	0.04	0.02	0.02	0.08		
1-011013	2084264		0.1	0.22	0.05	0.11	0.02	0.16		
		2051252	0.1	0.24	0.05	0.12	0.02	0.16		
				8.7		8.7		0.0	Relative % Difference	
1-011051	2084265		0.1	0.02	0.06	0.02	0.02	0.06		
		2050691	0.1	0.02	0.04	0.02	0.02	0.06		
									Relative % Difference	
			0%	9%	0%	9%	0%	0%	Analyte Avg. RPD	
									3%	Table Average RPD

Results and RLs reported in mg/L. Results at or below the Reporting Limits are shown as the RLs. Bold numbers are results above the RLs. Italic bold numbers are greater than 20 times the RLs. Comparisons are made only for results greater than 5 times the Reporting Limit.

**ORANGE COUNTY SANITATION DISTRICT
SOURCE CONTROL DIVISION
QA/QC ANALYSIS RESULTS FOR SEPTEMBER 2018**

Equipment Blank Evaluation

Equipment	Sample #	Cd	Cr	Cu	Ni	Pb	Zn	Reporting Limit (RL) (mg/L)
		0.1	0.02	0.02	0.02	0.02	0.02	
Sampler A	2089168	0.1	0.02	0.02	0.02	0.02	0.30	
	2089166	0.1	0.02	0.02	0.02	0.02	0.02	
	2089167	0.1	0.02	0.02	0.02	0.02	0.02	
Sampler B	2089169	0.1	0.02	0.02	0.02	0.02	0.03	
	2089170	0.1	0.02	0.02	0.02	0.02	0.03	
	2089171	0.1	0.02	0.02	0.02	0.02	0.03	
		0.0	0.0	0.0	0.0	0.0	7.6	Avg. Deviation
Analysis results are reported in mg/L. Results above the RL are shown in bold font.							1.3	Table Average Deviation

Archive Sample Evaluation

Permit #	Archive #	Original #	Cd	Cr	Cu	Ni	Pb	Zn	Relative % Difference
1-011069	2089175		0.1	0.02	0.11	0.02	0.02	0.10	
		2057209	0.1	0.02	0.11	0.02	0.02	0.11	
					0.00			9.52	Relative % Difference
1-021352	2089176		0.1	0.02	0.12	0.02	0.02	0.08	
		2057781	0.1	0.02	0.13	0.02	0.02	0.10	
					8.0				Relative % Difference
1-031013	2089320		0.1	0.02	0.20	0.10	0.02	0.18	
		2053637	0.1	0.03	0.22	0.11	0.02	0.18	
					9.5	9.5		0.00	Relative % Difference
1-021399	2057357		0.1	0.02	0.26	0.02	0.02	0.02	
		2089177	0.1	0.02	0.28	0.02	0.02	0.02	
					7.4				Relative % Difference
			0%	0%	6%	10%	0%	5%	Analyte Avg. RPD
							3%		Table Average RPD

Results and RLs reported in mg/L. Results at or below the Reporting Limits are shown as the RLs. Bold numbers are results above the RLs. Italic bold numbers are greater than 20 times the RLs. Comparisons are made only for results greater than 5 times the Reporting Limit.

**ORANGE COUNTY SANITATION DISTRICT
SOURCE CONTROL DIVISION
QA/QC ANALYSIS RESULTS FOR OCTOBER 2018**

Equipment Blank Evaluation

Equipment	Sample #	Cd	Cr	Cu	Ni	Pb	Zn	Reporting Limit (RL) (mg/L)	
		0.1	0.02	0.02	0.02	0.02	0.02		
Sampler A	2096309	0.1	0.02	0.02	0.02	0.02	0.02		
	2096310	0.1	0.02	0.02	0.02	0.02	0.02		
	2096311	0.1	0.02	0.02	0.02	0.02	0.02		
Sampler B	2096306	0.1	0.02	0.02	0.02	0.02	0.02		
	2096307	0.1	0.02	0.02	0.02	0.02	0.02		
	2096308	0.1	0.02	0.02	0.02	0.02	0.02		
		0.0	0.0	0.0	0.0	0.0	0.0	Avg. Deviation	
Analysis results are reported in mg/L. Results above the RL are shown in bold font.								0.0	Table Average Deviation

Archive Sample Evaluation

Permit #	Archive #	Original #	Cd	Cr	Cu	Ni	Pb	Zn	Relative % Difference
1-021081	2096313		0.1	0.083	0.026	0.028	0.02	0.021	
		2064699	0.1	0.09	0.04	0.03	0.02	0.02	
1-021070	2096314		0.1	0.02	0.334	0.02	0.02	0.02	
		2063975	0.1	0.02	0.31	0.02	0.02	0.02	
					7.5				Relative % Difference
1-071035	2096317		0.1	0.03	0.136	0.024	0.02	0.31	
		2065163	0.1	0.04	0.14	0.03	0.02	0.31	
					2.9			0.0	Relative % Difference
1-531419	2097194		0.1	0.097	0.331	0.02	0.02	0.122	
		2059938	0.1	0.02	0.34	0.02	0.02	0.11	
					2.7			10.3	Relative % Difference
			0%	0%	4%	0%	0%	5%	Analyte Avg. RPD
								2%	Table Average RPD

Results and RLs reported in mg/L. Results at or below the Reporting Limits are shown as the RLs. Bold numbers are results above the RLs. Italic bold numbers are greater than 20 times the RLs. Comparisons are made only for results greater than 5 times the Reporting Limit.

**ORANGE COUNTY SANITATION DISTRICT
SOURCE CONTROL DIVISION
QA/QC ANALYSIS RESULTS FOR NOVEMBER 2018**

Equipment Blank Evaluation

Equipment	Sample #	Cd	Cr	Cu	Ni	Pb	Zn	Reporting Limit (RL) (mg/L)	
		0.1	0.02	0.02	0.02	0.02	0.02		
Sampler A	2102976	0.1	0.02	0.02	0.02	0.02	0.129		
	2102977	0.1	0.02	0.02	0.02	0.02	0.082		
	2102978	0.1	0.02	0.02	0.02	0.02	0.09		
Sampler B	2102979	0.1	0.02	0.02	0.02	0.02	0.085		
	2102980	0.1	0.02	0.02	0.02	0.02	0.069		
	2102982	0.1	0.02	0.02	0.02	0.02	0.074		
		0.0	0.0	0.0	0.0	0.0	1.4	Avg. Deviation	
Analysis results are reported in mg/L. Results above the RL are shown in bold font.								0.2	Table Average Deviation

Archive Sample Evaluation

Permit #	Archive #	Original #	Cd	Cr	Cu	Ni	Pb	Zn	
1-511405	2102992		0.1	0.02	0.273	0.025	0.02	0.24	
		2065852	0.1	0.04	0.23	0.02	0.02	0.23	
			17.1					4.3	Relative % Difference
1-031107	2102994		0.1	0.131	0.423	0.089	0.04	3.09	
		2071708	0.1	0.18	0.36	0.07	0.03	2.75	
				31.5	16.1			11.6	Relative % Difference
1-511407	2102995		0.1	0.487	0.133	0.325	0.02	0.493	
		2065589	0.1	0.54	0.15	0.35	0.02	0.51	
				10.3	12.0	7.4		3.4	Relative % Difference
1-511359	2102996		0.1	0.02	0.23	0.024	0.02	0.114	
		2065834	0.1	0.02	0.22	0.03	0.02	0.12	
					2.7			5.1	Relative % Difference
			0%	21%	12%	7%	0%	6%	Analyte Avg. RPD
							8%	Table Average RPD	

Results and RLs reported in mg/L. Results at or below the Reporting Limits are shown as the RLs. Bold numbers are results above the RLs. Italic bold numbers are greater than 20 times the RLs. Comparisons are made only for results greater than 5 times the Reporting Limit.

**ORANGE COUNTY SANITATION DISTRICT
SOURCE CONTROL DIVISION
QA/QC ANALYSIS RESULTS FOR DECEMBER 2018**

Equipment Blank Evaluation

Equipment	Sample #	Cd	Cr	Cu	Ni	Pb	Zn	Reporting Limit (RL) (mg/L)
		0.1	0.02	0.02	0.02	0.02	0.02	
Sampler A	2104152	0.1	0.02	0.02	0.02	0.02	0.032	
	2104153	0.1	0.02	0.02	0.02	0.02	0.02	
	2104154	0.1	0.02	0.02	0.02	0.02	0.02	
Sampler B	2104155	0.1	0.02	0.02	0.02	0.02	0.02	
	2104156	0.1	0.02	0.02	0.02	0.02	0.02	
	2104157	0.1	0.02	0.02	0.02	0.02	0.02	
		0.0	0.0	0.0	0.0	0.0	0.3	Avg. Deviation
Analysis results are reported in mg/L. Results above the RL are shown in bold font.							0.1	Table Average Deviation

Archive Sample Evaluation

Permit #	Archive #	Original #	Cd	Cr	Cu	Ni	Pb	Zn	Relative % Difference
1-521820	2104167		0.1	0.02	0.035	0.02	0.02	0.328	
		2072325	0.1	0.02	0.02	0.05	0.02	0.33	0.6
1-521777	2104168		0.1	0.02	0.086	0.02	0.026	0.1	
		2076889	0.1	0.02	0.09	0.03	0.02	0.1	Relative % Difference
1-031270	2104591		0.1	0.02	0.04	0.02	0.02	0.145	
		2072613	0.100	0.02	0.02	0.05	0.02	0.16	9.8
1-021284	2104169		0.1	0.02	0.049	0.02	0.02	0.095	
		2077305	0.1	0.02	0.06	0.03	0.02	0.09	Relative % Difference
			0%	0%	0%	0%	0%	5%	Analyte Avg. RPD
							1%	Table Average RPD	

Results and RLs reported in mg/L. Results at or below the Reporting Limits are shown as the RLs. Bold numbers are results above the RLs. Italic bold numbers are greater than 20 times the RLs. Comparisons are made only for results greater than 5 times the Reporting Limit.

**ORANGE COUNTY SANITATION DISTRICT
SOURCE CONTROL DIVISION
QA/QC ANALYSIS RESULTS FOR JANUARY 2019**

Equipment Blank Evaluation

Equipment	Sample #	Cd	Cr	Cu	Ni	Pb	Zn	Reporting Limit (RL) (mg/L)	
		0.1	0.02	0.02	0.02	0.02	0.02		
Sampler A	2114532	0.1	0.02	0.02	0.02	0.02	0.02		
	2114534	0.1	0.02	0.02	0.02	0.02	0.02		
	2114530	0.1	0.02	0.02	0.02	0.02	0.02		
Sampler B	2114531	0.1	0.02	0.02	0.02	0.02	0.02		
	2114533	0.1	0.02	0.02	0.02	0.02	0.02		
	2114536	0.1	0.02	0.02	0.02	0.02	0.02		
		0.0	0.0	0.0	0.0	0.0	0.0	Avg. Deviation	
Analysis results are reported in mg/L. Results above the RL are shown in bold font.								0.0	Table Average Deviation

Archive Sample Evaluation

Permit #	Archive #	Original #	Cd	Cr	Cu	Ni	Pb	Zn	Relative % Difference
1-011278	2114611		0.1	0.02	0.02	0.02	0.02	0.08	
		2084362	0.1	0.02	0.02	0.02	0.02	0.08	
									Relative % Difference
1-111129	2114612		0.1	0.02	0.571	0.02	0.02	0.064	
		2079353	0.1	0.02	0.5	0.02	0.02	0.07	
									Relative % Difference
					13.3				
1-521821	2114613		0.1	0.02	0.337	0.02	0.02	0.02	
		2084217	0.1	0.02	0.32	0.02	0.02	0.03	
									Relative % Difference
					5.2				
1-021282	2114721		0.1	0.046	0.107	0.102	0.02	0.129	
		2083043	0.1	0.04	0.1	0.1	0.02	0.13	
									Relative % Difference
					6.8	2.0			0.8
				0%	0%	8%	2%	0%	1%
								Analyte Avg. RPD	
								2%	
								Table Average RPD	

Results and RLs reported in mg/L. Results at or below the Reporting Limits are shown as the RLs. Bold numbers are results above the RLs. Italic bold numbers are greater than 20 times the RLs. Comparisons are made only for results greater than 5 times the Reporting Limit.

**ORANGE COUNTY SANITATION DISTRICT
SOURCE CONTROL DIVISION
QA/QC ANALYSIS RESULTS FOR FEBRUARY 2019**

Equipment Blank Evaluation

Equipment	Sample #	Cd	Cr	Cu	Ni	Pb	Zn	Reporting Limit (RL) (mg/L)	
		0.1	0.02	0.02	0.02	0.02	0.02		
Sampler A	2119115	0.1	0.02	0.02	0.02	0.02	0.02		
	2119118	0.1	0.02	0.02	0.02	0.02	0.02		
	2119117	0.1	0.02	0.02	0.02	0.02	0.02		
Sampler B	2119116	0.1	0.02	0.02	0.02	0.02	0.02		
	2119119	0.1	0.02	0.02	0.02	0.02	0.02		
	2119120	0.1	0.02	0.02	0.02	0.02	0.02		
		0.0	0.0	0.0	0.0	0.0	0.0	Avg. Deviation	
Analysis results are reported in mg/L. Results above the RL are shown in bold font.								0.0	Table Average Deviation

Archive Sample Evaluation

Permit #	Archive #	Original #	Cd	Cr	Cu	Ni	Pb	Zn	Relative % Difference
1-111007	2119124		0.1	0.02	0.02	0.66	0.02	0.02	
		2090892	0.1	0.42	0.02	0.4	0.02	0.02	
				181.8		49.1			
1-021121	2119125		0.1	0.02	0.146	0.02	0.02	0.112	
		2088988	0.1	0.02	0.15	0.02	0.02	0.11	
					2.7		1.8		
1-021185	2119126		0.1	0.02	0.02	0.02	0.02	0.024	
		2089957	0.1	0.02	0.02	0.02	0.02	0.02	
1-521783	2119127		0.1	0.02	0.03	0.02	0.02	0.182	
		2085144	0.1	0.02	0.03	0.02	0.02	0.15	
							19.3		
			0%	182%	3%	49%	0%	11%	Analyte Avg. RPD
								41%	Table Average RPD

Results and RLs reported in mg/L. Results at or below the Reporting Limits are shown as the RLs. Bold numbers are results above the RLs. Italic bold numbers are greater than 20 times the RLs. Comparisons are made only for results greater than 5 times the Reporting Limit.

**ORANGE COUNTY SANITATION DISTRICT
SOURCE CONTROL DIVISION
QA/QC ANALYSIS RESULTS FOR MARCH 2019**

Equipment Blank Evaluation

Equipment	Sample #	Cd	Cr	Cu	Ni	Pb	Zn	Reporting Limit (RL) (mg/L)	
		0.1	0.02	0.02	0.02	0.02	0.02		
Sampler A	2123205	0.1	0.02	0.02	0.02	0.02	0.02		
	2123207	0.1	0.02	0.02	0.02	0.02	0.02		
	2123206	0.1	0.02	0.02	0.02	0.02	0.02		
Sampler B	2123208	0.1	0.02	0.02	0.02	0.02	0.02		
	2123209	0.1	0.02	0.02	0.02	0.02	0.02		
	2123210	0.1	0.02	0.02	0.02	0.02	0.02		
		0.0	0.0	0.0	0.0	0.0	0.0	Avg. Deviation	
Analysis results are reported in mg/L. Results above the RL are shown in bold font.								0.0	Table Average Deviation

Archive Sample Evaluation

Permit #	Archive #	Original #	Cd	Cr	Cu	Ni	Pb	Zn		
1-011155	2123198		0.1	0.046	0.072	<i>0.115</i>	0.02	0.064		
		2091559	0.1	0.05	0.06	<i>0.11</i>	0.02	0.06	Relative % Difference	
									4.4	
1-111018	2123200		0.1	0.02	0.02	0.02	0.02	0.039		
		2091902	0.1	0.02	0.02	0.02	0.02	0.03	Relative % Difference	
1-511399	2123204		0.1	0.02	0.035	0.02	0.02	0.042		
		2092194	0.1	0.02	0.04	0.02	0.02	0.03	Relative % Difference	
1-521761	2123203		0.1	0.02	0.036	0.02	0.084	0.064		
		2091999	0.1	0.02	<i>0.34</i>	0.02	0.06	0.07	Relative % Difference	
									161.7	
			0%	0%	162%	4%	0%	0%	Analyte Avg. RPD	
									28%	Table Average RPD

Results and RLs reported in mg/L. Results at or below the Reporting Limits are shown as the RLs. Bold numbers are results above the RLs. Italic bold numbers are greater than 20 times the RLs. Comparisons are made only for results greater than 5 times the Reporting Limit.

**ORANGE COUNTY SANITATION DISTRICT
SOURCE CONTROL DIVISION
QA/QC ANALYSIS RESULTS FOR APRIL 2019**

Equipment Blank Evaluation

Equipment	Sample #	Cd	Cr	Cu	Ni	Pb	Zn	Reporting Limit (RL) (mg/L)	
		0.1	0.02	0.02	0.02	0.02	0.02		
Sampler A	2136931	0.1	0.02	0.02	0.02	0.02	0.02		
	2136952	0.1	0.02	0.02	0.02	0.02	0.02		
	2136953	0.1	0.02	0.02	0.02	0.02	0.02		
Sampler B	2136954	0.1	0.02	0.02	0.02	0.02	0.02		
	2136955	0.1	0.02	0.02	0.02	0.02	0.02		
	2136956	0.1	0.02	0.02	0.02	0.02	0.02		
		0.0	0.0	0.0	0.0	0.0	0.0	Avg. Deviation	
Analysis results are reported in mg/L. Results above the RL are shown in bold font.								0.0	Table Average Deviation

Archive Sample Evaluation

Permit #	Archive #	Original #	Cd	Cr	Cu	Ni	Pb	Zn		
1-141163	2137006		0.1	0.02	0.02	0.02	0.02	0.123		
		2103020	0.1	0.02	0.02	0.02	0.02	0.115		
									Relative % Difference	
									6.7	
1-021402	2137956		0.1	0.02	0.263	0.02	0.02	0.0152		
		2103841	0.1	0.02	0.298	0.02	0.02	0.977		
									Relative % Difference	
									12.5	
									193.9	
1-021185	2137957		0.1	0.02	0.02	0.02	0.02	0.037		
		2102595	0.1	0.02	0.02	0.02	0.02	0.024		
									Relative % Difference	
									0.037	
									0.024	
1-021664	2137958		0.1	0.02	0.02	0.02	0.054	0.055		
		2102761	0.1	0.02	0.02	0.02	0.06	0.054		
									Relative % Difference	
									0.054	
									0.054	
			0%	0%	12%	0%	0%	100%	Analyte Avg. RPD	
									19%	Table Average RPD

Results and RLs reported in mg/L. Results at or below the Reporting Limits are shown as the RLs. Bold numbers are results above the RLs. Italic bold numbers are greater than 20 times the RLs. Comparisons are made only for results greater than 5 times the Reporting Limit.

**ORANGE COUNTY SANITATION DISTRICT
SOURCE CONTROL DIVISION
QA/QC ANALYSIS RESULTS FOR MAY 2019**

Equipment Blank Evaluation

Equipment	Sample #	Cd	Cr	Cu	Ni	Pb	Zn	Reporting Limit (RL) (mg/L)	
		0.1	0.02	0.02	0.02	0.02	0.02		
Sampler A	2140153	0.1	0.02	0.02	0.02	0.02	0.034		
	2140155	0.1	0.02	0.02	0.02	0.02	0.03		
	2140154	0.1	0.02	0.02	0.02	0.02	0.033		
Sampler B	2140156	0.1	0.02	0.02	0.02	0.02	0.052		
	2140157	0.1	0.02	0.02	0.02	0.02	0.052		
	2140158	0.1	0.02	0.02	0.02	0.02	0.057		
		0.0	0.0	0.0	0.0	0.0	1.1	Avg. Deviation	
Analysis results are reported in mg/L. Results above the RL are shown in bold font.								0.2	Table Average Deviation

Archive Sample Evaluation

Permit #	Archive #	Original #	Cd	Cr	Cu	Ni	Pb	Zn	
1-511385	2140160		0.1	0.02	0.02	0.02	0.02	0.378	
		2097938	0.1	0.02	0.02	0.02	0.02	0.407	
								7.4	Relative % Difference
1-021187	2140161		0.1	0.02	0.369	0.02	0.02	0.071	
		2104884	0.1	0.02	0.36	0.02	0.02	0.076	
								2.5	Relative % Difference
1-521756	2140162		0.1	0.02	0.02	0.02	0.02	0.061	
		2109074	0.1	0.02	0.02	0.02	0.02	0.059	
									Relative % Difference
1-031060	2140163		0.1	0.02	0.02	0.02	0.02	0.131	
		2109574	0.1	0.02	0.02	0.02	0.02	0.131	
								0.0	Relative % Difference
				0%	0%	2%	0%	0%	Analyte Avg. RPD
								4%	Table Average RPD
								1%	RPD

Results and RLs reported in mg/L. Results at or below the Reporting Limits are shown as the RLs. Bold numbers are results above the RLs. Italic bold numbers are greater than 20 times the RLs. Comparisons are made only for results greater than 5 times the Reporting Limit.

**ORANGE COUNTY SANITATION DISTRICT
SOURCE CONTROL DIVISION
QA/QC ANALYSIS RESULTS FOR JUNE 2019**

Equipment Blank Evaluation

Equipment	Sample #	Cd	Cr	Cu	Ni	Pb	Zn	Reporting Limit (RL) (mg/L)
		0.1	0.02	0.02	0.02	0.02	0.02	
Sampler A	2147050	0.1	0.02	0.02	0.02	0.02	0.037	
	2147111	0.1	0.02	0.02	0.02	0.02	0.036	
	2147117	0.1	0.02	0.02	0.02	0.02	0.036	
Sampler B	2147112	0.1	0.02	0.02	0.02	0.02	0.02	
	2147189	0.1	0.02	0.02	0.02	0.02	0.025	
	2147188	0.1	0.02	0.02	0.02	0.02	0.02	
		0.0	0.0	0.0	0.0	0.0	0.7	Avg. Deviation
Analysis results are reported in mg/L. Results above the RL are shown in bold font.							0.1	Table Average Deviation

Archive Sample Evaluation

Permit #	Archive #	Original #	Cd	Cr	Cu	Ni	Pb	Zn	
1-021664	2148311		0.1	0.02	0.02	0.02	0.423	0.02	
		2116643	0.1	0.02	0.02	0.02	0.2	0.02	
							71.6		Relative % Difference
1-031049	2148307		0.1	0.02	0.81	0.02	0.334	0.074	
		2111582	0.1	0.02	0.74	0.02	0.301	0.06	
					9.0		10.4		Relative % Difference
1-021297	2148313		0.1	0.02	0.02	0.02	0.02	0.038	
		2115076	0.1	0.02	0.02	0.02	0.02	0.034	
									Relative % Difference
1-021282	2148309		0.1	0.038	0.134	0.255	0.02	0.135	
		2115498	0.1	0.035	0.124	0.237	0.02	0.128	
					7.8	7.3		5.3	Relative % Difference
			0%	0%	8%	7%	41%	5%	Analyte Avg. RPD
							10%		Table Average RPD

Results and RLs reported in mg/L. Results at or below the Reporting Limits are shown as the RLs. Bold numbers are results above the RLs. Italic bold numbers are greater than 20 times the RLs. Comparisons are made only for results greater than 5 times the Reporting Limit.

ORANGE COUNTY SANITATION DISTRICT - RESOURCE PROTECTION DIVISION								
SAMPLE COLLECTION CHECK RESULTS, JUL-SEP 2018								
	Sample #	Cd	Cr	Cu	Ni	Pb	Zn	TSS
Sampler A	2085617	0.1	0.02	0.03	0.07	0.02	0.07	13.0
	2085618	0.1	0.02	0.03	0.07	0.02	0.07	10.0
	2085619	0.1	0.02	0.03	0.07	0.02	0.08	10.0
	2085620	0.1	0.02	0.03	0.07	0.02	0.07	10.0
	2085621	0.1	0.02	0.02	0.07	0.02	0.07	16.0
	average	0.1	0.02	0.03	0.07	0.02	0.07	11.8
range	0.0	0.00	0.01	0.00	0.00	0.01	6.0	
Sampler Avg. Deviation								2.2
	Sample #	Cd	Cr	Cu	Ni	Pb	Zn	TSS
Sampler B	2085622	0.1	0.02	0.02	0.07	0.02	0.05	11.0
	2085623	0.1	0.02	0.03	0.07	0.02	0.05	10.0
	2085624	0.1	0.02	0.03	0.07	0.02	0.05	12.0
	2085625	0.1	0.02	0.02	0.07	0.02	0.05	6.3
	2085870	0.1	0.02	0.02	0.07	0.02	0.05	ND
	average	0.1	0.02	0.02	0.07	0.02	0.05	9.8
range	0.0	0.00	0.01	0.00	0.00	0.00	5.7	
Sampler Avg. Deviation								1.8
Site Relative Percent Difference	Cd	Cr	Cu	Ni	Pb	Zn	TSS	
								18.3
Reporting Limits	0.1	0.02	0.02	0.02	0.02	0.02	0.02	1.0

ORANGE COUNTY SANITATION DISTRICT - RESOURCE PROTECTION DIVISION								
SAMPLE COLLECTION CHECK RESULTS, OCT - DEC 2018								
	Sample #	Cd	Cr	Cu	Ni	Pb	Zn	TSS
Sampler A	2091183	0.1	0.03	0.03	0.12	0.02	0.04	6.3
	2091185	0.1	0.03	0.03	0.12	0.02	0.04	9.7
	2091186	0.1	0.03	0.03	0.13	0.02	0.03	11.0
	2091187	0.1	0.03	0.03	0.13	0.02	0.03	9.3
	2091188	0.1	0.10	0.09	0.32	0.02	0.05	7.8
	average	0.1	0.04	0.04	0.16	0.02	0.04	8.8
range	0.0	0.07	0.06	0.20	0.00	0.02	4.7	
Sampler Avg. Deviation					6.24			1.4
	Sample #	Cd	Cr	Cu	Ni	Pb	Zn	TSS
Sampler B	2091184	0.1	0.06	0.06	0.21	0.02	0.03	6.0
	2099193	0.1	0.04	0.04	0.15	0.02	0.03	5.8
	2091194	0.1	0.04	0.04	0.17	0.02	0.02	7.8
	2091195	0.1	0.51	0.43	1.50	0.02	0.16	8.0
	2091309	0.1	0.04	0.05	0.15	0.02	0.03	7.4
	average	0.1	0.14	0.12	0.44	0.02	0.05	7.0
range	0.0	0.47	0.39	1.35	0.00	0.14	2.2	
Sampler Avg. Deviation			14.88	12.24	42.56			0.9
Site Relative Percent Difference	Cd	Cr	Cu	Ni	Pb	Zn	TSS	
				90.67				23.0
Reporting Limits	0.1	0.02	0.02	0.02	0.02	0.02	0.02	1.0

Results are shown only for results greater than 5 times the Reporting Limit. Bold numbers are results above the RLs. Results and RLs are reported in mg/L.

ORANGE COUNTY SANITATION DISTRICT - RESOURCE PROTECTION DIVISION								
SAMPLE COLLECTION CHECK RESULTS, JAN - MAR 2019								
	Sample #	Cd	Cr	Cu	Ni	Pb	Zn	TSS
Sampler A	2111588	0.1	0.21	0.09	0.57	0.02	0.03	ND
	2110464	0.1	0.21	0.09	0.54	0.02	0.03	ND
	2110465	0.1	0.21	0.09	0.56	0.02	0.03	2.6
	2110466	0.1	0.21	0.09	0.57	0.02	0.03	4.0
	2110470	0.1	0.22	0.09	0.57	0.02	0.03	ND
	average	0.1	0.21	0.09	0.56	0.02	0.03	3.3
range	0.0	0.01	0.00	0.02	0.00	0.00	1.4	
Sampler Avg. Deviation			0.31	0.75				
	Sample #	Cd	Cr	Cu	Ni	Pb	Zn	TSS
Sampler B	2110468	0.1	0.19	0.11	0.49	0.02	0.10	ND
	2110471	0.1	0.18	0.11	0.47	0.02	0.10	5.0
	2110469	0.1	0.19	0.11	0.49	0.02	0.10	ND
	2110472	0.1	0.18	0.11	0.48	0.02	0.11	ND
	2110467	0.1	0.18	0.11	0.48	0.02	0.10	ND
	average	0.1	0.18	0.11	0.48	0.02	0.10	5.0
range	0.0	0.01	0.01	0.02	0.00	0.01	0.0	
Sampler Avg. Deviation			0.25	0.20	0.67	0.30		
Site Relative Percent Difference		Cd	Cr	Cu	Ni	Pb	Zn	TSS
			14.76	17.35	15.17			
Reporting Limits		0.1	0.02	0.02	0.02	0.02	0.02	1.0

ORANGE COUNTY SANITATION DISTRICT - RESOURCE PROTECTION DIVISION								
SAMPLE COLLECTION CHECK RESULTS, APR - JUN 2019								
	Sample #	Cd	Cr	Cu	Ni	Pb	Zn	TSS
Sampler A	2151238	0.1	0.02	0.09	1.99	0.02	0.03	18.0
	2151237	0.1	0.02	0.10	2.07	0.02	0.04	16.0
	2151236	0.1	0.02	0.09	2.06	0.02	0.05	31.0
	2151235	0.1	0.02	0.09	1.95	0.02	0.04	23.0
	2151234	0.1	0.02	0.09	1.97	0.02	0.04	22.0
	average	0.1	0.02	0.09	2.01	0.02	0.04	22.0
range	0.0	0.00	0.01	0.12	0.00	0.01	15.0	
Sampler Avg. Deviation					0.05			4.0
	Sample #	Cd	Cr	Cu	Ni	Pb	Zn	TSS
Sampler B	2145267	0.1	0.02	0.13	2.06	0.02	0.07	8.4
	2151230	0.1	0.02	0.12	2.11	0.02	0.06	27.0
	2151231	0.1	0.02	0.12	2.02	0.02	0.05	19.0
	2151232	0.1	0.02	0.12	2.10	0.02	0.06	20.0
	2151233	0.1	0.02	0.12	2.02	0.02	0.06	26.0
	average	0.1	0.02	0.12	2.06	0.02	0.06	20.1
range	0.0	0.00	0.02	0.09	0.00	0.02	18.6	
Sampler Avg. Deviation				0.00	0.03			5.1
Site Relative Percent Difference		Cd	Cr	Cu	Ni	Pb	Zn	TSS
				29.65	2.65			
Reporting Limits		0.1	0.02	0.02	0.02	0.02	0.02	1.0

Results are shown only for results greater than 5 times the Reporting Limit. Bold numbers are results above the RLs. Results and RLs are reported in mg/L.

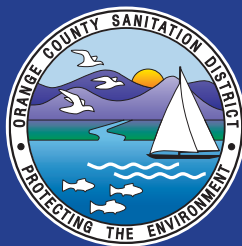
**PERMITTEES WITH PRETREATMENT
EQUIPMENT**

**Orange County Sanitation District
Permittees with Pretreatment Equipment
Fiscal Year 2018-2019**

Facility Name	Permit No.	Regulation																													
			Anion Exchange	Carbon Filtration	Cation Exchange	Chelate Breaking Tank	Chemical Precipitation	Chromium Reduction	Clarification	Clarification eop	Clarification neop	Coagulation/Flocculation	Cross Flow Filter (Memtek)	Cyanide Destruct 1 Stage	Cyanide Destruct 2 Stage	Effluent pH Adjustment	Electrowinning/Plateout	Equalization tank	Holding Tank	Mixed-Bed Ion Exchange	Multi-Purpose Tank 1	Multi-Purpose Tank 2	O/W Sep	Other Pressure Filtration Device	pH Adjust Tank-No Heavy Metals	Plate & Frame Filter Press	Polishing Filter	Sludge Thickening Tank	Other		
American Circuit Technology, Inc.	1-021249	433.17(a)	.	.	.	.	.	.	x	.	.	.	.	.	.	.	x	x	.	x	.	.	.	.	.	.	x	x	x	x
Amerimax Building Products, Inc.	1-021102	465.35	.	.	.	.	.	.	.	x	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Ameripecc, Inc.	1-031057	403.5(d)	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	x	.	.	.	.	.	x
Anaheim Extrusion Co., Inc.	1-021168	467.35(c)	x	.	.	x	x	x	.	.
Andres Technical Plating	1-521798	433.17(a)	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	x	.	.	.	.	x	.	.	x
AnoChem Coatings	1-600295	433.17(a)	.	.	.	.	.	.	.	.	.	.	.	.	.	x	.	.	x	.	.	.	.	.	.	.	.	.	.	.
Anodyne, Inc.	1-511389	433.17(a)	.	.	x	x	x	x	.	.	x	.	.	x	.	.	.	.	.	.	.	.	.	.	.	.	x	.	x	x
Anomil Ent. Dba Danco Metal Surfacing	1-011155	433.17(a)	.	.	x	.	x	x	.	.	x	.	.	.	.	.	.	x	.	.	.	.	.	.	.	.	x	.	.	x
APCT Orange County	1-600503	433.17(a)	.	.	x	.	.	.	.	.	.	.	.	.	.	x	.	x	.	.	.	.	.	.	.	.	x	.	.	.
Arconic Global Fasteners & Rings, Inc.	1-021081	433.15(a),	.	.	.	.	x	x	.	.	x	.	.	x	.	.	.	x	.	.	.	.	x	.	.	.	x	x	x	x
ARO Service	1-021192	433.17(a)	.	.	.	.	.	.	.	.	.	.	.	.	.	x	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Arrowhead Products Corporation	1-031137	433.17(a)	.	.	x	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Aseptic Technology LLC	1-600716	403.5(d)	.	.	.	.	.	.	.	x	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Astech Engineered Products, Inc.	1-571295	433.17(a)	.	.	.	.	.	.	.	x	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	x	.	.	x
Auto-Chlor System of Washington, Inc.	1-511384	417.166	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	x	.	.	.	.
Aviation Equipment Processing	1-071037	433.17(a)	.	.	.	.	.	.	.	.	x	.	.	.	.	x	.	.	.	.	.	.	.	.	.	x	x	x	.	.
B. Braun Medical, Inc. (West/Lake)	1-541183	439.47,	.	.	.	.	.	.	.	.	.	.	.	.	.	x	.	.	.	.	.	.	.	.	.	.	.	.	.	.

**Orange County Sanitation District
Permittees with Pretreatment Equipment
Fiscal Year 2018-2019**

Facility Name	Permit No.	Regulation																													
			Anion Exchange	Carbon Filtration	Cation Exchange	Chelate Breaking Tank	Chemical Precipitation	Chromium Reduction	Clarification	Clarification eop	Clarification neop	Coagulation/Flocculation	Cross Flow Filter (Memtek)	Cyanide Destruct 1 Stage	Cyanide Destruct 2 Stage	Effluent pH Adjustment	Electrowinning/Plateout	Equalization tank	Holding Tank	Mixed-Bed Ion Exchange	Multi-Purpose Tank 1	Multi-Purpose Tank 2	O/W Sep	Other Pressure Filtration Device	pH Adjust Tank-No Heavy Metals	Plate & Frame Filter Press	Polishing Filter	Sludge Thickening Tank	Other		
Bristol Industries	1-021226	433.17(a),	x	x	.	.	x	.	.	x	x	.	.	x	x	x	x	x
Burlington Engineering, Inc.	1-521770	433.17(a)	x	.	.	x	.	.	.	x	.	.	x	x	.	.	.
Cadillac Plating, Inc.	1-021062	433.17(a)	.	.	.	.	x	x	.	.	x	.	.	.	.	.	.	.	x	.	x	.	.	.	.	.	x	.	.	x
Cal-Aurum Industries, Inc.	1-111089	433.17(a)	.	.	.	.	.	.	.	x	.	.	.	x	.	x	.	.	.	x	.	.	.	.	.	.	x	x	.	.
California Gasket and Rubber Corporation	1-521832	428.66(a)	.	.	.	.	.	.	.	x	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Cannery Hamilton Properties, LLC.	S-600807	403.5(d)	.	x	.	.	.	.	.	.	.	.	.	.	.	.	.	.	x	.	.	.	.	.	x	.	.	.	.	.
Catalina Cylinders, A Div. of APP	1-031021	467.46	.	.	.	.	.	.	.	x	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
CD Video, Inc.	1-511076	433.17(a)	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	x	.	.	.	.	.	.	.	x
Central Powder Coating	1-021189	433.17(a)	.	.	.	.	.	.	.	.	x	.	.	.	.	.	.	.	x	.	.	.	.	.	.	x	.	.	.	x
Ceradyne, Inc., a 3M Company	1-600691	403.5(d)	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	x	.	.	.	.	.	.
Chromadora, Inc.	1-511414	433.17(a)	.	.	.	.	x	x	.	.	.	.	.	x	x	.	.	.	.	x	.	.	.	.	.	.	x	.	.	x
Circuit Technology, Inc.	1-521821	433.17(a)	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	x	.	.	.	.	.	.	.	.	.
Cirtech, Inc.	1-021133	433.17(a)	.	.	.	.	x	.	x	x	x	x	.	.	.	x	.	.	x	.	.	.	.	.	.	.	x	.	.	.
Cirtech, Inc.	1-600689	433.17(a)	.	.	.	.	x	.	x	x	x	.	.	.	x	.	.	x	.	.	.	.	.	.	.	.	x	.	.	.
City of Huntington Beach (Edgewater Lane)	S-600566	403.5(d)	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	x
City of Huntington Beach (Warner and Edg)	S-600763	403.5(d)	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	x
City of Huntington Beach (Willow Lane)	S-600545	403.5(d)	x	



ORANGE COUNTY SANITATION DISTRICT

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