

2016 PRETREATMENT PROGRAM ANNUAL REPORT





COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY

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GRACE ROBINSON HYDE
Chief Engineer and General Manager

February 28, 2017

Mr. Samuel Unger
Executive Officer
California Regional Water Quality Control Board
Los Angeles Region
320 West Fourth Street, Suite 200
Los Angeles, California 90013

Dear Mr. Unger:

Industrial Waste Pretreatment Program Annual Report **2016**

<u>Name of Treatment Plant</u>	<u>NPDES No.</u>	<u>(Board Order Nos.)</u>
Joint Water Pollution Control Plant (JWPCP)	CA0053813	(R4-2011-0151)
Long Beach WRP	CA0054119	(R4-2015-0123)
Los Coyotes WRP	CA0054011	(R4-2015-0124)
Pomona WRP	CA0053619	(R4-2014-0212)
San Jose Creek WRP	CA0053911	(R4-2015-0070)
Saugus WRP	CA0054313	(R4-2015-0072)
Valencia WRP	CA0054216	(R4-2015-0071)
Whittier Narrows WRP	CA0053716	(R4-2014-0213)

Enclosed is the 2016 Industrial Waste Pretreatment Program Annual Report for the County Sanitation Districts of Los Angeles County (Sanitation Districts). This report serves to fulfill the requirements of EPA General Pretreatment Regulations (40 CFR 403) and the requirements for a pretreatment annual report for all of the above NPDES permits.

If you desire further information on the Sanitation Districts' industrial waste pretreatment program, please contact the undersigned at extension 2902.

Very truly yours,

David W. Snyder
Head
Industrial Waste Section

DWS:LMS:tld

The entire report, including all Appendices and Exhibits in electronic format, is being sent to:

Mr. Samuel Unger, Executive Officer
California Regional Water Quality Control Board, Los Angeles Region
320 West Fourth Street, Suite 200
Los Angeles, California 90013
CIWQS only

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County Sanitation Districts of Los Angeles County

Grace Robinson Hyde
Chief Engineer and General Manager

INDUSTRIAL WASTE PRETREATMENT PROGRAM ANNUAL REPORT

COVER SHEET

Period Covered by This Report: From January 1, 2016 to December 31, 2016

Period Covered by Previous Annual Report: From January 1, 2015 to December 31, 2015

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Person to contact concerning information contained in this report:

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I have personally examined and am familiar with the information submitted in this document and attachments. Based upon my inquiry of those individuals immediately responsible for obtaining the information reported herein, I believe that the submitted information is true, accurate, and complete.

Date

February 28, 2017


David W. Snyder
Head
Industrial Waste Section

**2016 Pretreatment Program Annual Report
Pretreatment Compliance System Data Form
January 1, 2016 Through December 31, 2016**

	SIUs
SIUs in SNC W/Pretreatment Compliance Schedule (SSNC)	0
NOVs and AOs Issued Against IUs/SIUs (FENF)	302
Civil and Criminal Judicial Actions Against IUs/SIUs (JUDI)	0
SIUs With Significant Violations Published (SVPU)	198
SIUs From Which Penalties Have Been Collected (IUPN)	0

The above data were derived based on interpretive guidance from EPA Region IX. The SSNC item is understood to mean companies which were found to be in SNC for violating a compliance schedule set up by the Sanitation Districts as a result of escalated enforcement actions, usually during a compliance meeting. FENF, or the NOVs and AOs issued against dischargers, is understood to mean the number of citations issued for violations or AOs issued against dischargers. Each citation is the result of one or more violations. Therefore, the actual number of violations may be greater than the number of NOVs and AOs issued. Also, separate letters are mailed for each 4-day and monthly average violation. These letters are not included in any of the enforcement totals.

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1 INTRODUCTION

The County Sanitation Districts of Los Angeles County (Sanitation Districts) are a confederation of 24 independent special districts serving the water pollution control management needs of about 5.7 million people in Los Angeles County. The Sanitation Districts' service area covers approximately 820 square miles and encompasses 78 cities and unincorporated territory within the County. With regard to wastewater treatment, the Sanitation Districts construct, operate and maintain facilities to collect, treat and dispose of wastewater and industrial wastes. Local sewers and laterals, which connect to the Sanitation Districts' main sewer lines are the responsibility of the local jurisdictions within the Sanitation Districts' service area.

The agency's 1,400 miles of main trunk sewers and 11 wastewater treatment plants convey and treat approximately 400 million gallons per day (MGD) of wastewater. Of this flow, approximately 140 MGD are treated to levels making the treated wastewater suitable for both indirect potable and nonpotable reuse in the dry Southern California climate. Table 1-1 provides flow and reuse data for the Sanitation Districts' 11 treatment plants.

TABLE 1-1 SANITATION DISTRICTS' TREATMENT PLANT FLOW DATA					
Treatment Plant	Capacity (MGD)	Avg. Daily Effluent Flow (MGD)	Reclaimed Flow ¹ (MGD)	Reused Flow ² (MGD)	% Industrial Flow Received ³
Joint Water Pollution Control Plant (JWPCP)	400	253.4	N/A	N/A	17.2
La Cañada WRP	0.2	0.068	0.068	0.068	1.5
Lancaster WRP	17	12.79	11.35	10.93	2.2
Long Beach WRP	25	13.61	13.61	5.34	5.2
Los Coyotes WRP	37.5	20.36	20.36	5.74	10.7
Palmdale WRP	12	7.98	7.07	6.89	1.0
Pomona WRP	15	5.07	5.07	5.04	4.3
San Jose Creek - East WRP	62.5	31.63	31.63	34.35	10.5
San Jose Creek - West WRP	37.5	17.35	17.35	19.4	2.5
Saugus WRP	6.2	5.02	5.02	0	1.2
Valencia WRP	21.6	12.91	12.91	0.45	2.3
Whittier Narrows WRP ⁴	15	7.34	7.34	7.38	16.3
Total	649.5	387.5	131.8	95.6	

The Sanitation Districts' overall wastewater management budget for fiscal year 2015-2016 was \$567 million.

¹ Reclaimed Flow is the final effluent, which receives secondary or tertiary treatment (excluding that produced at JWPCP).

² Reused Flow is the portion of reclaimed flow, which is used on a contractual basis for various applications outside the treatment plant.

³ Domestic flows from hospitals and prisons are not included in this figure though such facilities do maintain industrial wastewater discharge permits.

A. JOINT OUTFALL SYSTEM

Seventeen of the 24 districts are signatory to an agreement which provides for sewerage service to the majority of residential, commercial and industrial users (IUs) within the County, but mostly located outside of the City of Los Angeles service area. This treatment system, known as the Joint Outfall System (JOS), currently consists of the Joint Water Pollution Control Plant (JWPCP) located in the City of Carson and six upstream water reclamation plants (WRPs); the Whittier Narrows WRP near the City of South El Monte, the Los Coyotes WRP in the City of Cerritos, the San Jose Creek WRP adjacent to the City of Industry, the Long Beach WRP in the City of Long Beach, the Pomona WRP in the City of Pomona and the La Cañada WRP in La Cañada Flintridge. All JOS facilities except the La Cañada WRP are regulated under the NPDES program; all six WRPs are subject to California Waste Discharge or Water Reclamation Requirements.

The JWPCP is the largest facility in the system, with a capacity of 400 MGD. As of October 2002, all of the wastewater treated at JWPCP receives secondary treatment. Effluent from the plant is disinfected by chlorination and then pumped through a system of tunnels and submarine outfalls two miles offshore in the Pacific Ocean off the Palos Verdes Peninsula at White Point. The submarine outfalls terminate at a depth of 200 feet and are equipped with multi-port diffusers, which disperse the treated wastewater into the Pacific Ocean. The tunnels and ocean outfalls have an ultimate capacity of 450 MGD average daily flow and provide for peak discharges in excess of 600 MGD. The average flowrate through the plant was 253.40 MGD during this year.

JWPCP also provides centralized processing of residuals from all seven treatment plants. The primary and secondary solids removed from the wastewater are anaerobically digested and dewatered by centrifugation. A total of 451,016 wet tons of biosolids were produced during this year. The end-product was either directly applied to agricultural land as a soil amendment (13.0 percent), landfilled (13.5 percent), composted and used as a soil amendment (78.9 percent). A by-product of the digestion process is methane gas, which is used to fuel a combined cycle power plant (gas turbines followed by boilers and a steam turbine) that generates electricity for plant equipment and steam for digester heating. The power plant allows the JWPCP to be self-sufficient with respect to its energy requirements.

Treatment at the five of the six reclamation plants consists of activated sludge with nitrification and denitrification treatment followed by coagulation, dual or mono media filtration and disinfection. The La Cañada WRP is an extended aeration activated sludge secondary treatment facility with disinfection. The sludge from these plants is returned to the sewer system, where it is conveyed to JWPCP for processing. In the event of operational difficulties, the effluent from any of these plants can be returned to the sewerage system for additional treatment at JWPCP. These six plants are capable of producing 190 MGD of tertiary effluent. During this year, 96 MGD of tertiary effluent was produced with 81 MGD reused for such applications as landscape irrigation, industrial water supply and recharge of potable groundwater aquifers.

The daily industrial flow in the JOS is approximately 52 MGD, which consists of discharges from a broad variety of industry, including petroleum refineries, centralized waste treatment facilities, food manufacturing facilities, textile manufacturing and processing facilities and electroplating and metal finishing facilities. Of the seven JOS treatment plants, JWPCP receives the highest industrial contribution.

Each of the other active districts not tributary to the JOS provides sewerage service by means of a contract with the City of Los Angeles or through an individual collection and treatment system. These individual systems are located in outlying areas of the Sanitation Districts' service area.

B. OUTLYING SYSTEMS

The Santa Clarita Valley Sanitation District (SCVSD), formerly Districts Nos. 26 and 32, serves the Santa Clarita Valley. The Sanitation District treatment system consists of two interconnected treatment plants, the Saugus and Valencia WRPs, which have a combined treatment capacity of 17.9 MGD. Similar to the JOS, the Saugus and Valencia WRPs are linked by an interceptor and solids force main such that flows can be diverted from the Saugus WRP to the Valencia WRP where all solids processing is conducted. Wastewater treatment at the two WRPs consists of activated sludge with nitrification and denitrification, coagulation, inert media filtration and disinfection. A facilities plan and EIR were completed last year to evaluate ultraviolet light disinfection, in lieu of hypochlorite addition, and other advanced treatment processes to further reduce the amount of chloride discharged and meet permit limits. Effluent is discharged to the Upper Santa Clara River. Biosolids generated from the two WRPs are beneficially reused at a land application site in central California. The Saugus and Valencia WRPs are subject to NPDES requirements and California Waste Discharge and Water Reclamation Requirements. Discharges to the SCVSD are primarily residential. The industrial contribution (exclusive of domestic flows from hospitals and prisons) represents approximately 2.0 percent of the total flow.

Sanitation Districts Nos. 14 and 20 serve the Antelope Valley through operation of the Lancaster and Palmdale WRPs. These facilities are under the jurisdiction of the Lahontan Regional Water Quality Control Board (LRWQCB) and are subject to California Waste Discharge Requirements. Treatment at both facilities consists of activated sludge with nitrification and denitrification, coagulation, inert media or cloth filtration and disinfection. During this year, the effluent volume from Lancaster WRP was 12.8 MGD and from Palmdale WRP was 8.0 MGD. Treated wastewater from the Lancaster WRP was reused for agricultural irrigation, a recreational impoundment, and as the source water for an adjacent wildlife refuge. Treated wastewater from the Palmdale WRP was reused for agricultural irrigation. During fiscal year 2007-2008, two construction contracts for more than \$100 million each were awarded to expand capacity at the Lancaster and Palmdale WRPs and upgrade both to tertiary filtration and disinfection. Biosolids at both facilities is dewatered and dried on-site for reuse as needed. Discharges to the Sanitation Districts Nos. 14 and 20 facilities are primarily of domestic origin. Industrial flows (exclusive of domestic flows from hospitals and prisons) at these plants represent approximately 2.2 and 1.0 percent of the flow for each plant respectively.

C. INDUSTRIAL WASTE PRETREATMENT PROGRAM

As a wastewater management agency, the Sanitation Districts' industrial waste pretreatment program was established to allow the Sanitation Districts' treatment plants to comply with effluent discharge requirements; to protect the public, the environment, Sanitation Districts' personnel, and Sanitation Districts' facilities from potentially harmful industrial wastes; and to ensure that industrial users (IUs) pay their fair share of treatment operations and maintenance costs. To achieve these objectives, in 1972 the Sanitation Districts adopted the Wastewater Ordinance, which provides the legal authority to enforce Sanitation Districts' local requirements as well as all appropriate state and federal regulations. The Sanitation Districts presently regulate an extensive and varied industrial base consisting of approximately 2,100 IUs from a large variety of different industrial categories. The success of the Sanitation Districts' industrial waste pretreatment program can be attributed to rigorous up-front permitting and pretreatment requirements, intensive and extensive field presence by the Sanitation Districts' inspection staff and monitoring crews and aggressive enforcement actions for all violations.

2 SUMMARY

The Sanitation Districts' industrial waste pretreatment program is subject to the United States Environmental Protection Agency's "General Pretreatment Regulations for Existing and New Sources," 40 CFR 403. This annual status report on the Sanitation Districts' industrial waste pretreatment program is submitted to satisfy the requirements of the above-mentioned regulations and to fulfill the conditions contained in wastewater discharge permits issued by the Los Angeles Regional Water Quality Control Board (LARWQCB).

A. BACKGROUND OF THE PRETREATMENT PROGRAM

The Environmental Protection Agency (EPA) approved the Sanitation Districts' pretreatment program on March 27, 1985. Prior to formal approval of its pretreatment program, the Sanitation Districts had established an industrial source control program with the following objectives:

- To allow the Sanitation Districts' treatment plants to comply with effluent discharge requirements.
- To protect the public, the environment, Sanitation Districts' personnel, and Sanitation Districts' facilities from potentially harmful industrial wastes.
- To ensure that industrial users pay their fair share of treatment operations and maintenance costs.

The Sanitation Districts provide wastewater treatment service to 24 distinct sanitation districts encompassing many unincorporated areas and 78 cities within Los Angeles County. Wastewater treatment is also provided to portions of Orange County, the City of Los Angeles, and the Inland Empire Utilities Agency (IEUA).

B. STATUS OF THE PRETREATMENT PROGRAM

The Sanitation Districts' pretreatment program has been fully implemented for many years. However, improvements are always being made to ensure the program's continued compliance and efficiency. Highlights of the Sanitation Districts' pretreatment program during the year are summarized as follows:

The Industrial Wastewater Discharge Permit Program

- 287 formal permits and addenda were approved during the year. Each permit application and supporting information is reviewed by engineering staff to determine if the pretreatment equipment existing and/or proposed is adequate to meet appropriate discharge limits and the Wastewater Ordinance requirements.
- The Sanitation Districts operate a liquid waste disposal station program, which designates four locations for the acceptance of hauled liquid waste of sanitary origin in accordance with 40 CFR 403.5(b)(8). These locations are controlled to prevent the discharge of unacceptable

wastes. In 2016, the Sanitation Districts received 42.72 million gallons of septage and 8.8 million gallons of permitted non-hazardous industrial wastes from about 19,000 loads at the four liquid waste disposal stations. Recreational vehicle (RV) waste disposal stations are currently located throughout the Sanitation Districts for the disposal of hauled RV wastes. The Sanitation Districts have an RV disposal station permit program to gain control over recreational vehicle wastes discharged at these facilities.

Industrial Wastewater Monitoring

- A total of 1770 grab and 2797 routine composite samples were obtained during the year.
- Surveillance sampling continues throughout the Sanitation Districts service area focusing primarily on companies of interest brought to our attention by either Sanitation Districts' Inspection or Monitoring Crew staff or other agencies. Knowledge by dischargers that off-site surveillance monitoring may be occurring discourages "midnight dumping" practices.

Enforcement

- The Sanitation Districts continued their efforts in modifying and strengthening the enforcement program to provide for increased and more effective enforcement.
- Additional effort was made to reduce the number of industrial users being in Significant Noncompliance (SNC). The Sanitation Districts held a series of workshops for IUs that had previously been in SNC. The purposes of the workshops were to educate IUs on SNC and propose steps IUs could take to reduce their likelihood of being determined to be in SNC in the future.
- During the year, 10,402 inspection tasks were conducted. At the end of the year, the Sanitation Districts had 127 dischargers under enforcement.

Significant Achievements

- The Sanitation Districts continued sponsorship of the Industry Advisory Council (IAC or Council). The purpose of the Council is to provide a forum to bring industry and regulators together and to continue to lead industry towards pollution prevention, resource conservation and sustainable development.
- The Sanitation Districts issued Certificates of Recognition to many of its Significant Industrial Users (SIUs). Four hundred and thirty two Certificates were issued in 2016. These certificates were awarded to dischargers that were in full compliance with Sanitation Districts and EPA wastewater regulations during 2015.
- The Sanitation Districts have implemented a public outreach campaign on the control of fats, oil and grease entering the sewerage system. This program serves to provide information to all cities and public works agencies on methods to control grease from restaurants and food service establishments to prevent potential sewage spills from local city sewer collection systems. A training program has been made available to local agency sewerage system management and maintenance personnel that would provide additional instruction in the regulation of grease discharges from restaurants. To date, approximately 45 cities, as well as the South Bay Cities Council of Governments, Maintenance Superintendents Association, Los Angeles County Department of Public Works, Metropolitan Transportation Authority, California Department of Transportation, the Southern California Association of Publicly

Owned Treatment Works (SCAP) Collection System Committee and private sewer-cleaning contractors have taken advantage of this offer.

- The Santa Clarita Valley Sanitation District (SCVSD) continued the Automatic Water Softener Rebate Program – Phase II. Beginning January 1, 2009, the program provided compensation for 75 percent of the reasonable value of AWS and removal and disposal of the AWS at no cost to the resident if specific plumbers are used (and residents that remove the units themselves receive \$50 for removal). The reasonable value of the AWS is determined based on the sales price and installation date of the unit, and a 12-year average service life expectancy for a unit. Depending on the age, make, and model of the AWS, rebates for individual units vary. Rebates of \$150 per AWS were offered for the removal and disposal of non-rental AWS in 2016. The Sanitation District removed and disposed of approximately 62 AWS during the year as a result of the Automatic Water Softener Rebate Program – Phase II.
- The Santa Clarita Valley Sanitation District (SCVSD) continued the multifaceted chloride reduction public outreach campaign. In 2016, the program included participation in community events; updates to the chloride website (www.lacsd.org/chloride); and answering questions on the toll-free hotline (1-877-CUT-SALT) and dedicated email address (cutsalt@lacsd.org). Throughout the year, the Sanitation District also sent letters to all new homeowners informing them of the 2008 ordinance banning AWS and the 2005 ordinance banning discharges from saltwater pools to the sewer, and encouraging them to take advantage of the AWS rebate program, if an AWS was already installed in their home. The Sanitation District also continued working with retailers to discontinue the sale of salt and potassium chloride.
- The Sanitation Districts continued to work with the California Air Resources Board (ARB) to reduce the use of perchloroethylene, methylene chloride and trichloroethylene. Bans on use of these chemicals in dry cleaning and consumer products will phase in over the next several years and should result in significant reductions of toxic chlorinated organics to the Sanitation Districts' sewerage system. On December 10, 2011, ARB regulations became effective that prohibit the use of tetrachloroethylene, methylene chloride, and trichloroethylene in dry cleaner spotting chemicals after December 2012. Sanitation Districts' staff had been an active participant in ARB's development of this rule since 2004.
- The multi-agency "No Drugs Down the Drain" program continued. The Sanitation Districts maintained and updated the informational website www.nodrugsdownthedrain.org, and again set up a booth at an Earth Day Fair held at the Sanitation Districts' administration offices, to distribute information and pillboxes with the message to keep drugs out of the sewerage system.
- The Sanitation Districts contribute to the California Product Stewardship Council and the Product Stewardship Institute to keep involved in the on going dialog and developments related to pharmaceutical disposal. The Sanitation Districts continued participating and supporting research designed to assess the impacts of these products.
- The Sanitation Districts' computer system re-engineering project continued during the year. The project has been named the Industrial Waste Pretreatment Computer System or IWPCS. The selected software is iPACS provided by enfoTech. The program was installed January 2, 2007, and is being actively used for data management functions of the I.W. Section. Corrections and modifications to the program continue to be made.

3 THE INDUSTRIAL WASTE SECTION

The Industrial Waste Section is the unit responsible for implementing the Sanitation Districts' pretreatment program. The present table of organization with an authorized personnel complement of 67 people is provided in Figure 3-1. Functionally, the Industrial Waste Section is divided into three groups under the direction of the Industrial Waste Section Head. The Revenue Collection Group (formerly Surcharge Processing Group which consolidated with the Service Charge Collection Group in 2013) was moved into the Financial Management Department in June 2006. However, the Revenue Collection Group continues to manage the financial aspects of the Connection Fee and Surcharge programs for the Industrial Waste Section.

In August 2009, the Industrial Waste Section reorganized to address concerns regarding equitable workloads, job satisfaction, and succession planning. The most significant change was that the former responsibilities of the Project Engineering, Permit Processing and Pollution Prevention groups were divided equitably between two new Industrial Waste Engineering groups, North and South. These new groups had geographic and specialty responsibilities. Additionally, projects more closely aligned with field engineering and enforcement were moved to that group.

The functions of each of the three Industrial Waste subsections and the Revenue Collection Group are described below.

A. FIELD and COMPLIANCE ENGINEERING, INSPECTION, and MONITORING

Field and Compliance Engineering

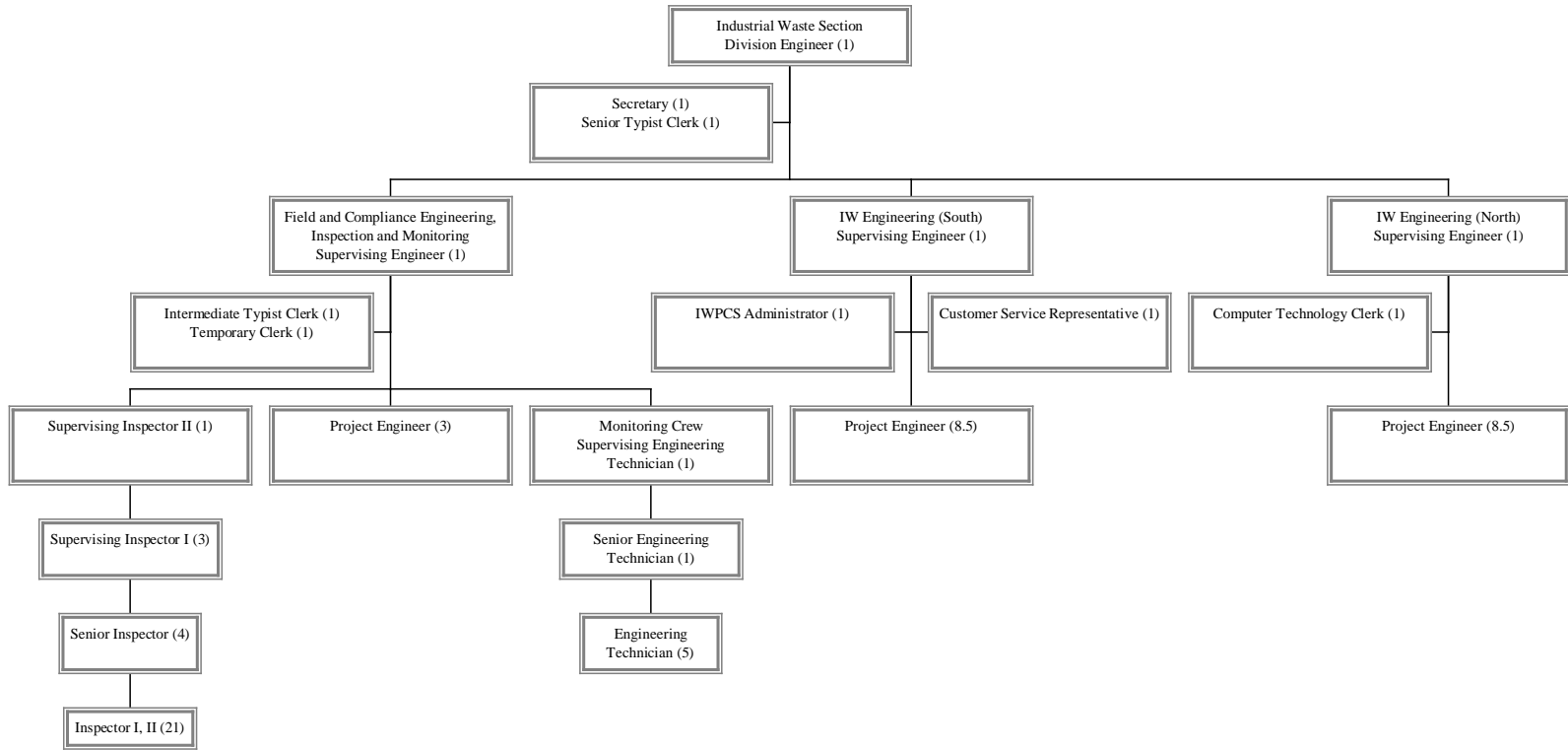
The Compliance Group is responsible for determining industrial user compliance and implementing enforcement actions when needed. The group works closely with the inspection, monitoring, laboratory, surcharge, and industrial waste engineering groups to ensure that enforcement actions are appropriate. All compliance meetings held with industrial users are directed by an engineer or supervisor. The supervising engineer currently represents the County Sanitation Districts of Los Angeles County on the Los Angeles County Environmental Crimes Strike Force and the Federal Strike Force (Los Angeles Area).

In addition to enforcement activities, this group is also responsible for managing the flow metering, liquid waste disposal and self-monitoring report programs.

Inspection

This group carries out the industrial wastewater source inspection program; it investigates treatment plant incidents to determine if there was an industrial influent that could have contributed to the disturbance. Industrial Waste inspectors work to ensure the Sanitation Districts' industrial waste regulatory program is properly observed and that adequate pollution prevention control practices are implemented by industrial users. The inspection staff issues Notices of Violations (NOV) when requested by the enforcement group and at their own discretion when field violations are noted. In 2008, a restructuring of job responsibilities resulted in the creation of three supervising inspector positions from three staff inspector positions.

FIGURE 3-1
INDUSTRIAL WASTE SECTION ORGANIZATIONAL STRUCTURE
DECEMBER 2016



Monitoring

The Monitoring Group consists of technicians specially trained to perform sampling for compliance and surcharge purposes. Each technician is responsible for taking composite samples at industrial user facilities using automated sampling devices. Grab samples are taken to determine compliance for parameters such as oil and grease, cyanide, or volatile organics. Technicians are routinely assigned as needed to perform surveillance monitoring during off shift hours.

B. INDUSTRIAL WASTE ENGINEERING, NORTH, and SOUTH

These two engineering groups have similar permitting responsibilities that are divided geographically into the northern and southern halves of the Sanitation Districts' jurisdictional boundaries. Additional responsibilities include project engineering and pollution prevention which are assigned to experts that provide oversight for both groups.

Project Engineering

Engineers with project engineering responsibilities are technical specialists in specific fields of industry. The principal responsibilities are evaluation of industrial companies' activities related to wastewater quantity and quality and resolution of technical and economic problems arising from industrial use of the Sanitation Districts' sewerage system.

As part of their duties, the engineers visit and inspect industrial facilities to study technical discharge problems and to establish and maintain liaison with appropriate industrial personnel responsible for the design and management of pretreatment equipment. In the course of their work, engineers develop substantial expertise in the waste treatment and discharge problems of their specialty fields. This background becomes valuable in advising industrial companies on the best means of complying with pretreatment and monitoring requirements and of meeting effluent limits.

Engineers also provide technical guidance for various permit related matters. They review permit applications, recommend permit conditions, help evaluate complex proposals submitted in response to permit requirements and develop and recommend technical and policy standards for use by engineers involved in the evaluation of permit applications and industrial wastewater pretreatment systems.

In addition, engineers assist the Revenue Collection Group in gathering technical information required for policy development and auditing surcharge submittals. The engineers review surcharge audits with respect to the accuracy of reported water losses and wastewater strength data. One of the engineers is responsible for developing revenue information necessary to assist in the calculation of annual surcharge rates.

The engineers are a major part of the Sanitation Districts' administration of the EPA Categorical Pretreatment Program. They evaluate categorical regulations, distribute summaries of the regulations to dischargers who may be subject to the regulations and evaluate Baseline Monitoring Reports (BMRs). Once the compliance date for a given point source category has passed, the project engineers provide technical expertise when permits are renewed and compliance meetings are held to ensure compliance with categorical regulations.

Pollution Prevention

The pollution prevention activities focus on the achievement of reductions in pollutants that are primarily discharged by non-industrial sources such as residences and small businesses. Control of

discharges from these sources requires different tools than the traditional command and control strategies used to regulate industrial sources. Such strategies can include public outreach, legislative changes, and working cooperatively with other regulatory agencies to control products used. During the year, pollution prevention activities continued to focus on reduction of chloride discharges in the Santa Clarita Valley as well as on pharmaceuticals and pesticides.

Permit Processing

The engineers in the North and South Industrial Waste Engineering groups implement the Sanitation Districts' industrial wastewater discharge permit program. Applications submitted by industrial companies are reviewed to ensure that appropriate information on wastewater generating processes is submitted and that, where necessary, adequate pretreatment facilities are provided. Engineers responsible for permit processing prepare all discharge requirements including local and federal numerical limits and any other conditions required:

- To protect the public and the environment,
- To prevent treatment plant pass-through and interference, and
- To protect the Sanitation Districts' sewerage system and workers.

The engineers, along with the Revenue Collection Group, are also responsible for ensuring that appropriate fees for capital improvements are properly billed to industrial users obtaining or renewing permits.

C. SURCHARGE PROCESSING

The Revenue Collection Group administers the Sanitation Districts' industrial wastewater treatment surcharge and industrial connection fee programs. The Sanitation Districts' wastewater treatment surcharge program was implemented on July 1, 1972. The purposes of this program are:

- To collect an equitable share of Sanitation Districts' costs for wastewater conveyance and treatment from industrial users,
- To collect an equitable share of Sanitation Districts' capital costs for wastewater conveyance and treatment construction from industrial users,
- To comply with revenue programs promulgated in state and federal guidelines, and
- To provide economic incentives for the control of pollutants at the industrial sources.

The Connection Fee program was implemented by the Sanitation Districts on December 15, 1981. The purpose of this program is to provide funds for future capital expenditures needed to accommodate additional wastewater contributions in the Sanitation Districts' sewerage system. The Connection Fee program applies to all users (residential, commercial and industrial); however, the Industrial Waste Section is only responsible for administering those aspects of the program involving industrial dischargers. In conjunction with the permit engineers, the Revenue Collection Group is responsible for determining connection fees for industrial users.

4 BUDGET

The Sanitation Districts operate on a fiscal year basis. Each fiscal year begins on July 1 and ends on June 30 of the following calendar year. The Industrial Waste Section's expenditures for fiscal year 2015-2016 were \$12,759,362. The Industrial Waste Section's budget for fiscal year 2016-2017 is \$14,404,000. A breakdown of these figures is presented in Table 4-1.

TABLE 4-1 SANITATION DISTRICTS' I.W. SECTION 2015-2016 EXPENDITURES AND 2016-2017 BUDGET		
	2015-2016 EXPENDITURES	2016-2017 BUDGET
Engineering/Permitting/Administration	\$ 4,598,291	\$ 5,408,200
Monitoring	\$ 916,871	\$ 1,117,200
Enforcement/Inspection	\$ 5,247,323	\$ 5,735,300
Laboratory	\$ 823,606	\$ 1,042,400
Legal Services	\$ 155,185	\$ 299,500
Surcharge	\$ 1,018,086	\$ 802,000
Totals	\$ 12,759,362	\$ 14,404,600

Beginning in 2007, costs previously attributed to the Revenue Collection Group became part of the Financial Management Department's budget. These costs were not included in the annual reports between 2007 and 2015. However, these costs have been included in this report under the Surcharge line item.

5 INDUSTRIAL WASTEWATER DISCHARGE PERMIT PROGRAM

A. OVERVIEW

Section 401 of the Sanitation Districts' Wastewater Ordinance (see Exhibit A) requires each company discharging industrial wastewater directly or indirectly to the Sanitation Districts' sewerage system to apply for an Industrial Wastewater Discharge Permit for each sewer outlet. A new industrial company must obtain a permit before its wastewater can be accepted for treatment.

The permit program was initiated in April 1972. Table 5-1 lists the number of formal permits, addenda and temporary permits approved during the year. The Districts also continue to review, revise as necessary and renew industrial wastewater discharge permits for SIUs at least once every five years in accordance with EPA requirements.

TABLE 5-1	
INDUSTRIAL WASTEWATER DISCHARGE PERMIT PROCESSING RECORD	
Permits and Addenda Approved	287
Temporary Permits Issued	134
Total	421

It is believed that all major dischargers and EPA Categorical companies have been issued permits. The Industrial Waste Section actively seeks out industrial companies without permits. During this past year, the Sanitation Districts continued to issue temporary permits to facilities discharging industrial wastewater without a valid permit. The temporary permit provides the discharger with notification of the Sanitation Districts' effluent limitations and tentative EPA Categorical determination where appropriate. Concurrently, engineering staff issue appropriate self-monitoring requirements and schedule the company for Sanitation Districts' monitoring. Once the temporary permit has been issued, the permittee is required to submit a permit application to the appropriate local agency within 30 days. Temporary permits can be revoked at any time if the discharger fails to comply with the Sanitation Districts' requirements. Most of the temporary permits have been issued to companies that have undergone a recent change of ownership or had recently moved into an existing facility.

Under the industrial wastewater discharge permit program, industrial dischargers are required to (a) submit detailed information of their wastewater generating operations, (b) install necessary pretreatment facilities to meet federal, state and local requirements (see Appendix A) and (c) periodically report wastewater flow and wastewater characteristics for those designated as SIUs.

To help the discharger submit a complete permit application, the Sanitation Districts have developed a booklet entitled "Information and Instructions for Obtaining an Industrial Wastewater Discharge Permit" (see Exhibit B). The booklet is available on the Sanitation Districts' website <http://www.lacsd.org>. This booklet can also be mailed to applicants and consultants upon request. The purpose of the booklet is to assist applicants in providing adequate information with their permit submittals. The booklet describes the Sanitation Districts' Industrial Waste program; federal, state and local wastewater regulations; instructions for completing the enclosed permit application; descriptions

and examples of the types of information which must be shown on the submitted plans, and a discussion of the types of supporting information which may need to be provided by the applicant. In addition, a checklist is supplied which provides the permit applicant with a way to self-determine that all of the information necessary to process the permit has been provided. The intent of the permit instruction booklet is to enable the discharger to provide complete information at the onset of the permit review process, thereby expediting the approval of the permit by eliminating iterations of rejection and resubmittal.

To facilitate the filing, sorting, retrieval and storage of voluminous industrial waste permit and plan files, the Industrial Waste Section has converted all permit processing documents and engineering drawings either into a microfiche system, or for documents generated after 2000 into a computerized document handling system (Enterprise Document Management System, EDMS). The new data management system is integrated with the existing EDMS.

In addition to the five year permit renewals for significant dischargers, the industrial wastewater discharge permit program requires any company which has a significant change in wastewater quantity or quality from the values listed in the existing permit to apply for a revised permit. Significant changes in industrial activities are brought to the Sanitation Districts' attention by the inspection staff and monitoring crew, by local agencies issuing building permits, by the companies themselves or their consultants and by audits of annual surcharge filings. An addendum to a permit is required for physical changes that do not significantly alter the wastewater quality or quantity. This would include adding minor pieces of equipment such as a sample box or flow meter.

B. LOCAL LIMITS

The Sanitation Districts were one of the first pretreatment programs in the nation to develop local limits. Specific numerical limits for 11 toxic parameters were established by the Sanitation Districts' Board of Directors in 1975. These limits, listed in Table 5-2, are referred to as the Phase I limits. Although they were developed in 1975, the Phase I limits have been fully protective of the Sanitation Districts' sewerage system. They have enabled the Sanitation Districts' treatment plants to comply with NPDES permit limitations for the pollutants of concern and have allowed the production of high quality recycled water and biosolids. The Sanitation Districts' Phase I limits are supplemented by industry-specific limits on facilities such as oil refineries, oil producing fields, centralized waste treatment facilities, industrial laundries, landfills and groundwater cleanup operations. These limits were established to protect the Sanitation Districts' system from certain pollutants such as mercaptans and toxic organics, and are technology-based. The Sanitation Districts' Phase I limits are also supplemented as necessary with individual limits on companies discharging other pollutants of concern that are not Sanitation Districts-wide problems but rather impact specific wastewater treatment plants. Based on the particular situation at the impacted treatment plant or plants, numerical limits are assigned to the appropriate discharger or dischargers. This approach has been used to control total dissolved solids, chloride and selenium discharges to the Sanitation Districts' plants.

The Districts have continued to periodically review their local limits to ensure that they adequately protect the Sanitation Districts' sewerage system. In 2004, a full evaluation of the local limits for the Saugus and Valencia WRPs was performed to determine whether existing local limits on facilities upstream of these WRPs were adequate to meet new discharge limitations imposed on the WRPs when their NPDES permits were renewed in late 2003. The evaluation determined that no changes were needed to existing local limits. These NPDES permits were renewed in 2009 and again in 2015. The most recent evaluation was submitted on October 29, 2015 finding that the existing limits were fully protective of the Santa Clarita Valley system, including the Saugus and Valencia WRPs.

The Sanitation Districts have also undertaken a full evaluation of local limits for the Joint Outfall System (JOS), which is an interconnected system consisting of the Long Beach, Los Coyotes, Pomona, San Jose Creek and Whittier Narrows WRPs, as well as JWPCP, and La Canada WRP (non-industrial). Due to the interconnectedness of this system, it is appropriate to formally evaluate local limits for all treatment plants on the system at one time so that conditions throughout the system can be considered. NPDES permits were issued to the upstream WRPs include re-evaluation when the JWPCP permit is issued. In April of 2006, the NPDES permit was issued for JWPCP, which is the largest facility on the system and handles solids processing for the entire system. The Districts have reviewed the discharge limitations in the NPDES permits that have been issued and have found that changes to existing local limits do not appear to be necessary to meet the limitations. An extensive review of the JOS local limits was completed in November 2006; the report outlining the full evaluation was forwarded to the Los Angeles RWQCB on November 5, 2006. The JWPCP NPDES permit was again renewed in 2011. The most recent local limits evaluation was submitted on August 22, 2012 finding that the existing limits were fully protective of the JOS.

TABLE 5-2	
INDUSTRIAL WASTEWATER EFFLUENT LIMITATIONS	
Constituent	Industrial Wastewater Effluent Limitations*
Arsenic	3
Cadmium	15
Chromium (Total)	10
Copper	15
Lead	40
Mercury	2
Nickel	12
Silver	5
Zinc	25
Cyanide (Total)	10
Total Identifiable Chlorinated Hydrocarbons**	Essentially None

*Maximum concentration at any time, mg/L.

**Total Chlorinated Hydrocarbons (TICH) comprise:

- Aldrin and Dieldrin
- Chlordane (cis & trans), trans-nonachlor, oxychlordane, heptachlor, and heptachlor epoxide
- DDT and derivatives: p,p' and o,p' isomers of DDT, DDD, DDE
- Endrin
- HCH: sum of α , β , γ , δ isomers of hexachlorocyclohexane
- Toxaphene
- Polychlorinated biphenyls

C. IMPLEMENTATION OF EPA PRETREATMENT PROGRAM REQUIREMENTS INCLUDING CATEGORICAL STANDARDS

The Sanitation Districts' local limits have succeeded in ensuring that its treated wastewater complies with NPDES water quality based discharge limitations. EPA's approach to effluent limitations has been somewhat different, in that limitations are based on the concept of "Best Available Technology" (BAT). This means that categorical dischargers nationwide, regardless of receiving water criteria, need to meet effluent limitations based upon the reductions that can be attained by installing treatment equivalent with BAT. The limits promulgated by EPA under direction of the Clean Water Act and the EPA General Pretreatment Regulations for Existing and New Sources are then implemented and enforced by the Sanitation Districts.

Pretreatment Program Approval

The Sanitation Districts have been actively involved in implementing the EPA Categorical Pretreatment program. On January 10, 1983, the "Application for Pretreatment Program Approval" was submitted to the LARWQCB and to the EPA Region IX. The application requested that EPA approve the Sanitation Districts' Industrial Waste program and grant the requisite authority to implement the Categorical Pretreatment program within its jurisdiction. Approval was given on March 27, 1985.

Pretreatment Program Operation

Sanitation Districts' staff actively works to maintain updated information on categorical regulations, both existing and upcoming. The Federal Register is reviewed for updates and pertinent announcements; development documents are maintained and periodically reviewed; and EPA guidance manuals, memoranda, clarifying letters and other source material are maintained to aid in interpretation and implementation of regulations. Engineering and inspection staffs are updated whenever necessary. Communication between the Sanitation Districts, LARWQCB and EPA occurs regularly to ensure that regulations are correctly interpreted. The Sanitation Districts review proposed industrial categorical regulations and submit comments to the EPA.

Baseline Monitoring Reports (BMRs)

When final regulations are published, the Sanitation Districts summarize the Pretreatment Standards, develop a list of industrial dischargers that may be affected by the regulations, and distribute the summaries to affected companies. The Sanitation Districts may also produce a BMR form specific to a category. Each company is required to submit a written response; this response must be either a completed BMR or a letter explaining why the regulations in question do not apply to a given facility. A BMR is not considered to be complete unless it is accompanied by the required monitoring data. Ninety-day compliance reports are required for new dischargers and for existing dischargers to which new categorical standards have become applicable.

Status of Categorical Industrial Dischargers

Table 5-3 lists the number of dischargers within the Sanitation Districts' jurisdiction subject to EPA point source categorical regulations. Numerical pollutant limitations from the Categorical Pretreatment Standards are incorporated into Industrial Wastewater Discharge Permits in two ways. A number of new and revised permits are processed by the Districts each year. If any of these permits are issued to companies which have had applicable final Categorical Pretreatment Standards issued but the compliance date for those standards has not passed, the applicable standards and the compliance schedule from the company's BMR are written into the permit. The remaining permits within a point source category are amended by mailing letters with revised limitations to the affected dischargers near the compliance date.

TABLE 5-3			
DISCHARGERS SUBJECT TO EPA CATEGORICAL REGULATIONS			
EPA Categorical Regulation	No. of Sample Locations	EPA Categorical Regulation	No. of Sample Locations
Aluminum Forming	11	Nonferrous Metals Manufacturing	2
Battery Manufacturing	4	Organic Chemicals, Plastics, & Synthetic Fibers	8
Centralized Waste Treatment	10	Paving and Roofing Materials	2
Coil Coating	5	Pesticide Chemicals Manufacturing	3
Copper Forming	0	Petroleum Refining	11
Electrical and Electronic Components	9	Pharmaceutical Manufacturing	18
Electroplating	18	Porcelain Enameling	0
Feedlots	3	Pulp, Paper, and Paperboard Manufacturing	8
Integrated	44	Rubber Manufacturing	4
Iron and Steel Manufacturing	4	Soap & Detergent Manufacturing	0
Metal Finishing	214	Steam Electric Power Generating	7
Metal Molding and Casting	4	Transportation Equipment Cleaning	7
Nonferrous Metals Forming	4		

Significant Industrial Users

In the General Pretreatment Regulations at 40 CFR 403.3(t), EPA defines SIUs as any discharger subject to categorical regulations or any discharger with a reasonable potential to cause pass through or interference or violate any pretreatment standards, which include local limits. Any discharger determined to be an SIU is subject to at a minimum semi-annual self-monitoring and annual sampling and inspection by the POTW. Permits for SIUs are to be renewed at least once every five years. The Sanitation Districts have a number of dischargers beyond the categorical discharger that are considered SIUs. Table 5-4 provides a summary of the classification of Sanitation Districts' permittees. Appendix B lists all industrial users, their regulations and other pertinent information.

TABLE 5-4	
CLASSIFICATION OF SANITATION DISTRICTS' PERMITTEES	
Classification	No. of Permittees (Sample Locations)
Categorical Industrial Users (CIUs)	413
Significant Industrial Users (SIUs) ¹	984
Other Industrial Users	1594
Total Number of Active Sample Locations (SIUs + Other IUs)	2578

D. SPILL CONTAINMENT

The spill containment program was started in 1977 to prevent the accidental discharge of restricted materials to the sanitary sewer system and to protect public health and safety from hazardous conditions resulting from the mixing of incompatible materials such as acid and cyanide. Any IU with a significant potential to discharge restricted materials is required to install and maintain an adequate spill containment system. "Restricted" materials are defined as follows:

- 10 pounds or more of cyanide or heavy metals in solution.
- More than 1 gallon of a concentrated toxic organic.
- More than 10 gallons of a liquid with a closed cup flash point less than 60°C.
- 60 gallons or more of a solution with a pH below 6.0 or above an applicable upper pH limit (spill containment is not required in cases where a release of this material has no reasonable potential to cause a violation of permit pH limits).
- Any other liquid material that upon evaluation with respect to point of discharge, volume, and concentration is determined to have potentially adverse effects on the sewerage system. These materials include but are not limited to alkalis or alkaline substances, oils, foam generating wastes, highly colored materials, pesticides, high chemical oxygen demand (COD) materials and solvents.

¹ Includes CIUs

The Sanitation Districts' new computer system allows for tracking of facilities requiring spill containment. There are 418 facilities in the spill containment program. An improvement over the former computer system is the ability to include much more detailed information on the spill containment systems. Facilities included in the spill containment program are now scheduled to have an annual spill containment inspection task.

In addition to the Sanitation Districts' spill containment requirements, all SIUs are evaluated for the applicability of federal Slug Discharge Control Plan (SDCP) requirements. All SIUs with a high risk of slug discharge are required to have a SDCP and 63 such SIUs have been identified. The Districts are in the process of implementation of a program to review the SDCPs.

E. RAINWATER DIVERSION

The Sanitation Districts' Wastewater Ordinance specifies that no rainwater or storm water runoff shall be discharged to the public sewer, except where prior approval for such discharge is given by the Chief Engineer. The Sanitation Districts' rainwater guidelines limit the acceptance of rainwater into the sewerage system to only those cases in which the surface runoff becomes too contaminated to be discharged to the storm drain system or when other solutions (e.g., roofing, regrading, reuse, etc.) are determined to be unfeasible. In most of these situations, the Districts only accept storm water runoff that occurs during the first 0.1 inch of rainfall through the use of an automatic rainwater diversion system. In addition, the Districts may impose requirements on the time of discharge and maximum industrial wastewater flow rate during wet or dry weather periods.

In general, an automatic rainwater diversion system consists of a pump that conveys the industrial wastewater to the public sewer and a rain switch that automatically deactivates the pump when it detects 0.1 inch of rainfall. During a rain event, no rainwater is discharged to the sewer after 0.1 inch of rain. Instead, the excess storm runoff is diverted to the storm drain or impounded for discharge later when the hydraulic load on the sewer system is lower. The standard automatic rainwater diversion system currently approved by the Districts can be viewed in Figure 5-1.

There are 489 facilities that have automatic rainwater diversion systems within the Sanitation Districts' jurisdiction. Since these systems are subject to mechanical and electrical failure, it is essential that they be inspected regularly to assure that they function properly during a storm. Representatives from local agencies and the Districts inspect these systems on at least an annual basis.

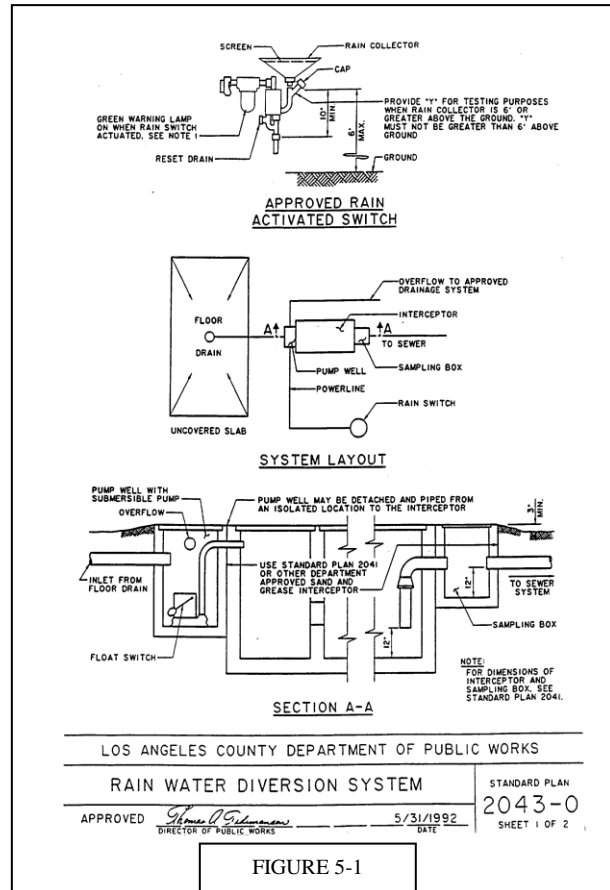


FIGURE 5-1

F. FLOW MEASUREMENT SYSTEMS

The Sanitation Districts require any company having a total discharge of greater than 50,000 gallons per day average flow, or 100 gallons per minute peak flow, to install, calibrate and maintain a flow measurement system that continuously measures and records effluent flow rate. Companies that have unmetered sources of water supply, excessive or undocumented non-sewered losses, EPA pretreatment standards with mass limitations, or highly fluctuating wastewater discharge flows may also be required to install flow measurement systems. Other systems are installed voluntarily by dischargers primarily to facilitate annual surcharge reporting.

Flow measurement systems are typically the open-channel type (e.g., flume or weir). Closed-pipe flow measurement systems (e.g., turbine, magnetic, etc.) are also acceptable.

To ensure accuracy of flow measurement results, the Sanitation Districts require that all flow measurement systems be properly maintained and calibrated annually. To satisfy the calibration requirement, each company with a flow measurement system submits to the Sanitation Districts an annual report showing results of the instrumentation and hydraulic calibrations and a log showing the maintenance records of the system. The Sanitation Districts also have a program to check flow reporting accuracy of the systems in the field between required calibrations.

There were approximately 436 active flow measurement systems as of the end of the year. There are several types of flow measurement devices currently being used by industrial wastewater dischargers within the Sanitation Districts' jurisdiction. These include Palmer-Bowlus flumes, Parshall flumes, V-notch weirs, H-type flumes, rectangular weirs, magnetic flow meters, propeller meters, turbine meters, area-velocity flow meters, orifice plates, paddle wheel meters, positive displacement meters, nutating disc meters and coriolis mass meters.

G. SELF-MONITORING PROGRAM

As part of the industrial wastewater discharge permit evaluation, a determination is made as to whether or not the company will be required to analyze its wastewater for pollutants of concern. This evaluation takes into account a number of factors including the type of industrial process, anticipated wastewater characteristics and the tributary treatment plant. Currently, 1,095 sample locations are required to perform self-monitoring. Typical parameters for which dischargers are required to analyze include toxic pollutants that may be present at a company's facility, pH, suspended solids, COD, dissolved sulfides and federally regulated pollutants. The testing frequency and a list of the parameters which the industrial discharger must have analyzed are outlined in the self-monitoring requirements list, which is included with any permit approved prior to 2007. Permits issued since January 1, 2007, have the self-monitoring requirements specified in the Permit Data Sheet. In addition, companies which discharge more than six million gallons per year are required to analyze the strength of their wastewater, as characterized by COD and suspended solids, on a schedule which is directly related to their flow rate. This information is then used to determine surcharge fees due. This testing may be independent of a company's permit requirement to perform self-monitoring.

A mainframe database system had been in place for a number of years to aid in administering the IU self-monitoring program. Designed to ensure that all SIUs complied with the self-monitoring reporting requirements defined in their industrial wastewater discharge permits, the system contained data submitted pursuant to the self-monitoring program and effluent discharge limits for each SIU. The new computer system, iPACS, had been utilized for the self-monitoring report (SMR) program in parallel with the existing mainframe system to validate its accuracy. In 2016, the SMR program was completely turned

over to iPACS to generate SMR data and run compliance checks to determine violations. Additionally, as electronic reporting capabilities are a component of the new computer system, it is hoped that after various security issues are addressed, submittal of SMRs may be able to be done electronically.

The current self-monitoring computer program is designed to function as follows. At the beginning of each reporting period, each IU required to perform self-monitoring is sent the appropriate report form. This computer-generated report form lists the company name and address, the reporting period in which the samples are to be obtained, the required test parameters, appropriate sample type (grab or composite) and all appropriate units for the test parameters. At the end of 2014, effluent limitations have been added to the SMR form to facilitate IU identification of non-compliance. The IU must sample the wastewater accordingly and have it analyzed by a State- or Districts-certified laboratory. Once the analytical results are available, they must be recorded on the SMR form, certified by a responsible company official and submitted to the Districts within the allotted time. The laboratory test sheet(s) for the analytical results must also be submitted. Upon submittal, the results are entered into the Sanitation Districts' self-monitoring database to be compared with applicable effluent discharge limits.

If the computer program identifies any deficiencies (i.e., unrecorded test results, unapproved laboratory, etc.) or effluent violations, a notification letter is generated and sent to the company which documents the noted deficiencies or violations and establishes a 30-day deadline for sampling and/or resubmittal of the report. If the IU fails to submit the required SMR form for a given reporting period, a delinquency letter is generated requiring the IU to submit the report form immediately. Enforcement action is initiated if the appropriate corrective steps are not taken. Referral to the Sanitation Districts' legal counsel for initiation of legal action has been effective in bringing the more recalcitrant violators into compliance.

In addition to their regular self-monitoring, all significant industrial users are required by the general pretreatment regulations, 40 CFR 403, to submit results for any additional monitoring which they had sampled and analyzed by appropriate methods. These additional results are to be submitted by the due date of the corresponding reporting period. Effluent violations must be reported to the Districts within 24 hours of the discharger becoming aware of the violation and retest results must be submitted within 30 days of the violation. These data are being entered in the new computer database and are being used for automatic compliance determination.

H. COMBUSTIBLE GAS MONITORING

The Sanitation Districts' Wastewater Ordinance prohibits the discharge of "any gasoline, benzene, naphtha, solvent, fuel oil or any liquid, solid or gas that would cause or tend to cause 'flammable or explosive' conditions to result in the sewerage system or that would exceed the lower explosive limit established by the Chief Engineer at the approved industrial monitoring location or that would create such conditions in the sewerage system."

In conjunction with a 20 percent lower explosive limit (LEL) definition of flammability, a 140°F flash point criterion has been implemented. This allows direct measurement of water quality characteristics for use in enforcement actions. The 140°F flash point also provides a screening mechanism for determining new IU candidates for inclusion into the full time, on line CGMS program.

I. LIQUID WASTE DISPOSAL PROGRAM

During the year, the Districts operated four liquid waste disposal stations (LWDS) within its service area for the acceptance of portable toilet, septic tank, cesspool and trailer holding tank wastes of domestic origin in compliance with 40 CFR 403.5(b)(8). Industrial wastes are accepted at these stations only if the generator has obtained an industrial wastewater discharge permit for that purpose, if the material has been certified as non-hazardous, and if its disposal at these stations is in the best interest of the Districts.

All of the liquid waste disposal stations are staffed and open at scheduled hours. The facility at JWPCP is also open after-hours for emergencies. Though the Districts do not operate RV disposal facilities, there are private locations that are available for the disposal of RV wastes. An RV disposal station permit program has been implemented to prevent the discharge of industrial and hazardous wastes at these facilities.

Haulers using the Sanitation Districts' facilities must first obtain a permit to discharge liquid wastes to the Sanitation Districts' sewerage system. A separate permit is issued for each vehicle. The permit provides the Districts with information on the hauler and the vehicle. Currently, there are approximately 181 haulers registered with the Districts and 386 permitted trucks. Each time a hauler disposes of a load of waste at the Sanitation Districts' facility, a manifest is collected and a fee is debited. The septage disposal fee is debited from the hauler's account at the Districts. The haulers make deposits into their accounts by checks, electronic funds transfers, or cash. The disposal fee is calculated by multiplying the full volume of the waste tank of the vehicle by the unit disposal charge for the particular disposal station. The unit disposal charge is determined by the cost of waste treatment at the facility where the waste is discharged and the costs of administration of station operation and waste checking. An amortized charge of the capital cost for waste treatment is also included. The charges for fiscal year 2016-2017 are 6.3, 6.3, 12.1, and 13.4 cents per gallon of full tank capacity for the stations at Pomona, Carson, Saugus and Lancaster respectively.

A manifest is completed by the hauler delivering the waste, giving the name, address and telephone number of the waste generator, the volume and the type of waste, and information on the hauler. In addition, the driver signs and certifies that the waste is sanitary waste and contains no hazardous, prohibited or industrial waste. A sample is then taken by the hauler, and checked by a station attendant. The sample is examined for pH, TDS, color, floatables and odor. The pH is determined with a pH indicator strip or a pH meter. The TDS is determined using a conductivity meter. Wastes with pH and TDS readings outside of the normal ranges for the types of wastes are subjected to further examination to see if they were contaminated with industrial wastes. Loads may be rejected pending further investigation or laboratory analysis. If a load is found to be proper, it is accepted for discharge at the LWDS.

Loads can be rejected for anomalies. The hauler, however, is given the opportunity to do an investigation of the anomaly that led to the rejection and apply for re-acceptance. If the Districts are satisfied with the investigation, the hauler is allowed to return the load to the station. The most common reasons for rejecting loads are high pH, low pH, and the presence of grease. The Districts do not accept grease wastes. Wastes from grease interceptors can be sent to rendering facilities for recycling. Low pH loads may be the result of acid formation from the degradation of grease. Loads with high pHs of 10 to 12 may be due to the use of caustic soda to treat cesspools or to open clogged drains.

A high TDS reading of conductivity is an indication of the presence of chemicals in a waste. The TDS for septic wastes ranges normally from a few hundred milligrams per liter to about 2,000 milligrams per liter. The TDS for portable toilet wastes ranges from 4,000 to over 10,000 milligrams per liter

because of the addition of chemicals to the toilets. Septic waste loads with TDS readings exceeding several thousand milligrams per liter are usually rejected. The haulers are requested to investigate with the generators the possible sources of the high TDS readings. The Sanitation Districts' inspectors may also conduct independent investigations. A frequent explanation for high TDS readings is the use of caustic soda to clear a drain (with an accompanying higher pH value for the load). There have been cases where the use of salt in a self-regenerating water softener was the probable cause for the high TDS. A review of the results of the investigation may allow for reacceptance of the high TDS load. Laboratory analyses may also be conducted for high TDS wastes to test for industrial and hazardous materials prior to re-acceptance.

Periodic samples continue to be taken from all loads and analyzed for pH, COD, suspended solids and selected heavy metals in the laboratory. The frequency of sampling is about one every twenty-fifth load. During the year, the volume received was 42.72 million gallons of septage and 8.8 million gallons of permitted industrial wastes from approximately 19,000 loads. Fees for waste disposal are collected through computer debits. About \$3.65 million in account debits were made during the year.

6 INDUSTRIAL WASTEWATER MONITORING

The Sanitation Districts monitor industrial wastewater dischargers through three separate mechanisms:

- Composite and grab samples are collected by the Sanitation Districts' monitoring crews.
- The Sanitation Districts' Industrial Waste Inspectors collect grab samples in conjunction with on-site inspections of industrial equipment and wastewater sources to confirm compliance with the Sanitation Districts' Wastewater Ordinance.
- Many industrial dischargers are required to sample their own wastewater and report analytical results to the Sanitation Districts.

A. SAMPLING

Compliance Monitoring by Sanitation Districts' Personnel

Sampling for compliance purposes is conducted by both the industrial waste monitoring crew (IWMC) and the inspectors. The IWMC consists of seven engineering technicians including the supervisor. Each crewmember is assigned a pick-up truck and a substantial equipment inventory. A listing of the equipment typically maintained by the crew is presented in Table 6-1.

The IWMC obtains both grab and 24-hour composite samples, depending on the parameters and analyses desired. Composite samples are obtained with automatic samplers. Flow-proportioned samples are collected if the discharge point is equipped with an adequate flow meter, otherwise; time-proportioned samples are collected. Most samples are collected in large single containers, but occasionally individual bottles are used. Individual bottles are useful when it is necessary to detect violations in batch discharges and to more closely describe wastewater characteristics over a 24-hour time period. Sampling conducted by the IWMC is used in a variety of ways:

- Sample results are used to determine industrial user compliance.
- Sample results are used to assist inspectors in locating sources of wastewater that cause operational problems at treatment plants.
- Sample splits are used as part of the Sanitation Districts' laboratory certification program to test comparison samples from industrial facilities.
- Samples are collected to verify the wastewater characteristics reported by dischargers.
- Sampling studies are occasionally conducted at large dischargers who have a history of strength data different from those acquired by the Sanitation Districts. During these studies, an attempt is made to ascertain the effect on sample results of factors such as sampling equipment, sampling and compositing techniques, locations and testing procedures.

In addition to their routine sampling duties, IWMC members and inspectors utilize portable pH meters to ensure that companies comply with pH limits, and check the calibration of wastewater flow monitoring systems and gas detection systems.

TABLE 6-1		
EQUIPMENT LIST FOR SANITATION DISTRICTS' MONITORING CREW		
Description	Number	Total Replacement Cost (\$)
Automatic Samplers with Batteries	34	\$ 75,582
Batteries for Automatic Samplers	62	\$ 16,306
Battery Chargers	9	\$ 4,150
Portable pH Meters	16	\$ 1,840
Miscellaneous Hand Tools and Safety Equipment	NA	\$ 5,700
Tablet PC	7	\$ 10,500
Vehicle (3/4-Ton Pick-Up Truck with Utility Bed)	7	\$ 210,000
Total		\$ 324,078

In addition to the samples collected by the IWMC, industrial waste inspectors collect grab samples when they inspect facilities. These samples are used to evaluate the compliance status of dischargers with the Sanitation Districts' local limits and appropriate federal limits.

Table 6-2 list's the number of routine composite and grab samples that were collected during the year. A list of the number of samples collected including self-monitoring reports for each significant industrial user is provided in Appendix C.

TABLE 6-2		
SUMMARY OF INDUSTRIAL WASTEWATER SAMPLING		
Type of Sample	No. of Samples Taken	No. of Sample Locations
Grab Samples	1,770	786
Routine Composite Samples	2,797	1195

Surveillance Monitoring

The Sanitation Districts have established a surveillance-monitoring program aimed at facilitating the detection of actual and potential problems caused by illegal discharge of prohibited materials. IWMC members work in the late night and early morning hours to set up specialized sampling equipment in the public sewerage system at points upstream and downstream of industrial users suspected or capable of illegal discharges. In addition to collection of samples, pH data may also be recorded electronically. Enforcement actions are initiated against companies found to be violating wastewater discharge limitations.

Evidence Sampling Procedure

Federal pretreatment regulations specify that compliance monitoring of categorical industrial dischargers must adhere to procedures that would allow the resulting data to be used in judicial actions (40 CFR 403.8 (f)(2)(vii)). The Sanitation Districts' sample handling method ensures the admissibility of analytical information offered as court evidence in the prosecution of violators. Samples that may be used in enforcement or judicial actions are retained in tagged, disposable sample containers. Custody tags are permanently attached to the sample container. Sample possession is documented on both the custody tag and on the accompanying chain of custody form. The wastewater sample to be analyzed and a duplicate sample (prepared by the laboratory to be retained) are either held by the person identified on the custody tag or stored in a designated, secured area.

Self-Monitoring by Industrial Companies

As discussed in Section 5.G, before the Sanitation Districts issue an industrial wastewater discharge permit, a determination is made as to whether or not that industrial user will be required to perform self-monitoring. Companies issued self-monitoring requirements are obligated to submit periodic self-monitoring reports to the Sanitation Districts. The self-monitoring reports contain information on wastewater flow rates and analytical results for pH, suspended solids, COD, and other pollutants as specified by the Sanitation Districts. The Sanitation Districts have added an additional quality assurance step that involves one of the staff engineers reviewing a select number of self-monitoring reports to confirm that appropriate test methods were used for analysis of the required parameters.

Surcharge Sampling

Part of the Sanitation Districts' sampling is conducted for the purpose of identifying the strength of wastewater discharged from large industrial facilities. The Sanitation Districts' sample results are then usually combined with the dischargers' results to calculate surcharge fees. The Sanitation Districts also conduct sampling studies when large disparities exist between the Sanitation Districts' sample results and those of dischargers.

B. ANALYSIS

Quality Assurance Procedures

Assurance of the validity and quality of data produced by the Sanitation Districts' laboratories is of prime importance. All analytical methods used and data generated have to meet stringent requirements of the State Water Resources Control Board and EPA as set forth in the Clean Water Act and the Resource Conservation and Recovery Act. To attain these objectives, all Sanitation Districts' laboratories

have to maintain their environmental laboratory accreditation/certification through the State Water Resource Control Board. They have to participate in the EPA DMR quality assurance and California Environmental Laboratory Accreditation Program performance evaluation programs to prove continuing acceptable performance.

The steps or elements of quality assurance and quality control (QA/QC) as recommended by EPA are adhered to and are included in the Quality Assurance Program document maintained by the Sanitation Districts' Laboratories Section. The Quality Assurance Program document is reviewed and updated annually.

The Sanitation Districts have also prepared an in-house Standard Operating Procedures document for use in its laboratories. The document, which includes virtually all procedures used by the Sanitation Districts' laboratories for wastewater analyses, is maintained electronically and updated by the Quality Assurance Group.

Laboratory Certification

To help ensure the validity of IU self-monitoring results, the Sanitation Districts require all commercial and company laboratories submitting chemical and physical analyses to be certified for each constituent by either the State Water Resources Control Board or by the Sanitation Districts' laboratory certification program. The Sanitation Districts recognize the State Water Resources Control Board's Environmental Laboratory Accreditation/Registration Program and allow full reciprocity for constituents certified through the CDPH program. The Sanitation Districts' program entails a three-step process: (a) Application and Documentation Review, (b) Inspection, and (c) Performance Sample Analysis. Each step is summarized below.

Application and Documentation Review

All laboratories applying for certification must complete the Sanitation Districts' application form. The laboratory must select the specific constituents and analysis methodology for which certification is requested. The laboratory must submit resumes of all chemists and technicians who will be performing the analysis and the resumes of their direct supervisors. The resumes should include all related educational and technical training.

The laboratory must submit a copy of its Quality Assurance/Quality Control manual for review. In addition, the laboratory must submit a list of all analytical equipment on site necessary to successfully perform the specific analysis.

Inspection

Sanitation Districts' personnel inspect the laboratory to insure the accuracy of the application information. The inspection provides the laboratory the opportunity to discuss with Sanitation Districts' personnel its analytical, QA/QC, sample identification and tracking procedures.

Performance Sample Analysis

The laboratory is required to successfully analyze performance samples provided by the Sanitation Districts. Within 60 days of receipt, the laboratory must submit the results to the Sanitation Districts. Unacceptable or delinquent sample results will require additional sample analysis and may require the submittal of a written review as to the source of the deviation.

7 INSPECTION AND ENFORCEMENT

A. INSPECTION

Industrial waste inspectors carry out a field inspection program which includes:

- Visiting industrial companies to investigate whether or not industrial wastewater dischargers are in compliance with the Sanitation Districts' regulatory program,
- Identifying industrial sources responsible for treatment plant upsets or incidents,
- Disseminating information on the pretreatment program to industrial users, and
- Issuing temporary permits.

The present inspection group consists of 25 field inspectors under the leadership of one Supervising Inspector II and three Supervising Inspector Is. The inspection staff is divided into four daytime inspection teams that cover specific geographical areas plus one night inspection team that covers the Sanitation Districts' entire service area. Each Supervising Inspector I is responsible for the activities of either the night team or two day teams. Each daytime inspector is assigned a specific geographical area of responsibility within the overall team area. However, because each member of the team is knowledgeable about the entire area, anyone can be contacted to provide coverage in emergencies. In addition, all members of a team can be concentrated to handle emergencies or special problems that require more than one inspector. All inspectors carry mobile phones, a tablet PC with internet access, as well as access to email, the IW database, and the Districts' geographic information system in order to respond to emergency calls. The phones can take digital photographs and send them to other inspectors as well as office personnel to better coordinate responses and record inspection discoveries.

The addition of a night crew in 1991 has greatly improved the Sanitation Districts' capability to monitor industrial dischargers, respond to upset conditions caused by toxic discharges to the sewer and generally establish a more complete enforcement presence at all hours of the day or night. Emergency calls from other agencies as well as spill reports from industrial dischargers are routed through the Sanitation Districts' Long Beach Pump Plant 24-hour operator. With this line of communication, the Sanitation Districts' response time to emergency events has been minimized.

Administrative enforcement actions against industrial wastewater dischargers who are not in compliance with the Sanitation Districts' source control program and/or the EPA Categorical Pretreatment Standards are issued by inspectors and coordinated by one of two Enforcement Officers, and the Supervising Engineer of the Field Engineering Group. Sanitation Districts' inspectors also participate in inter-agency enforcement events by contributing technical assistance at the scene, gathering samples and other evidence and determining whether industrial users are operating in violation of the Wastewater Ordinance.

Inspection Equipment

A sizable investment is required to provide industrial waste field personnel with the equipment necessary to safely perform their functions. Each inspector works independently and is assigned a station wagon, van or SUV loaded to full cargo capacity with safety equipment, sampling equipment, hand tools and industrial discharger records. In December 2006, each inspector was issued a tablet PC, a broadband wireless

computer card, a portable printer and various accessories. In 2016, the wireless broadband cards were replaced by high-speed Wi-Fi hot spot devices. A typical inventory is presented in Table 7-1.

TABLE 7-1			
EQUIPMENT LIST FOR SANITATION DISTRICTS' INDUSTRIAL WASTE INSPECTORS			
Description	Number Carried	Replacement Cost	
		Each (\$)	Total (\$)
Sample Bottles, Vials with septum lid	10	\$ 5.00	\$ 50.00
Sample Bucket and Rope	1	\$ 15.00	\$ 15.00
Mirrors, Flashlight	2	\$ 10.50	\$ 21.00
Field Log Book	1	\$ 35.00	\$ 35.00
Vacuum Pump	1	\$ 40.00	\$ 40.00
Portable pH meter	1	\$ 115.00	\$ 115.00
Dye Tablets	50	\$ 0.20	\$ 10.00
Miscellaneous test kits	1-5	\$ 100.00	\$ 100.00
Hydrogen Sulfide Kit (Hach)	1	\$ 40.00	\$ 40.00
Sulfide Kit (Pomeroy)	1	\$ 75.00	\$ 75.00
Thermometer	1	\$ 13.00	\$ 13.00
Explosimeter	1	\$ 750.00	\$ 750.00
Thomas Guide Map Book w/ sewer overlays	1	\$ 60.00	\$ 60.00
Consolidated Sewer Maintenance Maps	1	---	\$ 10.00
File Boxes	3	\$ 25.00	\$ 75.00
Identification Card	1	---	0
Visa Fleet Credit Card	1	---	0
CSUS & EPA Training Manuals & Forms	1	\$ 49.00	\$ 49.00
2016 DOT Emergency Response Book	1	\$ 8.00	\$ 8.00
Amber Safety Light for Vehicle	1	\$ 160.00	\$ 160.00
Manhole Lifting Equipment	1	\$20.00 -100.00	\$ 60.00

TABLE 7-1			
EQUIPMENT LIST FOR SANITATION DISTRICTS' INDUSTRIAL WASTE INSPECTORS			
Description	Number Carried	Replacement Cost	
		Each (\$)	Total (\$)
Traffic Cones	8	\$ 15.00	\$ 120.00
Sample Ice Chest	1	\$ 42.00	\$ 42.00
Blue Ice	10	\$ 6.00	\$ 60.00
Hard Hat, Goggles	1	\$ 20.00	\$ 20.00
Rain Boots, Rain Suit	1	\$ 45.00	\$ 45.00
Safety Glasses	1	\$ 15.00	\$ 15.00
Misc. Hand Tools and Safety Equipment	---	---	\$ 230.00
First Aid Kit	1	\$ 35.00	\$ 35.00
Explosion Proof Flashlight	1	\$ 15.00	\$ 15.00
CSD Jacket & Cap	1	\$ 50.00	\$ 50.00
Lead Tag Seal Crimper	1	\$ 40.00	\$ 40.00
Lead Tag Seals	20	\$ 1.50	\$ 30.00
Mobile Phone with Photograph Capability	1	\$ 250.00	\$ 250.00
Digital Camera and memory card	1	\$ 200.00	\$ 200.00
Tablet PC with Printer, high-speed Wi-Fi hot spot device, and misc. support equipment	1	\$ 1,500.00	\$ 1,500.00
Vehicle (mid-size station wagon, minivan or small SUV)	1	\$ 21,300.00	\$ 21,300.00
Total			\$ 25,638.00

Inspectors' Data System

Historically, the Sanitation Districts have recorded inspections based upon the number of site visits. Various activities were conducted during each visit that ranged from conducting all activities for a comprehensive SIU inspection to collecting field-sampling data.

In December 2006, each inspector and monitoring crewmember was issued a tablet PC, with a broadband wireless computer card and a portable printer that allows field observations to be recorded during the inspection or sampling event. On January 2, 2007, the inspection staff went live with the new computer system. The tablet PCs utilize client software loaded onto the hard drive. This software, Field

Assistant Service Tracking (FAST) utilizes a work order concept to record data and observations from the field. Data are now recorded by task completion and is not comparable to historical recording of site visits. Multiple tasks can be completed in one site visit or in the case of the SIU inspection can be completed over multiple visits. The task templates utilized for this year are listed in Table 7-2.

In addition to recording field data, FAST is utilized to generate electronic NOVs in the field. The entered data are compiled by Crystal Reports (a COTS reporting tool) to generate an electronic document. This document is then electronically signed by the Industrial User with ApproveIt (a COTS solution for secured electronic signatures). The final document is printed in the field utilizing portable printers to provide the Industrial User a copy. Additionally, the electronic version is attached to the inspection task to be transmitted to the main database.

Once the data are entered into the FAST task, the FAST software is wirelessly synchronized with the main computer database, Internet POTW Administration and Compliance System (iPACS) and is available for immediate review by all Sanitation Districts' staff. Additional details regarding iPACS and FAST are provided in Section 9.

Summary of Inspection Activities

The Industrial Waste Section responds to calls for industrial waste investigations on a 24-hour basis and seven days a week. A summary of industrial waste tasks is presented in Table 7-2. These included treatment plant or sewer or pump plant investigations initiated by calls from the Sanitation Districts' Operations group, industrial users, public agencies, citizens or other Industrial Waste Section personnel. The numbers of inspections at each significant industrial user are listed in Appendix D.

TABLE 7-2
SUMMARY OF INDUSTRIAL WASTE INSPECTION TASKS

Total Inspections	10402
Combustible Gas Inspection	5
Drycleaner Inspections	224
Flow Monitoring Inspections	187
General Inspections	6460
Inspection -Ammonia	3
Inspection - Chloride	227
Inspection - Nonsignificant	726
Inspection – Potential Permit	2
Issue Enforcement	87
Rainwater Diversion System Inspections	554
RV Liquid Waste Disposal Site Inspections	58
Review Violation, Issue Enforcement	309
SIU Inspections	936
Spill Containment Inspections	413
Zero Discharge CIU Inspections	133
Zero Discharge Non-CIU Inspections	75
Field Samples ¹	4095

B. DETERMINATION OF COMPLIANCE

The Sanitation Districts have implemented an intricate system for tracking industrial user compliance with applicable effluent limitations and industrial wastewater discharge permit requirements. The industrial waste compliance monitoring program involves examining the results of analyses of wastewater samples from routine sampling of IUs by Sanitation Districts’ personnel, surveillance sampling by Sanitation Districts’ personnel without the industrial user’s knowledge, and self-monitoring conducted by IUs. The industrial waste inspection program complements the monitoring program

¹ Field Samples may be collected during an Inspection of any type or may be collected as an independent event. Task Templates = “Field Sampling for Inspection” and “pH, Field.”

through on-site inspections, collection of grab samples and verification of compliance with permit requirements.

The iPACS computer system is utilized to verify industrial users are in compliance with their industrial wastewater discharge permit requirements. The program compares laboratory sample results with dischargers' effluent limits and generates a list of IUs that are found to have violated their effluent discharge limits. Enforcement action is initiated against noncompliant users in accordance with the Sanitation Districts' enforcement response plan (ERP) guidelines.

C. ENFORCEMENT GUIDELINES

The enforcement program is designed to ensure compliance with the Sanitation Districts' Wastewater Ordinance and its associated regulatory programs. Enforcement plays an important role in the prevention of pass through and interference at the Sanitation Districts' treatment plants; in the implementation of federal, state and local pretreatment requirements; in the collection of delinquent surcharge and connection fee obligations; and in the recovery of costs incurred due to industrial discharger violations of the Ordinance.

Since 1977, the Sanitation Districts have had in place an established enforcement program that has been geared to ensure compliance with local limits and other requirements of the Wastewater Ordinance. In 1984, enforcement efforts were expanded to include implementation of the federal categorical limits and other pretreatment requirements. The Sanitation Districts have modified the enforcement program to provide for increased and more effective enforcement and to satisfy regulatory changes under 40 CFR 403.8(f)(5). The modifications have been developed to bring companies into compliance by:

- Providing a more standardized approach for escalation of enforcement actions,
- Establishing enforcement response actions appropriate for each type of noncompliance (separate guidelines for dealing with numerical and non-numerical violations),
- Establishing mechanisms to deal with chronic violators (dischargers who have a history of repeated violations interspersed with periods of compliance), and
- Assessing civil penalties for violations.

The enforcement response plan is directed at bringing companies into consistent compliance by:

- Rapidly escalating enforcement actions for noncompliant industrial users, and
- Requiring industrial users unable to maintain consistent compliance to reenter the process at increasingly more stringent levels of enforcement rather than allowing them to start the process all over again following a short period of compliance. The enforcement response plan has been designed to facilitate the timely initiation of an appropriate enforcement response upon discovery of a violation; and to provide flexibility in implementation such that the initial enforcement action can start at any stage appropriate for a particular non-compliance. Moreover, a "Suspension Notice" may be issued anytime a discharge presents an imminent hazard to: the public health, safety or welfare; the environment; the local sewerage agency's system or to the Sanitation Districts' sewerage system. The procedures followed for permit suspensions are prescribed in Section 404 of the Sanitation Districts' Wastewater Ordinance.

The current enforcement procedures as outlined in Figures 7-1, 7-2 and 7-3 on the following pages comply with the requirements of 40 CFR 403.8(f)(5). The enforcement process for numerical violation of Sanitation Districts' or EPA's effluent discharge limits is schematically shown in Figure 7-1. The corresponding enforcement procedures for non-numerical violations are presented in Figures 7-2 and 7-3. When warranted, a Notice of Violation is issued to the operator of the facility. A follow-up letter is sent to the company officer requiring a written response within 30 days which addresses the causes of the violation, the corrective actions which will be taken to prevent reoccurrence, and the date those corrective actions will be completed. Following the review of the adequacy of the violation response, follow-up inspection and/or sampling is conducted by the Sanitation Districts to confirm that the corrective actions taken were successful in achieving compliance. Each subsequent violation leads to escalation of enforcement action. In determining the appropriate enforcement response and/or stage of enforcement to which an industrial user must be placed, the following factors are considered:

- Type, severity, number, and duration of violations;
- Impact of the violation on the Sanitation Districts' sewerage system, the public and environment;
- Compliance history of the IU; and
- Good faith effort of the industrial user to return to compliance.

The issuance of a Stage 2 NOV establishes both a mandatory compliance meeting and a compliance schedule, which usually requires the industrial user to conduct intensive self-monitoring if the citations were for numerical violations. Further noncompliance may result in the Sanitation Districts referring the discharger to the Federal Environmental Crimes Task Force or the District Attorney's Office for criminal prosecution or civil action, filing civil action through the Sanitation Districts' legal counsel to recover civil liabilities and/or revoking the permit.

Figure 7-1
CSD ENFORCEMENT PROCEDURES
NUMERICAL VIOLATIONS

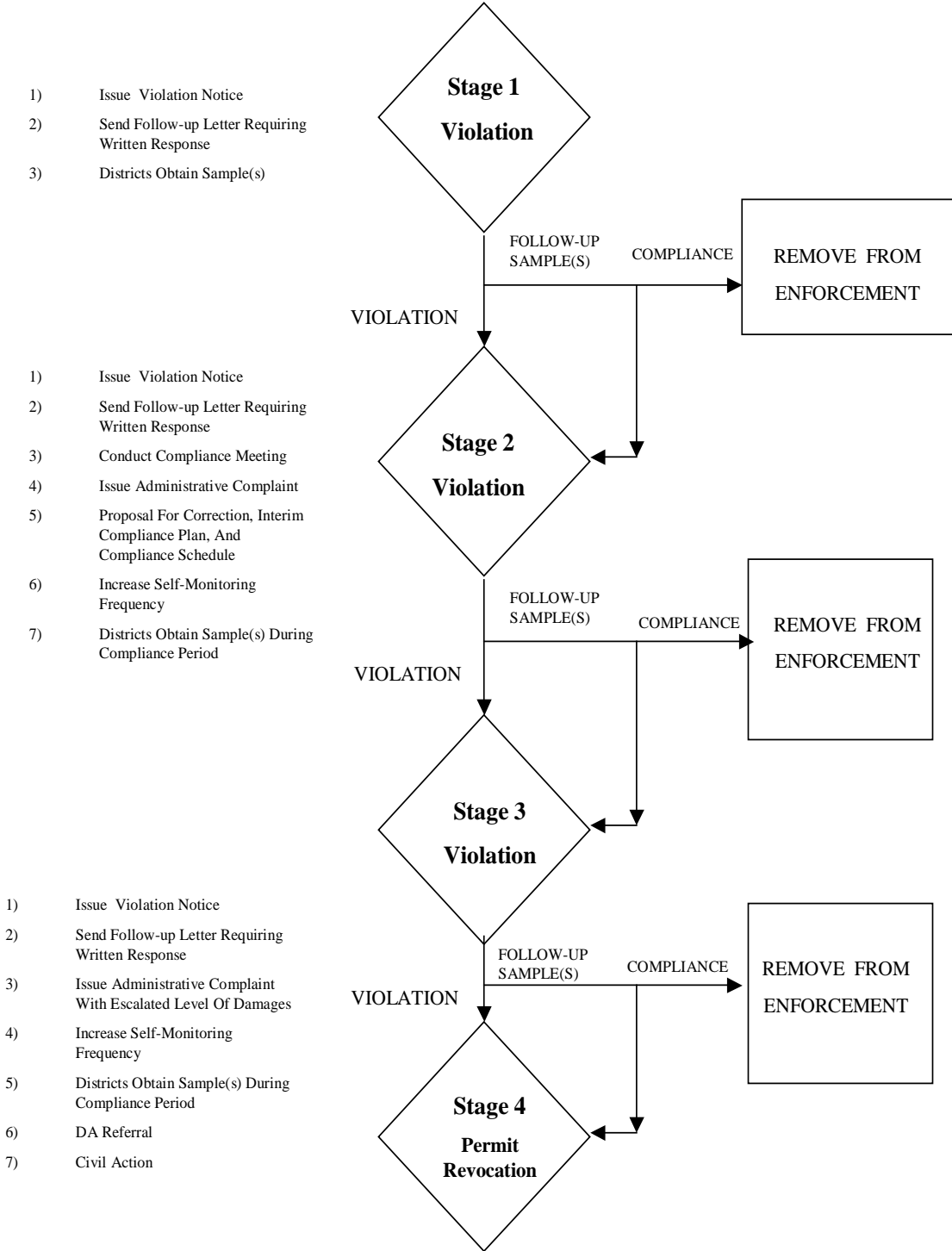


Figure 7-2
CSD ENFORCEMENT PROCEDURES
TYPE A NON-NUMERICAL VIOLATIONS

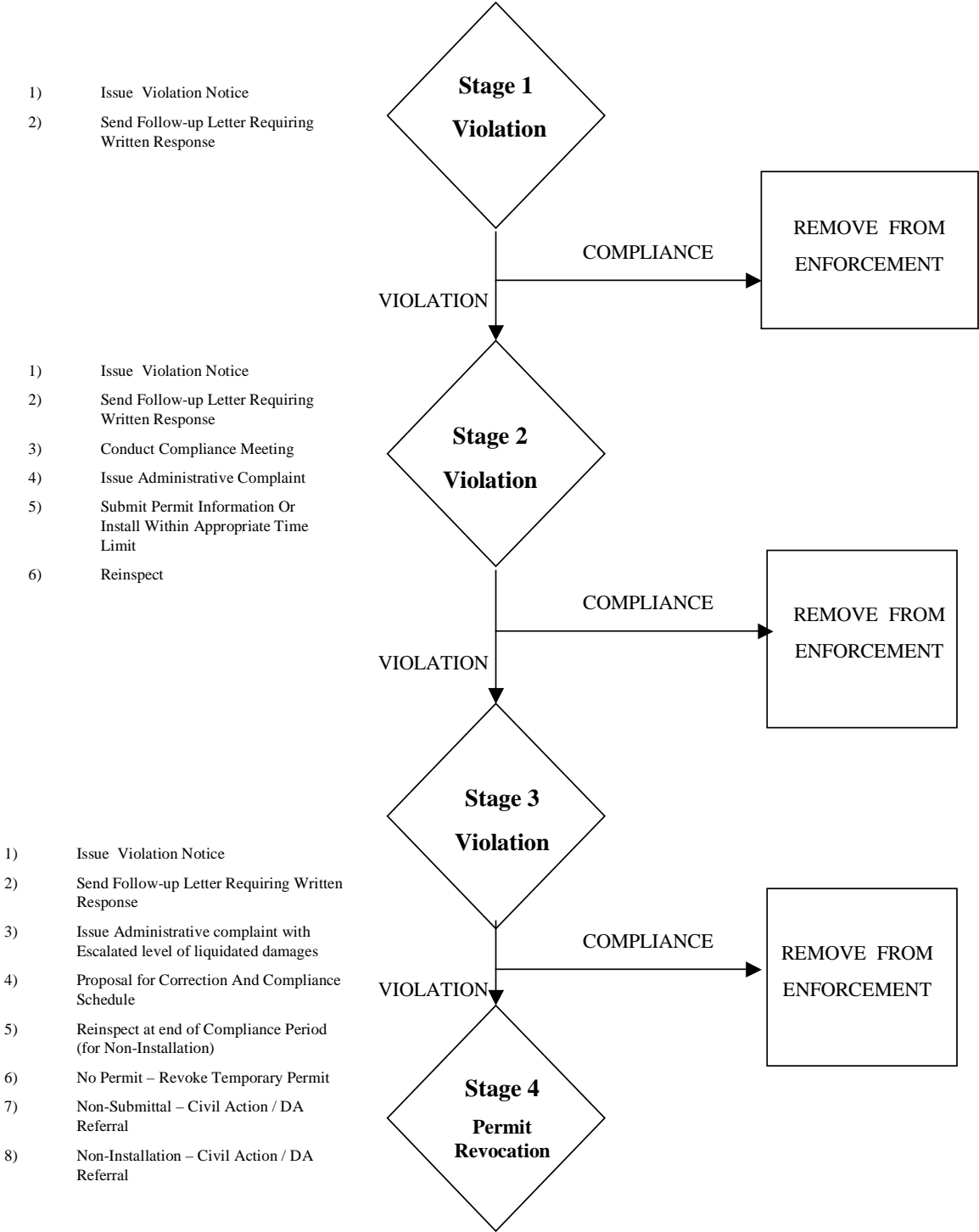
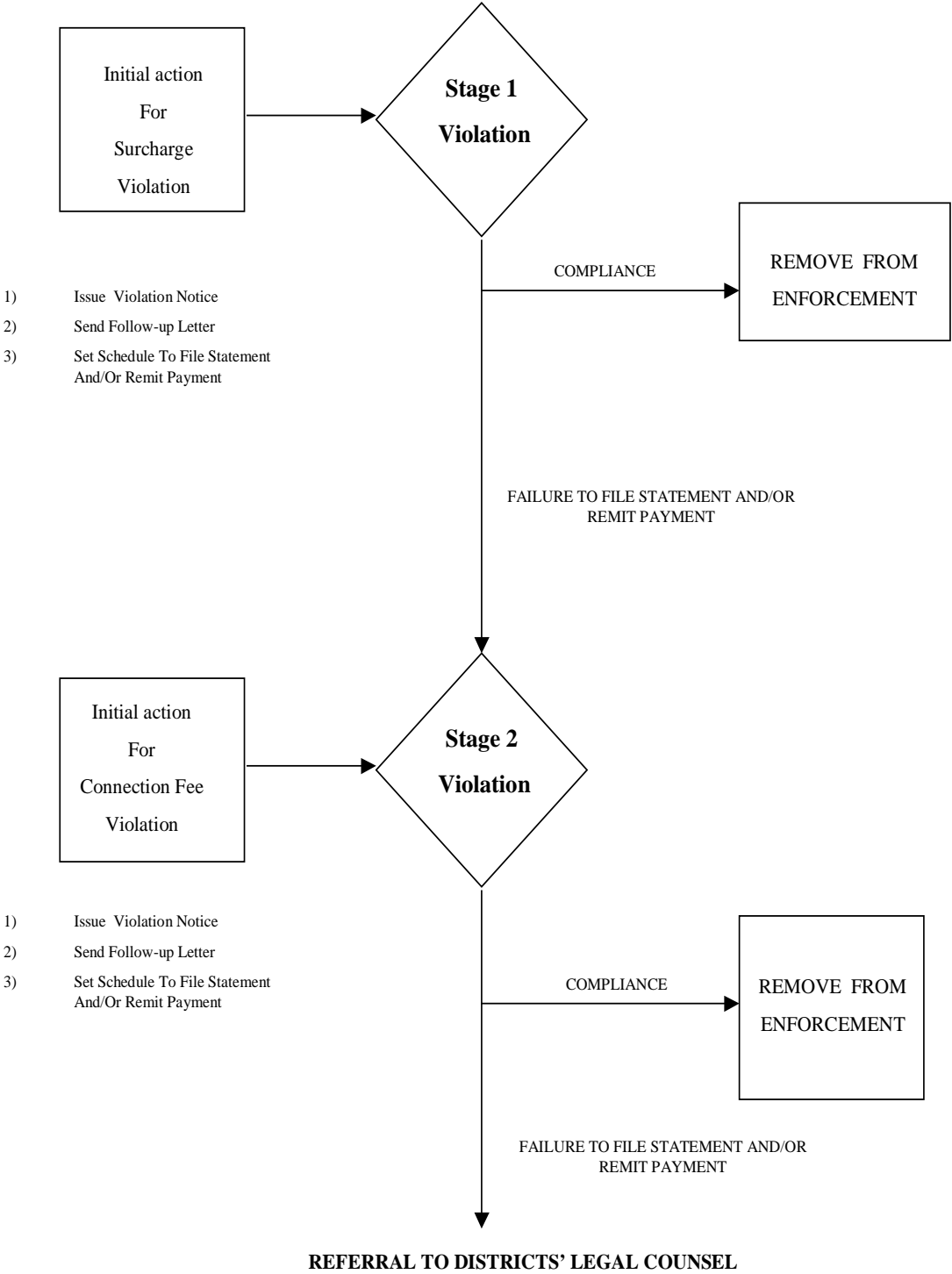


Figure 7-3
CSD ENFORCEMENT PROCEDURES
TYPE B NON-NUMERICAL VIOLATIONS



These various steps have been designed to ensure that compliance is achieved voluntarily or through the application of various economic disincentives as enforcement actions escalate. These procedures are also designed per the recommendations of the District Attorney’s Office and Sanitation Districts’ legal counsel to ensure that all necessary notification, pretreatment corrections and other remedial actions have been undertaken prior to the initiation of criminal or civil legal proceedings. Such steps are deemed necessary to support favorable resolution of legal actions and to reduce future litigation upon escalation to the permit revocation stage.

D. COMPLIANCE STATUS OF DISCHARGERS

This section discusses the compliance status of IUs for the year. A summary of industrial waste enforcement activities is included in Table 7-3. Most of the permittees under enforcement at the end of the year were for relatively recent violations. The status of enforcement for each industrial user that has violations is listed in Appendix E.

TABLE 7-3	
SUMMARY OF ENFORCEMENT ACTIVITIES	
Dischargers under Enforcement, End of Year	127
Number of Notices of Violations Issued	410
Compliance Meetings	38
Criminal Cases Filed	0
Criminal Cases Referred ²	0
Civil Cases Filed (Non-Surcharge)	0

Notices of Violation

During the year, the Sanitation Districts issued NOV’s for violations of various Wastewater Ordinance Sections. Some of the NOV’s that were issued address multiple violations. NOV’s are usually issued in the field by inspectors, except for NOV’s pertaining to overdue connection fee and surcharge payments that are often mailed. Violation letters are mailed for 4-day and monthly average violations. These letters are listed in the company’s enforcement file but are not included in any of the enforcement totals.

Permit Suspension

During the year, there were no suspensions.

² Company names are withheld pending filing decision by prosecuting entity.

Permit Revocation

During the year, one formal permit revocation and cease and desist order was issued. A summary of the revocation actions is provided in Table 7-4.

TABLE 7-4			
PERMIT REVOCATION			
Name	I.W. Discharge Permit No.	Date of Revocation	Action
Washmax Garment Care, Inc.	16440	March 9, 2016	Formal permit revocation ordered by the Sanitation Districts' Board of Directors due to failure to pay surcharge. Company was issued a temporary permit and allowed to continue operations after agreeing to a payment schedule.

Probation

During the year, there were not any companies on probation.

E. LEGAL ACTIONS

During the year, no criminal cases were filed.

F. PENALTIES

During the year, no legal fines, penalties or fees were assessed against businesses.

G. SIGNIFICANT NONCOMPLIANCE

The EPA General Pretreatment Regulations for Existing and New Sources (40 CFR 403) require the Sanitation Districts to annually publish a list of industrial users deemed to be in significant noncompliance. On July 24, 1990, the EPA issued final pretreatment regulations, which set forth a definition of "significant noncompliance" different from the prior definition of "significant violator." The SNC list is published annually in the Los Angeles Times. A copy of the printed SNC list is included in the Appendix F.

FIGURE 7-4

COMPANIES IN SIGNIFICANT NON-COMPLIANCE (Published in L.A. Times, February 23, 2017)

COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY

SIGNIFICANT NONCOMPLIANCE OF INDUSTRIAL WASTE PRETREATMENT REQUIREMENTS

For Calendar Year 2016

The United States Environmental Protection Agency (EPA) General Pretreatment Regulations for Existing and New Sources of Pollution, 40 CFR Part 403, require the Sanitation Districts of Los Angeles County to publish on an annual basis a list of "Industrial Users which, during the previous 12 months, were significantly violating applicable Pretreatment Standards or other Pretreatment Requirements". For the purpose of this provision, significant noncompliance is defined under 40 CFR 403.8 (f)(2)(viii) and 55 Federal Register 30082 as, (1) Chronic violations in which sixty-six percent or more of all of the measurements taken during a six-month period exceed by any magnitude the daily maximum limit or the average limit for the same pollutant parameter., (2) Technical Review Criteria (TRC) violations in which thirty-three percent or more of all the measurements taken during a six-month period equal or exceed the product of the daily maximum limit or the average limit times the applicable TRC (TRC = 1.4 for BOD, TSS, Fats, Oil & Grease, and 1.2 for all other pollutants except pH)., (3) Any violation of a pretreatment effluent limit which alone or in combination with other discharges is determined by the POTW to have caused interference or pass-through., (4) Any discharge of a pollutant that has caused imminent endangerment to human health, welfare or to the environment or has resulted in the POTW's exercise of its emergency authority to halt or prevent such a discharge., (5) Violations of compliance schedule milestones contained in a local control mechanism or enforcement order by 90 days or more after the schedule date., (6) Failure to provide reports for compliance schedules, self-monitoring data, or categorical standards within 45 days of the due date., (7) Failure to accurately report noncompliance., (8) Any violation or group of violations that the POTW determines will adversely affect the operation or implementation of the local pretreatment program. For the purpose of this publication "Pretreatment Standards" are "any regulation containing pollutant discharge limits promulgated by the EPA which applies to Industrial Users. This term includes prohibitive discharge limits established pursuant to Section 403.5" (Section 403.3 (l)). The term "Pretreatment Requirements" means any substantive or procedural requirement related to Pretreatment, other than a National Pretreatment Standard, imposed on an Industrial User (Section 403.3(t)).

The Sanitation Districts found the following industrial facilities to be significantly violating applicable Pretreatment Standards or Pretreatment Requirements during 2016. All of these companies have been subject to the Sanitation Districts' administrative enforcement procedures. In addition to the Sanitation Districts' routine enforcement procedures, some of these companies have been referred to the Los Angeles County District Attorney for criminal investigation.

AB Acquisition LLC dba Safeway, Inc., City of Commerce, #21714, (6); Adel Wiggins Group, City of Commerce, #13617, (2); Advanced Bionics, LLC, Santa Clarita, #21770, (1, 2); Aerodynamic Plating Co., Inc., Gardena, #1191, (1, 2); Aerotec Alloys, Norwalk, #21772, (1, 2, 6); Aircraft X-Ray Laboratories, Inc., Huntington Park, #1275, (2); All American Manufacturing Company, Vernon, #622, (6); Allblack Company Inc., Santa Fe Springs, #21419, (2); Alloy Processing, Compton, #15370, (2); Alternative Denim Works, LLC, Vernon, #21611, (6); Alum A Fold Pacific Inc., City of Industry, #14323, (1, 2); American Dye House, Los Angeles, #21544, (6); American PVD Coatings, LLC, Downey, #13826, (6); Americas Styrenics, Torrance, #20377, (6); Anadite, Inc., South Gate, #2937, (1); Antique Metal Finishing, Long Beach, #6045, (6); Aramark Uniform Services, Los Angeles, #9006, (2); Arconic Global Fasteners & Rings Inc., City of Industry, #16324, (2); Ariza Cheese Co., Paramount,

#10936, (6); Arkema, Inc., Torrance, #20760, (1, 2); Artwear, Inc., Los Angeles, #14574, (6); Astro Pak Corporation, Downey, #12157, (1, 2); Bob Martin Company, South El Monte, #5376, (1, 2); Braun Linen Service, Inc., Paramount, #4881, (6); Breeder's Choice Pet food Company, Irwindale, #17095, (1, 2); Bridge Publications, Inc., City of Commerce, #21475, (2); Budget Uniform Industrial Supply, Inc., Gardena, #2952, (6); Cacique, Inc., City of Industry, #10898, (2); California Amforge Corporation, Azusa, #1231, (1, 2); California Ranch Food Company, Vernon, #21005, (6); California State Prison - Los Angeles County, Lancaster, #13061, (2); Cal-Tron Plating, Inc, Santa Fe Springs, #2495, (1, 2, 6); Captek Softgel International, Inc., Cerritos, #14290, (6); Caravan Canopy International, Inc., La Mirada, #21317, (2); Cardinal Industrial Finishes, City of Industry, #15990, (6); Charlie's Pride Meats, Vernon, #11023, (6); Chemical Transfer Co., Inc., Santa Fe Springs, #20545, (2); Chromplate Co., Inglewood, #1754, (2); City of Manhattan Beach, Manhattan Beach, #12863, (6); Coast Plating, Inc., Gardena, #20325, (1, 2); Colorfast Dye House, Vernon, #21166, (6); Connector Plating Corp., Los Angeles, #14940, (1, 2); Corru-Kraft Alhambra/MPP-LA, subsidiary of Orora North America, Alhambra, #13263, (2); County of Los Angeles Chief Executive Office, Los Angeles, #21036, (2); Crosby & Overton Incorporated, Long Beach, #1317, (2); Crothall Laundry Services, Inc., La Mirada, #16630, (1, 2, 6); Custom Metal Finishing Corporation, Gardena, #6744, (1, 2); D & J Printing Inc., dba Bang Printing, Palmdale, #21782, (1, 2); Dae Won Food USA, Inc., Carson, #16657, (6); Decco Awards, Inc. DBA Debco Manufacturing Co., Pasadena, #16835, (1, 2, 6); Decco U.S. Post-Harvest, Inc., Monrovia, #20703, (6); Decore Plating, Inc., Carson, #21828, (2); Denim Development Group, El Monte, #21761, (6); Denmac Industries Inc., Paramount, #9788, (6); Designed Metal Connections, Gardena, #21873, (6); Designed Metal Connections, Gardena, #21874, (6); Diamotec Inc., Torrance, #13505, (1, 2); Eagleware Manufacturing Co., Inc., Santa Fe Springs, #16904, (2); Eckert & Ziegler Isotope Products, Santa Clarita, #15750, (1); El Monte Plating Co., El Monte, #430, (1); Element Materials Technology Rancho Dominguez, Rancho Dominguez, #21323, (2); Emtek Products Inc., City of Industry, #12283, (6); Environmental Lighting for Architecture, City of Industry, #10627, (1, 2); Exova, Santa Fe Springs, #21773, (2, 6); Fairplex, Pomona, #15415, (6); Fairplex, Pomona, #15845, (6); Fastener Innovation Technology, Rancho Dominguez, #21527, (1, 2, 6); Fleetwood-Fibre Packaging & Graphics, City of Industry, #5700, (2); Food Express, Inc., Maywood, #15066, (1, 2); Fortress Resources, LLC dba Royal Truck Body, Paramount, #20933, (1, 2); FS Precision Tech LLC, Rancho Dominguez, #16780, (2); G & K Services, Co., Santa Fe Springs, #12362, (2); General Dynamics Satcom Technologies, Inc., Torrance, #15336, (2); George Industries, Los Angeles, #15670, (2); Golden Specialty Foods LLC, Norwalk, #21644, (1, 2); Golden State Water Company, Hawaiian Gardens, #21769, (6); Graphic USA, Inc., Santa Fe Springs, #21342, (1, 2, 6); Green Dining Table, Inc., Alhambra, #21613, (6); GSP Acquisition Corporation dba Gardena Specialized Processing, Carson, #20560, (6); Gulfstream Aerospace Corporation, Long Beach, #17062, (1, 2); Hamilton Sundstrand, Pomona, #15985, (1); Harland M. Braun & Co., Los Angeles, #3501, (1, 2); Henry Mayo Newhall Hospital, Valencia, #20787, (6); HiRel Connectors Inc., Claremont, #13655, (1, 2); Huck International, Inc., Carson, #15718, (2); Industrial Tectonics Bearings Corporation, Rancho Dominguez, #12627, (1, 2); International Medication Systems, Ltd., South El Monte, #21174, (2); International Medication Systems, Ltd., South El Monte, #16569, (1, 2); International Paper Company, Carson, #8467, (2); Jessie Lord Bakery, LLC, Los Angeles, #16438, (6); Juicy Whip Inc., La Verne, #16648, (6); Kaizan Laundry, Inc. dba Fulcrum International, Compton, #21800, (6); Kennedy Nameplate Co., Vernon, #3563, (1); K-Jack Engineering Company Inc., Gardena, #10208, (6); LA Dye and Print, Los Angeles, #14625, (6); Las Palmas Recycling, Compton, #6421, (6); Lights of America, Inc., City of Industry, #14893, (2); LISI / Hi-Shear Corporation, Torrance, #16503, (1, 2); Lockheed Martin Corporation (Plant 10), Palmdale, #717, (1, 2); Lonix Pharmaceutical Inc, Rosemead, #21684, (1, 2, 6); Los Altos Food Products, Incorporated, City of Industry, #20197, (6); Los Angeles County Metropolitan Transportation Authority, West Hollywood, #12419, (1, 2, 6); Los Angeles Dye & Wash Co., Inc., City of Commerce, #20345, (6); Lotus Pet Foods, Torrance, #20828, (6); Lunday-Thagard Company dba World Oil Refining, South Gate, #3670, (2); Magic Mountain LLC, Valencia, #9334, (2); Magnesium Alloy Products Company, Inc., Compton, #729, (6); Master Recycling Center,

Pomona, #17014, (6); Max Optical, Santa Clarita, #21739, (6); Maxima Enterprises Inc., Harbor City, #16908, (2); Mechanical Metal Finishing Co., Inc., Gardena, #5316, (6); Metal Surfaces, Inc., Bell Gardens, #284, (2); Miller Castings Inc., Whittier, #5585, (1, 2, 6); Miller Castings, Incorporated, Whittier, #20204, (1, 2); Mitchell Laboratories, Inc., Pico Rivera, #8180, (1, 2); Monico Alloys, Inc., Rancho Dominguez, #20164, (1, 2); Monogram Aerospace Fasteners, City of Commerce, #16018, (1, 2, 6); Monte Vista Water District/City of Chino, Montclair, #20568, (6); Moog, Inc. Aircraft Group Torrance Operations, Torrance, #13818, (1, 2); Nalco Company, Carson, #16690, (1, 2); Niitakaya USA, Inc., Long Beach, #14635, (5, 6); Nissin Foods (USA) Co., Inc., Gardena, #3274, (2); Norchem Corporation, Los Angeles, #21820, (6); Northrop Grumman Systems Corporation - Aerospace Systems Sector (Site 4), Palmdale, #14935, (2); Novacap, Inc., Valencia, #11852, (1, 2); Oil Operators Inc., Signal Hill, #14694, (2); Olin Chhlor Alkali Prodcuts, Santa Fe Springs, #20238, (6); Orozco's Auto Service, Bellflower, #21259, (6); Ortel, a Division of EMCORE, Alhambra, #16367, (6); Ortel, a Division of EMCORE, Alhambra, #16368, (6); Pacific Forge, Inc., Fontana, #5753, (1, 2); Pacific Laundry Services L.L.C., Carson, #20446, (6); Pacific Oil Cooler Service, Inc., La Verne, #21339, (1, 2); Parker Hannifin Corporation, South Gate, #20823, (6); Peter J Pitchess Honor Rancho, Castaic, #12265, (6); PG Imtech of California, LLC, Santa Fe Springs, #21901, (1); Pharmavite LLC, Santa Clarita, #16215, (1, 2); Photo Sciences Inc., Torrance, #12124, (2); Precision Coil Spring Company, El Monte, #3776, (6); Preferred Meal Systems, Inc., City of Commerce, #21732, (6); Premium Denim Wash House Inc., Downey, #21587, (6); QAP Metal Finishing, Los Angeles, #21403, (1, 2, 6); Quest Diagnostics Nichols Institue, Santa Clarita, #20363, (5); Quest Nutrition, LLC, City of Industry, #21410, (2, 6); Quest Nutrition, LLC, City of Industry, #21581, (2, 6); Rainbow, LLC, Carson, #1832, (2); Ramcar Batteries Inc., City of Commerce, #12433, (2); Ready Pac Produce, Inc., Irwindale, #13422, (6); Real Plating, Inc., Pomona, #21713, (1, 2); Republic Master Chefs, Long Beach, #15763, (6); Rey Laundry, Los Angeles, #21449, (6); Rick's Radiator, Azusa, #21545, (6); S&B Pharma, Inc. dba Norac Pharma, Azusa, #21295, (1, 2); Samson Pharmaceuticals, City of Commerce, #21704, (6); Shell Oil Products U.S., Carson, #20725, (6); Smurfit Kappa North America, LLC, City of Industry, #21368, (1, 2, 6); SNS Supplies, Inc., City of Industry, #14586, (6); Southwind Foods Co. LLC, Carson, #21778, (6); Space Exploration Technologies Corporation, Hawthorne, #21645, (1, 2); Space Exploration Technologies Corporation, Hawthorne, #21750, (1, 2); Space Exploration Technologies Corporation, Hawthorne, #20896, (1, 2); Square-H Brands, Inc., Vernon, #14096, (6); Stabile Plating Co., Inc., Covina, #5195, (1, 2, 6); Stantex Inc., Vernon, #16952, (6); Sunrider Manufacturing, L. P., Los Angeles, #20016, (1, 2); Superior Dyeing Inc, Bellflower, #21701, (2, 6); Superior Metal Finishing, Gardena, #3634, (1, 2, 6); Superior Plating and Bumpers Inc., Pomona, #20685, (1, 2); Sweet Ovations, LLC, Gardena, #21191, (6); Sweetener Products Company Vernon Bulk Liquid Facility (Vernon Central Warehouse, Inc.), Vernon, #1666, (2); Tanner Research Laboratories, Monrovia, #21738, (2); Technical Anodize LLC, Pomona, #21063, (6); Ted Levine Drum Company, South El Monte, #11556, (1, 2); Ted Levine Drum Company, South El Monte, #14289, (1, 2); The Gill Corporation, El Monte, #701, (2); The Los Angeles Salad Company, Inc., City of Industry, #16435, (6); Therm-O-Namel, Inc., Lynwood, #14213, (6); TIN Inc. dba International Paper Company, Santa Fe Springs, #4772, (2); Trident Plating, Santa Fe Springs, #15714, (2); Triumph Processing, Inc., Lynwood, #7033, (2); Tropicana Manufacturing Company, City of Industry, #12292, (6); Troy CSL-Lighting Inc., City of Industry, #20820, (1); Turbine Engine Components Technologies Corp., Santa Fe Springs, #15936, (1); U S Pre-Finished Metals Corp., Los Angeles, #4794, (1, 2); Unical Aviation Services, City of Industry, #20796, (2); Unique Laundry, Inglewood, #21583, (6); Univar USA, Santa Fe Springs, #20229, (2); USA Waste of California, Inc. dba Blue Barrel Disposal, Santa Clarita, #21371, (1, 2); Venice Baking Company, Torrance, #21195, (6); Virco Manufacturing Corporation, Torrance, #13817, (2); W.F. Scott & Company, Inc., Pico Rivera, #6140, (2); Weber Metals Inc., Paramount, #8832, (2); Weber Metals Inc., Paramount, #9693, (1, 2); West Basin Municipal Water District, Torrance, #13134, (2); Wheel Vintiques, City of Industry, #21366, (6); Woodward HRT, Inc., Santa Clarita, #20554, (1, 2); Zausner Foods (dba. Fleur de Lait West, LLC), City of Industry, #14747, (2); Zephyr Manufacturing Co., Inc., Inglewood, #1930, (6);

8 COMPLIANCE STATUS OF TREATMENT FACILITIES

The Sanitation Districts operate 11 wastewater treatment plants, of varying sizes and treatment schemes as described in Section 1. These plants are operated to maintain compliance with NPDES permits and other permit mechanisms issued by the LARWQCB and the Lahontan RWQCB. This section describes the compliance status of the Sanitation Districts' wastewater treatment plants and some of the procedures that enable the Sanitation Districts to verify compliance.

A. SAMPLING & ANALYSIS

Sampling Procedures

Wastewater samples are collected as either grab samples or flow-weighted composites, whichever is appropriate for the constituents of concern. The Sanitation Districts use specially designed, permanently installed, refrigerated sampling units to collect composite samples for process control parameters at the treatment plants and portable, programmable sampling units to collect composite samples for priority pollutant analysis. Sludge and cake composite samples are collected as discrete grab samples throughout a 24-hour period and manually combined.

Guidelines have been provided to sample collectors in the use of proper sampling containers and preservation techniques to maintain the integrity of the sample. All analyses are performed within the specified holding periods.

Quality Assurance Procedures

Assurance of the validity and quality of data produced by the Sanitation Districts' laboratories is of prime importance. All analytical methods used and data generated have to meet stringent requirements of the State Water Resources Control Board (SWRCB), CDPH, and EPA as set forth in the Clean Water Act and the Resource Conservation and Recovery Act. The steps or elements as recommended by EPA are adhered to and are included in the QA/QC program document maintained by the laboratory. The Quality Assurance Program document is reviewed and updated annually.

The Sanitation Districts have also prepared an in-house Standard Operating Procedures document for use in its laboratories. The document, which includes virtually all procedures used by the Sanitation Districts' laboratories for wastewater analyses, is maintained electronically and updated by the Quality Assurance Group.

B. INFLUENT AND EFFLUENT MONITORING

The Sanitation Districts routinely sample influent and effluent at its 11 treatment plants at a frequency that equals or exceeds the frequency required in NPDES permits or other authority. The required frequency for most metals is once a month at the JWPCP and bi-monthly, quarterly, semi-annually, or annually at the WRPs. Among the parameters monitored are arsenic, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, zinc, cyanide, phenols, various organic compounds and ammonia. Priority pollutant analyses of influent, effluent, and sludge are performed at least semi-annually for facilities with NPDES permits.

Because JWPCP is the Sanitation Districts' largest treatment plant and is the recipient of the highest loading of industrial wastes, its monitoring data will be discussed in detail in this section. Concentrations of the above-mentioned constituents in JWPCP influent and effluent are shown in Table 8-1; mass loadings are presented in Figures 8-1 to 8-13. It should also be recognized that the JWPCP receives all primary sedimentation and waste activated sludges from all water reclamation facilities in the JOS. Average influent and effluent concentrations for the Sanitation Districts' 11 treatment plants are included in Appendix G. Priority pollutant monitoring data for the JWPCP and all other plants that accept industrial wastewater are also presented in Appendix G.

In examining the figures showing mass loadings of toxic constituents at the JWPCP it should be recognized that prior to July 1975 when Phase I limits were adopted, most industrial companies made no significant effort to curtail toxic waste discharges. Hence, the data points shown for 1975 represent what are believed to be typical pre-source control levels.

TABLE 8-1			
WATER QUALITY CHARACTERISTICS AT JWPCP			
Parameter	JWPCP Average Influent Concentration (mg/L)	JWPCP Average Effluent Concentration (mg/L)	Performance Goals (mg/L)
Arsenic	0.00479	0.00208	0.0025
Cadmium	0.0011	ND	0.0001
Chromium (+6) ¹	ND	0.00001	0.0015
Copper	0.149	0.00277	0.0049
Lead	0.00633	ND	0.0004
Mercury	0.00021	0.0000028	0.00004
Nickel	0.0286	0.00753	0.013
Selenium	0.00918	0.00413	0.0076
Silver	0.0014	ND	0.0002
Zinc	0.316	0.0107	0.037
Cyanide	0.0127	0.00534	0.019
Phenols	0.10	ND	-
TICH ²	0.0000025	ND	-
Ammonia	46.4	44.7	40

¹ Total Recoverable Metals

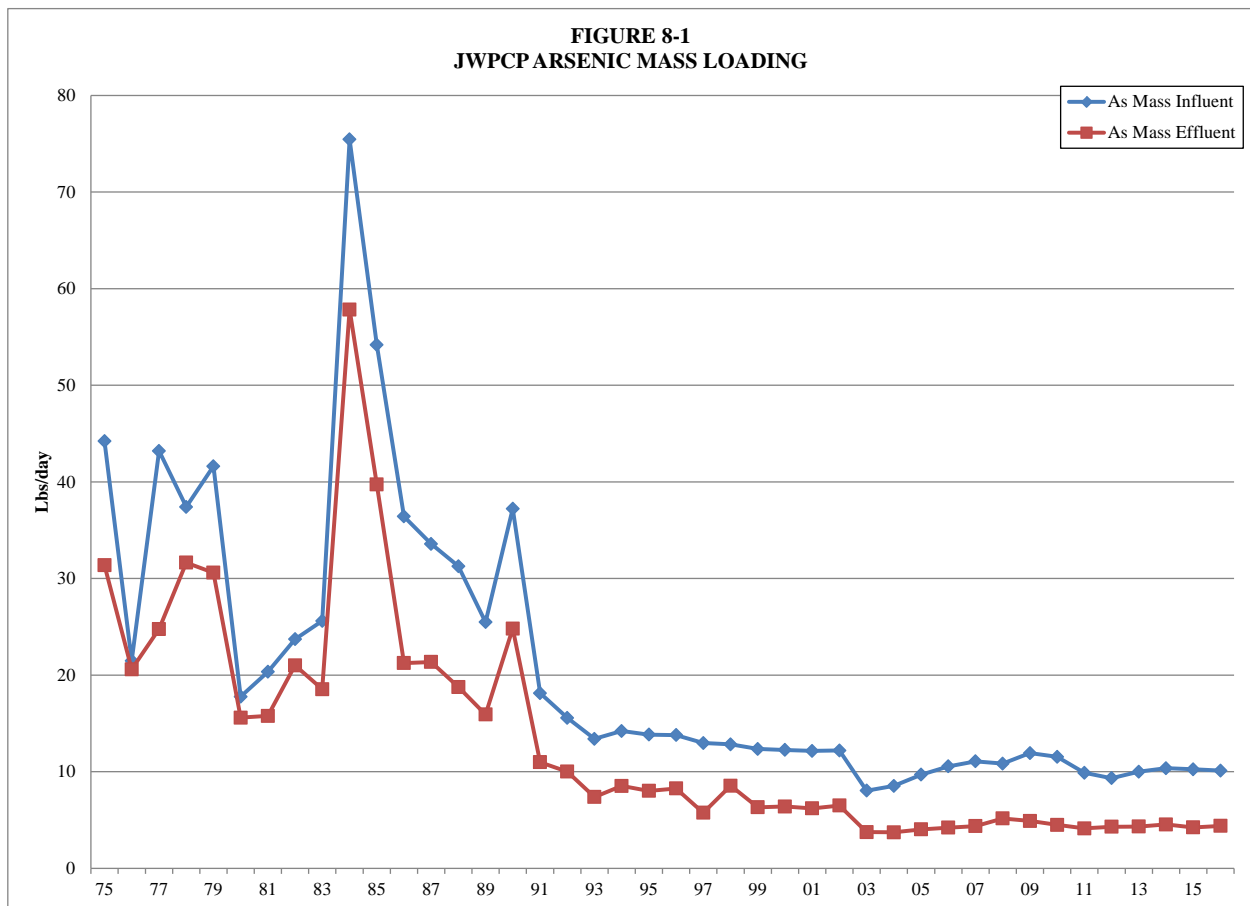
² Some TICH compounds have monthly average limits. The limits shown here is the sum of the monthly average limits or performance goals for aldrin dieldrin, chlordane, DDTs, toxaphene and PCBs. Limits for individual compounds may be much lower.

Arsenic (Figure 8-1)

Arsenic mass loadings at the JWPCP decreased after the source control program was adopted in 1975. However, this decrease was mainly coincidental; changes in formulation of consumer products, particularly insecticides and plant growth stimulants, are believed to be the major contributing factor.

The reductions in arsenic loadings seen between 1979 and 1980 are related to more restrictive CAL/OSHA requirements, which deal with employees' exposure to inorganic arsenic identified as a cancer hazard. During 1984 and 1985, the influent arsenic at the JWPCP returned to pre-source control levels. This increase resulted from discharges by a battery recycler under enforcement. Arsenic levels have since decreased as a result of improvements made to the company's wastewater treatment system.

Mass discharges of arsenic to JWPCP for this year are at 10.12 pounds a day. This represents a 77 percent decrease in the mass flow of arsenic to the JWPCP.

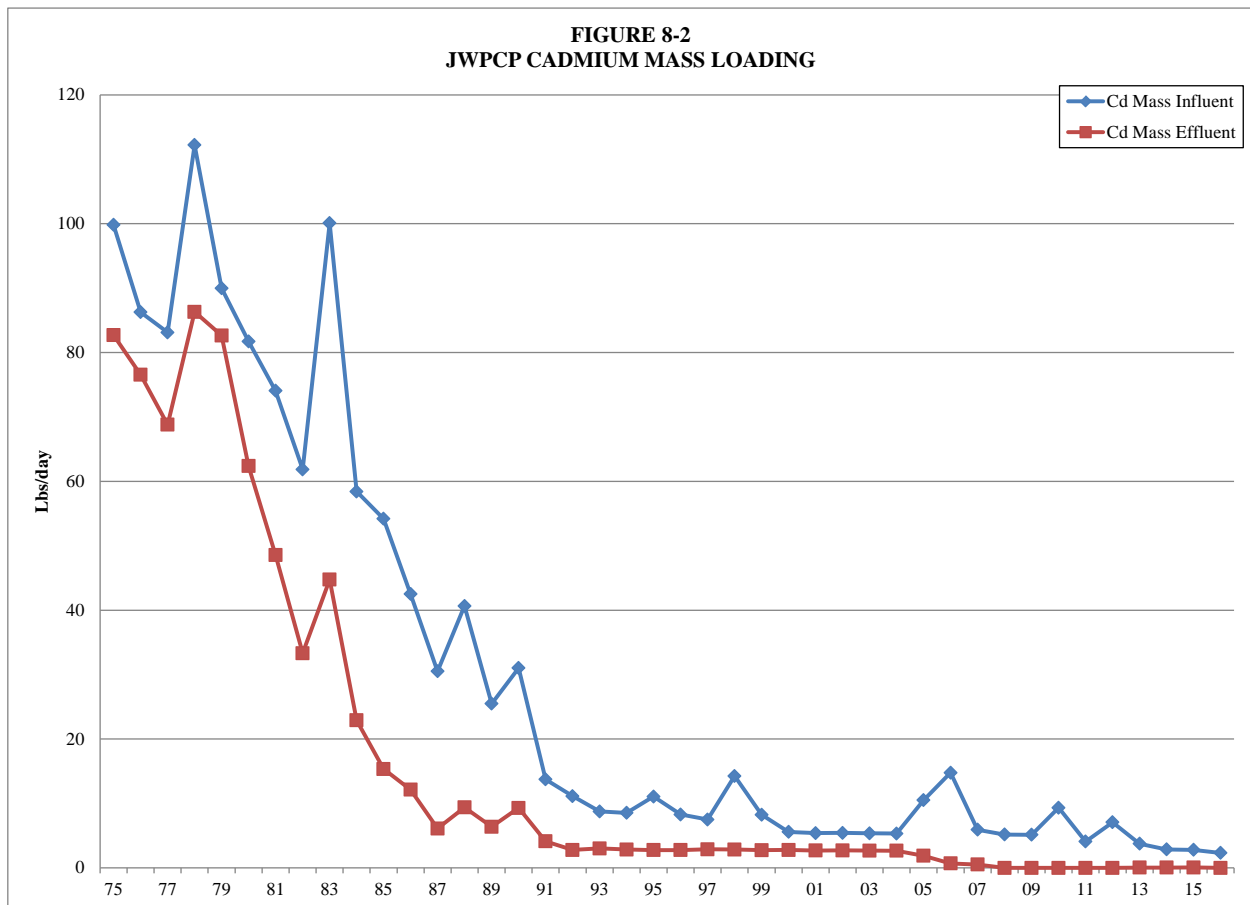


Cadmium (Figure 8-2)

Cadmium mass loadings at the JWPCP decreased soon after adoption of the Phase I limits. The 1982 cadmium levels of 60 to 70 pounds per day are believed to be representative of the loading achieved through full implementation of the Sanitation Districts' Phase I cadmium limit of 15 mg/L.

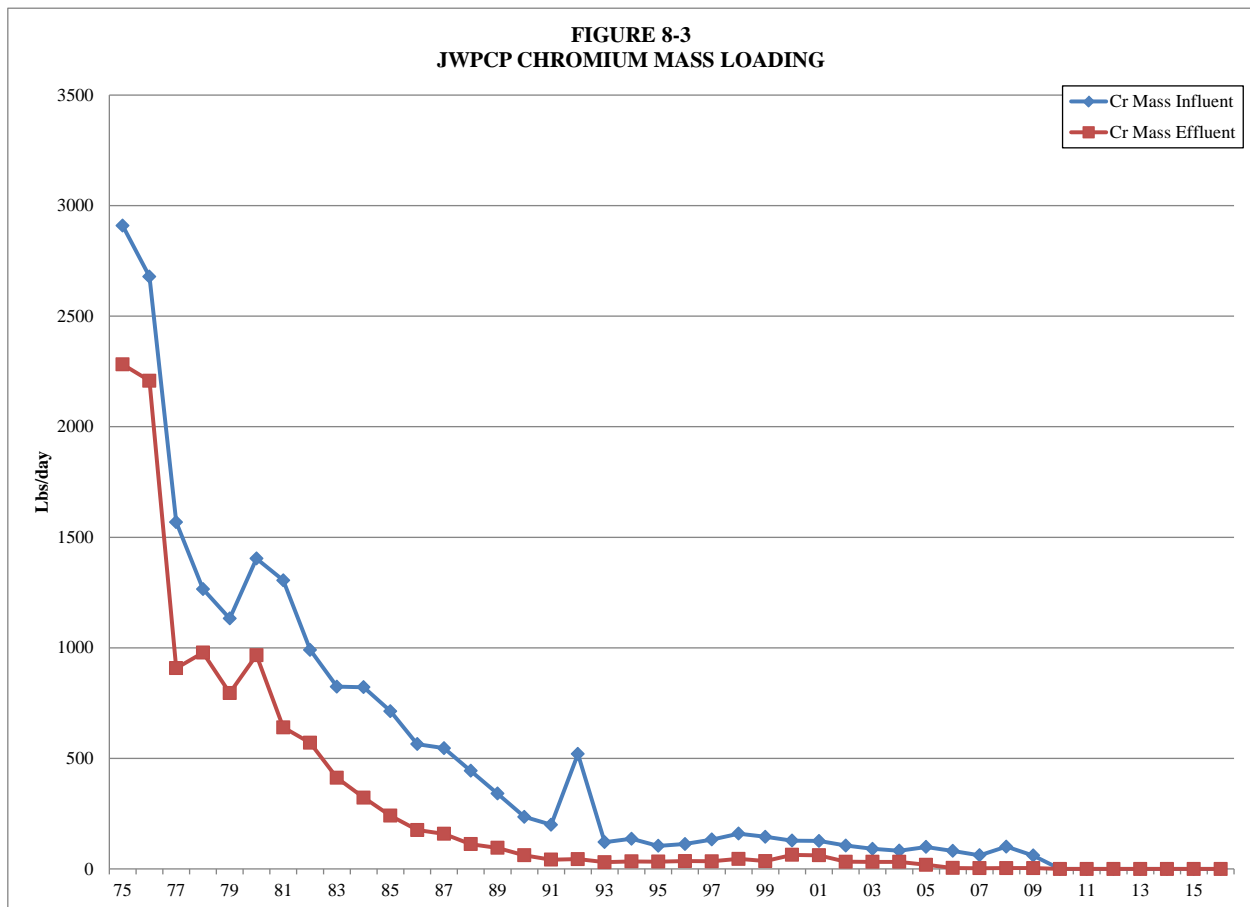
Reductions in 1980 and 1981 can be attributed to the closure of the JWPCP's disposal facilities for cyanide wastes. The 1983 increase in the cadmium mass loading was caused by a secondary lead smelter violating Phase I limits. Ensuing enforcement actions against the company resulted in the installation of a microfilter for removal of suspended cadmium from wastewater.

Since 1984, cadmium levels have continued to decrease, largely due to enforcement of the EPA Electroplating and Metal Finishing limitations and the Sanitation Districts' Phase I cadmium limit. Changes in aerospace and aircraft plating requirements that are seeking substitutions for cadmium are helping to continue the downward trend. Influent cadmium at 2.32 lbs/day during this year is now 2 percent of its 1975 level.



Chromium (Figure 8-3)

By 1979, the Phase I program had effected a reduction of more than 60 percent in the mass of chromium discharged to the JWPCP. The increase observed in 1980 was caused by discharge violations at a large tannery in Vernon and at two electroplaters in the Inland Empire. Discharges from the three companies were brought into compliance through enforcement actions. The significant increase in 1992 was due to an illegal “dump” of a chromium plating bath. The single day of violation greatly skewed the annual average value resulting in the misleading spike. The company responsible for the illegal discharge has been successfully prosecuted by the District Attorney. During this year, the mass of chromium influent to JWPCP was below the detection limit, which is 99 percent less than the amount received in 1975.

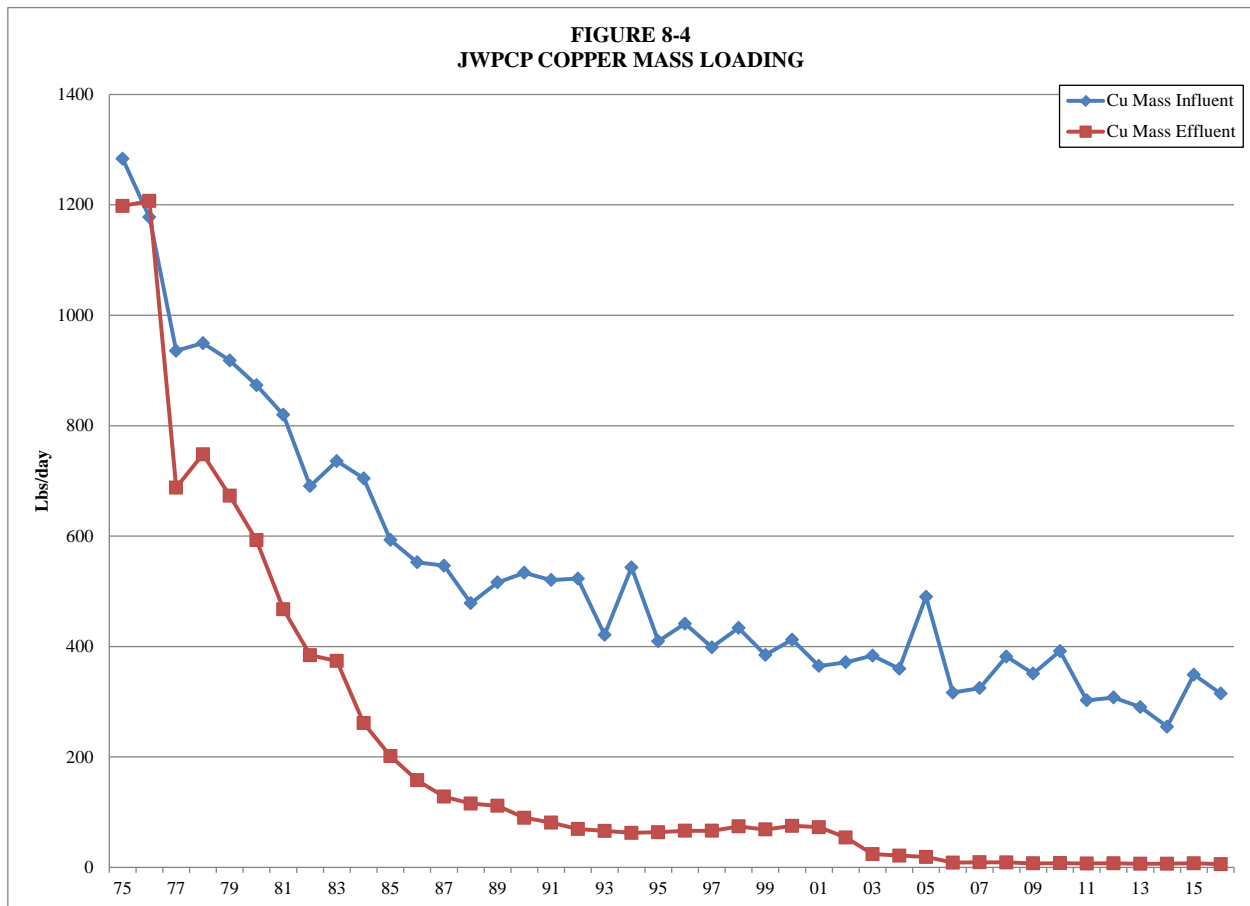


Copper (Figure 8-4)

The JWPCP influent copper loading continuously decreased from 1975 to about 1984. Some of this decrease is attributed to reductions in discharges covered by EPA Categorical Standards.

Since 1984, the amount of copper influent to JWPCP has decreased slowly. Most of the copper influent to JWPCP is from non-industrial sources such as corrosion of household copper piping. The typical at tap value for copper is 0.35 mg/L³ while the maximum JWPCP influent value was 0.18 mg/L in 2005. Further source reduction likely will not result in any appreciable reduction in influent copper values.

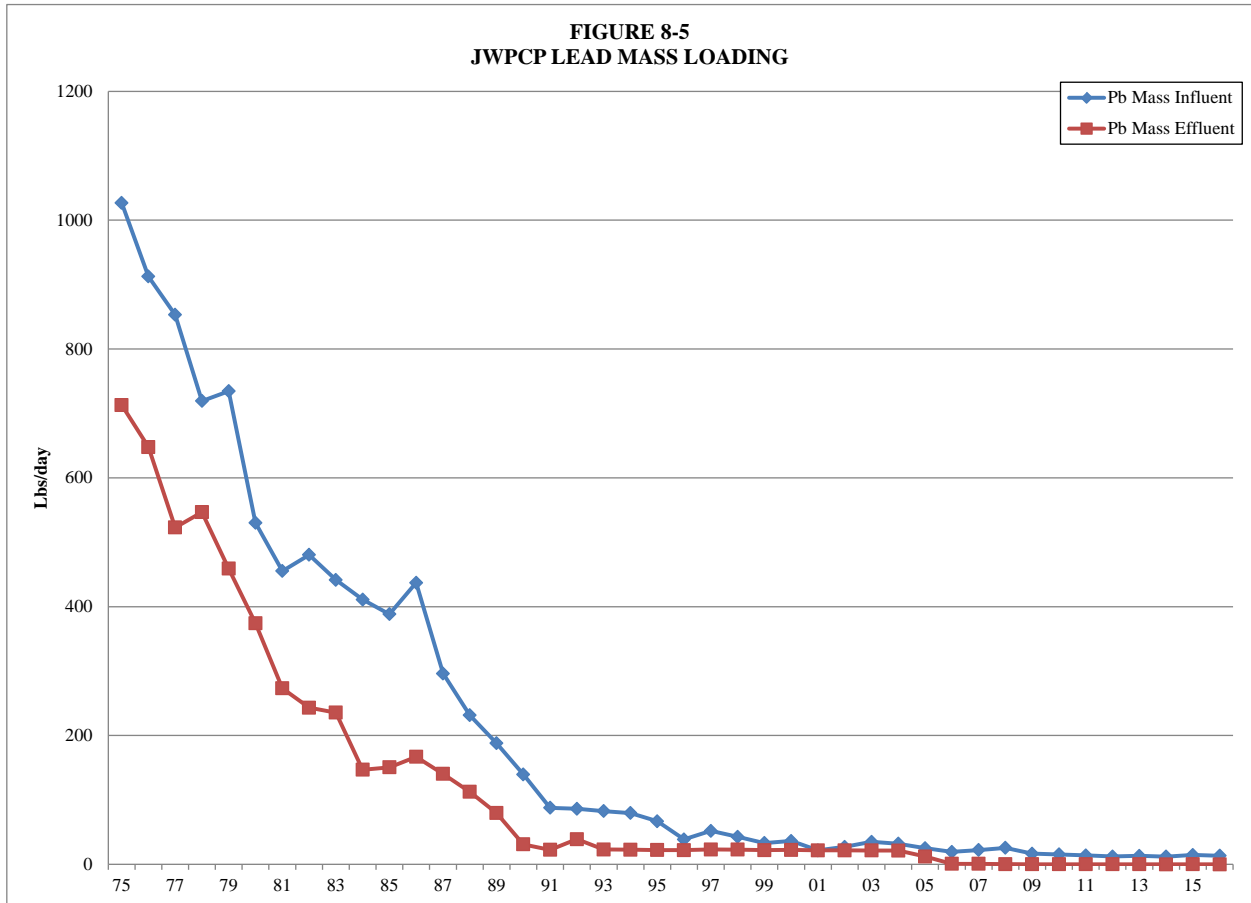
Apparent localized spikes in various years just represent variability in sample concentrations resulting from one or two outlying results increasing the overall average. However, it should be noted that there was no corresponding increase in the effluent copper levels. This year influent mass loading was about 315 pounds per day, a decrease of 75 percent from the 1975 level.



³ “Annual Water Quality Report, Water Quality Testing Performed for 2003, City of Downey Water System” The City of Downey supplies customers with groundwater with a non-detectable concentration of copper. The 90th percentile for at tap copper is 0.2 mg/L and reported as 0.35 mg/l for 2009.

Lead (Figure 8-5)

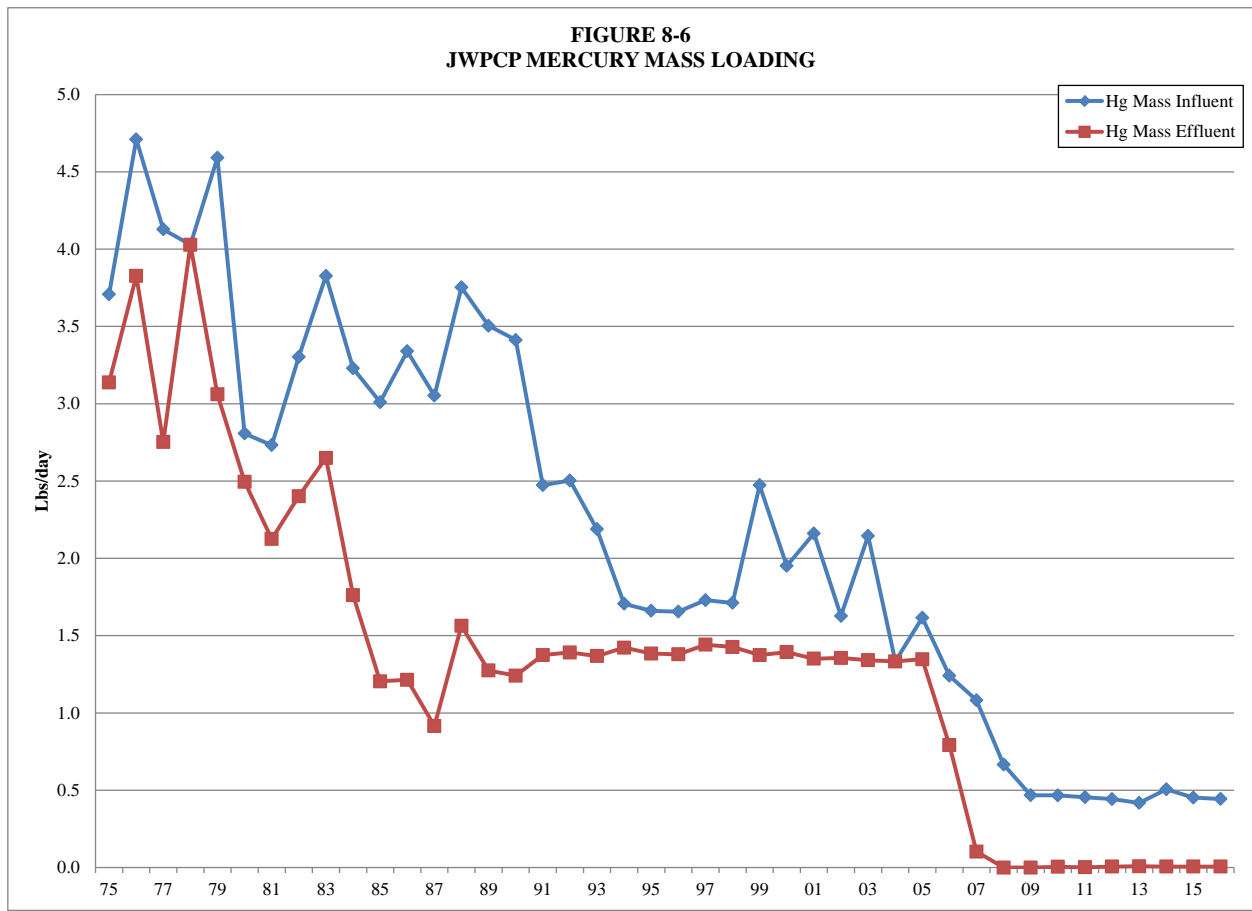
Similar to chromium and copper, the JWPCP influent lead loading has been decreasing since 1975. This year lead discharge of 13.4 lbs/day is about 1 percent of the 1975 level. This decrease can be partly attributed to the Sanitation Districts' implementation of the EPA Battery Manufacturing and Nonferrous Metals Manufacturing Categorical Pretreatment Standards. These standards include stringent lead limitations.



Mercury (Figure 8-6)

According to several Sanitation Districts' studies, non-industrial sources generate most of the mercury discharged to the sewers. The Phase I and EPA Categorical Programs have not significantly affected influent mercury mass loading to JWPCP. Concentrations of mercury in JWPCP influent are similar to those reported in EPA documents for domestic sewage. This year maximum influent mass loading was 0.44 pounds per day, a decrease of 88 percent from the 1975 level.

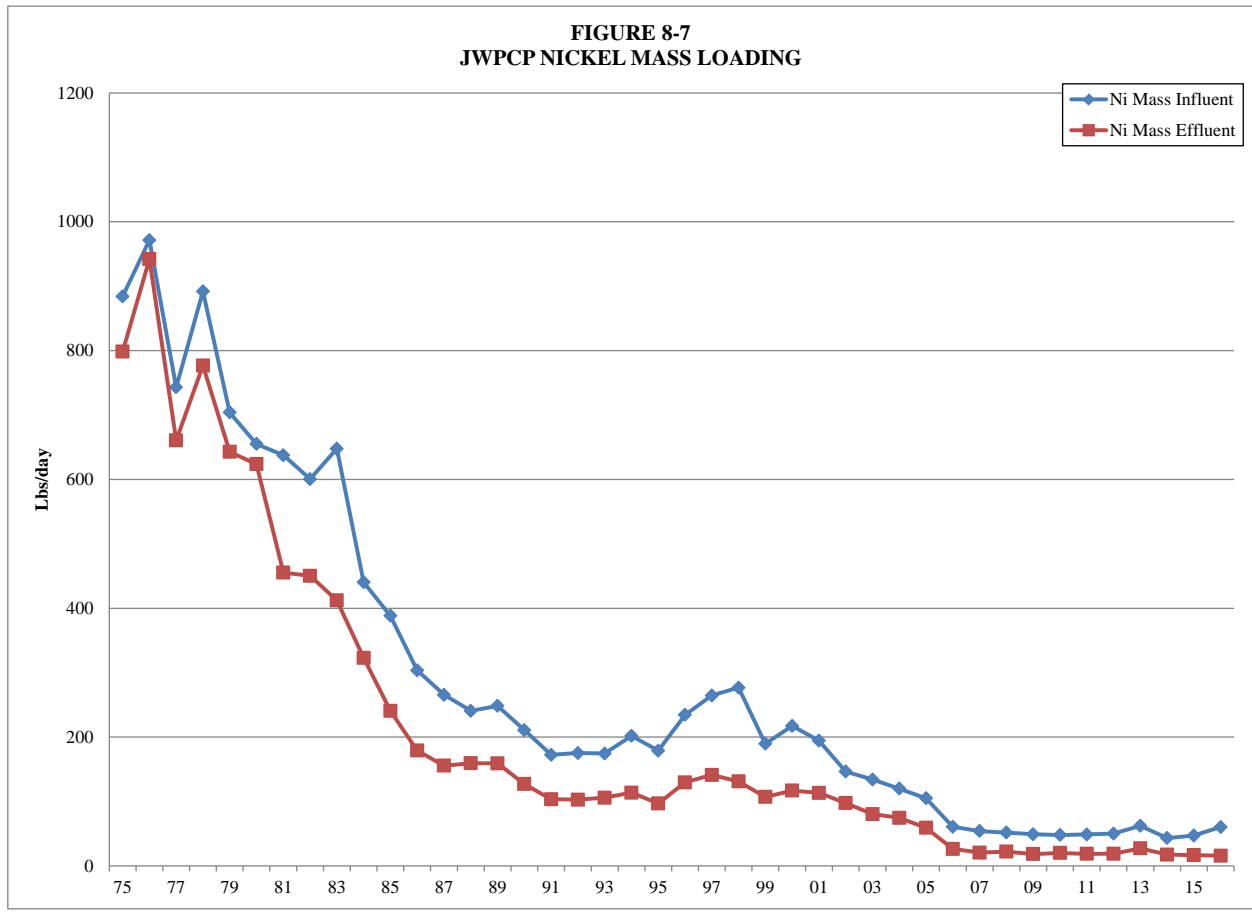
It should be noted that many sample results are non-detectable. It is difficult to detect mercury at low levels in raw sewage due to potential interferences. Additionally, due to the low level ubiquitous nature of mercury, sample contamination is a concern and clean sampling techniques have begun to be used. In that effluent loadings are calculated based upon non-detectable⁴ results, mercury levels throughout the years are maximums. Actual mercury loadings are expected to be lower. From 2007 to present, all effluent samples had non-detectable or detected, but not quantifiable results with a much lower reporting limit which accounts for the apparent step decrease.



⁴ Reporting limit = 0.0005 mg/L prior to 2006. In 2006, the reporting limit was decreased to 0.0003 mg/L and in 2007; the reporting limit was decreased to 0.00004 mg/L.

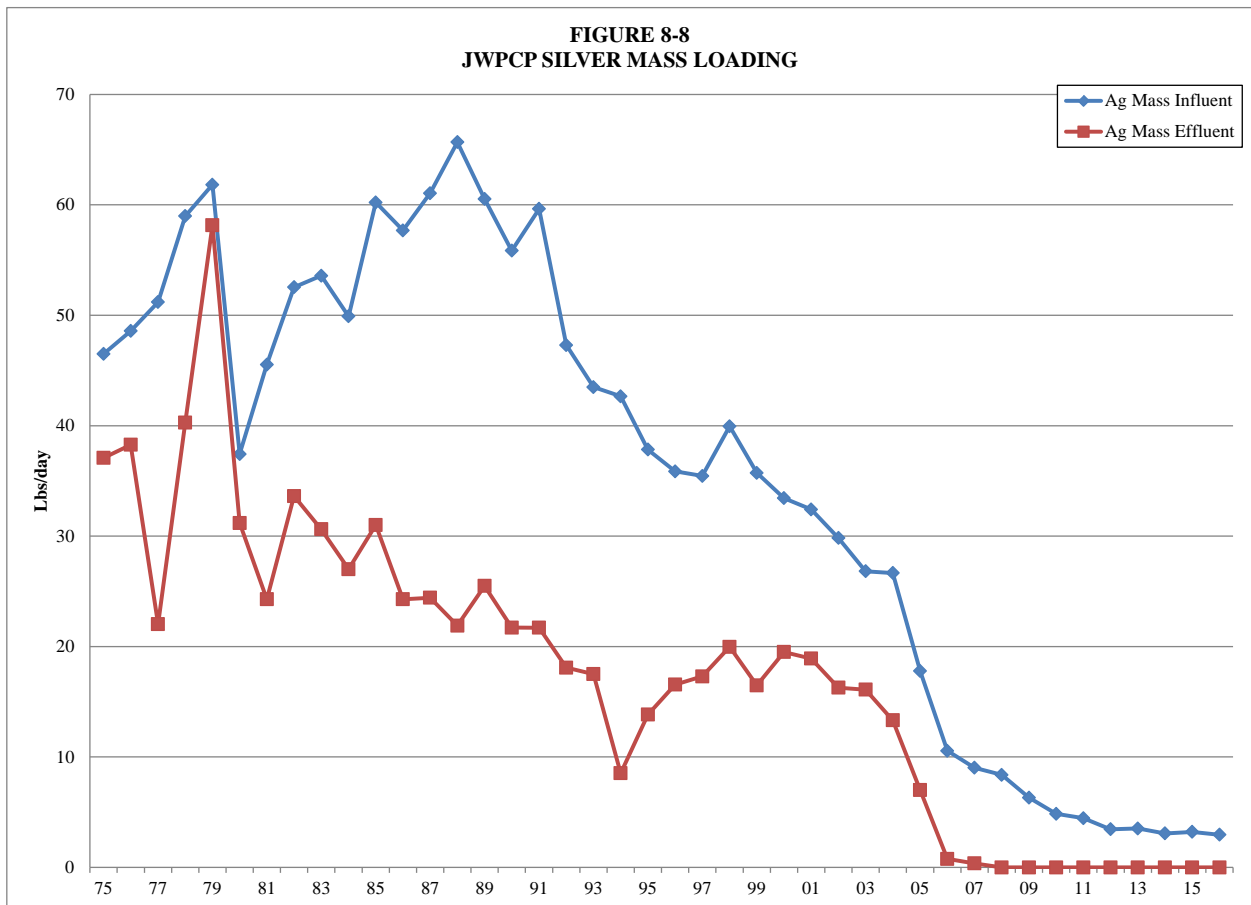
Nickel (Figure 8-7)

Prior to 1980, the Phase I program had minor success in reducing nickel discharge to the JWPCP. Since then, nickel discharges have shown a general decrease. This resulted from the closure of the Sanitation Districts' caustic and cyanide disposal stations at the JWPCP in 1980, from implementation of the EPA Categorical Program, and from stricter enforcement. This year influent nickel loading is only 7 percent of the 1975 loading.



Silver (Figure 8-8)

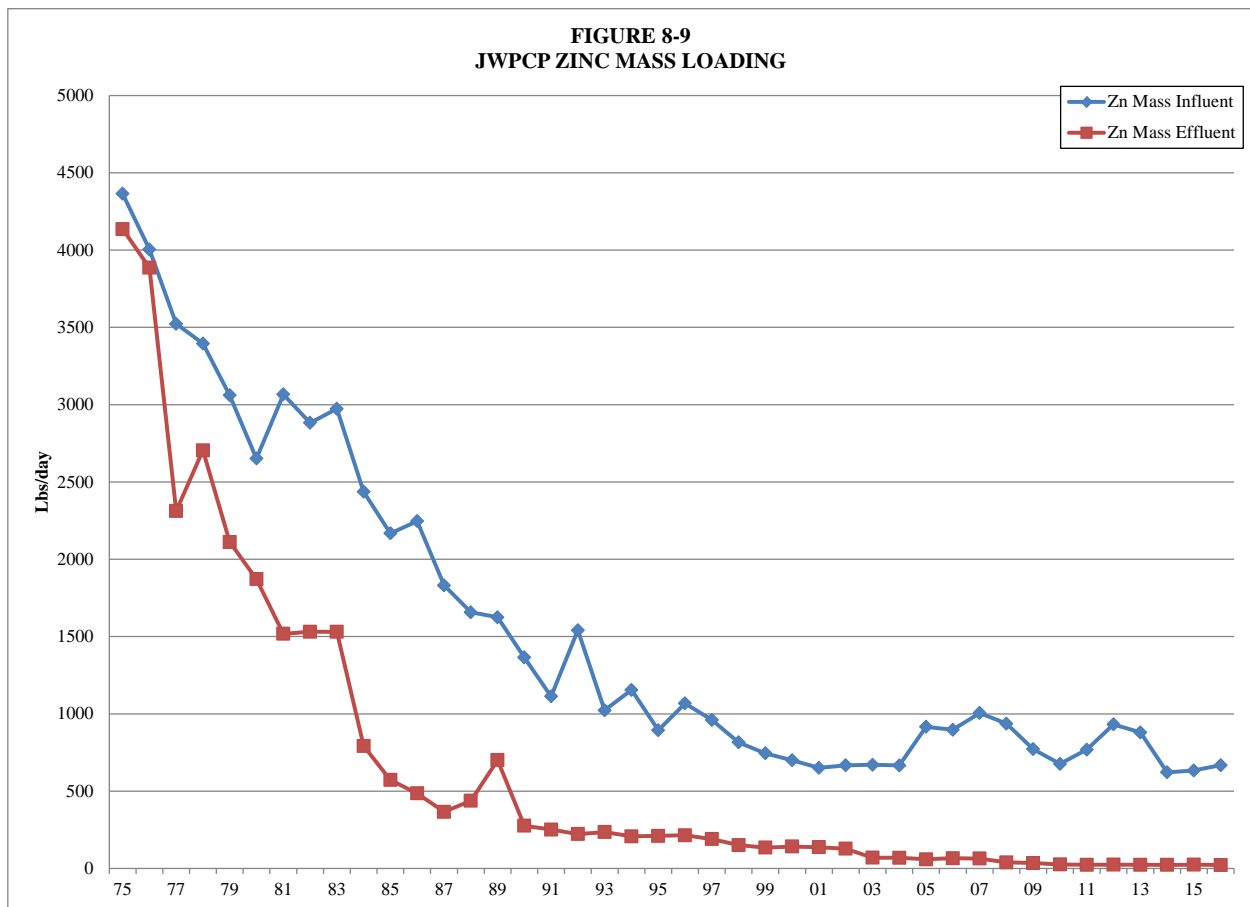
The influent concentration of silver at JWPCP is less than the current drinking water standard of 50 ug/L. It is thought that its minimal discharge is related to its intrinsic value as a precious metal. Nevertheless, JWPCP influent silver loading did increase slightly during the 1980s, which may have been indicative of lower silver prices. The Sanitation Districts' intensified inspection of printing shops and large dischargers of photographic developers is in part responsible for the decline in silver discharges to JWPCP. Additionally, photographic film development has been mostly replaced by digital photography by the general public significantly reducing the presence of silver discharges to the sewer. During this year, JWPCP influent loading for silver was 3.0 pounds per day.



Zinc (Figure 8-9)

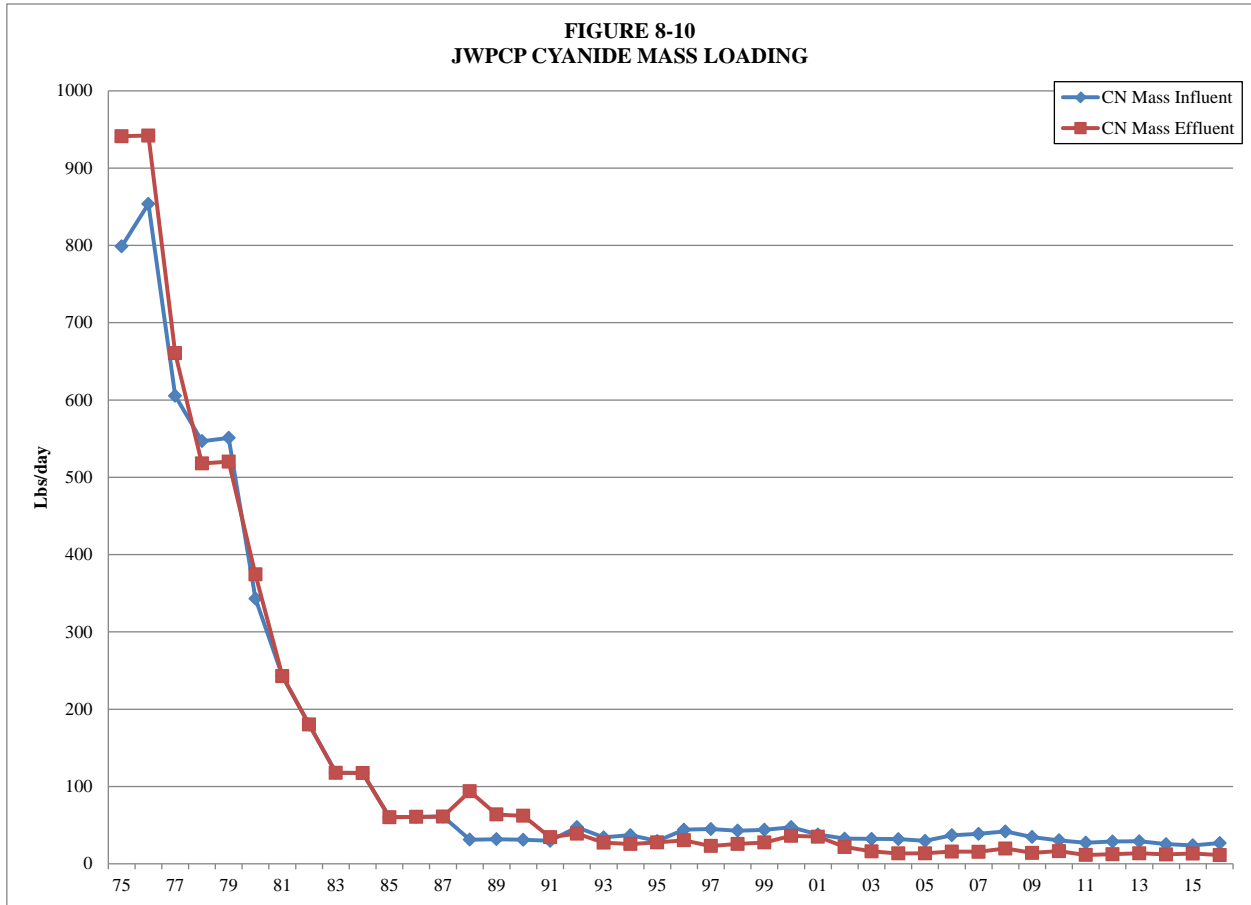
The Phase I limits have been very successful in reducing influent quantities of zinc; a decrease of approximately 40 percent was achieved by 1980. Zinc discharges have since generally continued to decrease. The increase in 1992 was due to one high influent zinc value, which skewed the annual daily average. During this year, the JWPCP influent zinc loading of 668 pounds per day was about 15 percent of the 1975 loading.

It is suspected that the majority of the influent zinc is from the water supply. The drinking water supply secondary limit for zinc is 5 mg/L. Water supply companies often use zinc orthophosphate as a corrosion inhibitor. During this year, the influent concentration was only 0.32 mg/L which can easily be attributed to the water supply.



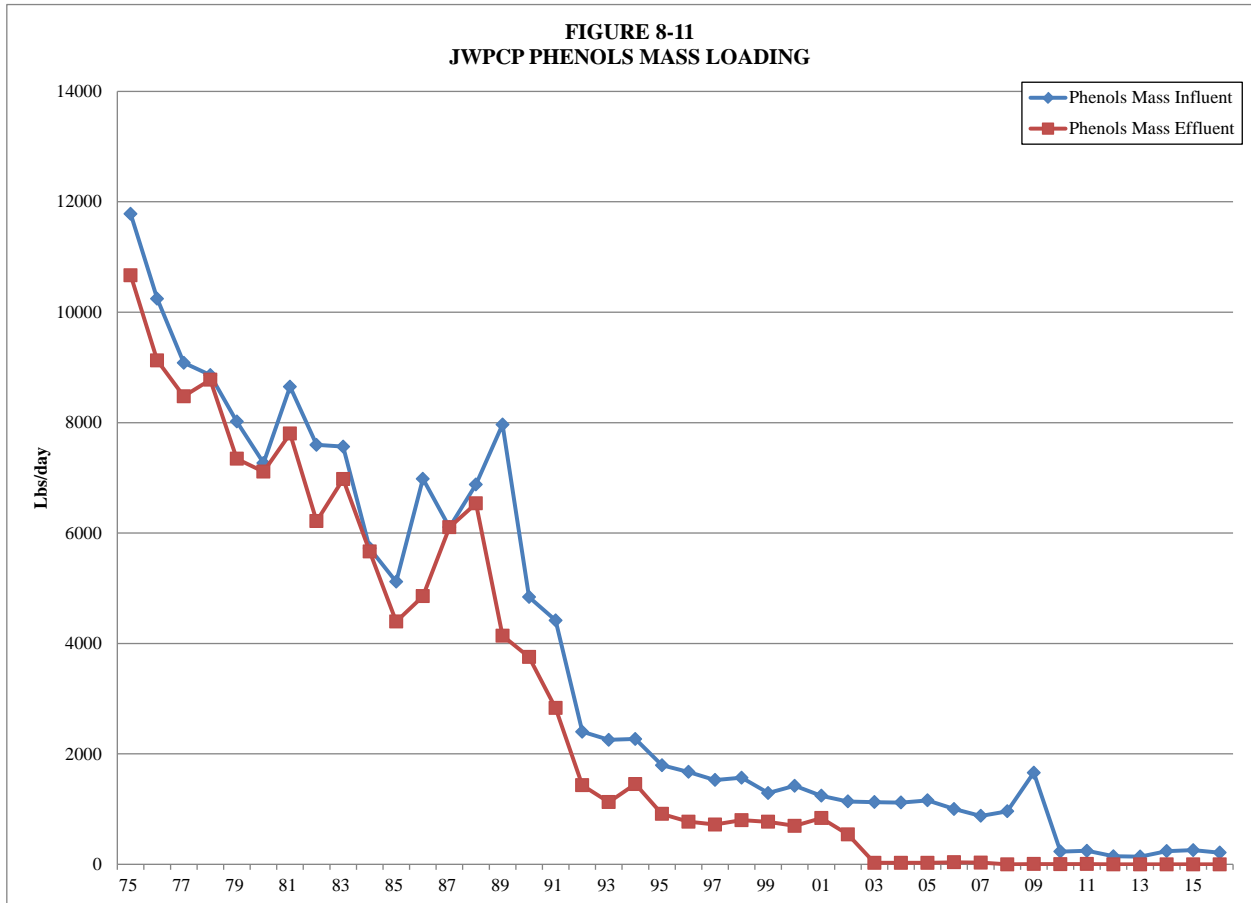
Cyanide (Figure 8-10)

Since 1975, cyanide quantities have decreased by 97 percent through source control efforts and closure of the cyanide disposal facility at JWPCP. Previously, the Sanitation Districts' cyanide disposal facility received approximately 400 pounds a day of cyanide. As of July 1, 1980, the Sanitation Districts permanently closed this facility. Also, numerous companies have installed cyanide destruction pretreatment equipment in order to meet the Phase I cyanide limit of 10 mg/L and, in most cases, the more restrictive EPA categorical limits. Some plating facilities are also substituting non-cyanide plating solutions for cyanide-based solutions.



Phenols (Figure 8-11)

It is estimated that 98 percent of the phenols discharged to the JWPCP originate from industrial sources (mainly petroleum refiners). Phenols mass loadings to the JWPCP have decreased by about 99 percent through the years. Of recent interest is the significant reduction in effluent phenols that has occurred since the operation of full secondary began at JWPCP in October 2002 with all results in this year being non-detected or detected, but not quantifiable.



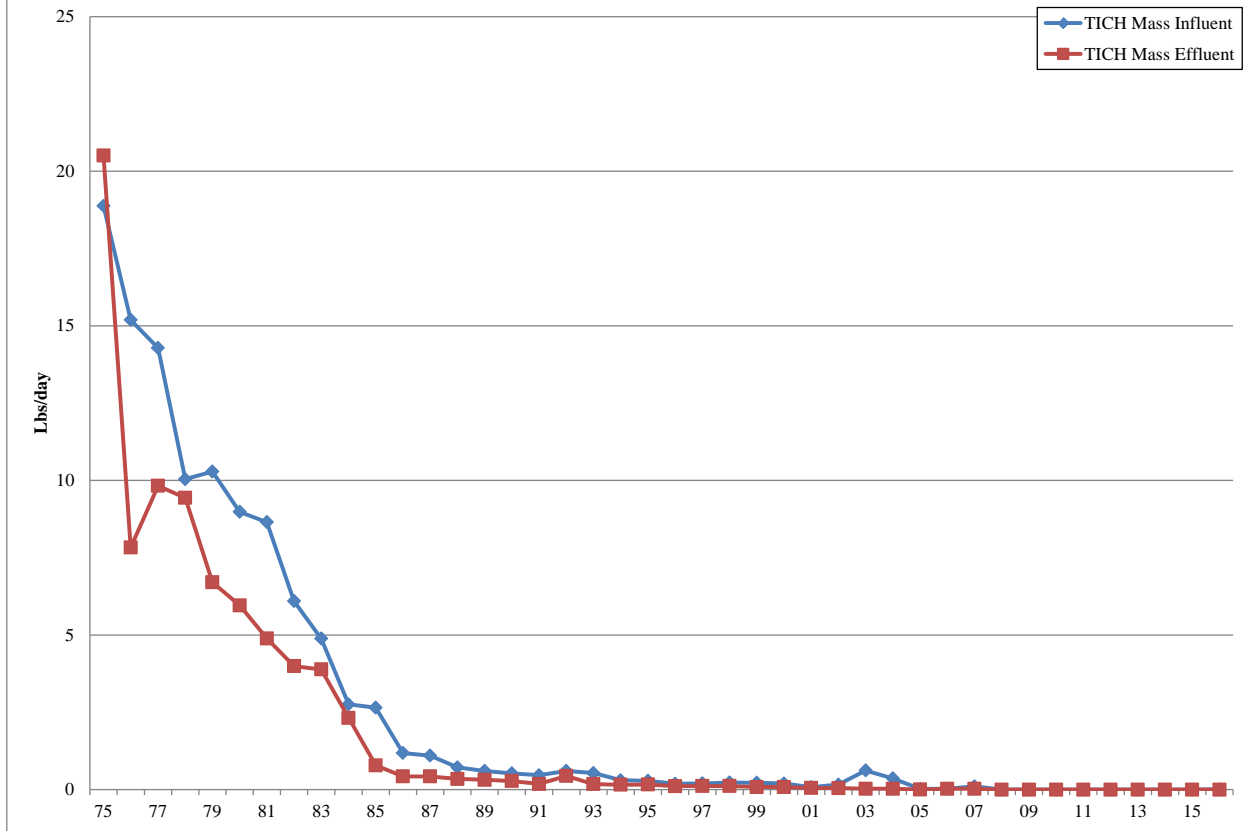
TICH (Figure 8-12)

The NPDES permit for JWPCP no longer contains a limit for Total Identifiable Chlorinated Hydrocarbons (TICH) but rather contains limitations for individual organic compounds of concern. However, since historical comparisons have been made regarding TICH it is appropriate to continue to do so. TICH was defined in the 1972 and 1978 versions of the SWRCB's "Water Quality Control Plan, Ocean Waters of California" (State Ocean Plan). In general, the parameter TICH is composed of three major components: (1) the pesticide DDT and its metabolites DDD and DDE, (2) polychlorinated biphenyls (PCBs), and (3) other chlorinated pesticides.

Prior to June 1, 1971, the principal discharger of DDT to the Sanitation Districts was the Montrose Chemical Company. Discharge of these wastes ceased in 1971. Although several sewer cleaning projects were undertaken in 1971 and 1972 to remove DDT-laden residues downstream of the Montrose facility, some materials remain. Resuspension of these fine sediments has resulted in detectable influent DDT concentration at JWPCP. However, as the DDT-laden residues have decreased in the ensuing years, resuspension has decreased. From 1974 to 1975, there was an approximate 50 percent decrease in DDT in JWPCP raw sewage directly attributable to this phenomenon. In 1980, excessive sewage flows from the heavy rainstorms that occurred are believed to have resuspended some of the DDT-laden sediments. Yet, no TICH increase was observed. In 1997, the Sanitation Districts concluded sediment cleanup activities (initiated in 1996) on the Sanitation Districts' J.O. "D" sewer to remove historic DDT deposits downstream of the Montrose Chemical Company connection.

PCBs, the other significant component of TICH, were used in a variety of industrial applications such as heat transfer fluids, dielectric fluids and ink for carbonless copy paper. The Sanitation Districts undertook extensive actions to curtail PCB discharges that mainly originated from paper companies using recycled carbonless paper and from drum reconditioning companies. These efforts proved successful. There were no detectable discharges of PCBs during this year.

**FIGURE 8-12
JWPCP TICH MASS LOADING**



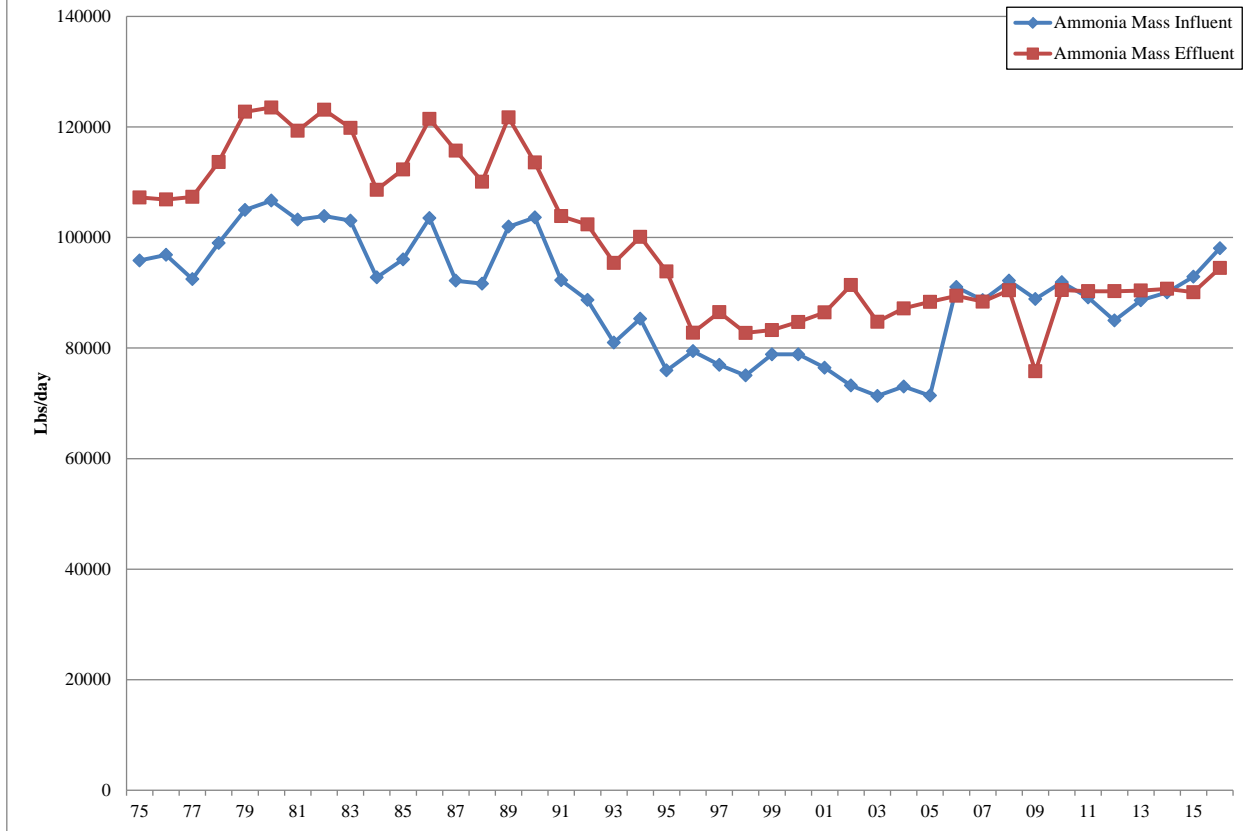
Ammonia (Figure 8-13)

The Sanitation Districts do not currently have a uniform local limit for ammonia. Several EPA categories are regulated for ammonia, including Petroleum Refining, Iron and Steel Manufacturing, Nonferrous Metals Forming, and Nonferrous Metals Manufacturing Categories. Of the companies regulated for ammonia by EPA, petroleum refineries are the major source, contributing up to 10 percent of JWPCP influent ammonia. The other EPA regulated sources contribute negligible amounts. The Sanitation Districts have set a pH limit at a non-categorical discharger that recycles metal finishing solutions to control the discharge of dangerous levels of ammonia fumes. As a result of this limit, the company's mass discharge of ammonia significantly reduced. Another non-categorical discharger that had produced cracking catalysts and was a significant contributor to influent ammonia loads at JWPCP has ceased discharge.

As shown in Figure 8-13, JWPCP influent ammonia loading has decreased over the past several years due to decreased flow and changes at industrial dischargers. The effluent for this year is 46.40 mg/L, which was slightly above the Sanitation Districts' effluent performance goal of 40 mg/L, which became effective October 1, 2011. The gradual rise, in both influent and effluent ammonia, over several years was investigated and reported to the LARWQCB in 2008. The report noted two factors that affected increases in ammonia: water conservation in the tributary service area and a small change in the ratio of ammonia nitrogen to organic nitrogen within the plant.

JWPCP's effluent ammonia concentration had been higher than its influent ammonia concentration. This higher effluent concentration results because, at JWPCP, conversion of organic nitrogen to ammonia nitrogen (in primary treatment) dominates conversion of ammonia nitrogen to nitrates (in secondary treatment). With the completion of full secondary treatment, the ammonia levels have risen as expected.

**FIGURE 8-13
JWPCP AMMONIA MASS LOADING**



C. BIOSOLIDS MONITORING

The 40 CFR Part 503 regulations contain standards for the use and disposal of sewage sludge applied to land, placed on a surface disposal site or fired in a sewage sludge incinerator. The Sanitation Districts are in compliance with the standards. The values provided in Table 8-2 are average concentrations of heavy metals found in biosolids cake at JWPCP. The biosolids cake meets the Table 3 criteria.

TABLE 8-2			
BIOSOLIDS CAKE CHARACTERISTICS, JWPCP			
Parameter	Biosolids Cake Concentration (mg/kg dry weight)	40 CFR 503 Table 1 Limits (mg/kg dry weight)	40 CFR 503 Table 3 Limits (mg/kg dry weight)
Arsenic	7.91	75	41
Cadmium	4.8	85	39
Copper	329	4,300	1,500
Lead	15.6	840	300
Mercury	0.88	57	17
Molybdenum	25.7	75	-
Nickel	40.6	420	420
Selenium	25.2	100	100
Zinc	792	7,500	2,800

As required by the Sanitation Districts' NPDES permits, priority pollutant monitoring of JWPCP solids was performed semiannually during the year. Samples were taken on January 5 and July 5, 2016. The detected priority pollutants, other than metals, are listed in Table 8-3. The metals values are included with the average results listed in Table 8-2. Actual sample results may be found in Appendix E. Biosolids monitoring results for the Valencia, Lancaster and Palmdale WRPs are also presented in Appendix E.

TABLE 8-3		
JWPCP BIOSOLIDS CAKE, DETECTED PRIORITY POLLUTANTS		
Parameter	January 5, 2016	July 5, 2016
	Concentration (mg/kg dry weight)	Concentration (mg/kg dry weight)
Total Solids (%)	28.7	28.5
Antimony	2.79	3.0
Arsenic	8.23	7.34
Cadmium	4.7	4.6
Total Chromium	57.1	52.6
Copper	311	350
Lead	13.1	15.4
Mercury	0.77	0.65
Nickel	36.5	36.7
Selenium	22.4	27.4
Silver	4.22	4.21
Zinc	757	809
Total Cyanide	1.56	6.42
Diethylhexyl Phthalate	57.5	36.5
PP'-DDE	0.032	ND

D. COMPLIANCE WITH DISCHARGE REQUIREMENTS

As defined in the General Pretreatment Regulations (40 CFR Part 403), an IU is said to have caused interference or pass through when its discharge caused or significantly contributed to a violation of an NPDES permit. During this year, there were no NPDES violations that were attributed to discharge from IUs.

There were 19 treatment plants incidents investigated by the I.W. Section during the year (see Table 8-4) ranging from slight fluctuations in pH to effluent foaming. The inspection staff also investigated 15 sewer incidents and 3 pump plant incidents reported by the Sanitation Districts' maintenance crews. There were 141 referrals investigated that were generated by calls from IUs, public agencies, citizens or news reports. Four surface discharge incidents were investigated; several of these

were performed in concert with other agencies. There were 50 referrals from the Sanitation Districts' Liquid Waste Disposal Station attendants to the Supervising IW Inspector II to determine if loads of septic waste should be accepted or rejected. A total of 221 incidents were investigated in during the year. Additional information on each incident is provided in Appendix H, Industrial Waste Reports on Incidents.

There were eleven occasions when the Supervising IW Inspector II approved one-time discharges of wastewater to permitted IUs for wastewater that was outside the approved descriptions of the industrial flow quality or quantity.

TABLE 8-4		
SUMMARY OF TREATMENT PLANT INCIDENTS		
Treatment Plant	Total Number of Incidents Reported	I.W. Incidents that may have contributed to a Violation of an NPDES Permit/ Date
JWPCP	2	0
La Cañada WRP	1	0
Lancaster WRP	1	0
Long Beach WRP	2	0
Los Coyotes WRP	6	0
Palmdale WRP	0	0
Pomona WRP	0	0
San Jose Creek WRP, East	2	0
San Jose Creek WRP, West	0	0
Saugus WRP	2	0
Valencia WRP	1	0
Whittier Narrows WRP	2	0
Total	19	0

E. MODIFICATIONS TO TREATMENT FACILITIES

There were no significant modifications to Sanitation Districts' facilities during the year.

F. MASS EMISSION BENCHMARKS

The JWPCP permit includes a requirement to calculate and report the annual mass emission of California Ocean Plan constituents in the annual pretreatment report and the annual receiving water report. The mass emissions are compared with calculated 12-month average mass emission benchmarks (MEB) provided in Table 4 of the Monitoring and Reporting section of the JWPCP permit. Text explaining the intent of the MEBs and the methodology used to determine them is included in the permit and is excerpted below:

To address relative changes in toxic pollutant loadings from the JWPCP discharge to the marine environment during the five-year permit term, and to collect information to determine compliance with State and federal antidegradation requirements when a subsequent permit is re-issued to the JWPCP, 12-month average mass emission benchmarks have been established for effluent discharged through Discharge Serial Nos. 001 and 002. The mass emission benchmarks (in metric tons per year; MT/yr) for the JWPCP discharge were determined using November 2002 through August 2005 effluent concentrations and the Discharger's projected end-of-permit flow (2006) of 338 MGD (Q). If more than 80 percent of effluent data were nondetect, the pollutant concentration (Ce) associated with the reporting limit reported in the 2004 Annual Report was used to calculate the mass emission benchmarks. If 20 percent or more of effluent data were detected, the pollutant concentration (Ce) associated with the 95th percentile (at upper 95 percent confidence bound) was used to calculate the mass emission benchmarks. The following equation is used for the calculation:

$$\text{MT/yr} = (\text{Ce ug/l}) (\text{Q } 10^6 \text{ gal/day}) (3.785 \text{ l/gal}) (365 \text{ days/yr}) (1 \text{ MT}/10^{12} \text{ ug})$$

These mass emission benchmarks are not enforceable WQBELs. They may be re-evaluated and revised during the five-year permit term.

Table 4-6 of the JWPCP Annual Monitoring Report (Appendix I of this Report) lists each constituent with a specified MEB in the permit, and shows the concentration and flow used to determine the 12-month mass emission rate. The concentrations used for these calculations for the year were the annual calculated average, as is reported for each constituent in the effluent summary in Table 4-3 of the JWPCP Annual Monitoring Report. For constituents with only detected results all above the Reporting Limit (RL) this is the straight numeric average. For constituents with some detected results, and some results that were either not detected (ND) or detected but not quantified (DNQ), values of zero are substituted for ND and DNQ results when the average is calculated. If only ND results are present then the annual average for the constituent is reported as ND. For summed constituents that are determined to be ND because all sub-constituents are ND, the summed constituent values for the month were treated as zero in preparing the average.

During the year, of the 83 constituents listed in Table 4 of the permit, 54 were never detected, 10 were sometimes detected, and only 16 were always detected (three additional constituents; acute and chronic toxicity and radioactivity were listed, but were not assigned MEBs and are not amenable to the mass emission analysis approach). In the year, no constituents with a 12-month average MEB had a calculated mass emission rate greater than the benchmark.

9 SIGNIFICANT ACHIEVEMENTS/CHANGES

The Sanitation Districts' industrial wastewater pretreatment program is constantly undergoing changes to accommodate new federal and state requirements and to implement procedures that are more efficient. Most of the changes have been discussed in appropriate sections of this report. Other developments and achievements that deserve mentioning are detailed in this section.

A. PUBLIC PARTICIPATION

The Industrial Waste Section staff continues to be active in providing technical information to the public and other sewerage agencies and educating the public on issues concerning industrial wastewater regulation, management and treatment. Listed below are some of the activities that took place during the year.

- Senior Inspector Steve Sealy was a member of the 2016 CWEA Pretreatment, Pollution Prevention and Stormwater (P3S) Southern California Industrial Facility of the Year subcommittee which solicits nominations for, evaluates and presents awards annually to industrial companies for outstanding and innovative achievements in the areas of environmental protection and industrial wastewater control. The awards were presented at the CWEA P3S conference in Santa Rosa on February 28, 2017.
- CWEA Pretreatment, Pollution Prevention, and Stormwater Committee's Facility of the Year Award for 2016: Inspector Greg Neunsinger nominated Ameripride Uniform Services, Inc. in the city of Vernon for the award and they won in the Southern California large industry category. Inspector Jason Finn nominated US Corrugated of Los Angeles, as well as G & K Services, both located in the city of Santa Fe Springs. US Corrugated won in the Southern California small industry category. It was the first time since 2003 that facilities within the Sanitations Districts' service area swept both the small and large facility winner awards.
- Senior IW Inspector Kent McIntosh gave a special training presentation on January 26, 2016 sponsored by the CWEA's Pretreatment, Pollution Prevention and Stormwater Committee titled "Pretreatment Compliance Sampling". The training covered identifying proper sampling locations, selecting proper personal protective equipment (PPE), selecting proper containers based on the parameters being tested for, proper preservation and transportation, field analyses, grab vs. composite and representative sampling techniques, split sampling, and QA/QC. Following the sampling training Kent hosted a short discussion of recent changes and updates to the CWEA Environmental Compliance Inspector (ECI) Technical Certification Program, especially as applied to the higher Grade 3 and 4 tests.
- Supervising IW Inspector David Sanchez and two other Districts' employees staffed a booth at the city of Glendora's Earth Day celebration on Saturday, April 16, 2016. Handouts and general information were provided to attendees. Sanchez reported he had discussions with many attendees as well.
- In August 2016, Senior Inspector Bill Barnum assisted Chairperson Sophia Luu of the Technical Certification Program for the Los Angeles Basin Section of the CWEA, in organizing a full-day of CWEA certification exam preparation classes held to assist inspectors and related professionals in the wastewater industry from throughout the state in passing

CWEA certification exams. The classes covered the vocations of Collection System Maintenance Operator, Plant Maintenance, Mechanical Technologist, and ECI.

- Senior Inspector Kent McIntosh moderated several CWEA ECI Technical Certification Program exam review sessions on throughout 2016 in various Southern California locations.
- Senior IW Inspectors Kent McIntosh and Steve Sealy, as well as IW Inspectors Kristopher McGinnis and Peter Carlstrom, participated on a special CWEA ad-hoc committee tasked with evaluating, reviewing, and rewriting the existing CWEA ECI certification grade 3 and 4 exams. This participation included hosting two meetings of the committee at the Districts' main JAO facility in August and October of 2016.
- Significant Non-Compliance (SNC) Seminars were held on March 16, 22, and 24, 2016 at each seminar, Senior Engineer Jyoti Banaji gave a presentation to a group of industrial representatives to explain the numerical and non-numerical criteria contained in Federal Register 40 CFR Part 403.8 (f)(2)(viii). The attendees were provided the general guidelines and were educated on how to avoid being listed as SNC. The two seminars were well attended and were very well received.
- On May 14, 2016, Civil Engineer Preeti Ghuman staffed a booth at the Annual Castaic Lake Water Agency open house where the Sanitation Districts' water reclamation activities and chloride discharges to the Santa Clara River were discussed. Particular attention was paid to the on-going water softener rebate program and the ban on Automatic Water Softener. There were approximately 1,000 attendees at this event. All local water purveyors were represented, which included the Newhall Company Water District, CLWA Santa Clarita Water Division and Valencia Water Company.
- Senior Inspector Kent McIntosh and Inspector Kristopher McGinnis represented the Sanitation Districts on September 10, 2016 at the annual Metal Finishing Association of Southern California (MFASC) trade show held in Montebello, CA. Materials and brochures covering topics such as the Sanitation Districts' "No Drugs Down the Drain" program, water reuse and recycling, landfill operations, and the general mission of the Sanitation Districts were distributed. McIntosh and McGinnis fielded many questions from trade show participants about the Districts' Pretreatment Program. The metal finishing industry is generally highly regulated by local pretreatment programs such as the one administered by the Sanitation Districts.
- On September 17, 2016, Civil Engineer Preeti Ghuman staffed a booth at the 20th Annual River Rally. There were approximately 1,500 attendees at this event, which was sponsored by the City of Santa Clarita. She distributed information on the Automatic Water Softener Rebate Program—Phase II, informed visitors of the ban on residential AWS, and answered questions.
- Civil Engineer Preeti Ghuman and Supervising Inspector John Boyd gave a joint presentation titled "Getting the Salt Out: Convincing Residents to Remove Automatic Water Softeners" at the NACWA Pretreatment and Pollution Prevention Workshop and Training in Long Beach on May 18, 2016. The presentation recounted the history and technical basis for the banning of home self-regenerating water softeners in the Santa Clarita Valley Sanitation District. The presentation gave details on the development and application of the ongoing home inspection program by Districts' IW inspectors. The goal of these inspections is the removal of all self-regenerating water softeners from homes whose sewage discharge is tributary to the Districts' water reclamation plants in the Santa Clarita Valley. There were approximately 200 people in attendance.

- Civil Engineer Preeti Ghuman gave a presentation titled “Pesticides and POTWs: Opportunities and Challenges” at the 252nd American Chemical Society National Meeting and Exhibition in Philadelphia, PA on August 25, 2016. The presentation discussed conventional wastewater and biosolids treatment, variations in POTWs, how POTWs are regulated, intentional and unintentional pesticide sources to POTWs, pesticide compliance problems, and opportunities for improvement in the pesticide regulatory process. Approximately 30 people were in attendance. She also participated in a panel discussion with other session presenters in the afternoon.
- Senior IW Inspector Steve Sealy and Inspector Greg Neunsinger participated in an environmental expo at AmeriPride Uniform Services on February 18, 2016 in Vernon, CA. AmeriPride showcased electricity saving changes they have made at their facility and their new electrically-powered delivery trucks. The company has received grants and funding from several sources, including the City of Vernon, to custom-build 20 of the all-electric delivery trucks and is very proud of this accomplishment. The company also announced their plan to install a large solar power array on their roof to further reduce their use of energy from the grid.
- Civil Engineer Chris Herbeck attended the 2016 Statewide Environmental Summit of the San Diego Industrial Environmental Association, October 5-6, 2016. The Conference was also co-sponsored by the California Manufacturers & Technology Association. The Sanitation Districts Industry Advisory Council/IAC strongly supports the Industrial Environmental Association of San Diego in serving the industrial community.
- Supervising Inspector John Boyd arranged the annual CWEA Los Angeles Basin Section (LABS) industrial facility tour held on October 13, 2016, at Bridge Publications Inc. in the City of Commerce, California.

B. CHLORIDE SOURCE CONTROL

During the year, the SCVSD continued to conduct extensive chloride source control efforts. The purpose of the chloride source control program is to reduce the concentration of chloride discharged by the Sanitation District’s Saugus and Valencia WRPs. These treatment plants discharge to the Santa Clara River, which has been listed by the State of California as being impaired for chloride.

Industrial Source Reduction

The Sanitation District has permitted 87 facilities in the Santa Clarita Valley. To reduce the amount of chloride discharged from these sources, a local limit for chloride was established for the IUs in mid-2002. Because the Sanitation District currently exceeds the desirable chloride discharge concentration at the Saugus and Valencia WRPs, the traditional local limits analysis process could not be used.

In 2002, the Sanitation District systematically implemented more stringent chloride limitations on industry in the Santa Clarita Valley. The purpose of the new limitations was to ensure that industrial saline discharges were being controlled to the extent technologically and economically feasible. At this time, all industrial dischargers in the Sanitation District’s sewerage system were assigned a chloride limit or required to develop a Chloride Reduction Work Plan, or both. The target chloride limit for every industrial discharger was 100 mg/L, which is the current water quality objective for the upper Santa Clara River. A 100 mg/L chloride limitation was imposed on all industrial wastewater discharge

permits (Discharge Permits) that had historical chloride discharge concentration at 100 mg/L or below. The purpose of the limit was to ensure that these facilities maintained their current discharge levels. Thirty-nine permits were initially assigned the 100 mg/L limit.

It was recognized, however, that it might not be technologically or economically feasible for all facilities to meet the target 100 mg/L limit. Therefore, facilities with a history of discharging greater than 100 mg/L were given an option. They could either meet a 100 mg/L chloride limit, or submit a Chloride Reduction Work Plan detailing all technologically and economically feasible steps to reduce chloride in their discharge.

Once submitted, Sanitation District's staff evaluates Chloride Reduction Work plans. Each permit is assigned a specific performance-based chloride limit, which reflects the allowable chloride concentration after all technologically and economically feasible chloride reduction measures have been implemented. Many facilities have stated that they are not adding a significant amount of chloride to the wastewater but they are unable to meet the 100 mg/L chloride limit due to the amount of chloride supplied in the potable water. In these cases, the Sanitation District estimates the potable water chloride concentration delivered to the facility based on water purveyor data. The Sanitation District uses the information in the Chloride Reduction Work Plan and from the water purveyor to calculate the performance-based chloride limit.

To ensure compliance with the chloride limits, the Sanitation District samples these facilities for chloride on an on-going basis, and requires self-monitoring at most of the facilities in the Sanitation District. The only facilities for which self-monitoring for chloride is not required are municipal swimming pools and recreational vehicle sanitary waste disposal stations.

All new permits are issued a 100 mg/L chloride limit unless the company requests to submit a Chloride Reduction Work Plan.

Commercial Source Control

Because of the large number of commercial establishments on the Sanitation District's sewerage system and the resulting difficulty in establishing limits and sampling locations for all of the establishments, a Best Management Practices (BMP) approach was taken in dealing with the commercial businesses. The approach consisted of two main strategies; enforcing an existing prohibition on the discharge of brines from AWS, and development and implementation of other BMPs that reduced chloride discharges to the extent technologically and economically feasible.

Since 1962, businesses connected to the Sanitation District have been prohibited from discharging brines from AWS. The Sanitation District continues to inspect commercial businesses to ensure compliance with the AWS prohibition. On average, approximately 200 businesses are inspected each year. The Sanitation District intends to continue to review business listings periodically to identify new businesses or existing businesses under new ownership that might not be aware of the prohibition on AWS.

Residential Source Reduction

The cornerstone of the Sanitation District's residential chloride source reduction efforts is the adoption of an Ordinance in February 2003 prohibiting the installation of AWS in residences, after an extensive investigation found them to be the primary source of added chloride in this community's wastewater. The Ordinance was the first ordinance of its kind passed under a restrictive California law and served as a model for other communities dealing with salt management. The Ordinance was

complemented with community public outreach efforts and the Sanitation District, working in conjunction with the LARWQCB and the City of Santa Clarita, obtained a voluntary agreement from local retailers to no longer sell AWS. In 2005, the Sanitation District adopted an Ordinance prohibiting new saltwater pool connections to the sewer system and making it illegal to convert swimming pools connected to the sewer system to saltwater pools. The Sanitation District also began the AWS Rebate Program—Phase I in late 2005 to provide a financial incentive to residents to remove their AWS. On May 1, 2007, the Sanitation District launched the AWS Rebate Program—Phase II. This program provides residents with compensation for the reasonable value of their AWS and for free removal and disposal of their unit if specific plumbers are used.

In 1999, Senate Bill 1006 (Statutes of 1999, Chapter 969) was enacted, but it did not take effect until January 1, 2003. Among other things, the bill amended the California Health and Safety Code Section 116786 to establish new conditions under which a local agency could regulate AWS. In February 2003, the Sanitation District adopted an Ordinance in accordance with SB 1006 that prohibited the installation of new residential AWS in the SCV after March 27, 2003. However, SB 1006 did not allow a local agency to adopt an ordinance requiring the removal of AWS that were installed prior to the effective date of the Ordinance.

In 2006, to facilitate the timely removal of all residential AWS, the Sanitation District and the City of Santa Clarita worked with Senator George Runner (17th Senate District) on the enactment of Senate Bill 475 (SB 475). The bill added Section 116787 to the California Health and Safety Code¹ to provide the Sanitation District with the authority to adopt an ordinance to require the removal of all previously installed residential AWS if specific findings are met. This is a special statute applicable only in the SCV due to the unique circumstances associated with the requirements for reductions of chloride in order to attain water quality standards in the Santa Clara River. Because of concerns expressed during the legislative process about requiring residents and businesses (i.e., AWS rental companies) to remove equipment legally purchased, installed, and operated and the attendant loss of use and capital investment that would be associated with such a new requirement, the bill carefully balanced the rights of AWS owners in the SCV with the desire to expeditiously and cost-effectively reduce chloride levels of wastewater.

Prior to the adoption of an ordinance prohibiting AWS, the statute required that the Sanitation District make a finding that the removal of residential AWS is a necessary and cost-effective means of achieving timely compliance with waste discharge requirements, water reclamation requirements, or a Total Daily Maximum Load (TMDL). In addition, the Ordinance to require removal must be approved in a referendum by a majority vote of the qualified voters prior to taking effect and the Ordinance could not take effect prior to January 1, 2009.

The statute required a phased voluntary and mandatory program to compensate residents for the reasonable value and cost of removal and disposal of the AWS unit. Under the voluntary program offered prior to the effective date of the Ordinance, residents would be compensated for 100 percent of the reasonable value of the removed appliance; under the mandatory program after the effective date of the Ordinance, the compensation would be at the 75 percent level. This differential compensation rate was intended to provide an incentive for owners to remove their units sooner, prior to a mandatory removal program going into effect. Compensation is required to be made available if the owner disposes of the unit and provides written confirmation of the disposal. In determining reasonable value of residential AWS, the statute required the Sanitation District to consider information provided by manufacturers of residential AWS and providers of water softening or conditioning appliances and services in the

¹ The bill was passed by the Legislature on August 31, 2006, and signed into law on September 22, 2006, (Statutes of 2006, Chapter 393).

Sanitation District's service area regarding purchase price, useful life, and the cost of installation, removal, and disposal. For rental units, the statute allows owners to voluntarily waive the 100 percent or 75 percent compensation and allows them to avoid the disposal requirement (and retain ownership of the units for salvage or reuse elsewhere) if the owner provides written confirmation that the appliance has been removed from the home for use in a location outside the Sanitation District's service area.

On April 11, 2007, the Board of Directors of the Sanitation District authorized the Chief Engineer and General Manager to implement the new incentive program for voluntary removal of AWS in accordance with SB 475 and newly acquired AWS sales information.

The AWS Rebate Program—Phase II was launched on May 1, 2007. The program provided residents with compensation for the reasonable value of their AWS and for free removal and disposal of their unit if specific plumbers were used. From May 1, 2007, to December 31, 2008, rebates for 100 percent of the reasonable value of AWS were offered. Rebates of \$325 to \$2,000 per AWS were offered for the removal and disposal of non-rental AWS from within the Sanitation District's service area from May 1, 2007, to January 31, 2008. On February 1, 2008, the minimum value of the rebates was reduced to \$275 to account for the additional depreciation of the AWS. From February 1, 2008, to December 31, 2009, rebates from \$275 to \$2,000 were offered for the removal and disposal of non-rental AWS installed prior to March 2003.

In order to expedite removal of rental AWS, the Sanitation District developed contractual agreements with Rayne Dealership Corporation, Culligan Water Conditioning of Orange County, and Guaranteed Water Systems, Incorporated. The agreements provided compensation for eligible units that were removed, disabled, and surrendered to the Sanitation District within the allocated time period. From August 2007 to December 2013, a total of 838 rental AWS were removed as a result of these agreements.

The Sanitation District's Board of Directors introduced the *Santa Clara River Chloride Reduction Ordinance of 2008* (Ordinance) on May 27, 2008, and it was adopted on June 22, 2008. The Ordinance was supported by the requisite findings detailed in the *Staff Report in Support Of Findings Necessary for Adoption of an Ordinance Pursuant to California Health and Safety Code Section 116787, with Addendum*. The Ordinance appeared as Measure "S" on the November 4, 2008 ballot. It was approved by 64 percent of the voters on November 4, 2008, and the Ordinance took effect on January 1, 2009.

On January 1, 2009, the Sanitation District began to compensate owners of residential AWS for 75 percent of the reasonable value of their AWS and for free removal and disposal of their unit if specific plumbers were used. From January 1, 2009, to August 31, 2012, rebates of \$206 to \$2,000 were offered for the removal and disposal of non-rental AWS from within the Sanitation District's service area. The Ordinance required the removal and disposal of all existing AWS installed in the Sanitation District's service area by June 30, 2009.

In 2016, the Sanitation District removed 62 AWS from the SCV. As a result of the AWS Rebate Program Phases I and II and the rental agreements, 8,327 AWS have been removed from the Sanitation District's service area from November 30, 2005, to December 31, 2016.

On October 18, 2010, the District's Board of Directors approved a plan to remove the remaining AWS in the District's service area. The plan included continued sampling, on-going public outreach, reduced rebates, voluntary home inspections, and enforcement actions if AWS are found. Following adoption of the plan, District staff worked to develop the necessary documents, procedures, and public outreach materials for the Ordinance Enforcement Program and sought input on the proposed program from the City of Santa Clarita and County of Los Angeles staff.

On August 3, 2011, the District launched the Ordinance Enforcement Program by mailing approximately 2,500 letters to residents suspected of having illegal AWS. On August 4, 2011, the District issued a press release announcing the start of the Ordinance Enforcement Program. In addition, the District ran a half-page black and white advertisement on Friday, August 5, 2011; and half-page color advertisements on Sunday, August 14, 2011; and Sunday, September 11, 2011 in *The Signal*.

As a result of the Ordinance Enforcement Program letters, press release, and advertisements, the District received approximately 975 Automatic Water Softener Rebate Program Application Forms and Automatic Water Softener Questionnaires. Due to the higher than expected response to the letters, the District decided to postpone additional Ordinance enforcement actions until 2012 to allow sufficient time to process the application forms and questionnaires and allow residents time to remove their units.

Sanitation District staff processed the Automatic Water Softener Program Application Forms per the normal procedure. Sanitation District staff also evaluated the responses on the Automatic Water Softener Questionnaires and determined which residents needed further follow up with a home inspection. Furthermore, Sanitation District staff randomly selected ten percent of the residences that submitted questionnaires for home inspections in order to spot check the information provided on the forms.

On September 1, 2012, the Sanitation District reduced the minimum rebate amount to \$150 to account for additional depreciation of the units. From September 1, 2012 to March 26, 2015, rebates of \$150 to \$2,000 were offered for the removal and disposal of non-rental AWS from within the Sanitation District's service area. Since March 27, 2015, rebates of \$150 have been offered. The Sanitation District discontinued picking up units from homes on February 6, 2016. Since February 7, 2016, residents must use a plumber of the List of Approved and Licensed Plumbers to dispose of the unit. The plumber is paid by the Sanitation District.

Since the Sanitation District had not inspected homes previously, Sanitation District staff decided to conduct a pilot scale home inspection program in October 2012. The pilot scale home inspection program consisted of Industrial Waste Supervising Inspectors visiting homes in three different geographic areas in the Santa Clarita Valley during three different times of the day/week (once during work hours, once during evening hours, and once on Saturday) to examine if certain times/days were more successful and to preview resident reactions to home inspections.

The press release for the pilot scale home inspection program was distributed on October 3, 2012. The Sanitation District also ran two color full page (10 inches by 21 inches) advertisements in *The Signal* on October 4, 2012 and October 7, 2012 to inform residents that home inspections would begin in October 2012. In addition, Sanitation District staff developed a fact sheet to hand out to residents during the pilot scale home inspection program.

The home inspections were conducted with two Supervising Industrial Waste Inspectors during the day on Wednesday, October 10, 2012 from 9:30 a.m. to 3:30 p.m., Saturday, October 13, 2012 from 10:00 a.m. to 5:00 p.m., and in the evening on Wednesday, October 17, 2012 from 5:00 p.m. to 8:30 p.m. During the home inspections, Sanitation District staff introduced themselves, stated why the Sanitation District believes that the home may have an AWS, and inquired if the resident would allow a home inspection of the garage and side of the home. The home inspections were "voluntary" since the resident must give consent for the home inspection. If the resident did not agree to a home inspection, the Sanitation District documented the response, left the premises, and will subsequently determine follow up options. Sanitation District staff documented all responses by the residents on the Automatic Water Softener Inspection Form.

Overall, during the pilot program 101 homes were visited. Residents answered the door at 55 homes (54%) and voluntary home inspections were conducted at 38 homes (69% of the homes that residents opened the doors; 38% of the total number of homes visited). Approximately, 25 AWS were found during the home inspections (45% of the homes that residents opened the doors); sixteen AWS were verified by the Inspectors and an additional nine residents admitted to having AWS but did not allow an inspection. The Saturday inspections appeared to be most productive with 68% of the residents answering the doors and 72% of them allowing home inspections.

Based on information learned from the pilot scale home inspection program, the Sanitation District conducted home inspections in February and March 2013. The home inspections were “voluntary” since the resident must give consent for the home inspection. If the resident does not agree to a home inspection, the Sanitation District will document the response, leave the premises, and subsequently determine follow up options.

The first group of inspections was conducted on February 9, 2013 (Saturday) from 10 a.m. to 5 p.m. On February 9, 2013, 186 homes were visited and 74 inspections were conducted. At 60% of the homes the door was answered, and 67% of those residents allowed an inspection. Approximately 69% of the residents that opened the doors were familiar with the AWS ban. A total of 46 AWS were found: 38 AWS were found during inspections and another 8 residents admitted to having an AWS but did not allow inspections.

The second group of inspections was conducted on March 9, 2013 (Saturday) from 10 a.m. to 5 p.m. On March 9, 2013, 230 homes were visited and 70 inspections were conducted. At 43% of the homes the door was answered, and 71% of those residents allowed an inspection. Approximately 54% of the residents that opened the doors were familiar with the AWS ban. A total of 36 AWS were found: 31 AWS were found during inspections and another 5 residents admitted to having an AWS but did not allow inspections. The results on the February 9, 2013 and March 9, 2013 were similar to those found during the pilot home inspection program in October 2012.

The results of the home inspections conducted on February 9, 2013 and March 9, 2013 were similar to those found during the pilot scale home inspection program in October 2012. In total, during 2012 and 2013, 517 homes were visited and 182 home inspections were conducted. At 51 percent of the homes the door was answered, and 69 percent of those residents allowed a home inspection. Approximately 60 percent of the residents that opened the doors were familiar with the prohibition on AWS. A total of 107 AWS were found: 85 AWS were found during inspections and another 22 residents admitted to having an AWS but did not allow an inspection. Eleven of the 107 AWS inspected were operational; another 13 residents stated that they had operational AWS but the inspectors did not see these units. During the inspections conducted in 2012 and 2013 of homes suspected of having AWS, 40 percent of the residents that answered the door had AWS and 47 percent of the residents that allowed a home inspection had an AWS. As a result of the home inspections, 37 AWS were removed.

From April 2013 to December 2013, District staff focused on the Santa Clarita Valley Sanitation District Chloride Compliance Facilities Plan and Environmental Impact Report and associated public information meetings. During the meetings, District staff highlighted the success of the Automatic Water Softener Rebate Program and public outreach and education efforts, provided information on the estimated chloride reduction from the program and cost savings to the District’s ratepayers, gave estimates of how many illegal AWS may still be discharging, and let residents know how they can participate in the Automatic Water Softener Rebate Program, if they still have an AWS. In 2013, the District also designed, printed, and stuffed door hangers, to leave at homes that did not answer the door, in preparation for the next round of home inspections. Another training session was also held for the

Industrial Waste Inspectors on August 28, 2013 to train inspectors that had recently volunteered to participate in the program and to provide a refresher for the other inspectors. After this training was completed a total of 15 inspectors had been trained.

The Full Scale Home Inspection Program resumed in February 2015. Inspections were conducted on February 21, 2015 (Saturday) from 10 a.m. to 5 p.m. On February 21, 2015, 171 homes were visited and 64 inspections were conducted. At 48% of the homes the door was answered, and 78% of those residents allowed an inspection. Approximately 80% of the residents that opened the doors were familiar with the AWS ban. A total of 22 AWS were found: 19 AWS were found during inspections and another 3 residents admitted to having an AWS but did not allow inspections. Inspections were also conducted on March 21, 2015 (Saturday) from 10 a.m. to 5 p.m. On March 21, 2015, 165 homes were visited and 75 inspections were conducted. At 53% of the homes the door was answered, and 85% of those residents allowed an inspection. Approximately 61% of the residents that opened the doors were familiar with the AWS ban. A total of 16 AWS were found: 15 AWS were found during inspections and another resident admitted to having an AWS but did not allow an inspection. Inspections were conducted on April 18, 2015 and May 16, 2015 (Saturdays) from 10 a.m. to 5 p.m. On April 18, 2015, 166 homes were visited and 49 inspections were conducted. At 42% of the homes the door was answered, and 71% of those residents allowed an inspection. Approximately 54% of the residents that opened the doors were familiar with the AWS ban. A total of 12 AWS were found: 9 AWS were found during inspections and another three residents admitted to having an AWS but did not allow an inspection. On May 16, 2015, 152 homes were visited and 62 inspections were conducted. At 53% of the homes the door was answered, and 77% of those residents allowed an inspection. Approximately 60% of the residents that opened the doors were familiar with the AWS ban. A total of 17 AWS were found: 13 AWS were found during inspections and another four residents admitted to having an AWS but did not allow an inspection.

Since residents were less likely to be home over the summer, home inspections were put on hold until September 2015. Inspections were conducted on Saturday, September 19, 2015 from 10 a.m. to 5 p.m. 178 homes were visited and 53 inspections were conducted. At 42% of the homes the door was answered, and 71% of those residents allowed an inspection. Approximately 47% of the residents that opened the doors were familiar with the AWS ban. A total of 20 AWS were found during the inspections. The last home inspections for 2015 were conducted on Saturday, October 17, 2015 from 10 a.m. to 5 p.m. 196 homes were visited and 82 inspections were conducted. At 53% of the homes the door was answered, and 80% of those residents allowed an inspection. Approximately 72% of the residents that opened the doors were familiar with the AWS ban. A total of 34 AWS were found during the inspections. Home inspections were not conducted in November and December 2015 due to the holiday season.

Home inspections resumed on Saturday, February 20, 2016. On February 20, 2016, 169 homes were visited and 55 inspections were conducted. At 44% of the homes the door was answered, and 73% of those residents allowed an inspection. Approximately 61% of the residents that opened the doors were familiar with the AWS ban. A total of 20 AWS were found: 16 AWS were found during inspections and another four residents admitted to having an AWS but did not allow an inspection. Home inspections were also conducted on Saturday, March 19, 2016. On March 19, 2016, 182 homes were visited and 62 inspections were conducted. At 47% of the homes the door was answered, and 72% of those residents allowed an inspection. Approximately 62% of the residents that opened the doors were familiar with the AWS ban. A total of 25 AWS were found: 19 AWS were found during inspections and another six residents admitted to having an AWS but did not allow an inspection. The last home inspections of this phase were conducted April 23, 2016, 152 homes were visited and 40 inspections were conducted. At 38% of the homes the door was answered, and 69% of those residents allowed an inspection. Approximately 59% of the residents that opened the doors were familiar with the AWS ban. A total of 21 AWS were found: 17 AWS were found during inspections and another four residents admitted to

having an AWS but did not allow an inspection. After the April home inspections, all the homes in the Districts' database have been visited by an inspector and a door hanger left at the homes with no answer. The next steps for the program are being evaluated.

Since the start of the full-scale home inspection program in 2013, a total of 1,947 homes were visited and 686 inspections were conducted. The inspectors have found 231 AWS during the home inspection program. Approximately 40% of the residents that allowed inspections had AWS. 155 AWS were removed from homes visited during the full-scale inspection program. At 94 of the 155 homes that removed AWS residents answered the door, and 77 of the 94 residents allowed inspections. The other 61 AWS were removed through other public outreach such as door hangers left during home visits and advertisements. 76 AWS that we confirmed during home inspections have not been recorded as being removed. These residents may require further enforcement.

The Sanitation District also continued the multifaceted chloride reduction public outreach campaign. In 2016, the program included participation in community events; updates to the chloride website (www.lacsd.org/chloride); and answering questions on the toll-free hotline (1-877-CUT-SALT) and dedicated e-mail address (cutsalt@lacsd.org). Throughout the year, the Sanitation District also sent letters to all new homeowners informing them of the 2008 Ordinance banning AWS and the 2005 Ordinance banning discharges from saltwater pools to the sewer, and encouraging them to take advantage of the AWS rebate program, if an AWS was already installed in their home. The Sanitation District also continued working with retailers to discontinue the sale of salt and potassium chloride.

The District is firmly committed to continuing residential chloride source control efforts in the Santa Clarita Valley. The District will continue to enforce the Ordinance, offer rebates for AWS as part of the Automatic Water Softener Rebate Program – Phase II, and support the public education and outreach program. In addition, the District intends to conduct home inspections and/or monitor chloride concentrations and flows within the sewer system to determine the locations of residential AWS. These programs will be periodically reassessed to determine their value to overall chloride reduction.

The public education and outreach campaign will continue to use direct mailings, advertisements, and newspaper stories to reach the general public as needed. The District will also continue mailing letters to new homeowners. In addition, the District expects to continue to investigate and implement new outreach methods to ensure residents are aware of the bans on AWS and saltwater pools. The chloride website will be maintained and updated with new information, vendors, and reviews of whole-house water conditioning alternatives as they become available. The District will also continue to staff the (877) CUT-SALT toll-free information number and respond to e-mail received from the public regarding the Automatic Water Softener Rebate Program – Phase II, Ordinance, Ordinance Enforcement Program, Saltwater Pool Ordinance, and other questions related to chloride.

The District was able to successfully limit the availability of rock salt and potassium chloride by working with retailers to discontinue the sale of the products. The District will continue to work with store managers and the corporate offices for the seven stores that continue to sell rock salt and potassium chloride. In addition, the District monitors the stores that have removed the products to ensure that they are not restocked in the future.

The Sanitation District has already taken a number of groundbreaking steps in its residential chloride source control program, and plans to continue to remain the national leader in residential chloride source control efforts. Additional information on the Sanitation District's chloride reduction program can be found in the *2014 Chloride Source Identification/Reduction, Pollution Prevention, and Public Outreach Plan dated November 2014*.

C. TOXIC ORGANICS REDUCTION

The Sanitation Districts are in a unique position among POTWs regarding regulation of toxic organics. On the one hand, the Sanitation Districts must meet stringent drinking water limits on discharges from their water reclamation facilities. On the other hand, the Sanitation Districts are located in the South Coast Air Basin, which has the most stringent air quality regulations in the nation. Because of these dual constraints, the Sanitation Districts are highly concerned about discharges of air pollutants to wastewater. The Sanitation Districts must meet tight restrictions on air pollutants emitted from their treatment plants and must also be wary of cross media transfers from air to water at businesses that have to meet air quality regulations.

The Sanitation Districts are particularly concerned about discharges of air toxics to its system. The Sanitation Districts began their toxic organics reduction program in 1990 by conducting a detailed investigation into the sources and amounts of air toxics within their system. This investigation, which focused on benzene, carbon tetrachloride, chloroform, methylene chloride and perchloroethylene, identified industrial sources of these air toxics and quantified their known industrial contribution to each of the Sanitation Districts' 11 wastewater treatment plants. Starting with this study as a basis, the Sanitation Districts have continued to monitor, quantify, and regulate discharges of air toxics.

Sanitation Districts' Special Limits on Toxic Organic Discharges

Through local limitations, the Sanitation Districts regulate the discharge of toxic organics from six different types of industries: landfills, waste treatment facilities, chemical formulators, truck washes, industrial laundries, and groundwater cleanup operations. Limits for individual types of industries rather than Sanitation Districts-wide limits on toxic organics were deemed appropriate, to target the groups discharging the largest amounts of toxic organics. In addition, the Sanitation Districts enforce toxic organic limits for categorical IUs with such standards. Although categorical discharge standards have been developed for some of these industries, the standards do not provide sufficient control of toxic organics to be fully protective of the Sanitation Districts' wastewater system.

Toxic Organics Management for Categorical Dischargers

During the year, the Sanitation Districts continued their total toxic organics (TTO) monitoring program. Wastewater of categorical dischargers regulated for TTO are sampled and analyzed for TTO at least once a year. In addition, dischargers are required by the Sanitation Districts' self-monitoring program to sample and analyze for TTO at the same frequency as for other required parameters, which is at least twice a year.

Companies regulated by the Electroplating, Metal Finishing, and Electrical and Electronic Components categories have the option of submitting a Toxic Organic Management Plan (TOMP) instead of monitoring and reporting effluent TTO concentrations to the Sanitation Districts. TOMP must include the toxic organic compounds used; the method of disposal, such as reclamation, contract hauling, or incineration; and procedures for ensuring that toxic organics do not routinely spill or leak into the sewer. After the Sanitation Districts have approved a TOMP, the company must include a certification with each SMR indicating that no dumping of concentrated toxic organics into the sewer has occurred and that the TOMP is being followed. This certification is automatically printed on the SMR form mailed to the discharger. Signature on the completed SMR denotes agreement with the TOMP certification statement. Companies with TOMP certificates are listed in Appendix J.

Benzene Program

In 1991, the largest dischargers of toxic organics within the Sanitation Districts' service area were 10 oil refineries and some 80 oil-producing fields. The Sanitation Districts are unique in having such a large number of oil refineries and oil producing fields' influent to its collection system. Discharges from oil refineries and oil producing fields contain benzene, toluene and ethylbenzene. Air emissions inventories at the Sanitation Districts' largest wastewater treatment plant, the JWPCP, indicated that benzene was the primary pollutant driving health risks from air emissions.

The Sanitation Districts investigated the establishment of benzene discharge limitations at the oil refineries and oil producing fields, but discussions with the affected industries revealed that such limitations would be highly costly for industry, on the order of \$80 million dollars (in 1991 dollars). Instead, an alternative means of control was developed, in which carbon adsorption units were installed at the JWPCP for control of benzene air emissions, and industries discharging significant quantities of benzene were billed for the operation and maintenance cost of the units based on the proportion of the total benzene discharged.

This arrangement has proven to work exceedingly well, and provides an economic incentive for the affected industries to reduce their benzene discharges. The arrangement has proven to be popular with the business community due to the flexibility it allows them in benzene disposal, while being environmentally protective. A number of the oil producing fields have chosen to go to zero wastewater discharge to avoid the high benzene disposal costs, and are instead reinjecting oil field brines that were previously sewered. The amount of benzene being discharged to the Sanitation Districts' system has been reduced by 60 percent since the benzene charge program was implemented in mid-1991. Thus, the measure has proven to be a highly successful alternative to the placement of numerical limitations on these businesses, while encouraging pollution prevention measures and allowing the Sanitation Districts to remain in compliance with all existing air emissions regulatory controls.

Dry Cleaning Regulation

The Sanitation Districts have also reduced the emissions of air toxics from their treatment plants and collection system by requiring all dry cleaners to implement a perchloroethylene control plan. Under this plan, the dry cleaner may implement the plan and certify that it has achieved zero discharge, or be regulated as a SIU with a stringent local limit on perchloroethylene. All dry cleaners within the Sanitation Districts' service area have opted for zero discharge, and are inspected annually to ensure that no perchloroethylene containing wastewater is discharged. This program has significantly reduced the quantities of perchloroethylene present at the Sanitation Districts' treatment plants. Additionally, the South Coast Air Quality Management Sanitation Districts (SCAQMD) has adopted changes to its Rule 1421, which will phase out the use of perchloroethylene dry cleaning machines within the Sanitation Districts' service area by December 21, 2020.

The California Air Resources Board (ARB) has also adopted regulations requiring a complete phase out of perc machines and related equipment in dry cleaning operations by January 1, 2023. Additionally, while perc dry cleaning machines remain in use, good operating practices are to be enhanced. The Sanitation Districts also supported an ARB rule that bans the use of spot remover chemicals containing perchloroethylene and trichloroethylene, effective December 2012. The Sanitation Districts was an active participant in Technical Workgroups, attended numerous Public Hearings, and submitted written comments in support of these rules.

The Sanitation Districts will continue to work closely with ARB on any future efforts to regulate toxics in dry cleaning chemicals and other consumer products.

Consumer Products

A variety of consumer products contain chlorinated solvents such as perchloroethylene, methylene chloride, and/or trichloroethylene. As sewer discharges of these chlorinated solvents by industrial facilities and dry cleaners have declined, consumer products have become an increasingly important source of chlorinated solvents. The Sanitation Districts have been working with ARB to ensure that chlorinated solvents in consumer products are properly regulated.

In 2000, ARB began adopting regulations on the volatile organic carbon (VOC) content of a number of consumer product categories. In conjunction with the new VOC standards, ARB required the phase out of the use of perchloroethylene, methylene chloride and trichloroethylene in various consumer product categories. The ARB continues to investigate and identify new categories of consumer products for regulation. Paint strippers are one category of product that has been identified, but no formal rulemaking was initiated during 2016.

The Sanitation Districts continues to track this issue and will participate in any upcoming rulemaking activity concerning paint strippers and other consumer products.

D. POLLUTION PREVENTION

In addition to its pollution prevention efforts related to toxic organics, the Sanitation Districts have an active pollution prevention program. Several of the Sanitation Districts pollution prevention efforts are detailed below.

Pharmaceuticals

The Sanitation Districts continued pollution prevention efforts to minimize the amount of pharmaceuticals that are sewered. Recent studies have identified pharmaceuticals in lakes and streams nationwide, and many of these pharmaceuticals are believed to be coming from municipal wastewater discharges. There is increasing concern that pharmaceuticals present in surface waters could cause various disruptive environmental effects, including endocrine disruption in aquatic life and increased antibiotic resistance. The impacts of pharmaceuticals in surface waters, including effects on aquatic life development and effects on human development, are still being studied. While these studies are occurring, it is reasonable and prudent to minimize the amount of pharmaceuticals arriving in sewer systems.

A public education campaign to address disposal of household medications in Southern California began in 2005. The campaign's tagline, "No Drugs Down the Drain," is meant to encourage Southern California residents to dispose of their unused or expired medicine in ways more appropriate than flushing them down the toilet or drain. The primary element of the program is a two-sided, bilingual flyer that alerts Southern California residents to the problems associated with flushing unused, unwanted, and expired medications down the toilet or drain. As alternatives, the program recommends taking them to a 24/7 Drop-Off location at a sheriff's station or a household hazardous waste collection center/event (no controlled substances are allowed). The flyer was developed with input from a broader group interested in residential pharmaceutical disposal including city, county, state, federal, and private participants.

There is an associated website (www.nodrugsdownthedrain.org) that provides more detailed information on the program such as why flushing is a problem, sheriff's stations with drug drop-off facilities, household hazardous waste collection event links, discussion of controlled substances (which will not be accepted at the household hazardous waste events because of restrictive Drug Enforcement

Agency requirements, but can be accepted at drug drop-off facilities installed by law enforcement agencies), etc. The Sanitation Districts contribute to the California Product Stewardship Council to keep involved in the on-going dialog and developments related to pharmaceutical disposal. The Sanitation Districts continued participating and supporting research designed to assess the impacts of these products.

In addition to pharmaceuticals, the Sanitation Districts are also concerned about discharges of personal care products and cosmetics to sewers. These products can reach sewers through rinsing of the human body after use or through disposal. The Sanitation Districts continued to monitor scientific and regulatory activities regarding these emerging contaminants. The Sanitation Districts have been participating in the National Association of Clean Water Agencies (NACWA) Emerging Contaminants Workgroup. This group serves to inform and provide guidance to NACWA members on regulatory issues related to emerging contaminants.

Mercury

Although the Sanitation Districts are currently in compliance with all mercury discharge limitations at their treatment plants, the EPA published a proposed rule on October 22, 2014 that was intended to reduce the discharge of mercury from dental offices. The proposed rule would require all dental offices that place or remove amalgam fillings to install an amalgam separator. It would also require the Publicly Owned Treatment Works (POTWs) including the Sanitation Districts to implement the rule by obtaining baseline reports and certifications that amalgam separators are used by all dental offices. Based on preliminary investigations by the Sanitation Districts, there are more than 4,000 dental offices in its service area. The use of dental amalgam by dentists has been declining for the past decade or longer. The EPA's justification for the rule appears to overestimate the amount of mercury discharged from dental offices and underestimates the cost of implementation for POTWs such as the Sanitation Districts. Therefore, the Sanitation Districts submitted a comment letter to the EPA on February 20, 2015, recommending that the rule be withdrawn. Finally, the Sanitation Districts' Household Hazardous Waste Collection program is continuing to accept waste mercury and mercury-containing items from households. The website for the collection program has been updated to specifically state that these items are accepted.

Sanitation Districts' Fats, Oil and Grease (FOG) Training Program

As a result of concerns that grease deposits from food service establishments (FSEs) where meals are served may adversely impact local collection systems, the Sanitation Districts began the grease control training to local agencies with an introduction workshop in 2001.

As a follow up to the workshop, the Industrial Waste Section developed a training program that was made available to the various city sewerage system management and maintenance personnel. This program provided information to the cities and public works agencies on methods to control grease from restaurants and food service establishments to prevent potential sewage spills from local city sewer collection systems. The training program specifically addressed the following topics:

- Basic elements needed in a local grease control ordinance
- How to inspect FSEs
- BMPs that should be used by restaurants
- Sewer overflow reporting obligations

- Proper cleaning procedures that should be followed if grease deposits are detected in local sewers
- Where to dispose of grease and the availability of local rendering companies
- Review of grease trap and grease interceptor devices

Approximately 45 cities, the Los Angeles County Department of Public Works (LADPW), several associations including the Maintenance Superintendents Association and private sewer-cleaning contractors have availed themselves of this training program.

Joint FOG Best Management Practice Posters and Outreach

In cooperation with the California Restaurant Association (CRA), the Sanitation Districts produced a best management practice (BMP) poster titled, “Managing Fats, Oil, and Grease: It’s Easier than YOU Think!” for direct distribution to FSEs in July 2003. That year, 10,000 posters were printed and conveyed to the CRA and the cities of Long Beach, Pasadena, and Vernon.

A second version of the BMP poster was produced in cooperation with the CRA, Los Angeles County Department of Health Services (LADHS), and LADPW in February 2004. It was agreed that a BMP poster should be printed that addressed all agencies’ concerns, which included FOG control and stormwater/surface water concerns. Since development of this joint agency poster, over 70,000 copies have been printed in English, Spanish, and Chinese. These posters are distributed to the LADPW, local agencies nationwide, and private businesses upon request. The LADPW distributes the FOG BMP poster to all new and existing permitted FSEs within their jurisdiction and the LADHS distributes the poster to all restaurants contracted under their Stormwater Program.

Several cities and municipalities throughout the western states have requested and continue to request printed as well as electronic copies of the posters.

Fact Sheets on Pollutants of Concern

Under California law, the California Department of Public Health (CDPH) sets drinking water notification levels (formerly termed “action levels”) for certain pollutants. Notification levels are health-based advisory levels for chemicals for which drinking water standards have not been set. When chemicals are found in drinking water at concentrations above the notification levels, certain actions are required. Although notification levels do not typically appear in NPDES Discharge Permits, the Sanitation Districts are interested in maintaining effluent discharge concentrations below notification levels to the greatest extent possible. To gain more familiarity with pollutants for which notification levels have been established, to prevent potential problems, and to allow for a faster response if a problem arises, the Sanitation Districts entered into a joint project with Orange County Sanitation Districts and the City of Los Angeles regarding these pollutants. Between the three agencies, a one-page fact sheet was prepared for each chemical for which a notification level or an archived advisory level (formerly called historic action level) has been established. The fact sheets include information on uses for the chemicals and potential wastewater sources. As part of this effort, the Sanitation Districts developed fact sheets on dieldrin, aldrin, diazinon, 1,3-dichlorobenzene, alpha-benzene hexachloride, beta-benzene hexachloride, carbaryl, chloropicrin, chlorpropham (CIPC), dimethoate, diphenamide, ethion, Malathion and pentachloronitrobenzene. In April 2005, fifty fact sheets were put together into a single document. This document was distributed to Sanitation Districts’ staff to aid in the identification of pollutants of concern during permitting, engineering review, and inspections. A copy of the document was also sent to CDPH.

Cooperation on Air Regulatory Issues

The Sanitation Districts have worked with Southern California Air Quality Management Department (SCAQMD) since the mid-1990s on air quality regulations with potential cross-media wastewater impacts. SCAQMD has passed several rules requiring conversion from solvent cleaners to water-based cleaners, and the Sanitation Districts have worked closely with them to ensure that spent cleaners are disposed properly so that adverse water quality impacts do not occur. SCAQMD has also developed rules for consumer paint thinners and multipurpose solvents and metal working fluids. The Sanitation Districts staff participated in public workshops during the development of these rules. Most recently in 2013, the AQMD is proposing to regulate low vapor pressure compounds such as glycols, phthalate, and light distillates. The Sanitation Districts Industrial Waste staff met with AQMD and assisted them by sharing information from the Districts' Annual Report and any available monitoring data for these compounds. The Sanitation Districts will continue to participate in the AQMD's rulemaking efforts.

The Sanitation Districts are also working with ARB on clean air projects to encourage less use of chlorinated solvents and ensure that new rules do not cause adverse water quality impacts. Sanitation Districts' staff recently participated in public workshops and submitted written comments in support of the ARB's proposed regulations banning the use of perchloroethylene, methylene chloride, and trichloroethylene in various categories of consumer products, including dry cleaning spotting chemicals. This rulemaking activity will continue into the future, and paint strippers are being looked at as a potential category in future rulemaking efforts. Sanitation Districts' staff will continue to cooperate with ARB in this effort to reduce chlorinated solvent usage in paint strippers and other product categories with potential water quality impacts.

California Product Stewardship Council

The Sanitation Districts are also a member of the California Product Stewardship Council (CPSC, www.calpsc.org). CPSC is an advocacy group whose mission is to "shift California's product waste management system from one focused on government funded and ratepayer financed waste diversion to one that relies on producer responsibility in order to reduce public costs and drive improvements in product design that promote environmental sustainability." The legislative programs in which CPSC was involved in 2016 include Battery Recycling, Carpet Stewardship, PaintCare, Mattress Management, Mercury Thermostat Stewardship, Sharps Producer Responsibility and Medication Take-Back. CPSC was also involved in activities that reduce wastes, such as promotion of refillable one pound gas cylinders.

E. INTERNET WEBSITE

The Sanitation Districts' Industrial Waste Section Maintains an Internet website for the pretreatment program at <http://www.lacsd.org/>.

The website includes sections of News, About the Industrial Waste Section, Obtaining an Industrial Wastewater Discharger Permit, Policies, Forms, Wastewater Ordinance, Liquid Waste Disposal, Industry Advisory Council, Contacts, etc. The website is a means for IUs of the Sanitation Districts' system to obtain information quickly and easily. It is updated periodically.

F. ELECTRONIC DOCUMENT MANAGEMENT SYSTEM

In 2000, the Sanitation Districts implemented an Electronic Document Management System (DM) to manage the Documents of Record for the section. These documents include Industrial Wastewater Discharge Permits, correspondence, drawings and handwritten inspectors reports. Prior to implementation of the DM, recent documents were maintained in paper format and older documents on microfiche.

The software application is published by Open Text Corporation. Electronic documents are imported and managed in DM. Drawings, hand written field notes and correspondence from outside the Sanitation Districts are scanned and digitized in house. Equipment, processes and procedures have been developed to scan large format drawings and bulk reports in house as well.

To facilitate retrieving a document from the DM, a profile is created and electronically attached to each document. The profile contains such information as the company name; permit number, the document type (i.e., inspection, permit, enforcement, etc.), the date the document was created, the author, and any relevant comments. The information stored in the document profile can be used at a later time as search criteria to help locate the document in the system. The located document can then be displayed for viewing or printing.

Documents have ceased to be processed in the standard way (paper and microfiche) in parallel with electronic imaging. All documents are now stored in DM and without the need for microfiche back up. Documents that have been filed prior to February 2000 are not, as a rule, entered into the DM. Only new documents generated after the start date appear in the electronic format. Prior years are still maintained on microfiche.

In 2007, the Sanitation Districts' new computer system Internet POTW Administration and Compliance System (iPACS) went live. Since then documents generated by iPACS can be linked into the existing DM directly from iPACS. Other industrial waste documents not generated by iPACS are either scanned or saved directly into DM.

G. COMPUTER SYSTEM RE-ENGINEERING

The Sanitation Districts recognized the need for an overhaul of the data management system and as such embarked on a program to replace the old mainframe and collection of network applications that comprised the data management system for the Industrial Waste Section. The Sanitation Districts intended to replace the entire industrial waste computer system. As much as possible of the existing 25 plus years of data would be retained in some form while the data as of January 1, 2000, would be transferred to the new system. As many agencies have experienced difficulty in switching systems, replacement and data transfer for a program of this size was expected to take several years to complete. Sanitation Districts' management approved the project and staff set this as a high priority. Extensive work was accomplished in 2006 and the new Industrial Waste Pretreatment Computer System (IWPCS) was deployed on January 2, 2007. A detailed description of the progress follows.

Pre-Existing Conditions

The industrial waste computerized data management system was on an IBM mainframe and antiquated, with programs dating back to the 1970s. The system includes hundreds of programs operating on data from a number of major industrial waste databases including Permitting, Inspection, Enforcement, Surcharge, Self-Monitoring and Permittee Effluent Limits. The system was developed in pieces over time

and as such, was not a cohesive integrated system. It had been fitted together over the years to try to meet the ever-increasing requirements of the Federal EPA, the LARWQCB, and the administrative needs of the Industrial Waste Section to implement the Pretreatment Program.

The Sanitation Districts' Information Technology Section had three programmers working full time on the industrial waste system. It was becoming increasingly more difficult to support the system. The technology used was no longer supported by IBM. Some of the backlogged projects were to correct reports, upgrade existing databases and repair features and capabilities were needed but were difficult to execute in the mainframe environment.

Project Description and Progress

The IWPCS consists of two core software applications and related field equipment. It is the platform for the work of the Industrial Waste Section and integrates the work of the Section with the document management and laboratory information management systems of the Sanitation Districts.

Much work went into preparation for the system deployment. Significant accomplishments include data migration, system testing, hardware acquisition and deployment, training, and integration with other Sanitation Districts' systems.

Data from the mainframe inspection, permitting, laboratory information management system (LIMS), surcharge, and master file were extracted for importing into the new IWPCS system. The data were extensively reviewed and "cleaned" taking out extraneous or discontinued fields. Fields that had different nomenclature or meanings in the new system were translated or "mapped" accordingly after exhaustive review and validation. The majority of the data imported ranged back to the year 2000, however if a facility was voided or, for some other reason, did not have a current record, the last record prior to the year 2000 was migrated.

The main application, iPACS, has 16 modules including Permit, Work Order, Monitoring, Inspection, SMR, Compliance, Inquiry (Incident management), and Data Analysis. There are over 5,000 unique fields and over 500 tables in the relational database. The iPACS application has a browser based user interface.

The field application called Field Assistant Service Tracking or FAST provides a specialized interface for inspectors, monitoring crew, and flow monitoring engineers to collect data in the field. The system communicates wirelessly with iPACS to upload collected information and download new data about facilities subject to inspection and downloads newly assigned tasks.

To support the field activities, the inspectors, monitoring crew and the flow monitoring engineer were equipped with field operations kits. The kits include a tablet PC, a Wi-Fi hotspot, a Hewlett Packard portable printer, and various accessories. For security reasons, the wireless card is configured to communicate with only one IP address that of the iPACS server. In this way the tablets can communicate fully with, but only with, the iPACS system. The card cannot access the general Internet.

Lastly, the iPACS system is designed to interface with the Sanitation Districts' DM and LIMS systems. Final documents developed in iPACS are uploaded to DM and are available to system users. Similarly, laboratory data are available in the system.

On January 2, 2007, when the system was deployed, staff substantially converted over to the new IWPCS system. As expected, during this first year of implementation, a number of programming bugs, data migration issues and business practice modifications were identified. The contractor has been

working closely with Sanitation Districts' staff to prioritize and resolve these problems in a timely manner.

With limited work arounds, all modules are functional. Additionally, the electronic submittal functions for Surcharge, Permit and SMRs have not been deployed. These modules require additional testing and system development.

The database has grown rapidly with its use by all groups in the section. Consequently, data management and maintenance requirements have grown as well. Late 2009, the Industrial Waste Section hired a full time data base administrator to manage the on-going activities of maintaining the IWPCS.

In 2009, the Sanitation Districts' laboratory implemented a new LIMS system. Integration with iPACS began in April 2010. This integration required some modifications in work practices, but is operational. Work continues on building reports and maintaining the system interface.

During the year, efforts have focused on improving computer functionality to minimize reliance on reporting tools for data analysis.

IWPCS continues to be adjusted and corrected where needed and is currently in use in the Industrial Waste Section.

H. ENVIRONMENTAL CRIMES STRIKE FORCE

The Los Angeles County Environmental Crimes Strike Force (Strike Force) is composed of representatives from approximately 20 regulatory and law enforcement agencies. The purpose of the Strike Force is to coordinate the activities of regulatory agencies whose primary concern is environmental compliance and law enforcement agencies whose objective is enforcement related to hazardous waste disposal matters.

The Strike Force operates under the direction of the Los Angeles County District Attorney, Consumer Protection Division, Environmental Law Section (Environmental Law Section). This Environmental Law Section is made up of three prosecutors and one investigator devoted entirely to environmental and occupational crimes. One of the first of its kind in the country, it is a model often copied by other counties. Historically, the Environmental Law Section's conviction rate has been greater than 95 percent.

The Sanitation Districts assist and support the Strike Force in many ways including performing surveillance monitoring of suspected illegal dischargers based on the Sanitation Districts' own surveillance criteria or at the request of other Strike Force members. Assistance is also provided for analysis of evidence samples, and laboratory personnel may act as expert witnesses for criminal proceedings. Sanitation Districts' representatives are often asked to provide technical information regarding a particular industry or facility. The Sanitation Districts have also detected, developed, and presented cases of illegal discharge to the Strike Force. The subsequent coordination of effort between several agencies often results in the issuance of a multi-agency search warrant and criminal prosecution.

In 1996 the federal government, under the direction of the U.S. Department of Justice (DOJ) and the United States Environmental Protection Agency, formed its own strike force, the Federal Environmental Crimes Task Force (Federal Strike Force). Many of the same agencies, including the Sanitation Districts, sit on both Strike Forces. Additionally, the Federal Strike Force is aided by the addition of several Federal agencies including all of the military criminal investigative units, NASA criminal investigations, the FBI and several others. The purpose of forming a Federal Strike Force is to enhance the ability to investigate

environmental crimes across county, state, and international borders. Both strike forces work cooperatively with each other through the transfer of information and referral of prosecutable cases.

I. CERTIFICATE OF RECOGNITION FOR COMPLIANCE

In recognition that many companies expend considerable effort to be in compliance with the Sanitation Districts and EPA's regulations, Certificates of Recognition for Compliance were again issued. Four hundred and thirty-two (432) of the approximately 984 SIUs were found to be in compliance with the Sanitation Districts and EPA wastewater regulation during 2015. These companies received no NOV during the year, which included violations of effluent limits, permit requirements and financial obligations to the Sanitation Districts. Also, the dischargers maintained appropriate wastewater Discharge Permits for their facilities and were not found to have contributed to any on-site wastewater equipment failures. The successful companies were sent certificates of recognition and a congratulatory letter in July 2016. Response from industry for the program remains positive, and the Sanitation Districts plan to continue the recognition. Lists of the companies receiving the recognition were also sent to cities and supervisorial districts in 2016.

J. INDUSTRY ADVISORY COUNCIL

The Sanitation Districts have sponsored the Industry Advisory Council (IAC) since 1992 as a vehicle to engage, inform, and collaborate with industry for regulation, compliance, and outreach. The IAC consists of industry representatives from companies holding industrial wastewater discharge permits to the sewer. Industries on the IAC include petroleum refineries, oil and gas producers, metal finishing shops, carpet mills, healthcare facilities, and food processing companies. The mission of the IAC is to share regulatory information, connect industry with regulatory agencies, and guide industry into 21st Century practices that promote sustainability and environmental stewardship.

The 2016 IAC consisted of 21 members from industry. The composition of the IAC is designed to reflect the industrial base served by the Sanitation Districts. Larger industries like petroleum refineries as well as smaller industries like metal finishing companies are represented on the IAC. Members of the IAC include company presidents, plant managers, environmental managers, and small business owners. The IAC is chaired by an industry executive. The IAC members themselves are also active in their trade associations, and serve as conduits to their industries. A Civil Engineer Chris Herbeck from the Sanitation Districts is assigned to coordinate the activities of the IAC. A list of IAC members and the industries they represent is provided on the following page in Table 9-1. A picture of the IAC and guests at the February 2016 meeting is given in Figure 9-1.

**Table 9-1
Industry Advisory Council Members**

Council Chair	Sam Bell , Family Owner and Vice President, Metal Surfaces, Inc., Bell Gardens
Aerospace	Michael Beasley , Senior Environmental Specialist for Enterprise Strategy Policy Analysis, Boeing Company, Torrance Michael Haro , Environment, Safety & Health Principal Engineer, Lockheed Martin, Palmdale
Carpet Manufacturing	Richard De Vicariis , Director of Environmental and Safety, Bentley Mills, City of Industry Sharon Hornby , Environmental Health and Safety Manager, Shaw Diversified Services Inc. – Tuftex Division, Santa Fe Springs
Chemical Manufacturing	David Thaete , Environmental, Health & Safety Manager, Phibro-Tech, Inc., Santa Fe Springs
Commercial Laundry	Gary Von , Director of Operations, Valet Services Laundry, Bell Gardens
Energy Utilities	Paul Ahn , NPDES Program Manager, Southern California Edison, Irwindale Karen Kwan , Environmental Field Services Manager, Southern California Gas Company, Los Angeles
Food Processing	Hector Garcia , Environmental Engineer, Clougherty Packing (Farmer John), Vernon Kanan Harakh , Environmental Coordinator, Frito Lay, Rancho Cucamonga Courtney Jones , Environmental and Sustainability Engineer, MillerCoors, Irwindale Alan Nichols , Plant Manager, California Dairies, Inc. Artesia Ken Rhodes , Director of Research & Development (retired), Cacique, Inc.
Hospital and Healthcare	Timothy Eng , Environmental, Health, & Safety Project Manager, Kaiser Permanente Western EH&S Hub, Pasadena
Metal Finishing	Anil Rana , Manager, Environmental Health and Safety, VACCO Industries, South El Monte Jerry Wahlin , President, AAA Plating and Inspection, Compton
Oil & Gas Production	Kevin Laney , President, Oil Operators, Inc., an industry cooperative; and Vice President, Signal Hill Petroleum, Signal Hill
Petroleum Refining	Rayen Pasten , Environmental Engineer, Lunday-Thagard Refinery, South Gate Marshall Waller , Superintendent, Environmental Services, Phillips 66 Los Angeles Refinery, Carson
Waste Treatment & Reclamation	Ron Daerr , Environmental Health & Safety Manager - Azusa Facility, Veolia ES Technical Solutions, Azusa



Figure 9-1 The 2016 Industry Advisory Council and Guests

FRONT ROW: (Left to Right) **Karen Kwan**, Southern California Gas Company (Member); **Emma Kasmanian**, Woodward, Inc.; **Maya Henderson**, Bentley Mills (Alternate); **Richard De Vicariis**, Bentley Mills (Member); **Lynze Milne**, Lisi Aerospace; **Bose Dafeta**, City of Los Angeles – Bureau of Sanitation; **Nataly Dakak**, City of Los Angeles – Bureau of Sanitation; **Jocelyn Carrillo**, City of Los Angeles – Bureau of Sanitation; **Kanan Harakh**, Frito Lay (Member); **Natasha Brock**, UCLA LOSH Program; **Sharon Hornby**, Shaw Diversified, Tuftex Carpet (Member); **Samantha Quintero**, UCLA LOSH Program; **David Thaete**, Phibro-Tech, Inc. (Member); **Maria Rosales-Ramirez**, Public Information Office, Sanitation Districts; **Bill LaMarr**, California Small Business Alliance; and **Jenna Latt**, California Air Resources Board

MIDDLE ROW: (Left to Right) **Dave Snyder**, Head, Industrial Waste Section, Sanitation Districts; **Michael Beasley**, Boeing Company (Vice Chair of Council); **Koen Hennon**, Rogers Poultry; **Skip Ricarte**, California Resource Management Association; **Gary Tilkian**, Metropolitan Water District of Southern California; **Jerry Wahlin**, AAA Plating and Inspection (Member); **Jim Jurgensmeier**, Bocchi Laboratories; **Steve Highter**, Public Information Office, Sanitation Districts; **Greg Garrick**, Bocchi Laboratories; **Anil Rana**, VACCO Industries (Member); **Ricardo Moreno**, Southern California Gas Company (Alternate); **Albert Lising**, Bocchi Laboratories; and **Jojo Commandante**, Los Angeles County Fire Department/Health Hazardous Materials Division

BACK ROW: (Left to Right) **Robert Ferrante**, Assistant Chief Engineer and Assistant General Manager, Sanitation Districts; **Tom Williams**, California Dairies, Inc.; **David Baltazar**, Los Angeles County Fire Department/Health Hazardous Materials Division; **Manuel Azevedo**, California Dairies, Inc.; **Grace Robinson Hyde**, Chief Engineer and Assistant General Manager, Sanitation Districts; **Kevin Laney**, Oil Operators, Inc. and Signal Hill Petroleum (Member); **Sam Bell**, Metal Surfaces, Inc. (Chair of the Council); **Jeff Helmrich**, In-N-Out Burger; **Gary Von**, Valet Services Laundry (Member); **Timothy Eng**, Kaiser Permanente (Member); **Brad Jensen**, San Gabriel Valley Economic Partnership; **Chris Herbeck**, Council Coordinator, Sanitation Districts; **Annie Hoeksma**, The Climate Registry; **Paul Ahn**, Southern California Edison (Member); **Bill Woysner**, Saint-Gobain Corporation; and **Naro Kuch**, Sierra Aluminum Co.

MEMBERS NOT PICTURED: **Ron Daerr**, Veolia ES Technical Solutions (Member); **Hazem Gabr**, Southern California Edison (Alternate); **Hector Garcia**, Clougherty Packing (Member); **Alphonso Graves**, Phillips 66 Los Angeles Refinery, (Alternate); **Michael Haro**, Lockheed Martin (Member); **Courtney Jones**, MillerCoors (Member); **Alan Nichols**, California Dairies, Inc. (Member); **Rayen Pasten**, Lunday-Thagard Refinery (Member); **Ken Rhodes**, Cacique Cheese (Member); **David Stryffeler**, Lockheed Martin (Alternate); **Marshall Waller**, Phillips 66 (Member); and **Brian Ward**, AAA Plating and Inspection (Alternate)

The IAC has brought about a productive dialogue between the Sanitation Districts and industry since 1992. The purpose of the Council is to outreach to the regulated industrial community for informing, educating, and promoting environmental sustainability. The Council provides an opportunity for industry and agencies to meet in a non-regulatory environment to communicate, share, and collaborate, with the goal for regulatory compliance, pollution prevention, and preparing industries for the Green Economy 2020. There are quite a few environmental mandates for the year 2020 in California: AB 32 greenhouse gas reduction to the 1990 level representing 30 percent reduction from what would be the 2020 level; 20 x 2020 State Water Mandate for urban water use reduction of 20 percent; Renewables Portfolio Standard for electricity generation of 33 percent; and a solid waste diversion goal from landfill of 75 percent. All of these mandates are moving industries toward a Green Economy 2020.

Four IAC meetings were held in 2016. The agenda topics focus on four areas. The first area is theme presentations and facility tours. The theme of the Council for 2016 was *21st Century Industry for the Green Economy 2020*. The theme presentations generally include regulatory, sustainability, and environmental presentations. The IAC theme presentations are to highlight the Green Economy mandates for 2020 and prepare industries to respond. Tours are also conducted with some of the meetings to visit public agency infrastructure facilities or industry manufacturing facilities. In February, Jojo Comandante, Supervising Hazardous Materials Specialist for the Los Angeles County Fire Department / Health Hazardous Materials Division, gave a talk on the Hazardous Waste Generator Program. The Resource Conservation and Recovery Act (RCRA) Subtitle C establishes a federal program to manage hazardous wastes for its entire existence to ensure that hazardous waste is handled in a manner that protects human health and the environment. The EPA has established regulations and procedures for the generation, transportation, storage and disposal of hazardous waste. The talk gave a brief overview of the hazardous waste regulations, and discussed those regulations that industries are most likely to receive a violation notice. These included not properly labelling and closing of hazardous waste containers, failures to minimize the release of hazardous waste, inadequate permits to transfer, store, and/or treat hazardous waste, having no proper contingency plan, and having inadequate training records. Mr. Comandante was followed by a talk on the State of Manufacturing Sectors in Southern California. Council members provided economic updates on the natural gas utilities, health care, oil and gas extraction, electric utilities, and metal finishing industries.

In May, the Council toured VACCO Industries main office in El Monte. VACCO Industries is a leading designer and manufacturer of specialty valves, filters and advanced fluid control products offering innovative engineered solutions to critical missions for defense, space, and commercial markets. In addition to the engineered fluid control valves, VACCO is also the largest commercial photo etching company in the Western United States. The tour included the machine shop with the leading edge CNC machines, the assembly and clean room facilities, testing facilities including the nitrogen and helium high pressure test facilities, the photo etching machine shop, and the waste water treatment facility. After the tour, Tony Gonzales, President of VACCO Industries, welcomed the IAC to their facility. Finally, Cleave Samson, Sales Engineer with VACCO Industries gave an introduction of VACCO Industries including a discussion on the products that VACCO Industries produces.

In September, Dr. Philip Fine, Deputy Executive Officer of Planning, Rule Development & Area Sources for the South Coast Air Quality Management District, gave a talk on The South Coast Air Quality Management District's 2016 Air Quality Management Plan. The South Coast Air Quality Management District (SCAQMD) is responsible for clean air planning in the South Coast Air Basin (Basin) that includes Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. Since the late 1990's, the SCAQMD has developed four Air Quality Management Plans (AQMPs) for the region to meet federal air quality standards. While air quality has dramatically improved over the years, the Basin still exceeds federal public health standards for both ozone and particulate matter (PM) and experiences some of the worst air pollution in the nation. The SCAQMD is

working on the adoption of a new 2016 AQMP to develop strategies and measures to meet the federal air quality standards for ozone and PM. The talk discussed the objectives, control strategies, and implementation measures for the proposed 2016 AQMP, and how this will affect businesses in the area.

In November, Earle Hartling, Water Recycling Coordinator for the Sanitation Districts of Los Angeles County, The Role of Water Recycling - Can Purple Pipe be the White Knight for the Next Water Crisis? The threat/promise of a gigantic El Nino event for the winter of 2015-16 never materialized for southern California. Therefore, despite some rain and snow in the north, the State will most likely continue with the historic water shortages it has been experiencing for the past five years. The Los Angeles area is particularly susceptible to the effects of drought, as most of our water supply is imported. A local supply, recycled water, has been effectively utilized over the past half century to replace the increasingly less-dependable imported supplies. Recycled water provides multiple benefits in addition to drought-proofing the LA region, and this supply will be exploited to even greater levels in the future.

The second agenda topic area is legislative, regulatory, and policy issues. The regulatory agenda for 2016 included legislative updates on state environmental bills and talks on Sacramento and Washington DC regulatory and political outlooks. In May, Michael Beasley, Senior Environmental Specialist for Enterprise Strategy Policy Analysis with Boeing, talked about four bills that are on the 2016 Top Environmental Quality Committees Matrix of the California Manufacturing & Technology Association. These included AB 1759 (Bonta) on the use of hydrogen flouride by industries in California, SB 163 (Hertzberg) on the discharge of treated wastewater to the ocean by Sanitation Facilities, SB 654 (De Leon) on the permitting of hazardous waste facilities by the Department of Toxic Substance Control, and SB 1387 (De Leon) on adding three new environmental seats to the South Coast Air Quality Management District board and also give the California Air Resources Board authority to overrule and replace any SCAQMD market-based incentive plan or revision not meeting certain strict requirements as compared to traditional command and control regulation. In September, Sharon Green, the Legislative and Regulatory Liaison for the Sanitation Districts, gave a legislative update on State Environmental Bills. Ms. Green discussed SB 32 (Pavley) on 2030 Greenhouse Gas Reduction Targets, AB 197 (E. Garcia) on Equity & Transparency in Climate Act, SB 1383 (Lara) on Short-Lived Climate Pollutants, AB 1613 (Assembly Committee on Budget) on the Budget Act of 2016 SB 859 (Senate Committee on Budget & Fiscal Review) on Public Resources: Greenhouse Emissions and Biomass, AB 1550 (Gomez) on Increased Climate Investment, SB 1387 (De Leon) on the South Coast Air Quality Management District Board, SB 839 (Senate Committee on Budget & Fiscal Review) on Public Resources, and SB 163 (Hertzberg) on Wastewater Treatment: Recycled Water. Also in September, Frank Caponi, Head of the Air Quality Engineering Section for the Sanitation Districts, spoke on the Impact of AB32 on POTWs and Landfills; Opportunities and Challenges, Now and in the Future. The California Global Warming Solution Act (AB32) became law in California in 2006. The goal of this law was to reduce the levels of Greenhouse Gases (GHG) to 1990 levels by 2020. The Governor and the Legislature are now considering taking this program beyond 2020. The Sanitation Districts have several facilities that generate GHG including the wastewater treatment plants, landfills, and waste-to-energy facilities; and are impacted by this regulation. The talk discussed current challenges and opportunities presented by AB32, and how these will be impacted by anticipated future regulations extending AB 32 beyond 2020. Finally, in November, two lobbyists for the Metal Finishing Association visited the Council to speak on the 2016 Post-Election Forum from Sacramento CA and Washington DC. Jerry Desmond, legislative advocate with Desmond & Desmond, LLC, spoke on California Politics Following the Elections, and Expectations for 2017. Christian Richter, Executive Vice President with The Policy Group, spoke on the Washington Review: Election Update and Outlook.

The third agenda topic area is industrial environmental best practices, voluntary partnerships, and stakeholder outreach, highlighting BMPs for energy efficiency, water conservation, and sustainability reporting. In February, Annie Hoeksma, Outreach Manager for the Climate Registry, spoke about the 2016 Cool Planet Awards. The Climate Registry is an environmental nonprofit organization that

establishes consistent transparent standards throughout North America for businesses and governments to calculate, verify, and publicly report (if they choose), their carbon footprints into a single unified registry. They are a voluntary reporting program. Several of the IAC members work for companies that are members of the Climate Registry. In May, Anil Rana, the Environmental Health and Safety Manager for VACCO Industries spoke on Environmental and Regulatory Compliance at VACCO Industries. Finally, in September, Andre Villasenor, Environmental Protection Specialist with the U.S. EPA Southern CA Field Office, spoke on The Health and Economic Benefits of Environmental Protection. Environmental regulations are often criticized as imposing excessive compliance costs on businesses that result in job losses and hurting the economy. However, studies show that health and economic benefits of these environmental regulations greatly outweigh their associated costs. The talk included examples of how environmental protections have resulted in creating jobs requiring pollution clean-up and prevention efforts, and saved the economy money by avoiding pollution's negative health effects.

The fourth agenda topic area is pretreatment program administration. In February, Chris Herbeck, Council Coordinator, gave a presentation introducing the 2016 Council Members, discussing their companies, their roles at the companies, and the company's operations. He also gave a preview of Council Agenda for 2016. Also in February, David Snyder, Head of the Sanitation Districts' Industrial Waste Section, spoke on the State of the Sanitation Districts and the Industrial Waste Section. In May, Dave Snyder, Head of the Sanitation Districts' Industrial Waste Section, gave an update on the Sanitation Districts. His key topic was the new industrial waste surcharge rates that would go into effect on July 1, 2016. Also in May, June Nguyen, Senior Engineer in the Sanitation Districts' Industrial Waste Section, spoke on EPA Pretreatment Categorical Standards. The Clean Water Act (CWA) establishes a regulatory program to address the indirect discharges from industries to publicly owned treatment works (POTW's) through the National Pretreatment Program. As part of this program, the EPA has established categorical pretreatment standards that are applicable to 35 specific industry categories. The talk gave a background on the development of the pretreatment categorical standards, and discussed those industries that are subject to the standards. In September, David Snyder, Head of the Sanitation Districts' Industrial Waste Section, gave an update on the Sanitation Districts. His topics included the Certificates of Recognition for 2016 awarded to industries for being "Good Corporate Citizens," and the implementation of the new Surcharge Statement forms. Finally, in November, Chris Herbeck, Council Coordinator, gave a Council review of 2016 and discussed Council planning for 2017.

In the summer months, IAC members and their associates were also invited to join the Sanitation Districts' directors for ocean inspection tours to an area off the Palos Verdes Peninsula where the effluent from the Sanitation Districts' outfalls are discharged to the ocean one and one-half miles offshore and at a depth of 300 feet. Plants and animals are trawled from the bottom of the ocean and placed in examination tanks for truly hands-on inspection. The IAC members were also invited to participate in the annual Earth Day Fair at the Sanitation Districts in April 2016. Over the years, fifteen companies and one trade association have exhibited and/or sponsored the Earth Day Fair. A list of the IAC meeting topics for 2016 is given in Table 9-2.

Table 9-2
2016 Industry Advisory Council Agenda Topics

Theme: 21st Century Industry for the Green Economy 2020

Agenda Area	Theme Presentations and Facility Tours	Legislative, Regulatory, and Policy Issues	Industrial Environmental Best Practices	Pretreatment Program Administration
February 9 <i>11 am, Districts HQs, Whittier</i>	Hazardous Waste Generator Program (<i>Comandante</i>), and State of Manufacturing Sectors in Southern California (<i>Council Members</i>)		2016 Cool Planet Awards (<i>Hoeksma</i>)	Introduction of the 2016 Council (<i>Herbeck</i>), Council Agenda (<i>Herbeck</i>), Council Photo Session, and State of the Districts and the Industrial Waste Section (<i>Snyder</i>)
April 9 <i>(Saturday)</i>	Earth Day Fair, <i>Sanitation Districts Joint Administration Office's Parking Lot</i>			
May 17 <i>10 am Tour and 11:30 am Meeting; VACCO Industries Main Office, El Monte</i>	Tour of VACCO Industries (<i>Rana</i>), Welcome (<i>Gonzales</i>), and Introduction to VACCO Industries (<i>Samson</i>)	Legislative Update on State Environmental Bills (<i>Beasley</i>)	Environmental and Safety Affairs at VACCO Industries (<i>Rana</i>)	Sanitation Districts Update (<i>Snyder</i>), and EPA Pretreatment Categorical Standards (<i>Nguyen</i>)
June, July and August (6 Saturdays and 1 Thursday)	Ocean Monitoring Tours with LACSD Directors (city mayors and staff), visiting the ocean area around the effluent discharge outfall and hands-on examining of plants and animals from the bottom of the ocean			
September 13 <i>11 am, Districts HQs, Whittier</i>	The South Coast Air Quality Management District's 2016 Air Quality Management Plan (Fine)	Legislative Update on State Environmental Bills (<i>Green</i>), and Impact of AB32 on POTWs and Landfills: Opportunities and Challenges, Now and in the Future (<i>Caponi</i>)	The Health and Economic Benefits of Environmental Protection (<i>Villasenor</i>)	Sanitation Districts Update (<i>Snyder</i>),
November 15 <i>11 am, Districts HQs, Whittier</i>	The Role of Water Recycling – Can Purple Pipe Be the White Knight of the Next Water Crisis? (<i>Hartling</i>)	California Politics Following the Elections, and Expectations for 2017 (<i>Desmond</i>), and Washington Review: Election Update and Outlook (<i>Richter</i>)		Review of 2016 and Planning for 2017 (<i>Herbeck</i>)

Since 2011, the Council meetings were expanded to include more industries to attend. Many of the larger dischargers to the Sanitation Districts and within the IEUA that the Sanitation Districts serve regularly attended the meetings in 2016. The meetings were also open to other agencies, like the Los Angeles County Fire Department/Health Hazardous Materials Division, The South Coast Air Quality Management District, the U.S. EPA Southern California Field Office, The California Air Resources Board, Cal/EPA DTSC, the City of Los Angeles Bureau of Sanitation, the Orange County Sanitation District, Central Basin MWD and West Basin MWD. It is also open to trade associations; and representatives from the Metal Finishing Association, the California Small Business Alliance, the California Resource Management Association, and the Climate Registry attended the meetings. Utilities representatives for conservation and GHG reduction from the Southern California Edison, the Gas Company, and the Metropolitan Water District of Southern California also attended the meetings to make their presences visible for industry seeking energy and water efficiency rebates.

The model for the IAC has been shared with other wastewater agencies. Inquires have been made by agencies in California and other states on the work of IAC. The IAC also shares the agenda and

minutes of its meetings with other pretreatment programs in Southern California, and representatives of the pretreatment program of the City of Los Angeles, the Orange County Sanitation District, and the IEUA attend the IAC meetings. In addition, the IAC also invites other environmental agencies to attend the IAC meetings, and an agenda item is set aside for agency updates from federal, state, and local agencies. Connections are also made with various trade associations. The executive staff of these associations have attended IAC meetings regularly. The 2016 Events Calendar for environmental conferences and training opportunities is given in Table 9-3. The 2016 Annual Awards Opportunities for Industry is given in Table 9-4.

The IAC has fostered mutual understanding and cooperation between industry and the Sanitation Districts. It has proven to be an innovative forum for government and industry to communicate and cooperate on environmental issues. The Council provides a vehicle to lead industries towards a sustainable future through competitive manufacturing, environmental stewardship, and resources conservation. The Events Calendar for environmental conferences and training opportunities is given in Table 9-3. The Annual Awards Opportunities for Industry for 2016 is given in Table 9-4.

**Table 9-3
Events Calendar for Annual Recurring Environmental Conferences and Training**

Date	Location	Events	Comments	Website
1/24-26/2016	Los Angeles L.A. Hotel Downtown	VerdeXchange's 9th Annual Green Marketmakers Conference	A B2B, clean energy and sustainable technology event	http://www.verdexchange.org/
2/10-12	Palm Springs Hilton	Urban Water Institute Spring Water Conference	Conference on water and water issues	http://www.urbanwater.com/
2/23-25	Phoenix, AZ Marriott	GreenBiz 2016 Forum	Trends, challenges and opportunities in sustainable business	https://www.greenbiz.com/events
2/29-3/2	Riverside Conv Center	CWEA Pretreatment, Pollution Prevention, and Stormwater (P3S) Annual Conference	Pretreatment professionals conference	http://p3s16.org/
3/8-10	Seattle, WA Sheraton	2016 Climate Leadership Conference	EPA, States, and NGOs; Climate Awards	http://www.climateleadershipconference.org/
3/13-15	Santa Rosa Hyatt Hotel	2016 WaterReuse California Annual Conference	Conference on water recycling facilities and projects in California	https://www.watereuse.org/news-events/conferences
3/21-22	Sacramento Convention Center	Green California Summit and Expo	Strategies, best practices and technologies that are helping CA sustainability goals.	http://www.greentechnology.org/
3/23	Downey Sempra Center	SoCal Waste Mgmt Forum Annual Spring Conference	Learn about major waste management issues	http://www.scwmf.org/web/forum-events
4/9	Whittier LACSD	Sanitation Districts Earth Day Fair, Saturday, 10 am to 2 pm	Free exhibitor booths and Wastewater Plant Tours	http://www.lacsd.org/environment/earth_day/default.asp
4/26-29	Santa Clara Conv Center	CWEA Annual Conference	Wastewater professionals conference	www.cwea.org
5/4-6	San Diego	Navigating the American Carbon World Conference	Leading climate change conference	http://www.climateactionreserve.org/
5/17-20	Long Beach Hyatt Regency	NACWA Annual National Pretreatment & P2 Workshop	EPA, State, and POTW pretreatment professionals	http://www.nacwa.org
6/1-4	Austin, TX Sheraton	Annual National Zero Waste Business Conference	Conference on zero waste and waste reduction methods	http://www.uszwbc.org/nzwbc2016
6/14-16	Portland, OR	Annual Green Chem & Engineering Conference	Sustainable Chemistry and Engineering for 21 st Century	http://www.gcande.org
6/20-23	New Orleans, LA, Hyatt	Air & Waste Mgmt Assoc Annual National Conference	Air quality and waste management professionals	http://ace2016.awma.org/
8/22-25	Indianapolis, IN Conv Center	SWANA WasteCon 2016 National Conference	Leading govt solid waste professionals conference	https://swana.org/Events/WASTECON.aspx
8/24-26	San Diego Hilton	Urban Water Institute 22 nd Annual Water Conference	Conference on water and water issues	http://www.urbanwater.com/conference/

9/11-14	Tampa, FL Marriott	31st Annual WateReuse Symposium	Latest innovations in water recycling and desalination	https://www.watereuse.org/news-events/conferences
9/12-14	San Diego, CA Paradise Pnt Res	CASQA Annual Stormwater Conference	Storm water professionals conference	https://www.casqa.org/events/annual-conference
9/24-28	New Orleans, Morial Conv Ctr	WEFTEC Annual Wastewater Tech Exhib and Conference	Water Environment Federation national conf.	http://www.wef.org/Conferences/page.aspx?id=113
10/5-6	San Diego Conv Center	IEA/CMTA Annual Environmental Conference	Leading statewide industrial conference with top speakers	http://iea-sd.com/conference/
10/5-7	Los Angeles Conv. Center	Greenbuild International Conference & Expo	Leading national green building conference	http://www.greenbuildexpo.org
10/10-13	Portland OR	No Am HazMat Mgmt Assoc National Conference	Upstream stewardship and downstream sustainability	http://www.nahmma.org
11/3	Long Beach El Dorado Golf Course	CA Resource Management Association, <i>Vision 2017</i>	Annual regulatory conference with EPA, Cal/EPA and local agency speakers	http://www.calrma.com/
11/9	Pomona Sheraton Fairplx	SoCal Waste Management Forum Annual Conference	Forum on waste management and its relationship with the environment	http://www.scwmf.org/web/home/

**Table 9-4
Annual Environmental Awards Opportunities for Industry**

Application Period	Name of Award	Main Features	Web Link
March – June (awards in fall)	Southern California Edison and the Climate Registry, Cool Planet Award	Given out by industrial sectors to small and large businesses for leadership in energy conservation and carbon management	https://www.theclimateregistry.org/programs-services/cool-planet-project/
May - July (awards usually in late fall or early winter)	Governor’s Awards for Environmental and Economic Excellence (GEELA)	GEELA is California's highest environmental honor. The award recognizes exceptional leadership for voluntary achievements in conserving California's resources, protecting and enhancing the environment and building public-private partnerships. Recipients are chosen from 5 different categories in 2016.	http://www.calepa.ca.gov/Awards/GEELA/
May - July (awards in October)	Industrial Environment Assoc. and CMTA Environmental Excellence Awards	For environmental excellence for companies, facilities, or organizations that protected the environment. Awards presented at the Annual Environmental Training symposium and Conference in San Diego.	www.iea-sd.com
June - July (awards in October)	South Coast AQMD Clean Air Awards	Categories in Innovative Clean Air Technology, Clean Air Education and Outreach, Business Leadership in Air Quality, Youth Leadership in Air Quality, and Model Community Achievement.	http://www.aqmd.gov/caa/home/nominations
June – September (awards in March)	EPA, C2ES, and Climate Registry Climate Leadership Awards	A national awards program that recognizes and incentivizes exemplary corporate, organizational, and individual leadership in response to climate change.	https://www.epa.gov/climateleadership/climate-leadership-awards
Aug.-Nov. (awards in February)	ARB CoolCalifornia Small Business Award	Recognizing small California businesses (with less than 100 employees) for leadership in reducing energy and GHG emissions	http://www.coolcalifornia.org/article/small-business-award-program
Dec. to Jan. (awards in March)	Water Reuse Association of CA, Recycled Water Customer of the Year Award	This award recognizes a recycled water user who has advanced the acceptance of water reuse through unique applications of recycled water and/or innovative marketing.	https://watereuse.org/news-events/conferences/2017-watereuse-california-annual-conference/