

Orange County Sanitation District
**Biosolids
Management
Compliance Report**

Year 2015
EPA 40 CFR Part 503



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Buena Park
Cypress
Fountain Valley
Fullerton
Garden Grove
Huntington Beach
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Los Alamitos
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Tustin
Villa Park
County of Orange
Costa Mesa
Sanitary District
Midway City
Sanitary District
Irvine Ranch
Water District
Yorba Linda
Water District

February 18, 2016

Lauren Fondahl
U.S. EPA Region 9 WTR-2-3
75 Hawthorne Street,
San Francisco, CA 94105

SUBJECT: Orange County Sanitation District's Annual Compliance Report

In accordance with the requirements of 40 CFR Part 503 and NPDES Permit No. CA0110604, enclosed is the Orange County Sanitation District's (OCSD) 40 CFR Part 503 Compliance Report, covering January 1, 2015 through December 31, 2015. This report provides the required data and information relevant to OCSD's operations, monitoring, and biosolids management program.

The U.S. Environmental Protection Agency's (EPA) official Policy on Municipal Sludge Management (Volume 49, 1984 Federal Register, page 24358) states "The U.S. Environmental Protection Agency (EPA) will actively promote those municipal sludge management practices that provide for the beneficial use of sludge while maintaining or improving environmental quality and protecting public health." Over the course of 2015, OCSD maintained a high level of beneficial reuse due to our exceptional source control, operations, and biosolids management program, which are all part of our biosolids management system. In 2015, the pollutant concentrations in our biosolids were below the 40 CFR Part 503 Tables 1 and 3, "Ceiling" concentrations. OCSD continues to improve the productivity of farmland by using the soil conditioning properties and nutrient content found in biosolids.

Our annual report for the period of January 2015 through December 2015 contains:

- Summary of pollutant concentrations as defined in 40 CFR Part 503.13
- Summary of Operational Standards Employed for Pathogen and Vector Attraction Reduction as defined in 40 CFR Part 503.32 (b) (3) and 503.33 (b) (1)
- Summary of Production and Distribution

For your convenience, the above-mentioned information has been identified by each OCSD treatment facility. OCSD's treatment facilities are identified as Reclamation Plant No. 1 located in Fountain Valley, California and Wastewater Treatment Plant No. 2 located in Huntington Beach, California. We have also included a copy of the Solids Management Program portion of OCSD's Source Control Annual Report for fiscal year 2014-2015 in Appendix B and our Environmental Sciences Laboratory report Summary of Priority Pollutants for 2015 in Appendix C.

In accordance with the 40 CFR Part 503 reporting requirements, each of OCSD's biosolids management contractors has provided its annual report information directly to the EPA. If more detailed information is need for individual digester time and temperatures, OCSD's Monthly Summary of Operations (MSOs) are available upon request.





Lauren Fondahl
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February 18, 2016

If you have any questions or comments regarding this packet of information, please contact Cindy Vellucci at (714) 593-7156. I can be reached at (714) 593-7450.

A handwritten signature in blue ink that reads 'James Colston'.

James Colston
Environmental Compliance Manager

JEC:CV:jb

file:///H:/dept/heng/790/Compliance/Biosolids/Compliance_Reports/40_CFR_503_Annual_Reports/40CFR503_2015/Cover_letter-EPA_Biosolids_Annual_Report.doc

Enclosure

Orange County Sanitation District

10844 Ellis Avenue, Fountain Valley, CA 92708
714.962.2411 • www.ocsewers.com

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Costa Mesa
Sanitary District

Midway City
Sanitary District

Irvine Ranch
Water District

Yorba Linda
Water District

February 18, 2016

Andy Koester
Arizona Department of Environmental Quality
Water Permits Section
1110 West Washington Street, 5415-B-3
Phoenix, Arizona 85007

SUBJECT: Orange County Sanitation District's Annual Compliance Report

Enclosed please find the Orange County Sanitation District's (OCSD) biosolids annual compliance report as required under the Arizona Administrative Code Article 10, the 40 CFR Part 503 regulations and the National Pollution Discharge Elimination System (NPDES) Permit No. CA0110604:

- Signed 2015 OCSD Biosolids Annual Report Form for Preparers
- OCSD's Annual 503 Compliance Report for 2015

You will receive an e-mail containing the electronic copy of the form. This report is also available in electronic format via OCSD's website, www.ocsewers.com/503.

If you have any questions or comments regarding this packet of information or require any additional data, please contact Cindy Vellucci at (714) 593-7156. I can be reached at (714) 593-7450.



James E. Colston
Environmental Compliance Manager

CV:JEC:jb

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Orange County Sanitation District

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Water District

February 18, 2016

Kurt Berchtold, Executive Officer
California Regional Water Quality Control Board, Santa Ana Region
3737 Main Street, Suite 500
Riverside, CA 92501-3348

SUBJECT: Orange County Sanitation District's Annual Compliance Report

Enclosed please find the Orange County Sanitation District's (OCSD) biosolids annual compliance report for the calendar year 2015 as required under both the 40 CFR Part 503 regulations and our National Pollution Discharge Elimination System (NPDES) Permit No. CA0110604, Order No. R8-2012-0035.

This report is also available in electronic format via OCSD's website, www.ocsewers.com/503.

If you have any questions or comments regarding this packet of information or require any additional data, please contact Cindy Vellucci at (714) 593-7156. I can be reached at (714) 593-7450.



James E. Colston
Environmental Compliance Manager

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CERTIFICATION STATEMENTS

February 18, 2016

Certification Statements

The following certifications satisfy procedural requirements as listed in section V.B.5 of the Orange County Sanitation District's NPDES Permit No. CA0110604, 40 CFR part 503 section 503.17, and Arizona Administrative Code Article 10 under section R18-9-1013 for the submittal of the attached EPA 40 CFR Part 503 Compliance Report for calendar year 2015.

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

503 Class B: *I certify, under penalty of law, that the Class B pathogen requirements in 503.32(b) and the vector attraction reduction requirement in 503.33(b)(1 or 10) have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the pathogen requirements and vector attraction requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.*

Arizona Class B: *I certify, under penalty of law, that the pollutant analyses and the description of pathogen treatment and vector attraction reduction activities have been made under my direction and supervision and under a system designed to ensure that qualified personnel properly gather and evaluate the information used to determine whether the applicable biosolids requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.*



James E. Colston
Environmental Compliance Manager

CV:JEC:jb

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2015 BIOSOLIDS MANAGEMENT COMPLIANCE REPORT

Introduction
Organization and Function
Treatment Plants and Program Updates
Biosolids Management
Summary of Pollutants
Determination of Hazardousness
Biosolids Management System
Goals and Targets
Biosolids Program Policy

Introduction

The Orange County Sanitation District's (OCSD) Biosolids Program is responsible for the treatment and management of OCSD's biosolids. Per the biosolids policy, *OCSD strives to recycle our biosolids using sustainable options while protecting public health and the environment.* OCSD recognizes the importance of building strong relationships throughout its biosolids value chain, including with interested parties and regulators. OCSD practices continuous improvement in all areas of its Biosolids Program via our internal biosolids management system.

The following sections summarize OCSD's activities and performance for the compliance-reporting period of January 1st to December 31st 2015.

Organization and Function

The Orange County Sanitation District (OCSD) is a public agency that provides wastewater collection, treatment, and disposal services for approximately 2.5 million people in central and northwest Orange County. OCSD is a special district that is governed by a Board of Directors consisting of 25 board members appointed from 20 cities, two sanitary districts, two water districts and one representative from the Orange County Board of Supervisors. OCSD has two operating facilities (Fountain Valley and Huntington Beach) that treat wastewater from residential, commercial and industrial sources.

Operating under National Pollutant Discharge Elimination System (NPDES) Permit No. CA0110604, OCSD treated an average daily sewage influent flow of 184 million gallons per day (MGD), five percent less than the previous year. OCSD produced approximately 278,500 wet tons of biosolids, which equates to an average of 763 wet tons per day of biosolids.

Treatment Plants and Program Updates

Reclamation Plant No. 1, located in the city of Fountain Valley, treated an average of 115 MGD (Twenty percent increase over the previous year). Treatment Plant No. 2, located in the City of Huntington Beach, treated an average of 69 MGD of wastewater during that same period (Thirty percent decrease from the previous year).

In 2015, about 20 MGD were reallocated to Plant No. 1 from Plant No. 2 in order to support the Orange County Water District's (OCWD) Ground Water Replenishment System (GWRS) expansion, which has increased Plant No.1's solids production and decreased Plant No. 2's solids production. GWRS purifies OCSD's secondary treated water from Plant No. 1 to meet drinking water standards. Last year, OCSD provided GWRS an average of 112 MGD of secondary effluent to produce purified water for reuse.

Reclamation Plant No. 1 produced 24,778 dry metric tons of biosolids, as well as 735 dry metric tons of digester cleanings (from Digester 11). These biosolids were anaerobically digested for an average of 19 days at 36 degrees Celsius (97 degrees Fahrenheit) resulting in an average volatile solids reduction of 58 percent over this reporting period with an average total solids of 18%. Under the established operational parameters, Plant No. 1 diverted a daily average of 37,635 cubic feet or 0.28 MGD of primary sludge from Plant No. 1 to Plant No. 2 via our inter-plant sludge line.

Treatment Plant No. 2 produced 25,407 dry metric tons of biosolids, as well as 2,312 dry metric tons of digester cleanings (from Digesters C and Q). The process at Plant No. 2 is similar to Plant No. 1 in that the biosolids were anaerobically digested for an average of 20 days at 36 degrees Celsius (96 degrees Fahrenheit). Biosolids from Plant No. 2 had an average volatile solids reduction of 58 percent and an average total solids of 22%.

Plants Nos. 1 and 2 processes provide compliance with the “Class B Pathogen Reduction” and “Vector Attraction Reduction” definition for “Class B” biosolids as defined in 40 CFR Part 503.32(b)(3) (PSRP 3) and 503.33(b)(1), respectively. In addition, Tule Ranch/AgTech’s standard operating procedure includes incorporation within 6 hours which meets 40 CFR Part 503.33(b)(10) requirement if OCSD’s treatment plant fails to meet the Vector Attraction Reduction standard.

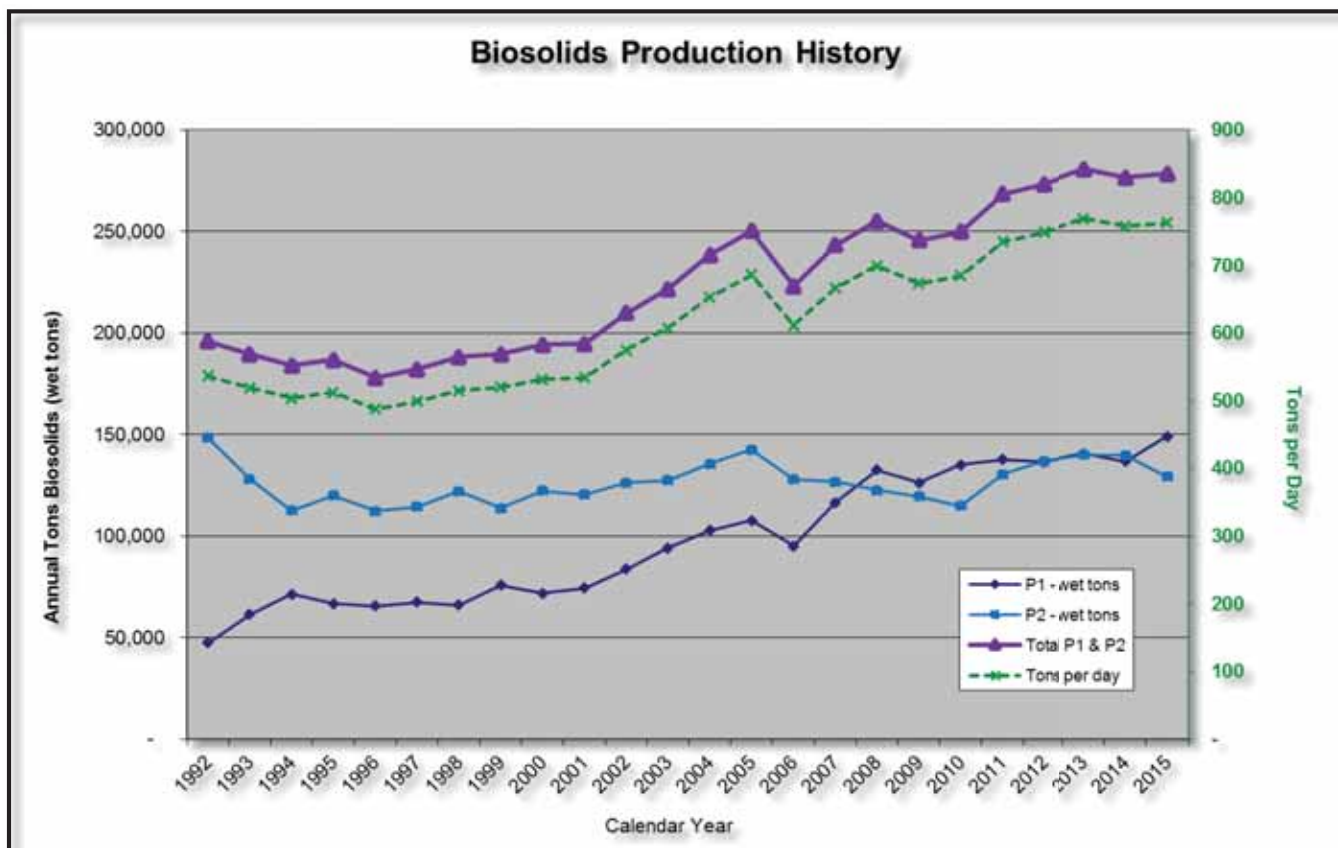


Figure 1: Biosolids Production History from January 1992 – December 2015

The Irvine Ranch Water District (IRWD) discharges its untreated solids (sludge) to OCSD. IRWD is currently constructing their own solids treatment facility and plans to cease sending their solids to OCSD in 2017. This cessation is anticipated to reduce Plant No. 1's influent solids by ten to fifteen percent.

OCSD is replacing the belt filter presses with new dewatering centrifuge facilities, which are scheduled to start service in 2017 for Plant No. 1 and in 2019 for Plant No. 2. As a result, the total percent solids of digested biosolids is anticipated to increase from eighteen to twenty-two percent to thirty percent, resulting in approximately one-third fewer wet-weight solids to manage. In addition, this project is also bringing pre-digestion thickening centrifuges to replace the dissolved air floatation thickening at Plant No. 1, and it will rehabilitate the Plant No. 1 truck loading facility.

Biosolids Management

Biosolids produced at OCSD's two treatment facilities were managed by the contractors listed below in Table 1.

In 2015, OCSD started managing its biosolids at two new facilities. An interagency agreement was signed between OCSD and Inland Empire Regional Composting Authority, and OCSD began hauling to their Rancho Cucamonga facility in June. OCSD's maintenance contractor sub-contracted with Nursery Products to haul our Plant No. 2 digester cleanings to their Helendale facility.

Table 1- Biosolids Management Contractors	
Tule Ranch / Ag-Tech 4324 E. Ashlan Ave. Fresno, CA 93726 Contact: Shaen Magan Phone: (559) 970-9432	
Synagro – South Kern P.O. Box 265 Taft, CA 93268 Contact: Tony Cordova Phone: (661) 765-2200	Synagro – Arizona Soils 5615 S. 91st Avenue Tolleson, AZ 85353 Contact: Craig Geyer Phone: (623) 936-6328
Inland Empire Regional Composting Authority 12645 6th Street Rancho Cucamonga, CA 91739 Contact: Jeff Ziegenbein Phone: (909) 993-1981	
Nursery Products PO Box 1439 Helendale, CA 92342. Contact: Chris Seney Phone: (760) 272-1098	

Orange County Waste and Recycling

300 N Flower St., Suite 400
 Santa Ana, California 92316
 Contact: Greg Dayak
 Phone: (949) 728-3050

These biosolids management contractors provide OCSD with diversification and reliability and are therefore important partners in OCSD’s biosolids management team. Contractors submit their annual compliance reports directly to EPA, as applicable. For this reporting period, OCSD’s biosolids were beneficially reused in the following areas:

Table 2 - Biosolids Distribution by Contractor and Biosolids Management Option for 2015

Destination	Beneficial Reuse Method or Product	Biosolids Vendor	Amount of Biosolids Managed ¹ (dry metric tons)		Total
			Plant No. 1	Plant No. 2	
Kern County, CA	Compost	Synagro	14,987	406	
La Paz County, AZ	Compost	Synagro	5,789	10	
	Total	Synagro	20,776	416	21,192
San Bernardino County, CA	Compost	<i>Inland Empire Regional Composting</i>	8	547	
	Total	<i>Inland Empire Regional Composting</i>	8	547	555
Yuma County, AZ	Class B land application	Tule Ranch	976	24,444	
	Total	Tule Ranch	976	24,444	25,420
Orange County, CA	Landfill	Orange County Waste & Recycling	3,018	0	
	Total	Orange County Waste & Recycling	3,018	0	3,018
			24,778	25,407	
Compost 47%	Land Application 47%	Landfill 6%	Total		50,185
Digester Cleaning Totals					
La Paz County, AZ	Compost	Synagro	735	0	3,047
San Bernardino County, CA	Compost	Nursery Products	0	2,312	
1 - The above values are based on OCSD-verified data. Any differences noted between the reported dry-metric-ton values can likely be attributed to the differences in total solids sampling data (i.e., OCSD and vendors do independent sampling), or discrepancies in reporting periods (i.e. some contractors report received tonnages vs shipped). If a significant difference in the values is discovered upon further verification of the data, this table will be updated and re-submitted.					

Summary of Pollutants

Since 1976, OCSD’s Pretreatment Program has been effective in lowering the average mass of metals discharged to the marine environment by 98% and the total mass of metals in the influent sewage by 86%, thereby ensuring OCSD’s biosolids can be recycled to farm fields with low metals concentrations. Furthermore, OCSD’s influent wastewater meets drinking water standards for metals. Appendix B contains the

biosolids chapter of OCSD's Source Control Annual Report ([ocsewers.com/SCAnnual \(part 2, Chapter 9\)](http://ocsewers.com/SCAnnual(part%20,Chapter%209))).

Tables 1 through 3 in the compliance data section (Appendix A) compare the concentration limits of the pollutants listed in 40 CFR 503 to OCSD's average biosolids concentrations for each plant. The average concentrations of all pollutants in OCSD's biosolids are below the conservative *Table-1 Ceiling Limits* and *Table 3 Exceptional Quality Limits* found in 40 CFR Part 503.

In accordance with OCSD's Ocean Discharge NPDES permit, biosolids are also tested semi-annually for all pollutants listed under Section 307(a) of the Clean Water Act. Appendix C contains the summary of the priority pollutants analyzed in the plants' biosolids.

Determination of Hazardousness

Legal Definition

OCSD's 2012 Ocean Discharge NPDES permit requires OCSD to test its biosolids annually for hazardousness in accordance with California law. Hazardous waste is defined under the provisions of California Code of Regulations, Title 22, Chapter 11, Article 5.

Determination

OCSD's biosolids are tested at least annually for the determination of hazardousness. OCSD does not produce biosolids with the listed substances in amounts deemed as hazardous in Title 22 above (see OCSD's biosolids monitoring data in Appendix C, Summary of Priority Pollutants and Trace Constituents Analysis). As a result of this determination, *OCSD's biosolids are non-hazardous*.

Biosolids Management System

In July 2000, OCSD began developing our biosolids management system (BMS) and became the first in the nation to be certified by the National Biosolids Partnership (NBP) in July 2003. OCSD's biosolids program has grown and flourished using this management system approach over these fifteen years.

Prior to certification, OCSD was using biosolids at numerous farms with limited compost and inconsistent documentation and oversight. Under the NBP certification, OCSD matured and strengthened its biosolids program. Today, OCSD's program consists of about 50% direct farming with biosolids at a single farm that has been using biosolids since the 1980s. Recent improvements to the farm have eliminated some of the most odorous steps in the process, thereby significantly reducing flies and odors while increasing efficiency.

Likewise, the compost facilities today are sophisticated processes with extensive permitting and regulatory oversight, significantly improved communications with neighbors and local communities, and more air quality and odor process controls.

The certification process helped OCSD develop an effective, award-winning program that will remain in place. In light of our maturation, we have withdrawn from the NBP’s standard in favor of an internal standard. OCSD is in the process of reviewing all portions of the program, and OCSD will eliminate or reduce those portions that have an inefficient value or return. Most resource savings are expected in the areas of audits and management of the certification, although the entire system is in the process of being reviewed with minor changes throughout. OCSD remains committed to continuous improvement and maintaining a high-quality, effective program.

Goals and Targets

The November 2013 Strategic Plan contained numerous agency-wide goals and levels of service targets. The following are some of the accomplishments made this year on activities related to biosolids. Refer to the November 2013 Strategic Plan (www.ocsewers.com/5yearstrategicplan) for the full list of goals and levels of service.

Biosolids Program Policy

Originally adopted in 1999 and amended in 2006 and 2013, OCSD’s Resolution 13-03 (<http://www.ocsewers.com/policy>) established a policy that commits the agency to support biosolids beneficial reuse (organics recycling).

The resolution’s commitments and OCSD’s performance relative to these commitments are reported below.

Table 3 – Policy Performance	
Policy Commitment	2015 Performance
Commit to sustainable biosolids program. Support the recycling of biosolids.	OCSD has demonstrated effective pretreatment, water and solids treatment operations, compliance, capital improvements, technology research and planning, and biosolids contractor oversight programs. This year’s accomplishments include: <ul style="list-style-type: none"> • Recycling of 94% of OCSD’s biosolids • OCSD awarded a consulting contract to help us develop a comprehensive Biosolids Master Plan that will match onsite and offsite future facilities planning. • Quarterly research meetings with sister agencies to evaluate new technologies that could be considered by OCSD.

<p>Strive to balance financial, environmental, and societal considerations when making biosolids decisions.</p>	<p>On a day-to-day basis, OCSD is weighing these considerations and looking out for issues that would alter the balance. For instance, allocating our biosolids to our diverse locations considers this “triple bottom line.” In addition, OCSD will gain some resource savings because of replacement of our external standard (NBP’s certification program) with an internal one, but yet we will retain environmental and societal considerations in the internal standard.</p>
<p>Utilize a biosolids management system to maintain a sustainable and publicly supported biosolids program.</p>	<p>OCSD continues to maintain our biosolids management system; however, we have withdrawn from the NBP’s certification program in favor of an internal standard.</p> <p>See the Biosolids Management System section above and the History Appendix (Appendix E).</p>
<p>Diversify portfolio of offsite biosolids management options with multiple biosolids contractors, markets, facilities, and maintaining fail-safe back-up capacity of at least 100% of its daily biosolids production.</p>	<p>See Table 2 for breakdown of our active biosolids management options. Table 5 reports available fail-safe back-up capacity.</p>
<p>Research and implement ways to reduce the volume of biosolids at the treatment plants to minimize the need for offsite management.</p>	<p>OCSD’s Research group actively seeks opportunities for process area improvements, including solids.</p> <p>Supercritical Water Oxidation – OCSD’s Board of Directors approved a vendor to design a full-scale, onsite unit to determine the feasibility of this technology (www.scfi.eu).</p> <p>As mentioned in the “Treatment Plants and Program Updates” section above, OCSD’s production of biosolids is anticipated to drop by about one-third once the dewatering centrifuges come online in the next few years.</p> <p>OCSD awarded a professional engineering services contract for developing a new Biosolids Master Plan. The Biosolids Master Plan will include evaluation and design of capital facilities, which may result in a reduced amount of biosolids hauled offsite.</p>
<p>Support continuing research of biosolids benefits and potential safety concerns.</p>	<p>OCSD continued to be part of the Northwest Biosolids Management Association’s (NBMA) library (www.nwbiosolids.org/library). The library contains</p>

	<p>references to over 2,600 biosolids-related research articles references. NBMA sends a monthly summary of research to its members, which OCSD shares internally in our monthly biosolids report. NBMA also has a free monthly NBMA e-Bulletin for non-members.</p>
<p>Demonstrate the benefits of biosolids compost by using it at the District's facilities.</p>	<p>OCSD uses compost onsite through our landscape contractor. OCSD also makes compost available at each plant for employees, and encourage employees to share their compost use photos.</p>

APPENDIX A

- Table 1: Biosolids Monitoring and Reporting for 2015, Plant 1**
- Table 2: Digester Cleaning Material- Beneficial Reuse for 2015, Plant 1**
- Table 3: Biosolids Monitoring and Reporting for 2015, Plant 2**
- Table 4: Digester Cleaning Material- Beneficial Reuse for 2015, Plant 2
Notice and Necessary Information Certification Forms**

Table 1 - Orange County Sanitation District

Biosolids Monitoring and Reporting for 2015														503 Criteria	
Reclamation Plant #1, Fountain Valley, CA															
503 Analyses													Annual Mean	Constituent Dry Weight (mg/Kg)	
Constituent (mg/Kg) Dry ¹	Jan	Feb	Mar	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Annual Mean	Ceiling	EQ
Arsenic	6.0	4.5	6.2	6.3	7.2	8.4	<7.9	9.8	9.6	9.4	9.8	6.9	7.6	75	41
Cadmium	5.0	2.7	3.6	3.2	3.8	4.3	<5.3	4.4	2.8	2.8	2.4	2.0	3.4	85	39
Chromium	40	30	30	32	38	39	42	46	48	41	49	36	39	3000	N/A
Copper	500	320	440	360	460	440	460	440	520	480	560	450	450	4300	1500
Lead	14	<11	<12	<11	<21	<22	<53	<21	<12	16	<24	<13	15	840	300
Mercury	0.91	1.5	1.1	1.0	0.95	0.76	0.74	0.86	1.2	0.84	1.2	0.63	0.97	57	17
Molybdenum	16	9.4	11	10	16	16	<26	16	17	17	18	18	15	75	N/A
Nickel	40	26	31	32	33	37	<53	43	36	45	44	31	36	420	420
Selenium	6.2	4.2	5.7	6.2	6.1	<5.5	<13	7.2	8.7	8	9.7	4.8	6.7	100	100
Zinc	700	420	520	460	610	620	650	610	680	660	770	620	610	7500	2800
Total Kjeldahl Nitrogen	38,000	52,000	49,000	50,000	50,000	50,000	46,000	49,000	50,000	56,000	59,000	63,000	51,000	No ceiling or EQ limit	
Ammonia Nitrogen	7,000	6,000	6,200	5,800	6,700	5,500	6,000	6,200	6,300	6,200	6,600	6,600	6,300	No ceiling or EQ limit	
Organic Nitrogen	31,000	46,000	43,000	44,000	43,000	44,000	40,000	43,000	44,000	49,000	52,000	56,000	45,000	No ceiling or EQ limit	
Process Assessment¹														<i>Pathogen and vector reduction requirements (Class B, Option 1)</i>	
Digester Detention Time (days)	17	17	19	19	19	18	18	21	18	19	19	20	19	15 days minimum detention	
Digester Temperature (° F)	98	97	98	96	98	97	97	97	96	97	97	97	97	95 - 131 °F	
Digester Temperature (°C)	37	36	37	36	37	36	36	36	36	36	36	36	36	35 - 55 °C	
Volatile Solids Reduction (%)	59	61	59	56	53	56	55	59	56	59	60	61	58	38% or higher	
Biosolids Total Solids (%)	18	18	18	18	19	18	20	19	18	19	18	17	18	N/A	
Quantity Generated													Total	Total Biosolids Generated	
Synagro CA (wet tons)	7,795	6,796	8,135	7,692	7,615	7,720	7,491	6,506	7,492	7,595	7,328	8,039	90,204	WET TONS	149,086
Synagro CA (dry tons)	1,273	1,109	1,328	1,256	1,312	1,260	1,359	1,121	1,223	1,309	1,196	1,240	14,987		
Synagro AZ (wet tons)	3,444	2,472	3,337	2,666	2,637	2,610	2,765	2,691	2,889	2,919	2,921	3,538	34,890		
Synagro AZ (dry tons)	562	404	545	435	454	426	502	464	472	503	477	546	5,789		
Inland Empire Regional Composting (wet tons)	0	0	0	0	0	0	0	0	50	0	0	0	50	DRY METRIC TONS	24,778
Inland Empire Regional Composting (dry tons)	0	0	0	0	0	0	0	0	8	0	0	0	8		
Tule Ranch AZ (wet tons)	0	0	964	605	877	103	373	0	729	659	125	1,499	5,935		
Tule Ranch AZ (dry tons)	0	0	157	99	151	17	68	0	119	114	20	231	976		
OCWR CA Landfill (wet tons)	1,457	1,302	1,613	1,899	1,426	2,131	2,003	1,771	1,563	1,385	1,456	0	18,007		
OCWR CA Landfill (dry tons)	238	213	263	310	246	348	363	305	255	239	238	0	3,018		
Total Dry Metric Tons	2,073	1,726	2,294	2,100	2,164	2,051	2,292	1,890	2,077	2,164	1,931	2,016	24,778		

¹ Reported values are averages

Table 3 - Orange County Sanitation District

Biosolids Monitoring and Reporting for 2015													503 Criteria		
503 Analyses	Wastewater Treatment Plant #2, Huntington Beach, CA												Constituent Dry Weight (mg/Kg)		
Constituent (mg/Kg) Dry ¹	Jan	Feb	Mar	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Annual Mean	Ceiling	EQ
Arsenic	8.8	8.6	8.4	7.8	8.0	10	9.0	11	11	11	12	6.2	9.3	75	41
Cadmium	3.1	4.6	3.1	3.7	3.8	3.6	<4.6	4.5	3.8	3.4	3.2	2.2	3.5	85	39
Chromium	42	70	34	42	46	42	43	49	56	48	48	28	46	3000	N/A
Copper	480	320	430	500	490	450	470	480	570	560	560	340	470	4300	1500
Lead	12	13	<9.7	12	<19	<19	<46	<19	14	16	17	<9.1	14	840	300
Mercury	0.88	1.0	0.82	0.94	0.82	0.70	1.2	0.79	0.98	0.84	1.1	0.73	0.90	57	17
Molybdenum	14	14	12	16	17	16	<23	18	20	23	20	13	17	75	N/A
Nickel	32	31	26	36	32	34	<46	34	30	38	38	20	32	420	420
Selenium	4.0	6.8	5.5	7.2	7	<4.6	<12	<4.7	9.9	9.3	7.4	4.8	6.9	100	100
Zinc	710	470	600	700	730	700	730	750	860	890	880	520	710	7500	2800
Total Kjeldahl Nitrogen	42,000	47,000	45,000	37,000	43,000	41,000	42,000	41,000	46,000	46,000	44,000	50,000	44,000	No ceiling or EQ limit	
Ammonia Nitrogen	5,400	4,900	5,200	5,000	5,800	4,600	5,100	5,200	5,300	5,800	5,200	5,200	5,200	No ceiling or EQ limit	
Organic Nitrogen	37,000	42,000	40,000	32,000	37,000	36,000	37,000	36,000	41,000	41,000	39,000	44,000	39,000	No ceiling or EQ limit	
Process Assessment¹														<i>Pathogen and vector reduction requirements (Class B, Option 1)</i>	
Digester Detention Time (days)	21	21	20	20	19	19	20	19	20	24	21	21	20	15 days minimum detention	
Digester Temperature (° F)	95	97	97	97	97	96	96	96	97	96	96	97	96	95 - 131 °F	
Digester Temperature (°C)	35	36	36	36	36	36	36	36	36	36	36	36	36	35 - 55 °C	
Volatile Solids Reduction (%)	70	73	67	55	68	68	66	58	64	65	61	67	65	38% or higher	
Biosolids Total Solids (%)	20	22	21	22	22	22	24	22	20	21	22	22	22	N/A	
Quantity Generated													Total	Total Biosolids Generated	
Synagro CA (wet tons)	102	0	202	0	0	50	0	1,213	177	102	228	0	2,073	WET TONS	129,334
Synagro CA (dry tons)	18	0	38	0	0	10	0	242	32	19	45	0	406		
Synagro AZ (wet tons)	0	0	0	0	0	0	0	50	0	0	0	0	50		
Synagro AZ (dry tons)	0	0	0	0	0	0	0	10	0	0	0	0	10		
Inland Empire Regional Composting (dry tons)	0	0	0	0	0	151	0	1,009	1,105	605	0	0	2,870		
Tule Ranch AZ (wet tons)	10,529	9,152	10,511	10,352	10,253	10,358	10,695	10,701	10,305	9,655	11,017	10,813	124,341	DRY METRIC TONS	25,407
Tule Ranch AZ (dry tons)	1,910	1,826	2,002	2,066	2,046	2,067	2,328	2,135	1,869	1,839	2,198	2,158	24,444		
OCWR CA Landfill (wet tons)	0	0	0	0	0	0	0	0	0	0	0	0	0		
OCWR CA Landfill (dry tons)	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total Dry Metric Tons	1,928	1,826	2,040	2,066	2,046	2,107	2,328	2,589	2,102	1,974	2,244	2,158	25,407		

¹ Reported values are averages

Table 4 - Orange County Sanitation District

Digester Cleaning Material - Beneficial Reuse for 2015

503 Analyses	Wastewater Treatment Plant #2, Huntington Beach, CA												503 Criteria		
Constituent (mg/Kg) Dry ¹	Jan	Feb	Mar	April	May	June	July	Aug	Sep	Oct	Nov	Dec	Annual Mean	Constituent Dry Weight (mg/Kg)	
														Ceiling	EQ
Arsenic	-	-	-	9.6	<5.2	7.0	-	4.0	3.8	3.1	-	-	5.5	75	41
Cadmium	-	-	-	2.4	2.1	2.5	-	2.8	3.8	5.0	-	-	3.1	85	39
Chromium	-	-	-	100	40	73	-	35	43	67	-	-	60	3000	N/A
Copper	-	-	-	390	380	540	-	380	380	530	-	-	430	4300	1500
Lead	-	-	-	14	58	52	-	38	38	91	-	-	49	840	300
Mercury	-	-	-	1.9	2.4	3.3	-	5.5	5.7	2.6	-	-	3.6	57	17
Molybdenum	-	-	-	9.8	10	14	-	<9.1	10	17	-	-	12	75	N/A
Nickel	-	-	-	29	46	52	-	36	43	78	-	-	47	420	420
Selenium	-	-	-	5.0	4.0	<4.2	-	<4.6	7.2	6.2	-	-	5.6	100	100
Zinc	-	-	-	590	430	610	-	440	400	590	-	-	510	7500	2800
Total Kjeldahl Nitrogen	-	-	-	18,000	-	-	-	7,300	-	-	-	-	13,000	No ceiling or EQ limit	
Ammonia Nitrogen	-	-	-	2,600	-	-	-	2,500	-	-	-	-	2,600	No ceiling or EQ limit	
Organic Nitrogen	-	-	-	15,000	-	-	-	4,800	-	-	-	-	10,000	No ceiling or EQ limit	
Total Solids(%)	-	-	-	35	57	59	-	57	58	50	-	-	53	No ceiling or EQ limit	
Digester ID	Dig. C Dig. C Dig. C Dig. Q Dig. Q Dig. Q												Total Biosolids Generated		
Quantity Generated													Total	Wet Tons	4,716
Nursery Products, CA (Compost) (wet tons)	-	-	-	352	646	893	367	683	761	1013	-	-	4,716	Dry Metric Tons	2,312
Dry Tons	-	-	-	123	368	527	193	389	441	506	-	-	2,549		
Dry Metric Tons	-	-	-	112	334	478	175	353	400	459	-	-	2,312		

¹ Reported values are averages



Notice and Necessary Information



Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: January 1- 31, 2015

Pollutant and Nitrogen concentrations (report results may be averages on 100% dry weight basis).

Sampling date(s): 01/07/2015,01/14/2015

	As (mg/kg)	Cd (mg/kg)	Cu (mg/kg)	Pb (mg/kg)	Hg (mg/kg)	Mo (mg/kg)	Ni (mg/kg)	Se (mg/kg)	Zn (mg/kg)	Org-N (mg/kg)	Ammonia (mg/kg)	Cr (mg/kg)	% solids
Result Plant 1	6.0	5.0	500	14	0.91	16	40	6.2	700	31,000	7,000	40	18
Result Plant 2	8.8	3.1	480	12	0.88	14	32	4.0	710	37,000	5,400	42	20
Table 3	41	39	1,500	300	17	N/A	420	100	2,800	N/A	N/A	N/A	N/A
Table 1	75	85	4,300	840	57	75	420	100	7,500	N/A	N/A	3,000	N/A

Class B Pathogen Reduction

Class B pathogen reduction requirements from 40 CFR part 503 and Arizona Administrative Code R18-9-1006-E have been met via anaerobic digestion under the following parameters

	Mean Residence Time (days)		Mean Minimum Temperatures (°F) (All digesters)
	Min	Max	
Plant 1	17.0	18.2	98
Plant 2	20.7	22.0	95 - 99

Vector Attraction Reduction

The vector attraction reduction requirements of 40 CFR part 503 and Arizona Administrative Code R18-9-1010.A have been met using data (may be averages) analyzed by an Arizona certified laboratory to comply with Option 1:

	% Volatile Solids		
	In	Out	Reduction
Plant 1	3.2	1.3	59.0
Plant 2	4.4	1.3	70.2

Certifications:

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

503 Class B: I certify, under penalty of law, that the Class B pathogen requirements in 503.32(b) and the vector attraction reduction requirement in 503.33(b)(1) have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the pathogen requirements and vector attraction requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.

Arizona Class B: I certify, under penalty of law, that the pollutant analyses and the description of pathogen treatment and vector attraction reduction activities have been made under my direction and supervision and under a system designed to ensure that qualified personnel properly gather and evaluate the information used to determine whether the applicable biosolids requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.

4/1/2015

X

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3/31/2015

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Notice and Necessary Information – Addendum

Individual Digester Mean Cell Residence Times and Minimum Temperatures

Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: January 1- 31, 2015



OCSD Plant 1

	Dig. 7	Dig. 8	Dig. 9	Dig. 10	Dig. 11	Dig. 12	Dig. 13	Dig. 14	Dig. 15	Dig. 16
Minimum Mean Cell Residence Time (days)*	17	17	17	17	17	17		17		
Minimum Temperature (°F)	98	98	98	98	98	98		98		

Shaded box represents digester is out of service.
 *MCRT based on a 15-Day Rolling Average.

OCSD Plant 2

	Dig. C	Dig. D	Dig. E	Dig. F	Dig. G	Dig. H	Dig. L	Dig. M	Dig. N	Dig. O	Dig. P	Dig. Q	Dig. R	Dig. S	Dig. T
Minimum Mean Cell Residence Time (days)*		21	20	20	20	21	21		20	21	21	21	21	21	21
Minimum Temperature (°F)		96	95	96	96	98	99		98	98	98	98	98	98	98

Shaded box represents digester is out of service.
 *MCRT based on a 15-Day Rolling Average.



Notice and Necessary Information – Revised***



Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: February 1- 28, 2015

Pollutant and Nitrogen concentrations (report results may be averages on 100% dry weight basis).

Sampling date(s): 02/04/2015,02/18/2015

	As (mg/kg)	Cd (mg/kg)	Cu (mg/kg)	Pb (mg/kg)	Hg (mg/kg)	Mo (mg/kg)	Ni (mg/kg)	Se (mg/kg)	Zn (mg/kg)	Org-N (mg/kg)	Ammonia (mg/kg)	Cr (mg/kg)	% solids
Result Plant 1	4.5	2.7	320	<11	1.5	9.4	26	4.2	420	46,000	6,000	30	18
Result Plant 2	8.6	4.6	320	13	1.0	14	31	6.8	460	42,000	4,900	70	22
Table 3	41	39	1,500	300	17	N/A	420	100	2,800	N/A	N/A	N/A	N/A
Table 1	75	85	4,300	840	57	75	420	100	7,500	N/A	N/A	3,000	N/A

Class B Pathogen Reduction

Class B pathogen reduction requirements from 40 CFR part 503 and Arizona Administrative Code R18-9-1006-E have been met via anaerobic digestion under the following parameters

	Mean Residence Time (days)		Mean minimum Temperature (°F) (All digesters)
	Min	Max	
Plant 1	17.1	20.6	97 - 98
Plant 2	21.3	22.7	97 - 100

Vector Attraction Reduction

The vector attraction reduction requirements of 40 CFR part 503 and Arizona Administrative Code R18-9-1010.A have been met using data (may be averages) analyzed by an Arizona certified laboratory to comply with Option 1:

	% Volatile Solids		
	In	Out	Reduction
Plant 1	3.4	1.4	60.8
Plant 2	5.0	1.4	72.7

Certifications:

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

503 Class B: *I certify, under penalty of law, that the Class B pathogen requirements in 503.32(b) and the vector attraction reduction requirement in 503.33(b)(1) have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the pathogen requirements and vector attraction requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.*

Arizona Class B: *I certify, under penalty of law, that the pollutant analyses and the description of pathogen treatment and vector attraction reduction activities have been made under my direction and supervision and under a system designed to ensure that qualified personnel properly gather and evaluate the information used to determine whether the applicable biosolids requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.*

2/8/2016

2/8/2016

2/8/2016

X

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X Ronald Coss

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Notice and Necessary Information – Addendum

Individual Digester Mean Cell Residence Times and Minimum Temperatures

Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: February 1- 28, 2015



OCSD Plant 1

	Dig. 7	Dig. 8	Dig. 9	Dig. 10	Dig. 11	Dig. 12	Dig. 13	Dig. 14	Dig. 15	Dig. 16
Minimum Mean Cell Residence Time (days)*	17	17	17	17	17	17	43**	17		
Minimum Temperature (°F)	98	98	98	97	98	97	98	97		

Shaded box represents Digester is Out of Service.

*MCRT based on a 15-Day Rolling Average.

** Started filling up Digester 13 in February. Normal service started March 3rd, 2015.

OCSD Plant 2

	Dig. C	Dig. D	Dig. E	Dig. F	Dig. G	Dig. H	Dig. L	Dig. M	Dig. N	Dig. O	Dig. P	Dig. Q	Dig. R	Dig. S	Dig. T
Minimum Mean Cell Residence Time (days)*		22	21	21	21	21	22		21	21	22	22	22	21	21
Minimum Temperature (°F)		100	98	100	100	98	99		97	99	99	98	98	98	100

Shaded box represents Digester is Out of Service.

*MCRT based on a 15-Day Rolling Average.

*** The NANI has been revised to correct the Organic Nitrogen values.



Notice and Necessary Information

Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: March 1- 31, 2015



Pollutant and Nitrogen concentrations (report results may be averages on 100% dry weight basis).

Sampling date(s): 03/04/2015,03/11/2015

	As (mg/kg)	Cd (mg/kg)	Cu (mg/kg)	Pb (mg/kg)	Hg (mg/kg)	Mo (mg/kg)	Ni (mg/kg)	Se (mg/kg)	Zn (mg/kg)	Org-N (mg/kg)	Ammonia (mg/kg)	Cr (mg/kg)	% solids
Result Plant 1	6.2	3.6	440	<12	1.1	11	31	5.7	520	43,000	6,200	30	18
Result Plant 2	8.4	3.1	430	<9.7	0.82	12	26	5.5	600	40,000	5,200	34	21
Table 3	41	39	1,500	300	17	N/A	420	100	2,800	N/A	N/A	N/A	N/A
Table 1	75	85	4,300	840	57	75	420	100	7,500	N/A	N/A	3,000	N/A

Class B Pathogen Reduction

Class B pathogen reduction requirements from 40 CFR part 503 and Arizona Administrative Code R18-9-1006-E have been met via anaerobic digestion under the following parameters

	Mean Residence Time (days)		Mean minimum Temperature (°F) (All digesters)
	Min	Max	
Plant 1	19	21	98
Plant 2	20	22	97 - 100

Vector Attraction Reduction

The vector attraction reduction requirements of 40 CFR part 503 and Arizona Administrative Code R18-9-1010.A have been met using data (may be averages) analyzed by an Arizona certified laboratory to comply with Option 1:

	% Volatile Solids		
	In	Out	Reduction
Plant 1	3.3	1.4	59.3
Plant 2	4.0	1.3	67.1

Certifications:

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

503 Class B: I certify, under penalty of law, that the Class B pathogen requirements in 503.32(b) and the vector attraction reduction requirement in 503.33(b)(1) have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the pathogen requirements and vector attraction requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.

Arizona Class B: I certify, under penalty of law, that the pollutant analyses and the description of pathogen treatment and vector attraction reduction activities have been made under my direction and supervision and under a system designed to ensure that qualified personnel properly gather and evaluate the information used to determine whether the applicable biosolids requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.

6/3/2015

6/3/2015

6/1/2015

X

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Notice and Necessary Information – Addendum

Individual Digester Mean Cell Residence Times and Minimum Temperatures

Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: March 1- 31, 2015



OCSD Plant 1

	Dig. 7	Dig. 8	Dig. 9	Dig. 10	Dig. 11	Dig. 12	Dig. 13	Dig. 14	Dig. 15	Dig. 16
Minimum Mean Cell Residence Time (days)*	19	19	19	19		18	19	19		
Minimum Temperature (°F)	98	98	98	98		98	98	98		

Shaded box represents Digester is Out of Service.
 *MCRT based on a 15-Day Rolling Average.

OCSD Plant 2

	Dig. C	Dig. D	Dig. E	Dig. F	Dig. G	Dig. H	Dig. L	Dig. M	Dig. N	Dig. O	Dig. P	Dig. Q	Dig. R	Dig. S	Dig. T
Minimum Mean Cell Residence Time (days)*		20	19	19	20	20	20		20	20	20	20	20	20	20
Minimum Temperature (°F)		98	98	98	100	98	98		98	99	99	100	97	99	100

Shaded box represents Digester is Out of Service.
 *MCRT based on a 15-Day Rolling Average.



Notice and Necessary Information



Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: April 1- 30, 2015

Pollutant and Nitrogen concentrations (report results may be averages on 100% dry weight basis).

Sampling date(s): 04/01/2015,04/08/2015

	As (mg/kg)	Cd (mg/kg)	Cu (mg/kg)	Pb (mg/kg)	Hg (mg/kg)	Mo (mg/kg)	Ni (mg/kg)	Se (mg/kg)	Zn (mg/kg)	Org-N (mg/kg)	Ammonia (mg/kg)	Cr (mg/kg)	% solids
Result Plant 1	6.3	3.2	360	<11	1.0	10	32	6.2	460	44,000	5,800	32	18
Result Plant 2	7.8	3.7	500	12	0.94	16	36	7.2	700	32,000	5,000	42	22
Table 3	41	39	1,500	300	17	N/A	420	100	2,800	N/A	N/A	N/A	N/A
Table 1	75	85	4,300	840	57	75	420	100	7,500	N/A	N/A	3,000	N/A

Class B Pathogen Reduction

Class B pathogen reduction requirements from 40 CFR part 503 and Arizona Administrative Code R18-9-1006-E have been met via anaerobic digestion under the following parameters

	Mean Residence Time (days)		Mean minimum Temperature (°F) (All digesters)
	Min	Max	
Plant 1	19	19	96 - 98
Plant 2	20	21	97 - 101

Vector Attraction Reduction

The vector attraction reduction requirements of 40 CFR part 503 and Arizona Administrative Code R18-9-1010.A have been met using data (may be averages) analyzed by an Arizona certified laboratory to comply with Option 1:

	% Volatile Solids		
	In	Out	Reduction
Plant 1	3.2	1.4	56.3
Plant 2	3.1	1.4	54.8

Certifications:

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

503 Class B: I certify, under penalty of law, that the Class B pathogen requirements in 503.32(b) and the vector attraction reduction requirement in 503.33(b)(1) have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the pathogen requirements and vector attraction requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.

Arizona Class B: I certify, under penalty of law, that the pollutant analyses and the description of pathogen treatment and vector attraction reduction activities have been made under my direction and supervision and under a system designed to ensure that qualified personnel properly gather and evaluate the information used to determine whether the applicable biosolids requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.

6/16/2015

6/16/2015

6/11/2015

X

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Notice and Necessary Information – Addendum

Individual Digester Mean Cell Residence Times and Minimum Temperatures

Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: April 1- 30, 2015



OCSD Plant 1

	Dig. 7	Dig. 8	Dig. 9	Dig. 10	Dig. 11	Dig. 12	Dig. 13	Dig. 14	Dig. 15	Dig. 16
Minimum Mean Cell Residence Time (days)*	19	19	19	19		19	19	19		
Minimum Temperature (°F)	98	98	98	96		97	98	98		

Shaded box represents Digester is Out of Service.
 *MCRT based on a 15-Day Rolling Average.

OCSD Plant 2

	Dig. C	Dig. D	Dig. E	Dig. F	Dig. G	Dig. H	Dig. L	Dig. M	Dig. N	Dig. O	Dig. P	Dig. Q	Dig. R	Dig. S	Dig. T
Minimum Mean Cell Residence Time (days)*		20	19	19	19	20	20		19	20	20	20	20	19	20
Minimum Temperature (°F)		100	101	100	100	98	99		99	99	99	100	97	98	99

Shaded box represents Digester is Out of Service.
 *MCRT based on a 15-Day Rolling Average.



Notice and Necessary Information

Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: May 1- 31, 2015



Pollutant and Nitrogen concentrations (report results may be averages on 100% dry weight basis).

Sampling date(s): 05/06/2015,05/13/2015

	As (mg/kg)	Cd (mg/kg)	Cu (mg/kg)	Pb (mg/kg)	Hg (mg/kg)	Mo (mg/kg)	Ni (mg/kg)	Se (mg/kg)	Zn (mg/kg)	Org-N (mg/kg)	Ammonia (mg/kg)	Cr (mg/kg)	% solids
Result Plant 1	7.2	3.8	460	<21	0.95	16	33	6.1	610	43,000	6,700	38	19
Result Plant 2	8.0	3.8	490	<19	0.82	17	32	7.0	730	37,000	5,800	46	22
Table 3	41	39	1,500	300	17	N/A	420	100	2,800	N/A	N/A	N/A	N/A
Table 1	75	85	4,300	840	57	75	420	100	7,500	N/A	N/A	3,000	N/A

Class B Pathogen Reduction

Class B pathogen reduction requirements from 40 CFR part 503 and Arizona Administrative Code R18-9-1006-E have been met via anaerobic digestion under the following parameters

	Mean Residence Time (days)		Mean minimum Temperature (°F) (All digesters)
	Min	Max	
Plant 1	19	21	98
Plant 2	19	20	97 - 100

Vector Attraction Reduction

The vector attraction reduction requirements of 40 CFR part 503 and Arizona Administrative Code R18-9-1010.A have been met using data (may be averages) analyzed by an Arizona certified laboratory to comply with Option 1:

	% Volatile Solids		
	In	Out	Reduction
Plant 1	3.1	1.5	53.1
Plant 2	4.0	1.3	67.7

Certifications:

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

503 Class B: I certify, under penalty of law, that the Class B pathogen requirements in 503.32(b) and the vector attraction reduction requirement in 503.33(b)(1) have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the pathogen requirements and vector attraction requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.

Arizona Class B: I certify, under penalty of law, that the pollutant analyses and the description of pathogen treatment and vector attraction reduction activities have been made under my direction and supervision and under a system designed to ensure that qualified personnel properly gather and evaluate the information used to determine whether the applicable biosolids requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.

7/21/2015

7/21/2015

7/20/2015

X

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jspears@ocsd.com
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Signed by: Spears, Jim

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Notice and Necessary Information – Addendum

Individual Digester Mean Cell Residence Times and Minimum Temperatures

Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: May 1- 31, 2015



OCSD Plant 1

	Dig. 7	Dig. 8	Dig. 9	Dig. 10	Dig. 11	Dig. 12	Dig. 13	Dig. 14	Dig. 15	Dig. 16
Minimum Mean Cell Residence Time (days)*	19	19	20	20		19	20	19		
Minimum Temperature (°F)	98	98	98	98		98	98	98		

Shaded box represents Digester is Out of Service.
 *MCRT based on a 15-Day Rolling Average.

OCSD Plant 2

	Dig. C	Dig. D	Dig. E	Dig. F	Dig. G	Dig. H	Dig. L	Dig. M	Dig. N	Dig. O	Dig. P	Dig. Q	Dig. R	Dig. S	Dig. T
Minimum Mean Cell Residence Time (days)*		20	19	19	19	19	20		19	19	20	20	19	19	19
Minimum Temperature (°F)		98	98	97	100	99	99		99	99	99	98	98	99	99

Shaded box represents Digester is Out of Service.
 *MCRT based on a 15-Day Rolling Average.

Notice and Necessary Information

Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: June 1- 30, 2015

Pollutant and Nitrogen concentrations (report results may be averages on 100% dry weight basis).

Sampling date(s): 06/03/2015,06/10/2015

	As (mg/kg)	Cd (mg/kg)	Cu (mg/kg)	Pb (mg/kg)	Hg (mg/kg)	Mo (mg/kg)	Ni (mg/kg)	Se (mg/kg)	Zn (mg/kg)	Org-N (mg/kg)	Ammonia (mg/kg)	Cr (mg/kg)	% solids
Result Plant 1	8.4	4.3	440	<22	0.76	16	37	<5.5	620	44,000	5,500	39	18
Result Plant 2	10	3.6	450	<19	0.70	16	34	<4.6	700	36,000	4,600	42	22
Table 3	41	39	1,500	300	17	N/A	420	100	2,800	N/A	N/A	N/A	N/A
Table 1	75	85	4,300	840	57	75	420	100	7,500	N/A	N/A	3,000	N/A

Class B Pathogen Reduction

Class B pathogen reduction requirements from 40 CFR part 503 and Arizona Administrative Code R18-9-1006-E have been met via anaerobic digestion under the following parameters

	Mean Residence Time (days)		Mean minimum Temperature (°F) (All digesters)
	Min	Max	
Plant 1	18	21	97 - 98
Plant 2	19	21	96 - 100

Vector Attraction Reduction

The vector attraction reduction requirements of 40 CFR part 503 and Arizona Administrative Code R18-9-1010.A have been met using data (may be averages) analyzed by an Arizona certified laboratory to comply with Option 1:

	% Volatile Solids		
	In	Out	Reduction
Plant 1	3.0	1.4	55.5
Plant 2	4.1	1.3	68.4

Certifications:

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

503 Class B: *I certify, under penalty of law, that the Class B pathogen requirements in 503.32(b) and the vector attraction reduction requirement in 503.33(b)(1) have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the pathogen requirements and vector attraction requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.*

Arizona Class B: *I certify, under penalty of law, that the pollutant analyses and the description of pathogen treatment and vector attraction reduction activities have been made under my direction and supervision and under a system designed to ensure that qualified personnel properly gather and evaluate the information used to determine whether the applicable biosolids requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.*

8/25/2015

X 

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Signed by: Spears, Jim

8/25/2015

X 

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Signed by: Colston, Jim

8/20/2015

X 

Ronald Coss rcoss@ocsd.com
Laboratory Manager (714)593-7508
Signed by: Coss, Ronald



Notice and Necessary Information – Addendum

Individual Digester Mean Cell Residence Times and Minimum Temperatures

Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: June 1- 30, 2015



OCSD Plant 1

	Dig. 7	Dig. 8	Dig. 9	Dig. 10	Dig. 11	Dig. 12	Dig. 13	Dig. 14	Dig. 15	Dig. 16
Minimum Mean Cell Residence Time (days)*	18	18	18	18		17	18	17		
Minimum Temperature (°F)	98	97	97	98		98	97	98		

Shaded box represents Digester is Out of Service.
 *MCRT based on a 15-Day Rolling Average.

OCSD Plant 2

	Dig. C	Dig. D	Dig. E	Dig. F	Dig. G	Dig. H	Dig. L	Dig. M	Dig. N	Dig. O	Dig. P	Dig. Q	Dig. R	Dig. S	Dig. T
Minimum Mean Cell Residence Time (days)*		20	19	19	19	19	20	61**	19	19	20	20	19	19	20
Minimum Temperature (°F)		100	98	100	100	100	99	96	99	99	98	98	98	98	99

Shaded box represents Digester is Out of Service.
 *MCRT based on a 15-Day Rolling Average.
 ** Digester M resumed service on June 18, 2015. The reported value reflects 13 days of operation.



Notice and Necessary Information



Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: July 1- 31, 2015

Pollutant and Nitrogen concentrations (report results may be averages on 100% dry weight basis).

Sampling date(s): 07/01/2015,07/08/2015

	As (mg/kg)	Cd (mg/kg)	Cu (mg/kg)	Pb (mg/kg)	Hg (mg/kg)	Mo (mg/kg)	Ni (mg/kg)	Se (mg/kg)	Zn (mg/kg)	Org-N (mg/kg)	Ammonia (mg/kg)	Cr (mg/kg)	% solids
Result Plant 1	<7.9	<5.3	460	<53	0.74	<26	<53	<13	650	40,000	6,000	42	20
Result Plant 2	9.0	<4.6	470	<46	1.2	<23	<46	<12	730	37,000	5,100	43	24
Table 3	41	39	1,500	300	17	N/A	420	100	2,800	N/A	N/A	N/A	N/A
Table 1	75	85	4,300	840	57	75	420	100	7,500	N/A	N/A	3,000	N/A

Class B Pathogen Reduction

Class B pathogen reduction requirements from 40 CFR part 503 and Arizona Administrative Code R18-9-1006-E have been met via anaerobic digestion under the following parameters

	Mean Residence Time (days)		Mean minimum Temperature (°F) (All digesters)
	Min	Max	
Plant 1	18	22	97 - 98
Plant 2	20	22	96 - 102

Vector Attraction Reduction

The vector attraction reduction requirements of 40 CFR part 503 and Arizona Administrative Code R18-9-1010.A have been met using data (may be averages) analyzed by an Arizona certified laboratory to comply with Option 1:

	% Volatile Solids		
	In	Out	Reduction
Plant 1	3.0	1.4	54.6
Plant 2	4.3	1.5	65.9

Certifications:

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

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Arizona Class B: I certify, under penalty of law, that the pollutant analyses and the description of pathogen treatment and vector attraction reduction activities have been made under my direction and supervision and under a system designed to ensure that qualified personnel properly gather and evaluate the information used to determine whether the applicable biosolids requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment

10/21/2015

X

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Signed by: Spears, Jim

10/21/2015

X X

James E. Colston jcolston@ocsd.com
Env. Compliance Manager (714) 593-7450
Signed by: Colston, Jim

10/21/2015

Ronald Coss rcoss@ocsd.com
Laboratory Manager (714)593-7508
Signed by: Coss, Ronald



Notice and Necessary Information – Addendum

Individual Digester Mean Cell Residence Times and Minimum Temperatures

Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: July 1- 31, 2015



OCSD Plant 1

	Dig. 7	Dig. 8	Dig. 9	Dig. 10	Dig. 11	Dig. 12	Dig. 13	Dig. 14	Dig. 15	Dig. 16
Minimum Mean Cell Residence Time (days)*	18	18	18	18		17	18	17		
Minimum Temperature (°F)	97	98	98	97		98	98	98		

Shaded box represents Digester is Out of Service.

*MCRT based on a 15-Day Rolling Average.

OCSD Plant 2

	Dig. C	Dig. D	Dig. E	Dig. F	Dig. G	Dig. H	Dig. L	Dig. M	Dig. N	Dig. O	Dig. P	Dig. Q	Dig. R	Dig. S	Dig. T	Dig. I	Dig. J
Minimum Mean Cell Residence Time (days)*	50	20	18	20	20	20	18	20	18	19	19	21	20	20	18		
Minimum Temperature (°F)	100	100	99	102	100	96	98	97	99	99	100	100	100	99	100		

Shaded box represents Digester is Out of Service.

*MCRT based on a 15-Day Rolling Average.



Notice and Necessary Information



Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: August 1- 31, 2015

Pollutant and Nitrogen concentrations (report results may be averages on 100% dry weight basis).

Sampling date(s): 08/05/2015,08/12/2015

	As (mg/kg)	Cd (mg/kg)	Cu (mg/kg)	Pb (mg/kg)	Hg (mg/kg)	Mo (mg/kg)	Ni (mg/kg)	Se (mg/kg)	Zn (mg/kg)	Org-N (mg/kg)	Ammonia (mg/kg)	Cr (mg/kg)	% solids
Result Plant 1	9.8	4.4	440	<21	0.86	16	43	7.2	610	43,000	6,200	46	19
Result Plant 2	11	4.5	480	<19	0.79	18	34	<4.7	750	36,000	5,200	49	22
Table 3	41	39	1,500	300	17	N/A	420	100	2,800	N/A	N/A	N/A	N/A
Table 1	75	85	4,300	840	57	75	420	100	7,500	N/A	N/A	3,000	N/A

Class B Pathogen Reduction

Class B pathogen reduction requirements from 40 CFR part 503 and Arizona Administrative Code R18-9-1006-E have been met via anaerobic digestion under the following parameters

	Mean Residence Time (days)		Mean minimum Temperature (°F) (All digesters)
	Min	Max	
Plant 1	21	23	97 - 98
Plant 2	19	22	96 - 100

Vector Attraction Reduction

The vector attraction reduction requirements of 40 CFR part 503 and Arizona Administrative Code R18-9-1010.A have been met using data (may be averages) analyzed by an Arizona certified laboratory to comply with Option 1:

	% Volatile Solids		
	In	Out	Reduction
Plant 1	3.2	1.3	58.9
Plant 2	3.6	1.5	57.8

Certifications:

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

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12/2/2015

X

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Operations Manager (714)593-7081
Signed by: Spears, Jim

12/2/2015

X

James E. Colston jcolston@ocsd.com
Env. Compliance Manager (714) 593-7450
Signed by: Colston, Jim

11/12/2015

X

Ronald Coss rcoss@ocsd.com
Laboratory Manager (714)593-7508
Signed by: Coss, Ronald



Notice and Necessary Information – Addendum

Individual Digester Mean Cell Residence Times and Minimum Temperatures

Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: August 1- 31, 2015



OCSD Plant 1

	Dig. 7	Dig. 8	Dig. 9	Dig. 10	Dig. 11	Dig. 12	Dig. 13	Dig. 14	Dig. 15	Dig. 16
Minimum Mean Cell Residence Time (days)*	21	21	21	21		20	21	21		
Minimum Temperature (°F)	98	98	97	98		98	98	98		

Shaded box represents Digester is Out of Service.

*MCRT based on a 15-Day Rolling Average.

OCSD Plant 2

	Dig. C	Dig. D	Dig. E	Dig. F	Dig. G	Dig. H	Dig. L	Dig. M	Dig. N	Dig. O	Dig. P	Dig. Q	Dig. R	Dig. S	Dig. T	Dig. I	Dig. J
Minimum Mean Cell Residence Time (days)*	18	19	18	20	20	20	17	20	18	19	19		20	20	18	46	22
Minimum Temperature (°F)	96	99	98	100	100	97	97	96	98	98	98		99	98	99	99	99

Shaded box represents Digester is Out of Service.

*MCRT based on a 15-Day Rolling Average.

Significant Events:

In August 2015, we discovered a calculation error in the Monthly Summary of Operations (MSO) for OCSD Plant 2 that affected the digester mean cell residence times (MCRT) if a digester was brought into or taken out of service during the month. The error has been corrected and the digester MCRTs recalculated for January – June 2015; the correction was applied to the July MSO. Although some values changed, no values dropped below the minimum 15 day MCRT, so compliance was not impacted.



Notice and Necessary Information



Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: September 1- 30, 2015

Pollutant and Nitrogen concentrations (report results may be averages on 100% dry weight basis).

Sampling date(s): 09/02/2015,09/09/2015

	As (mg/kg)	Cd (mg/kg)	Cu (mg/kg)	Pb (mg/kg)	Hg (mg/kg)	Mo (mg/kg)	Ni (mg/kg)	Se (mg/kg)	Zn (mg/kg)	Org-N (mg/kg)	Ammonia (mg/kg)	Cr (mg/kg)	% solids
Result Plant 1	9.6	2.8	520	<12	1.2	17	36	8.7	680	44,000	6,300	48	18
Result Plant 2	11	3.8	570	14	0.98	20	30	9.9	860	41,000	5,300	56	20
Table 3	41	39	1,500	300	17	N/A	420	100	2,800	N/A	N/A	N/A	N/A
Table 1	75	85	4,300	840	57	75	420	100	7,500	N/A	N/A	3,000	N/A

Class B Pathogen Reduction

Class B pathogen reduction requirements from 40 CFR part 503 and Arizona Administrative Code R18-9-1006-E have been met via anaerobic digestion under the following parameters

	Mean Residence Time (days)		Mean minimum Temperature (°F) (All digesters)
	Min	Max	
Plant 1	18	21	96 - 98
Plant 2	20	23	97 - 100

Vector Attraction Reduction

The vector attraction reduction requirements of 40 CFR part 503 and Arizona Administrative Code R18-9-1010.A have been met using data (may be averages) analyzed by an Arizona certified laboratory to comply with Option 1:

	% Volatile Solids		
	In	Out	Reduction
Plant 1	3.2	1.4	56.3
Plant 2	3.7	1.4	63.6

Certifications:

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

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12/15/2015

12/15/2015

12/14/2015

X

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Signed by: Spears, Jim

X

James E. Colston jcolston@ocsd.com
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Signed by: Colston, Jim

X Ron Coss

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Laboratory Manager (714)593-7508
Signed by: Coss, Ronald



Notice and Necessary Information – Addendum

Individual Digester Mean Cell Residence Times and Minimum Temperatures

Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: September 1- 30, 2015



OCSD Plant 1

	Dig. 7	Dig. 8	Dig. 9	Dig. 10	Dig. 11	Dig. 12	Dig. 13	Dig. 14	Dig. 15	Dig. 16
Minimum Mean Cell Residence Time (days)*	18	18	18	18		18	19	18		
Minimum Temperature (°F)	98	97	97	96		98	98	98		

Shaded box represents Digester is Out of Service.

*MCRT based on a 15-Day Rolling Average.

OCSD Plant 2

	Dig. C	Dig. D	Dig. E	Dig. F	Dig. G	Dig. H	Dig. L	Dig. M	Dig. N	Dig. O	Dig. P	Dig. Q	Dig. R	Dig. S	Dig. T	Dig. I	Dig. J
Minimum Mean Cell Residence Time (days)*	18	19	18	21	21	21	17	20	20	20	20		21	22	20	22	
Minimum Temperature (°F)	100	99	98	100	100	99	98	97	98	98	100		100	100	99	99	

Shaded box represents Digester is Out of Service.

*MCRT based on a 15-Day Rolling Average.

Notice and Necessary Information

Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: October 1- 31, 2015

Pollutant and Nitrogen concentrations (report results may be averages on 100% dry weight basis).

Sampling date(s): 10/07/2015,10/14/2015

	As (mg/kg)	Cd (mg/kg)	Cu (mg/kg)	Pb (mg/kg)	Hg (mg/kg)	Mo (mg/kg)	Ni (mg/kg)	Se (mg/kg)	Zn (mg/kg)	Org-N (mg/kg)	Ammonia (mg/kg)	Cr (mg/kg)	% solids
Result Plant 1	9.4	2.8	480	16	0.84	17	45	8.0	660	49,000	6,200	41	19
Result Plant 2	11	3.4	560	16	0.84	23	38	9.3	890	41,000	5,800	48	21
Table 3	41	39	1,500	300	17	N/A	420	100	2,800	N/A	N/A	N/A	N/A
Table 1	75	85	4,300	840	57	75	420	100	7,500	N/A	N/A	3,000	N/A

Class B Pathogen Reduction

Class B pathogen reduction requirements from 40 CFR part 503 and Arizona Administrative Code R18-9-1006-E have been met via anaerobic digestion under the following parameters

	Mean Residence Time (days)		Mean minimum Temperature (°F) (All digesters)
	Min	Max	
Plant 1	19	22	97 - 98
Plant 2	24	26	96 - 102

Vector Attraction Reduction

The vector attraction reduction requirements of 40 CFR part 503 and Arizona Administrative Code R18-9-1010.A have been met using data (may be averages) analyzed by an Arizona certified laboratory to comply with Option 1:

	% Volatile Solids		
	In	Out	Reduction
Plant 1	3.6	1.5	59.4
Plant 2	3.9	1.4	65.0

Certifications:

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

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Arizona Class B: *I certify, under penalty of law, that the pollutant analyses and the description of pathogen treatment and vector attraction reduction activities have been made under my direction and supervision and under a system designed to ensure that qualified personnel properly gather and evaluate the information used to determine whether the applicable biosolids requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.*

12/28/2015

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Notice and Necessary Information – Addendum

Individual Digester Mean Cell Residence Times and Minimum Temperatures

Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: October 1- 31, 2015



OCSD Plant 1

	Dig. 7	Dig. 8	Dig. 9	Dig. 10	Dig. 11	Dig. 12	Dig. 13	Dig. 14	Dig. 15	Dig. 16
Minimum Mean Cell Residence Time (days)*	18	18	19	19		18	19	18		
Minimum Temperature (°F)	97	98	97	97		98	98	98		

Shaded box represents Digester is Out of Service.

*MCRT based on a 15-Day Rolling Average.

OCSD Plant 2

	Dig. C	Dig. D	Dig. E	Dig. F	Dig. G	Dig. H	Dig. I	Dig. J	Dig. L	Dig. M	Dig. N	Dig. O	Dig. P	Dig. Q	Dig. R	Dig. S	Dig. T
Minimum Mean Cell Residence Time (days)*	22	22	21	21	22	26	22		22	22	21	21	22		22	22	21
Minimum Temperature (°F)	100	102	100	100	100	97	100		98	96	99	99	100		97	98	100

Shaded box represents Digester is Out of Service.

*MCRT based on a 15-Day Rolling Average.

Notice and Necessary Information

Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: November 1- 30, 2015

Pollutant and Nitrogen concentrations (report results may be averages on 100% dry weight basis).

Sampling date(s): 11/04/2015,11/18/2015

	As (mg/kg)	Cd (mg/kg)	Cu (mg/kg)	Pb (mg/kg)	Hg (mg/kg)	Mo (mg/kg)	Ni (mg/kg)	Se (mg/kg)	Zn (mg/kg)	Org-N (mg/kg)	Ammonia (mg/kg)	Cr (mg/kg)	% solids
Result Plant 1	9.8	2.4	560	<24	1.2	18	44	9.7	770	52,000	6,600	49	18
Result Plant 2	12	3.2	560	17	1.1	20	38	7.4	880	39,000	5,200	48	22
Table 3	41	39	1,500	300	17	N/A	420	100	2,800	N/A	N/A	N/A	N/A
Table 1	75	85	4,300	840	57	75	420	100	7,500	N/A	N/A	3,000	N/A

Class B Pathogen Reduction

Class B pathogen reduction requirements from 40 CFR part 503 and Arizona Administrative Code R18-9-1006-E have been met via anaerobic digestion under the following parameters

	Mean Residence Time (days)		Mean minimum Temperature (°F) (All digesters)
	Min	Max	
Plant 1	19	22	97 - 98
Plant 2	21	23	96 - 100

Vector Attraction Reduction

The vector attraction reduction requirements of 40 CFR part 503 and Arizona Administrative Code R18-9-1010.A have been met using data (may be averages) analyzed by an Arizona certified laboratory to comply with Option 1:

	% Volatile Solids		
	In	Out	Reduction
Plant 1	3.4	1.4	59.8
Plant 2	3.4	1.4	60.8

Certifications:

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

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1/11/2016

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Notice and Necessary Information – Addendum

Individual Digester Mean Cell Residence Times and Minimum Temperatures

Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: November 1- 30, 2015



OCSD Plant 1

	Dig. 7	Dig. 8	Dig. 9	Dig. 10	Dig. 11	Dig. 12	Dig. 13	Dig. 14	Dig. 15	Dig. 16
Minimum Mean Cell Residence Time (days)*	18	17	19	19		18	19	18		
Minimum Temperature (°F)	98	98	97	97		97	98	97		

Shaded box represents Digester is Out of Service.

*MCRT based on a 15-Day Rolling Average.

OCSD Plant 2

	Dig. C	Dig. D	Dig. E	Dig. F	Dig. G	Dig. H	Dig. I	Dig. J	Dig. L	Dig. M	Dig. N	Dig. O	Dig. P	Dig. Q	Dig. R	Dig. S	Dig. T
Minimum Mean Cell Residence Time (days)*	21	21	20	21	21	21	21		21	23	21	21	21		21	21	21
Minimum Temperature (°F)	98	98	98	98	99	98	98		98	96	98	97	98		100	98	100

Shaded box represents Digester is Out of Service.

*MCRT based on a 15-Day Rolling Average.

Notice and Necessary Information

Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: December 1- 31, 2015

Pollutant and Nitrogen concentrations (report results may be averages on 100% dry weight basis).

Sampling date(s): 12/02/2015,12/09/2015

	As (mg/kg)	Cd (mg/kg)	Cu (mg/kg)	Pb (mg/kg)	Hg (mg/kg)	Mo (mg/kg)	Ni (mg/kg)	Se (mg/kg)	Zn (mg/kg)	Org-N (mg/kg)	Ammonia (mg/kg)	Cr (mg/kg)	% solids
Result Plant 1	6.9	2.0	450	<13	0.63	18	31	4.8	620	56,000	6,600	36	17
Result Plant 2	6.2	2.2	340	<9.1	0.73	13	20	4.8	520	44,000	5,200	28	22
Table 3	41	39	1,500	300	17	N/A	420	100	2,800	N/A	N/A	N/A	N/A
Table 1	75	85	4,300	840	57	75	420	100	7,500	N/A	N/A	3,000	N/A

Class B Pathogen Reduction

Class B pathogen reduction requirements from 40 CFR part 503 and Arizona Administrative Code R18-9-1006-E have been met via anaerobic digestion under the following parameters

	Mean Residence Time (days)		Mean minimum Temperature (°F) (All digesters)
	Min	Max	
Plant 1	20	22	97 - 98
Plant 2	21	22	97 - 100

Vector Attraction Reduction

The vector attraction reduction requirements of 40 CFR part 503 and Arizona Administrative Code R18-9-1010.A have been met using data (may be averages) analyzed by an Arizona certified laboratory to comply with Option 1:

	% Volatile Solids		
	In	Out	Reduction
Plant 1	3.4	1.3	61.4
Plant 2	4.1	1.4	66.7


Certifications:

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

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1/19/2016

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1/19/2016

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Notice and Necessary Information – Addendum

Individual Digester Mean Cell Residence Times and Minimum Temperatures

Facility Name: Orange County Sanitation District Reclamation Plant #1, Fountain Valley, CA and Treatment Plant #2, Huntington Beach, CA

Monitoring Period: December 1- 31, 2015



OCSD Plant 1

	Dig. 7	Dig. 8	Dig. 9	Dig. 10	Dig. 11	Dig. 12	Dig. 13	Dig. 14	Dig. 15	Dig. 16
Minimum Mean Cell Residence Time (days)*	19	19	19	20		19	20	20		
Minimum Temperature (°F)	97	97	98	98		97	97	97		

Shaded box represents Digester is Out of Service.

*MCRT based on a 15-Day Rolling Average.

OCSD Plant 2

	Dig. C	Dig. D	Dig. E	Dig. F	Dig. G	Dig. H	Dig. I	Dig. J	Dig. L	Dig. M	Dig. N	Dig. O	Dig. P	Dig. Q	Dig. R	Dig. S	Dig. T
Minimum Mean Cell Residence Time (days)*	21	21	20	20	21	21	21		21		21	21	21		21	21	21
Minimum Temperature (°F)	97	98	98	98	100	99	98		99		98	97	98		98	98	98

Shaded box represents Digester is Out of Service.

*MCRT based on a 15-Day Rolling Average.

APPENDIX B

SOLIDS MANAGEMENT PROGRAM

Introduction
Biosolids Quality

SOLIDS MANAGEMENT PROGRAM

9.1 INTRODUCTION

This section provides an overview of the Biosolids Management Program for the OCSD focusing on the quality with respect to metals. Biosolids are the treated solids resulting from the process of separating solids from water in the wastewater treatment process. These solids are considered a resource because of their high nutrient and energy values, and they are recyclable in part because of their low metal content.

OCSD's Biosolids Management Program has maintained certification with the National Biosolids Partnership (biosolids.org) since 2003. The pretreatment program is a key element in maintaining this certification as well as maintaining our continued goal of recycling our biosolids through minimizing the discharge of heavy metals and other undesirable constituents into the collection system and ultimately the treated solids, which are used to fertilize farms.

OCSD's annual biosolids compliance report is completed and posted online in February. Visit OCsewers.com/503 to access the most recent document that contains Biosolids Management Program information, regulations, quantities, goals, and how and where biosolids are recycled. OCSD also produced an annual biosolids brochure summarizing our program accomplishments (OCsewers.com/bmpp).

9.2 BIOSOLIDS QUALITY

Biosolids quality plays an important role in determining the feasibility of recycling versus disposal options. OCSD's pretreatment program has been extremely effective in reducing and maintaining levels of pollutants (e.g., OCSD's influent sewage meets drinking water standards for the biosolids monitoring metals). The ceiling concentrations and EQ (exceptional quality) concentrations promulgated by the EPA's biosolids regulations (40 CFR 503) are presented in the figures as a reference. For FY 2014/15, OCSD biosolids met the EQ limits for all the regulated parameters.

The levels in trace metals, shown in Figures 9.1 - 9.10, have provided opportunity for beneficial recycling of biosolids including direct application to agricultural land and composting for use as a soil amendment.

Metal	Fiscal Year	Exceptional Quality Limits	Plant No. 1			Plant No. 2		
			Min.	Max.	Avg.	Min.	Max.	Avg.
Arsenic		41						
	2005-06		0.9	7.7	4.4	4.6	9.8	6.9
	2006-07		2.7	7.2	5.3	5.1	11	7.3
	2007-08		2.9	9.0	6.2	4.1	14	7.9
	2008-09		4.3	12	7.1	3.5	13	9.0
	2009-10		2.0	10.0	5.2	4.4	10.0	7.2
	2010-11		7.2	9.7	8.4	8.6	12	10.4
	2011-12		2.3	11	7.4	6.6	66	21.5
	2012-13		0	7.8	4.7	2	10	7
	2013-14		2.2	9.4	5.4	5.4	11	8.4
2014-15		4.5	11.0	7.2	7.8	12	9.3	

TABLE 9.1 Trends in Trace Metal Content of Biosolids, Fiscal Years 2006-2015
 (Concentration in mg/kg, dry weight)
 Orange County Sanitation District, Environmental Compliance Division

Metal	Fiscal Year	Exceptional Quality Limits	Plant No. 1			Plant No. 2		
			Min.	Max.	Avg.	Min.	Max.	Avg.
Cadmium		39						
	2005-06		5	11	7	3	8	6
	2006-07		3.7	6.1	5	2	4	3.3
	2007-08		3.2	11	5.5	2.6	6.4	3.8
	2008-09		2.5	6.20	4.1	1.7	4.4	3.0
	2009-10		1.1	4.4	2.9	1.0	4.8	2.81
	2010-11		1.2	3.8	2.6	1.4	5.0	2.5
	2011-12		0.8	6	3.8	1.1	4.4	3.6
	2012-13		2.6	7.8	4.7	1.9	4.4	3.1
	2013-14		1.6	11	3.9	2.1	6	3.5
2014-15		2.7	7.8	5.1	3.1	5.8	4.0	
Chromium		**						
	2005-06		55	78	63	47	60	54
	2006-07		51	77	62	47	86	60
	2007-08		50	62	54	46	77	60
	2008-09		44	65	55	42	88	62.3
	2009-10		29	56	44	30	54	47
	2010-11		41	58	47	50	66	59
	2011-12		42	74	52	40	70	56
	2012-13		42	56	49	42	59	49
	2013-14		39	52	45	40	53	46
2014-15		30	51	40	34	70	46	
Copper		1,500						
	2005-06		600	710	641	520	680	603
	2006-07		600	800	686	540	620	576
	2007-08		500	650	570	460	630	538
	2008-09		500	590	560	500	540	523
	2009-10		420	620	543	370	560	497
	2010-11		520	600	567	500	720	574
	2011-12		430	670	518	380	720	522
	2012-13		480	640	538	500	640	538
	2013-14		460	540	508	470	540	503
2014-15		320	570	468	320	560	469	
Lead		300						
	2005-06		18	32	27	14	29	22
	2006-07		23	30	26	14	24	21
	2007-08		6	30	20	6	24	14
	2008-09		11	25	21	6	21	15
	2009-10		9	44	23	9	20	17
	2010-11		21	24	23	9	30	20
	2011-12		ND	24.5	9	ND	32	13
	2012-13		7.5	19	15	7.5	16.5	13.7
	2013-14		12.5	17.5	14	12.5	16.5	14.4
2014-15		8.7	15	13	9	17	13	

TABLE 9.1 Trends in Trace Metal Content of Biosolids, Fiscal Years 2006-2015
(Concentration in mg/kg, dry weight)
 Orange County Sanitation District, Environmental Compliance Division

Metal	Fiscal Year	Exceptional Quality Limits	Plant No. 1			Plant No. 2		
			Min.	Max.	Avg.	Min.	Max.	Avg.
Mercury		17						
	2005-06		1.5	2	1.7	1.2	6.4	2.1
	2006-07		1.1	2.4	1.6	1.3	2.5	1.7
	2007-08		1.1	4.2	1.9	1.3	2.6	1.6
	2008-09		1.0	1.9	1.4	1.0	2.6	1.4
	2009-10		1.0	3.2	1.4	0.9	1.6	1.3
	2010-11		0.8	2.2	1.3	0.8	2.3	1.2
	2011-12		0.8	1.4	1.2	0.8	2.6	1.3
	2012-13		0.7	4.1	1.5	0.8	3.8	1.4
	2013-14		0.8	1.2	1.0	0.7	2.8	1.4
	2014-15		1	1.5	1.08	1	1.5	1
Molybdenum		**						
	2005-06		9	18	15	12	18	15
	2006-07		13	22	18	14	18	16
	2007-08		12	17	13	12	18	15
	2008-09		12	16	15	8	16	14
	2009-10		6	16	13	6	14	10
	2010-11		12	19	15	4.8	18	14
	2011-12		6.5	18	12.9	12	20	17
	2012-13		9.8	20	14.2	12	20	15
	2013-14		12	18	15	14	18	15
	2014-15		9.4	18	15	12	20	16
Nickel		420						
	2005-06		58	87	66	32	60	39
	2006-07		44	60	54	28	44	34
	2007-08		34	58	45	24	56	31
	2008-09		30	41	35	22	37	29
	2009-10		12	36	28	9	27	21
	2010-11		28	46	37	14	38	32
	2011-12		15	48	35	20	39	31
	2012-13		34	48	40	23	41	30
	2013-14		36	55	43	28	56	37
	2014-15		26	47	37	26	41	34
Selenium		100						
	2005-06		5.5	12	7.8	3	9.5	6
	2006-07		4.7	13	8.2	1.8	14	5.8
	2007-08		3.0	14	8	1.4	11	5.6
	2008-09		2.5	14.0	9.7	2.8	13	7.5
	2009-10		2.7	18	7.3	2.8	16	5.6
	2010-11		2.8	26	10.6	3.7	26	9.8
	2011-12		ND	26	9	ND	19	9
	2012-13		0	20	9	0	20	8
	2013-14		1.9	13	7.3	2.7	13	7.7
	2014-15		2.9	13.0	6.8	4	15.0	7

TABLE 9.1 Trends in Trace Metal Content of Biosolids, Fiscal Years 2006-2015
 (Concentration in mg/kg, dry weight)
 Orange County Sanitation District, Environmental Compliance Division

Metal	Fiscal Year	Exceptional Quality Limits	Plant No. 1			Plant No. 2		
			Min.	Max.	Avg.	Min.	Max.	Avg.
Silver		**						
	2005-06		ND	ND	ND	ND	ND	ND
	2006-07		28	36	31	ND	ND	ND
	2007-08		19	25	22	10	15	13
	2008-09		19	24	20.8	9.5	13	11.6
	2009-10		10	18	15	7.4	13	10
	2010-11		10	17	13	5.2	12	9.57
	2011-12		7	14	10	4	12	8.5
	2012-13		6.2	14	8.6	6.4	13	8.6
	2013-14		1.7	7.6	5.7	3.8	9.1	7.0
	2014-15		4.9	7.8	6.7	6	8.6	7
Zinc		2,800						
	2005-06		700	910	801	680	900	760
	2006-07		820	1100	900	720	930	790
	2007-08		740	890	806	680	790	716
	2008-09		720	870	785	700	800	749
	2009-10		560	810	741	520	790	710
	2010-11		630	740	696	700	830	740
	2011-12		560	880	709	560	910	749
	2012-13		640	860	723	680	880	768
	2013-14		590	730	671	620	750	700
	2014-15		420	720	620	465	740	669
** No 40 CFR Part 503 Exceptional Quality Criteria.								
ND = Non-detectable								

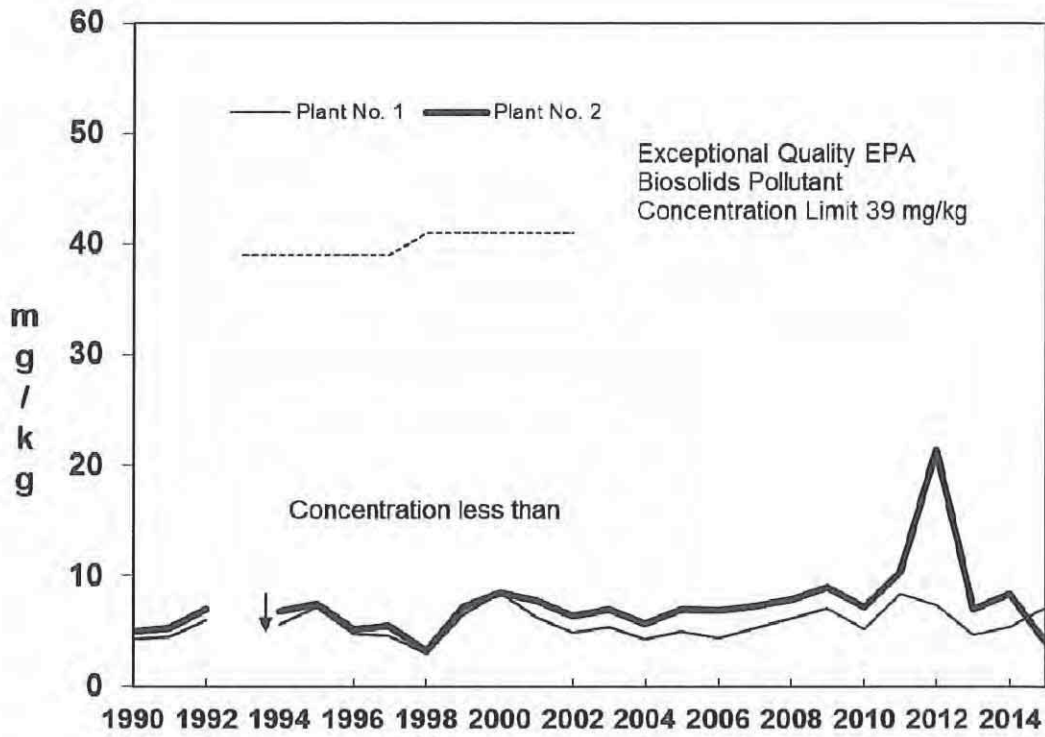


Figure 9-1 Trends in Concentrations of Arsenic in Biosolids, Fiscal Years 1990-2015 Orange County Sanitation District

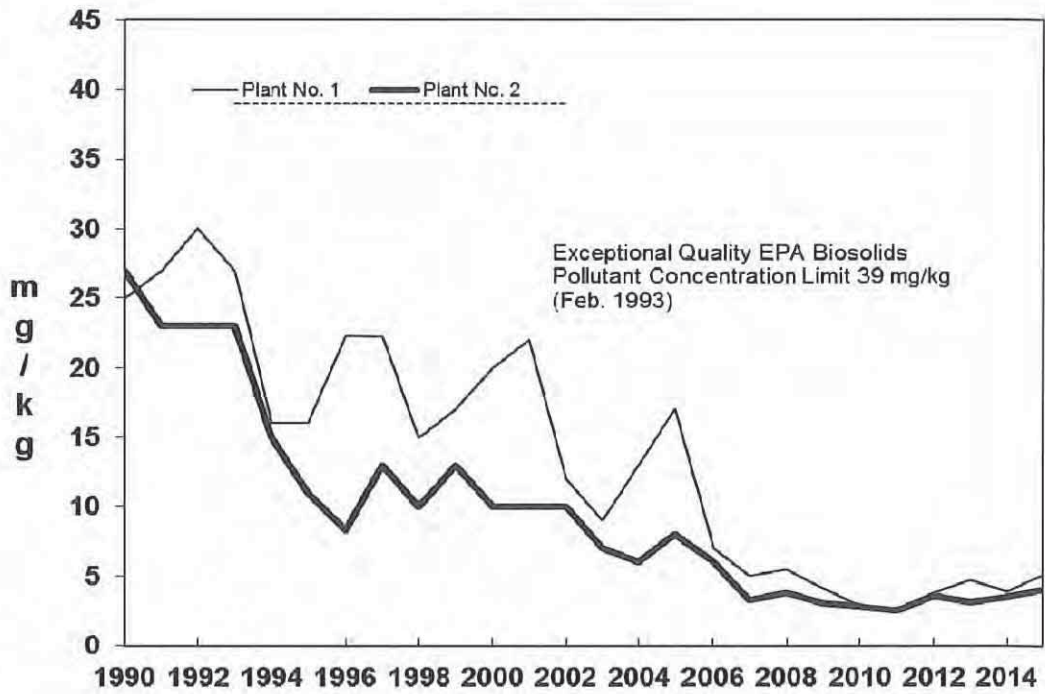


Figure 9-2 Trends in Concentrations of Cadmium in Biosolids, Fiscal Years 1990-2015 Orange County Sanitation District

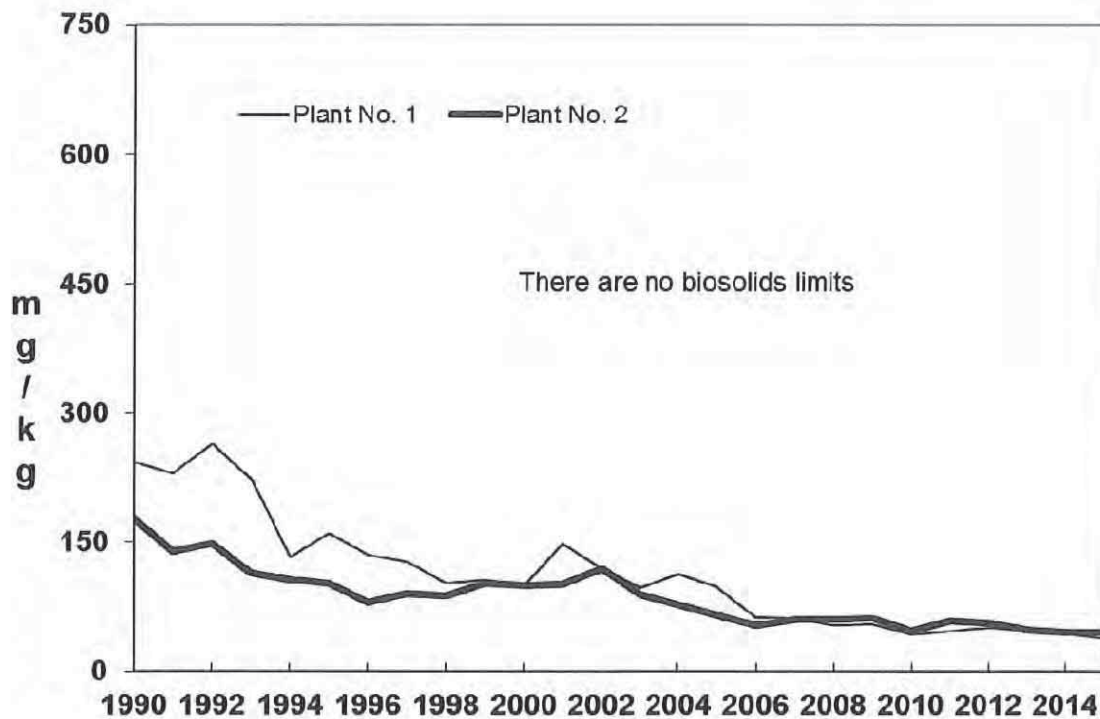


Figure 9-3 Trends in Concentrations of Chromium in Biosolids, Fiscal Years 1990-2015
Orange County Sanitation District

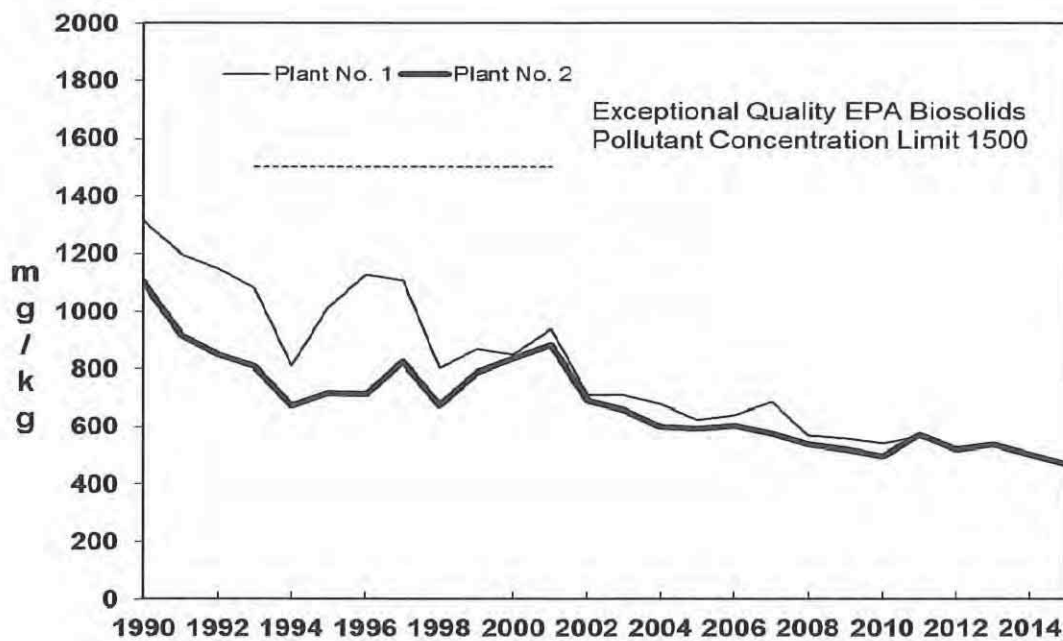


Figure 9-4 Trends in Concentrations of Copper in Biosolids, Fiscal Years 1990-2015
Orange County Sanitation District

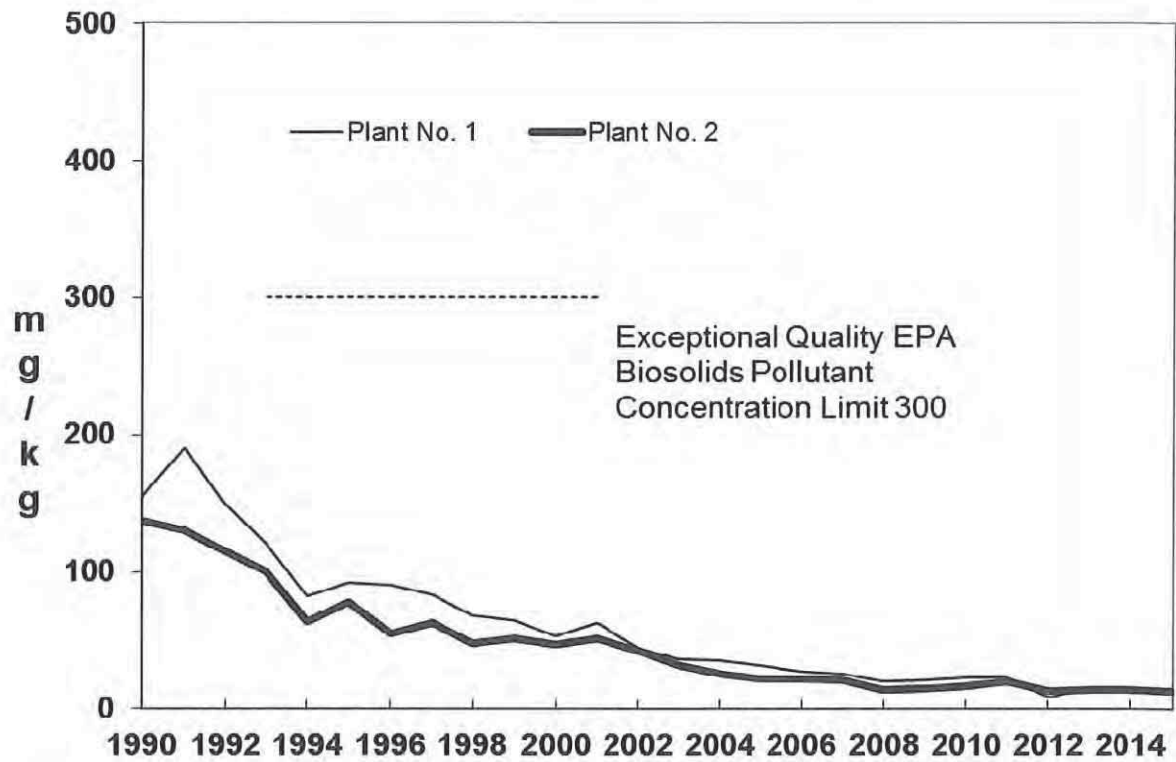


Figure 9-5 Trends of Concentrations of Lead in Biosolids, Fiscal Years 1990-2015
Orange County Sanitation District

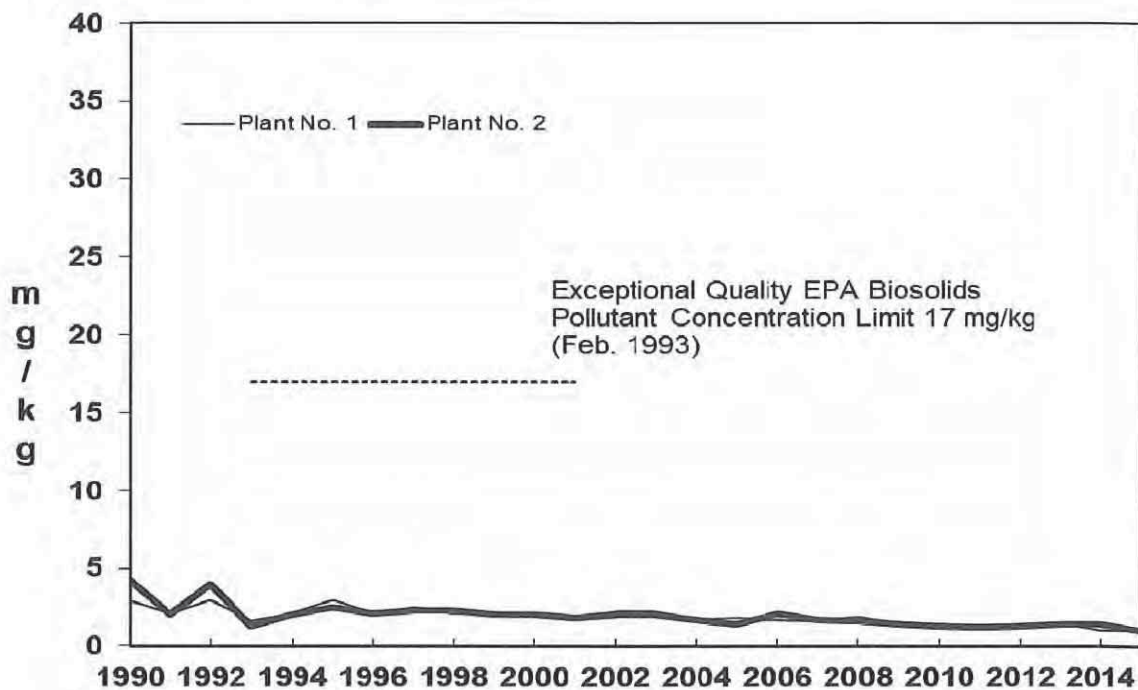


Figure 9-6 Trends in Concentrations of Mercury in Biosolids, Fiscal Years 1990-2015
Orange County Sanitation District

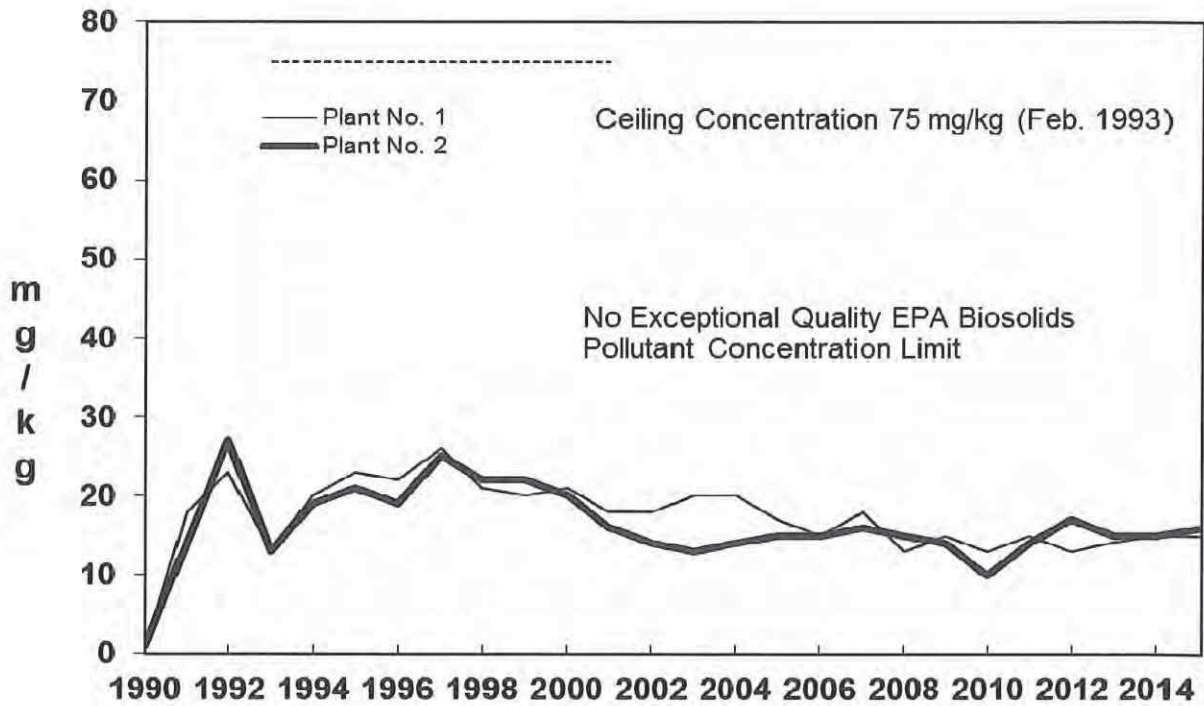


Figure 9-7 Trends in Concentrations of Molybdenum in Biosolids, Fiscal Years 1990-2015
Orange County Sanitation District

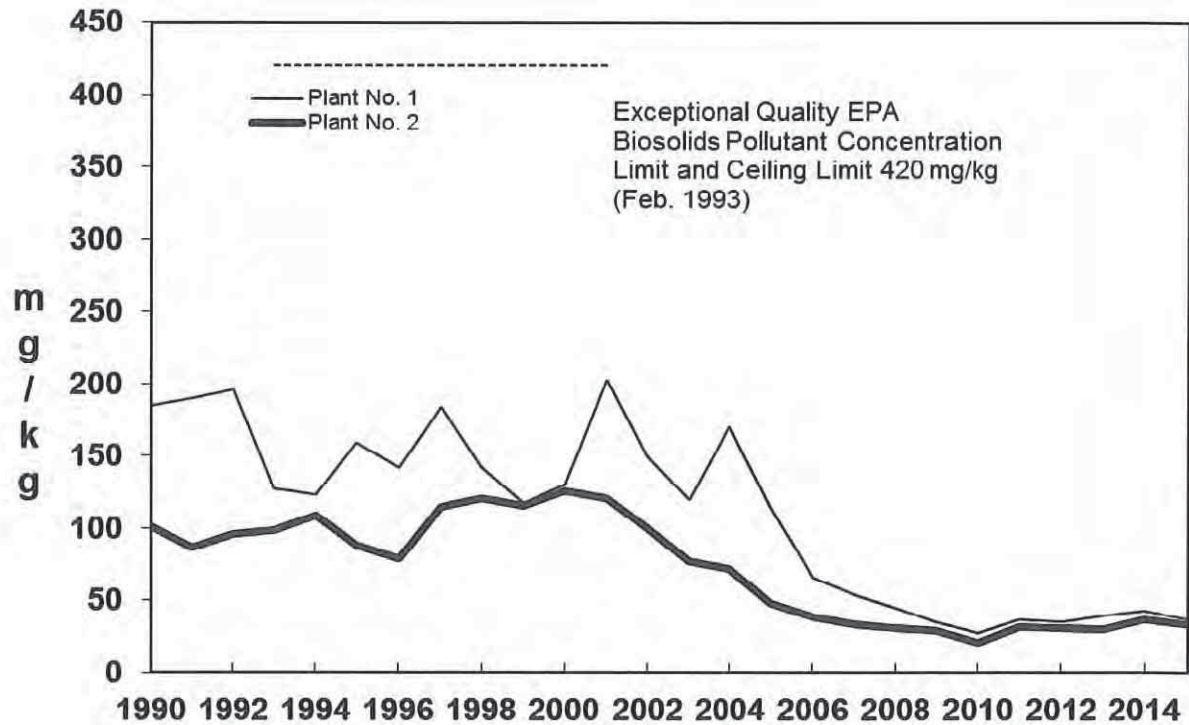


Figure 9-8 Trends in Concentrations of Nickel in Biosolids, Fiscal Years, 1990-2015
Orange County Sanitation District

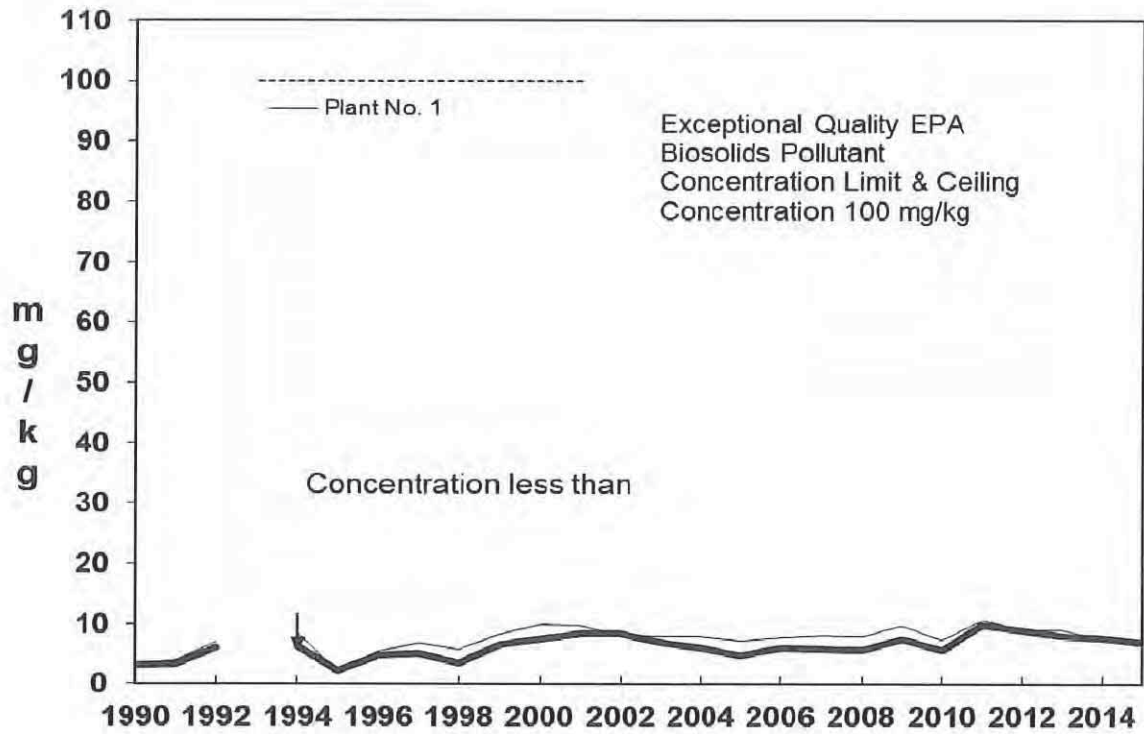


Figure 9-9 Trends in Concentrations of Selenium in Biosolids, Fiscal Years 1990-2015 Orange County Sanitation District

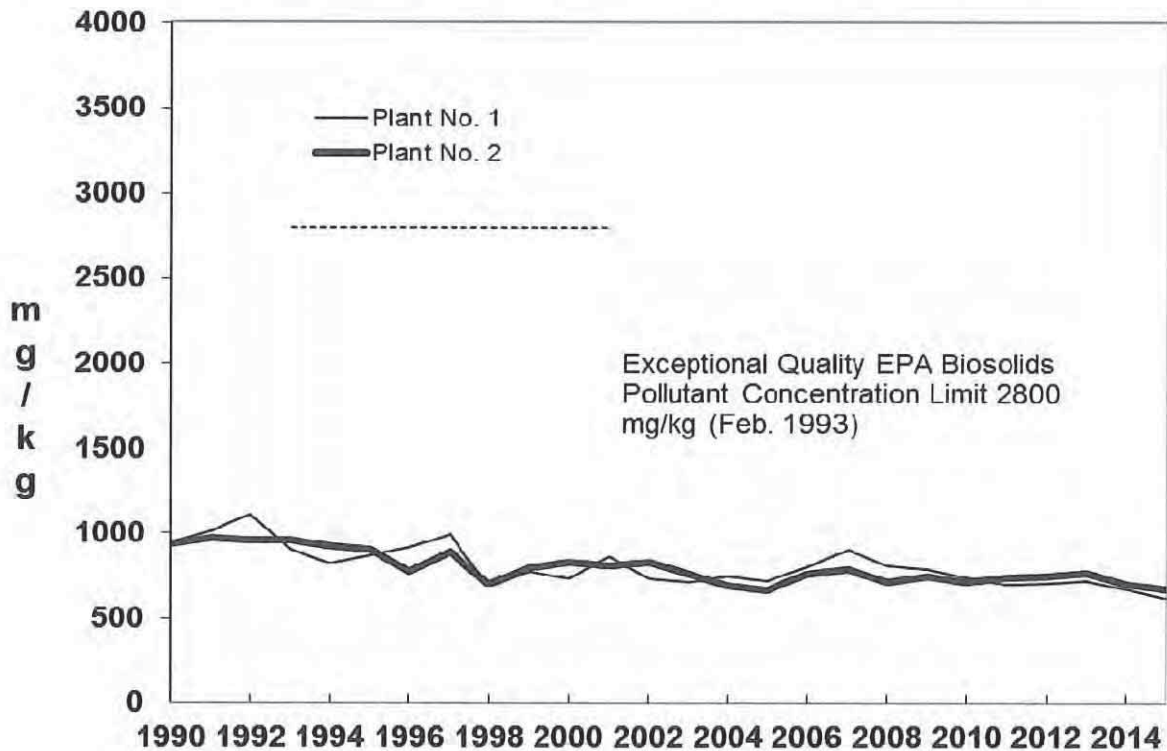


Figure 9-10 Trends in Concentrations of Zinc in Biosolids, Fiscal Years 1990-2015 Orange County Sanitation District

**Summary of Priority Pollutants and
Trace Constituents Analysis 2015 for Biosolids
Summary of Priority Pollutants and
Trace Constituents Analysis 2015 for Digester Cleanings**

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Orange County Sanitation District 2015 Annual 503 Compliance Report Appendix C Summary of Priority Pollutants and Trace Constituents for Biosolids

Biosolids Analytical Results

	Jan-2015		Feb-2015		Mar-2015		Apr-2015		May-2015		Jun-2015	
	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL
General Chemistry												
Ammonia Nitrogen												
Plant 1 Cake, mg/kg dry weight	7050	270	5950	280	6250	300	5850	280	6700	260	5500	270
Plant 2 Cake, mg/kg dry weight	5450	240	4900	240	5150	240	4950	220	5750	230	4650	230
Corrosivity												
Plant 1 Cake, -	NEG	--	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, -	NEG	--	--	--	--	--	--	--	--	--	--	--
Total Cyanide												
Plant 1 Cake, mg/kg dry weight	ND	2.4	--	--	--	--	ND	2.3	--	--	--	--
Plant 2 Cake, mg/kg dry weight	2.65	2.1	--	--	--	--	ND	1.9	--	--	--	--
Fluoride												
Plant 1 Cake, mg/kg dry weight	ND	19	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/kg dry weight	ND	16	--	--	--	--	--	--	--	--	--	--
Hexavalent Chromium												
Plant 1 Cake, mg/kg dry weight	ND	2.2	--	--	--	--	ND	27	--	--	--	--
Plant 2 Cake, mg/kg dry weight	ND	1.9	--	--	--	--	ND	22	--	--	--	--
Nitrate												
Plant 1 Cake, mg/kg dry weight	ND	4.4	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/kg dry weight	ND	3.7	--	--	--	--	--	--	--	--	--	--
Organic Lead												
Plant 1 Cake, µg/kg dry	ND	66	--	--	--	--	ND	65	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	57	--	--	--	--	ND	52	--	--	--	--
Organic Nitrogen												
Plant 1 Cake, mg/kg dry weight	30950	--	25100	--	42750	--	44150	--	42800	--	44000	--
Plant 2 Cake, mg/kg dry weight	36550	--	36850	--	39850	--	32050	--	37250	--	36350	--
pH												
Plant 1 Cake, pH units	7.82	0.1	--	--	--	--	8.09	0.1	--	--	--	--
Plant 2 Cake, pH units	7.77	0.1	--	--	--	--	8.12	0.1	--	--	--	--
Sulfide												
Plant 1 Cake, mg/kg dry weight	4.5	1.1	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/kg dry weight	3.4	0.95	--	--	--	--	--	--	--	--	--	--
TKN												
Plant 1 Cake, mg/kg dry weight	38000	12000	47250	5200	49000	5500	50000	5200	49500	4900	49500	5100
Plant 2 Cake, mg/kg dry weight	42000	11000	41750	4400	45000	4500	37000	4200	43000	4400	41000	4300
Total Solids												
Plant 1 Cake, %	18	0.05	18	0.05	17.5	0.05	18	0.05	19	0.05	18.5	0.05
Plant 2 Cake, %	20.5	0.05	21.5	0.05	21	0.05	22.5	0.05	21.5	0.05	21.5	0.05
Trace Elements												
TTLC												
Antimony												
Plant 1 Cake, mg/kg dry weight	ND	1.7	--	--	--	--	1.7	1.6	--	--	--	--
Plant 2 Cake, mg/kg dry weight	ND	1.4	--	--	--	--	1.6	1.3	--	--	--	--
Arsenic												
Plant 1 Cake, mg/kg dry weight	5.95	1.4	4.5	1.5	6.15	1.6	6.3	1.5	7.15	2.7	8.4	2.9
Plant 2 Cake, mg/kg dry weight	8.8	1.3	8.55	1.2	8.4	1.3	7.75	1.2	7.95	2.5	9.95	2.4
Barium												
Plant 1 Cake, mg/kg dry weight	440	1.7	--	--	--	--	380	1.6	--	--	--	--
Plant 2 Cake, mg/kg dry weight	1000	1.4	--	--	--	--	800	1.3	--	--	--	--
Beryllium												
Plant 1 Cake, mg/kg dry weight	ND	0.22	--	--	--	--	ND	0.22	--	--	--	--
Plant 2 Cake, mg/kg dry weight	ND	0.19	--	--	--	--	ND	0.17	--	--	--	--
Cadmium												
Plant 1 Cake, mg/kg dry weight	4.95	0.44	2.7	0.45	3.65	0.48	3.2	0.46	3.8	0.84	4.3	0.88
Plant 2 Cake, mg/kg dry weight	3.1	0.4	4.55	0.38	3.1	0.39	3.7	0.36	3.85	0.76	3.6	0.74
Chromium												
Plant 1 Cake, mg/kg dry weight	40.5	0.44	29.5	0.45	30	0.48	31.5	0.46	38.5	0.84	39	0.88
Plant 2 Cake, mg/kg dry weight	42	0.4	86.3333	0.76	34.5	0.39	41.5	0.36	46.5	0.76	42.5	0.74
Cobalt												
Plant 1 Cake, mg/kg dry weight	3.8	0.55	--	--	--	--	4.7	0.54	--	--	--	--
Plant 2 Cake, mg/kg dry weight	3.4	0.47	--	--	--	--	4.2	0.44	--	--	--	--
Copper												
Plant 1 Cake, mg/kg dry weight	500	0.66	315	0.68	440	0.72	360	0.68	460	1.3	445	1.3
Plant 2 Cake, mg/kg dry weight	485	0.6	320	0.57	430	0.58	505	0.54	490	1.1	450	1.1
Iron												
Plant 1 Cake, mg/kg dry weight	66000	2.8	38000	2.8	45000	3	47500	2.8	61000	5.2	63000	5.5
Plant 2 Cake, mg/kg dry weight	71500	2.5	43500	4.8	55500	2.4	62000	2.3	73500	4.8	71500	4.6
Lead												
Plant 1 Cake, mg/kg dry weight	13.5	0.88	8.65	0.9	11.5	0.96	8.65	0.91	14	1.7	13	1.8
Plant 2 Cake, mg/kg dry weight	12.5	0.8	13	0.76	9.45	0.78	12	0.72	14	1.5	13.5	1.5
Magnesium												
Plant 1 Cake, mg/kg dry weight	4650	5.5	2800	5.6	3550	6	3500	5.7	4800	10	4650	11
Plant 2 Cake, mg/kg dry weight	7350	5	4100	4.8	4900	4.9	5650	4.5	5750	9.5	5550	9.3

Orange County Sanitation District 2015 Annual 503 Compliance Report Appendix C Summary of Priority Pollutants and Trace Constituents for Biosolids

	Jul-2015		Aug-2015		Sep-2015		Oct-2015		Nov-2015		Dec-2015		Annual Mean
	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	
General Chemistry													
Ammonia Nitrogen													
Plant 1 Cake, mg/kg dry weight	6000	260	6150	270	6300	290	6200	260	6600	300	6550	320	6,300
Plant 2 Cake, mg/kg dry weight	5100	230	5150	230	5300	260	5850	240	5200	220	5250	230	5,200
Corrosivity													
Plant 1 Cake, -	NEG	--	--	--	--	--	--	--	--	--	--	--	NEG
Plant 2 Cake, -	NEG	--	--	--	--	--	--	--	--	--	--	--	NEG
Total Cyanide													
Plant 1 Cake, mg/kg dry weight	ND	2.2	--	--	--	--	4.5	2.3	--	--	--	--	4.5
Plant 2 Cake, mg/kg dry weight	3	2	--	--	--	--	3.7	2.1	--	--	--	--	3.1
Fluoride													
Plant 1 Cake, mg/kg dry weight	49	19	--	--	--	--	--	--	--	--	--	--	49
Plant 2 Cake, mg/kg dry weight	37	16	--	--	--	--	--	--	--	--	--	--	37
Hexavalent Chromium													
Plant 1 Cake, mg/kg dry weight	ND	53	--	--	--	--	ND	10	--	--	--	--	<53
Plant 2 Cake, mg/kg dry weight	ND	46	--	--	--	--	ND	10	--	--	--	--	<46
Nitrate													
Plant 1 Cake, mg/kg dry weight	ND	4.3	--	--	--	--	--	--	--	--	--	--	<4.4
Plant 2 Cake, mg/kg dry weight	ND	3.7	--	--	--	--	--	--	--	--	--	--	<3.7
Organic Lead													
Plant 1 Cake, µg/kg dry	0.0036	0.001	--	--	--	--	0.0059	0.0053	--	--	--	--	0.0048
Plant 2 Cake, µg/kg dry	0.0034	0.001	--	--	--	--	0.0053	0.0048	--	--	--	--	0.0044
Organic Nitrogen													
Plant 1 Cake, mg/kg dry weight	40500	--	42850	--	44200	--	49300	--	52400	--	56450	--	43,000
Plant 2 Cake, mg/kg dry weight	36900	--	35850	--	40600	--	40650	--	39300	--	44250	--	38,000
pH													
Plant 1 Cake, pH units	7.16	--	--	--	--	--	7.8	0.1	--	--	--	--	7.7
Plant 2 Cake, pH units	7.92	--	--	--	--	--	8	0.1	--	--	--	--	8.0
Sulfide													
Plant 1 Cake, mg/kg dry weight	7100*	110	--	--	--	--	--	--	--	--	--	--	4.5
Plant 2 Cake, mg/kg dry weight	11000*	93	--	--	--	--	--	--	--	--	--	--	3.4
TKN													
Plant 1 Cake, mg/kg dry weight	46500	4900	49000	5000	50500	5400	55500	4800	59000	5700	63000	5800	51,000
Plant 2 Cake, mg/kg dry weight	42000	4300	41000	4400	46000	4900	46500	4500	44500	4100	49500	4200	43,000
Total Solids													
Plant 1 Cake, %	19.5	0.05	19	0.05	18	0.05	19	0.05	17.5	0.05	17	0.05	18
Plant 2 Cake, %	23.5	0.05	22	0.05	20.5	0.05	21	0.05	22.5	0.05	22	0.05	22
Trace Elements													
TTLC													
Antimony													
Plant 1 Cake, mg/kg dry weight	ND	7.9	--	--	--	--	ND	1.6	--	--	--	--	1.7
Plant 2 Cake, mg/kg dry weight	ND	6.9	--	--	--	--	1.7	1.4	--	--	--	--	1.7
Arsenic													
Plant 1 Cake, mg/kg dry weight	3.75	6.9	9.75	2.8	9.6	1.5	9.45	1.4	9.75	3.2	6.9	1.6	7.3
Plant 2 Cake, mg/kg dry weight	9	6	10.7	2.5	11	1.4	11.05	1.2	11.5	2.3	6.15	1.2	9.2
Barium													
Plant 1 Cake, mg/kg dry weight	520	7.9	--	--	--	--	340	1.6	--	--	--	--	420
Plant 2 Cake, mg/kg dry weight	1100	6.9	--	--	--	--	1100	1.4	--	--	--	--	1000
Beryllium													
Plant 1 Cake, mg/kg dry weight	ND	1.1	--	--	--	--	ND	0.21	--	--	--	--	<1.1
Plant 2 Cake, mg/kg dry weight	ND	0.92	--	--	--	--	ND	0.19	--	--	--	--	<0.92
Cadmium													
Plant 1 Cake, mg/kg dry weight	4.65	2.1	4.35	0.86	2.75	0.46	2.8	0.42	2.45	0.97	2.05	0.51	3.5
Plant 2 Cake, mg/kg dry weight	3.75	1.8	4.5	0.76	3.75	0.43	3.4	0.38	3.15	0.69	2.15	0.36	3.6
Chromium													
Plant 1 Cake, mg/kg dry weight	42	2.1	46	0.86	48	0.46	41	0.42	49	0.97	36	0.51	39
Plant 2 Cake, mg/kg dry weight	43	1.8	49	0.76	55.5	0.43	47.5	0.38	47.5	0.69	28.5	0.36	47
Cobalt													
Plant 1 Cake, mg/kg dry weight	4.3	2.6	--	--	--	--	1.9	0.53	--	--	--	--	3.7
Plant 2 Cake, mg/kg dry weight	5.5	2.3	--	--	--	--	3.1	0.48	--	--	--	--	4.1
Copper													
Plant 1 Cake, mg/kg dry weight	465	3.2	445	1.3	520	0.69	475	0.63	560	1.5	450	0.76	450
Plant 2 Cake, mg/kg dry weight	470	2.8	480	1.1	570	0.65	560	0.58	565	1	335	0.55	470
Iron													
Plant 1 Cake, mg/kg dry weight	67500	13	67000	5.4	65500	2.9	55500	2.6	76500	6.1	62000	3.2	60,000
Plant 2 Cake, mg/kg dry weight	73500	12	77500	4.7	81500	4.6	74000	2.4	64500	4.4	52000	2.3	67,000
Lead													
Plant 1 Cake, mg/kg dry weight	14.5	4.2	10.9	1.7	11	0.92	16	0.85	20	1.9	10.15	1	13
Plant 2 Cake, mg/kg dry weight	16	3.7	14	1.5	14.5	0.86	15.5	0.77	17	1.4	7.5	0.73	13
Magnesium													
Plant 1 Cake, mg/kg dry weight	5000	26	5450	11	5850	5.8	3900	5.3	5700	12	5400	6.3	4,600
Plant 2 Cake, mg/kg dry weight	6000	23	5750	9.5	6050	5.4	5950	4.8	6900	8.7	4100	4.6	5,700

Orange County Sanitation District 2015 Annual 503 Compliance Report Appendix C Summary of Priority Pollutants and Trace Constituents for Biosolids

	Jul-2015		Aug-2015		Sep-2015		Oct-2015		Nov-2015		Dec-2015		Annual Mean
	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	
Mercury													
Plant 1 Cake, mg/kg dry weight	0.735	0.064	0.86	0.065	1.2	0.069	0.84	0.064	1.2	0.072	0.63	0.076	0.97
Plant 2 Cake, mg/kg dry weight	1.175	0.056	0.79	0.11	0.975	0.066	0.845	0.058	1.065	0.052	0.73	0.056	0.90
Molybdenum													
Plant 1 Cake, mg/kg dry weight	17.5	2.1	16	0.86	17	0.46	17	0.42	17.5	0.97	17.5	0.51	15
Plant 2 Cake, mg/kg dry weight	17.5	1.8	18	0.76	20.5	0.43	23.3333	0.38	19.5	0.69	13.35	0.36	17
Nickel													
Plant 1 Cake, mg/kg dry weight	39.5	2.1	43	0.86	36	0.46	45	0.42	44	0.97	31	0.51	36
Plant 2 Cake, mg/kg dry weight	34.5	1.8	33.5	0.76	29.5	0.43	38	0.38	38.5	0.69	20.5	0.36	32
Phosphorus													
Plant 1 Cake, mg/kg dry weight	25000	21	--	--	--	--	--	--	--	--	--	--	26,000
Plant 2 Cake, mg/kg dry weight	28000	37	--	--	--	--	--	--	--	--	--	--	27,000
Potassium													
Plant 1 Cake, mg/kg dry weight	1200	160	--	--	--	--	--	--	--	--	--	--	1,100
Plant 2 Cake, mg/kg dry weight	1100	280	--	--	--	--	--	--	--	--	--	--	1,100
Selenium													
Plant 1 Cake, mg/kg dry weight	2.35	8.5	7.25	3.4	8.7	1.8	8.05	1.7	9.7	3.9	4.75	2	6.0
Plant 2 Cake, mg/kg dry weight	2.65	7.4	2.2	3	9.9	1.7	9.3	1.5	7.45	2.8	4.8	1.5	5.9
Silver													
Plant 1 Cake, mg/kg dry weight	7.25	6.6	7.6	2.7	6.4	1.4	5.8	1.3	7.7	3	6.35	1.6	6.7
Plant 2 Cake, mg/kg dry weight	8	5.8	7.65	2.4	6.85	1.3	6.65	1.2	7.85	2.2	4.25	1.1	7.2
Thallium													
Plant 1 Cake, mg/kg dry weight	ND	5.3	--	--	--	--	ND	1.1	--	--	--	--	1.1
Plant 2 Cake, mg/kg dry weight	7.8	4.6	--	--	--	--	1.1	0.96	--	--	--	--	4.5
Vanadium													
Plant 1 Cake, mg/kg dry weight	54	2.6	--	--	--	--	18	0.53	--	--	--	--	34
Plant 2 Cake, mg/kg dry weight	80	2.3	--	--	--	--	56	0.48	--	--	--	--	53
Zinc													
Plant 1 Cake, mg/kg dry weight	650	6.4	610	2.6	685	1.4	660	1.3	770	2.9	615	1.5	610
Plant 2 Cake, mg/kg dry weight	730	5.5	750	2.3	860	1.3	890	1.2	880	2.1	515	1.1	710
STLC													
Antimony													
Plant 1 Cake, mg/L	0.14	0.14	--	--	--	--	--	--	--	--	--	--	0.14
Plant 2 Cake, mg/L	0.23	0.14	--	--	--	--	--	--	--	--	--	--	0.19
Arsenic													
Plant 1 Cake, mg/L	ND	0.13	--	--	--	--	--	--	--	--	--	--	0.15
Plant 2 Cake, mg/L	ND	0.13	--	--	--	--	--	--	--	--	--	--	<0.13
Barium													
Plant 1 Cake, mg/L	7.2	0.12	--	--	--	--	--	--	--	--	--	--	10
Plant 2 Cake, mg/L	18	0.12	--	--	--	--	--	--	--	--	--	--	19
Beryllium													
Plant 1 Cake, mg/L	ND	0.018	--	--	--	--	--	--	--	--	--	--	<0.018
Plant 2 Cake, mg/L	ND	0.018	--	--	--	--	--	--	--	--	--	--	<0.018
Cadmium													
Plant 1 Cake, mg/L	ND	0.04	--	--	--	--	--	--	--	--	--	--	<0.04
Plant 2 Cake, mg/L	ND	0.04	--	--	--	--	--	--	--	--	--	--	<0.04
Chromium													
Plant 1 Cake, mg/L	0.53	0.04	--	--	--	--	--	--	--	--	--	--	0.60
Plant 2 Cake, mg/L	0.64	0.04	--	--	--	--	--	--	--	--	--	--	0.66
Cobalt													
Plant 1 Cake, mg/L	ND	0.04	--	--	--	--	--	--	--	--	--	--	<0.04
Plant 2 Cake, mg/L	ND	0.04	--	--	--	--	--	--	--	--	--	--	<0.04
Copper													
Plant 1 Cake, mg/L	ND	0.06	--	--	--	--	--	--	--	--	--	--	<0.06
Plant 2 Cake, mg/L	ND	0.06	--	--	--	--	--	--	--	--	--	--	<0.06
Lead													
Plant 1 Cake, mg/L	ND	0.08	--	--	--	--	--	--	--	--	--	--	<0.08
Plant 2 Cake, mg/L	0.087	0.08	--	--	--	--	--	--	--	--	--	--	0.087
Mercury													
Plant 1 Cake, mg/L	ND	0.001	--	--	--	--	--	--	--	--	--	--	<0.001
Plant 2 Cake, mg/L	ND	0.001	--	--	--	--	--	--	--	--	--	--	0.0012
Molybdenum													
Plant 1 Cake, mg/L	0.24	0.04	--	--	--	--	--	--	--	--	--	--	0.24
Plant 2 Cake, mg/L	0.3	0.04	--	--	--	--	--	--	--	--	--	--	0.30
Nickel													
Plant 1 Cake, mg/L	0.41	0.04	--	--	--	--	--	--	--	--	--	--	0.39
Plant 2 Cake, mg/L	0.38	0.04	--	--	--	--	--	--	--	--	--	--	0.33
Selenium													
Plant 1 Cake, mg/L	ND	0.16	--	--	--	--	--	--	--	--	--	--	<0.16
Plant 2 Cake, mg/L	ND	0.16	--	--	--	--	--	--	--	--	--	--	<0.16
Silver													
Plant 1 Cake, mg/L	ND	0.12	--	--	--	--	--	--	--	--	--	--	<0.12
Plant 2 Cake, mg/L	ND	0.12	--	--	--	--	--	--	--	--	--	--	<0.12

Biosolids Analytical Results

	Jan-2015		Feb-2015		Mar-2015		Apr-2015		May-2015		Jun-2015	
	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL
<u>Volatile Organic Compounds</u>												
1,1,1,2-Tetrachloroethane												
Plant 1 Cake, µg/kg dry	ND	28	--	--	--	--	ND	26	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	24	--	--	--	--	ND	22	--	--	--	--
1,1,1-Trichloroethane												
Plant 1 Cake, µg/kg dry	ND	28	--	--	--	--	ND	26	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	24	--	--	--	--	ND	22	--	--	--	--
1,1,2,2-Tetrachloroethane												
Plant 1 Cake, µg/kg dry	ND	28	--	--	--	--	ND	26	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	24	--	--	--	--	ND	22	--	--	--	--
1,1,2-Trichloroethane												
Plant 1 Cake, µg/kg dry	ND	28	--	--	--	--	ND	26	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	24	--	--	--	--	ND	22	--	--	--	--
1,1-Dichloroethane												
Plant 1 Cake, µg/kg dry	ND	28	--	--	--	--	ND	26	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	24	--	--	--	--	ND	22	--	--	--	--
1,1-Dichloroethene												
Plant 1 Cake, µg/kg dry	ND	28	--	--	--	--	ND	26	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	24	--	--	--	--	ND	22	--	--	--	--
1,1-Dichloropropene												
Plant 1 Cake, µg/kg dry	ND	28	--	--	--	--	ND	26	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	24	--	--	--	--	ND	22	--	--	--	--
1,2,3-Trichlorobenzene												
Plant 1 Cake, µg/kg dry	ND	28	--	--	--	--	ND	26	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	24	--	--	--	--	ND	22	--	--	--	--
1,2,3-Trichloropropane												
Plant 1 Cake, µg/kg dry	ND	28	--	--	--	--	ND	26	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	24	--	--	--	--	ND	22	--	--	--	--
1,2,4-Trimethylbenzene												
Plant 1 Cake, µg/kg dry	ND	28	--	--	--	--	ND	26	--	--	--	--
Plant 2 Cake, µg/kg dry	170	24	--	--	--	--	ND	22	--	--	--	--
1,2-Dibromo-3-chloropropane												
Plant 1 Cake, µg/kg dry	ND	55	--	--	--	--	ND	52	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	47	--	--	--	--	ND	44	--	--	--	--
1,2-Dibromoethane												
Plant 1 Cake, µg/kg dry	ND	28	--	--	--	--	ND	26	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	24	--	--	--	--	ND	22	--	--	--	--
1,2-Dichloroethane												
Plant 1 Cake, µg/kg dry	ND	28	--	--	--	--	ND	26	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	24	--	--	--	--	ND	22	--	--	--	--
1,2-Dichloropropane												
Plant 1 Cake, µg/kg dry	ND	28	--	--	--	--	ND	26	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	24	--	--	--	--	ND	22	--	--	--	--
1,3,5-Trichlorobenzene												
Plant 1 Cake, µg/kg dry	--	--	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, µg/kg dry	--	--	--	--	--	--	--	--	--	--	--	--
1,3,5-Trimethylbenzene												
Plant 1 Cake, µg/kg dry	ND	28	--	--	--	--	ND	26	--	--	--	--
Plant 2 Cake, µg/kg dry	58	24	--	--	--	--	ND	22	--	--	--	--
1,3-Dichloropropane												
Plant 1 Cake, µg/kg dry	ND	28	--	--	--	--	ND	26	--	--	--	--
Plant 2 Cake, µg/kg dry	61	24	--	--	--	--	ND	22	--	--	--	--
2,2-Dichloropropane												
Plant 1 Cake, µg/kg dry	ND	28	--	--	--	--	ND	26	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	24	--	--	--	--	ND	22	--	--	--	--
2-Chlorotoluene												
Plant 1 Cake, µg/kg dry	ND	28	--	--	--	--	ND	26	--	--	--	--
Plant 2 Cake, µg/kg dry	26	24	--	--	--	--	ND	22	--	--	--	--
2-Hexanone												
Plant 1 Cake, µg/kg dry	ND	140	--	--	--	--	ND	130	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	120	--	--	--	--	ND	110	--	--	--	--
4-Chlorotoluene												
Plant 1 Cake, µg/kg dry	ND	28	--	--	--	--	ND	26	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	24	--	--	--	--	ND	22	--	--	--	--

Orange County Sanitation District 2015 Annual 503 Compliance Report Appendix C Summary of Priority Pollutants and Trace Constituents for Biosolids

	Jul-2015		Aug-2015		Sep-2015		Oct-2015		Nov-2015		Dec-2015		Annual Mean
	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	
Volatile Organic Compounds													
1,1,1,2-Tetrachloroethane													
Plant 1 Cake, µg/kg dry	ND	2500	--	--	--	--	ND	4800	--	--	--	--	<4800
Plant 2 Cake, µg/kg dry	ND	2300	--	--	--	--	ND	4200	--	--	--	--	<4200
1,1,1-Trichloroethane													
Plant 1 Cake, µg/kg dry	ND	1200	--	--	--	--	ND	2400	--	--	--	--	<2400
Plant 2 Cake, µg/kg dry	ND	1100	--	--	--	--	ND	2100	--	--	--	--	<2100
1,1,2,2-Tetrachloroethane													
Plant 1 Cake, µg/kg dry	ND	1200	--	--	--	--	ND	2400	--	--	--	--	<2400
Plant 2 Cake, µg/kg dry	ND	1100	--	--	--	--	ND	2100	--	--	--	--	<2100
1,1,2-Trichloroethane													
Plant 1 Cake, µg/kg dry	ND	1200	--	--	--	--	ND	2400	--	--	--	--	<2400
Plant 2 Cake, µg/kg dry	ND	1100	--	--	--	--	ND	2100	--	--	--	--	<2100
1,1-Dichloroethane													
Plant 1 Cake, µg/kg dry	ND	1200	--	--	--	--	ND	2400	--	--	--	--	<2400
Plant 2 Cake, µg/kg dry	ND	1100	--	--	--	--	ND	2100	--	--	--	--	<2100
1,1-Dichloroethene													
Plant 1 Cake, µg/kg dry	ND	2500	--	--	--	--	ND	4800	--	--	--	--	<4800
Plant 2 Cake, µg/kg dry	ND	2300	--	--	--	--	ND	4200	--	--	--	--	<4200
1,1-Dichloropropene													
Plant 1 Cake, µg/kg dry	ND	1200	--	--	--	--	ND	2400	--	--	--	--	<2400
Plant 2 Cake, µg/kg dry	ND	1100	--	--	--	--	ND	2100	--	--	--	--	<2100
1,2,3-Trichlorobenzene													
Plant 1 Cake, µg/kg dry	ND	2500	--	--	--	--	ND	4800	--	--	--	--	<4800
Plant 2 Cake, µg/kg dry	ND	2300	--	--	--	--	ND	4200	--	--	--	--	<4200
1,2,3-Trichloropropane													
Plant 1 Cake, µg/kg dry	ND	2500	--	--	--	--	ND	4800	--	--	--	--	<4800
Plant 2 Cake, µg/kg dry	ND	2300	--	--	--	--	ND	4200	--	--	--	--	<4200
1,2,4-Trimethylbenzene													
Plant 1 Cake, µg/kg dry	ND	1200	--	--	--	--	ND	2400	--	--	--	--	<2400
Plant 2 Cake, µg/kg dry	ND	1100	--	--	--	--	ND	2100	--	--	--	--	170
1,2-Dibromo-3-chloropropane													
Plant 1 Cake, µg/kg dry	ND	2500	--	--	--	--	ND	4800	--	--	--	--	<4800
Plant 2 Cake, µg/kg dry	ND	2300	--	--	--	--	ND	4200	--	--	--	--	<4200
1,2-Dibromoethane													
Plant 1 Cake, µg/kg dry	ND	1200	--	--	--	--	ND	2400	--	--	--	--	<2400
Plant 2 Cake, µg/kg dry	ND	1100	--	--	--	--	ND	2100	--	--	--	--	<2100
1,2-Dichloroethane													
Plant 1 Cake, µg/kg dry	ND	1200	--	--	--	--	ND	2400	--	--	--	--	<2400
Plant 2 Cake, µg/kg dry	ND	1100	--	--	--	--	ND	2100	--	--	--	--	<2100
1,2-Dichloropropane													
Plant 1 Cake, µg/kg dry	ND	1200	--	--	--	--	ND	2400	--	--	--	--	<2400
Plant 2 Cake, µg/kg dry	ND	1100	--	--	--	--	ND	2100	--	--	--	--	<2100
1,3,5-Trichlorobenzene													
Plant 1 Cake, µg/kg dry	ND	2500	--	--	--	--	ND	4800	--	--	--	--	<4800
Plant 2 Cake, µg/kg dry	ND	2300	--	--	--	--	ND	4200	--	--	--	--	<4200
1,3,5-Trimethylbenzene													
Plant 1 Cake, µg/kg dry	ND	1200	--	--	--	--	ND	2400	--	--	--	--	<2400
Plant 2 Cake, µg/kg dry	ND	1100	--	--	--	--	ND	2100	--	--	--	--	58
1,3-Dichloropropane													
Plant 1 Cake, µg/kg dry	ND	1200	--	--	--	--	ND	2400	--	--	--	--	<2400
Plant 2 Cake, µg/kg dry	ND	1100	--	--	--	--	ND	2100	--	--	--	--	61
2,2-Dichloropropane													
Plant 1 Cake, µg/kg dry	ND	2500	--	--	--	--	ND	4800	--	--	--	--	<4800
Plant 2 Cake, µg/kg dry	ND	2300	--	--	--	--	ND	4200	--	--	--	--	<4200
2-Chlorotoluene													
Plant 1 Cake, µg/kg dry	ND	2500	--	--	--	--	ND	4800	--	--	--	--	<4800
Plant 2 Cake, µg/kg dry	ND	2300	--	--	--	--	ND	4200	--	--	--	--	26
2-Hexanone													
Plant 1 Cake, µg/kg dry	ND	12000	--	--	--	--	ND	24000	--	--	--	--	<24000
Plant 2 Cake, µg/kg dry	ND	11000	--	--	--	--	ND	21000	--	--	--	--	<21000
4-Chlorotoluene													
Plant 1 Cake, µg/kg dry	ND	1200	--	--	--	--	ND	2400	--	--	--	--	<2400
Plant 2 Cake, µg/kg dry	ND	1100	--	--	--	--	ND	2100	--	--	--	--	<2100

Orange County Sanitation District 2015 Annual 503 Compliance Report Appendix C Summary of Priority Pollutants and Trace Constituents for Biosolids

Biosolids Analytical Results

	Jan-2015		Feb-2015		Mar-2015		Apr-2015		May-2015		Jun-2015	
	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL
Acrolein												
Plant 1 Cake, µg/kg dry	ND	280	--	--	--	--	ND	260	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	240	--	--	--	--	ND	220	--	--	--	--
Acrylonitrile												
Plant 1 Cake, µg/kg dry	ND	550	--	--	--	--	ND	520	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	470	--	--	--	--	ND	440	--	--	--	--
Benzene												
Plant 1 Cake, µg/kg dry	ND	28	--	--	--	--	ND	26	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	24	--	--	--	--	ND	22	--	--	--	--
Bromobenzene												
Plant 1 Cake, µg/kg dry	ND	28	--	--	--	--	ND	26	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	24	--	--	--	--	ND	22	--	--	--	--
Bromochloromethane												
Plant 1 Cake, µg/kg dry	ND	28	--	--	--	--	ND	26	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	24	--	--	--	--	ND	22	--	--	--	--
Bromodichloromethane												
Plant 1 Cake, µg/kg dry	ND	28	--	--	--	--	ND	26	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	24	--	--	--	--	ND	22	--	--	--	--
Bromoform												
Plant 1 Cake, µg/kg dry	ND	55	--	--	--	--	ND	52	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	47	--	--	--	--	ND	44	--	--	--	--
Bromomethane												
Plant 1 Cake, µg/kg dry	ND	28	--	--	--	--	ND	26	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	24	--	--	--	--	ND	22	--	--	--	--
Carbon tetrachloride												
Plant 1 Cake, µg/kg dry	ND	28	--	--	--	--	ND	26	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	24	--	--	--	--	ND	22	--	--	--	--
Chlorobenzene												
Plant 1 Cake, µg/kg dry	ND	28	--	--	--	--	ND	26	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	24	--	--	--	--	ND	22	--	--	--	--
Chloroethane												
Plant 1 Cake, µg/kg dry	ND	55	--	--	--	--	ND	52	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	47	--	--	--	--	ND	44	--	--	--	--
Chloroform												
Plant 1 Cake, µg/kg dry	ND	28	--	--	--	--	ND	26	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	24	--	--	--	--	ND	22	--	--	--	--
Chloromethane												
Plant 1 Cake, µg/kg dry	ND	28	--	--	--	--	ND	26	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	24	--	--	--	--	ND	22	--	--	--	--
cis-1,2-Dichloroethene												
Plant 1 Cake, µg/kg dry	ND	28	--	--	--	--	ND	26	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	24	--	--	--	--	ND	22	--	--	--	--
cis-1,3-Dichloropropene												
Plant 1 Cake, µg/kg dry	ND	28	--	--	--	--	ND	26	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	24	--	--	--	--	ND	22	--	--	--	--
Dibromochloromethane												
Plant 1 Cake, µg/kg dry	ND	28	--	--	--	--	ND	26	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	24	--	--	--	--	ND	22	--	--	--	--
Dibromomethane												
Plant 1 Cake, µg/kg dry	ND	28	--	--	--	--	ND	26	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	24	--	--	--	--	ND	22	--	--	--	--
Dichlorodifluoromethane												
Plant 1 Cake, µg/kg dry	ND	55	--	--	--	--	ND	52	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	47	--	--	--	--	ND	44	--	--	--	--
Ethylbenzene												
Plant 1 Cake, µg/kg dry	ND	28	--	--	--	--	ND	26	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	24	--	--	--	--	22	22	--	--	--	--
Isobutyl alcohol												
Plant 1 Cake, µg/kg dry	ND	690	--	--	--	--	ND	650	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	590	--	--	--	--	ND	550	--	--	--	--
Isopropylbenzene												
Plant 1 Cake, µg/kg dry	ND	28	--	--	--	--	ND	26	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	24	--	--	--	--	ND	22	--	--	--	--
m,p-Xylenes												
Plant 1 Cake, µg/kg dry	ND	55	--	--	--	--	ND	52	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	47	--	--	--	--	ND	44	--	--	--	--
Methyl ethyl ketone												
Plant 1 Cake, µg/kg dry	2400	140	--	--	--	--	720	130	--	--	--	--
Plant 2 Cake, µg/kg dry	2100	120	--	--	--	--	2200	110	--	--	--	--
Methylene Chloride												
Plant 1 Cake, µg/kg dry	ND	140	--	--	--	--	ND	130	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	120	--	--	--	--	ND	110	--	--	--	--

Orange County Sanitation District 2015 Annual 503 Compliance Report Appendix C Summary of Priority Pollutants and Trace Constituents for Biosolids

	Jul-2015		Aug-2015		Sep-2015		Oct-2015		Nov-2015		Dec-2015		Annual Mean
	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	
Acrolein													
Plant 1 Cake, µg/kg dry	ND	49000	--	--	--	--	ND	95000	--	--	--	--	<95000
Plant 2 Cake, µg/kg dry	ND	45000	--	--	--	--	ND	85000	--	--	--	--	<85000
Acrylonitrile													
Plant 1 Cake, µg/kg dry	ND	25000	--	--	--	--	ND	48000	--	--	--	--	<48000
Plant 2 Cake, µg/kg dry	ND	23000	--	--	--	--	ND	42000	--	--	--	--	<42000
Benzene													
Plant 1 Cake, µg/kg dry	ND	1200	--	--	--	--	ND	2400	--	--	--	--	<2400
Plant 2 Cake, µg/kg dry	ND	1100	--	--	--	--	ND	2100	--	--	--	--	<2100
Bromobenzene													
Plant 1 Cake, µg/kg dry	ND	2500	--	--	--	--	ND	4800	--	--	--	--	<4800
Plant 2 Cake, µg/kg dry	ND	2300	--	--	--	--	ND	4200	--	--	--	--	<4200
Bromochloromethane													
Plant 1 Cake, µg/kg dry	ND	2500	--	--	--	--	ND	4800	--	--	--	--	<4800
Plant 2 Cake, µg/kg dry	ND	2300	--	--	--	--	ND	4200	--	--	--	--	<4200
Bromodichloromethane													
Plant 1 Cake, µg/kg dry	ND	1200	--	--	--	--	ND	2400	--	--	--	--	<2400
Plant 2 Cake, µg/kg dry	ND	1100	--	--	--	--	ND	2100	--	--	--	--	<2100
Bromoform													
Plant 1 Cake, µg/kg dry	ND	2500	--	--	--	--	ND	4800	--	--	--	--	<4800
Plant 2 Cake, µg/kg dry	ND	2300	--	--	--	--	ND	4200	--	--	--	--	<4200
Bromomethane													
Plant 1 Cake, µg/kg dry	ND	2500	--	--	--	--	ND	4800	--	--	--	--	<4800
Plant 2 Cake, µg/kg dry	ND	2300	--	--	--	--	ND	4200	--	--	--	--	<4200
Carbon tetrachloride													
Plant 1 Cake, µg/kg dry	ND	2500	--	--	--	--	ND	4800	--	--	--	--	<4800
Plant 2 Cake, µg/kg dry	ND	2300	--	--	--	--	ND	4200	--	--	--	--	<4200
Chlorobenzene													
Plant 1 Cake, µg/kg dry	ND	1200	--	--	--	--	ND	2400	--	--	--	--	<2400
Plant 2 Cake, µg/kg dry	ND	1100	--	--	--	--	ND	2100	--	--	--	--	<2100
Chloroethane													
Plant 1 Cake, µg/kg dry	ND	2500	--	--	--	--	ND	4800	--	--	--	--	<4800
Plant 2 Cake, µg/kg dry	ND	2300	--	--	--	--	ND	4200	--	--	--	--	<4200
Chloroform													
Plant 1 Cake, µg/kg dry	ND	1200	--	--	--	--	ND	2400	--	--	--	--	<2400
Plant 2 Cake, µg/kg dry	ND	1100	--	--	--	--	ND	2100	--	--	--	--	<2100
Chloromethane													
Plant 1 Cake, µg/kg dry	ND	2500	--	--	--	--	ND	4800	--	--	--	--	<4800
Plant 2 Cake, µg/kg dry	ND	2300	--	--	--	--	ND	4200	--	--	--	--	<4200
cis-1,2-Dichloroethene													
Plant 1 Cake, µg/kg dry	ND	1200	--	--	--	--	ND	2400	--	--	--	--	<2400
Plant 2 Cake, µg/kg dry	ND	1100	--	--	--	--	ND	2100	--	--	--	--	<2100
cis-1,3-Dichloropropene													
Plant 1 Cake, µg/kg dry	ND	1200	--	--	--	--	ND	2400	--	--	--	--	<2400
Plant 2 Cake, µg/kg dry	ND	1100	--	--	--	--	ND	2100	--	--	--	--	<2100
Dibromochloromethane													
Plant 1 Cake, µg/kg dry	ND	1200	--	--	--	--	ND	2400	--	--	--	--	<2400
Plant 2 Cake, µg/kg dry	ND	1100	--	--	--	--	ND	2100	--	--	--	--	<2100
Dibromomethane													
Plant 1 Cake, µg/kg dry	ND	1200	--	--	--	--	ND	2400	--	--	--	--	<2400
Plant 2 Cake, µg/kg dry	ND	1100	--	--	--	--	ND	2100	--	--	--	--	<2100
Dichlorodifluoromethane													
Plant 1 Cake, µg/kg dry	ND	2500	--	--	--	--	ND	4800	--	--	--	--	<4800
Plant 2 Cake, µg/kg dry	ND	2300	--	--	--	--	ND	4200	--	--	--	--	<4200
Ethylbenzene													
Plant 1 Cake, µg/kg dry	ND	1200	--	--	--	--	ND	2400	--	--	--	--	<2400
Plant 2 Cake, µg/kg dry	ND	1100	--	--	--	--	ND	2100	--	--	--	--	<2100
Isobutyl alcohol													
Plant 1 Cake, µg/kg dry	ND	61000	--	--	--	--	ND	120000	--	--	--	--	<120000
Plant 2 Cake, µg/kg dry	ND	56000	--	--	--	--	ND	110000	--	--	--	--	<110000
Isopropylbenzene													
Plant 1 Cake, µg/kg dry	ND	1200	--	--	--	--	ND	2400	--	--	--	--	<2400
Plant 2 Cake, µg/kg dry	ND	1100	--	--	--	--	ND	2100	--	--	--	--	<2100
m,p-Xylenes													
Plant 1 Cake, µg/kg dry	ND	2500	--	--	--	--	ND	4800	--	--	--	--	<4800
Plant 2 Cake, µg/kg dry	ND	2300	--	--	--	--	ND	4200	--	--	--	--	<4200
Methyl ethyl ketone													
Plant 1 Cake, µg/kg dry	ND	12000	--	--	--	--	ND	24000	--	--	--	--	2,400
Plant 2 Cake, µg/kg dry	ND	11000	--	--	--	--	ND	21000	--	--	--	--	2,100
Methylene Chloride													
Plant 1 Cake, µg/kg dry	ND	12000	--	--	--	--	ND	24000	--	--	--	--	<24000
Plant 2 Cake, µg/kg dry	ND	11000	--	--	--	--	ND	21000	--	--	--	--	<21000

Biosolids Analytical Results

	Jan-2015		Feb-2015		Mar-2015		Apr-2015		May-2015		Jun-2015	
	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL
MIBK												
Plant 1 Cake, µg/kg dry	ND	69	--	--	--	--	ND	65	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	59	--	--	--	--	ND	55	--	--	--	--
n-Butylbenzene												
Plant 1 Cake, µg/kg dry	ND	28	--	--	--	--	ND	26	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	24	--	--	--	--	ND	22	--	--	--	--
n-Propylbenzene												
Plant 1 Cake, µg/kg dry	ND	28	--	--	--	--	ND	26	--	--	--	--
Plant 2 Cake, µg/kg dry	24	24	--	--	--	--	ND	22	--	--	--	--
o-Xylene												
Plant 1 Cake, µg/kg dry	ND	28	--	--	--	--	ND	26	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	24	--	--	--	--	ND	22	--	--	--	--
sec-Butylbenzene												
Plant 1 Cake, µg/kg dry	ND	28	--	--	--	--	ND	26	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	24	--	--	--	--	ND	22	--	--	--	--
Styrene												
Plant 1 Cake, µg/kg dry	ND	28	--	--	--	--	ND	26	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	24	--	--	--	--	ND	22	--	--	--	--
tert-Butylbenzene												
Plant 1 Cake, µg/kg dry	ND	28	--	--	--	--	ND	26	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	24	--	--	--	--	ND	22	--	--	--	--
Tetrachloroethene												
Plant 1 Cake, µg/kg dry	ND	28	--	--	--	--	ND	26	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	24	--	--	--	--	ND	22	--	--	--	--
Toluene												
Plant 1 Cake, µg/kg dry	43	28	--	--	--	--	60	26	--	--	--	--
Plant 2 Cake, µg/kg dry	34	24	--	--	--	--	25	22	--	--	--	--
trans-1,2-Dichloroethene												
Plant 1 Cake, µg/kg dry	ND	28	--	--	--	--	ND	26	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	24	--	--	--	--	ND	22	--	--	--	--
trans-1,3-Dichloropropene												
Plant 1 Cake, µg/kg dry	ND	28	--	--	--	--	ND	26	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	24	--	--	--	--	ND	22	--	--	--	--
Trichloroethene												
Plant 1 Cake, µg/kg dry	ND	28	--	--	--	--	ND	26	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	24	--	--	--	--	ND	22	--	--	--	--
Trichlorofluoromethane												
Plant 1 Cake, µg/kg dry	ND	28	--	--	--	--	ND	26	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	24	--	--	--	--	ND	22	--	--	--	--
Vinyl chloride												
Plant 1 Cake, µg/kg dry	ND	28	--	--	--	--	ND	26	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	24	--	--	--	--	ND	22	--	--	--	--
TCLP												
1,1,1,2-Tetrachloroethane												
Plant 1 Cake, mg/L	ND	0.0027	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.0027	--	--	--	--	--	--	--	--	--	--
1,1,1-Trichloroethane												
Plant 1 Cake, mg/L	ND	0.003	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.003	--	--	--	--	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane												
Plant 1 Cake, mg/L	ND	0.0024	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.0024	--	--	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane												
Plant 1 Cake, mg/L	ND	0.003	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.003	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethane												
Plant 1 Cake, mg/L	ND	0.0027	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.0027	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethene												
Plant 1 Cake, mg/L	ND	0.0042	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.0042	--	--	--	--	--	--	--	--	--	--
1,1-Dichloropropene												
Plant 1 Cake, mg/L	ND	0.0028	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.0028	--	--	--	--	--	--	--	--	--	--
1,2,3-Trichlorobenzene												
Plant 1 Cake, mg/L	ND	0.003	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.003	--	--	--	--	--	--	--	--	--	--
1,2,3-Trichloropropane												
Plant 1 Cake, mg/L	ND	0.004	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.004	--	--	--	--	--	--	--	--	--	--

Orange County Sanitation District 2015 Annual 503 Compliance Report Appendix C Summary of Priority Pollutants and Trace Constituents for Biosolids

Biosolids Analytical Results

	Jan-2015		Feb-2015		Mar-2015		Apr-2015		May-2015		Jun-2015	
	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL
cis-1,2-Dichloroethene												
Plant 1 Cake, mg/L	ND	0.0032	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.0032	--	--	--	--	--	--	--	--	--	--
cis-1,3-Dichloropropene												
Plant 1 Cake, mg/L	ND	0.0022	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.0022	--	--	--	--	--	--	--	--	--	--
Dibromochloromethane												
Plant 1 Cake, mg/L	ND	0.004	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.004	--	--	--	--	--	--	--	--	--	--
Dibromomethane												
Plant 1 Cake, mg/L	ND	0.0036	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.0036	--	--	--	--	--	--	--	--	--	--
Dichlorodifluoromethane												
Plant 1 Cake, mg/L	ND	0.0026	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.0026	--	--	--	--	--	--	--	--	--	--
Ethylbenzene												
Plant 1 Cake, mg/L	ND	0.0025	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.0025	--	--	--	--	--	--	--	--	--	--
Isobutyl alcohol												
Plant 1 Cake, mg/L	ND	0.07	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.07	--	--	--	--	--	--	--	--	--	--
Isopropylbenzene												
Plant 1 Cake, mg/L	ND	0.0025	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.0025	--	--	--	--	--	--	--	--	--	--
m,p-Xylenes												
Plant 1 Cake, mg/L	ND	0.006	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.006	--	--	--	--	--	--	--	--	--	--
Methyl ethyl ketone												
Plant 1 Cake, mg/L	0.083	0.047	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.047	--	--	--	--	--	--	--	--	--	--
Methylene Chloride												
Plant 1 Cake, mg/L	0.011	0.0095	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	0.01	0.0095	--	--	--	--	--	--	--	--	--	--
MIBK												
Plant 1 Cake, mg/L	ND	0.035	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.035	--	--	--	--	--	--	--	--	--	--
n-Butylbenzene												
Plant 1 Cake, mg/L	ND	0.0037	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.0037	--	--	--	--	--	--	--	--	--	--
n-Propylbenzene												
Plant 1 Cake, mg/L	ND	0.0027	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.0027	--	--	--	--	--	--	--	--	--	--
o-Xylene												
Plant 1 Cake, mg/L	ND	0.003	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.003	--	--	--	--	--	--	--	--	--	--
sec-Butylbenzene												
Plant 1 Cake, mg/L	ND	0.0025	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.0025	--	--	--	--	--	--	--	--	--	--
Styrene												
Plant 1 Cake, mg/L	ND	0.002	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.002	--	--	--	--	--	--	--	--	--	--
tert-Butylbenzene												
Plant 1 Cake, mg/L	ND	0.0022	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.0022	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene												
Plant 1 Cake, mg/L	ND	0.0032	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.0032	--	--	--	--	--	--	--	--	--	--
Toluene												
Plant 1 Cake, mg/L	ND	0.0036	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.0036	--	--	--	--	--	--	--	--	--	--
trans-1,2-Dichloroethene												
Plant 1 Cake, mg/L	ND	0.003	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.003	--	--	--	--	--	--	--	--	--	--
trans-1,3-Dichloropropene												
Plant 1 Cake, mg/L	ND	0.0032	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.0032	--	--	--	--	--	--	--	--	--	--
Trichloroethene												
Plant 1 Cake, mg/L	ND	0.0026	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.0026	--	--	--	--	--	--	--	--	--	--
Trichlorofluoromethane												
Plant 1 Cake, mg/L	ND	0.0034	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.0034	--	--	--	--	--	--	--	--	--	--
Vinyl chloride												
Plant 1 Cake, mg/L	ND	0.004	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.004	--	--	--	--	--	--	--	--	--	--

Biosolids Analytical Results

	Jan-2015		Feb-2015		Mar-2015		Apr-2015		May-2015		Jun-2015	
	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL
Semi-Volatile Organic Compounds (B/N/A)												
1,2,4-Trichlorobenzene												
Plant 1 Cake, µg/kg dry	ND	14000	--	--	--	--	ND	17000	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	29000	--	--	--	--	ND	14000	--	--	--	--
1,2-Dichlorobenzene												
Plant 1 Cake, µg/kg dry	ND	7300	--	--	--	--	ND	9100	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	15000	--	--	--	--	ND	7600	--	--	--	--
1,3-Dichlorobenzene												
Plant 1 Cake, µg/kg dry	ND	14000	--	--	--	--	ND	17000	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	29000	--	--	--	--	ND	14000	--	--	--	--
1,4-Dichlorobenzene												
Plant 1 Cake, µg/kg dry	ND	14000	--	--	--	--	ND	17000	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	29000	--	--	--	--	ND	14000	--	--	--	--
1,4-Dioxane												
Plant 1 Cake, µg/kg dry	--	--	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, µg/kg dry	--	--	--	--	--	--	--	--	--	--	--	--
2,4,5-Trichlorophenol												
Plant 1 Cake, µg/kg dry	ND	14000	--	--	--	--	ND	17000	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	29000	--	--	--	--	ND	14000	--	--	--	--
2,4,6-Trichlorophenol												
Plant 1 Cake, µg/kg dry	ND	7900	--	--	--	--	ND	9700	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	16000	--	--	--	--	ND	8100	--	--	--	--
2,4-Dichlorophenol												
Plant 1 Cake, µg/kg dry	ND	7000	--	--	--	--	ND	8700	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	15000	--	--	--	--	ND	7300	--	--	--	--
2,4-Dimethylphenol												
Plant 1 Cake, µg/kg dry	ND	14000	--	--	--	--	ND	17000	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	29000	--	--	--	--	ND	14000	--	--	--	--
2,4-Dinitrophenol												
Plant 1 Cake, µg/kg dry	ND	35000	--	--	--	--	ND	43000	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	72000	--	--	--	--	ND	36000	--	--	--	--
2,4-Dinitrotoluene												
Plant 1 Cake, µg/kg dry	ND	8400	--	--	--	--	ND	10000	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	18000	--	--	--	--	ND	8700	--	--	--	--
2,6-Dinitrotoluene												
Plant 1 Cake, µg/kg dry	ND	10000	--	--	--	--	ND	12000	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	21000	--	--	--	--	ND	10000	--	--	--	--
2-Chloronaphthalene												
Plant 1 Cake, µg/kg dry	ND	7000	--	--	--	--	ND	8700	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	15000	--	--	--	--	ND	7300	--	--	--	--
2-Chlorophenol												
Plant 1 Cake, µg/kg dry	ND	7300	--	--	--	--	ND	9100	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	15000	--	--	--	--	ND	7600	--	--	--	--
2-Methylnaphthalene												
Plant 1 Cake, µg/kg dry	ND	7300	--	--	--	--	ND	9100	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	15000	--	--	--	--	ND	7600	--	--	--	--
2-Methylphenol												
Plant 1 Cake, µg/kg dry	ND	8400	--	--	--	--	ND	10000	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	18000	--	--	--	--	ND	8700	--	--	--	--
2-Nitroaniline												
Plant 1 Cake, µg/kg dry	ND	7000	--	--	--	--	ND	8700	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	15000	--	--	--	--	ND	7300	--	--	--	--
2-Nitrophenol												
Plant 1 Cake, µg/kg dry	ND	14000	--	--	--	--	ND	17000	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	29000	--	--	--	--	ND	14000	--	--	--	--

Orange County Sanitation District 2015 Annual 503 Compliance Report Appendix C Summary of Priority Pollutants and Trace Constituents for Biosolids

	Jul-2015		Aug-2015		Sep-2015		Oct-2015		Nov-2015		Dec-2015		Annual Mean
	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	
Semi-Volatile Organic Compounds (B/N/A)													
1,2,4-Trichlorobenzene													
Plant 1 Cake, µg/kg dry	ND	6800	--	--	--	--	ND	6200	--	--	--	--	<17000
Plant 2 Cake, µg/kg dry	ND	14000	--	--	--	--	ND	6400	--	--	--	--	<29000
1,2-Dichlorobenzene													
Plant 1 Cake, µg/kg dry	ND	3600	--	--	--	--	ND	3300	--	--	--	--	<9100
Plant 2 Cake, µg/kg dry	ND	7600	--	--	--	--	ND	3400	--	--	--	--	<15000
1,3-Dichlorobenzene													
Plant 1 Cake, µg/kg dry	ND	6800	--	--	--	--	ND	6200	--	--	--	--	<17000
Plant 2 Cake, µg/kg dry	ND	14000	--	--	--	--	ND	6400	--	--	--	--	<29000
1,4-Dichlorobenzene													
Plant 1 Cake, µg/kg dry	ND	6800	--	--	--	--	ND	6200	--	--	--	--	<17000
Plant 2 Cake, µg/kg dry	ND	14000	--	--	--	--	ND	6400	--	--	--	--	<29000
1,4-Dioxane													
Plant 1 Cake, µg/kg dry	ND	400	--	--	--	--	--	--	--	--	--	--	<400
Plant 2 Cake, µg/kg dry	ND	350	--	--	--	--	--	--	--	--	--	--	<350
2,4,5-Trichlorophenol													
Plant 1 Cake, µg/kg dry	ND	6700	--	--	--	--	ND	6100	--	--	--	--	<17000
Plant 2 Cake, µg/kg dry	ND	14000	--	--	--	--	ND	6200	--	--	--	--	<29000
2,4,6-Trichlorophenol													
Plant 1 Cake, µg/kg dry	ND	3800	--	--	--	--	ND	3500	--	--	--	--	<9700
Plant 2 Cake, µg/kg dry	ND	8100	--	--	--	--	ND	3600	--	--	--	--	<16000
2,4-Dichlorophenol													
Plant 1 Cake, µg/kg dry	ND	3400	--	--	--	--	ND	3100	--	--	--	--	<8700
Plant 2 Cake, µg/kg dry	ND	7300	--	--	--	--	ND	3200	--	--	--	--	<15000
2,4-Dimethylphenol													
Plant 1 Cake, µg/kg dry	ND	6700	--	--	--	--	ND	6100	--	--	--	--	<17000
Plant 2 Cake, µg/kg dry	ND	14000	--	--	--	--	ND	6200	--	--	--	--	<29000
2,4-Dinitrophenol													
Plant 1 Cake, µg/kg dry	ND	17000	--	--	--	--	ND	15000	--	--	--	--	<43000
Plant 2 Cake, µg/kg dry	ND	36000	--	--	--	--	ND	16000	--	--	--	--	<72000
2,4-Dinitrotoluene													
Plant 1 Cake, µg/kg dry	ND	4100	--	--	--	--	ND	3800	--	--	--	--	<10000
Plant 2 Cake, µg/kg dry	ND	8700	--	--	--	--	ND	3800	--	--	--	--	<18000
2,6-Dinitrotoluene													
Plant 1 Cake, µg/kg dry	ND	4900	--	--	--	--	ND	4500	--	--	--	--	<12000
Plant 2 Cake, µg/kg dry	ND	10000	--	--	--	--	ND	4600	--	--	--	--	<21000
2-Chloronaphthalene													
Plant 1 Cake, µg/kg dry	ND	3400	--	--	--	--	ND	3100	--	--	--	--	<8700
Plant 2 Cake, µg/kg dry	ND	7300	--	--	--	--	ND	3200	--	--	--	--	<15000
2-Chlorophenol													
Plant 1 Cake, µg/kg dry	ND	3600	--	--	--	--	ND	3300	--	--	--	--	<9100
Plant 2 Cake, µg/kg dry	ND	7600	--	--	--	--	ND	3400	--	--	--	--	<15000
2-Methylnaphthalene													
Plant 1 Cake, µg/kg dry	ND	3600	--	--	--	--	ND	3300	--	--	--	--	<9100
Plant 2 Cake, µg/kg dry	ND	7600	--	--	--	--	ND	3400	--	--	--	--	<15000
2-Methylphenol													
Plant 1 Cake, µg/kg dry	ND	4100	--	--	--	--	ND	3800	--	--	--	--	<10000
Plant 2 Cake, µg/kg dry	ND	8700	--	--	--	--	ND	3800	--	--	--	--	<18000
2-Nitroaniline													
Plant 1 Cake, µg/kg dry	ND	3400	--	--	--	--	ND	3100	--	--	--	--	<8700
Plant 2 Cake, µg/kg dry	ND	7300	--	--	--	--	ND	3200	--	--	--	--	<15000
2-Nitrophenol													
Plant 1 Cake, µg/kg dry	ND	6800	--	--	--	--	ND	6200	--	--	--	--	<17000
Plant 2 Cake, µg/kg dry	ND	14000	--	--	--	--	ND	6400	--	--	--	--	<29000

Biosolids Analytical Results

	Jan-2015		Feb-2015		Mar-2015		Apr-2015		May-2015		Jun-2015	
	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL
3,3-Dichlorobenzidine												
Plant 1 Cake, µg/kg dry	ND	16000	--	--	--	--	ND	19000	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	33000	--	--	--	--	ND	16000	--	--	--	--
3-Nitroaniline												
Plant 1 Cake, µg/kg dry	ND	14000	--	--	--	--	ND	17000	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	29000	--	--	--	--	ND	14000	--	--	--	--
4,6-Dinitro-2-methylphenol												
Plant 1 Cake, µg/kg dry	ND	14000	--	--	--	--	ND	17000	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	29000	--	--	--	--	ND	14000	--	--	--	--
4-Bromophenyl phenyl ether												
Plant 1 Cake, µg/kg dry	ND	7900	--	--	--	--	ND	9700	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	16000	--	--	--	--	ND	8100	--	--	--	--
4-Chloro-3-methylphenol												
Plant 1 Cake, µg/kg dry	ND	7300	--	--	--	--	ND	9100	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	15000	--	--	--	--	ND	7600	--	--	--	--
4-Chloroaniline												
Plant 1 Cake, µg/kg dry	ND	14000	--	--	--	--	ND	17000	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	29000	--	--	--	--	ND	14000	--	--	--	--
4-Chlorophenyl phenyl ether												
Plant 1 Cake, µg/kg dry	ND	8900	--	--	--	--	ND	11000	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	19000	--	--	--	--	ND	9200	--	--	--	--
4-Methylphenol												
Plant 1 Cake, µg/kg dry	ND	14000	--	--	--	--	ND	17000	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	29000	--	--	--	--	ND	14000	--	--	--	--
4-Nitroaniline												
Plant 1 Cake, µg/kg dry	ND	14000	--	--	--	--	ND	17000	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	29000	--	--	--	--	ND	14000	--	--	--	--
Acenaphthene												
Plant 1 Cake, µg/kg dry	ND	7000	--	--	--	--	ND	8700	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	15000	--	--	--	--	ND	7300	--	--	--	--
Acenaphthylene												
Plant 1 Cake, µg/kg dry	ND	7300	--	--	--	--	ND	9100	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	15000	--	--	--	--	ND	7600	--	--	--	--
Aniline												
Plant 1 Cake, µg/kg dry	ND	8900	--	--	--	--	ND	11000	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	19000	--	--	--	--	ND	9200	--	--	--	--
Anthracene												
Plant 1 Cake, µg/kg dry	ND	8400	--	--	--	--	ND	10000	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	18000	--	--	--	--	ND	8700	--	--	--	--
Azobenzene/1,2-Diphenylhydrazine												
Plant 1 Cake, µg/kg dry	ND	7300	--	--	--	--	ND	9100	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	15000	--	--	--	--	ND	7600	--	--	--	--
Benz(a)anthracene												
Plant 1 Cake, µg/kg dry	ND	7300	--	--	--	--	ND	9100	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	15000	--	--	--	--	ND	7600	--	--	--	--
Benzidine												
Plant 1 Cake, µg/kg dry	ND	69000	--	--	--	--	ND	86000	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	140000	--	--	--	--	ND	72000	--	--	--	--

Orange County Sanitation District 2015 Annual 503 Compliance Report Appendix C Summary of Priority Pollutants and Trace Constituents for Biosolids

	Jul-2015		Aug-2015		Sep-2015		Oct-2015		Nov-2015		Dec-2015		Annual Mean
	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	
3,3-Dichlorobenzidine													
Plant 1 Cake, µg/kg dry	ND	7700	--	--	--	--	ND	7000	--	--	--	--	<19000
Plant 2 Cake, µg/kg dry	ND	16000	--	--	--	--	ND	7200	--	--	--	--	<33000
3-Nitroaniline													
Plant 1 Cake, µg/kg dry	ND	6800	--	--	--	--	ND	6200	--	--	--	--	<17000
Plant 2 Cake, µg/kg dry	ND	14000	--	--	--	--	ND	6400	--	--	--	--	<29000
4,6-Dinitro-2-methylphenol													
Plant 1 Cake, µg/kg dry	ND	6800	--	--	--	--	ND	6200	--	--	--	--	<17000
Plant 2 Cake, µg/kg dry	ND	14000	--	--	--	--	ND	6400	--	--	--	--	<29000
4-Bromophenyl phenyl ether													
Plant 1 Cake, µg/kg dry	ND	3800	--	--	--	--	ND	3500	--	--	--	--	<9700
Plant 2 Cake, µg/kg dry	ND	8100	--	--	--	--	ND	3600	--	--	--	--	<16000
4-Chloro-3-methylphenol													
Plant 1 Cake, µg/kg dry	ND	3600	--	--	--	--	ND	3300	--	--	--	--	<9100
Plant 2 Cake, µg/kg dry	ND	7600	--	--	--	--	ND	3400	--	--	--	--	<15000
4-Chloroaniline													
Plant 1 Cake, µg/kg dry	ND	6800	--	--	--	--	ND	6200	--	--	--	--	<17000
Plant 2 Cake, µg/kg dry	ND	14000	--	--	--	--	ND	6400	--	--	--	--	<29000
4-Chlorophenyl phenyl ether													
Plant 1 Cake, µg/kg dry	ND	4400	--	--	--	--	ND	4000	--	--	--	--	<11000
Plant 2 Cake, µg/kg dry	ND	9200	--	--	--	--	ND	4100	--	--	--	--	<19000
4-Methylphenol													
Plant 1 Cake, µg/kg dry	9700	6800	--	--	--	--	ND	6200	--	--	--	--	9,700
Plant 2 Cake, µg/kg dry	ND	14000	--	--	--	--	ND	6400	--	--	--	--	<29000
4-Nitroaniline													
Plant 1 Cake, µg/kg dry	ND	6800	--	--	--	--	ND	6200	--	--	--	--	<17000
Plant 2 Cake, µg/kg dry	ND	14000	--	--	--	--	ND	6400	--	--	--	--	<29000
Acenaphthene													
Plant 1 Cake, µg/kg dry	ND	3400	--	--	--	--	ND	3100	--	--	--	--	<8700
Plant 2 Cake, µg/kg dry	ND	7300	--	--	--	--	ND	3200	--	--	--	--	<15000
Acenaphthylene													
Plant 1 Cake, µg/kg dry	ND	3600	--	--	--	--	ND	3300	--	--	--	--	<9100
Plant 2 Cake, µg/kg dry	ND	7600	--	--	--	--	ND	3400	--	--	--	--	<15000
Aniline													
Plant 1 Cake, µg/kg dry	ND	4400	--	--	--	--	ND	4000	--	--	--	--	<11000
Plant 2 Cake, µg/kg dry	ND	9200	--	--	--	--	ND	4100	--	--	--	--	<19000
Anthracene													
Plant 1 Cake, µg/kg dry	ND	4100	--	--	--	--	ND	3800	--	--	--	--	<10000
Plant 2 Cake, µg/kg dry	ND	8700	--	--	--	--	ND	3800	--	--	--	--	<18000
Azobenzene/1,2-Diphenylhydrazine													
Plant 1 Cake, µg/kg dry	ND	3600	--	--	--	--	ND	3300	--	--	--	--	<9100
Plant 2 Cake, µg/kg dry	ND	7600	--	--	--	--	ND	3400	--	--	--	--	<15000
Benz(a)anthracene													
Plant 1 Cake, µg/kg dry	ND	3600	--	--	--	--	ND	3300	--	--	--	--	<9100
Plant 2 Cake, µg/kg dry	ND	7600	--	--	--	--	ND	3400	--	--	--	--	<15000
Benzidine													
Plant 1 Cake, µg/kg dry	ND	34000	--	--	--	--	ND	31000	--	--	--	--	<86000
Plant 2 Cake, µg/kg dry	ND	71000	--	--	--	--	ND	32000	--	--	--	--	<140000

Biosolids Analytical Results

	Jan-2015		Feb-2015		Mar-2015		Apr-2015		May-2015		Jun-2015	
	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL
Benzo(a)pyrene												
Plant 1 Cake, µg/kg dry	ND	7000	--	--	--	--	ND	8700	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	15000	--	--	--	--	ND	7300	--	--	--	--
Benzo(b)fluoranthene												
Plant 1 Cake, µg/kg dry	ND	7300	--	--	--	--	ND	9100	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	15000	--	--	--	--	ND	7600	--	--	--	--
Benzo(g,h,i)perylene												
Plant 1 Cake, µg/kg dry	ND	12000	--	--	--	--	ND	14000	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	24000	--	--	--	--	ND	12000	--	--	--	--
Benzo(k)fluoranthene												
Plant 1 Cake, µg/kg dry	ND	7300	--	--	--	--	ND	9100	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	15000	--	--	--	--	ND	7600	--	--	--	--
Benzoic acid												
Plant 1 Cake, µg/kg dry	ND	36000	--	--	--	--	ND	44000	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	75000	--	--	--	--	ND	37000	--	--	--	--
Benzyl alcohol												
Plant 1 Cake, µg/kg dry	ND	16000	--	--	--	--	ND	19000	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	33000	--	--	--	--	ND	16000	--	--	--	--
Bis(2-chloroethoxy)methane												
Plant 1 Cake, µg/kg dry	ND	14000	--	--	--	--	ND	17000	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	29000	--	--	--	--	ND	14000	--	--	--	--
Bis(2-chloroethyl)ether												
Plant 1 Cake, µg/kg dry	ND	7300	--	--	--	--	ND	9100	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	15000	--	--	--	--	ND	7600	--	--	--	--
Bis(2-chloroisopropyl)ether												
Plant 1 Cake, µg/kg dry	ND	14000	--	--	--	--	ND	17000	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	29000	--	--	--	--	ND	14000	--	--	--	--
Bis(2-ethylhexyl)phthalate												
Plant 1 Cake, µg/kg dry	48000	9400	--	--	--	--	43000	12000	--	--	--	--
Plant 2 Cake, µg/kg dry	60000	20000	--	--	--	--	61000	9800	--	--	--	--
Butyl benzyl phthalate												
Plant 1 Cake, µg/kg dry	ND	8400	--	--	--	--	ND	10000	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	18000	--	--	--	--	ND	8700	--	--	--	--
Chrysene												
Plant 1 Cake, µg/kg dry	ND	7900	--	--	--	--	ND	9700	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	16000	--	--	--	--	ND	8100	--	--	--	--
Dibenz(a,h)anthracene												
Plant 1 Cake, µg/kg dry	ND	10000	--	--	--	--	ND	13000	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	22000	--	--	--	--	ND	11000	--	--	--	--
Dibenzofuran												
Plant 1 Cake, µg/kg dry	ND	7000	--	--	--	--	ND	8700	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	15000	--	--	--	--	ND	7300	--	--	--	--
Diethyl phthalate												
Plant 1 Cake, µg/kg dry	ND	10000	--	--	--	--	ND	12000	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	21000	--	--	--	--	ND	10000	--	--	--	--
Dimethyl phthalate												
Plant 1 Cake, µg/kg dry	ND	7000	--	--	--	--	ND	8700	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	15000	--	--	--	--	ND	7300	--	--	--	--
Di-n-butyl phthalate												
Plant 1 Cake, µg/kg dry	ND	9400	--	--	--	--	ND	12000	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	20000	--	--	--	--	ND	9800	--	--	--	--
Di-n-octyl phthalate												
Plant 1 Cake, µg/kg dry	ND	9400	--	--	--	--	ND	12000	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	20000	--	--	--	--	ND	9800	--	--	--	--
Fluoranthene												
Plant 1 Cake, µg/kg dry	ND	7300	--	--	--	--	ND	9100	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	15000	--	--	--	--	ND	7600	--	--	--	--
Fluorene												
Plant 1 Cake, µg/kg dry	ND	7300	--	--	--	--	ND	9100	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	15000	--	--	--	--	ND	7600	--	--	--	--
Hexachlorobenzene												
Plant 1 Cake, µg/kg dry	ND	7300	--	--	--	--	ND	9100	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	15000	--	--	--	--	ND	7600	--	--	--	--
Hexachlorobutadiene												
Plant 1 Cake, µg/kg dry	ND	14000	--	--	--	--	ND	17000	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	29000	--	--	--	--	ND	14000	--	--	--	--
Hexachlorocyclopentadiene												
Plant 1 Cake, µg/kg dry	ND	14000	--	--	--	--	ND	17000	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	29000	--	--	--	--	ND	14000	--	--	--	--
Hexachloroethane												
Plant 1 Cake, µg/kg dry	ND	14000	--	--	--	--	ND	17000	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	29000	--	--	--	--	ND	14000	--	--	--	--

Orange County Sanitation District 2015 Annual 503 Compliance Report Appendix C Summary of Priority Pollutants and Trace Constituents for Biosolids

	Jul-2015		Aug-2015		Sep-2015		Oct-2015		Nov-2015		Dec-2015		Annual Mean
	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	
Benzo(a)pyrene													
Plant 1 Cake, µg/kg dry	ND	3400	--	--	--	--	ND	3100	--	--	--	--	<8700
Plant 2 Cake, µg/kg dry	ND	7300	--	--	--	--	ND	3200	--	--	--	--	<15000
Benzo(b)fluoranthene													
Plant 1 Cake, µg/kg dry	ND	3600	--	--	--	--	ND	3300	--	--	--	--	<9100
Plant 2 Cake, µg/kg dry	ND	7600	--	--	--	--	ND	3400	--	--	--	--	<15000
Benzo(g,h,i)perylene													
Plant 1 Cake, µg/kg dry	ND	5600	--	--	--	--	ND	5200	--	--	--	--	<14000
Plant 2 Cake, µg/kg dry	ND	12000	--	--	--	--	ND	5300	--	--	--	--	<24000
Benzo(k)fluoranthene													
Plant 1 Cake, µg/kg dry	ND	3600	--	--	--	--	ND	3300	--	--	--	--	<9100
Plant 2 Cake, µg/kg dry	ND	7600	--	--	--	--	ND	3400	--	--	--	--	<15000
Benzoic acid													
Plant 1 Cake, µg/kg dry	ND	17000	--	--	--	--	ND	16000	--	--	--	--	<44000
Plant 2 Cake, µg/kg dry	ND	37000	--	--	--	--	ND	16000	--	--	--	--	<75000
Benzyl alcohol													
Plant 1 Cake, µg/kg dry	ND	7700	--	--	--	--	ND	7000	--	--	--	--	<19000
Plant 2 Cake, µg/kg dry	ND	16000	--	--	--	--	ND	7200	--	--	--	--	<33000
Bis(2-chloroethoxy)methane													
Plant 1 Cake, µg/kg dry	ND	6800	--	--	--	--	ND	6200	--	--	--	--	<17000
Plant 2 Cake, µg/kg dry	ND	14000	--	--	--	--	ND	6400	--	--	--	--	<29000
Bis(2-chloroethyl)ether													
Plant 1 Cake, µg/kg dry	ND	3600	--	--	--	--	ND	3300	--	--	--	--	<9100
Plant 2 Cake, µg/kg dry	ND	7600	--	--	--	--	ND	3400	--	--	--	--	<15000
Bis(2-chloroisopropyl)ether													
Plant 1 Cake, µg/kg dry	ND	6800	--	--	--	--	ND	6200	--	--	--	--	<17000
Plant 2 Cake, µg/kg dry	ND	14000	--	--	--	--	ND	6400	--	--	--	--	<29000
Bis(2-ethylhexyl)phthalate													
Plant 1 Cake, µg/kg dry	37000	4600	--	--	--	--	53000	4200	--	--	--	--	45250
Plant 2 Cake, µg/kg dry	72000	9700	--	--	--	--	60000	4300	--	--	--	--	63250
Butyl benzyl phthalate													
Plant 1 Cake, µg/kg dry	ND	4100	--	--	--	--	ND	3800	--	--	--	--	<10000
Plant 2 Cake, µg/kg dry	ND	8700	--	--	--	--	ND	3800	--	--	--	--	<18000
Chrysene													
Plant 1 Cake, µg/kg dry	ND	3800	--	--	--	--	ND	3500	--	--	--	--	<9700
Plant 2 Cake, µg/kg dry	ND	8100	--	--	--	--	ND	3600	--	--	--	--	<16000
Dibenz(a,h)anthracene													
Plant 1 Cake, µg/kg dry	ND	5100	--	--	--	--	ND	4700	--	--	--	--	<13000
Plant 2 Cake, µg/kg dry	ND	11000	--	--	--	--	ND	4800	--	--	--	--	<22000
Dibenzofuran													
Plant 1 Cake, µg/kg dry	ND	3400	--	--	--	--	ND	3100	--	--	--	--	<8700
Plant 2 Cake, µg/kg dry	ND	7300	--	--	--	--	ND	3200	--	--	--	--	<15000
Diethyl phthalate													
Plant 1 Cake, µg/kg dry	ND	4900	--	--	--	--	ND	4500	--	--	--	--	<12000
Plant 2 Cake, µg/kg dry	ND	10000	--	--	--	--	ND	4600	--	--	--	--	<21000
Dimethyl phthalate													
Plant 1 Cake, µg/kg dry	ND	3400	--	--	--	--	ND	3100	--	--	--	--	<8700
Plant 2 Cake, µg/kg dry	ND	7300	--	--	--	--	ND	3200	--	--	--	--	<15000
Di-n-butyl phthalate													
Plant 1 Cake, µg/kg dry	ND	4600	--	--	--	--	ND	4200	--	--	--	--	<12000
Plant 2 Cake, µg/kg dry	ND	9700	--	--	--	--	ND	4300	--	--	--	--	<20000
Di-n-octyl phthalate													
Plant 1 Cake, µg/kg dry	ND	4600	--	--	--	--	ND	4200	--	--	--	--	<12000
Plant 2 Cake, µg/kg dry	ND	9700	--	--	--	--	ND	4300	--	--	--	--	<20000
Fluoranthene													
Plant 1 Cake, µg/kg dry	ND	3600	--	--	--	--	ND	3300	--	--	--	--	<9100
Plant 2 Cake, µg/kg dry	ND	7600	--	--	--	--	ND	3400	--	--	--	--	<15000
Fluorene													
Plant 1 Cake, µg/kg dry	ND	3600	--	--	--	--	ND	3300	--	--	--	--	<9100
Plant 2 Cake, µg/kg dry	ND	7600	--	--	--	--	ND	3400	--	--	--	--	<15000
Hexachlorobenzene													
Plant 1 Cake, µg/kg dry	ND	3600	--	--	--	--	ND	3300	--	--	--	--	<9100
Plant 2 Cake, µg/kg dry	ND	7600	--	--	--	--	ND	3400	--	--	--	--	<15000
Hexachlorobutadiene													
Plant 1 Cake, µg/kg dry	ND	6800	--	--	--	--	ND	6200	--	--	--	--	<17000
Plant 2 Cake, µg/kg dry	ND	14000	--	--	--	--	ND	6400	--	--	--	--	<29000
Hexachlorocyclopentadiene													
Plant 1 Cake, µg/kg dry	ND	6800	--	--	--	--	ND	6200	--	--	--	--	<17000
Plant 2 Cake, µg/kg dry	ND	14000	--	--	--	--	ND	6400	--	--	--	--	<29000
Hexachloroethane													
Plant 1 Cake, µg/kg dry	ND	6800	--	--	--	--	ND	6200	--	--	--	--	<17000
Plant 2 Cake, µg/kg dry	ND	14000	--	--	--	--	ND	6400	--	--	--	--	<29000

Orange County Sanitation District 2015 Annual 503 Compliance Report Appendix C Summary of Priority Pollutants and Trace Constituents for Biosolids

	Jul-2015		Aug-2015		Sep-2015		Oct-2015		Nov-2015		Dec-2015		Annual Mean
	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	
Indeno(1,2,3-cd)pyrene													
Plant 1 Cake, µg/kg dry	ND	6700	--	--	--	--	ND	6100	--	--	--	--	<17000
Plant 2 Cake, µg/kg dry	ND	14000	--	--	--	--	ND	6200	--	--	--	--	<29000
Isophorone													
Plant 1 Cake, µg/kg dry	ND	3400	--	--	--	--	ND	3100	--	--	--	--	<8700
Plant 2 Cake, µg/kg dry	ND	7300	--	--	--	--	ND	3200	--	--	--	--	<15000
Keopone													
Plant 1 Cake, µg/kg dry	ND	51000	--	--	--	--	--	--	--	--	--	--	<130000
Plant 2 Cake, µg/kg dry	ND	110000	--	--	--	--	--	--	--	--	--	--	<220000
Naphthalene													
Plant 1 Cake, µg/kg dry	ND	3400	--	--	--	--	ND	3100	--	--	--	--	<8700
Plant 2 Cake, µg/kg dry	ND	7300	--	--	--	--	ND	3200	--	--	--	--	<15000
Nitrobenzene													
Plant 1 Cake, µg/kg dry	ND	3600	--	--	--	--	ND	3300	--	--	--	--	<9100
Plant 2 Cake, µg/kg dry	ND	7600	--	--	--	--	ND	3400	--	--	--	--	<15000
N-Nitrosodimethylamine													
Plant 1 Cake, µg/kg dry	ND	3600	--	--	--	--	ND	3300	--	--	--	--	<9100
Plant 2 Cake, µg/kg dry	ND	7600	--	--	--	--	ND	3400	--	--	--	--	<15000
N-Nitroso-di-n-propylamine													
Plant 1 Cake, µg/kg dry	ND	3600	--	--	--	--	ND	3300	--	--	--	--	<9100
Plant 2 Cake, µg/kg dry	ND	7600	--	--	--	--	ND	3400	--	--	--	--	<15000
N-Nitrosodiphenylamine													
Plant 1 Cake, µg/kg dry	ND	4100	--	--	--	--	ND	3800	--	--	--	--	<10000
Plant 2 Cake, µg/kg dry	ND	8700	--	--	--	--	ND	3800	--	--	--	--	<18000
Phenanthrene													
Plant 1 Cake, µg/kg dry	ND	3400	--	--	--	--	ND	3100	--	--	--	--	<8700
Plant 2 Cake, µg/kg dry	ND	7300	--	--	--	--	ND	3200	--	--	--	--	<15000
Phenol													
Plant 1 Cake, µg/kg dry	ND	4600	--	--	--	--	ND	4200	--	--	--	--	<12000
Plant 2 Cake, µg/kg dry	ND	9700	--	--	--	--	ND	4300	--	--	--	--	<20000
Pyrene													
Plant 1 Cake, µg/kg dry	ND	4100	--	--	--	--	ND	3800	--	--	--	--	<10000
Plant 2 Cake, µg/kg dry	ND	8700	--	--	--	--	ND	3800	--	--	--	--	<18000
Pyridine													
Plant 1 Cake, µg/kg dry	ND	7700	--	--	--	--	ND	7000	--	--	--	--	<19000
Plant 2 Cake, µg/kg dry	ND	16000	--	--	--	--	ND	7200	--	--	--	--	<33000
Tentatively Identified Compounds													
1-Octyne													
Plant 1 Cake, µg/kg dry	--	--	--	--	--	--	--	--	--	--	--	--	290,000
Plant 2 Cake, µg/kg dry	--	--	--	--	--	--	--	--	--	--	--	--	260,000
1,3,5-Trinitrobenzene													
Plant 1 Cake, µg/kg dry	--	--	--	--	--	--	--	--	--	--	--	--	34,000
2,7-Dimethyl-3,5-dimethylthio-2H-1,2,4-t													
Plant 1 Cake, µg/kg dry	--	--	--	--	--	--	2600000	23000	--	--	--	--	1,415,000
2-Pentanone, 4-hydroxy-4-methyl-													
Plant 1 Cake, µg/kg dry	280000	26000	--	--	--	--	370000	23000	--	--	--	--	373333
Plant 2 Cake, µg/kg dry	--	--	--	--	--	--	--	--	--	--	--	--	400,000
4,9,13,17-Tetramethyl-4,8,12,16-octadeca													
Plant 2 Cake, µg/kg dry	--	--	--	--	--	--	--	--	--	--	--	--	460,000
5-Cholestene-3-ol, 24-methyl-													
Plant 1 Cake, µg/kg dry	--	--	--	--	--	--	--	--	--	--	--	--	160,000
9-OCTADECENOIC ACID, (E)-													
Plant 1 Cake, µg/kg dry	340000	26000	--	--	--	--	470000	23000	--	--	--	--	405,000
Plant 2 Cake, µg/kg dry	1600000	54000	--	--	--	--	1100000	24000	--	--	--	--	1,350,000
Acetic acid, .alpha.-(1-naphthyl)benzyl													
Plant 2 Cake, µg/kg dry	--	--	--	--	--	--	--	--	--	--	--	--	850,000
.BETA.-SITOSTEROL													
Plant 1 Cake, µg/kg dry	--	--	--	--	--	--	390000	23000	--	--	--	--	390,000
Plant 2 Cake, µg/kg dry	--	--	--	--	--	--	580000	24000	--	--	--	--	580,000
Cholest-4-en-3-one													
Plant 1 Cake, µg/kg dry	170000	26000	--	--	--	--	470000	23000	--	--	--	--	330,000
Plant 2 Cake, µg/kg dry	720000	54000	--	--	--	--	800000	24000	--	--	--	--	760,000
CHOLEST-5-EN-3-ONE													
Plant 2 Cake, µg/kg dry	--	--	--	--	--	--	--	--	--	--	--	--	420,000
CHOLEST-8-EN-3-OL, (3.BETA.)-													
Plant 1 Cake, µg/kg dry	1000000	26000	--	--	--	--	--	--	--	--	--	--	1,000,000
Plant 2 Cake, µg/kg dry	--	--	--	--	--	--	2800000	24000	--	--	--	--	2,800,000
Cholestan-3-ol													
Plant 1 Cake, µg/kg dry	--	--	--	--	--	--	460000	23000	--	--	--	--	460,000
Plant 2 Cake, µg/kg dry	--	--	--	--	--	--	470000	24000	--	--	--	--	470,000

Orange County Sanitation District 2015 Annual 503 Compliance Report Appendix C Summary of Priority Pollutants and Trace Constituents for Biosolids

Biosolids Analytical Results

	Jan-2015		Feb-2015		Mar-2015		Apr-2015		May-2015		Jun-2015	
	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL
2,4-Dimethylphenol												
Plant 1 Cake, mg/L	ND	0.018	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.018	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrophenol												
Plant 1 Cake, mg/L	ND	0.04	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.04	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrotoluene												
Plant 1 Cake, mg/L	ND	0.018	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.018	--	--	--	--	--	--	--	--	--	--
2,6-Dinitrotoluene												
Plant 1 Cake, mg/L	ND	0.01	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.01	--	--	--	--	--	--	--	--	--	--
2-Chloronaphthalene												
Plant 1 Cake, mg/L	ND	0.015	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.015	--	--	--	--	--	--	--	--	--	--
2-Chlorophenol												
Plant 1 Cake, mg/L	ND	0.015	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.015	--	--	--	--	--	--	--	--	--	--
2-Methylnaphthalene												
Plant 1 Cake, mg/L	ND	0.01	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.01	--	--	--	--	--	--	--	--	--	--
2-Methylphenol												
Plant 1 Cake, mg/L	ND	0.015	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.015	--	--	--	--	--	--	--	--	--	--
2-Nitroaniline												
Plant 1 Cake, mg/L	ND	0.01	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.01	--	--	--	--	--	--	--	--	--	--
2-Nitrophenol												
Plant 1 Cake, mg/L	ND	0.018	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.018	--	--	--	--	--	--	--	--	--	--
3,3-Dichlorobenzidine												
Plant 1 Cake, mg/L	ND	0.038	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.038	--	--	--	--	--	--	--	--	--	--
3-Nitroaniline												
Plant 1 Cake, mg/L	ND	0.015	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.015	--	--	--	--	--	--	--	--	--	--
4,6-Dinitro-2-methylphenol												
Plant 1 Cake, mg/L	ND	0.02	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.02	--	--	--	--	--	--	--	--	--	--
4-Bromophenyl phenyl ether												
Plant 1 Cake, mg/L	ND	0.015	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.015	--	--	--	--	--	--	--	--	--	--
4-Chloro-3-methylphenol												
Plant 1 Cake, mg/L	ND	0.013	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.013	--	--	--	--	--	--	--	--	--	--
4-Chloroaniline												
Plant 1 Cake, mg/L	ND	0.01	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.01	--	--	--	--	--	--	--	--	--	--
4-Chlorophenyl phenyl ether												
Plant 1 Cake, mg/L	ND	0.013	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.013	--	--	--	--	--	--	--	--	--	--
4-Methylphenol												
Plant 1 Cake, mg/L	ND	0.015	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.015	--	--	--	--	--	--	--	--	--	--
4-Nitroaniline												
Plant 1 Cake, mg/L	ND	0.02	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.02	--	--	--	--	--	--	--	--	--	--
4-Nitrophenol												
Plant 1 Cake, mg/L	ND	0.028	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.028	--	--	--	--	--	--	--	--	--	--
Acenaphthene												
Plant 1 Cake, mg/L	ND	0.015	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.015	--	--	--	--	--	--	--	--	--	--
Acenaphthylene												
Plant 1 Cake, mg/L	ND	0.015	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.015	--	--	--	--	--	--	--	--	--	--
Aniline												
Plant 1 Cake, mg/L	ND	0.018	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.018	--	--	--	--	--	--	--	--	--	--
Anthracene												
Plant 1 Cake, mg/L	ND	0.013	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.013	--	--	--	--	--	--	--	--	--	--

Orange County Sanitation District 2015 Annual 503 Compliance Report Appendix C Summary of Priority Pollutants and Trace Constituents for Biosolids

Biosolids Analytical Results

	Jan-2015		Feb-2015		Mar-2015		Apr-2015		May-2015		Jun-2015	
	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL
Azobenzene/1,2-Diphenylhydrazine												
Plant 1 Cake, mg/L	ND	0.013	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.013	--	--	--	--	--	--	--	--	--	--
Benz(a)anthracene												
Plant 1 Cake, mg/L	ND	0.013	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.013	--	--	--	--	--	--	--	--	--	--
Benzo(a)pyrene												
Plant 1 Cake, mg/L	ND	0.015	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.015	--	--	--	--	--	--	--	--	--	--
Benzo(b)fluoranthene												
Plant 1 Cake, mg/L	ND	0.01	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.01	--	--	--	--	--	--	--	--	--	--
Benzo(g,h,i)perylene												
Plant 1 Cake, mg/L	ND	0.02	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.02	--	--	--	--	--	--	--	--	--	--
Benzo(k)fluoranthene												
Plant 1 Cake, mg/L	ND	0.013	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.013	--	--	--	--	--	--	--	--	--	--
Benzoic acid												
Plant 1 Cake, mg/L	ND	0.05	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.05	--	--	--	--	--	--	--	--	--	--
Benzyl alcohol												
Plant 1 Cake, mg/L	ND	0.018	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.018	--	--	--	--	--	--	--	--	--	--
Bis(2-chloroethoxy)methane												
Plant 1 Cake, mg/L	ND	0.015	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.015	--	--	--	--	--	--	--	--	--	--
Bis(2-chloroethyl)ether												
Plant 1 Cake, mg/L	ND	0.015	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.015	--	--	--	--	--	--	--	--	--	--
Bis(2-chloroisopropyl)ether												
Plant 1 Cake, mg/L	ND	0.013	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.013	--	--	--	--	--	--	--	--	--	--
Bis(2-ethylhexyl)phthalate												
Plant 1 Cake, mg/L	ND	0.02	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.02	--	--	--	--	--	--	--	--	--	--
Butyl benzyl phthalate												
Plant 1 Cake, mg/L	ND	0.02	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.02	--	--	--	--	--	--	--	--	--	--
Chrysene												
Plant 1 Cake, mg/L	ND	0.013	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.013	--	--	--	--	--	--	--	--	--	--
Dibenz(a,h)anthracene												
Plant 1 Cake, mg/L	ND	0.015	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.015	--	--	--	--	--	--	--	--	--	--
Dibenzofuran												
Plant 1 Cake, mg/L	ND	0.02	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.02	--	--	--	--	--	--	--	--	--	--
Diethyl phthalate												
Plant 1 Cake, mg/L	ND	0.018	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.018	--	--	--	--	--	--	--	--	--	--
Dimethyl phthalate												
Plant 1 Cake, mg/L	ND	0.013	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.013	--	--	--	--	--	--	--	--	--	--
Di-n-butyl phthalate												
Plant 1 Cake, mg/L	ND	0.015	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.015	--	--	--	--	--	--	--	--	--	--
Di-n-octyl phthalate												
Plant 1 Cake, mg/L	ND	0.018	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.018	--	--	--	--	--	--	--	--	--	--
Fluoranthene												
Plant 1 Cake, mg/L	ND	0.015	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.015	--	--	--	--	--	--	--	--	--	--
Fluorene												
Plant 1 Cake, mg/L	ND	0.015	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.015	--	--	--	--	--	--	--	--	--	--
Hexachlorobenzene												
Plant 1 Cake, mg/L	ND	0.015	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.015	--	--	--	--	--	--	--	--	--	--

Biosolids Analytical Results

	Jan-2015		Feb-2015		Mar-2015		Apr-2015		May-2015		Jun-2015	
	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL
Hexachlorobutadiene												
Plant 1 Cake, mg/L	ND	0.02	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.02	--	--	--	--	--	--	--	--	--	--
Hexachlorocyclopentadiene												
Plant 1 Cake, mg/L	ND	0.025	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.025	--	--	--	--	--	--	--	--	--	--
Hexachloroethane												
Plant 1 Cake, mg/L	ND	0.018	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.018	--	--	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene												
Plant 1 Cake, mg/L	ND	0.018	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.018	--	--	--	--	--	--	--	--	--	--
Isophorone												
Plant 1 Cake, mg/L	ND	0.015	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.015	--	--	--	--	--	--	--	--	--	--
Keopene												
Plant 1 Cake, mg/L	ND	0.035	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.035	--	--	--	--	--	--	--	--	--	--
Naphthalene												
Plant 1 Cake, mg/L	ND	0.015	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.015	--	--	--	--	--	--	--	--	--	--
Nitrobenzene												
Plant 1 Cake, mg/L	ND	0.015	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.015	--	--	--	--	--	--	--	--	--	--
N-Nitrosodimethylamine												
Plant 1 Cake, mg/L	ND	0.012	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.012	--	--	--	--	--	--	--	--	--	--
N-Nitroso-di-n-propylamine												
Plant 1 Cake, mg/L	ND	0.018	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.018	--	--	--	--	--	--	--	--	--	--
N-Nitrosodiphenylamine												
Plant 1 Cake, mg/L	ND	0.01	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.01	--	--	--	--	--	--	--	--	--	--
Pentachlorophenol												
Plant 1 Cake, mg/L	ND	0.018	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.018	--	--	--	--	--	--	--	--	--	--
Phenanthrene												
Plant 1 Cake, mg/L	ND	0.018	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.018	--	--	--	--	--	--	--	--	--	--
Phenol												
Plant 1 Cake, mg/L	ND	0.01	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.01	--	--	--	--	--	--	--	--	--	--
Pyrene												
Plant 1 Cake, mg/L	ND	0.02	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.02	--	--	--	--	--	--	--	--	--	--
Pyridine												
Plant 1 Cake, mg/L	0.014	0.013	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.013	--	--	--	--	--	--	--	--	--	--

Biosolids Analytical Results

	Jan-2015		Feb-2015		Mar-2015		Apr-2015		May-2015		Jun-2015	
	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL
Organochlorine Pesticides												
Aldrin												
Plant 1 Cake, µg/kg dry	ND	2000	ND	780	--	--	ND	390	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	1700	ND	670	--	--	ND	160	--	--	--	--
alpha-BHC												
Plant 1 Cake, µg/kg dry	ND	2000	ND	780	--	--	ND	390	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	1700	ND	670	--	--	ND	160	--	--	--	--
beta-BHC												
Plant 1 Cake, µg/kg dry	ND	2000	ND	780	--	--	ND	390	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	1700	ND	670	--	--	ND	160	--	--	--	--
Chlordane												
Plant 1 Cake, µg/kg dry	ND	13000	ND	5200	--	--	ND	2600	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	11000	ND	4500	--	--	ND	1100	--	--	--	--
delta-BHC												
Plant 1 Cake, µg/kg dry	ND	2000	ND	780	--	--	ND	390	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	1700	ND	670	--	--	ND	160	--	--	--	--
Dieldrin												
Plant 1 Cake, µg/kg dry	ND	2000	ND	780	--	--	ND	390	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	1700	ND	670	--	--	ND	160	--	--	--	--
Endosulfan 1												
Plant 1 Cake, µg/kg dry	ND	2000	ND	780	--	--	ND	390	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	1700	ND	670	--	--	ND	160	--	--	--	--
Endosulfan 2												
Plant 1 Cake, µg/kg dry	ND	2000	ND	780	--	--	ND	390	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	1700	ND	670	--	--	ND	160	--	--	--	--
Endosulfan Sulfate												
Plant 1 Cake, µg/kg dry	ND	2600	ND	1000	--	--	ND	510	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	2300	ND	900	--	--	ND	210	--	--	--	--
Endrin												
Plant 1 Cake, µg/kg dry	ND	2000	ND	780	--	--	ND	390	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	1700	ND	670	--	--	ND	160	--	--	--	--
Endrin Aldehyde												
Plant 1 Cake, µg/kg dry	ND	2000	ND	780	--	--	ND	390	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	1700	ND	670	--	--	ND	160	--	--	--	--
Endrin Ketone												
Plant 1 Cake, µg/kg dry	ND	2600	ND	1000	--	--	ND	510	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	2300	ND	900	--	--	ND	210	--	--	--	--
gamma-BHC												
Plant 1 Cake, µg/kg dry	ND	2000	ND	780	--	--	ND	390	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	1700	ND	670	--	--	ND	160	--	--	--	--
Heptachlor												
Plant 1 Cake, µg/kg dry	ND	2600	ND	1000	--	--	ND	510	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	2300	ND	900	--	--	ND	210	--	--	--	--
Heptachlor Epoxide												
Plant 1 Cake, µg/kg dry	ND	2600	ND	1000	--	--	ND	510	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	2300	ND	900	--	--	ND	210	--	--	--	--
Methoxychlor												
Plant 1 Cake, µg/kg dry	ND	2000	ND	780	--	--	ND	390	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	1700	ND	670	--	--	ND	160	--	--	--	--
Mirex												
Plant 1 Cake, µg/kg dry	ND	2000	ND	780	--	--	ND	390	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	1700	ND	670	--	--	ND	160	--	--	--	--
o,p'-DDD												
Plant 1 Cake, µg/kg dry	ND	2000	ND	780	--	--	ND	390	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	1700	ND	670	--	--	ND	160	--	--	--	--
o,p'-DDE												
Plant 1 Cake, µg/kg dry	ND	2000	ND	780	--	--	ND	390	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	1700	ND	670	--	--	ND	160	--	--	--	--
o,p'-DDT												
Plant 1 Cake, µg/kg dry	ND	2000	ND	780	--	--	ND	390	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	1700	ND	670	--	--	ND	160	--	--	--	--
p,p'-DDD												
Plant 1 Cake, µg/kg dry	ND	2000	ND	780	--	--	ND	390	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	1700	ND	670	--	--	ND	160	--	--	--	--
p,p'-DDE												
Plant 1 Cake, µg/kg dry	ND	2000	ND	780	--	--	ND	390	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	1700	ND	670	--	--	ND	160	--	--	--	--
p,p'-DDT												
Plant 1 Cake, µg/kg dry	ND	2000	ND	780	--	--	ND	390	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	1700	ND	670	--	--	ND	160	--	--	--	--
Total DDTs												
Plant 1 Cake, µg/kg dry	ND	--	ND	--	--	--	ND	--	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	--	ND	--	--	--	ND	--	--	--	--	--

Orange County Sanitation District 2015 Annual 503 Compliance Report Appendix C Summary of Priority Pollutants and Trace Constituents for Biosolids

	Jul-2015		Aug-2015		Sep-2015		Oct-2015		Nov-2015		Dec-2015		Annual Mean
	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	
Organochlorine Pesticides													
Aldrin													
Plant 1 Cake, µg/kg dry	ND	760	--	--	--	--	ND	380	--	--	--	--	<2000
Plant 2 Cake, µg/kg dry	ND	660	--	--	--	--	ND	33	--	--	--	--	<1700
alpha-BHC													
Plant 1 Cake, µg/kg dry	ND	760	--	--	--	--	ND	380	--	--	--	--	<2000
Plant 2 Cake, µg/kg dry	ND	660	--	--	--	--	ND	33	--	--	--	--	<1700
beta-BHC													
Plant 1 Cake, µg/kg dry	ND	760	--	--	--	--	ND	380	--	--	--	--	<2000
Plant 2 Cake, µg/kg dry	ND	660	--	--	--	--	ND	33	--	--	--	--	<1700
Chlordane													
Plant 1 Cake, µg/kg dry	ND	5100	--	--	--	--	ND	2500	--	--	--	--	<13000
Plant 2 Cake, µg/kg dry	ND	4400	--	--	--	--	ND	220	--	--	--	--	<11000
delta-BHC													
Plant 1 Cake, µg/kg dry	ND	760	--	--	--	--	ND	380	--	--	--	--	<2000
Plant 2 Cake, µg/kg dry	ND	660	--	--	--	--	ND	33	--	--	--	--	<1700
Dieldrin													
Plant 1 Cake, µg/kg dry	ND	760	--	--	--	--	ND	380	--	--	--	--	<2000
Plant 2 Cake, µg/kg dry	ND	660	--	--	--	--	ND	33	--	--	--	--	<1700
Endosulfan 1													
Plant 1 Cake, µg/kg dry	ND	760	--	--	--	--	ND	380	--	--	--	--	<2000
Plant 2 Cake, µg/kg dry	ND	660	--	--	--	--	ND	33	--	--	--	--	<1700
Endosulfan 2													
Plant 1 Cake, µg/kg dry	ND	760	--	--	--	--	ND	380	--	--	--	--	<2000
Plant 2 Cake, µg/kg dry	ND	660	--	--	--	--	ND	33	--	--	--	--	<1700
Endosulfan Sulfate													
Plant 1 Cake, µg/kg dry	ND	1000	--	--	--	--	ND	510	--	--	--	--	<2600
Plant 2 Cake, µg/kg dry	ND	880	--	--	--	--	ND	43	--	--	--	--	<2300
Endrin													
Plant 1 Cake, µg/kg dry	ND	760	--	--	--	--	ND	380	--	--	--	--	<2000
Plant 2 Cake, µg/kg dry	ND	660	--	--	--	--	ND	33	--	--	--	--	<1700
Endrin Aldehyde													
Plant 1 Cake, µg/kg dry	ND	760	--	--	--	--	ND	380	--	--	--	--	<2000
Plant 2 Cake, µg/kg dry	ND	660	--	--	--	--	ND	33	--	--	--	--	<1700
Endrin Ketone													
Plant 1 Cake, µg/kg dry	ND	1000	--	--	--	--	ND	510	--	--	--	--	<2600
Plant 2 Cake, µg/kg dry	ND	880	--	--	--	--	ND	43	--	--	--	--	<2300
gamma-BHC													
Plant 1 Cake, µg/kg dry	ND	760	--	--	--	--	ND	380	--	--	--	--	<2000
Plant 2 Cake, µg/kg dry	ND	660	--	--	--	--	ND	33	--	--	--	--	<1700
Heptachlor													
Plant 1 Cake, µg/kg dry	ND	1000	--	--	--	--	ND	510	--	--	--	--	<2600
Plant 2 Cake, µg/kg dry	ND	880	--	--	--	--	ND	43	--	--	--	--	<2300
Heptachlor Epoxide													
Plant 1 Cake, µg/kg dry	ND	1000	--	--	--	--	ND	510	--	--	--	--	<2600
Plant 2 Cake, µg/kg dry	ND	880	--	--	--	--	ND	43	--	--	--	--	<2300
Methoxychlor													
Plant 1 Cake, µg/kg dry	ND	760	--	--	--	--	ND	380	--	--	--	--	<2000
Plant 2 Cake, µg/kg dry	ND	660	--	--	--	--	ND	33	--	--	--	--	<1700
Mirex													
Plant 1 Cake, µg/kg dry	ND	760	--	--	--	--	ND	380	--	--	--	--	<2000
Plant 2 Cake, µg/kg dry	ND	660	--	--	--	--	ND	33	--	--	--	--	<1700
o,p'-DDD													
Plant 1 Cake, µg/kg dry	ND	760	--	--	--	--	ND	380	--	--	--	--	<2000
Plant 2 Cake, µg/kg dry	ND	660	--	--	--	--	ND	33	--	--	--	--	<1700
o,p'-DDE													
Plant 1 Cake, µg/kg dry	ND	760	--	--	--	--	ND	380	--	--	--	--	<2000
Plant 2 Cake, µg/kg dry	ND	660	--	--	--	--	ND	33	--	--	--	--	<1700
o,p'-DDT													
Plant 1 Cake, µg/kg dry	ND	760	--	--	--	--	ND	380	--	--	--	--	<2000
Plant 2 Cake, µg/kg dry	ND	660	--	--	--	--	ND	33	--	--	--	--	<1700
p,p'-DDD													
Plant 1 Cake, µg/kg dry	ND	760	--	--	--	--	ND	380	--	--	--	--	<2000
Plant 2 Cake, µg/kg dry	ND	660	--	--	--	--	ND	33	--	--	--	--	<1700
p,p'-DDE													
Plant 1 Cake, µg/kg dry	ND	760	--	--	--	--	ND	380	--	--	--	--	<2000
Plant 2 Cake, µg/kg dry	ND	660	--	--	--	--	ND	33	--	--	--	--	<1700
p,p'-DDT													
Plant 1 Cake, µg/kg dry	ND	760	--	--	--	--	ND	380	--	--	--	--	<2000
Plant 2 Cake, µg/kg dry	ND	660	--	--	--	--	ND	33	--	--	--	--	<1700
Total DDTs													
Plant 1 Cake, µg/kg dry	ND	--	--	--	--	--	ND	--	--	--	--	--	ND
Plant 2 Cake, µg/kg dry	ND	--	--	--	--	--	ND	--	--	--	--	--	ND

Biosolids Analytical Results

	Jan-2015		Feb-2015		Mar-2015		Apr-2015		May-2015		Jun-2015	
	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL
Toxaphene												
Plant 1 Cake, µg/kg dry	ND	66000	ND	26000	--	--	ND	13000	--	--	--	--
Plant 2 Cake, µg/kg dry	ND	57000	ND	22000	--	--	ND	5400	--	--	--	--
STLC												
Aldrin												
Plant 1 Cake, µg/L	ND	2	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, µg/L	ND	0.5	--	--	--	--	--	--	--	--	--	--
alpha-BHC												
Plant 1 Cake, µg/L	ND	2	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, µg/L	ND	0.5	--	--	--	--	--	--	--	--	--	--
beta-BHC												
Plant 1 Cake, µg/L	ND	3	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, µg/L	ND	0.75	--	--	--	--	--	--	--	--	--	--
Chlordane												
Plant 1 Cake, µg/L	ND	20	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, µg/L	ND	5	--	--	--	--	--	--	--	--	--	--
delta-BHC												
Plant 1 Cake, µg/L	ND	2	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, µg/L	ND	0.5	--	--	--	--	--	--	--	--	--	--
Dieldrin												
Plant 1 Cake, µg/L	ND	2	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, µg/L	ND	0.5	--	--	--	--	--	--	--	--	--	--
Endosulfan 1												
Plant 1 Cake, µg/L	ND	2	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, µg/L	ND	0.5	--	--	--	--	--	--	--	--	--	--
Endosulfan 2												
Plant 1 Cake, µg/L	ND	2	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, µg/L	ND	0.5	--	--	--	--	--	--	--	--	--	--
Endosulfan Sulfate												
Plant 1 Cake, µg/L	ND	2	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, µg/L	ND	0.5	--	--	--	--	--	--	--	--	--	--
Endrin												
Plant 1 Cake, µg/L	ND	2	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, µg/L	ND	0.5	--	--	--	--	--	--	--	--	--	--
Endrin Aldehyde												
Plant 1 Cake, µg/L	ND	2	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, µg/L	ND	0.5	--	--	--	--	--	--	--	--	--	--
Endrin Ketone												
Plant 1 Cake, µg/L	ND	4	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, µg/L	ND	1	--	--	--	--	--	--	--	--	--	--
gamma-BHC												
Plant 1 Cake, µg/L	ND	2	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, µg/L	ND	0.5	--	--	--	--	--	--	--	--	--	--
Heptachlor												
Plant 1 Cake, µg/L	ND	3	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, µg/L	ND	0.75	--	--	--	--	--	--	--	--	--	--
Heptachlor Epoxide												
Plant 1 Cake, µg/L	ND	3	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, µg/L	ND	0.75	--	--	--	--	--	--	--	--	--	--
Methoxychlor												
Plant 1 Cake, µg/L	ND	2	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, µg/L	ND	0.5	--	--	--	--	--	--	--	--	--	--
Mirex												
Plant 1 Cake, µg/L	ND	2	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, µg/L	ND	0.5	--	--	--	--	--	--	--	--	--	--
o,p'-DDD												
Plant 1 Cake, µg/L	ND	2	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, µg/L	ND	0.5	--	--	--	--	--	--	--	--	--	--
o,p'-DDE												
Plant 1 Cake, µg/L	ND	2	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, µg/L	ND	0.5	--	--	--	--	--	--	--	--	--	--
o,p'-DDT												
Plant 1 Cake, µg/L	ND	2	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, µg/L	ND	0.5	--	--	--	--	--	--	--	--	--	--
p,p'-DDD												
Plant 1 Cake, µg/L	ND	2	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, µg/L	ND	0.5	--	--	--	--	--	--	--	--	--	--
p,p'-DDE												
Plant 1 Cake, µg/L	ND	2	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, µg/L	ND	0.5	--	--	--	--	--	--	--	--	--	--
p,p'-DDT												
Plant 1 Cake, µg/L	ND	2	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, µg/L	ND	0.5	--	--	--	--	--	--	--	--	--	--

Biosolids Analytical Results

	Jan-2015		Feb-2015		Mar-2015		Apr-2015		May-2015		Jun-2015	
	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL
TCLP												
2,4,5-TP (Silvex)												
Plant 1 Cake, mg/L	ND	0.025	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.025	--	--	--	--	--	--	--	--	--	--
2,4-D												
Plant 1 Cake, mg/L	ND	0.05	--	--	--	--	--	--	--	--	--	--
Plant 2 Cake, mg/L	ND	0.05	--	--	--	--	--	--	--	--	--	--
Other												
2,3,7,8-Tetrachlorodibenzo-p-dioxin												
Plant 1 Cake, pg/g dry	ND	1.2	--	--	--	--	ND	2	--	--	--	--
Plant 2 Cake, pg/g dry	ND	1.1	--	--	--	--	ND	1.4	--	--	--	--
Chrysotile												
Plant 1 Cake, % dry weight	ND	--	--	--	--	--	ND	--	--	--	--	--
Plant 2 Cake, % dry weight	ND	--	--	--	--	--	ND	--	--	--	--	--
Paint Filter Free Liquid test												
Plant 1 Cake, -	NEG	--	NEG	--	NEG	--	NEG	--	NEG	--	NEG	--
Plant 2 Cake, -	NEG	--	NEG	--	NEG	--	NEG	--	NEG	--	NEG	--

* This value is an outlier from historical data and believed to be an error, so it was omitted during compliance determination.

Orange County Sanitation District 2015 Annual 503 Compliance Report Appendix C Priority Pollutants for Digester Cleanings

Digester Cleanings Analytical Results			PLANT 1		PLANT 1		PLANT 2		PLANT 2		PLANT 2		PLANT 2		PLANT 2		PLANT 1	PLANT 2		
			Mar-15		Apr-15		Apr-15		May-15		Jun-15		Aug-15		Sep-15		Oct-15		Annual	Annual
			Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Mean	Mean
General Chemistry																				
Ammonia Nitrogen	mg/kg dry weight	6,500	750	-	-	2,600	710	-	-	-	-	2,500	450	-	-	-	-	6,500	2,550	
Corrosivity	-	NEG	-	-	-	NEG	-	-	-	-	-	NEG	-	-	-	-	-	NEG	NEG	
Total Cyanide	mg/kg dry weight	3.8	1.5	-	-	ND	1.4	-	-	-	-	ND	0.90	-	-	-	-	3.8	<1.4	
Fluoride	mg/kg dry weight	ND	16	-	-	ND	14	-	-	-	-	ND	9.1	-	-	-	-	<16	<14	
Hexavalent Chromium	mg/kg dry weight	ND	3.1	-	-	ND	72	-	-	-	-	ND	9.1	-	-	-	-	<3.1	<72	
Nitrate	mg/kg dry weight	ND	3.4	-	-	ND	3.2	-	-	-	-	ND	2.0	-	-	-	-	<3.4	<3.2	
Nitrite	mg/kg dry weight	ND	4.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<4.7	-	
Organic Lead	µg/kg dry	ND	77	-	-	ND	72	-	-	-	-	ND	0.10	-	-	-	-	<77	<72	
Organic Nitrogen	mg/kg dry weight	19,000	-	-	-	15,000	-	-	-	-	-	4,800	-	-	-	-	-	19,000	9,900	
pH	pH units	8.21	0.100	-	-	8.29	0.100	-	-	-	-	8.19	0.100	-	-	-	-	8.21	8.24	
Sulfide	mg/kg dry weight	ND	3.1	-	-	3.6	2.9	-	-	-	-	220	91	-	-	-	-	<3.1	110	
TKN	mg/kg dry weight	25,000	3800	-	-	18,000	3600	-	-	-	-	7,300	2200	-	-	-	-	25,000	13,000	
Total Solids	%	34	0.050	52	0.050	35	0.050	57	0.050	59	0.050	57	0.050	58	0.050	50	0.050	43	53	
Total Volatile Solids	%	12	0.046	12	0.046	17	0.048	13	0.048	14	0.047	14	0.049	13	0.048	16	0.048	12	15	
Trace Elements																				
TTLC																				
Antimony	mg/kg dry weight	ND	12	-	-	ND	5.7	-	-	-	-	ND	18	-	-	-	-	<12	<18	
Arsenic	mg/kg dry weight	ND	4.4	ND	5.7	9.6	1.7	ND	5.2	7.0	2.5	4.0	2.7	3.8	2.6	3.1	3.0	<5.7	5.5	
Barium	mg/kg dry weight	240	6.2	-	-	560	2.9	-	-	-	-	370	9.1	-	-	-	-	240	470	
Beryllium	mg/kg dry weight	ND	0.62	-	-	ND	0.29	-	-	-	-	ND	0.91	-	-	-	-	<0.62	<0.91	
Cadmium	mg/kg dry weight	4.0	2.9	4.3	3.8	2.4	1.2	2.1	1.7	2.5	1.7	2.8	1.8	3.8	1.7	5.00	2.0	4.2	3.1	
Chromium	mg/kg dry weight	33	12	30	15	100	4.6	40	7	73	6.8	35	7.3	43	6.9	67	8.0	32	60	
Cobalt	mg/kg dry weight	ND	6.2	-	-	3.9	2.9	-	-	-	-	ND	9.1	-	-	-	-	<6.2	3.9	
Copper	mg/kg dry weight	370	7.3	330	9.5	390	2.9	380	4.4	540	4.2	380	4.6	380	4.3	530	5.0	350	430	
Iron	mg/kg dry weight	120,000	87	160,000	110	47,000	35	59,000	52	87,000	51	130,000	550	110,000	52	76,000	60	140,000	85,000	
Lead	mg/kg dry weight	ND	29	ND	38	14	12	58	17	52	17	38	18	38	17	91	20	<38	49	
Magnesium	mg/kg dry weight	7,500	150	11,000	190	6,600	58	5,700	87	8,300	85	14,000	91	13,000	87	8,000	100	9,300	9,300	
Mercury	mg/kg dry weight	2.2	0.12	1.3	0.037	1.9	0.059	2.4	0.18	3.3	0.17	5.5	0.35	5.7	0.35	2.6	0.078	1.8	3.6	
Molybdenum	mg/kg dry weight	ND	15	ND	19	9.8	5.8	9.8	8.7	14	8.5	ND	9.1	10	8.7	17	10	<19	12	
Nickel	mg/kg dry weight	33	29	ND	38	29	12	46	17	52	17	36	18	43	17	78	20	33	47	
Phosphorus	mg/kg dry weight	42,000	98	-	-	19,000	46	-	-	-	-	57,000	150	-	-	-	-	42000	38,000	
Potassium	mg/kg dry weight	470	310	-	-	320	140	-	-	-	-	550	460	-	-	-	-	470	440	
Selenium	mg/kg dry weight	ND	7.3	ND	9.5	5.0	2.9	ND	4.4	ND	4.2	ND	4.6	7.2	4.3	6.2	5.0	<9.5	6.1	
Silver	mg/kg dry weight	9.8	4.4	16	5.7	9.8	1.7	17	2.6	19	2.5	8.6	2.7	18	2.6	21	3.0	13	16	
Thallium	mg/kg dry weight	ND	18	-	-	ND	8.6	-	-	-	-	ND	27	-	-	-	-	<18	<27	
Vanadium	mg/kg dry weight	16	6.2	-	-	25	2.9	-	-	-	-	21	9.1	-	-	-	-	16	23	
Zinc	mg/kg dry weight	440	12	400	15	590	4.6	430	7.00	610	6.8	440	7.3	400	6.9	590	8.0	420	510	
STLC																				
Antimony	mg/L	ND	0.20	-	-	ND	0.20	-	-	-	-	ND	0.20	-	-	-	-	<0.20	<0.20	
Arsenic	mg/L	ND	0.20	-	-	0.35	0.20	-	-	-	-	ND	0.20	-	-	-	-	<0.20	0.35	
Barium	mg/L	4.8	0.20	-	-	17	0.20	-	-	-	-	4.5	0.20	-	-	-	-	4.8	11	
Beryllium	mg/L	ND	0.080	-	-	ND	0.080	-	-	-	-	ND	0.080	-	-	-	-	<0.080	<0.080	
Cadmium	mg/L	ND	0.10	-	-	ND	0.10	-	-	-	-	ND	0.10	-	-	-	-	<0.10	<0.10	
Chromium	mg/L	0.4	0.10	-	-	0.84	0.10	-	-	-	-	0.48	0.10	-	-	-	-	0.4	0.66	
Cobalt	mg/L	ND	0.20	-	-	ND	0.20	-	-	-	-	ND	0.20	-	-	-	-	<0.20	<0.20	
Copper	mg/L	ND	0.20	-	-	ND	0.20	-	-	-	-	ND	0.20	-	-	-	-	<0.20	<0.20	
Lead	mg/L	ND	0.10	-	-	ND	0.10	-	-	-	-	0.34	0.10	-	-	-	-	<0.10	0.34	
Mercury	mg/L	ND	0.0020	-	-	ND	0.0020	-	-	-	-	ND	0.0020	-	-	-	-	<0.002	<0.0020	
Molybdenum	mg/L	ND	0.40	-	-	ND	0.40	-	-	-	-	ND	0.40	-	-	-	-	<0.40	<0.40	
Nickel	mg/L	0.42	0.20	-	-	0.83	0.20	-	-	-	-	0.44	0.20	-	-	-	-	0.42	0.64	

Orange County Sanitation District 2015 Annual 503 Compliance Report Appendix C Priority Pollutants for Digester Cleanings

Digester Cleanings Analytical Results			PLANT 1 Mar-15		PLANT 1 Apr-15		PLANT 2 Apr-15		PLANT 2 May-15		PLANT 2 Jun-15		PLANT 2 Aug-15		PLANT 2 Sep-15		PLANT 2 Oct-15		PLANT 1 Annual	PLANT 2 Annual
			Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL
Phosphorus	mg/L	-	-	-	-	-	-	-	-	-	-	-	1400	4.0	-	-	-	-	-	1,400
Potassium	mg/L	-	-	-	-	-	-	-	-	-	-	-	ND	10	-	-	-	-	-	<10
Selenium	mg/L	ND	0.20	-	-	ND	0.20	-	-	-	-	-	ND	0.20	-	-	-	-	<0.20	<0.20
Silver	mg/L	ND	0.20	-	-	ND	0.20	-	-	-	-	-	ND	0.20	-	-	-	-	<0.20	<0.20
Thallium	mg/L	ND	0.20	-	-	ND	0.20	-	-	-	-	-	ND	0.20	-	-	-	-	<0.20	<0.20
Vanadium	mg/L	0.32	0.20	-	-	0.91	0.20	-	-	-	-	-	0.52	0.20	-	-	-	-	0.32	<0.20
Zinc	mg/L	3.7	0.40	-	-	7.1	0.40	-	-	-	-	-	ND	0.40	-	-	-	-	3.7	<0.40
TCLP																				
Arsenic	mg/L	ND	0.20	-	-	ND	0.20	-	-	-	-	-	ND	0.20	-	-	-	-	<0.20	<0.20
Barium	mg/L	ND	0.20	-	-	1	0.20	-	-	-	-	-	0.3	0.20	-	-	-	-	<0.20	0.65
Cadmium	mg/L	ND	0.10	-	-	ND	0.10	-	-	-	-	-	ND	0.10	-	-	-	-	<0.10	<0.10
Chromium	mg/L	ND	0.10	-	-	ND	0.10	-	-	-	-	-	ND	0.10	-	-	-	-	<0.10	<0.10
Lead	mg/L	ND	0.10	-	-	ND	0.10	-	-	-	-	-	ND	0.10	-	-	-	-	<0.10	<0.10
Mercury	mg/L	ND	0.0020	-	-	ND	0.0020	-	-	-	-	-	ND	0.0020	-	-	-	-	<0.002	<0.002
Selenium	mg/L	ND	0.10	-	-	ND	0.10	-	-	-	-	-	ND	0.10	-	-	-	-	<0.10	<0.10
Silver	mg/L	ND	0.20	-	-	ND	0.20	-	-	-	-	-	ND	0.20	-	-	-	-	<0.20	<0.20
Volatile Organic Compounds																				
1,1,1,2-Tetrachloroethane	µg/kg dry	ND	77	-	-	ND	69	-	-	-	-	-	ND	44	-	-	-	-	<77	<69
1,1,1-Trichloroethane	µg/kg dry	ND	31	-	-	ND	28	-	-	-	-	-	ND	18	-	-	-	-	<31	<28
1,1,2,2-Tetrachloroethane	µg/kg dry	ND	31	-	-	ND	28	-	-	-	-	-	ND	18	-	-	-	-	<31	<28
1,1,2-Trichloroethane	µg/kg dry	ND	31	-	-	ND	28	-	-	-	-	-	ND	18	-	-	-	-	<31	<28
1,1-Dichloroethane	µg/kg dry	ND	31	-	-	ND	28	-	-	-	-	-	ND	18	-	-	-	-	<31	<28
1,1-Dichloroethene	µg/kg dry	ND	77	-	-	ND	69	-	-	-	-	-	ND	44	-	-	-	-	<77	<69
1,1-Dichloropropene	µg/kg dry	ND	31	-	-	ND	28	-	-	-	-	-	ND	18	-	-	-	-	<31	<28
1,2,3-Trichlorobenzene	µg/kg dry	ND	77	-	-	ND	69	-	-	-	-	-	ND	44	-	-	-	-	<77	<69
1,2,3-Trichloropropane	µg/kg dry	ND	150	-	-	ND	140	-	-	-	-	-	ND	88	-	-	-	-	<150	<140
1,2,4-Trichlorobenzene	µg/kg dry	ND	77	-	-	ND	69	-	-	-	-	-	ND	44	-	-	-	-	<77	<69
1,2,4-Trimethylbenzene	µg/kg dry	ND	31	-	-	43	28	-	-	-	-	-	ND	18	-	-	-	-	<31	43
1,2-Dibromo-3-chloropropane	µg/kg dry	ND	77	-	-	ND	69	-	-	-	-	-	ND	44	-	-	-	-	<77	<69
1,2-Dibromoethane	µg/kg dry	ND	31	-	-	ND	28	-	-	-	-	-	ND	18	-	-	-	-	<31	<28
1,2-Dichlorobenzene	µg/kg dry	ND	31	-	-	ND	28	-	-	-	-	-	ND	18	-	-	-	-	<31	<28
1,2-Dichloroethane	µg/kg dry	ND	31	-	-	ND	28	-	-	-	-	-	ND	18	-	-	-	-	<31	<28
1,2-Dichloropropane	µg/kg dry	ND	31	-	-	ND	28	-	-	-	-	-	ND	18	-	-	-	-	<31	<28
1,3,5-Trimethylbenzene	µg/kg dry	ND	31	-	-	ND	28	-	-	-	-	-	ND	18	-	-	-	-	<31	<28
1,3-Dichlorobenzene	µg/kg dry	ND	31	-	-	ND	28	-	-	-	-	-	ND	18	-	-	-	-	<31	<28
1,3-Dichloropropane	µg/kg dry	ND	31	-	-	ND	28	-	-	-	-	-	ND	18	-	-	-	-	<31	<28
1,4-Dichlorobenzene	µg/kg dry	ND	31	-	-	ND	28	-	-	-	-	-	ND	18	-	-	-	-	<31	<28
2,2-Dichloropropane	µg/kg dry	ND	31	-	-	ND	28	-	-	-	-	-	ND	18	-	-	-	-	<31	<28
2-Chlorotoluene	µg/kg dry	ND	77	-	-	ND	69	-	-	-	-	-	ND	44	-	-	-	-	<77	<69
2-Hexanone	µg/kg dry	ND	380	-	-	ND	350	-	-	-	-	-	ND	220	-	-	-	-	<380	<350
4-Chlorotoluene	µg/kg dry	ND	77	-	-	ND	69	-	-	-	-	-	ND	44	-	-	-	-	<77	<69
Acrolein	µg/kg dry	ND	1500	-	-	ND	1400	-	-	-	-	-	ND	880	-	-	-	-	<1500	<1400
Acrylonitrile	µg/kg dry	ND	1500	-	-	ND	1400	-	-	-	-	-	ND	880	-	-	-	-	<1500	<1400
Benzene	µg/kg dry	ND	31	-	-	ND	28	-	-	-	-	-	ND	18	-	-	-	-	<31	<28
Bromobenzene	µg/kg dry	ND	77	-	-	ND	69	-	-	-	-	-	ND	44	-	-	-	-	<77	<69
Bromochloromethane	µg/kg dry	ND	77	-	-	ND	69	-	-	-	-	-	ND	44	-	-	-	-	<77	<69
Bromodichloromethane	µg/kg dry	ND	31	-	-	ND	28	-	-	-	-	-	ND	18	-	-	-	-	<31	<28
Bromoform	µg/kg dry	ND	77	-	-	ND	69	-	-	-	-	-	ND	44	-	-	-	-	<77	<69
Bromomethane	µg/kg dry	ND	77	-	-	ND	69	-	-	-	-	-	ND	44	-	-	-	-	<77	<69
Carbon tetrachloride	µg/kg dry	ND	77	-	-	ND	69	-	-	-	-	-	ND	44	-	-	-	-	<77	<69
Chlorobenzene	µg/kg dry	ND	31	-	-	ND	28	-	-	-	-	-	ND	18	-	-	-	-	<31	<28

Orange County Sanitation District 2015 Annual 503 Compliance Report Appendix C Priority Pollutants for Digester Cleanings

Digester Cleanings Analytical Results			PLANT 1 Mar-15		PLANT 1 Apr-15		PLANT 2 Apr-15		PLANT 2 May-15		PLANT 2 Jun-15		PLANT 2 Aug-15		PLANT 2 Sep-15		PLANT 2 Oct-15		PLANT 1 Annual	PLANT 2 Annual
			Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL
Chloroethane	µg/kg dry	ND	77	-	-	ND	69	-	-	-	-	ND	44	-	-	-	-	<77	<69	
Chloroform	µg/kg dry	ND	31	-	-	39	28	-	-	-	-	ND	18	-	-	-	-	<31	39	
Chloromethane	µg/kg dry	ND	77	-	-	ND	69	-	-	-	-	ND	44	-	-	-	-	<77	<69	
Dibromochloromethane	µg/kg dry	ND	31	-	-	ND	28	-	-	-	-	ND	18	-	-	-	-	<31	<28	
Dibromomethane	µg/kg dry	ND	31	-	-	ND	28	-	-	-	-	ND	18	-	-	-	-	<31	<28	
Dichlorodifluoromethane	µg/kg dry	ND	77	-	-	ND	69	-	-	-	-	ND	44	-	-	-	-	<77	<69	
Ethylbenzene	µg/kg dry	ND	31	-	-	ND	28	-	-	-	-	ND	18	-	-	-	-	<31	<28	
Hexachlorobutadiene	µg/kg dry	ND	77	-	-	ND	69	-	-	-	-	ND	44	-	-	-	-	<77	<69	
Isobutyl alcohol	µg/kg dry	ND	770	-	-	ND	690	-	-	-	-	ND	440	-	-	-	-	<770	<690	
Isopropylbenzene	µg/kg dry	ND	31	-	-	ND	28	-	-	-	-	ND	18	-	-	-	-	<31	<28	
MIBK	µg/kg dry	ND	77	-	-	ND	69	-	-	-	-	ND	44	-	-	-	-	<77	<69	
Methyl ethyl ketone	µg/kg dry	1200	150	-	-	1700	140	-	-	-	-	ND	88	-	-	-	-	1,200	1700	
Methylene Chloride	µg/kg dry	ND	310	-	-	ND	280	-	-	-	-	ND	180	-	-	-	-	<310	<280	
Naphthalene	µg/kg dry	ND	77	-	-	ND	69	-	-	-	-	ND	44	-	-	-	-	<77	<69	
Styrene	µg/kg dry	ND	31	-	-	ND	28	-	-	-	-	ND	18	-	-	-	-	<31	<28	
Tetrachloroethene	µg/kg dry	ND	31	-	-	ND	28	-	-	-	-	ND	18	-	-	-	-	<31	<28	
Toluene	µg/kg dry	ND	31	-	-	110	28	-	-	-	-	ND	18	-	-	-	-	<31	110	
Trichloroethene	µg/kg dry	ND	31	-	-	ND	28	-	-	-	-	ND	18	-	-	-	-	<31	<28	
Trichlorofluoromethane	µg/kg dry	ND	77	-	-	ND	69	-	-	-	-	ND	44	-	-	-	-	<77	<69	
Vinyl chloride	µg/kg dry	ND	77	-	-	ND	69	-	-	-	-	ND	44	-	-	-	-	<77	<69	
cis-1,2-Dichloroethene	µg/kg dry	ND	31	-	-	ND	28	-	-	-	-	ND	18	-	-	-	-	<31	<28	
cis-1,3-Dichloropropene	µg/kg dry	ND	31	-	-	ND	28	-	-	-	-	ND	18	-	-	-	-	<31	<28	
m,p-Xylenes	µg/kg dry	ND	62	-	-	ND	55	-	-	-	-	ND	35	-	-	-	-	<62	<55	
n-Butylbenzene	µg/kg dry	ND	77	-	-	ND	69	-	-	-	-	ND	44	-	-	-	-	<77	<69	
n-Propylbenzene	µg/kg dry	ND	31	-	-	ND	28	-	-	-	-	ND	18	-	-	-	-	<31	<28	
o-Xylene	µg/kg dry	ND	31	-	-	ND	28	-	-	-	-	ND	18	-	-	-	-	<31	<28	
p-Isopropyltoluene	µg/kg dry	ND	31	-	-	670	28	-	-	-	-	ND	18	-	-	-	-	<31	670	
sec-Butylbenzene	µg/kg dry	ND	77	-	-	ND	69	-	-	-	-	ND	44	-	-	-	-	<77	<69	
tert-Butylbenzene	µg/kg dry	ND	77	-	-	ND	69	-	-	-	-	ND	44	-	-	-	-	<77	<69	
trans-1,2-Dichloroethene	µg/kg dry	ND	31	-	-	ND	28	-	-	-	-	ND	18	-	-	-	-	<31	<28	
trans-1,3-Dichloropropene	µg/kg dry	ND	31	-	-	ND	28	-	-	-	-	ND	18	-	-	-	-	<31	<28	
TCLP																				
1,1,1,2-Tetrachloroethane	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	<0.050	<0.050	
1,1,1-Trichloroethane	mg/L	ND	0.020	-	-	ND	0.020	-	-	-	-	ND	0.020	-	-	-	-	<0.020	<0.020	
1,1,2,2-Tetrachloroethane	mg/L	ND	0.020	-	-	ND	0.020	-	-	-	-	ND	0.020	-	-	-	-	<0.020	<0.020	
1,1,2-Trichloroethane	mg/L	ND	0.020	-	-	ND	0.020	-	-	-	-	ND	0.020	-	-	-	-	<0.020	<0.020	
1,1-Dichloroethane	mg/L	ND	0.020	-	-	ND	0.020	-	-	-	-	ND	0.020	-	-	-	-	<0.020	<0.020	
1,1-Dichloroethene	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	<0.050	<0.050	
1,1-Dichloropropene	mg/L	ND	0.020	-	-	ND	0.020	-	-	-	-	ND	0.020	-	-	-	-	<0.020	<0.020	
1,2,3-Trichlorobenzene	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	<0.050	<0.050	
1,2,3-Trichloropropane	mg/L	ND	0.10	-	-	ND	0.10	-	-	-	-	ND	0.10	-	-	-	-	<0.10	<0.10	
1,2,4-Trichlorobenzene	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	<0.050	<0.050	
1,2,4-Trimethylbenzene	mg/L	ND	0.020	-	-	ND	0.020	-	-	-	-	ND	0.020	-	-	-	-	<0.020	<0.020	
1,2-Dibromo-3-chloropropane	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	<0.050	<0.050	
1,2-Dibromoethane	mg/L	ND	0.020	-	-	ND	0.020	-	-	-	-	ND	0.020	-	-	-	-	<0.020	<0.020	
1,2-Dichlorobenzene	mg/L	ND	0.020	-	-	ND	0.020	-	-	-	-	ND	0.020	-	-	-	-	<0.020	<0.020	
1,2-Dichloroethane	mg/L	ND	0.020	-	-	ND	0.020	-	-	-	-	ND	0.020	-	-	-	-	<0.020	<0.020	
1,2-Dichloropropane	mg/L	ND	0.020	-	-	ND	0.020	-	-	-	-	ND	0.020	-	-	-	-	<0.020	<0.020	
1,3,5-Trimethylbenzene	mg/L	ND	0.020	-	-	ND	0.020	-	-	-	-	ND	0.020	-	-	-	-	<0.020	<0.020	
1,3-Dichlorobenzene	mg/L	ND	0.020	-	-	ND	0.020	-	-	-	-	ND	0.020	-	-	-	-	<0.020	<0.020	
1,3-Dichloropropane	mg/L	ND	0.020	-	-	ND	0.020	-	-	-	-	ND	0.020	-	-	-	-	<0.020	<0.020	
1,4-Dichlorobenzene	mg/L	ND	0.020	-	-	ND	0.020	-	-	-	-	ND	0.020	-	-	-	-	<0.020	<0.020	

Orange County Sanitation District 2015 Annual 503 Compliance Report Appendix C Priority Pollutants for Digester Cleanings

Digester Cleanings Analytical Results			PLANT 1 Mar-15		PLANT 1 Apr-15		PLANT 2 Apr-15		PLANT 2 May-15		PLANT 2 Jun-15		PLANT 2 Aug-15		PLANT 2 Sep-15		PLANT 2 Oct-15		PLANT 1	PLANT 2	
			Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Annual Mean
2,2-Dichloropropane	mg/L	ND	0.020	-	-	ND	0.020	-	-	-	-	ND	0.020	-	-	-	-	-	-	<0.020	<0.020
2-Chlorotoluene	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	-	-	<0.050	<0.050
4-Chlorotoluene	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	-	-	<0.050	<0.050
Acetone	mg/L	ND	0.10	-	-	0.28	0.10	-	-	-	-	0.13	0.10	-	-	-	-	-	-	<0.10	0.205
Acrolein	mg/L	ND	0.50	-	-	ND	0.50	-	-	-	-	ND	0.50	-	-	-	-	-	-	<0.50	<0.50
Acrylonitrile	mg/L	ND	0.50	-	-	ND	0.50	-	-	-	-	ND	0.50	-	-	-	-	-	-	<0.50	<0.50
Benzene	mg/L	ND	0.020	-	-	ND	0.020	-	-	-	-	ND	0.020	-	-	-	-	-	-	<0.020	<0.020
Bromobenzene	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	-	-	<0.050	<0.050
Bromochloromethane	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	-	-	<0.050	<0.050
Bromodichloromethane	mg/L	ND	0.020	-	-	ND	0.020	-	-	-	-	ND	0.020	-	-	-	-	-	-	<0.020	<0.020
Bromoform	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	-	-	<0.050	<0.050
Bromomethane	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	-	-	<0.050	<0.050
Carbon tetrachloride	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	-	-	<0.050	<0.050
Chlorobenzene	mg/L	ND	0.020	-	-	ND	0.020	-	-	-	-	ND	0.020	-	-	-	-	-	-	<0.020	<0.020
Chloroethane	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	-	-	<0.050	<0.050
Chloroform	mg/L	ND	0.020	-	-	ND	0.020	-	-	-	-	ND	0.020	-	-	-	-	-	-	<0.020	<0.020
Chloromethane	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	-	-	<0.050	<0.050
Dibromochloromethane	mg/L	ND	0.020	-	-	ND	0.020	-	-	-	-	ND	0.020	-	-	-	-	-	-	<0.020	<0.020
Dibromomethane	mg/L	ND	0.020	-	-	ND	0.020	-	-	-	-	ND	0.020	-	-	-	-	-	-	<0.020	<0.020
Dichlorodifluoromethane	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	-	-	<0.050	<0.050
Ethylbenzene	mg/L	ND	0.020	-	-	ND	0.020	-	-	-	-	ND	0.020	-	-	-	-	-	-	<0.020	<0.020
Hexachlorobutadiene	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	-	-	<0.050	<0.050
Isobutyl alcohol	mg/L	ND	0.20	-	-	ND	0.20	-	-	-	-	ND	0.20	-	-	-	-	-	-	<0.20	<0.20
Isopropylbenzene	mg/L	ND	0.020	-	-	ND	0.020	-	-	-	-	ND	0.020	-	-	-	-	-	-	<0.020	<0.020
MIBK	mg/L	ND	0.10	-	-	ND	0.10	-	-	-	-	ND	0.10	-	-	-	-	-	-	<0.10	<0.10
Methyl ethyl ketone	mg/L	ND	0.10	-	-	ND	0.10	-	-	-	-	ND	0.10	-	-	-	-	-	-	<0.10	<0.10
Methylene Chloride	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	-	-	<0.050	<0.050
Naphthalene	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	-	-	<0.050	<0.050
Styrene	mg/L	ND	0.020	-	-	ND	0.020	-	-	-	-	ND	0.020	-	-	-	-	-	-	<0.020	<0.020
Tetrachloroethene	mg/L	ND	0.020	-	-	ND	0.020	-	-	-	-	ND	0.020	-	-	-	-	-	-	<0.020	<0.020
Toluene	mg/L	0.048	0.020	-	-	ND	0.020	-	-	-	-	ND	0.020	-	-	-	-	-	-	0.048	<0.020
Trichloroethene	mg/L	ND	0.020	-	-	ND	0.020	-	-	-	-	ND	0.020	-	-	-	-	-	-	<0.020	<0.020
Trichlorofluoromethane	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	-	-	<0.050	<0.050
Vinyl chloride	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	-	-	<0.050	<0.050
cis-1,2-Dichloroethene	mg/L	ND	0.020	-	-	ND	0.020	-	-	-	-	ND	0.020	-	-	-	-	-	-	<0.020	<0.020
cis-1,3-Dichloropropene	mg/L	ND	0.020	-	-	ND	0.020	-	-	-	-	ND	0.020	-	-	-	-	-	-	<0.020	<0.020
m,p-Xylenes	mg/L	0.04	0.020	-	-	ND	0.020	-	-	-	-	ND	0.020	-	-	-	-	-	-	0.040	<0.020
n-Butylbenzene	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	-	-	<0.050	<0.050
n-Propylbenzene	mg/L	ND	0.020	-	-	ND	0.020	-	-	-	-	ND	0.020	-	-	-	-	-	-	<0.020	<0.020
o-Xylene	mg/L	ND	0.020	-	-	ND	0.020	-	-	-	-	ND	0.020	-	-	-	-	-	-	<0.020	<0.020
p-Isopropyltoluene	mg/L	ND	0.020	-	-	ND	0.020	-	-	-	-	ND	0.020	-	-	-	-	-	-	<0.020	<0.020
sec-Butylbenzene	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	-	-	<0.050	<0.050
tert-Butylbenzene	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	-	-	<0.050	<0.050
trans-1,2-Dichloroethene	mg/L	ND	0.020	-	-	ND	0.020	-	-	-	-	ND	0.020	-	-	-	-	-	-	<0.020	<0.020
trans-1,3-Dichloropropene	mg/L	ND	0.020	-	-	ND	0.020	-	-	-	-	ND	0.020	-	-	-	-	-	-	<0.020	<0.020
Semi-Volatile Organic Compounds (B/N/A)																					
1,2,4-Trichlorobenzene	µg/kg dry	ND	5000	-	-	ND	460000	-	-	-	-	ND	3000	-	-	-	-	-	-	<5000	<460000
1,2-Dichlorobenzene	µg/kg dry	ND	5000	-	-	ND	460000	-	-	-	-	ND	3000	-	-	-	-	-	-	<5000	<460000
1,3-Dichlorobenzene	µg/kg dry	ND	5000	-	-	ND	460000	-	-	-	-	ND	3000	-	-	-	-	-	-	<5000	<460000
1,4-Dichlorobenzene	µg/kg dry	ND	5000	-	-	ND	460000	-	-	-	-	ND	3000	-	-	-	-	-	-	<5000	<460000
2,4,5-Trichlorophenol	µg/kg dry	ND	5000	-	-	ND	460000	-	-	-	-	ND	3000	-	-	-	-	-	-	<5000	<460000

Orange County Sanitation District 2015 Annual 503 Compliance Report Appendix C Priority Pollutants for Digester Cleanings

Digester Cleanings Analytical Results			PLANT 1		PLANT 1		PLANT 2		PLANT 2		PLANT 2		PLANT 2		PLANT 2		PLANT 1	PLANT 2		
			Mar-15		Apr-15		Apr-15		May-15		Jun-15		Aug-15		Sep-15				Oct-15	
			Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL			Average	RL
2,4,6-Trichlorophenol	µg/kg dry	ND	5000	-	-	ND	460000	-	-	-	-	ND	3000	-	-	-	-	<5000	<460000	
2,4-Dichlorophenol	µg/kg dry	ND	5000	-	-	ND	460000	-	-	-	-	ND	3000	-	-	-	-	<5000	<460000	
2,4-Dimethylphenol	µg/kg dry	ND	5000	-	-	ND	460000	-	-	-	-	ND	3000	-	-	-	-	<5000	<460000	
2,4-Dinitrophenol	µg/kg dry	ND	10000	-	-	ND	930000	-	-	-	-	ND	6000	-	-	-	-	<10000	<930000	
2,4-Dinitrotoluene	µg/kg dry	ND	5000	-	-	ND	460000	-	-	-	-	ND	3000	-	-	-	-	<5000	<460000	
2,6-Dinitrotoluene	µg/kg dry	ND	5000	-	-	ND	460000	-	-	-	-	ND	3000	-	-	-	-	<5000	<460000	
2-Chloronaphthalene	µg/kg dry	ND	5000	-	-	ND	460000	-	-	-	-	ND	3000	-	-	-	-	<5000	<460000	
2-Chlorophenol	µg/kg dry	ND	5000	-	-	ND	460000	-	-	-	-	ND	3000	-	-	-	-	<5000	<460000	
2-Methylnaphthalene	µg/kg dry	ND	5000	-	-	ND	460000	-	-	-	-	ND	3000	-	-	-	-	<5000	<460000	
2-Methylphenol	µg/kg dry	ND	5000	-	-	ND	460000	-	-	-	-	ND	3000	-	-	-	-	<5000	<460000	
2-Nitroaniline	µg/kg dry	ND	5000	-	-	ND	460000	-	-	-	-	ND	3000	-	-	-	-	<5000	<460000	
2-Nitrophenol	µg/kg dry	ND	5000	-	-	ND	460000	-	-	-	-	ND	3000	-	-	-	-	<5000	<460000	
3,3-Dichlorobenzidine	µg/kg dry	ND	13000	-	-	ND	1200000	-	-	-	-	ND	7500	-	-	-	-	<13000	<1200000	
3-Nitroaniline	µg/kg dry	ND	5000	-	-	ND	460000	-	-	-	-	ND	3000	-	-	-	-	<5000	<460000	
4,6-Dinitro-2-methylphenol	µg/kg dry	ND	6400	-	-	ND	590000	-	-	-	-	ND	3800	-	-	-	-	<6400	<590000	
4-Bromophenyl phenyl ether	µg/kg dry	ND	5000	-	-	ND	460000	-	-	-	-	ND	3000	-	-	-	-	<5000	<460000	
4-Chloro-3-methylphenol	µg/kg dry	ND	5000	-	-	ND	460000	-	-	-	-	ND	3000	-	-	-	-	<5000	<460000	
4-Chloroaniline	µg/kg dry	ND	5000	-	-	ND	460000	-	-	-	-	ND	3000	-	-	-	-	<5000	<460000	
4-Chlorophenyl phenyl ether	µg/kg dry	ND	5000	-	-	ND	460000	-	-	-	-	ND	3000	-	-	-	-	<5000	<460000	
4-Methylphenol	µg/kg dry	ND	5000	-	-	ND	460000	-	-	-	-	ND	3000	-	-	-	-	<5000	<460000	
4-Nitroaniline	µg/kg dry	ND	13000	-	-	ND	1200000	-	-	-	-	ND	7500	-	-	-	-	<13000	<1200000	
4-Nitrophenol	µg/kg dry	ND	13000	-	-	ND	1200000	-	-	-	-	ND	7500	-	-	-	-	<13000	<1200000	
Acenaphthene	µg/kg dry	ND	5000	-	-	ND	460000	-	-	-	-	ND	3000	-	-	-	-	<5000	<460000	
Acenaphthylene	µg/kg dry	ND	5000	-	-	ND	460000	-	-	-	-	ND	3000	-	-	-	-	<5000	<460000	
Aniline	µg/kg dry	ND	6400	-	-	ND	590000	-	-	-	-	ND	3800	-	-	-	-	<6400	<590000	
Anthracene	µg/kg dry	ND	5000	-	-	ND	460000	-	-	-	-	ND	3000	-	-	-	-	<5000	<460000	
Azobenzene/1,2-Diphenylhydrazine	µg/kg dry	ND	5000	-	-	ND	460000	-	-	-	-	ND	3000	-	-	-	-	<5000	<460000	
Benz(a)anthracene	µg/kg dry	ND	5000	-	-	ND	460000	-	-	-	-	ND	3000	-	-	-	-	<5000	<460000	
Benzidine	µg/kg dry	ND	20000	-	-	ND	1900000	-	-	-	-	ND	12000	-	-	-	-	<20000	<1900000	
Benzo(a)pyrene	µg/kg dry	ND	5000	-	-	ND	460000	-	-	-	-	ND	3000	-	-	-	-	<5000	<460000	
Benzo(b)fluoranthene	µg/kg dry	ND	5000	-	-	ND	460000	-	-	-	-	ND	3000	-	-	-	-	<5000	<460000	
Benzo(g,h,i)perylene	µg/kg dry	ND	5000	-	-	ND	460000	-	-	-	-	ND	3000	-	-	-	-	<5000	<460000	
Benzo(k)fluoranthene	µg/kg dry	ND	5000	-	-	ND	460000	-	-	-	-	ND	3000	-	-	-	-	<5000	<460000	
Benzoic acid	µg/kg dry	ND	13000	-	-	ND	1200000	-	-	-	-	ND	7500	-	-	-	-	<13000	<1200000	
Benzyl alcohol	µg/kg dry	ND	5000	-	-	ND	460000	-	-	-	-	ND	3000	-	-	-	-	<5000	<460000	
Bis(2-chloroethoxy)methane	µg/kg dry	ND	5000	-	-	ND	460000	-	-	-	-	ND	3000	-	-	-	-	<5000	<460000	
Bis(2-chloroethyl)ether	µg/kg dry	ND	5000	-	-	ND	460000	-	-	-	-	ND	3000	-	-	-	-	<5000	<460000	
Bis(2-chloroisopropyl)ether	µg/kg dry	ND	5000	-	-	ND	460000	-	-	-	-	ND	3000	-	-	-	-	<5000	<460000	
Bis(2-ethylhexyl)phthalate	µg/kg dry	33000	5000	-	-	ND	460000	-	-	-	-	14000	3000	-	-	-	-	33,000	14000	
Butyl benzyl phthalate	µg/kg dry	ND	5000	-	-	ND	460000	-	-	-	-	ND	3000	-	-	-	-	<5000	<460000	
Chrysene	µg/kg dry	ND	5000	-	-	ND	460000	-	-	-	-	ND	3000	-	-	-	-	<5000	<460000	
Di-n-butyl phthalate	µg/kg dry	ND	5000	-	-	ND	460000	-	-	-	-	ND	3000	-	-	-	-	<5000	<460000	
Di-n-octyl phthalate	µg/kg dry	ND	5000	-	-	ND	460000	-	-	-	-	ND	3000	-	-	-	-	<5000	<460000	
Dibenz(a,h)anthracene	µg/kg dry	ND	6400	-	-	ND	590000	-	-	-	-	ND	3800	-	-	-	-	<6400	<590000	
Dibenzofuran	µg/kg dry	ND	5000	-	-	ND	460000	-	-	-	-	ND	3000	-	-	-	-	<5000	<460000	
Diethyl phthalate	µg/kg dry	ND	5000	-	-	ND	460000	-	-	-	-	ND	3000	-	-	-	-	<5000	<460000	
Dimethyl phthalate	µg/kg dry	ND	5000	-	-	ND	460000	-	-	-	-	ND	3000	-	-	-	-	<5000	<460000	
Fluoranthene	µg/kg dry	ND	5000	-	-	ND	460000	-	-	-	-	ND	3000	-	-	-	-	<5000	<460000	
Fluorene	µg/kg dry	ND	5000	-	-	ND	460000	-	-	-	-	ND	3000	-	-	-	-	<5000	<460000	
Hexachlorobenzene	µg/kg dry	ND	5000	-	-	ND	460000	-	-	-	-	ND	3000	-	-	-	-	<5000	<460000	
Hexachlorobutadiene	µg/kg dry	ND	5000	-	-	ND	460000	-	-	-	-	ND	3000	-	-	-	-	<5000	<460000	
Hexachlorocyclopentadiene	µg/kg dry	ND	13000	-	-	ND	1200000	-	-	-	-	ND	7500	-	-	-	-	<13000	<1200000	

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Digester Cleanings Analytical Results			PLANT 1		PLANT 1		PLANT 2		PLANT 2		PLANT 2		PLANT 2		PLANT 2		PLANT 1	PLANT 2		
			Mar-15		Apr-15		Apr-15		May-15		Jun-15		Aug-15		Sep-15		Oct-15		Annual	Annual
			Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Mean	Mean
Hexachloroethane	µg/kg dry	ND	5000	-	-	ND	460000	-	-	-	-	ND	3000	-	-	-	-	<5000	<460000	
Indeno(1,2,3-cd)pyrene	µg/kg dry	ND	5000	-	-	ND	460000	-	-	-	-	ND	3000	-	-	-	-	<5000	<460000	
Isophorone	µg/kg dry	ND	5000	-	-	ND	460000	-	-	-	-	ND	3000	-	-	-	-	<5000	<460000	
Keponone	µg/kg dry	ND	61000	-	-	ND	5600000	-	-	-	-	ND	36000	-	-	-	-	<61000	<5600000	
N-Nitroso-di-n-propylamine	µg/kg dry	ND	3800	-	-	ND	350000	-	-	-	-	ND	2300	-	-	-	-	<3800	<350000	
N-Nitrosodimethylamine	µg/kg dry	ND	5000	-	-	ND	460000	-	-	-	-	ND	3000	-	-	-	-	<5000	<460000	
N-Nitrosodiphenylamine	µg/kg dry	ND	5000	-	-	ND	460000	-	-	-	-	ND	3000	-	-	-	-	<5000	<460000	
Naphthalene	µg/kg dry	ND	5000	-	-	ND	460000	-	-	-	-	ND	3000	-	-	-	-	<5000	<460000	
Nitrobenzene	µg/kg dry	ND	5000	-	-	ND	460000	-	-	-	-	ND	3000	-	-	-	-	<5000	<460000	
Pentachlorophenol	µg/kg dry	ND	13000	-	-	ND	1200000	-	-	-	-	ND	7500	-	-	-	-	<13000	<1200000	
Phenanthrene	µg/kg dry	ND	5000	-	-	ND	460000	-	-	-	-	ND	3000	-	-	-	-	<5000	<460000	
Phenol	µg/kg dry	ND	5000	-	-	ND	460000	-	-	-	-	ND	3000	-	-	-	-	<5000	<460000	
Pyrene	µg/kg dry	ND	5000	-	-	ND	460000	-	-	-	-	ND	3000	-	-	-	-	<5000	<460000	
Pyridine	µg/kg dry	ND	5200	-	-	ND	480000	-	-	-	-	ND	3100	-	-	-	-	<5200	<480000	
Tentatively Identified Compounds																				
2-Pentanone, 4-hydroxy-4-methyl-	µg/kg dry	230,000	7600	-	-	-	-	-	-	-	-	33000	4500	-	-	-	-	230,000	33000	
CHOLEST-5-EN-3-ONE	µg/kg dry	240,000	7600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	240,000	-	
CHOLESTANE, 3-ETHOXY-, (3.BETA.,5.ALPHA.	µg/kg dry	360,000	7600	-	-	-	-	-	-	-	-	69000	4500	-	-	-	-	360,000	69000	
Cholestan-3-ol	µg/kg dry	110,000	7600	-	-	-	-	-	-	-	-	310000	4500	-	-	-	-	110,000	310000	
Cholestan-3-one	µg/kg dry	130,000	7600	-	-	-	-	-	-	-	-	39,000	4500	-	-	-	-	130,000	39000	
Ergost-7-en-3-ol, (3.beta.)-	µg/kg dry	120,000	7600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	120,000	-	
Stigmasterol, 22,23-dihydro-	µg/kg dry	210,000	7600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	210,000	-	
Tetradecane	µg/kg dry	51,000	7600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	51,000	-	
Tetracosane	µg/kg dry	-	-	-	-	4300000	700000	-	-	-	-	-	-	-	-	-	-	-	4300000	
Cholestan-3-one, (5.beta.)-	µg/kg dry	-	-	-	-	7700000	700000	-	-	-	-	-	-	-	-	-	-	-	7700000	
Eicosane	µg/kg dry	-	-	-	-	6900000	700000	-	-	-	-	-	-	-	-	-	-	-	6900000	
Heptacosane	µg/kg dry	-	-	-	-	7600000	700000	-	-	-	-	-	-	-	-	-	-	-	7600000	
Hexacosane	µg/kg dry	-	-	-	-	6800000	700000	-	-	-	-	-	-	-	-	-	-	-	6800000	
Nonadecane	µg/kg dry	-	-	-	-	5900000	700000	-	-	-	-	-	-	-	-	-	-	-	5900000	
Octacosane	µg/kg dry	-	-	-	-	8800000	700000	-	-	-	-	-	-	-	-	-	-	-	8800000	
Pentacosane	µg/kg dry	-	-	-	-	5900000	700000	-	-	-	-	-	-	-	-	-	-	-	5900000	
17-(1,5-DIMETHYLHEXYL)-10,13-DIMETHYL-4-	µg/kg dry	-	-	-	-	72000	4500	-	-	-	-	-	-	-	-	-	-	-	72000	
5.ALPHA.-CHOLESTAN-3.BETA.-OL	µg/kg dry	-	-	-	-	-	-	-	-	-	-	44000	4500	-	-	-	-	-	44000	
CHOLEST-7-EN-3-OL, (3.BETA.)-	µg/kg dry	-	-	-	-	-	-	-	-	-	-	330000	4500	-	-	-	-	-	330000	
CHOLESTAN-3-ONE, 4,4-DIMETHYL-, (5.ALPHA	µg/kg dry	-	-	-	-	-	-	-	-	-	-	68000	4500	-	-	-	-	-	68000	
CHOLESTANE, 2,3-EPOXY-, (2.ALPHA.,3.ALPH	µg/kg dry	-	-	-	-	-	-	-	-	-	-	340000	4500	-	-	-	-	-	340000	
CHOLESTANOL	µg/kg dry	-	-	-	-	-	-	-	-	-	-	310000	4500	-	-	-	-	-	310000	
Cholest-4-en-3-one	µg/kg dry	-	-	-	-	-	-	-	-	-	-	15,000	4500	-	-	-	-	-	15000	
ERGOST-5-EN-3-OL, (3.BETA.)-	µg/kg dry	-	-	-	-	-	-	-	-	-	-	42000	4500	-	-	-	-	-	42000	
ERGOSTANOL	µg/kg dry	-	-	-	-	-	-	-	-	-	-	86000	4500	-	-	-	-	-	86000	
STIGMAST-4-EN-3-ONE	µg/kg dry	-	-	-	-	-	-	-	-	-	-	55000	4500	-	-	-	-	-	55000	
TESTOSTERONE	µg/kg dry	-	-	-	-	-	-	-	-	-	-	41000	4500	-	-	-	-	-	41000	
UNDECANE, 4,6-DIMETHYL-	µg/kg dry	-	-	-	-	-	-	-	-	-	-	25000	4500	-	-	-	-	-	25000	
VITAMIN E	µg/kg dry	-	-	-	-	-	-	-	-	-	-	64,000	4500	-	-	-	-	-	64000	
TCLP																				
1,2,4-Trichlorobenzene	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	<0.050	<0.050	
1,2-Dichlorobenzene	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	<0.050	<0.050	

Orange County Sanitation District 2015 Annual 503 Compliance Report Appendix C Priority Pollutants for Digester Cleanings

Digester Cleanings Analytical Results			PLANT 1		PLANT 1		PLANT 2		PLANT 2		PLANT 2		PLANT 2		PLANT 2		PLANT 1	PLANT 2		
			Mar-15		Apr-15		Apr-15		May-15		Jun-15		Aug-15		Sep-15				Oct-15	
			Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL			Average	RL
1,3-Dichlorobenzene	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	<0.050	<0.050	
1,4-Dichlorobenzene	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	<0.050	<0.050	
2,4,5-Trichlorophenol	mg/L	ND	0.10	-	-	ND	0.10	-	-	-	-	ND	0.10	-	-	-	-	<0.10	<0.10	
2,4,6-Trichlorophenol	mg/L	ND	0.10	-	-	ND	0.10	-	-	-	-	ND	0.10	-	-	-	-	<0.10	<0.10	
2,4-Dichlorophenol	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	<0.050	<0.050	
2,4-Dimethylphenol	mg/L	ND	0.10	-	-	ND	0.10	-	-	-	-	ND	0.10	-	-	-	-	<0.10	<0.10	
2,4-Dinitrophenol	mg/L	ND	0.50	-	-	ND	0.50	-	-	-	-	ND	0.50	-	-	-	-	<0.50	<0.50	
2,4-Dinitrotoluene	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	<0.050	<0.050	
2,6-Dinitrotoluene	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	<0.050	<0.050	
2-Chloronaphthalene	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	<0.050	<0.050	
2-Chlorophenol	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	<0.050	<0.050	
2-Methylnaphthalene	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	<0.050	<0.050	
2-Methylphenol	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	<0.050	<0.050	
2-Nitroaniline	mg/L	ND	0.10	-	-	ND	0.10	-	-	-	-	ND	0.10	-	-	-	-	<0.10	<0.10	
2-Nitrophenol	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	<0.050	<0.050	
3,3-Dichlorobenzidine	mg/L	ND	0.20	-	-	ND	0.20	-	-	-	-	ND	0.20	-	-	-	-	<0.20	<0.20	
3-Nitroaniline	mg/L	ND	0.10	-	-	ND	0.10	-	-	-	-	ND	0.10	-	-	-	-	<0.10	<0.10	
4,6-Dinitro-2-methylphenol	mg/L	ND	0.20	-	-	ND	0.20	-	-	-	-	ND	0.20	-	-	-	-	<0.20	<0.20	
4-Bromophenyl phenyl ether	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	<0.050	<0.050	
4-Chloro-3-methylphenol	mg/L	ND	0.10	-	-	ND	0.10	-	-	-	-	ND	0.10	-	-	-	-	<0.10	<0.10	
4-Chloroaniline	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	<0.050	<0.050	
4-Chlorophenyl phenyl ether	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	<0.050	<0.050	
4-Methylphenol	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	<0.050	<0.050	
4-Nitroaniline	mg/L	ND	0.50	-	-	ND	0.50	-	-	-	-	ND	0.50	-	-	-	-	<0.50	<0.50	
4-Nitrophenol	mg/L	ND	0.50	-	-	ND	0.50	-	-	-	-	ND	0.50	-	-	-	-	<0.50	<0.50	
Acenaphthene	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	<0.050	<0.050	
Acenaphthylene	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	<0.050	<0.050	
Aniline	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	<0.050	<0.050	
Anthracene	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	<0.050	<0.050	
Azobenzene/1,2-Diphenylhydrazine	mg/L	ND	0.10	-	-	ND	0.10	-	-	-	-	ND	0.10	-	-	-	-	<0.10	<0.10	
Benz(a)anthracene	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	<0.050	<0.050	
Benzidine	mg/L	ND	0.50	-	-	ND	0.50	-	-	-	-	ND	0.50	-	-	-	-	<0.50	<0.50	
Benzo(a)pyrene	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	<0.050	<0.050	
Benzo(b)fluoranthene	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	<0.050	<0.050	
Benzo(g,h,i)perylene	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	<0.050	<0.050	
Benzo(k)fluoranthene	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	<0.050	<0.050	
Benzoic acid	mg/L	ND	0.50	-	-	ND	0.50	-	-	-	-	ND	0.50	-	-	-	-	<0.50	<0.50	
Benzyl alcohol	mg/L	ND	0.10	-	-	ND	0.10	-	-	-	-	ND	0.10	-	-	-	-	<0.10	<0.10	
Bis(2-chloroethoxy)methane	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	<0.050	<0.050	
Bis(2-chloroethyl)ether	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	<0.050	<0.050	
Bis(2-chloroisopropyl)ether	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	<0.050	<0.050	
Bis(2-ethylhexyl)phthalate	mg/L	ND	0.25	-	-	ND	0.25	-	-	-	-	ND	0.25	-	-	-	-	<0.25	<0.25	
Butyl benzyl phthalate	mg/L	ND	0.10	-	-	ND	0.10	-	-	-	-	ND	0.10	-	-	-	-	<0.10	<0.10	
Chrysene	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	<0.050	<0.050	
Di-n-butyl phthalate	mg/L	ND	0.10	-	-	ND	0.10	-	-	-	-	ND	0.10	-	-	-	-	<0.10	<0.10	
Di-n-octyl phthalate	mg/L	ND	0.20	-	-	ND	0.20	-	-	-	-	ND	0.20	-	-	-	-	<0.20	<0.20	
Dibenz(a,h)anthracene	mg/L	ND	0.10	-	-	ND	0.10	-	-	-	-	ND	0.10	-	-	-	-	<0.10	<0.10	
Dibenzofuran	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	<0.050	<0.050	
Diethyl phthalate	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	<0.050	<0.050	
Dimethyl phthalate	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	<0.050	<0.050	
Fluoranthene	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	<0.050	<0.050	
Fluorene	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	<0.050	<0.050	

Orange County Sanitation District 2015 Annual 503 Compliance Report Appendix C Priority Pollutants for Digester Cleanings

Digester Cleanings Analytical Results			PLANT 1		PLANT 1		PLANT 2		PLANT 2		PLANT 2		PLANT 2		PLANT 2		PLANT 1	PLANT 2		
			Mar-15		Apr-15		Apr-15		May-15		Jun-15		Aug-15		Sep-15				Oct-15	
			Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL			Average	RL
Hexachlorobenzene	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	<0.050	<0.050	
Hexachlorobutadiene	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	<0.050	<0.050	
Hexachlorocyclopentadiene	mg/L	ND	0.20	-	-	ND	0.20	-	-	-	-	ND	0.20	-	-	-	-	<0.20	<0.20	
Hexachloroethane	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	<0.050	<0.050	
Indeno(1,2,3-cd)pyrene	mg/L	ND	0.10	-	-	ND	0.10	-	-	-	-	ND	0.10	-	-	-	-	<0.10	<0.10	
Isophorone	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	<0.050	<0.050	
Kepone	mg/L	ND	0.10	-	-	ND	0.10	-	-	-	-	ND	0.10	-	-	-	-	<0.10	<0.10	
N-Nitroso-di-n-propylamine	mg/L	ND	0.10	-	-	ND	0.10	-	-	-	-	ND	0.10	-	-	-	-	<0.10	<0.10	
N-Nitrosodimethylamine	mg/L	ND	0.10	-	-	ND	0.10	-	-	-	-	ND	0.10	-	-	-	-	<0.10	<0.10	
N-Nitrosodiphenylamine	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	<0.050	<0.050	
Naphthalene	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	<0.050	<0.050	
Nitrobenzene	mg/L	ND	0.20	-	-	ND	0.20	-	-	-	-	ND	0.20	-	-	-	-	<0.20	<0.20	
Pentachlorophenol	mg/L	ND	0.20	-	-	ND	0.20	-	-	-	-	ND	0.20	-	-	-	-	<0.20	<0.20	
Phenanthrene	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	<0.050	<0.050	
Phenol	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	<0.050	<0.050	
Pyrene	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	<0.050	<0.050	
Pyridine	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	<0.050	<0.050	
Organochlorine Pesticides																				
Aldrin	µg/kg dry	ND	740	-	-	ND	3600	-	-	-	-	ND	870	-	-	-	-	<740	<3600	
Chlordane	µg/kg dry	ND	7400	-	-	ND	36000	-	-	-	-	ND	8700	-	-	-	-	<7400	<36000	
Dieldrin	µg/kg dry	ND	740	-	-	ND	3600	-	-	-	-	ND	870	-	-	-	-	<740	<3600	
Endosulfan 1	µg/kg dry	ND	740	-	-	ND	3600	-	-	-	-	ND	870	-	-	-	-	<740	<3600	
Endosulfan 2	µg/kg dry	ND	740	-	-	ND	3600	-	-	-	-	ND	870	-	-	-	-	<740	<3600	
Endosulfan Sulfate	µg/kg dry	ND	1500	-	-	ND	7200	-	-	-	-	ND	1700	-	-	-	-	<1500	<7200	
Endrin	µg/kg dry	ND	740	-	-	ND	3600	-	-	-	-	ND	870	-	-	-	-	<740	<3600	
Endrin Aldehyde	µg/kg dry	ND	740	-	-	ND	3600	-	-	-	-	ND	870	-	-	-	-	<740	<3600	
Endrin Ketone	µg/kg dry	ND	740	-	-	ND	3600	-	-	-	-	ND	870	-	-	-	-	<740	<3600	
Heptachlor	µg/kg dry	ND	740	-	-	ND	3600	-	-	-	-	ND	870	-	-	-	-	<740	<3600	
Heptachlor Epoxide	µg/kg dry	ND	740	-	-	ND	3600	-	-	-	-	ND	870	-	-	-	-	<740	<3600	
Methoxychlor	µg/kg dry	ND	740	-	-	ND	3600	-	-	-	-	ND	870	-	-	-	-	<740	<3600	
Mirex	µg/kg dry	ND	1500	-	-	ND	7200	-	-	-	-	ND	1700	-	-	-	-	<1500	<7200	
Toxaphene	µg/kg dry	ND	29000	-	-	ND	140000	-	-	-	-	ND	35000	-	-	-	-	<29000	<140000	
alpha-BHC	µg/kg dry	ND	740	-	-	ND	3600	-	-	-	-	ND	870	-	-	-	-	<740	<3600	
beta-BHC	µg/kg dry	ND	740	-	-	ND	3600	-	-	-	-	ND	870	-	-	-	-	<740	<3600	
delta-BHC	µg/kg dry	ND	1500	-	-	ND	7200	-	-	-	-	ND	1700	-	-	-	-	<1500	<7200	
gamma-BHC	µg/kg dry	ND	740	-	-	ND	3600	-	-	-	-	ND	870	-	-	-	-	<740	<3600	
o,p'-DDD	µg/kg dry	ND	740	-	-	ND	3600	-	-	-	-	ND	44	-	-	-	-	<740	<3600	
o,p'-DDE	µg/kg dry	ND	740	-	-	ND	3600	-	-	-	-	ND	44	-	-	-	-	<740	<3600	
o,p'-DDT	µg/kg dry	ND	740	-	-	ND	3600	-	-	-	-	ND	44	-	-	-	-	<740	<3600	
p,p'-DDD	µg/kg dry	ND	740	-	-	ND	3600	-	-	-	-	ND	870	-	-	-	-	<740	<3600	
p,p'-DDE	µg/kg dry	ND	740	-	-	ND	3600	-	-	-	-	ND	870	-	-	-	-	<740	<3600	
p,p'-DDT	µg/kg dry	ND	740	-	-	ND	3600	-	-	-	-	ND	870	-	-	-	-	<740	<3600	
Total DDTs	µg/kg dry	ND	740	-	-	ND	3600	-	-	-	-	ND	870	-	-	-	-	<740	<3600	
STLC																				
Aldrin	µg/L	-	-	-	-	ND	0.50	-	-	-	-	ND	0.50	-	-	-	-	-	<0.50	
Chlordane	µg/L	-	-	-	-	ND	5.0	-	-	-	-	ND	5.0	-	-	-	-	-	<5.0	
Dieldrin	µg/L	-	-	-	-	ND	0.50	-	-	-	-	ND	0.50	-	-	-	-	-	<0.50	
Endosulfan 1	µg/L	-	-	-	-	ND	0.50	-	-	-	-	ND	0.50	-	-	-	-	-	<0.50	
Endosulfan 2	µg/L	-	-	-	-	ND	0.50	-	-	-	-	ND	0.50	-	-	-	-	-	<0.50	
Endosulfan Sulfate	µg/L	-	-	-	-	ND	1.0	-	-	-	-	ND	1.0	-	-	-	-	-	<1.0	
Endrin	µg/L	-	-	-	-	ND	0.50	-	-	-	-	ND	0.50	-	-	-	-	-	<0.50	

Orange County Sanitation District 2015 Annual 503 Compliance Report Appendix C Priority Pollutants for Digester Cleanings

Digester Cleanings Analytical Results			PLANT 1 Mar-15		PLANT 1 Apr-15		PLANT 2 Apr-15		PLANT 2 May-15		PLANT 2 Jun-15		PLANT 2 Aug-15		PLANT 2 Sep-15		PLANT 2 Oct-15		PLANT 1 Annual	PLANT 2 Annual		
			Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Mean	Mean
Endrin Aldehyde	µg/L	-	-	-	-	ND	0.50	-	-	-	-	ND	0.50	-	-	-	-	-	-	<0.50		
Endrin Ketone	µg/L	-	-	-	-	ND	0.50	-	-	-	-	ND	0.50	-	-	-	-	-	-	<0.50		
Heptachlor	µg/L	-	-	-	-	ND	0.50	-	-	-	-	ND	0.50	-	-	-	-	-	-	<0.50		
Heptachlor Epoxide	µg/L	-	-	-	-	ND	0.50	-	-	-	-	ND	0.50	-	-	-	-	-	-	<0.50		
Methoxychlor	µg/L	-	-	-	-	ND	0.50	-	-	-	-	ND	0.50	-	-	-	-	-	-	<0.50		
Mirex	µg/L	-	-	-	-	ND	1.0	-	-	-	-	ND	1.0	-	-	-	-	-	-	<1.0		
Toxaphene	µg/L	-	-	-	-	ND	25	-	-	-	-	ND	25	-	-	-	-	-	-	<25		
alpha-BHC	µg/L	-	-	-	-	ND	0.50	-	-	-	-	ND	0.50	-	-	-	-	-	-	<0.50		
beta-BHC	µg/L	-	-	-	-	ND	0.50	-	-	-	-	ND	0.50	-	-	-	-	-	-	<0.50		
delta-BHC	µg/L	-	-	-	-	ND	1.0	-	-	-	-	ND	1.0	-	-	-	-	-	-	<1.0		
gamma-BHC	µg/L	-	-	-	-	ND	0.50	-	-	-	-	ND	0.50	-	-	-	-	-	-	<0.50		
o,p'-DDD	µg/L	-	-	-	-	ND	0.50	-	-	-	-	ND	0.50	-	-	-	-	-	-	<0.50		
o,p'-DDE	µg/L	-	-	-	-	ND	0.50	-	-	-	-	ND	0.50	-	-	-	-	-	-	<0.50		
o,p'-DDT	µg/L	-	-	-	-	ND	0.50	-	-	-	-	ND	0.50	-	-	-	-	-	-	<0.50		
p,p'-DDD	µg/L	-	-	-	-	ND	0.50	-	-	-	-	ND	0.50	-	-	-	-	-	-	<0.50		
p,p'-DDE	µg/L	-	-	-	-	ND	0.50	-	-	-	-	ND	0.50	-	-	-	-	-	-	<0.50		
p,p'-DDT	µg/L	-	-	-	-	ND	0.50	-	-	-	-	ND	0.50	-	-	-	-	-	-	<0.50		
Total DDTs	µg/L	-	-	-	-	ND	0.50	-	-	-	-	ND	0.50	-	-	-	-	-	-	<0.5		
TCLP																						
Aldrin	mg/L	ND	0.00050	-	-	ND	0.00050	-	-	-	-	ND	0.00050	-	-	-	-	<0.00050	<0.00050			
Chlordane	mg/L	ND	0.0050	-	-	ND	0.0050	-	-	-	-	ND	0.0050	-	-	-	-	<0.0050	<0.0050			
Dieldrin	mg/L	ND	0.00050	-	-	ND	0.00050	-	-	-	-	ND	0.00050	-	-	-	-	<0.00050	<0.00050			
Endosulfan 1	mg/L	ND	0.00050	-	-	ND	0.00050	-	-	-	-	ND	0.00050	-	-	-	-	<0.00050	<0.00050			
Endosulfan 2	mg/L	ND	0.00050	-	-	ND	0.00050	-	-	-	-	ND	0.00050	-	-	-	-	<0.00050	<0.00050			
Endosulfan Sulfate	mg/L	ND	0.0010	-	-	ND	0.0010	-	-	-	-	ND	0.0010	-	-	-	-	<0.0010	<0.0010			
Endrin	mg/L	ND	0.00050	-	-	ND	0.00050	-	-	-	-	ND	0.00050	-	-	-	-	<0.00050	<0.00050			
Endrin Aldehyde	mg/L	ND	0.00050	-	-	ND	0.00050	-	-	-	-	ND	0.00050	-	-	-	-	<0.00050	<0.00050			
Endrin Ketone	mg/L	ND	0.00050	-	-	ND	0.00050	-	-	-	-	ND	0.00050	-	-	-	-	<0.00050	<0.00050			
Heptachlor	mg/L	ND	0.00050	-	-	ND	0.00050	-	-	-	-	ND	0.00050	-	-	-	-	<0.00050	<0.00050			
Heptachlor Epoxide	mg/L	ND	0.00050	-	-	ND	0.00050	-	-	-	-	ND	0.00050	-	-	-	-	<0.00050	<0.00050			
Methoxychlor	mg/L	ND	0.00050	-	-	ND	0.00050	-	-	-	-	ND	0.00050	-	-	-	-	<0.00050	<0.00050			
Mirex	mg/L	ND	0.0010	-	-	ND	0.0010	-	-	-	-	ND	0.0010	-	-	-	-	<0.0010	<0.0010			
Toxaphene	mg/L	ND	0.025	-	-	ND	0.025	-	-	-	-	ND	0.025	-	-	-	-	<0.025	<0.025			
alpha-BHC	mg/L	ND	0.00050	-	-	ND	0.00050	-	-	-	-	ND	0.00050	-	-	-	-	<0.00050	<0.00050			
beta-BHC	mg/L	ND	0.00050	-	-	ND	0.00050	-	-	-	-	ND	0.00050	-	-	-	-	<0.00050	<0.00050			
delta-BHC	mg/L	ND	0.0010	-	-	ND	0.0010	-	-	-	-	ND	0.0010	-	-	-	-	<0.0010	<0.0010			
gamma-BHC	mg/L	ND	0.00050	-	-	ND	0.00050	-	-	-	-	ND	0.00050	-	-	-	-	<0.00050	<0.00050			
o,p'-DDD	mg/L	ND	0.00050	-	-	ND	0.00050	-	-	-	-	ND	0.00050	-	-	-	-	<0.00050	<0.00050			
o,p'-DDE	mg/L	ND	0.00050	-	-	ND	0.00050	-	-	-	-	ND	0.00050	-	-	-	-	<0.00050	<0.00050			
o,p'-DDT	mg/L	ND	0.00050	-	-	ND	0.00050	-	-	-	-	ND	0.00050	-	-	-	-	<0.00050	<0.00050			
p,p'-DDD	mg/L	ND	0.00050	-	-	ND	0.00050	-	-	-	-	ND	0.00050	-	-	-	-	<0.00050	<0.00050			
p,p'-DDE	mg/L	ND	0.00050	-	-	ND	0.00050	-	-	-	-	ND	0.00050	-	-	-	-	<0.00050	<0.00050			
p,p'-DDT	mg/L	ND	0.00050	-	-	ND	0.00050	-	-	-	-	ND	0.00050	-	-	-	-	<0.00050	<0.00050			
PCBs																						
PCB 1016	µg/kg dry	ND	740	-	-	ND	720	-	-	-	-	ND	440	-	-	-	-	<740	<720			
PCB 1221	µg/kg dry	ND	740	-	-	ND	720	-	-	-	-	ND	440	-	-	-	-	<740	<720			
PCB 1232	µg/kg dry	ND	740	-	-	ND	720	-	-	-	-	ND	440	-	-	-	-	<740	<720			
PCB 1242	µg/kg dry	ND	740	-	-	ND	720	-	-	-	-	ND	440	-	-	-	-	<740	<720			
PCB 1248	µg/kg dry	ND	740	-	-	ND	720	-	-	-	-	ND	440	-	-	-	-	<740	<720			
PCB 1254	µg/kg dry	ND	740	-	-	ND	720	-	-	-	-	ND	440	-	-	-	-	<740	<720			
PCB 1260	µg/kg dry	ND	740	-	-	ND	720	-	-	-	-	ND	440	-	-	-	-	<740	<720			

Orange County Sanitation District 2015 Annual 503 Compliance Report Appendix C Priority Pollutants for Digester Cleanings

Digester Cleanings Analytical Results			PLANT 1		PLANT 1		PLANT 2		PLANT 2		PLANT 2		PLANT 2		PLANT 2		PLANT 1	PLANT 2		
			Mar-15		Apr-15		Apr-15		May-15		Jun-15		Aug-15		Sep-15		Oct-15		Annual	Annual
			Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Average	RL	Mean	Mean
Total PCBs	µg/kg dry	ND	740	-	-	ND	720	-	-	-	-	ND	440	-	-	-	-	<740	<720	
Herbicides																				
TTLIC																				
2,4,5-T	µg/kg dry	ND	140	-	-	ND	24	-	-	-	-	ND	15	-	-	-	-	<140	<24	
2,4,5-TP (Silvex)	µg/kg dry	ND	140	-	-	ND	24	-	-	-	-	ND	15	-	-	-	-	<140	<24	
2,4-D	µg/kg dry	ND	140	-	-	ND	24	-	-	-	-	ND	15	-	-	-	-	<140	<24	
2,4-DB	µg/kg dry	ND	140	-	-	ND	24	-	-	-	-	ND	15	-	-	-	-	<140	<24	
4-Nitrophenol	µg/kg dry	ND	550	-	-	ND	94	-	-	-	-	ND	60	-	-	-	-	<550	<94	
Dalapon	µg/kg dry	ND	1700	-	-	ND	290	-	-	-	-	ND	180	-	-	-	-	<1700	<290	
Dicamba	µg/kg dry	ND	140	-	-	ND	24	-	-	-	-	ND	15	-	-	-	-	<140	<24	
Dichlorprop (2,4-DP)	µg/kg dry	ND	140	-	-	120	24	-	-	-	-	ND	15	-	-	-	-	<140	120	
Dinoseb (DNBP)	µg/kg dry	ND	830	-	-	ND	140	-	-	-	-	ND	91	-	-	-	-	<830	<140	
MCPA	µg/kg dry	ND	33000	-	-	ND	5700	-	-	-	-	ND	3600	-	-	-	-	<33000	<5700	
MCPP	µg/kg dry	ND	33000	-	-	ND	5700	-	-	-	-	ND	3600	-	-	-	-	<33000	<5700	
Pentachlorophenol	µg/kg dry	ND	140	-	-	ND	24	-	-	-	-	ND	15	-	-	-	-	<140	<24	
Picloram	µg/kg dry	ND	1400	-	-	ND	24	-	-	-	-	ND	15	-	-	-	-	<1400	<24	
TCLP																				
2,4,5-T	mg/L			-	-	ND	0.025	-	-	-	-	-	-	-	-	-	-	-	<0.025	
2,4,5-TP (Silvex)	mg/L	ND	0.025	-	-	ND	0.025	-	-	-	-	ND	0.025	-	-	-	-	<0.025	<0.025	
2,4-D	mg/L	ND	0.050	-	-	ND	0.050	-	-	-	-	ND	0.050	-	-	-	-	<0.05	<0.050	
2,4-DB	mg/L	-	-	-	-	ND	0.050	-	-	-	-	-	-	-	-	-	-	-	<0.050	
4-Nitrophenol	mg/L	-	-	-	-	ND	0.10	-	-	-	-	-	-	-	-	-	-	-	<0.10	
Dalapon	mg/L	-	-	-	-	ND	0.50	-	-	-	-	-	-	-	-	-	-	-	<0.50	
Dicamba	mg/L	-	-	-	-	ND	0.050	-	-	-	-	-	-	-	-	-	-	-	<0.050	
Dichlorprop (2,4-DP)	mg/L	-	-	-	-	ND	0.050	-	-	-	-	-	-	-	-	-	-	-	<0.050	
Dinoseb (DNBP)	mg/L	-	-	-	-	ND	0.10	-	-	-	-	-	-	-	-	-	-	-	<0.10	
MCPA	mg/L	-	-	-	-	ND	12	-	-	-	-	-	-	-	-	-	-	-	<12	
MCPP	mg/L	-	-	-	-	ND	12	-	-	-	-	-	-	-	-	-	-	-	<12	
Pentachlorophenol	mg/L	-	-	-	-	ND	0.025	-	-	-	-	-	-	-	-	-	-	-	<0.025	
Picloram	mg/L	-	-	-	-	ND	0.050	-	-	-	-	-	-	-	-	-	-	-	<0.050	
Other																				
2,3,7,8-Tetrachlorodibenzo-p-dioxin	pg/g dry	ND	3.1	-	-	ND	14	-	-	-	-	ND	3.6	-	-	-	-	<3.1	<14	
Chrysotile	% dry weight	ND	0.00100	-	-	ND	0.00020	-	-	-	-	ND	0.00004	-	-	-	-	<0.00100	<0.00020	
Paint Filter Free Liquid test	-	NEG	-	-	-	NEG	-	-	-	-	-	NEG	-	-	-	-	-	NEG	NEG	

APPENDIX D



2013 Biosolids or Sewage Sludge Annual Report

Mail signed printout to: Robert Phalen, ADEQ Biosolids Coordinator
1110 W. Washington St.,
Phoenix, AZ 85007
and email file to: biosolids@azdeq.gov

Disposition	Dry Tons out, weighed	Class (A/B/N)	Alternative #	VAR #	Fecal C/ Salm. (F/S)	To (Recipient Name)	Hauler Name	Hauler Phone	Application Site		
Surface Unit											
Surface Unit											
Landfill											
Landfill											
Landfill											
Composting	6534	B	2,AppB(A)(3)	1		Synagro	GIC Transports		AZ Soils Composting		
Composting											
Land Apply	25420	B	2,AppB(A)(3)	1		Tule Ranch	Western Express		AgTech & Desert Ridge -		
Land Apply											
Land Apply											
Land Apply											
Land Apply											
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I certify, under penalty of law, that the information and descriptions have been made under my direction and supervision and under a system designed to ensure that qualified personnel properly gather and evaluate the information used to determine whether the applicable biosolids requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.



James Colston
Environmental Compliance Manager

APPENDIX E

Biosolids Program History

The history of OCSD's Biosolids Program is important to understand as we plan for the future. In order to maintain the integrity of this information for future generations and streamline the main report, the historical information will be maintained in this appendix.

Program History

- In 1971, OCSD entered into a long-term contract with Goldenwest Fertilizer Co., Inc., a local fertilizer manufacturer, who hauled and composted the sludge off site. OCSD maintained contracts with Goldenwest Fertilizer Co. for several years until the firm lost their land lease for their composting operation in 1979. Contracts with other composting companies were also used during the 1970s.
- In 1978, after notification that their contract with Goldenwest Fertilizer Co. would be ending in 1979, OCSD presented a proposal to the County of Orange to co-dispose sludge with municipal solid waste at Orange County landfills. Following approval by Orange County and the California Regional Water Quality Control Board, Santa Ana Region (CRWQCB): OCSD established an air drying/composting site at Coyote Canyon landfill. OCSD used this site as a sludge-drying operation until 1981 when it was converted to an open-air composting facility. This was done to reduce odors and dry the sludge to the required 50% solids content prior to being blended with municipal solid waste.
- The 50% solids requirement was set by the CRWQCB, by Order No. 79-55. In December 1982, the requirements were modified by Order No. 82-299. The new order reduced the required average solids content to 22.5%. In addition to the solids content requirements, the volume of refuse to sludge incorporated into the landfill was required to be a 10:1 ratio. After the new Order was issued and the treatment plant belt press dewatering system was installed, the air drying process was no longer needed and its operation was discontinued.
- In 1974, OCSD began a cooperative regional sludge management study with the City of Los Angeles, the Los Angeles County Sanitation Districts, the Environmental Protection Agency (EPA), and the CRWQCB. By a joint powers agreement, the Regional Wastewater Solids Management Program' for the Los Angeles/Orange County Metropolitan Area (LA/OMA Project) had a separate staff and budget to develop a long-term solids reuse or disposal plan, including an implementation strategy for the Los Angeles/Orange County metropolitan areas. This extensive, six-year, \$4.0 million study, which covered all aspects of sludge processing and disposal, was completed in 1980. The conclusion was that each of the three entities would carry out its own sludge management program. For OCSD, land-based disposal and beneficial reuse were the study's preferred alternatives.

However, co-combustion and enclosed mechanical in-vessel composting alternatives at OCSD's Reclamation Plant No. 1 were added to OCSD's LA/OMA supplemental study when the recommended composting facilities were evaluated as being difficult to site.

- In 1978 and 1983, OCSD brought activated sludge facilities online at Plant No. 1 and Plant No. 2 respectively, which led to significant improvements of ocean water quality. By 1984, OCSD had replaced centrifuges that dewatered to about 20% with new belt presses at both plants. The new belt presses had to dewater to at least 22.5% in order to meet landfill requirements. As a result, waste activated secondary sludges were dewatered separately and sent to a private landfill. Clean Water Grant Funds aided in the construction of the important facilities improvements at Plant No. 2 including the activated sludge plant (\$45 million) and sludge handling/process facilities (\$30 million).
- In November 1983, OCSD's Boards of Directors submitted a new Residual, Solids Management Plan to the EPA. The plan included both short- and long-term compliance strategies. The short-term compliance plan involved the continued practice of trucking 22.5% solids to Coyote Canyon landfill for co-disposal with municipal waste until the landfill closed in March 1990. It also included hauling sludge to private landfills using OCSD's trucks or private contractors. The long-term plan included co-disposal at county landfills and off-site reuse/management by private contractors.
- In November 1984, OCSD approved an interim sludge disposal program due to the limitation of the amount of sludge this could be co-disposed at Coyote Canyon. As part of this program, an agreement was made with BKK Corporation to take the balance of the sludge to the BKK-owned and operated in West Covina (Los Angeles County). This contract expired in late 1991.
- In 1987, OCSD began a facilities master planning effort that culminated in July 1989. The 1989 30-year master plan, "2020 Vision," established 11 major objectives for maintaining our excellent record of environmental and public health protection including, "Sludge Reuse: OCSD will continue to promote multiple, beneficial reuse alternatives for sludge and strive to increase beneficial reuse from 60% to 100%. We will develop at least one in-county land disposal alternative as a backup to guarantee long-term reliability." The goals are summarized below:
 - Continue discussions with the County of Orange pertaining to landfill co-disposal options;
 - Pursue co-disposal options at out-of county landfills;
 - Continue and/or expand use of private contracts to reuse or dispose of sludge;
 - Pursue with Orange County Environmental Management Agency staff the use of sludge as the final cover for Coyote canyon's closure;

- Monitor the status of the;
 - Initiate a regular status review of OCSD management program that would provide centralized information in one location;
 - Hire a full-time sludge manager to coordinate OCSD' overall sludge reuse/disposal program (completed in August of 1989).
- The goals noted above led to a series of new recycling options starting in in 1988 using three separate contractors. Two contracts were created with compost contractors, and one was created with an agricultural land fertilization contractor. Using these three contractors, OCSD recycled about 50% of their sludge from 1988-1991.
 - From **November 1991 through December 2004, OCSD achieved 100 percent beneficial reuse** of its biosolids mostly through the use of land application with some composting.
 - In 2002, OCSD's Board of Directors voted to increase the level of treatment to full-secondary treatment requirements, which produced significantly more biosolids until the new dewatering centrifuges could be constructed and implemented at each plant (2017-2019). OCSD's focus through the 2000's was on building the water-side capital facilities to meet this increased level of service.
 - In December 2003, OCSD finalized a Long Range Biosolids Management Plan that set forth the following recommendations to ensure a sustainable biosolids management program. These recommendations were implemented over the following decade.
 - Maintain at least three different product-manufacturing options at any given time.
 - Optimize capital and operations and maintenance (O&M) costs at OCSD's treatment plants as part of implementation of the long-range plan.
 - Limit maximum participation for any market to one-half of the total biosolids production.
 - Limit biosolids management contracts to a maximum of one-third of total biosolids production per merchant facility, and one-half per contractor (for contractors with multiple product manufacturing facilities).
 - For each OCSD-owned product manufacturing facility, limit the size to one-half of the total biosolids production.
 - Explore funding options for in-county facilities (private capital, OCSD capital, or both).
 - Allocate up to 10 percent of biosolids for participation in emerging markets.
 - Pursue Orange County-based product manufacturing facilities and maximize the use of horticultural products within the OCSD service area by member agencies and through developing public-private partnerships.
 - Maintain capacity and options at OCSD's Central Valley Ranch.

- Pursue failsafe backup options (landfilling, alternative daily cover for landfills, and dedicated landfilling) to acquire a 100 percent contingency capacity.
- In January 2005, OCSD started sending a small fraction of its biosolids to two landfills in Arizona (Copper Mountain and South Yuma County Landfill) in order to increase the diversity of its biosolids management options, as well as address the operational needs caused by wet weather periods. The routes to these two landfills were not impacted by severe weather.
- In 2006, OCSD stopped sending its biosolids to South Yuma County Landfill, but continued to send about one truck per day to Copper Mountain Landfill.
- In December 2006, Synagro's new composting facility (South Kern Compost Manufacturing Facility) came online. This was the first long-term contract to become operational as an outcome of the 2003 Long-Range Biosolids Management Plan.
- In March 2007, OCSD stopped actively using landfills and maintained this option only as a failsafe backup. OCSD re-gained its **100 percent recycling performance** from 2008 through 2012.
- In October 2008, Synagro's Regional Compost Facility in Riverside County stopped receiving OCSD biosolids in order to prepare for the site's closure.
- As part of the 2003 Long Range Biosolids Management Plan implementation, OCSD issued a series of request for proposals in 2004. As a result, EnerTech Environmental, Inc. was awarded a contract in 2005, which was signed in May 2006. The Rialto facility was constructed and ready to start commissioning on November 3, 2008. OCSD reallocated Tule Ranch's Kern County land application loads to EnerTech to meet contractual obligations. EnerTech's patented technology used heat and pressure to convert biosolids to a certified renewable energy pellet (E-fuel) that was burned as a replacement for coal in local cement kilns. EnerTech encountered a series of technical and permitting setbacks during the commissioning process. In November 2010, EnerTech began implementation of a Single Train Technical Plan that was anticipated to address the issues and finish the commissioning process by March 2012. After a final extension and failure to meet contractual performance requirements, OCSD terminated its contract with EnerTech effective July 2012. During the start-up process, biosolids not processed at the Rialto facility were land-applied in Yuma County, Arizona. OCSD's EnerTech biosolids were then re-allocated between our two remaining contractors, Synagro and Tule Ranch.
- In March 2010, OCSD sent a demonstration load to the City of Los Angeles Terminal Island Renewable Energy (TIRE) project. OCSD material was not

compatible with their facility because the material required more screening than the City's biosolids.

- In April 2010, Tule Ranch permanently moved their land application operations from Dateland, AZ to Yuma, AZ.
- In January 2011, Tule Ranch subcontracted their land application operations to AgTech, and managed OCSD biosolids at two sites in Yuma. The following year, Tule Ranch purchased the AgTech operations and integrated the two operations and has continued land applying at both Yuma sites.
- OCSD recycled 100% of its biosolids (not including digester cleanings) from 2008 to 2012.
- In 2012, OCSD met our new permit's treatment requirements for secondary treatment standards. With full secondary treatment facilities operational, the focus is now on asset rehabilitation, including solids treatment facilities. The Capital Improvement Program Annual Report (www.ocsewers.com/CIPAnnual) summarizes the projects and their progress.
- In February and March 2012, OCSD's Plant No. 2 biosolids exceeded the Arsenic Table 3 Exceptional Quality Limit for fields 23110121, 2311013, 2311021, and 2311022, but were below Table 1 Ceiling Concentrations. OCSD's land application contractor, Tule Ranch, currently reports Table 2 Cumulative Pollutant Loading Rates for each pollutant as part of their annual report to the Arizona Department of Environmental Quality for all fields.
- As directed by the Board's November 2011 Strategic Plan direction, OCSD executed an agreement with Orange County Waste and Recycling (OCWR) to manage up to 100 tons per day of OCSD's biosolids at the Prima Deshecha landfill located in the city of San Juan Capistrano, California. This alternative provides OCSD a local biosolids management option during projected peak biosolids production period until 2017.

As a result of the landfill start-up in 2013, OCSD is recycling about 94% of its biosolids, with the remaining biosolids going to the OCWR landfill. Landfill loads do not count towards recycling despite the indirect energy production from capturing methane onsite. OCSD sends the landfill about 1 truck per day of grit and screenings (non-recyclable material) and 3 trucks of biosolids per day (5 days per week when not impacted by rain) in order to keep some revenues and resources in-County (see also OCSD Biosolids Policy Board Resolution 13-03: ocsewers.com/policy).

- OCSD is replacing the belt filter presses with new dewatering centrifuge facilities, which are scheduled to start service in 2017 for Plant No. 1 and in 2019 for Plant No. 2. As a result, the total percent solids of digested biosolids

is anticipated to increase from 18-22% to 30%, resulting in approximately one-third fewer solids to manage. In addition, this project is also bringing pre-digestion thickening centrifuges to replace the dissolved air floatation thickening at Plant No. 1, and will rehabilitation the Plant No. 1 truck loading facility.

- In 2015, OCSD awarded a professional engineering services contract for developing a new Biosolids Master Plan. The Biosolids Master Plan will meet one of the goals in OCSD's 5-year Strategic Plan, which is to recommend future biosolids management options, as well as recommending and providing design of capital facility improvements for a 20-year planning period. The Plan is anticipated to be published in spring 2017.
- The Irvine Ranch Water District (IRWD) discharges its untreated solids (sludge) to OCSD. IRWD is currently constructing their own solids treatment facility and plans to cease sending their solids to OCSD in 2017. This cessation is anticipated to reduce Plant No. 1's influent solids by 10-15%.

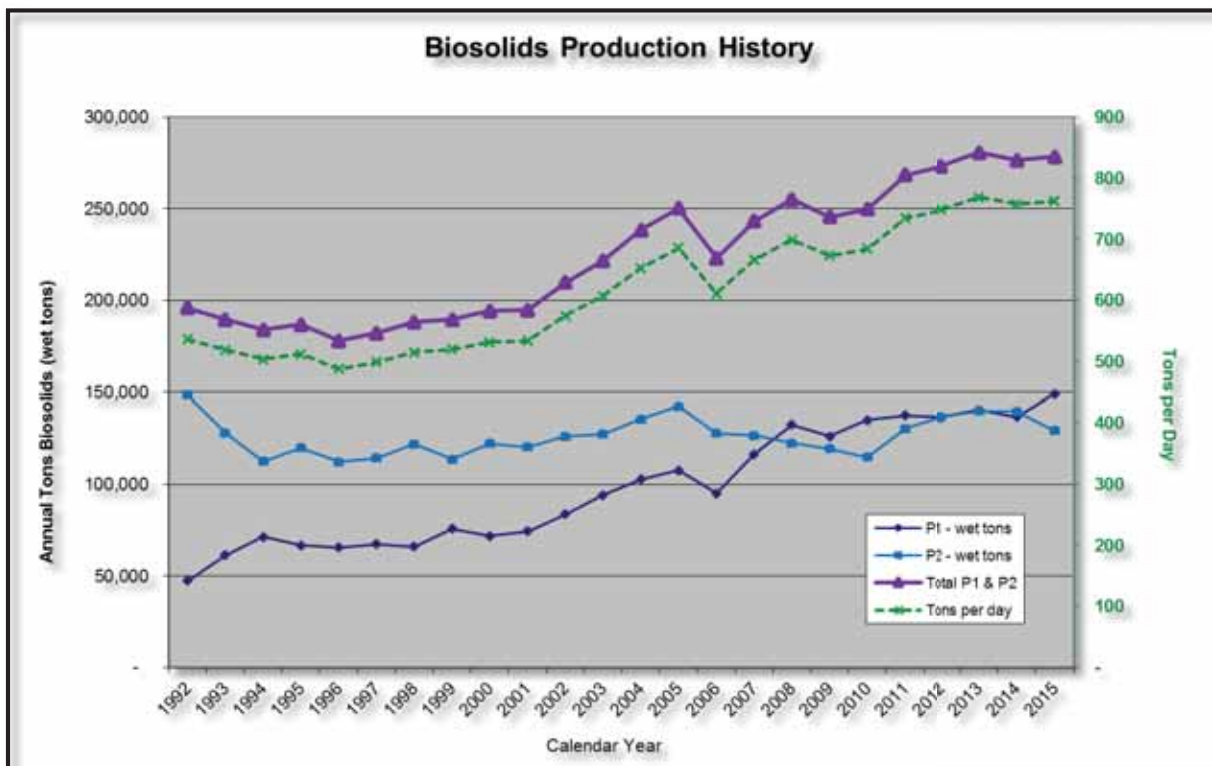


Figure 1: Biosolids Production History from January 1992 – December 2015

Biosolids Program Policy

Originally adopted in 1999 and amended in 2006 and 2013, OCSD's Resolution 13-03 (www.ocsewers.com/policy), established a policy that commits the agency to support biosolids beneficial reuse (organics recycling). The resolution states OCSD is committed to:

- A sustainable biosolids program.
- Diversifying its portfolio of offsite biosolids management options with multiple biosolids contractors, markets, facilities, and maintaining fail-safe back-up capacity at least 100% of its daily biosolids production.
- Supporting the recycling of biosolids.
- Striving to balance financial, environmental, and societal considerations when making biosolids decisions.
- Utilizing a biosolids management system to maintain a sustainable and publicly supported biosolids program.
- Researching and implementing ways to reduce the volume of biosolids at the treatment plants to minimize the need for offsite management.
- Declaring its support of continuing to research biosolids benefits and potential safety concerns.
- Demonstrating the benefits of biosolids compost by using it at the OCSD's facilities.

APPENDIX F

Errata

Errata of 2014 Annual Report Text

OCSD is submitting the following corrections to the excerpts from our 2014 Biosolids Compliance report. There was a transcription error. The values were correctly reported in the 2014 report's Appendix A.

Reclamation Plant No. 1 produced ~~26,259~~ **27,473** dry metric tons of biosolids, including digester cleanings, from January 1, 2014 through December 31, 2014. These biosolids were anaerobically digested for an average of 18 days at 37 degrees Celsius (98 degrees Fahrenheit) resulting in an average volatile solids reduction of 56 percent over this reporting period. This process provides compliance with the "Class B Pathogen Reduction" and "Vector Attraction Reduction" definition for "Class B" biosolids as defined in 40 CFR Part 503.32(b)(3) and 503.33(b)(1), respectively. In 2014, under the established operational parameters, Plant No. 1 diverted an average of 9,772 cubic feet of primary sludge from Plant No. 1 to Plant No. 2 via our inter-plant sludge line. Digesters 5, 15 and 16 were cleaned, and all removed biosolids were recycled and are included in the above dry metric tons total.

...

Treatment Plant No. 2 produced ~~26,259~~ **27,567** dry metric tons of biosolids from January 1, 2014 through December 31, 2014. The process at Plant No. 2 is similar to Plant No. 1 in that the biosolids were anaerobically digested for an average of 22 days at 37 degrees Celsius (99 degrees Fahrenheit). Biosolids from Plant No. 2 had an average volatile solids reduction of 62 percent. This process provides compliance with the "Class B Pathogen Reduction" and "Vector Attraction Reduction" definition for "Class B" biosolids as defined in 40 CFR Part 503.32(b)(3) and 503.33(b)(1), respectively.

Table 2 - Biosolids Distribution by Contractor and Biosolids Management Option for 2014

Destination	Beneficial Reuse Method or Product	Biosolids Vendor	Amount of Biosolids Managed ¹ (dry metric tons)		Total
			Plant No. 1	Plant No. 2	
Kern County, CA	Compost	Synagro	14,962	1,394	
La Paz County, AZ	Compost	Synagro	8,198 9	0	
	Total	Synagro	23,160	1,394	24,554
Yuma County, AZ	Class B land application	Tule Ranch	212	26,173	
	Total	Tule Ranch	212	26,173	26,385
Orange County, CA	Landfilled	Orange County Waste & Recycling	4,100	0	
	Total	Orange County Waste & Recycling	4,100	0	4,100
			27,472 3	27,567	
				Total	55,039
Compost	Class B Land Application	Class B Landfill			
44.6%	47.9%	7.4%			

1 - The above values are based on OCSD-verified data. Any differences noted between the reported dry-metric-ton or dry ton values can likely be attributed to the differences in total solids sampling data (i.e., OCSD and vendors do independent sampling), or discrepancies in reporting periods (i.e. some contractors report received tonnages vs shipped). If a significant difference in the values is discovered upon further verification of the 2014 data, this table will be updated and re-submitted.



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