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CALIFORNIA



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LOS ANGELES, CA 90015  
TEL: (213) 485-2210  
FAX: (213) 485-2979


February 19, 2016

Ms. Lauren Fondahl, Biosolids Coordinator  
U.S. EPA- Region IX (W-5-2)  
75 Hawthorne Street  
San Francisco, CA 94105

Dear Ms. Fondahl:

CITY OF LOS ANGELES' TERMINAL ISLAND WATER RECLAMATION PLANT  
2015 BIOSOLIDS ANNUAL REPORT

On behalf of the City of Los Angeles, Bureau of Sanitation, I am sending the enclosed 2015 Biosolids Annual Report for Terminal Island Water Reclamation Plant. This satisfies the generator reporting requirements in accordance with the U.S. EPA 40 CFR Part 503 Sewage Sludge Regulations. If you have any questions, please contact Seung Oh of my staff at (310) 732-4715.

Sincerely,  
  
Starr, Mark,  
Plant Manager  
Terminal Island Water Reclamation Plant



2015 ANNUAL REPORT  
FOR  
THE CITY OF LOS ANGELES TERMINAL ISLAND  
WATER RECLAMATION PLANT  
IN COMPLIANCE WITH USEPA 40 CFR PART 503 SEWAGE SLUDGE  
REGULATIONS REPORTING REQUIREMENT

SUBMITTED TO

Lauren Fondahl, Biosolids Coordinator  
U.S. Environmental Protection Agency  
Region 9

February 2015

PROGRAM STAFF

Starr, Mark, Plant Manager

PREPARED BY

Bureau of Sanitation  
Department of Public Works  
City of Los Angeles

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## SECTION 1 BACKGROUND INFORMATION

The City of Los Angeles, Department of Public Works, Bureau of Sanitation operates four wastewater facilities (Hyperion Treatment Plant and Terminal Island, Donald C. Tillman and Los Angeles Glendale Water Reclamation Plants) within a 600 square mile service area that includes four million people and 29 contracting cities and agencies. The Hyperion Treatment Plant (HTP) receives and processes flow from its service area and two water reclamation plants while the Terminal Island Water Reclamation Plant (TIWRP) processes flow from its independent service area.

TIWRP processed an average of 15.9 Million gallons per day of wastewater and produced a total of 2,343 dewatered dry metric tons of Exceptional Quality (EQ) Class A biosolids in 2015. The 687 dry metric tons of biosolids were beneficially used for composting at the Nursery Products facility in Helendale, California while 1,656 dry metric tons of Class A biosolids were shipped to Solids Solution at 41326 McVay Rd in Vicksburg, Arizona for land application.

Additionally, total annual biosolids injected into the ground for decomposition and renewable energy for deep well injection at the Terminal Island Renewable Energy Project (TIRE) site was 291 metric tons. Average, Total Solids percentage of digested sludge injected for deep well injection at the TIRE site was 1.6 %.

From the Hyperion Treatment Plant, 426 dry metric tons of biosolids were transported to and injected at the TIRE site for the year 2015.

A Class V draft permit was renewed to the City of Los Angeles by the United States Environmental Protection Agency (USEPA) to run this project until 2018.

Thus, the City of Los Angeles must comply with the standards of the US-EPA in Section 40 CFR, Part 503 Sewage Sludge Regulations. The following are the reports requirements:

### **Preparer to Others:**

General Information was provided to land applier, and composter as stated in Section 503.12(d), (f) and (g).

### **Preparer to USEPA Region 9:**

The Terminal Island Water Reclamation Plant is required to report the information in Section 503.18 for preparer of biosolids. The information includes the submittal of information in section 503.17(a) (4) (i) (A) through (D) from January 2015 through December 2015.

### **Beneficial Uses of Biosolids**

In 2015, 687 dry metric tons of Exceptional quality (EQ) biosolids were beneficially used for composting at Nursery Products in Helendale, California Facility, while 1,656 dry metric tons went for land application in Vicksburg, Arizona. Information for preparer, land applier and composter is provided in Appendix A.

**APPENDIX A**  
**Facility Information for Preparer, and Land Applier**

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## **BIOSOLIDS PREPARER FACILITY INFORMATION**

### **TERMINAL ISLAND WATER RECLAMATION PLANT - PREPARER OF BIOSOLIDS:**

City of Los Angeles  
Department of Public Works  
Bureau of Sanitation  
Terminal Island Water Reclamation Plant

Mark Star, Plant Manager  
445 Ferry Street  
San Pedro, CA 90731

NPDES Number: CA0053856

## **BIOSOLIDS COMPOSTING AND LAND APPLIER FACILITY INFORMATION**

### **COMPOSTING IN CALIFORNIA**

#### **NURSERY PRODUCTS**

14479 Cougar Road,  
Helendale, CA 93242

Telephone: (760) 272-1224

### **LAND USE APPLICATION IN ARIZONA**

SOLID SOLUTION, LLC  
COMPOST FACILITY,  
41326 McVAY RD.  
VICKSBURG, AZ 85348

LORRI LODER  
Telephone: (909) 322-0388

#### **Deep Well Injector**

GEOENVIRONMENT- TECHNOLOGIES LLC (TERRALOG TECNOLOGIES USA INC).  
332 East Foothill Blvd, Suite B  
Arcadia, California 91006 Tel. (626) 306-8460

**APPENDIX B**  
**Analytical Test Results of Metal Concentrations for Preparer**

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**Table 3. BENEFICIAL USE ASSESSMENT OF BIOSOLIDS AT TERMINAL ISLAND WATER RECLAMATION PLANT**

Sampling Date	pH	%TS	Arsenic (As)	Cadmium (Cd)	Chromium (Cr)	Copper (Cu)	Molybdenum (Mo)	Lead (Pb)	Mercury (Hg)	Nickel (Ni)	Selenium (Se)	Zinc (Zn)
Dec-15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Nov-15	7.7	2.0	ND	4.06	19.8	122	25.4	10.2	0.873	20.3	15.2	787
Oct-15	7.5	1.7	ND	6.02	29.5	211	30.1	12.0	1.45	30.1	24.1	1,120
Sep-15	7.3	1.8	ND	5.65	24.9	169	22.6	11.3	0.689	22.6	22.6	944
Aug-15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Jul-15	7.5	1.8	ND	5.62	23.6	169	22.5	11.2	1.89	28.1	33.7	1,060
Jun-15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
May-15	7.3	1.6	ND	7.32	28.0	207	30.5	18.3	2.62	36.6	48.8	1,160
Apr-15	7.7	1.6	ND	4.32	ND	181	25.3	14.8	4.65	ND	59.3	1,050
Mar-15	7.6	1.7	ND	4.14	ND	135	17.2	11.2	1.11	ND	33.7	899
Feb-15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Jan-15	7.7	1.7	ND	3.49	ND	153	30.2	15.7	1.20	ND	29.7	826
Average	7.5	1.7	ND	5.08	15.7	168	25.5	13.1	1.81	17.2	33.4	981
Maximum	7.7	2.0	ND	7.32	29.5	211	30.5	18.3	4.65	36.6	59.3	1,160
Minimum	7.3	1.6	ND	3.49	ND	122	17.2	10.2	0.689	ND	15.2	787
Ceiling Conc.*			75	85	***	4300	75	840	57	420	100	7500
Pollutant Conc.**			41	39	***	1500	***	300	17	420	100	2800

Generated by RVALENZU at 01/12/2016 01:58:19 PM using the Production Database and WISARD V2.0  
WISARD - Biosolids Management - HTP TITP Biosolids

\* Ceiling concentration in Table 1 of EPA Part 503 Sludge Regulation.  
\*\* Pollutant concentration in Table 3 of EPA Part 503 Sludge Regulation  
\*\*\* Limit was deleted according to Federal Register Vol. 60, No. 206 of Oct. 25, 1995

Table 4. TIWRP BIOSOLIDS - NUTRIENTS AND MISC. METALS - EVALUATION FOR LOADING PURPOSES

Sampling Date	%TS	Aluminum (Al)	Calcium (Ca)	Iron (Fe)	Potassium (K)	Magnesium (Mg)	Nitrate-N (NO3-N)	Phosphorus (Tot-P)	Sodium (Na)	Ammonia-N (NH3-N)	Organic-N (Org-N)
	mg/kg dry weight										
Dec-15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Nov-15	2.0	2,900	22,800	35,800	8,630	9,950	ND	30,200	34,600	51,300	35,500
Oct-15	1.7	4,300	25,800	48,600	10,200	12,100	120	32,100	48,200	52,700	28,100
Sep-15	1.8	3,500	22,100	38,400	8,980	10,500	ND	29,700	41,500	50,400	30,700
Aug-15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Jul-15	1.8	4,300	25,300	43,600	8,880	10,600	ND	27,600	37,100	57,900	34,600
Jun-15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
May-15	1.6	4,900	28,900	52,000	9,510	9,630	ND	26,500	43,500	58,500	21,500
Apr-15	1.6	3,600	29,000	52,500	10,600	10,900	ND	28,600	44,700	62,400	32,500
Mar-15	1.7	2,800	29,800	55,600	10,100	11,500	ND	27,500	45,500	59,200	31,200
Feb-15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Jan-15	1.7	2,700	25,800	40,700	10,300	11,200	ND	29,100	41,100	67,400	33,600
Average	1.7	3,600	26,200	45,900	9,650	10,800	15.1	28,900	42,000	57,500	31,000
Maximum	2.0	4,900	29,800	55,600	10,600	12,100	120	32,100	48,200	67,400	35,500
Minimum	1.6	2,700	22,100	35,800	8,630	9,630	ND	26,500	34,600	50,400	21,500

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 WISARD - Biosolids Management - HTP T1TP Biosolids

NS No Sampling Required

Table 5. CONCENTRATIONS OF DIOXIN AND PCBs IN HTP AND TIWRP BIOSOLIDS

Sampling Date	Dioxin 2,3,7,8-TCDD (ppb ng/g wet wt.)	PCBs**						Total PCBs*** ppm (mg/kg wet wt.)	
		AR 1016	AR 1221	AR 1232	AR 1242	AR 1248	AR 1254		AR 1260
ppm (mg/kg) wet weight									
<b>HTP BIOSOLIDS</b>									
Dec-15	<0.50000 *	<0.00200	<0.03030	<0.01860	<0.01330	<0.00763	<0.00276	<0.00176	ND
Nov-15	<0.50000 *	<0.00230	<0.00560	<0.00430	<0.01400	<0.00610	<0.00240	<0.00290	ND
Oct-15	<0.00100 ^^	<0.00430	<0.02500	<0.02400	<0.00620	<0.00440	<0.00830	<0.00290	ND
Sep-15	<0.50000 *	<0.00430	<0.02500	<0.02400	<0.00620	<0.00440	<0.00830	<0.00290	ND
Aug-15	<0.50000 *	<0.00430	<0.02500	<0.02400	<0.00620	<0.00440	<0.00830	<0.00290	ND
Jul-15	<0.00100 ^^	<0.00430	<0.02500	<0.02400	<0.00620	<0.00440	<0.00830	<0.00290	ND
Jun-15	<0.50000 *	<0.00430	<0.02500	<0.02400	<0.00620	<0.00440	<0.00830	<0.00290	ND
May-15	<0.50000 *	<0.00430	<0.02500	<0.02400	<0.00620	<0.00440	<0.00830	<0.00290	ND
Apr-15	<0.00100 ^^	<0.00430	<0.02500	<0.02400	<0.00620	<0.00440	<0.00830	<0.00290	ND
Mar-15	<0.50000 *	<0.00430	<0.02500	<0.02400	<0.00620	<0.00440	<0.00830	<0.00290	ND
Feb-15	<0.50000 *	<0.00430	<0.02500	<0.02400	<0.00620	<0.00440	<0.00830	<0.00290	ND
Jan-15	<0.00100 ^^	<0.00300	<0.01100	<0.00630	<0.00320	<0.00670	<0.00640	<0.00440	ND
<b>TIWRP BIOSOLIDS / DIGESTED SLUDGE @, #</b>									
Dec-15	NS	NS	NS	NS	NS	NS	NS	NS	NS
Nov-15	<0.50000 *	<0.00230	<0.00560	<0.00430	<0.01400	<0.00610	<0.00240	<0.00290	ND
Oct-15	<0.00100 ^^	<0.00430	<0.02500	<0.02400	<0.00620	<0.00440	<0.00830	<0.00290	ND
Sep-15	<0.50000 *	<0.00430	<0.02500	<0.02400	<0.00620	<0.00440	<0.00830	<0.00290	ND
Aug-15	NS	NS	NS	NS	NS	NS	NS	NS	NS
Jul-15	<0.00100 ^^	<0.00430	<0.02500	<0.02400	<0.00620	<0.00440	<0.00830	<0.00290	ND
Jun-15	NS	NS	NS	NS	NS	NS	NS	NS	NS
May-15	<0.50000 *	<0.00430	<0.02500	<0.02400	<0.00620	<0.00440	<0.00830	<0.00290	ND
Apr-15	<0.00100 ^^	<0.00430	<0.02500	<0.02400	<0.00620	<0.00440	<0.00830	<0.00290	ND
Mar-15	<0.50000 *	<0.00430	<0.02500	<0.02400	<0.00620	<0.00440	<0.00830	<0.00290	ND
Feb-15	NS	NS	NS	NS	NS	NS	NS	NS	NS
Jan-15	<0.00100 ^^	<0.00300	<0.01100	<0.00630	<0.00320	<0.00670	<0.00640	<0.00440	ND

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WISARD - Biosolids Management - HTP TITP Biosolids

\* Low Resolution 2,3,7,8-TCDD analysis by method EPA 8280A.

^^ High resolution 2,3,7,8-TCDD analysis by method EPA 1613B.

\*\* Polychlorinated biphenyls (Arochlors)

\*\*\* Sum of AR 1016, AR 1221, AR 1232, AR 1242, AR 1248, AR 1254, AR 1260

NA Data not yet available

ND Not Detected

NS No Sampling Required

@ Sampling frequency for TIWRP is 6 months/year. The sampling months are: Jan, Mar, May, Jul, Sep and Nov.

# TIWRP changed from analyzing Biosolids to analyzing Digested Sludge in July 2010

Note: California Title 22 lists 10 ppb for Dioxin and 50 ppm for PCBs as the Total Threshold Limit Concentration (TTL) for hazardous waste

Table 7. TIWRP BIOSOLIDS - CLASS A COMPLIANCE MONITORING DATA

Sampling Date	TOTAL SOLIDS		FECAL COLIFORM		SALMONELLA, sp.	
	%		MPN/gram TS (dry wt)		MPN/4 grams TS (dry wt)	
	Silo#/Farm		Silo#/Farm		Silo#/Farm	
	6 Times/Year@		6 Times/Year@		Quarterly	
Dec-15	NS	NS	NS	NS	NS	NS
Nov-15	TIWRP Digester Sludge	1.94	TIWRP Digester Sludge	<9.3	TIWRP Digester Sludge	<1.5
Oct-15	NS	NS	NS	NS	NS	NS
Sep-15	TIWRP Digester Sludge	1.77	TIWRP Digester Sludge	44.1	TIWRP Digester Sludge	<1.3
Aug-15	NS	NS	NS	NS	NS	NS
Jul-15	TIWRP Digester Sludge	2.00	TIWRP Digester Sludge	<9.0	TIWRP Digester Sludge	<1.6
Jun-15	NS	NS	NS	NS	NS	NS
May-15	TIWRP Digester Sludge	1.77	TIWRP Digester Sludge	<10.2	TIWRP Digester Sludge	<1.5
Apr-15	NS	NS	NS	NS	NS	NS
Mar-15	TIWRP Digester Sludge	1.66	TIWRP Digester Sludge	<10.8	TIWRP Digester Sludge	<1.4
Feb-15	NS	NS	NS	NS	NS	NS
Jan-15	TIWRP Digester Sludge	1.60	TIWRP Digester Sludge	<11.3	TIWRP Digester Sludge	NT
Requirement*				<1000		<3

\* - EPA 40 CFR Part 503 Class A requirements  
 NS - No Sampling Required  
 @ - Sampling frequency for TIWRP is 6 months/year. The sampling months are: Jan, Mar, May, Jul, Sep and Nov.  
 NT - Sample was not tested, damaged sample bottle during processing

**TERMINAL ISLAND WATER RECLAMATION PLANT**  
**MONTHLY BIOSOLIDS MONITORING REPORT FOR ARIZONA STATE**  
**December 2015**

Analyzed by Environmental Monitoring Division : Arizona ELAP Lic. No. AZ0690  
 Dept. of Public Works/ Bureau of Sanitation  
 City of Los Angeles, CA

**Table 1. TOTAL SOLIDS AND VOLATILE SOLIDS**

Sample date: 12/14/2015  
 Method No. SM 2540 G

Sample*	Total Solids %	Total Volatile Solids %
Raw Sludge	3.42	75.2
TWAS	3.19	77.2
Digested Sludge	1.89	59.1

**Table 2. BENEFICIAL USE ASSESSMENT OF BIOSOLIDS\*: METALS DATA**

Sample date:

Parameters	Total Solids	Arsenic (As)	Cadmium (Cd)	Chromium (Cr)	Copper (Cu)	Molybdenum (Mo)	Lead (Pb)	Nickel (Ni)	Selenium (Se)	Zinc (Zn)	Mercury (Hg)
Method No.	SM 2540 G	EPA 3050/ EPA 6010B									EPA 7471A
Unit	%	mg/kg dry weight									
Results	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Ceiling Conc.**	---	75	85	****	4300	75	840	420	100	7500	57
Pollutant Conc.***	---	41	39	****	1500	****	300	420	100	2800	17

**TABLE 3. BIOSOLIDS<sup>A</sup> - CLASS A COMPLIANCE MICROBIOLOGICAL MONITORING DATA**

Sample Date:

Parameters	TOTAL SOLIDS	FECAL COLIFORM	SALMONELLA, sp.
Method No.	SM2540G	SM 9221E	SM 9260D
Unit	%	MPN/gram TS (dry wt)	MPN/4 grams TS (dry wt)
Frequency	6 Times/Year@	6 Times/Year@	Quarterly
Results	NS	NS	NS
Requirement#		<1000	<3

- \* - 24-Hour composite sample
- \*\* - Ceiling concentration in Table 1 of EPA Part 503 Sludge Regulation
- \*\*\* - Pollutant concentration in Table 3 of EPA Part 503 Sludge Regulation
- \*\*\*\* - Limit was deleted according to Federal Register Vol. 60, No. 206 of Oct. 25, 1995
- @ - Sampling frequency for TIWRP is 6 months/year. The months are: Jan, Mar, May, Jul, Sep and Nov.
- # - EPA 40 CFR Part 503 Class A requirements
- ^ - Grab sample from Farm
- NS - Sampling not required
- SM - Standard Methods, 20th Ed. 1998

## **APPENDIX C**

### **Pathogen and Vector Attraction Reduction Description and Certification Statements**

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## NOTICE AND NECESSARY INFORMATION (NANI)

*This form is to assist compliance with the bulk sewage sludge (biosolids) notification requirements [503.12(f)]. Please note, however, that if the biosolids meet the Exceptional Quality (EQ) criteria, then the notification requirements do not apply. This form can be used by preparers of biosolids to transmit information to land appliers and also by land appliers to transmit information to landowners and leaseholders.*

**Facility:** Terminal Island Wastewater Reclamation Plant,      **Biosolids Type:** Class A  
City of L. A.

**Monitoring Period: From** JANUARY 1, 2015 **To** JANUARY 31, 2015

**To be completed by PREPARERS of Biosolids**

A. Please provide pollutant concentrations.

Constituent	Concentration Dry Weight (mg/kg)	Pollutant Concentrations (Table 3, 40 CFR 503.13) Monthly Average (mg/kg)	Ceiling Concentrations* (Table 1, 40 CFR 503.13) Daily Maximum (mg/kg)
Arsenic	ND	41	75
Cadmium	3.49	39	85
Chromium	ND	1200	3000
Copper	153	1500	4300
Lead	15.7	300	840
Mercury	1.20	17	57
Molybdenum	30.2	N/A**	75
Nickel	ND	420	420
Selenium	29.7	100	100
Zinc	826	2800	7500
Org-N	33,600	N/A	N/A
Ammonia-N	67,400	N/A	N/A
Nitrate-N	ND	N/A	N/A
Percent Solids (aver.)	1.7	N/A	N/A

\* Biosolids may not be land applied if any pollutant exceeds these values

\*\* EPA has temporarily removed molybdenum limits from Table 3, Table 2 and Table 4

B. Pathogen Reduction (40 CFR 503.32) -- Please indicate level achieved.

A Class A      Class B

Pathogen reduction alternative used: Thermophilic temperature.

C. Vector Attraction Reduction (40 CFR 503.33) -- Please indicate the option performed.

Option 1       Option 2       Option 3       Option 4  
 Option 5       Option 6       Option 7       Option 8

No vector attraction reduction options were performed

X- See attached for temperature, solids destroyed and detention time for the month of **JANUARY** 2015

D. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information 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.

A. Plant Chief Operator, Area Code and Telephone Number: DAVE GUMAER      (310) 548-7520	B. Name and Official Title: MARK STARR, Plant Manager
C. Signature	D. Signature:
E. Date signed	F. Date Signed:

## NOTICE AND NECESSARY INFORMATION (NANI)

*This form is to assist compliance with the bulk sewage sludge (biosolids) notification requirements [503.12(f)]. Please note, however, that if the biosolids meet the Exceptional Quality (EQ) criteria, then the notification requirements do not apply. This form can be used by preparers of biosolids to transmit information to land appliers and also by land appliers to transmit information to landowners and leaseholders.*

**Facility:** Terminal Island Wastewater Reclamation Plant,      **Biosolids Type:** Class A  
City of L. A.

**Monitoring Period: From** MARCH 1, 2015 **To** MARCH 31, 2015

**To be completed by PREPARERS of Biosolids**

A. Please provide pollutant concentrations.

Constituent	Concentration Dry Weight (mg/kg)	Pollutant Concentrations (Table 3, 40 CFR 503.13) Monthly Average (mg/kg)	Ceiling Concentrations* (Table 1, 40 CFR 503.13) Daily Maximum (mg/kg)
Arsenic	ND	41	75
Cadmium	4.14	39	85
Chromium	ND	1200	3000
Copper	135	1500	4300
Lead	11.2	300	840
Mercury	1.11	17	57
Molybdenum	17.2	N/A**	75
Nickel	ND	420	420
Selenium	33.7	100	100
Zinc	899	2800	7500
Org-N	31,200	N/A	N/A
Ammonia-N	59,200	N/A	N/A
Nitrate-N	ND	N/A	N/A
Percent Solids (aver.)	1.7	N/A	N/A

\* Biosolids may not be land applied if any pollutant exceeds these values  
 \*\* EPA has temporarily removed molybdenum limits from Table 3, Table 2 and Table 4

B. Pathogen Reduction (40 CFR 503.32) -- Please indicate level achieved.

     Class A           Class B

Pathogen reduction alternative used: Thermophilic temperature.

C. Vector Attraction Reduction (40 CFR 503.33) -- Please indicate the option performed.

Option 1       Option 2       Option 3       Option 4  
 Option 5       Option 6       Option 7       Option 8  
 No vector attraction reduction options were performed

X- See attached for temperature, solids destroyed and detention time for the month of **MARCH** 2015

D. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information 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.

<p>A. Plant Chief Operator, Area Code and Telephone Number:  <u>DAVE GUMAER</u>      <u>(310) 548-7520</u></p>	<p>B. Name and Official Title:  <u>MARK STARR, Plant Manager</u></p>
<p>C. Signature</p>	<p>D. Signature:</p>
<p>E. Date signed</p>	<p>F. Date Signed:</p>

## NOTICE AND NECESSARY INFORMATION (NANI)

*This form is to assist compliance with the bulk sewage sludge (biosolids) notification requirements [503.12(f)]. Please note, however, that if the biosolids meet the Exceptional Quality (EQ) criteria, then the notification requirements do not apply. This form can be used by preparers of biosolids to transmit information to land appliers and also by land appliers to transmit information to landowners and leaseholders.*

**Facility:** Terminal Island Wastewater Reclamation Plant, **Biosolids Type:** Class A  
City of L. A.

**Monitoring Period: From** MAY 1, 2015 **To** MAY 31, 2015

**To be completed by PREPARERS of Biosolids**

A. Please provide pollutant concentrations.

Constituent	Concentration Dry Weight (mg/kg)	Pollutant Concentrations (Table 3, 40 CFR 503.13) Monthly Average (mg/kg)	Ceiling Concentrations* (Table 1, 40 CFR 503.13) Daily Maximum (mg/kg)
Arsenic	ND	41	75
Cadmium	7.32	39	85
Chromium	28	1200	3000
Copper	207	1500	4300
Lead	18.3	300	840
Mercury	2.62	17	57
Molybdenum	30.5	N/A**	75
Nickel	36.6	420	420
Selenium	48.8	100	100
Zinc	1160	2800	7500
Org-N	21,500	N/A	N/A
Ammonia-N	58,500	N/A	N/A
Nitrate-N	ND	N/A	N/A
Percent Solids (aver.)	1.6	N/A	N/A

\* Biosolids may not be land applied if any pollutant exceeds these values

\*\* EPA has temporarily removed molybdenum limits from Table 3, Table 2 and Table 4

B. Pathogen Reduction (40 CFR 503.32) -- Please indicate level achieved.

   A Class A    Class B

Pathogen reduction alternative used: Thermophilic temperature.

C. Vector Attraction Reduction (40 CFR 503.33) -- Please indicate the option performed.

Option 1  Option 2  Option 3  Option 4  
 Option 5  Option 6  Option 7  Option 8

No vector attraction reduction options were performed

X- See attached for temperature, solids destroyed and detention time for the month of **MAY** 2015

D. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information 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.

A. Plant Chief Operator, Area Code and Telephone Number: DAVE GUMAER (310) 548-7520	B. Name and Official Title: MARK STARR, Plant Manager
C. Signature	D. Signature:
E. Date signed	F. Date Signed:

# NOTICE AND NECESSARY INFORMATION (NANI)

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**Facility:** Terminal Island Wastewater Reclamation Plant,      **Biosolids Type:** Class A  
City of L. A.

**Monitoring Period: From** JULY 1, 2015 **To** JULY 31, 2015

**To be completed by PREPARERS of Biosolids**

A. Please provide pollutant concentrations.

Constituent	Concentration Dry Weight (mg/kg)	Pollutant Concentrations (Table 3, 40 CFR 503.13) Monthly Average (mg/kg)	Ceiling Concentrations* (Table 1, 40 CFR 503.13) Daily Maximum (mg/kg)
Arsenic	ND	41	75
Cadmium	5.62	39	85
Chromium	23.6	1200	3000
Copper	169	1500	4300
Lead	11.2	300	840
Mercury	1.89	17	57
Molybdenum	22.5	N/A**	75
Nickel	28.1	420	420
Selenium	33.7	100	100
Zinc	1060	2800	7500
Org-N	34,600	N/A	N/A
Ammonia-N	57,900	N/A	N/A
Nitrate-N	ND	N/A	N/A
Percent Solids (aver.)	1.8	N/A	N/A

\* Biosolids may not be land applied if any pollutant exceeds these values  
 \*\* EPA has temporarily removed molybdenum limits from Table 3, Table 2 and Table 4

B. Pathogen Reduction (40 CFR 503.32) -- Please indicate level achieved.

   Class A         Class B

Pathogen reduction alternative used: Thermophilic temperature.

C. Vector Attraction Reduction (40 CFR 503.33) -- Please indicate the option performed.

Option 1       Option 2       Option 3       Option 4  
 Option 5       Option 6       Option 7       Option 8  
 No vector attraction reduction options were performed

X- See attached for temperature, solids destroyed and detention time for the month of **JULY** 2015

D. Certification

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<p>A. Plant Chief Operator, Area Code and Telephone Number:          DAVE GUMAER      (310) 548-7520</p>	<p>B. Name and Official Title:          MARK STARR, Plant Manager</p>
<p>C. Signature</p>	<p>D. Signature:</p>
<p>E. Date signed</p>	<p>F. Date Signed:</p>

## NOTICE AND NECESSARY INFORMATION (NANI)

*This form is to assist compliance with the bulk sewage sludge (biosolids) notification requirements [503.12(f)]. Please note, however, that if the biosolids meet the Exceptional Quality (EQ) criteria, then the notification requirements do not apply. This form can be used by preparers of biosolids to transmit information to land appliers and also by land appliers to transmit information to landowners and leaseholders.*

**Facility:** Terminal Island Wastewater Reclamation Plant,      **Biosolids Type:** Class A  
City of L. A.

**Monitoring Period: From** SEPTEMBER 1, 2015 **To** SEPTEMBER 30, 2015

**To be completed by PREPARERS of Biosolids**

A. Please provide pollutant concentrations.

Constituent	Concentration Dry Weight (mg/kg)	Pollutant Concentrations (Table 3, 40 CFR 503.13) Monthly Average (mg/kg)	Ceiling Concentrations* (Table 1, 40 CFR 503.13) Daily Maximum (mg/kg)
Arsenic	ND	41	75
Cadmium	5.65	39	85
Chromium	24.9	1200	3000
Copper	169	1500	4300
Lead	11.3	300	840
Mercury	0.689	17	57
Molybdenum	22.6	N/A**	75
Nickel	22.6	420	420
Selenium	22.6	100	100
Zinc	944	2800	7500
Org-N	30,700	N/A	N/A
Ammonia-N	50,400	N/A	N/A
Nitrate-N	ND	N/A	N/A
Percent Solids (aver.)	1.8	N/A	N/A

\* Biosolids may not be land applied if any pollutant exceeds these values  
 \*\* EPA has temporarily removed molybdenum limits from Table 3, Table 2 and Table 4

B. Pathogen Reduction (40 CFR 503.32) -- Please indicate level achieved.

   Class A         Class B

Pathogen reduction alternative used: Thermophilic temperature.

C. Vector Attraction Reduction (40 CFR 503.33) -- Please indicate the option performed.

Option 1       Option 2       Option 3       Option 4  
 Option 5       Option 6       Option 7       Option 8  
 No vector attraction reduction options were performed

X- See attached for temperature, solids destroyed and detention time for the month of **SEPTEMBER 2015**

D. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information 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.

<p>A. Plant Chief Operator, Area Code and Telephone Number:  <u>DAVE GUMAER</u>      <u>(310) 548-7520</u></p>	<p>B. Name and Official Title:  <u>MARK STARR, Plant Manager</u></p>
<p>C. Signature</p>	<p>D. Signature:</p>
<p>E. Date signed</p>	<p>F. Date Signed:</p>

## NOTICE AND NECESSARY INFORMATION (NANI)

*This form is to assist compliance with the bulk sewage sludge (biosolids) notification requirements [503.12(f)]. Please note, however, that if the biosolids meet the Exceptional Quality (EQ) criteria, then the notification requirements do not apply. This form can be used by preparers of biosolids to transmit information to land appliers and also by land appliers to transmit information to landowners and leaseholders.*

**Facility:** Terminal Island Wastewater Reclamation Plant, **Biosolids Type:** Class A  
 City of L. A.

**Monitoring Period: From** NOVEMBER 1, 2015 **To** NOVEMBER 30, 2015

**To be completed by PREPARERS of Biosolids**

A. Please provide pollutant concentrations.

Constituent	Concentration Dry Weight (mg/kg)	Pollutant Concentrations (Table 3, 40 CFR 503.13) Monthly Average (mg/kg)	Ceiling Concentrations* (Table 1, 40 CFR 503.13) Daily Maximum (mg/kg)
Arsenic	ND	41	75
Cadmium	4.06	39	85
Chromium	19.8	1200	3000
Copper	122	1500	4300
Lead	10.2	300	840
Mercury	0.873	17	57
Molybdenum	25.4	N/A**	75
Nickel	20.3	420	420
Selenium	15.2	100	100
Zinc	787	2800	7500
Org-N	35,500	N/A	N/A
Ammonia-N	51,300	N/A	N/A
Nitrate-N	ND	N/A	N/A
Percent Solids (aver.)	2.0	N/A	N/A

\* Biosolids may not be land applied if any pollutant exceeds these values  
 \*\* EPA has temporarily removed molybdenum limits from Table 3, Table 2 and Table 4

B. Pathogen Reduction (40 CFR 503.32) -- Please indicate level achieved.

     Class A                           Class B

Pathogen reduction alternative used: Thermophilic temperature.

C. Vector Attraction Reduction (40 CFR 503.33) -- Please indicate the option performed.

Option 1                       Option 2                       Option 3                       Option 4  
 Option 5                       Option 6                       Option 7                       Option 8  
 No vector attraction reduction options were performed

X- See attached for temperature, solids destroyed and detention time for the month of **NOVEMBER 2015**

D. Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information 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.

A. Plant Chief Operator, Area Code and Telephone Number: DAVE GUMAER                      (310) 548-7520	B. Name and Official Title: MARK STARR, Plant Manager
C. Signature	D. Signature:
E. Date signed	F. Date Signed:



Jan-15

## TERMINAL ISLAND WATER RECLAMATION PLANT

DATE	DAY	TEMPERATURE				SOLIDS DESTROYED				HYD D.T.
						TOTAL		VOLATILE		
		#1	#2	#3	#4	#/DAY	%	#/DAY	%	days
1	THU	132.5	132.5	OS	132.5	28827	67	27596	73	33
2	FRI	133.0	132.9	OS	133.2	15968	51	15101	59	32
3	SAT	133.0	133.5	OS	132.8	9055	38	10027	62	34
4	SUN	132.5	133.1	OS	132.9	12159	51	11587	59	41
5	MON	132.4	132.9	OS	133.0	12281	48	12031	60	39
6	TUE	132.8	132.9	OS	132.7	15791	52	14875	59	32
7	WED	132.6	132.6	OS	132.7	NC	NC	NC	NC	36
8	THU	132.5	132.8	OS	132.8	17665	52	16683	58	30
9	FRI	132.5	133.0	OS	132.6	8182	44	8133	56	47
10	SAT	133.2	132.7	OS	132.6	15117	51	14851	61	32
11	SUN	132.8	132.7	OS	132.7	10157	40	10440	55	32
12	MON	132.6	132.7	OS	132.5	13474	43	13764	58	29
13	TUE	132.5	132.5	OS	132.6	11648	43	12195	62	31
14	WED	132.5	132.8	OS	132.9	6768	29	7976	55	26
15	THU	132.6	132.6	OS	132.6	11019	37	11711	55	25
16	FRI	132.4	132.3	OS	132.7	18371	51	17196	58	26
17	SAT	132.5	132.9	OS	132.9	16479	47	16099	59	25
18	SUN	132.8	132.6	OS	132.6	11825	38	12123	55	26
19	MON	132.7	132.4	OS	132.9	11588	39	11665	53	26
20	TUE	132.4	132.6	OS	132.9	11500	36	11956	53	24
21	WED	132.4	133.1	OS	132.7	14686	47	14220	57	25
22	THU	132.7	132.7	OS	132.8	12886	42	12669	55	25
23	FRI	132.4	132.6	OS	133.2	12480	36	13366	55	20
24	SAT	132.6	132.6	OS	133.1	NC	NC	NC	NC	23
25	SUN	132.8	132.4	OS	131.3	9205	30	9683	47	23
26	MON	132.4	132.4	OS	132.4	NC	NC	NC	NC	22
27	TUE	132.5	132.7	OS	132.5	12460	36	12298	48	21
28	WED	133.5	132.4	OS	131.8	11929	36	12668	54	21
29	THU	133.2	132.8	OS	132.5	14589	42	14532	56	23
30	FRI	132.4	132.6	OS	132.5	9615	33	10723	55	23
31	SAT	132.9	132.4	OS	132.5	11665	NC	12488	55	22
MAXIMUM		133.5	133.5	OS	133.2	28827	67	27596	73	47
MINIMUM		132.4	132.3	OS	131.3	6768	29	7976	47	20
AVGERAGE		132.7	132.7	OS	132.7	13121	43	13166	57	28

Mar-15

## TERMINAL ISLAND WATER RECLAMATION PLANT

DATE	DAY	TEMPERATURE				SOLIDS DESTROYED				HYD D.T. days
						TOTAL		VOLATILE		
		#1	#2	#3	#4	#/DAY	%	#/DAY	%	
1	SUN	132.6	133.0	OS	132.5	11676	51	10869	56	39
2	MON	132.8	132.6	OS	132.8	20623	62	17565	58	30
3	TUE	132.5	132.8	OS	132.9	19302	52	17519	55	26
4	WED	132.8	132.6	OS	132.6	NC	NC	NC	NC	26
5	THU	132.6	132.6	OS	132.7	20101	50	19142	59	20
6	FRI	132.5	132.7	OS	133.3	10331	34	9362	38	21
7	SAT	132.6	132.7	OS	133.1	11867	37	11510	47	22
8	SUN	132.7	132.4	OS	132.8	15210	46	14567	54	25
9	MON	132.5	132.8	OS	132.4	NC	NC	NC	NC	28
10	TUE	132.8	132.8	OS	132.5	15515	45	14291	49	25
11	WED	132.7	132.5	OS	132.5	15602	47	13746	46	24
12	THU	133.1	132.9	OS	133.4	3940	18	4270	32	25
13	FRI	132.9	133.0	OS	133.4	10562	46	9536	50	33
14	SAT	132.9	132.8	OS	133.0	9402	51	8525	52	45
15	SUN	132.8	132.8	OS	132.7	NC	NC	NC	NC	27
16	MON	132.6	132.8	OS	132.6	5955	27	5157	25	26
17	TUE	132.8	132.6	OS	132.8	15720	47	14462	50	26
18	WED	132.6	132.9	OS	132.4	17301	44	15725	48	22
19	THU	132.8	132.9	OS	132.6	18534	50	16865	55	22
20	FRI	132.9	132.7	OS	132.4	16734	47	15303	53	22
21	SAT	132.8	132.8	OS	132.4	8965	33	8889	45	26
22	SUN	132.7	132.5	OS	132.4	12207	46	10852	45	33
23	MON	132.7	132.4	OS	132.1	13500	46	12520	51	29
24	TUE	132.6	132.5	OS	132.9	8204	29	8906	48	25
25	WED	132.7	133.1	OS	133.0	6723	28	6900	42	26
26	THU	132.4	132.8	OS	132.7	NC	NC	NC	46	27
27	FRI	132.5	132.4	OS	132.7	15937	46	14609	52	24
28	SAT	132.8	132.5	OS	133.6	8986	34	8669	43	26
29	SUN	132.5	132.4	OS	132.8	11082	37	11561	54	26
30	MON	132.6	132.6	OS	133.4	3811	23	4595	48	39
31	TUE	132.6	133.0	OS	133.6	10550	NC	11235	61	31
<b>MAXIMUM</b>		133.1	133.1	OS	133.6	20623	62	19142	61	45
<b>MINIMUM</b>		132.4	132.4	OS	132.1	3811	18	4270	25	20
<b>AVERAGE</b>		132.7	132.7	OS	132.8	12531	41	11746	49	27

May-15

## TERMINAL ISLAND WATER RECLAMATION PLANT

DATE	DAY	TEMPERATURE				SOLIDS DESTROYED				HYD D.T.
						TOTAL		VOLATILE		
		#1	#2	#3	#4	#/DAY	%	#/DAY	%	days
1	FRI	132.5	132.5	OS	133.0	13137	49	11824	51	33
2	SAT	132.6	132.9	OS	132.6	10858	38	10444	47	28
3	SUN	132.7	132.8	OS	132.6	11287	39	11037	50	28
4	MON	132.6	132.5	OS	132.6	13507	51	11983	52	32
5	TUE	132.6	132.6	OS	133.1	10810	37	10840	51	27
6	WED	132.7	132.8	OS	133.0	11531	43	10998	53	31
7	THU	132.8	132.5	OS	132.6	12557	44	11426	48	28
8	FRI	132.6	132.9	OS	132.4	10579	38	10511	52	29
9	SAT	132.7	132.6	OS	132.5	12009	45	10251	42	30
10	SUN	133.3	132.3	OS	132.8	10642	44	10058	52	35
11	MON	133.0	132.8	OS	132.5	9619	42	8903	48	34
12	TUE	132.5	133.1	OS	132.4	4167	16	5324	38	21
13	WED	132.4	132.7	OS	132.3	18985	45	18177	55	20
14	THU	132.4	132.9	OS	132.5	10271	33	11839	59	26
15	FRI	132.6	133.1	OS	132.4	11290	38	12051	59	27
16	SAT	133.1	132.7	OS	132.6	9491	31	10056	48	27
17	SUN	132.9	132.8	OS	134.0	1606	12	2807	45	47
18	MON	132.6	132.5	OS	133.7	4031	26	4556	47	39
19	TUE	132.8	132.5	OS	132.5	12996	42	12399	51	29
20	WED	132.7	132.6	OS	132.4	14417	46	NC	NC	31
21	THU	132.5	132.5	OS	132.6	12120	49	11521	58	41
22	FRI	132.7	132.5	OS	132.7	15390	42	16825	65	24
23	SAT	132.5	132.6	OS	132.9	18964	51	17164	54	27
24	SUN	132.6	132.7	OS	132.8	11455	36	12104	55	26
25	MON	132.4	132.5	OS	133.0	11527	50	10411	51	45
26	TUE	133.0	132.6	OS	132.9	10580	50	9083	46	50
27	WED	132.8	133.0	OS	132.7	16795	56	10727	14	43
28	THU	132.6	132.7	OS	132.6	13698	48	13118	57	34
29	FRI	132.5	133.0	OS	132.8	12064	48	NC	NC	39
30	SAT	132.9	132.4	OS	132.5	5423	28	6289	52	37
31	SUN	133.3	132.6	OS	132.0	10202	NC	9878	55	40
<b>MAXIMUM</b>		133.3	133.1	OS	134.0	18985	56	18177	65	50
<b>MINIMUM</b>		132.4	132.3	OS	132.0	1606	12	2807	14	20
<b>AVERAGE</b>		132.7	132.7	OS	132.7	11355	41	10779	50	33

Jul-15

## TERMINAL ISLAND WATER RECLAMATION PLANT

DATE	DAY	TEMPERATURE				SOLIDS DESTROYED				HYD D.T. days
						TOTAL		VOLATILE		
		#1	#2	#3	#4	#/DAY	%	#/DAY	%	
1	WED	132.7	132.6	OS	102.2	6092	38	6066	51	49
2	THU	133.4	132.3	OS	99.6	6609	44	6344	54	54
3	FRI	133.8	132.7	OS	90.0	12843	48	11898	53	34
4	SAT	132.6	133.4	OS	90.0	10110	49	9222	52	45
5	SUN	132.5	133.1	OS	90.0	9561	42	9039	48	36
6	MON	133.1	132.9	OS	101.5	8294	39	7788	45	38
7	TUE	133.0	133.0	OS	103.3	9280	36	9492	51	31
8	WED	132.3	132.9	OS	116.6	8276	38	8194	50	39
9	THU	132.8	132.6	OS	130.0	12724	38	13079	53	24
10	FRI	132.9	132.9	OS	115.7	12891	40	12916	53	25
11	SAT	132.7	132.7	OS	90.0	10454	33	10857	48	25
12	SUN	132.8	133.0	OS	90.0	11777	34	13134	56	23
13	MON	132.7	132.7	OS	104.0	16495	45	14227	41	25
14	TUE	133.2	132.5	OS	102.3	20524	59	17982	56	25
15	WED	133.1	132.8	OS	103.8	13696	41	13120	49	27
16	THU	131.9	133.3	OS	90.0	NC	NC	NC	NC	24
17	FRI	132.9	133.0	OS	102.6	15656	43	15386	55	22
18	SAT	132.6	132.7	OS	90.0	3180	13	4545	39	24
19	SUN	132.7	132.8	OS	90.0	9988	34	10065	46	28
20	MON	132.5	132.9	OS	96.6	NC	NC	NC	NC	32
21	TUE	132.7	132.6	OS	104.1	15125	46	13626	47	26
22	WED	133.6	132.7	OS	97.1	NC	NC	NC	NC	28
23	THU	133.3	132.7	OS	101.5	9258	36	8629	42	30
24	FRI	133.2	132.8	OS	104.3	12423	46	11158	46	33
25	SAT	133.0	132.7	OS	102.5	14330	48	12960	48	31
26	SUN	133.2	132.6	OS	90.0	11365	50	10354	51	41
27	MON	133.0	133.0	OS	101.8	7156	39	6782	46	44
28	TUE	132.8	132.6	OS	102.7	5945	28	6470	49	34
29	WED	132.8	132.5	OS	100.6	7197	31	6365	32	27
30	THU	133.1	132.5	OS	90.0	4695	24	4849	36	32
31	FRI	133.0	132.8	OS	105.8	14156	NC	NC	NC	28
<b>MAXIMUM</b>		133.8	133.4	OS	130.0	20524	59	17982	56	54
<b>MINIMUM</b>		131.9	132.3	OS	90.0	3180	13	4545	32	22
<b>AVERAGE</b>		132.9	132.8	OS	100.0	10718	39	10168	48	32

Sep-15

## TERMINAL ISLAND WATER RECLAMATION PLANT

DATE	DAY	TEMPERATURE				SOLIDS DESTROYED				HYD D.T. days
						TOTAL		VOLATILE		
		#1	#2	#3	#4	#/DAY	%	#/DAY	%	
1	TUE	132.7	133.1	OS	132.8	8815	42	7938	47	40
2	WED	133.3	133.1	OS	132.7	11843	49	10678	52	38
3	THU	133.5	132.8	OS	132.5	31846	60	27437	57	22
4	FRI	133.3	132.7	OS	132.8	21506	52	19905	57	24
5	SAT	132.6	132.9	OS	133.0	17850	52	16578	58	28
6	SUN	133.2	132.8	OS	132.8	25223	57	22505	59	25
7	MON	133.1	133.2	OS	133.1	16135	50	14855	55	33
8	TUE	133.0	133.3	OS	133.0	10192	47	9203	51	41
9	WED	133.5	133.2	OS	132.7	23197	54	21151	54	25
10	THU	133.4	132.7	OS	132.7	18697	52	16832	53	29
11	FRI	133.2	133.5	OS	132.8	20293	55	18185	58	28
12	SAT	133.5	133.4	OS	133.1	12497	49	9541	34	38
13	SUN	133.4	132.9	OS	132.9	12462	47	11643	53	34
14	MON	132.6	133.2	OS	133.0	19459	51	17870	55	25
15	TUE	132.9	133.2	OS	132.8	16694	54	15000	55	32
16	WED	132.8	132.7	OS	132.7	17632	44	17162	55	23
17	THU	132.4	132.8	OS	133.2	18138	50	16694	56	25
18	FRI	133.0	132.6	OS	132.7	14771	49	13021	49	28
19	SAT	133.0	132.6	OS	132.4	10508	35	9793	42	24
20	SUN	132.6	132.7	OS	133.0	13241	51	12022	54	35
21	MON	132.7	132.9	OS	132.5	14475	50	13648	57	34
22	TUE	133.0	132.8	OS	132.9	4648	25	5307	46	33
23	WED	132.5	132.9	OS	132.8	14995	49	13863	54	33
24	THU	132.6	132.8	OS	132.7	15465	54	13610	53	39
25	FRI	132.5	132.6	OS	132.9	16578	56	14534	54	34
26	SAT	133.9	132.3	OS	132.8	15261	55	13298	55	37
27	SUN	133.1	132.3	OS	132.6	19166	53	17101	53	27
28	MON	133.0	132.8	OS	132.4	10525	38	9986	47	30
29	TUE	132.7	132.7	OS	132.4	23006	63	15663	30	39
30	WED	133.0	132.5	OS	133.1	18951	58	16493	55	34
<b>MAXIMUM</b>		134.7	133.5	OS	133.1	23649	52	21205	73	46
<b>MINIMUM</b>		132.5	132.5	OS	90.0	7359	30	6612	8	16
<b>AVERAGE</b>		133.2	133.0	OS	124.6	15260	43	13696	45	25

Nov-15

## TERMINAL ISLAND WATER RECLAMATION PLANT

DATE	DAY	TEMPERATURE				SOLIDS DESTROYED				HYD D.T. days
						TOTAL		VOLATILE		
		#1	#2	#3	#4	#/DAY	%	#/DAY	%	
1	SUN	132.7	132.8	OS	132.6	17470	57	10593	NC	48
2	MON	133.7	132.6	OS	132.5	11475	45	11194	55	44
3	TUE	133.5	132.9	OS	133.1	3892	32	3527	35	69
4	WED	133.1	132.9	OS	132.9	11461	53	10023	49	57
5	THU	133.1	132.7	OS	132.9	11152	53	9812	51	56
6	FRI	133.1	132.8	OS	133.0	9469	50	8574	52	62
7	SAT	132.8	132.7	OS	133.1	8836	46	8424	55	58
8	SUN	132.6	132.9	OS	133.0	6870	48	6429	54	81
9	MON	132.6	133.2	OS	132.7	14018	45	13265	52	36
10	TUE	132.2	133.3	OS	132.7	8391	44	8401	58	56
11	WED	132.9	132.7	OS	132.6	9296	37	9744	55	37
12	THU	132.8	133.4	OS	132.6	15797	48	14667	53	35
13	FRI	132.6	133.4	OS	132.8	11594	48	10460	49	47
14	SAT	132.6	132.8	OS	132.6	7023	38	6546	44	54
15	SUN	132.5	133.1	OS	132.3	5613	36	5651	50	59
16	MON	132.7	133.1	OS	132.7	8141	45	7512	48	58
17	TUE	132.7	132.9	OS	132.4	11913	51	8643	25	49
18	WED	132.6	133.0	OS	132.6	18281	53	11571	14	39
19	THU	132.2	133.1	OS	132.6	15503	49	12315	35	36
20	FRI	133.0	132.6	OS	132.4	11792	48	9889	43	46
21	SAT	132.9	133.3	OS	132.6	11684	42	9835	38	35
22	SUN	132.7	133.3	OS	132.8	15345	46	14528	53	32
23	MON	133.4	132.8	OS	132.7	9421	43	9127	53	47
24	TUE	133.3	132.9	OS	132.6	7319	41	7328	55	57
25	WED	132.4	132.7	OS	132.7	15707	44	15047	53	31
26	THU	133.4	132.8	OS	132.5	14822	43	13751	49	32
27	FRI	133.0	132.8	OS	131.0	10344	40	9935	50	40
28	SAT	132.3	132.8	OS	132.6	10450	42	9453	45	41
29	SUN	132.1	132.7	OS	132.5	8121	42	7304	44	50
30	MON	132.0	132.7	OS	132.7	10861	46	9487	45	45
<b>MAXIMUM</b>		133.7	133.4	OS	133.1	18281	57	15047	58	81
<b>MINIMUM</b>		132.0	132.6	OS	131.0	3892	32	3527	14	31
<b>AVERAGE</b>		132.8	132.9	OS	132.6	11069	45	9768	45	48



**ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER QUALITY DIVISION - WATER QUALITY COMPLIANCE ASSURANCE UNIT  
BIOSOLIDS OR SEWAGE SLUDGE ANNUAL REPORT FORM FOR REPORTING  
YEAR 2015**

**TO BE COMPLETED BY ALL PREPARERS (GENERATORS) AND LAND APPLICATORS**

**1. General Information**

Date: February 19, 2016	NPDES Permit # (if applicable): CA 0053856
Company Name (Preparer/Applicator): City of Los Angeles, Terminal Island Water Reclamation Plant	
Contact Name: Mark Starr,	Title: Plant Manager
Address: 445 Ferry Street, San Pedro, Ca, 90731	
Phone: (310) 732- 4705	Email: Mark.Starr @ LaCity.org
CERTIFICATION: 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.	
Signature:	Title:Plant: Manager

**2. Who are you? (Check all that apply)**

**Preparer.** (A "Preparer is a Generator") The biosolids OR sewage sludge prepared at this site are:

(select all that apply)

- Stored onsite
- Beneficially used for Land Application
- Sold/given to a composting operation, a sludge drying operation or to another WWTP for further treatment
- disposed of in a "biosolids only" surface disposal site, monofill, designated sludgeonly area
- Disposed of in a solid waste landfill - do biosolids go directly into the landfill ? \_\_\_\_\_
- Sent out of state for incineration, land filling, land application, surface disposal, composting or sludge drying

**Applicator.** One who applies biosolids to the land (farms, parks, forests, reclamation sites)

**Owner or Operator of a surface disposal site including wastewater treatment plants with surface disposal (final disposal) sites for sludge**

**3. Disposition of Biosolids.**

**Preparers** - wastewater treatment facilities, composting operations and biosolids processing operations. Complete Parts 3.A.,3.B., 3.C., 3.D., and 3.E. of this form (if more room is needed, provide additional sheets) for:

- All applicators used to haul and land apply your biosolids and the amount
- All surface disposal sites to which you sent or took biosolids and the amount
- All land application sites (farms, ranches) where biosolids from your facility were applied in2003 and the amount
- All landfills to which you sent biosolids and the amount
- All composting operations or biosolids processing facilities including "sludge drying operations" to which you sent biosolids and the amount
- All incinerators to which you sent biosolids and the amount

**Applicators.** Complete Parts 3.C, 3.D, and 3.E. for **out of state preparers**. Complete Parts 3.F and 3.G of this form (if more room is needed, provide additional sheets) for:

- All preparers (including composting operations, biosolids processing facilities) from which you obtained biosolids
- All application sites (farms, ranches, composting operations) where biosolids were applied in 2003 and the amount.
- All land applicators that are taking biosolids from California generators are required to complete this form and ensure that the California WWTP or preparer is submitting its Annual Report to ADEQ.

NAME OF FACILITY: Terminal Island Water Reclamation Plant  
 FOR CALENDAR YEAR: 2015

**Disposition of Biosolids Produced during year- to be completed by "preparers" only**  
**ALL REPORTING IS TO BE DONE IN DRY TONS**  
 Arizona Generators and Preparers - Complete Sections 3.A., 3.B., 3.C., and 3.D.  
 California Generators - Complete Section 3.D. only

<b>3.A. Amount of Biosolids Stored on site</b> Amount stored in lined lagoons/impoundment? _____ (dry tons) Amount stored directly on the ground? _____ (dry tons) Are lagoons used in the treatment process? _____		Pathogen Treatment			VAR* Option Used
		None (dry tons)	Class B	Class A	
at beginning of year:			dry tons	dry tons	
			Method#	(Circle one) Fecal coliform or salmonella and Method# _____	
at end of year:			dry tons	dry tons	
			Method# TIME/TEMP	(Circle one) Fecal coliform or salmonella and Method#	
<b>3.B. Amount of Biosolids or sewage sludge received from another facility during the year- (such as another wastewater treatment plant) for further processing? NONE</b>		Pathogen Treatment of the <u>incoming biosolids</u>			VAR Option Used
		None (dry tons)	Class B	Class A	
Name of Facility		Location			
1.			dry tons	dry tons	
			Method#	(Circle one) Fecal coliform or salmonella and Method#	
2.			dry tons	dry tons	
			Method#	(Circle one) Fecal coliform or salmonella and Method#	
<b>3.C. Total amount of Biosolids Prepared at the facility during the year</b>		Pathogen Treatment			VAR Option Used
		None (dry tons)	Class B	Class A	
			dry tons	dry tons	
			Method#	(Circle one) Fecal coliform or salmonella and Method#	

3.D. Amount of Biosolids removed from the facility. Name all recipients, include haulers name and phone number, land applicators, composters, landfills, drying facilities, EQB bagging facilities, etc.			Pathogen Treatment			VAR Option Used
			None (tons)	Class B	Class A	
Name of Recipient	Location	Disposition **				
1. Nursery Product	14479 Cougar Rd. Helendale CA 93242 (661) 272-1224	Composting at Helendale California		dry tons per year	687 dry metric tons	% vol. Std. Reduction. Option 1
				Method	(Circle one) Fecal coliform or salmonella and Method# Alt 1	
2. Solids Solution, LLC	Arizona Soils Compost facility, 41326 McVay Rd Vicksburg, AZ 85348 (909) 322-0388	Land use application in Arizona		dry tons	1656 metric dry tons	% vol. Std. Reduction. Option 1
				Method	(Circle one) Fecal coliform or salmonella and Method# Alt. 1	
3.				dry tons	0 dry metric tons	
				Method #	(Circle one) Fecal coliform or salmonella and Method# Alt. 1	
4.				dry tons	dry tons	
				Method#	(Circle one) Fecal coliform or salmonella and Method#	
5.				dry tons	dry tons	
				Method#	(Circle one) Fecal coliform or salmonella and Method#	

\* VAR = Vector Attraction Reduction - Which option was used from A.A.C. R18-9-1010 (If Preparer did not perform VAR treatment, then specify "none")

\*\* Disposition: Name the Land application, Surface Disposal, Incineration, Composting Operation, EQB (Exceptional Quality Biosolids) Bagging operation, Landfill, Biosolids Processing facility or sludge drying operation site. Example: Hunt Farm, Flagstaff WWTP Surface Disposal site, Northwest Landfill, Western Organics, etc.

**3.E. Preparers must attach analytical results for pollutants according to A.A.C. R18-9-1012 (Self Monitoring), Pathogen Reduction results according to A.A.C. R18-9-1006 (Class A and Class B Pathogen Reduction Requirements) and Vector Attraction Reduction results according to A.A.C. R18-9-1010. This reporting is required under A.A.C. R18-9-1014 (F) respectively for biosolids produced or further treated at site during the year. Report all pollutant and pathogen results on a 100% dry weight basis.**

**3.F. Arizona Land Application Events (attached). To be completed by land applicators only.**

**3.F. Specific Information on Arizona Land Application Events. \*\*\*to be completed by Land Applicators only**

Application Site/Location	Field ID	Amount of Biosolids Applied in dry tons	Preparer	Pathogen Treatment Method	Vector Attraction Reduction Method	Loading rate	Nitrogen Conc. (Organic + ammonium)	Type of Crop Grown after application	Agronomic Rate of Crop Grown	Concentration of Pollutants (mg/kg)										
										As =	Cd =	Cr =	Cu =	Pb =	Hg =	Mo =	Ni =	Se =	Zn =	
Example: Norris Farms, Aztec, AZ			Fountain Hills SD	Class B Alt. 2	Option 9			Corn												
1. Non applicable																				
2.																				
3.																				
4.																				
5.																				
6.																				
7.																				

G. Land applicators must attach soils analysis for 2008 if using R18-9-1005(D)(2)), Pathogen Reduction results and VAR results.