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## Los Angeles Regional Water Quality Control Board

September 25, 2017

Ms. Grace Robinson Hyde  
Chief Engineer and General Manager  
Joint Outfall System  
1955 Workman Mill Road  
Whittier, CA 90601

**FINAL WASTE DISCHARGE REQUIREMENTS AND NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT (ORDER NO. R4-2017-0180), JOINT OUTFALL SYSTEM, JOINT WATER POLLUTION CONTROL PLANT (NPDES NO. CA0053813, CI NO. 1758)**

Dear Ms. Hyde

Our letter, dated August 29, 2017, transmitted the revised tentative Waste Discharge Requirements (WDRs) and National Pollutant Discharge Elimination System (NPDES) Permit for the Joint Water Pollution Control Plant.

In accordance with administrative procedures, this Regional Water Board at a public hearing held on September 7, 2017, reviewed the revised tentative requirements, considered all the factors in the case, and adopted WDRs and NPDES Order No. R4-2017-0180, with the change sheet. Non-substantial administrative edits have also been made.

The complete adopted Orders will be sent only to the Discharger. However, these documents are available on the Regional Water Board's website for your review. The Regional Water Board's web address is [www.waterboards.ca.gov/losangeles/](http://www.waterboards.ca.gov/losangeles/).

If you have any questions, please contact Elizabeth Erickson at (213) 576-6665 or the undersigned at (213) 620- 2083.

Sincerely,



Cris Morris, P.E., Chief  
Municipal Permitting Unit (NPDES)

Enclosure

cc:

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**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
LOS ANGELES REGION**

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**ORDER R4-2017-0180  
NPDES NO. CA0053813**

**WASTE DISCHARGE REQUIREMENTS AND  
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT  
FOR THE JOINT OUTFALL SYSTEM, JOINT WATER POLLUTION CONTROL PLANT  
DISCHARGE TO THE PACIFIC OCEAN**

The following Permittee is subject to waste discharge requirements (WDRs) and federal National Pollutant Discharge Elimination System (NPDES) permit requirements, as set forth in this Order:

**Table 1. Discharger Information**

<b>Discharger</b>	Joint Outfall System (JOS, Permittee, or Discharger)
<b>Name of Facility</b>	Joint Water Pollution Control Plant (JWPCP or Plant or Facility) and its associated wastewater collection system and outfalls
<b>Facility Address</b>	24501 South Figueroa Street
	Carson, CA 90745
	Los Angeles County

The Joint Outfall System (ownership and operation of the Joint Outfall System is proportionally shared among the signatory parties to the amended Joint Outfall Agreement effective July 1, 1995. These parties include County Sanitation Districts of Los Angeles County Nos. 1, 2, 3, 5, 8, 15, 16, 17, 18, 19, 21, 22, 23, 28, 29, and 34, and South Bay Cities Sanitation District of Los Angeles County) was formerly referred to as the County Sanitation Districts of Los Angeles County. The discharge by the Joint Outfall System from the discharge points identified below is subject to waste discharge requirements as set forth in this Order.

**Table 2. Discharge Location**

<b>Discharge Point</b>	<b>Effluent Description</b>	<b>Discharge Point Latitude</b>	<b>Discharge Point Longitude</b>	<b>Receiving Water</b>
001	Secondary treated wastewater	33.6892	-118.3167	Pacific Ocean
002	Secondary treated wastewater	33.7008	-118.3381	Pacific Ocean
003	Secondary treated wastewater	33.7008	-118.3300	Pacific Ocean
004	Secondary treated wastewater	33.7061	-118.3283	Pacific Ocean

**Table 3. Administrative Information**

This Order was adopted on:	September 7, 2017
This Order shall become effective on:	November 1, 2017
This Order shall expire on:	October 31, 2022
The Discharger shall file a Report of Waste Discharge as an application for reissuance of WDRs in accordance with title 23, California Code of Regulations, and an application for reissuance of a National Pollutant Discharge Elimination System (NPDES) permit no later than:	180 days prior to the Order expiration date (Title 40, Code of Federal Regulations, part 122.21(d))
The U.S. Environmental Protection Agency (USEPA) and the California Regional Water Quality Control Board, Los Angeles Region have classified this discharge as follows:	Major

I, Samuel Unger, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of the Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on the date indicated above.

  
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Samuel Unger-P.E., Executive Officer

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## I. FACILITY INFORMATION

Information describing the Joint Water Pollution Control Plant (Facility or JWPCP) is summarized in Table 1 and in sections I and II of the Fact Sheet (Attachment F). Section I of the Fact Sheet also includes information regarding the Facility's permit application.

## II. FINDINGS

The California Regional Water Quality Control Board, Los Angeles Region (Regional Water Board), finds:

- A. **Legal Authorities.** This Order serves as waste discharge requirements (WDRs) pursuant to article 4, chapter 4, division 7 of the California Water Code (CWC) (commencing with section 13260). This Order is also issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the USEPA and chapter 5.5, division 7 of the CWC (commencing with section 13370). It shall serve as a National Pollutant Discharge Elimination System (NPDES) permit authorizing the Discharger to discharge into waters of the United States at the discharge location described in Table 2 subject to the WDRs in this Order.
- B. **Background and Rationale for Requirements.** The Regional Water Board developed the requirements in this Order based on information submitted as part of the application, through monitoring and reporting programs (MRPs), and other available information. The Fact Sheet (Attachment F), which contains background information and rationale for the requirements in this Order, is hereby incorporated into and constitutes Findings for this Order. Attachments A through E and G through I are also incorporated into this Order.
- C. **Notification of Interested Parties.** The Regional Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe WDRs for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Details of the notification are provided in the Fact Sheet.
- D. **Consideration of Public Comment.** The Regional Water Board, in a public meeting, heard and considered all comments pertaining to the discharge. Details of the Public Hearing are provided in the Fact Sheet.

**THEREFORE, IT IS HEREBY ORDERED**, that Order R4-2011-0151 is rescinded upon the effective date of this Order except for enforcement purposes, and, in order to meet the provisions contained in division 7 of the CWC (commencing with section 13000) and regulations adopted thereunder, and the provisions of the CWA and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this Order. This action in no way prevents the Regional Water Board from taking enforcement action for past violations of the previous Order.

## III. DISCHARGE PROHIBITIONS

- A. Discharges to Discharge Points 003 and 004 are prohibited, except during the following situations, provided that the use of Discharge Points 001 and 002 are maximized and that the Regional Water Board is notified as described below:
  1. Emergency discharge of disinfected secondary effluent when the flow rate approaches the hydraulic capacity of Discharge Points 001 and 002 (675 million gallons per day, MGD);
  2. Emergency discharge of disinfected secondary effluent during power outages in which back-up power supplies are inoperable or insufficient to pump all the secondary effluent through Discharge Points 001 and 002.

3. Discharge of disinfected secondary effluent during planned preventative maintenance such as routine opening and closing of the outfall gate valves for exercising and lubrication; or
  4. Discharge of disinfected secondary effluent and/or brine during major planned capital improvement projects when there is no other feasible alternative. Projects warranting such a diversion will be considered on a case-by-case basis and must be approved by the Executive Officer of the Regional Water Board prior to diverting flow to the 003 and 004 Outfalls.
- B. The discharge of any radiological, chemical, or biological warfare agent or high-level radioactive waste into the ocean is prohibited.
  - C. Discharge to designated Areas of Special Biological Significance is prohibited.
  - D. Pipeline discharge of biosolids to the ocean is prohibited by federal law. The discharge of municipal and industrial waste biosolids directly to the ocean, or into a waste stream that discharges to the ocean, is prohibited by the California Ocean Plan. The discharge of sludge digester supernatant directly to the ocean, or to a waste stream that discharges to the ocean without further treatment, is prohibited.
  - E. The treatment, use and disposal of sewage biosolids shall be carried out to minimize the impact on the total natural and human environment.
  - F. The by-passing of untreated wastes containing concentrations of pollutants in excess of those in Table 1 or Table 2 of the California Ocean Plan is prohibited.
  - G. The bypass or overflow of untreated wastewater or wastes to surface waters or surface water drainage courses is prohibited, except as allowed in Standard Provision I.G. of Attachment D, Standard Provisions.
  - H. Discharge of treated wastewater at a location different from that described in this Order is prohibited.
  - I. The monthly average effluent dry weather discharge flow rate from the collection system to the headworks of the Facility shall not exceed the dry weather flow capacity of 400 MGD, and an instantaneous maximum of 675 MGD during wet weather storm events.

#### **IV. EFFLUENT LIMITATIONS, PERFORMANCE GOALS AND DISCHARGE SPECIFICATIONS**

- A. Final Effluent Limitations and Performance Goals – Discharge Points 001, 002, 003, and 004.

Effluent limitations for Discharge Points 001, 002, 003 and 004 are specified below. The discharge of treated wastewater with constituents in excess of effluent limitations is prohibited.

The performance goals for Discharge Points 001 and 002 are prescribed below in this Order. Performance goals are based upon actual performance data for the Joint Water Pollution Control Treatment Plant and are specified only as an indication of the treatment efficiency of the plant. They are not considered enforceable effluent limitations or standards for the plant. The Permittee shall maintain, if not improve, the effluent quality at or below the performance goal concentrations. Any two consecutive exceedances of the performance goals shall trigger an investigation into the cause of the exceedance. If the exceedance persists in three successive monitoring periods, the Permittee shall submit a written report to the Regional Water Board on the nature of the exceedance, the results of the investigation including the cause of the exceedance, the corrective actions taken, any proposed corrective measures, and a timetable for implementation, if necessary. The Executive Officer of the Regional Water



Board may modify any of the performance goals if the Permittee submits a request and demonstrates that the change is warranted.

**1. Final Effluent Limitations and Performance Goals – Discharge Points 001 and 002**

The Discharger shall maintain compliance with the following effluent limitations at Discharge Points 001 and 002, with compliance measured at Monitoring Locations EFF-001, EFF-002A and EFF-002B as described in the attached MRP.

The existing performance goals have been maintained where analytical techniques did not allow detection of the constituent.

**Table 4. Final Effluent Limitations and Performance Goals for Discharge Points 001 and 002**

Parameter	Units	Effluent Limitations <sup>1</sup>					Performance Goals
		Average Monthly <sup>2,3</sup>	Average Weekly <sup>3</sup>	Maximum Daily <sup>3</sup>	Instantaneous Maximum <sup>4</sup>	Annual Average	Average Monthly
<b>Major Wastewater Constituents</b>							
Biochemical Oxygen Demand 5-day @ 20°C	mg/L	30	45	--	--	--	--
	lbs/ day <sup>5</sup>	96,300	145,000	--	--	--	--
Total Suspended Solids	mg/L	30	45	--	--	--	--
	lbs/ day <sup>5</sup>	96,300	145,000	--	--	--	--
pH	pH units	6.0 (instantaneous minimum) - 9.0 (instantaneous maximum)					
Oil and Grease	mg/L	15	22.5	45	75	--	--
	lbs/ day <sup>5</sup>	48,200	72,200	144,500	241,000	--	--
Settleable Solids	ml/L	0.5	0.75	1.5	3.0	--	--
Turbidity	NTU	75	100	--	225	--	--
Temperature <sup>6</sup>	°F	--	--	100	--	--	--
Removal Efficiency for BOD <sub>5</sub> 20°C and TSS	%	85	--	--	--	--	--

<sup>1</sup> The minimum dilution ratios used to calculate effluent limitations for nonconventional and toxic pollutants for Discharge Points 001 and 002 are 166:1 for all (i.e., 166 parts seawater to one part effluent), for Discharge Point 003, 150:1 and for Discharge Point 004, 115:1.

<sup>2</sup> Average monthly effluent limitations for chlorine residual, benzidine, chlordane, 3,3'-dichlorobenzidine, toxaphene, hexachlorobenzene, TCDD equivalents and toxaphene at Discharge Points 001, 002, 003 and 004 are based on the 6-month median water quality objectives in the 2015 Ocean Plan. For intermittent discharges, the daily value used to calculate these average monthly values shall be considered to equal zero for days on which no discharge occurred.

<sup>3</sup> The maximum daily, average weekly and average monthly effluent limitations shall apply to flow weighted 24-hour composite samples. They may apply to grab samples if the collection of composite samples for those constituents is not appropriate because of the instability of the constituents.

<sup>4</sup> The instantaneous maximum effluent limitations shall apply to grab samples.

<sup>5</sup> The mass emission rates are calculated using 385 MGD, consistent with the water-quality based limits in the previous permit: lbs/day = 0.00834 x Ce (effluent concentration in µg/L) x Q (flow rate in MGD). During storm events when flow exceeds 400 MGD, the mass emission rate limitations shall not apply.

<sup>6</sup> The temperature of wastes discharged shall not exceed 100°F.

Parameter	Units	Effluent Limitations <sup>1</sup>					Performance Goals
		Average Monthly <sup>2,3</sup>	Average Weekly <sup>3</sup>	Maximum Daily <sup>3</sup>	Instantaneous Maximum <sup>4</sup>	Annual Average	Average Monthly
<b>Marine Aquatic Life Toxicants</b>							
Arsenic	µg/L	--	--	--	--	--	2.5
Cadmium	µg/L	--	--	--	--	--	0.1
Chromium (VI)	µg/L	--	--	--	--	--	1.5
Copper	µg/L	--	--	--	--	--	4.9 <sup>7</sup>
Lead	µg/L	--	--	--	--	--	0.4 <sup>8</sup>
Mercury	µg/L	--	--	--	--	--	0.04
Nickel	µg/L	--	--	--	--	--	13
Selenium	µg/L	--	--	--	--	--	11 <sup>9</sup>
Silver	µg/L	--	--	--	--	--	0.2
Zinc	µg/L	--	--	--	--	--	17
Cyanide	µg/L	--	--	--	--	--	10
Chlorine Residual	µg/L	330	--	1,300	10,000	--	--
Ammonia as N	mg/L	--	--	--	--	--	47
Phenolic compounds (non-chlorinated) <sup>10</sup>	µg/L	--	--	--	--	--	3.6
Phenolic compounds (chlorinated) <sup>10</sup>	µg/L	--	--	--	--	--	1.9
Endosulfan <sup>10</sup>	µg/L	--	--	--	--	--	0.015
Hexachloro-cyclohexane (HCH) <sup>10</sup>	µg/L	--	--	--	--	--	0.015
Endrin	µg/L	--	--	--	--	--	0.01
Chronic toxicity (Test of Significant Toxicity (TST)) <sup>11</sup>	Pass or Fail	--	--	Pass	--	--	--

<sup>7</sup> Previous performance goal (PG) of 4.9 µg/L is carried forward based on Best Professional Judgement (BPJ) because Discharger's study was not able to identify and resolve a copper PG exceedance of 7.3 µg/L, and new information would otherwise call for a relaxation of the PG.

<sup>8</sup> Existing PG of 0.4 µg/L is carried forward based on BPJ because Discharger's study did not identify and resolve a lead PG exceedance of 0.59 µg/L, and new information would otherwise call for a relaxation of the PG.

<sup>9</sup> Rather than basing the PG on the most recent data, the PG for selenium is calculated from the 2003-2005 effluent data since a temporary, more stringent limit was imposed by the Discharger for petroleum refinery discharges from 2006 to 2015. This limit was necessary during that time period to comply with biosolids composting concentration limitations that were revised by 14 CCR, Division 7, Chapter 3.1, Article 7, §17808.2 in 2015. The effluent data during the period prior to 2006, and after full secondary treatment began in 2002, is more representative of the effluent data after the more stringent pretreatment limit for the petroleum refineries was revised.

<sup>10</sup> See section VIII of this Order and Attachment A for definition of terms.

<sup>11</sup> The Chronic Toxicity final effluent limitation is protective of both the numeric acute and chronic toxicity 2015 Ocean Plan water quality objectives. The final effluent limitation will be implemented using *Short-term Methods*

Parameter	Units	Effluent Limitations <sup>1</sup>					Performance Goals
		Average Monthly <sup>2,3</sup>	Average Weekly <sup>3</sup>	Maximum Daily <sup>3</sup>	Instantaneous Maximum <sup>4</sup>	Annual Average	Average Monthly
Radioactivity <sup>10</sup>							
Gross alpha <sup>12</sup>	pCi/L	--	--	--	--	--	10.9
Gross beta <sup>12</sup>	pCi/L	--	--	--	--	--	30.5
<b>Human Health Toxicants – Non Carcinogens</b>							
Acrolein	µg/L	--	--	--	--	--	5.2
Antimony	µg/L	--	--	--	--	--	6.8
Bis(2-chloroethoxy) methane	µg/L	--	--	--	--	--	1.3
Bis(2-chloroisopropyl) ether	µg/L	--	--	--	--	--	1.6
Chlorobenzene	µg/L	--	--	--	--	--	1.2
Chromium (III)	µg/L	--	--	--	--	--	2.9
Di-n-butyl-phthalate	µg/L	--	--	--	--	--	4.4
Dichlorobenzenes <sup>10</sup>	µg/L	--	--	--	--	--	0.5
Diethyl phthalate	µg/L	--	--	--	--	--	2.1
Dimethyl phthalate	µg/L	--	--	--	--	--	1.9
2-Methyl-4,6-dinitrophenol	µg/L	--	--	--	--	--	13
2,4-Dinitrophenol	µg/L	--	--	--	--	--	17
Ethyl benzene	µg/L	--	--	--	--	--	1.9
Fluoranthene	µg/L	--	--	--	--	--	1.9
Hexachlorocyclopentadiene	µg/L	--	--	--	--	--	7.5
Nitrobenzene	µg/L	--	--	--	--	--	2.2
Thallium	µg/L	--	--	--	--	--	0.6
Toluene	µg/L	--	--	--	--	--	0.5
Tributyltin	µg/L	--	--	--	--	--	0.01
1,1,1-Trichloroethane	µg/L	--	--	--	--	--	1.8

for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms (EPA/600/R-95/136, 1995), current USEPA guidance in the National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document (EPA 833-R-10-003, June 2010) ([http://water.epa.gov/polwaste/npdes/basics/upload/wet\\_final\\_tst\\_implementation2010.pdf](http://water.epa.gov/polwaste/npdes/basics/upload/wet_final_tst_implementation2010.pdf)) and EPA Regions 8, 9, and 10, Toxicity Training Tool (January 2010). The Maximum Daily Effluent Limitation (MDEL) shall be reported as "Pass" or "Fail." (Also % Effect (percent effect) shall be reported.) See the MRP.

<sup>12</sup> Radioactivity: As noted in the 2015 California Ocean Plan: Not to exceed limits specified in Title 17, division 1, chapter 5, subchapter 4, group 3, article 3, section 30253 of the California Code of Regulations (CCR). Reference to section 30253 is prospective, including future changes to any incorporated provisions of federal law, as the changes take effect.

Parameter	Units	Effluent Limitations <sup>1</sup>					Performance Goals
		Average Monthly <sup>2,3</sup>	Average Weekly <sup>3</sup>	Maximum Daily <sup>3</sup>	Instantaneous Maximum <sup>4</sup>	Annual Average	Average Monthly
<b>Human Health Toxicants – Carcinogens</b>							
Acrylonitrile	µg/L	--	--	--	--	--	2.7
Aldrin	µg/L	--	--	--	--	--	0.0037
Benzene	µg/L	--	--	--	--	--	0.75
Benzidine	µg/L	0.012	--	--	--	--	--
	lbs/day <sup>5</sup>	0.039	--	--	--	--	--
Beryllium	µg/L	--	--	--	--	--	0.15
Bis(2-chloroethyl) ether	µg/L	--	--	--	--	--	0.95
Bis(2-ethylhexyl) phthalate	µg/L	--	--	--	--	--	14
Carbon tetrachloride	µg/L	--	--	--	--	--	1.0
Chlordane <sup>10</sup>	µg/L	0.0038	--	--	--	--	--
	lbs/day <sup>5</sup>	0.012	--	--	--	--	--
Chlorodibromomethane	µg/L	--	--	--	--	--	0.6
Chloroform	µg/L	--	--	--	--	--	25.4
DDT <sup>10, 13</sup>	µg/L	0.0158	--	--	--	--	--
	lbs/day <sup>5</sup>	0.051	--	--	--	--	--
1,4-Dichlorobenzene	µg/L	--	--	--	--	--	1.0
3,3'-Dichlorobenzidine	µg/L	1.4	--	--	--	--	--
	lbs/day <sup>5</sup>	4.5	--	--	--	--	--

<sup>13</sup> Consistent with the *Santa Monica Bay TMDL for DDTs and PCBs*, the calculation of the annual mass emissions shall be calculated using the arithmetic average of available monthly mass emissions as follows:

$$\text{Annual Mass Emission, g/year} = \left( \frac{\sum \text{Monthly Mass Emission, g/month}}{\text{Number of Monthly Mass Emissions Calculated}} \right) * 12 \text{ months/year}$$

$$\text{Monthly Mass Emission, kg/month} = \left( \frac{3,785}{N} \right) * \left( \sum_{i=1}^N Q_i C_i \right) * 30.5 = \frac{0.1154425}{N} * \left( \sum_{i=1}^N Q_i C_i \right)$$

C<sub>i</sub> = DDT or PCB concentration of each individual sample (ng/L)

Q<sub>i</sub> = discharger flow rate on date of sample (mgd)

N = number of samples collected during the month

The total mass load for DDT and PCB from the Joint Water Pollution Control Plant, Hyperion Treatment Plant, and West Basin's Water Reclamation Plant shall not be more than 14,567 g/yr for DDT and 351 g/yr for PCB. The Permittee is deemed in compliance with these group WQBELs for DDT and PCBs if it is in compliance with the individual mass-based WQBELs for DDT and PCBs in Table 4: Final Effluent Limitations and Performance Goals for Discharge Points 001 and 002.

Parameter	Units	Effluent Limitations <sup>1</sup>					Performance Goals
		Average Monthly <sup>2,3</sup>	Average Weekly <sup>3</sup>	Maximum Daily <sup>3</sup>	Instantaneous Maximum <sup>4</sup>	Annual Average	Average Monthly
1,2-Dichloroethane	µg/L	--	--	--	--	--	0.6
1,1-Dichloroethylene	µg/L	--	--	--	--	--	1.1
Bromodichloromethane	µg/L	--	--	--	--	--	1.5
Dichloromethane	µg/L	--	--	--	--	--	3
1,3-Dichloropropene	µg/L	--	--	--	--	--	0.65
Dieldrin	µg/L	--	--	--	--	--	0.005
2,4-Dinitrotoluene	µg/L	--	--	--	--	--	1.0
1,2-Diphenylhydrazine	µg/L	--	--	--	--	--	0.65
Halomethanes <sup>10</sup>	µg/L	--	--	--	--	--	1
Heptachlor	µg/L	--	--	--	--	--	0.005
Heptachlor epoxide	µg/L	--	--	--	--	--	0.0033
Hexachlorobenzene	µg/L	0.035	--	--	--	--	--
	lbs/day <sup>5</sup>	0.11	--	--	--	--	--
Hexachlorobutadiene	µg/L	--	--	--	--	--	0.7
Hexachloroethane	µg/L	--	--	--	--	--	0.7
Isophorone	µg/L	--	--	--	--	--	0.65
N-Nitrosodimethylamine	µg/L	--	--	--	--	--	0.7
N-Nitrosodi-N-propylamine	µg/L	--	--	--	--	--	0.6
N-Nitrosodiphenylamine	µg/L	--	--	--	--	--	0.75
PAHs <sup>10</sup>	µg/L	--	--	--	--	--	0.95
Total PCBs <sup>10,13</sup>	µg/L	0.00035	--	--	--	--	--
	lbs/day	0.001	--	--	--	--	--
TCDD equivalents	pg/L	0.65	--	--	--	--	--
	lbs/day <sup>5</sup>	2.1X10 <sup>-6</sup>	--	--	--	--	--
1,1,2,2-Tetrachloroethane	µg/L	--	--	--	--	--	0.4
Tetrachloroethylene	µg/L	--	--	--	--	--	20
Toxaphene	µg/L	0.035	--	--	--	--	--
	lbs/day <sup>5</sup>	0.11	--	--	--	--	--
Trichloroethylene	µg/L	--	--	--	--	--	0.85
1,1,2-Trichloroethane	µg/L	--	--	--	--	--	0.45
2,4,6-Trichlorophenol	µg/L	--	--	--	--	--	0.6
Vinyl chloride	µg/L	--	--	--	--	--	1.3

**2. Final Effluent Limitations – Discharge Point 003**

The Discharger shall maintain compliance with the following effluent limitations at Discharge Point 003, with compliance measured at Monitoring Locations EFF-001, EFF-002A and EFF-002B as described in the MRP, Attachment E:

**Table 5. Effluent Limitations Discharge Point 003**

Parameter	Units	Effluent Limitations <sup>1</sup>					Performance Goals
		Average Monthly <sup>2,3</sup>	Average Weekly <sup>3</sup>	Maximum Daily <sup>3</sup>	Instantaneous Maximum <sup>4</sup>	Annual Average	Average Monthly
Marine Aquatic Life Toxicants							
Chlorine Residual	µg/L	300	--	1200	9,100	--	--
Human Health Toxicants							
Benzidine	µg/L	0.01	--	--	-	--	--
Chlordane <sup>10</sup>	µg/L	0.003	--	--	--	--	--
3,3'- Dichloro-benzidine	µg/L	1.2	--	--	--	--	--
Hexachloro-benzene	µg/L	0.032	--	--	--	--	--
TCDD equivalent	pg/L	0.59	--	--	--	--	--
Toxaphene	µg/L	0.032	--	--	--	--	--

The limits for radioactivity, DDT, PCB, TCDD, and toxicity are to be met at EFF-001 and EFF-002, only, as the values are based on mass or long term effects measured at outfalls with daily discharge. Additional discussion can be found Attachment F IV.D.1 and 2. Similarly, no load limits are set for temporary discharge at Discharge Point 003.

**3. Final Effluent Limitations – Discharge Point 004**

The Discharger shall maintain compliance with the following effluent limitations at Discharge Point 004, with compliance measured at Monitoring Location EFF-001, EFF-002A and EFF-002B as described in the MRP, Attachment E:

**Table 6. Effluent Limitations Discharge Point 004**

Parameter	Units	Effluent Limitations <sup>1</sup>					Performance Goals
		Average Monthly <sup>2,3</sup>	Average Weekly <sup>3</sup>	Maximum Daily <sup>3</sup>	Instantaneous Maximum <sup>4</sup>	Annual Average	Average Monthly
Marine Aquatic Life Toxicants							
Chlorine Residual	µg/L	230	--	930	7,000	--	--
Human Health Toxicants							
Benzidine	µg/L	0.008	--	--	--	--	--
Chlordane <sup>10</sup>	µg/L	0.003	--	--	--	--	--
3,3'-Dichloro-benzidine	µg/L	0.93	--	--	--	--	--
Hexachloro-benzene	µg/L	0.024	--	--	--	--	--
TCDD equivalent	pg/L	0.45	--	--	--	--	--
Toxaphene	µg/L	0.024	--	--	--	--	--

The limits for radioactivity, DDT, PCB, TCDD, and toxicity are to be met at EFF-001 and EFF-002, only, as the values are based on mass or long term effects measured at outfalls with daily discharge. Additional discussion can be found Attachment F IV.D.1 and 2. Similarly, no load limits are set for temporary discharge at Discharge Point 004.

**4. Additional Effluent Limitations**

- a. The Discharger shall ensure that bacterial concentrations in the effluent discharged from Discharge Points 001 and 002 do not result in an exceedance of the JWPCP's waste load allocation of zero (0) days exceedance of single sample numeric limits or geometric mean limits (based on Basin Plan bacteria objectives for marine water designated REC-1, see section VI.A.1.a) at shoreline compliance points, as specified in Regional Water Board Resolutions R12-007 Attachment A and No. 2006-008 Finding 21.
- b. Waste discharged to the ocean must be essentially free of
  - i. Material that is floatable or will become floatable upon discharge.
  - ii. Settleable material or substances that may form sediments which will degrade benthic communities or other aquatic life.
  - iii. Substances that will accumulate to toxic levels in marine waters, sediments or biota.
  - iv. Substances that significantly decrease the natural light to benthic communities and other marine life.

- v. Materials that result in aesthetically undesirable discoloration of the ocean surface.

**5. Interim Effluent Limitations – Not Applicable**

B. Land Discharge Specifications – Not Applicable

C. Recycling Specifications – Not Applicable

**V. MASS EMISSION BENCHMARKS**

The following mass emission benchmarks, in metric tons per year (MT/yr), have been established for the discharge through the Discharge Points 001 and 002. The Discharger shall monitor and report the mass emission rate for all constituents that have mass emission benchmarks. These mass emission benchmarks are not enforceable water quality based effluent limitations. They may be re-evaluated and revised during the five-year permit term. The mass emission benchmarks were not quantified in R4-2011- 0151, but are determined for this Order using January 2006 through December 2010 effluent concentrations, the final limit or performance goal and the 1997 average design dry weather flow of 385 MGD. In the absence of previously calculated mass emission benchmarks and declining effluent flows, the loads are not calculated using the design flow, but the historic flow of 385 MGD.

**Table 7. Twelve Month Average Effluent Mass Emission Benchmarks**

Ocean Plan Constituent	12-month Average Mass Emission Benchmarks (MT/yr)
<b>Marine Aquatic Life</b>	
Arsenic	1.3
Cadmium	0.1
Chromium VI	0.8
Copper	2.6
Lead	0.2
Mercury	0.02
Nickel	6.9
Selenium	5.9
Silver	0.1
Zinc	9.0
Cyanide	5.3
Ammonia as N	25,000
Phenolic Compounds (non-chlorinated) <sup>14</sup>	1.9
Phenolic Compounds (chlorinated) <sup>14</sup>	1.0
Endosulfan <sup>14</sup>	0.008
Endrin	0.005
Alpha, beta gamma and delta isomers of hexachlorocyclohexane HCH <sup>14</sup>	0.008
<b>Human Health (noncarcinogens)</b>	
Acrolein	2.7

<sup>14</sup> See section VIII of this Order and Attachment A for definition of terms.



Ocean Plan Constituent	12-month Average Mass Emission Benchmarks (MT/yr)
Antimony	3.6
Bis(2-chloroethoxy) methane	0.7
Bis(2-chloroisopropyl) ether	0.8
Chlorobenzene	0.6
Chromium (III)	1.5
Di-n-butyl phthalate	2.3
Dichlorobenzenes (BNA)	0.3
Diethyl phthalate	1.1
Dimethyl phthalate	1.0
4,6-dinitro-2-methylphenol	6.9
2,4-dinitrophenol	9.0
Ethylbenzene	1.0
Fluoranthene	1.0
Hexachlorocyclopentadiene	4.0
Nitrobenzene	1.2
Thallium	0.3
Toluene	0.3
Tributyltin	0.005
1,1,1-trichloroethane	1.0
<b>Human Health Protection (carcinogens)</b>	
Acrylonitrile	1.4
Aldrin	0.002
Benzene	0.399
Beryllium	0.1
Bis(2-chloroethyl) ether	0.5
Bis(2-ethylhexyl) phthalate	7.4
Carbon tetrachloride	0.5
Chlorodibromomethane	1.3
Chloroform	13.5
1,4-dichlorobenzene (BNA)	0.5
1,2-dichloroethane	0.3
1,1-dichloroethylene	0.6
Dichlorobromomethane	0.8
Dichloromethane	1.6
1,3-dichloropropene	0.3
2,4-dinitrotoluene	0.5
1,2-diphenylhydrazine	0.3
Halomethanes <sup>14</sup>	0.5
Hexachlorobutadiene	0.4
Hexachloroethane	0.4

Ocean Plan Constituent	12-month Average Mass Emission Benchmarks (MT/yr)
Isophorone	0.3
N-nitrosodimethylamine	0.4
N-nitrosodi-n-propylamine	0.3
N-nitrosodiphenylamine	0.4
PAHs <sup>14</sup>	0.5
1,1,2,2-tetrachloroethane	0.2
Tetrachloroethylene	10.6
Trichloroethylene	0.5
1,1,2-trichloroethane	0.2
2,4,6-trichlorophenol	0.3
Vinyl chloride	0.7

**VI. RECEIVING WATER LIMITATIONS**

The Discharger shall not cause a violation of the following water quality objectives. Compliance with these water quality objectives shall be determined by samples collected at stations outside the zone of initial dilution as specified in the MRP.

**A. Surface Water Limitations**

1. Bacterial Characteristics

a. State/Regional Water Contact Standards

Within a zone bounded by the shoreline and a distance of 1,000 feet from the shoreline or the 30-foot depth contour, whichever is further from the shoreline, and in areas outside this zone used for water contact sports, as determined by the Regional Water Board (i.e., waters designated as REC-1), but including all kelp beds, the following bacterial objectives shall be maintained throughout the water column.

i. 30-day Geometric Mean Limits

- (1) Total coliform density shall not exceed 1,000/100 mL.
- (2) Fecal coliform density shall not exceed 200/100 mL.
- (3) *Enterococcus* density shall not exceed 35/100 mL

ii. Single Sample Maximum Limits (SSM)

- (1) Total coliform density shall not exceed 10,000/100 mL.
- (2) Fecal coliform density shall not exceed 400/100 mL.
- (3) *Enterococcus* density shall not exceed 104/100 mL.
- (4) Total coliform density shall not exceed 1,000/100 mL, if the ratio of fecal-to-total coliform exceeds 0.1.

The geometric mean values should be calculated based on a statistically sufficient number of samples (generally not less than 5 samples equally spaced over a 30-day period). If any of the single sample limits are exceeded, the Regional Water Board may require repeat sampling on a daily basis until the sample falls below the single sample limit in order to determine the persistence of the exceedance. When repeat sampling is required because of an exceedance of any one single sample limit, values from all samples collected during that 30-day period will be used to calculate the geometric mean.

During a wet-weather event, stormwater runoff will impact inshore and offshore stations. The day of rain (0.1 inch and greater), plus three following days' worth of bacteriology data, should be excluded from Single and Geometric mean limits.

- b. The Initial Dilution Zone for any wastewater outfall shall be excluded from designation as kelp beds for purposes of bacterial standards. Adventitious assemblages of kelp plants on waste discharge structures (e.g., outfall pipes and diffusers) do not constitute kelp beds for purposes of bacterial standards.
- c. State Water Resources Control Board, Division of Drinking Water (DDW) has established minimum protective bacteriological standards for coastal waters adjacent to public beaches and for public water-contact sports areas in ocean waters. These standards are found in the CCR, Title 17, section 7958, and they are identical to the objectives contained in subsection a, above. When a public beach or public water-contact sports area fails to meet these standards, DDW or the local public health officer may post with warning signs or otherwise restrict use of the public beach or public water-contact sports area until the standards are met. DDW regulations impose more frequent monitoring and more stringent posting and closure requirements on certain high-use public beaches that are located adjacent to a storm drain that flows in the summer.

For beaches not covered under AB 411 regulations <sup>15</sup>(this incorporation by reference is prospective including future changes to the incorporated provisions as changes take effect), DDW imposes the same standards as contained in Title 17, CCR, and requires weekly sampling but allows the county health officer more discretion in making posting and closure decisions.

- d. Shellfish Harvesting Standards

At all areas where shellfish may be harvested for human consumption, as determined by the Regional Water Board, the following bacterial objectives shall be maintained throughout the water column: The median total coliform density for any 6 month period shall not exceed 70 per 100 mL, and not more than 10 percent of the samples shall exceed 230 per 100 mL for any six month period.

During a wet-weather event, stormwater runoff will impact areas where shellfish are harvested. The day of rain (0.1 inch and greater), plus three following days' worth of bacteriology data, should be excluded from compliance monitoring data.

## 2. Physical Characteristics

The waste discharged shall not:

- a. cause floating particulates and oil and grease to be visible;

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<sup>15</sup> [ftp://www.leginfo.ca.gov/pub/97-98/bill/asm/ab\\_0401-0450/ab\\_411\\_bill\\_19971008\\_chaptered.pdf](ftp://www.leginfo.ca.gov/pub/97-98/bill/asm/ab_0401-0450/ab_411_bill_19971008_chaptered.pdf)

- b. cause aesthetically undesirable discoloration on the ocean surface
- c. significantly reduce the transmittance of natural light at any point outside the initial dilution zone, and;
- d. change the rate of deposition of inert solids and the characteristics of inert solids in ocean sediments such that benthic communities are degraded.

3. Chemical Characteristics

The waste discharged shall not:

- a. cause the dissolved oxygen concentration at any time to be depressed more than 10 percent from that which occurs naturally, as a result of the discharge of oxygen demanding waste;
- b. change the pH of the receiving waters at any time more than 0.2 units from that which occurs naturally;
- c. cause the dissolved sulfide concentration of waters in and near sediments to be significantly increased above that present under natural conditions;
- d. cause concentration of substances (as set forth in Chapter II, Table 1 of the 2012 Ocean Plan) in marine sediments to be increased to levels that would degrade indigenous biota;
- e. cause the concentration of organic materials in marine sediments to be increased to levels that would degrade marine life;
- f. contain nutrients at levels that will cause objectionable aquatic growths or degrade indigenous biota;
- g. cause total chlorine residual exceeding 0.1 mg/L in the receiving water and shall not persist in the receiving water at any concentration that causes impairment of beneficial uses as a result of the discharge;
- h. produce concentrations of substances in the receiving water that are toxic to or cause detrimental physiological responses, in human, animal, or aquatic life; and
- i. contain individual pesticides or combinations of pesticides in concentrations that adversely affect beneficial uses.

4. Biological Characteristics

The waste discharged shall not:

- a. degrade marine communities, including vertebrate, invertebrate, and plant species;
- b. alter the natural taste, odor, and color of fish, shellfish, or other marine resources used for human consumption;
- c. cause the concentration of organic materials in fish, shellfish or other marine resources used for human consumption to bioaccumulate to levels that are harmful to human health; and
- d. contain substances that result in biochemical oxygen demand that adversely affects the beneficial uses of the receiving water.

5. Radioactivity

Discharge of radioactive waste shall not degrade marine life.

**B. Groundwater Limitations – Not Applicable**

## VII. PROVISIONS

### A. Standard Provisions

1. The Discharger shall comply with all Standard Provisions included in Attachment D of this Order.
2. Regional Water Board Standard Provisions. The Discharger shall comply with the following provisions. In the event that there is any conflict, duplication, or overlap between provisions specified by this Order, the more stringent provision shall apply:
  - a. Neither the treatment nor the discharge of pollutants shall create a pollution, contamination, or nuisance as defined by section 13050 of the CWC.
  - b. Odors, vectors, and other nuisances of sewage or biosolids origin beyond the limits of the treatment plant site or the sewage collection system due to improper operation of facilities, as determined by the Regional Water Board, are prohibited.
  - c. All facilities used for collection, transport, treatment, or disposal of wastes shall be adequately protected against damage resulting from overflow, washout, or inundation from a storm or flood having a recurrence interval of once in 100 years.
  - d. Collection, treatment, and disposal systems shall be operated in a manner that precludes public contact with wastewater.
  - e. Collected screenings, sludges, and other solids removed from liquid wastes shall be disposed of in a manner approved by the Executive Officer of the Regional Water Board.
  - f. The provisions of this Order are severable. If any provision of this Order is found invalid, the remainder of this Order shall not be affected.
  - g. Nothing in this Order shall be construed to preclude the institution of any legal action or relieve the Discharger from any responsibilities, liabilities or penalties established pursuant to any applicable state law or regulation under authority preserved by section 510 of the CWA.
  - h. Nothing in this Order/Permit shall be construed to preclude the institution of any legal action or relieve the Discharger from any responsibilities, liabilities or penalties to which the Discharger is or may be subject to under section 311 of the CWA.
  - i. Discharge of wastes to any point other than specifically described in this Order is prohibited.
  - j. The Discharger shall comply with all applicable effluent limitations, national standards of performance, toxic effluent standards, and all federal regulations established pursuant to sections 301, 302, 303(d), 304, 306, 307, 316, 403, and 405 of the federal CWA and amendments thereto.
  - k. These requirements do not exempt the operator of the waste disposal facility from compliance with any other laws, regulations, or ordinances which may be applicable; they do not legalize this waste disposal facility; and they leave unaffected any further restraints on the disposal of wastes at this site which may be contained in other statutes or required by other agencies.
  - l. Oil or oily material, chemicals, refuse, or other polluting materials shall not be stored or deposited in areas where they may be picked up by rainfall and carried off of the property and/or discharged to surface waters. Any spill of such materials shall be contained and removed immediately.

- m. A copy of these waste discharge specifications shall be maintained at the discharge Facility so as to be available at all times to operating personnel.
- n. If there is any storage of hazardous or toxic materials or hydrocarbons at this Facility and if the Facility is not manned at all times, a 24-hour emergency response telephone number shall be prominently posted where it can easily be read from the outside.
- o. The Discharger shall file with the Regional Water Board a Report of Waste Discharge at least 120 days before making any proposed change in the character, location or volume of the discharge.
- p. The Discharger shall comply with the lawful requirements of municipalities, counties, drainage districts, and other local agencies regarding discharges of storm water to storm drain systems or other water courses under their jurisdiction; including applicable requirements in municipal storm water management program developed to comply with NPDES permits issued by the Regional Water Board to local agencies.
- q. In the event of any change in name, ownership, or control of these waste disposal facilities, the Discharger shall notify the Regional Water Board of such change and shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be forwarded to the Regional Water Board and USEPA, 30 days prior to taking effect.
- r. The CWC provides that any person who violates a waste discharge requirement or a provision of the CWC is subject to civil penalties of up to \$5,000 per day, \$10,000 per day, or \$25,000 per day of violation, or when the violation involves the discharge of pollutants, is subject to civil penalties of up to \$10 per gallon per day or \$25 per gallon per day of violation, or some combination thereof, depending on the violation, or upon the combination of violations. Violation of any of the provisions of the NPDES program or of any provisions of this Order may subject the violator to any of the penalties described herein, or any combinations thereof, at the discretion of the prosecuting authority; except that only one kind of penalty may be applied for each kind of violation.
- s. CWC section 13387 provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this Order, including monitoring reports or reports of compliance or noncompliance, or who knowingly falsifies, tampers with, or renders inaccurate any monitoring device or method required to be maintained in this Order is subject to a fine of not more than \$25,000 or imprisonment of not more than two years, or both. For a second conviction, such a person shall be punished by a fine of not more than \$25,000 per day of violation, or by imprisonment of not more than four years, or by both.
- t. The discharge of any waste resulting from the combustion of toxic or hazardous wastes to any waste stream that ultimately discharges to waters of the United States is prohibited, unless specifically authorized elsewhere in this Order.
- u. Discharger shall notify the Executive Officer in writing no later than 6 months prior to planned discharge of any chemical, other than the products previously reported to the Executive Officer, which may be toxic to aquatic life. Such notification shall include:
  - i. Name and general composition of the chemical,

- ii. Frequency of use,
  - iii. Quantities to be used,
  - iv. Proposed discharge concentrations, and
  - v. USEPA registration number, if applicable.
- v. Failure to comply with provisions or requirements of this Order, or violation of other applicable laws or regulations governing discharges from this facility, may subject the Discharger to administrative or civil liabilities, criminal penalties, and/or other enforcement remedies to ensure compliance. Additionally, certain violations may subject the Discharger to civil or criminal enforcement from appropriate local, state, or federal law enforcement entities.
- w. In the event the Discharger does not comply or will be unable to comply for any reason, with any prohibition, effluent limitation, or receiving water limitation of this Order, the Discharger shall notify the Chief of the Watershed Regulatory Section at the Regional Water Board by telephone (213) 576-6616, or by fax at (213) 576-6660 within 24 hours of having knowledge of such noncompliance, and shall confirm this notification in writing to the Regional Water Board within five days, unless the Regional Water Board waives confirmation. The written notification shall state the nature, time, duration, and cause of noncompliance, and shall describe the measures being taken to remedy the current noncompliance and, prevent recurrence including, where applicable, a schedule of implementation. The written notification shall also be submitted via email with reference to CI-1758 to [losangeles@waterboards.ca.gov](mailto:losangeles@waterboards.ca.gov). Other noncompliance requires written notification as above at the time of the normal monitoring report.
- x. CWC section 13385(h)(i) requires the Regional Water Board to assess a mandatory minimum penalty of three-thousand dollars (\$3,000) for each serious violation. Pursuant to CWC section 13385(h)(2), a "serious violation" is defined as any waste discharge that violates the effluent limitations contained in the applicable waste discharge requirements for a Group II pollutant by 20 percent or more, or for a Group I pollutant by 40 percent or more. Appendix A of 40 CFR § 123.45 specifies the Group I and II pollutants. Pursuant to CWC section 13385.1(a)(1), a "serious violation" is also defined as "a failure to file a discharge monitoring report required pursuant to section 13383 for each complete period of 30 days following the deadline for submitting the report, if the report is designed to ensure compliance with limitations contained in waste discharge requirements that contain effluent limitations."
- y. CWC section 13385(i) requires the Regional Water Board to assess a mandatory minimum penalty of three-thousand dollars (\$3,000) for each violation whenever a person violates a waste discharge requirement effluent limitation in any period of six consecutive months, except that the requirement to assess the mandatory minimum penalty shall not be applicable to the first three violations within that time period.
- z. Pursuant to CWC section 13385.1(d), for the purposes of section 13385.1 and subdivisions (h), (i), and (j) of section 13385, "effluent limitation" means a numeric restriction or a numerically expressed narrative restriction, on the quantity, discharge rate, concentration, or toxicity units of a pollutant or pollutants that may be discharged from an authorized location. An effluent limitation may be final or interim,

and may be expressed as a prohibition. An effluent limitation, for these purposes, does not include a receiving water limitation, a compliance schedule, or a best management practice.

- aa. Violation of any of the provisions of this Order may subject the Discharger to any of the penalties described herein or in Attachment D of this Order, or any combination thereof, at the discretion of the prosecuting authority; except that only one kind of penalty may be applied for each kind of violation.

## **B. Monitoring and Reporting Program (MRP) Requirements**

The Discharger shall comply with the MRP, and future revisions thereto, in Attachment E.

## **C. Special Provisions**

### **1. Reopener Provisions.**

- a. This Order may be reopened and modified to incorporate new limits based on future reasonable potential analyses to be conducted based on on-going monitoring data collected by the Discharger and evaluated by the Regional Water Board.
- b. This Order may be reopened and modified to incorporate new mass emission rates based on the current JWPCP's design capacity of 400 MGD provided that the Discharger requests and conducts an antidegradation analysis to demonstrate that the change is warranted.
- c. This Order may be reopened and modified, in accordance with the provisions set forth in 40 CFR § 122 and 124, to incorporate requirements for the implementation of the watershed protection management approach.
- d. This Order may be modified, in accordance with the provisions set forth in 40 CFR § 122 to 124, to include new minimum levels (MLs).
- e. This Order may be reopened and modified to revise effluent limitations as a result of the adoption of a TMDL for Santa Monica Bay Watershed Management Areas.
- f. The Regional Water Board may modify or revoke and reissue this Order if present or future investigations demonstrate that the discharge(s) governed by this Order will cause, have the potential to cause, or will contribute to adverse impacts on water quality and/or beneficial uses of the receiving waters.
- g. This Order may be modified, revoked, and reissued or terminated in accordance with the provisions of 40 CFR § 122.44, 122.62 to 122.64, 125.62, and 125.64. Causes for taking such actions include, but are not limited to, failure to comply with any condition of this Order, endangerment to human health or the environment resulting from the permitted activity, or acquisition of newly obtained information which would have justified the application of different conditions if known at the time of Order adoption and issuance. The filing of a request by the Discharger for an Order modification, revocation, and issuance or termination, or a notification of planned changes or anticipated noncompliance does not stay any condition of this Order.
- h. This Order may be reopened and modified to incorporate conforming monitoring requirements and schedule dates for implementation of the Comprehensive Monitoring Program for Santa Monica Bay (Santa Monica Bay Restoration Commission, January 2007).
- i. This Order may be modified, revoked and reissued, or terminated for cause, including, but not limited to:



- i. Violation of any term or condition contained in this Order;
- ii. Obtaining this Order by misrepresentation, or by failure to disclose fully all relevant facts; or
- iii. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.
- j. The filing of a request by the Discharger for an Order modification, revocation, and issuance or termination, or a notification of planned changes or anticipated noncompliance does not stay any condition of this Order.
- k. If an applicable toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under section 307(a) of the CWA for a toxic pollutant and that standard or prohibition is more stringent than any limitation on the pollutant in this Order, the Regional Water Board may institute proceedings under these regulations to modify or revoke and reissue the Orders to conform to the toxic effluent standard or prohibition.
- l. If more stringent applicable water quality standards are promulgated or approved pursuant to section 303 of the CWA, or amendments, thereto, the Regional Water Board will revise and modify this Order in accordance with such standards.
- m. This Order may be reopened and modified, to revise effluent limitations as a result of the delisting of a pollutant from the 303(d) list.
- n. This Order will be reopened and modified to revise any and all of the chronic toxicity testing provisions and effluent limitations, to the extent necessary, to be consistent with a revised Ocean Plan or a Toxicity Plan that is subsequently adopted by the State Water Board promptly after USEPA-approval of such plan.
- o. This Order will be reopened and modified to the extent necessary, to be consistent with new policies, a new state-wide plan, new laws, or new regulations.
- p. The Regional Water Board will reconsider the ammonia performance goals and may reopen the Order if the Discharger has demonstrated that conservation efforts and recycling projects have caused an increase in the ammonia concentration, the plant is optimized with respect to ammonia control, and the Discharger provides justification that the proposed modification will not impact the beneficial uses of the receiving water.

## 2. **Special Studies, Technical Reports and Additional Monitoring Requirements**

### a. **Toxicity Reduction Requirements**

The Discharger shall prepare and submit a copy of the Discharger's initial investigation Toxicity Reduction Evaluation (TRE) work plan in accordance with MRP section V.A.

### b. **Treatment Plant Capacity**

The Discharger shall submit a written report to the Executive Officer of the Regional Water Board within 90 days after the "30-day (monthly) average" daily dry-weather flow equals or exceeds 75 percent of the design capacity (0.75 x 400 MGD = 300 MGD) of waste treatment and/or disposal facilities. The Discharger's senior administrative officer shall sign a letter, which transmits that report and certifies that

the discharger's policy-making body is adequately informed of the report's contents. The report shall include the following:

- i. The average daily flow for the calendar month, the date on which the peak flow occurred, the rate of that peak flow, and the total flow for the day;
- ii. The Discharger's best estimate of when the monthly average daily dry-weather flow rate will equal or exceed the design capacity of the POTW; and
- iii. A schedule for studies, design, and other steps needed to provide additional capacity for waste treatment and/or disposal facilities before the waste flow rate equals the capacity of present units.

This requirement is applicable to those facilities that have not reached 75 percent of capacity as of the effective date of this Order. For those facilities that have reached 75 percent of capacity by that date but for which no such report has been previously submitted, such report shall be filed within 90 days of the issuance of this Order.

### 3. **Best Management Practices and Pollution Prevention**

#### a. Storm Water Pollution Prevention Program (SWPPP)

The JWPCP is regulated under the State Water Board Water Quality Order No. 2014-0057-DWQ, NPDES General Permit No. CAS000001, General Permit for Storm Water Discharges Associated with Industrial Activities (Industrial General Permit).

#### b. Spill Cleanup Contingency Plan (SCCP)

Within 90 days of the effective date of this Order, the Discharger is required to submit a SCCP. The SCCP shall describe the activities and protocols to address clean-up of spills, overflows, and bypasses of untreated wastewater from the Discharger's collection system or treatment facilities that reach water bodies including dry channels and beach sands. At a minimum, the plan shall include sections of spill clean-up and containment measures, public notifications, and monitoring. The Discharger shall review and amend the plan as appropriate after each spill from the Facility or in the service area of the Facility. The Discharger shall include a discussion in the annual summary report of any modifications to the plan and the application of the plan to all spills during the year.

#### c. Pollutant Minimization Program

Reporting protocols in the MRP describe sample results that are to be reported as Detected but Not Quantified (DNQ) or Not Detected (ND). Definitions for a reported ML and Method Detection Limit (MDL) are provided in the Ocean Plan. These reporting protocols and definitions are used in determining the need to conduct a PMP as follows:

The Discharger shall develop and conduct a Pollutant Minimization Program (PMP) as further described below when there is evidence (e.g., sample results reported as DNQ, when the effluent limitation is less than the MDL; sample results from analytical methods more sensitive than those methods required by this Order; presence of whole effluent toxicity; health advisories for fish consumption, or results of benthic or aquatic organism tissue sampling) that a pollutant is present in the effluent above an effluent limitation and either:

- i. The concentration of the pollutant is reported as DNQ and the effluent limitation is less than the reported ML;
- ii. The concentration of the pollutant is reported as ND and the effluent limitation is less than the MDL, using definitions described in Attachment A and reporting protocols described in MRP section X.B.4.

The goal of the PMP shall be to reduce all potential sources of a pollutant through pollutant minimization (control) strategies, including pollution prevention measures as appropriate, to maintain the effluent concentration at or below the effluent limitation. Pollution prevention measures may be particularly appropriate for persistent bioaccumulative priority pollutants where there is evidence that beneficial uses are being impacted. The Regional Water Board may consider cost-effectiveness when establishing the requirements of a PMP. The completion and implementation of a Pollution Prevention Plan (PPP), if required pursuant to CWC section 13263.3(d), shall be considered to fulfill the PMP requirements.

The PMP shall include, but not be limited to, the following actions and submittals acceptable to the Regional Water Board:

- i. An annual review and semi-annual monitoring of potential sources of the reportable pollutant(s), which may include fish tissue monitoring and other bio-uptake sampling;
- ii. Quarterly monitoring for the reportable pollutant(s) in the influent to the wastewater treatment system;
- iii. Submittal of a control strategy designed to proceed toward the goal of maintaining concentrations of the reportable pollutant(s) in the effluent at or below the effluent limitation;
- iv. Implementation of appropriate cost-effective control measures for the reportable pollutant(s), consistent with the control strategy; and
- v. An annual status report that shall be sent to the Regional Water Board including:
  - (1) All PMP monitoring results for the previous year;
  - (2) A list of potential sources of the reportable pollutant(s);
  - (3) A summary of all actions undertaken pursuant to the control strategy; and
  - (4) A description of actions to be taken in the following year.

**4. Construction, Operation and Maintenance Specifications.**

- a. Wastewater treatment facilities subject to this Order shall be supervised and operated by persons possessing certificates of appropriate grade pursuant to CCR, title 23, division 3, chapter 26 (CWC sections 13625 – 13633).
- b. The Discharger shall maintain in good working order a sufficient alternate power source for operating the wastewater treatment and disposal facilities. All equipment shall be located to minimize failure due to moisture, liquid spray, flooding, and other

physical phenomena. The alternate power source shall be designed to permit inspection and maintenance and shall provide for periodic testing. If such alternate power source is not in existence, the Discharger shall halt, reduce, or otherwise control all discharges upon the reduction, loss, or failure of the primary source of power.

- c. The Discharger shall provide standby or emergency power facilities and/or storage capacity or other means so that in the event of plant upset or outage due to power failure or other cause, discharge of raw or inadequately treated sewage does not occur.
  - d. The Discharger shall update as necessary, the "Operation and Maintenance Manual (O&M Manual)" which it has developed for the treatment facility to conform to latest plant changes and requirements. The O&M Manual shall be readily available to operating personnel onsite. The O&M Manual shall include the following:
    - i. Description of the treatment plant personnel organization and listing of emergency contacts.
    - ii. Detailed description of safe and effective operation and maintenance of treatment processes, process control instrumentation and equipment.
    - iii. Process and equipment inspection and maintenance schedules.
    - iv. Description of safeguards to assure that, should there be reduction, loss, or failure of electric power, the Discharger will be able to comply with requirements of this Order.
    - v. Reference to the most current SCCP.
5. **Special Provisions for Publicly-Owned Treatment Works (POTWs).**
- a. **Biosolids Disposal Requirements – Refer to Attachment H**
    - i. All biosolids generated at the wastewater treatment plant must be disposed of, treated, or applied to land in accordance with federal regulations contained in 40 Code of Federal Regulations (CFR) § 503. These requirements are enforceable by USEPA.
    - ii. The Discharger shall ensure that haulers transporting biosolids within JOS jurisdiction for treatment, storage, use, or disposal take all necessary measures to keep the biosolids contained. The Discharger shall maintain and have haulers adhere to a spill clean-up plan. Any spills shall be reported to USEPA and the Regional Water Board or state agency in which the spill occurred.
  - b. **Pretreatment Requirements – Refer to Attachment I**
    - i. The Discharger has developed and implemented a Pretreatment Program that was previously submitted to this Regional Water Board and USEPA. This Order requires implementation of the approved Pretreatment Program. Any violation of the Pretreatment Program will be considered a violation of this Order.
    - ii. Any change to the program shall be reported to the Regional Water Board and USEPA in writing and shall not become effective until approved by the

Executive Officer in accordance with procedures established in 40 CFR § 403.18.

- iii. Applications for renewal or modification of this Order must contain information about industrial discharges to the POTW pursuant to 40 CFR § 122.21(j)(6). Pursuant to 40 CFR § 122.42(b) and provision VII.A of Attachment D, Standard Provisions, of this Order, the Discharger shall provide adequate notice of any new introduction of pollutants or substantial change in the volume or character of pollutants from industrial discharges which were not included in the permit application. Pursuant to 40 CFR § 122.44(j)(1), the Discharger shall annually identify and report, in terms of character and volume of pollutants, any Significant industrial Users discharging to the POTW subject to Pretreatment Standards under section 307(b) of the CWA and 40 CFR § 403.
- iv. The Discharger shall evaluate whether its pretreatment local limits are adequate to meet the requirements of this Order and shall submit a written technical report as required under Attachment I. The Discharger shall submit revised local limits to the Regional Water Board and USEPA for approval, as necessary. In addition, the Discharger shall consider collection system overflow protection from such constituents as oil and grease, etc.
- v. The Discharger shall comply with requirements contained in Attachment I – Pretreatment Reporting Requirements.

#### 6. **Collection System Requirements.**

The Discharger is subject to the requirements of, and must comply with State Water Resources Control Board (State Water Board) Order 2006-0003-DWQ, Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, including monitoring and reporting requirements as amended by State Water Board Order WQ 2013-0058-EXEC and any subsequent order.

#### 7. **Spill Reporting Requirements for POTWs**

##### a. Initial Notification

Although State and Regional Water Board staff does not have duties as first responders, this requirement is an appropriate mechanism to ensure that the agencies that do have first responder duties are notified in a timely manner in order to protect public health and beneficial uses. For certain spills, overflows and bypasses, the Discharger shall make notifications as required below:

- i. In accordance with the requirements of Health and Safety Code section 5411.5, the Discharger shall provide notification to the local health officer or the director of environmental health with jurisdiction over the affected water body of any unauthorized release of sewage or other waste that causes, or probably will cause, a discharge to any waters of the state as soon as possible, but no later than **two hours** after becoming aware of the release.
- ii. In accordance with the requirements of CWC section 13271, the Discharger shall provide notification to the California Office of Emergency Services (Cal OES) of the release of reportable amounts of hazardous substances or sewage that causes, or probably will cause, a discharge to any waters of the state as soon as possible, but not later than **two hours** after becoming aware of the

release. The CCR, Title 23, section 2250, defines a reportable amount of sewage as being 1,000 gallons. The phone number for reporting these releases to the Cal OES is (800) 852-7550.

- iii. The Discharger shall notify the Regional Water Board of any unauthorized release of sewage from its POTW that causes, or probably will cause, a discharge to a water of the United States as soon as possible, but not later than **two hours** after becoming aware of the release. This initial notification does not need to be made if the Discharger has notified Cal OES and the local health officer or the director of environmental health with jurisdiction over the affected water body. The phone number for reporting these releases of sewage to the Regional Water Board is (213) 576-6657. The phone numbers for after hours and weekend reporting of releases of sewage to the Regional Water Board are (213) 305-2284 and (213) 305-2253.

At a minimum, the following information shall be provided to the Regional Water Board:

- (1) The location, date, and time of the release;
- (2) The route of the spill including the water body that received or will receive the discharge;
- (3) An estimate of the amount of sewage or other waste released and the amount that reached a surface water at the time of notification;
- (4) If ongoing, the estimated flow rate of the release at the time of the notification; and,
- (5) The name, organization, phone number and email address of the reporting representative.

b. Monitoring

For spills, overflows and bypasses reported under section VII.C.7.a, the Discharger shall monitor as required below:

To define the geographical extent of the spill's impact, the Discharger shall obtain grab samples from the receiving water for all spills, overflows or bypasses of any volume that reach any waters of the state (including surface and ground waters). If a grab sample cannot be obtained due to accessibility or safety concerns, the sample shall be obtained as soon as it becomes safe to do so. The Discharger shall analyze the samples for total coliform, fecal coliform, *Escherichia coli* (if fecal coliform tests positive), *Enterococcus*, and relevant pollutants of concern, upstream and downstream of the point of entry of the spill (if feasible, accessible, and safe). This monitoring shall be done on a daily basis from the time the spill is known until the results of two consecutive sets of bacteriological monitoring indicate the return to the background level or the County Department of Public Health authorizes cessation of monitoring.

c. Reporting

The initial notification required under section VII.C.7.a shall be followed by:

- i. As soon as possible, but **not later than twenty-four (24) hours** after becoming aware of an unauthorized discharge of sewage or other waste from its wastewater treatment plant to a water of the United States, the Discharger shall submit a statement to the Regional Water Board by email at [augustine.anijelo@waterboards.ca.gov](mailto:augustine.anijelo@waterboards.ca.gov). If the discharge is 1,000 gallons or more, this statement shall certify that Cal OES has been notified of the discharge in accordance with CWC section 13271. The statement shall also certify that the local health officer or director of environmental health with jurisdiction over the affected water bodies has been notified of the discharge in accordance with Health and Safety Code section 5411.5. The statement shall also include at a minimum the following information:
  - (1) Agency, NPDES No., Order No., and MRP CI No., if applicable;
  - (2) The location, date, and time of the discharge;
  - (3) The water body that received the discharge;
  - (4) A description of the level of treatment of the sewage or other waste discharged;
  - (5) An initial estimate of the amount of sewage or other waste released and the amount that reached a surface water;
  - (6) The Cal OES control number and the date and time that notification of the incident was provided to Cal OES; and,
  - (7) The name of the local health officer or director of environmental health representative notified (if contacted directly); the date and time of notification; and the method of notification (e.g., phone, fax, email).
- ii. A written preliminary report five (5) working days after disclosure of the incident is required. Submission to the Regional Water Board of the California Integrated Water Quality System (CIWQS) Sanitary Sewer Overflow (SSO) event number shall satisfy this requirement. Within 30 days after submitting the preliminary report, the Discharger shall submit the final written report to this Regional Water Board. (A copy of the final written report, for a given incident, already submitted pursuant to a statewide General WDRs for Wastewater Collection System Agencies (SSO WDR) may be submitted to the Regional Water Board to satisfy this requirement.) The written report shall document the information required in paragraph d below, monitoring results and any other information required in provisions of the Standard Provisions document including corrective measures implemented or proposed to be implemented to prevent/minimize future occurrences. The Executive Officer, for just cause, can grant an extension for submittal of the final written report.
- iii. The Discharger shall include a certification in the annual summary report (due according to the schedule in the MRP) that states that the sewer system emergency equipment, including alarm systems, backup pumps, standby power generators, and other critical emergency pump station components were maintained and tested in accordance with the Discharger's preventive maintenance plan. Any deviations from or modifications to the plan shall be discussed.

d. Records

The Discharger shall develop and maintain a record of all spills, overflows or bypasses of raw or partially treated sewage from its collection system or treatment plant. This record shall be made available to the Regional Water Board and USEPA upon request and a spill summary shall be included in the annual summary report. The records shall contain:

- i. The date and time of each spill, overflow, or bypass;
- ii. The location of each spill, overflow, or bypass;
- iii. The estimated volume of each spill, overflow, and bypass including gross volume, amount recovered and amount not recovered, monitoring results as required by section VIII.C.7;
- iv. The cause of each spill, overflow, or bypass;
- v. Whether each spill, overflow, or bypass entered a receiving water and, if so, the name of the water body and whether it entered via storm drains or other man-made conveyances;
- vi. Any mitigation measures implemented;
- vii. Any corrective measures implemented or proposed to be implemented to prevent/minimize future occurrences; and,
- viii. The mandatory information included in SSO online reporting for finalizing and certifying the SSO report for each spill, overflow, or bypass under the SSO WDR.

e. Activities Coordination

Although not required by this Order, the Regional Water Board expect that the POTW's owners/operators will coordinate their compliance activities for consistency and efficiency with other entities that have responsibilities to implement: (i) this NPDES permit, including the Pretreatment Program, (ii) a Municipal Separate Storm Sewer Systems (MS4) NPDES permit that may contain spill prevention, sewer maintenance, reporting requirements and (iii) the SSO WDR.

f. Consistency with Sanitary Sewer Overflow (SSO) WDRs

The CWA prohibits the discharge of pollutants from point sources to surface waters of the United States unless authorized under an NPDES permit. (33 United States Code (USC), sections 1311, 1342). The State Water Board adopted General Waste Discharge Requirements for Sanitary Sewer Systems, (WQ Order No. 2006-0003-DWQ; SSO WDR) on May 2, 2006, to provide a consistent, statewide regulatory approach to address sanitary sewer overflows. The SSO WDR requires public agencies that own or operate sanitary sewer systems to apply for coverage under the SSO WDR, develop and implement sewer system management plans, and report all SSOs to the State Water Board's online SSOs database. Regardless of the coverage obtained under the SSO WDR, the Discharger's collection system is part of the POTW that is subject to this NPDES permit. As such, pursuant to federal regulations, the Discharger must properly operate and maintain its collection system



(40 CFR § 122.41 (e)), report any non-compliance (40 CFR § 122.41(1)(6) and (7)), and mitigate any discharge from the collection system in violation of this NPDES permit (40 CFR § 122.41(d)).

The requirements contained in this Order in sections VII.C.3.b (SCCP), VII.C.4 (Construction, Operation and Maintenance Specifications), and VII.C.7 (Spill Reporting Requirements) are intended to be consistent with the requirements of the SSO WDR. The Regional Water Board recognizes that there may be some overlap between these NPDES permit provisions and SSO WDR requirements, related to the collection systems. The requirements of the SSO WDR are considered the minimum thresholds (see finding 11 of State Water Board Order No. 2006-0003-DWQ). To encourage efficiency, the Regional Water Board will accept the documentation prepared by the Dischargers under the SSO WDR for compliance purposes as satisfying the requirements in sections VII.C.3.b, VII.C.4, and VII.C.7 provided the more stringent provisions contained in this NPDES permit are also addressed. Pursuant to SSO WDR, section D, provision 2(iii) and (iv), the provisions of this NPDES permit supersede the SSO WDR, for all purposes, including enforcement, to the extent the requirements may be deemed duplicative.

**8. Other Special Provisions – Not Applicable**

**9. Compliance Schedules – Not Applicable.**

**VIII. COMPLIANCE DETERMINATION**

Compliance with the effluent limitations contained in section IV of this Order will be determined as specified below:

**A. General**

Compliance with effluent limitations for priority pollutants shall be determined using sample reporting protocols defined in the MRP and Attachment A of this Order. For purposes of reporting and administrative enforcement by the Regional and State Water Boards, the Discharger shall be deemed out of compliance with effluent limitations if the concentration of the priority pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reporting level (RL) or minimum level (ML).

**B. Multiple Sample Data**

When determining compliance with a measure of central tendency (arithmetic mean, geometric mean, median, etc.) of multiple sample analyses and the data set contains one or more reported determinations of DNQ or ND, the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:

1. The data set shall be ranked from low to high, ranking the reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.
2. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.

**C. Average Monthly Effluent Limitation (AMEL)**

If the average (or when applicable, the median determined by subsection B above for multiple sample data) of daily discharges over a calendar month exceeds the AMEL for a given parameter, this will represent a single violation, though the Discharger may be considered out of compliance for each day of that month for that parameter (e.g., resulting in 31 days of non-compliance in a 31-day month). If only a single sample is collected during the calendar month and the analytical result for that sample exceeds the AMEL, the Discharger may be considered out of compliance for that calendar month. For those average monthly effluent limitations that are based on the 6-month median water quality objectives in the 2015 Ocean Plan, the daily value used to calculate these average monthly values for intermittent discharges, shall be considered to equal zero for days on which no discharge occurred. The Discharger will only be considered out of compliance for days when the discharge occurs. For any one calendar month during which no sample (daily discharge) is collected, no compliance determination can be made for that calendar month with respect to the AMEL.

If the analytical result of a single sample, monitored monthly, quarterly, semiannually, or annually, does not exceed the AMEL for a given parameter, the Discharger will have demonstrated compliance with the AMEL for each day of that month for that parameter.

If the analytical result of any single sample, monitored monthly, quarterly, semiannually, or annually, exceeds the AMEL for any parameter, the Discharger may collect up to four additional samples within the same calendar month. All analytical results shall be reported in the monitoring report for that month. The concentration of pollutant (an arithmetic mean or a median) in these samples estimated from the "Multiple Sample Data Reduction" section above, will be used for compliance determination.

In the event of noncompliance with an AMEL, the sampling frequency for that parameter shall be increased to weekly and shall continue at this level until compliance with the AMEL has been demonstrated.

**D. Average Weekly Effluent Limitation (AWEL)**

If the average of daily discharges over a calendar week exceeds the AWEL for a given parameter, a potential violation will be flagged and the Discharger will be considered out of compliance for each day of that week for that parameter, resulting in 7 days of non-compliance. The average of daily discharges over the calendar week that exceeds the AWEL for a parameter will be considered out of compliance for that week only. If only a single sample is collected during the calendar week and the analytical result for that sample exceeds the AWEL, the Discharger will be considered out of compliance for that calendar week. For any one calendar week during which no sample (daily discharge) is collected, no compliance determination can be made for that calendar week with respect to the AWEL.

A calendar week will begin on Sunday and end on Saturday. Partial calendar weeks at the end of calendar month will be carried forward to the next month in order to calculate and report a consecutive seven-day average value on Saturday.

**E. Maximum Daily Effluent Limitation (MDEL)**

If a 24-hour composite sample exceeds the MDEL for a given parameter, a potential violation will be flagged and the Discharger will be considered out of compliance for that parameter for that one day only within the reporting period. If no sample (daily discharge) is taken over a calendar day, no compliance determination can be made for that day with respect to effluent violation determination, but compliance determination can be made for that day with respect to reporting violation determination.

**F. Instantaneous Minimum Effluent Limitation**

If the analytical result of a single grab sample is lower than the instantaneous minimum effluent limitation for a parameter, a potential violation will be flagged and the Discharger will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples collected within a calendar day that both are lower than the instantaneous minimum effluent limitation would result in two instances of non-compliance with the instantaneous minimum effluent limitation).

**G. Instantaneous Maximum Effluent Limitation**

If the analytical result of a single grab sample is higher than the instantaneous maximum effluent limitation for a parameter, a potential violation will be flagged and the Discharger will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples collected within a calendar day that both exceed the instantaneous maximum effluent limitation would result in two instances of non-compliance with the instantaneous maximum effluent limitation).

**H. Six-month Median Effluent Limitation**

If the median of daily discharges over any 180-day period exceeds the six-month median effluent limitation for a given parameter, a potential violation will be flagged and the Discharger will be considered out of compliance for each day of that 180-day period for that parameter. The next assessment of compliance will occur after the next sample is collected. If only a single sample is collected during a given 180-day period and the analytical result for that sample exceeds the six-month median, the Discharger will be considered out of compliance for the 180-day period. For any 180-period during which no sample is collected, no compliance determination can be made for the six-month median effluent limitation.

**I. Annual Average Effluent Limitation**

If the annual average of monthly discharges over a calendar year exceeds the annual average effluent limitation for a given parameter, a potential violation will be flagged and the Discharger will be considered out of compliance for each month of that year for that parameter. However a potential violation of the annual average effluent limitation will be considered one violation for the purpose of assessing State mandatory minimum penalties. If no sample (daily discharge) is collected over a calendar year, no compliance determination can be made for that year with respect to effluent violation determination, but compliance determination can be made for that month with respect to reporting violation determination.

**J. Chronic Toxicity**

The discharge is subject to determination of "Pass" or "Fail" from a chronic toxicity test using the Test of Significant Toxicity (TST) statistical t-test approach described in the *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (USEPA 833-R-10-003, 2010), Appendix A, Figure A-1, Table A-1, and Appendix B, Table B-1. The null hypothesis ( $H_0$ ) for the TST statistical approach is: Mean discharge In-stream Waste Concentration (IWC) response  $\leq 0.75 \times$  Mean control response. A test result that rejects this null hypothesis is reported as "Pass." A test result that does not reject this null hypothesis is reported as "Fail." This is a t-test (formally Student's t-test), a statistical analysis comparing two sets of replicate observations – in the case of a Whole Effluent Toxicity (WET) test, only two test concentrations (i.e. a control and IWC). The purpose of this statistical test is to determine if the means of the two sets of observations are different (i.e. if the IWC or receiving water concentration differs from the control (the test result is "Pass" or "Fail")). The Welch's t-

test employed by the TST statistical approach is an adaptation of Student's t-test and is used with two samples having unequal variances.

The MDEL for chronic toxicity is exceeded and a violation will be flagged when a chronic toxicity test, analyzed using the TST statistical approach, results in "Fail".

The chronic toxicity MDEL is set at the IWC for the discharge (0.60% effluent for Discharge Point 001 and Point 002) and expressed in units of the TST statistical approach ("Pass" or "Fail"). All NPDES effluent compliance monitoring for the chronic toxicity MDEL shall be reported using only the IWC effluent concentration and negative control, expressed in units of the TST. The TST hypothesis ( $H_0$ ) (see above) is statistically analyzed using the IWC and a negative control. Effluent toxicity tests shall be run using *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms* (EPA/600/R-95/136, 1995). The Regional Water Board's review of reported toxicity test results will include review of concentration-response patterns as appropriate (see Fact Sheet discussion at IV.C.5). As described in the laboratory audit directives to the San Jose Creek Water Quality Laboratory from the State Water Resources Control Board dated August 07, 2014, and from USEPA dated December 24, 2013, the Percent Minimum Significant Difference (PMSD) criteria only apply to compliance reporting for the No Observed Effect Concentration (NOEC) and the sublethal statistical endpoints of the NOEC, and therefore are not used to interpret TST results, barring Test Acceptability Criteria (TAC). Standard Operating Procedures used by the toxicity testing laboratory to identify and report valid, invalid, anomalous, or inconclusive effluent (and receiving water) toxicity test measurement results from the TST statistical approach, including those that incorporate a consideration of concentration-response patterns, must be submitted to the Regional Water Board (40 CFR § 122.41(h)). The Regional Water Board will make a final determination as to whether a toxicity test result is valid, and may consult with the Discharger, USEPA, the State Water Board's Quality Assurance Officer, or the State Water Board's Environmental Laboratory Accreditation Program as needed. The Regional Water Board may consider the results of any TIE/TRE studies in an enforcement action.

#### **K. Percent Removal**

The average monthly percent removal is the removal efficiency expressed in percentage across a treatment plant for a given pollutant parameter, as determined from the 30-day average values of pollutant concentrations (C in mg/L) of influent and effluent samples collected at about the same time using the following equation:

$$\text{Percent Removal (\%)} = [1 - (C_{\text{Effluent}}/C_{\text{Influent}})] \times 100 \%$$

When preferred, the Discharger may substitute mass loadings and mass emissions for the concentrations.

#### **L. Mass and Concentration Limitations**

Compliance with mass and concentration effluent limitations for the same parameter shall be determined separately with their respective limitations. When the concentration of a constituent in an effluent sample is determined to be ND or DNQ, the corresponding mass emission rate determined from that sample concentration shall also be reported as ND or DNQ.

#### **M. Compliance with Single Constituent Effluent Limitations**

Dischargers may be considered out of compliance with the effluent limitation if the concentration of the pollutant (see section B "Multiple Sample Data Reduction" above) in the

monitoring sample is greater than the effluent limitation and greater than or equal to the ML or RL.

**N. Compliance with Effluent Limitations Expressed as a Sum of Several Constituents**

Dischargers are out of compliance with an effluent limitation which applies to the sum of a group of chemicals (e.g., PCB's) if the sum of the individual pollutant concentrations is greater than the effluent limitation. Individual pollutants of the group will be considered to have a concentration of zero if the constituent is reported as ND or DNQ.

**O. Compliance with Total Maximum Daily Loads (TMDL)**

The NPDES regulations at 40 CFR § 122.44(d)(1)(vii)(B) require that NPDES permits include effluent limitations developed consistent with the assumptions and requirements of any WLA that has been assigned to the discharge as part of an approved TMDL. There are three TMDLs for the Santa Monica Bay: the Santa Monica Bay Beaches Bacteria TMDL, the Santa Monica Bay Nearshore and Offshore Debris TMDL, and the Santa Monica Bay TMDL for DDT and PCBs. WLAs in the Bacteria TMDL are expressed as an allowed number of exceedance days and JWPCP has an individual WLA of zero days of exceedances during both summer dry weather and winter dry weather. The MS4 permit for Los Angeles County (Order No. R4-2012-0175, NPDES No. CAS004001) includes shoreline monitoring to ensure that JWPCP meets the WLA of 0 days of exceedances contained in the Santa Monica Bay Bacteria TMDL. For point sources, the debris TMDL is implemented through the LA County MS4 and Ventura County MS4 permits (i.e. no WLA for JWPCP). The *Santa Monica Bay TMDL for DDT and PCBs* includes WLAs for DDT (15.8 ng/L and 8,717 g/yr) and for Total PCBs (0.351 ng/L and 194 g/year) for JWPCP. Consistent with the federal requirement and with the NPDES Permit Writer's Manual (EPA-833-K-10-001, September 2010), Average Monthly and Annual Average effluent limitations have been included in this Order for DDT and Total PCBs for which WLAs have been assigned to JWPCP through the *Santa Monica Bay TMDL for DDT and PCBs*.

**P. Mass Emission Rate**

The mass emission rate shall be obtained from the following calculation for any calendar day:

$$\text{Mass emission rate (lbs/day)} = \frac{8.34}{N} \sum_{i=1}^N Q_i C_i$$

$$\text{Mass emission rate (kg/day)} = \frac{3.79}{N} \sum_{i=1}^N Q_i C_i$$

in which 'N' is the number of samples analyzed in any calendar day. 'Qi' and 'Ci' are the flow rate (MGD) and the constituent concentration (mg/L), respectively, which are associated with each of the 'N' grab samples, which may be collected on any calendar day. If a composite sample is taken, 'Ci' is the concentration measured in the composite sample and 'Qi' is the average flow rate occurring during the period over which samples are composited.

The daily concentration of all constituents shall be determined from the flow-weighted average of the same constituents in the combined waste streams as follows:

$$\text{Daily concentration} = \frac{1}{Q_t} \sum_{i=1}^N Q_i C_i$$

in which 'N' is the number of component waste streams. 'Qi' and 'Ci' are the flow rate (MGD) and the constituent concentration (mg/L), respectively, which are associated with each of the 'N' waste streams. 'Qt' is the total flow rate of the combined waste streams.

**Q. Bacterial Standards and Analysis**

1. The geometric mean used for determining compliance with bacterial standards is calculated with the following equation:

$$\text{Geometric Mean} = (C_1 \times C_2 \times \dots \times C_n)^{1/n}$$

where n is the number of days samples were collected during the period and C is the concentration of bacteria (MPN/100 mL or CFU/100 mL) found on each day of sampling.

2. For bacterial analyses, sample dilutions should be performed so the expected range of values is bracketed (for example, with multiple tube fermentation method or membrane filtration method, 2 to 16,000 per 100 mL for total and fecal coliform, at a minimum, and 1 to 1000 per 100 mL for *Enterococcus*). The detection methods used for each analysis shall be reported with the results of the analyses.
3. Detection methods used for coliforms (total and fecal) shall be those presented in Table 1A of 40 CFR § 136, unless alternate methods have been approved by USEPA pursuant to 40 CFR § 136, or improved methods have been determined by the Executive Officer and/or USEPA.
4. Detection methods used for *Enterococcus* shall be those presented in Table 1A of 40 CFR § 136 or in the USEPA publication EPA 600/4-85/076, Test Methods for Escherichia coli and Enterococci in Water By Membrane Filter Procedure or any improved method determined by the Executive Officer and/or USEPA to be appropriate.

**R. Single Operational Upset (SOU)**

A SOU that leads to simultaneous violations of more than one pollutant parameter shall be treated as a single violation and limits the Discharger's liability in accordance with the following conditions:

1. A SOU is broadly defined as a single unusual event that temporarily disrupts the usually satisfactory operation of a system in such a way that it results in violation of multiple pollutant parameters.
2. A Discharger may assert SOU to limit liability only for those violations which the Discharger submitted notice of the upset as required in Provision V.E.2 (b) of Attachment D – Standard Provisions.
3. For purpose outside of CWC section 13385 subdivisions (h) and (i), determination of compliance and civil liability (including any more specific definition of SOU, the requirements for Dischargers to assert the SOU limitation of liability, and the manner of counting violations) shall be in accordance with USEPA Memorandum "Issuance of Guidance Interpreting Single Operational Upset" (September 27, 1989).
4. For purpose of CWC section 13385 (h) and (i), determination of compliance and civil liability (including any more specific definition of SOU, the requirements for Dischargers to assert the SOU limitation of liability, and the manner of counting violations) shall be in accordance with Reopener Provisions.

## ATTACHMENT A – DEFINITIONS

### **Areas of Special Biological Significance (ASBS)**

Those areas designated by the State Water Resources Control Board (State Water Board) as ocean areas requiring protection of species or biological communities to the extent that alteration of natural water quality is undesirable. All Areas of Special Biological Significance are also classified as a subset of STATE WATER QUALITY PROTECTION AREAS.

### **Arithmetic Mean ( $\mu$ )**

Also called the average, is the sum of measured values divided by the number of samples. For ambient water concentrations, the arithmetic mean is calculated as follows:

Arithmetic mean =  $\mu = \Sigma x / n$  where:  $\Sigma x$  is the sum of the measured ambient water concentrations, and  $n$  is the number of samples.

### **Average Monthly Effluent Limitation (AMEL)**

The highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

### **Average Weekly Effluent Limitation (AWEL)**

The highest allowable average of daily discharges over a calendar week (Sunday through Saturday), calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

### **Bioaccumulative**

Those substances taken up by an organism from its surrounding medium through gill membranes, epithelial tissue, or from food and subsequently concentrated and retained in the body of the organism.

### **Biosolids**

Sewage sludge that has been treated and tested and shown to be capable of being beneficially and legally used pursuant to federal and state regulators as a soil amendment for agricultural, silvicultural, horticultural, and land reclamation activities as specified under 40 CFR Part 503.

### **Carcinogenic**

Pollutants are substances that are known to cause cancer in living organisms.

### **Chlordane**

Shall mean the sum of chlordane-alpha, chlordane-gamma, chlordene-alpha, chlordene-gamma, nonachlor-alpha, nonachlor-gamma, and oxychlordane.

### **Coefficient of Variation (CV)**

CV is a measure of the data variability and is calculated as the estimated standard deviation divided by the arithmetic mean of the observed values.

### **Composite Sample**

For flow rate measurements, means the arithmetic mean of no fewer than eight individual measurements taken at equal intervals for 24 hours or for the duration of discharge, whichever is shorter.

Composite sample, for other than flow rate measurements, means:

- a. No fewer than eight individual sample portions taken at equal time intervals for 24 hours, or the duration of the discharge, whichever is shorter. The volume of each individual sample portion shall be directly proportional to the discharge flow rate at the time of sampling; or,
- b. No fewer than eight individual sample portions taken of equal time volume taken over a 24 hour period. The time interval between each individual sample portion shall vary such that the volume of the discharge between each individual sample portion remains constant.

The compositing period shall equal the specified sampling period, or 24 hours, if no period is specified.

For a composite sample, if the duration of the discharge is less than 24 hours but greater than 8 hours, at least eight flow-weighted individual sample portions shall be taken during the duration of the discharge and composited. For a discharge duration of 8 hours or less, eight individual "grab samples" may be substituted and composited.

The composite sample result shall be reported for the calendar day during which composite sampling ends.

#### **Daily Discharge**

Daily Discharge is defined as either: (1) the total mass of the constituent discharged over the calendar day (12:00 am through 11:59 pm) or any 24-hour period that reasonably represents a calendar day for purposes of sampling (as specified in the permit), for a constituent with limitations expressed in units of mass or; (2) the unweighted arithmetic mean measurement of the constituent over the day for a constituent with limitations expressed in other units of measurement (e.g., concentration).

The daily discharge may be determined by the analytical results of a composite sample taken over the course of one day (a calendar day or other 24-hour period defined as a day) or by the arithmetic mean of analytical results from one or more grab samples taken over the course of the day.

For composite sampling, if 1 day is defined as a 24-hour period other than a calendar day, the analytical result for the 24-hour period will be considered as the result for the calendar day in which the 24-hour period ends.

#### **DDT**

Shall mean the sum of 4,4'-DDT, 2,4'-DDT, 4,4'-DDE, 2,4'-DDE, 4,4'-DDD, and 2,4'-DDD.

#### **Degrade**

Degradation shall be determined by comparison of the waste field and reference site(s) for characteristic species diversity, population density, contamination, growth anomalies, debility, or supplanting of normal species by undesirable plant and animal species. Degradation occurs if there are significant differences in any of three major biotic groups, namely, demersal fish, benthic invertebrates, or attached algae. Other groups may be evaluated where benthic species are not affected, or are not the only ones affected.

#### **Detected, but Not Quantified (DNQ)**

Sample results that are less than the reported Minimum Level, but greater than or equal to the laboratory's MDL. Sample results reported as DNQ are estimated concentrations.



**Dichlorobenzenes**

The sum of 1,2- and 1,3-dichlorobenzene.

**Downstream Ocean Waters**

Waters downstream with respect to ocean currents.

**Dredged Material**

Any material excavated or dredged from the navigable waters of the United States, including material otherwise referred to as "spoil."

**Enclosed Bays**

Indentations along the coast that enclose an area of oceanic water within distinct headlands or harbor works. Enclosed bays include all bays where the narrowest distance between headlands or outermost harbor works is less than 75 percent of the greatest dimension of the enclosed portion of the bay. This definition includes but is not limited to: Humboldt Bay, Bodega Harbor, Tomales Bay, Drakes Estero, San Francisco Bay, Morro Bay, Los Angeles Harbor, Upper and Lower Newport Bay, Mission Bay, and San Diego Bay. Enclosed bays do not include inland surface waters or ocean waters.

**Endosulfan**

The sum of endosulfan-alpha and -beta and endosulfan sulfate.

**Estimated Chemical Concentration**

The estimated chemical concentration that results from the confirmed detection of the substance by the analytical method below the ML value.

**Estuaries and Coastal Lagoons**

Estuaries and coastal lagoons are waters at the mouths of streams that serve as mixing zones for fresh and ocean waters during a major portion of the year. Mouths of streams that are temporarily separated from the ocean by sandbars shall be considered as estuaries. Estuarine waters will generally be considered to extend from a bay or the open ocean to the upstream limit of tidal action but may be considered to extend seaward if significant mixing of fresh and salt water occurs in the open coastal waters. The waters described by this definition include but are not limited to the Sacramento-San Joaquin Delta as defined by Section 12220 of the California Water Code (CWC), Suisun Bay, Carquinez Strait downstream to Carquinez Bridge, and appropriate areas of the Smith, Klamath, Mad, Eel, Noyo, and Russian Rivers.

**Grab Sample**

An individual sample collected during a period of time not to exceed 15 minutes. Grab samples shall be collected during normal peak loading conditions for the parameter of interest, which may or may not occur during hydraulic peaks.

**Halomethanes**

The sum of bromoform, bromomethane (methyl bromide) and chloromethane (methyl chloride).

**HCH**

The sum of the alpha, beta, gamma (lindane) and delta isomers of hexachlorocyclohexane.

**Initial Dilution**

The process that results in the rapid and irreversible turbulent mixing of wastewater with ocean water around the point of discharge.

For a submerged buoyant discharge, characteristic of most municipal and industrial wastes that are released from the submarine outfalls, the momentum of the discharge and its initial buoyancy act together to produce turbulent mixing. Initial dilution in this case is completed when the diluting wastewater ceases to rise in the water column and first begins to spread horizontally.

For shallow water submerged discharges, surface discharges, and non-buoyant discharges, characteristic of cooling water wastes and some individual discharges, turbulent mixing results primarily from the momentum of discharge. Initial dilution, in these cases, is considered to be completed when the momentum induced velocity of the discharge ceases to produce significant mixing of the waste, or the diluting plume reaches a fixed distance from the discharge to be specified by the Los Angeles Regional Water Quality Control Board, whichever results in the lower estimate for initial dilution.

#### **Instantaneous Maximum Effluent Limitation**

The highest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous maximum limitation).

#### **Instantaneous Minimum Effluent Limitation**

The lowest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous minimum limitation).

#### **In-stream Waste Concentration (IWC)**

The concentration of a toxicant or the parameter of toxicity in the receiving water after mixing

#### **Kelp Beds**

For purposes of the bacteriological standards of the Ocean Plan, are significant aggregations of marine algae of the genera *Macrocystis* and *Nereocystis*. Kelp beds include the total foliage canopy of *Macrocystis* and *Nereocystis* plants throughout the water column.

#### **Mariculture**

The culture of plants and animals in marine waters independent of any pollution source.

#### **Material**

(a) In common usage: (1) the substance or substances of which a thing is made or composed (2) substantial; (b) For purposes of the Ocean Plan relating to waste disposal, dredging and the disposal of dredged material and fill, MATERIAL means matter of any kind or description which is subject to regulation as waste, or any material dredged from the navigable waters of the United States. See also, DREDGED MATERIAL.

#### **Maximum Daily Effluent Limitation (MDEL)**

The highest allowable daily discharge of a pollutant, over a calendar day (or 24-hour period). For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the arithmetic mean measurement of the pollutant over the day.

#### **Median**

The middle measurement in a set of data. The median of a set of data is found by first arranging the measurements in order of magnitude (either increasing or decreasing order). If the number of measurements ( $n$ ) is odd, then the median =  $X_{(n+1)/2}$ . If  $n$  is even, then the median =  $(X_{n/2} + X_{(n/2)+1})/2$  (i.e., the midpoint between the  $n/2$  and  $n/2+1$ ).

**Method Detection Limit (MDL)**

The minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero, as defined in 40 CFR part 136, Attachment B.

**Natural Light**

Reduction of natural light may be determined by the Regional Water Board by measurement of light transmissivity or total irradiance, or both, according to the monitoring needs of the Regional Water Board.

**Not Detected (ND)**

Sample results which are less than the laboratory's MDL.

**Ocean Waters**

The territorial marine waters of the state as defined by California law to the extent these waters are outside of enclosed bays, estuaries, and coastal lagoons. If a discharge outside the territorial waters of the state could affect the quality of the waters of the state, the discharge may be regulated to assure no violation of the Ocean Plan will occur in ocean waters.

**PAHs (polycyclic aromatic hydrocarbons)**

The sum of acenaphthylene, anthracene, 1,2-benzanthracene, 3,4-benzofluoranthene, benzo[k]fluoranthene, 1,12-benzoperylene, benzo[a]pyrene, chrysene, dibenzo[ah]anthracene, fluorene, indeno[1,2,3-cd]pyrene, phenanthrene and pyrene.

**PCBs (polychlorinated biphenyls) as Aroclors**

The sum of chlorinated biphenyls whose analytical characteristics resemble those of Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254 and Aroclor-1260.

**PCBs as Congeners**

The sum of the following 41 individually quantified PCB congeners: PCB-18, 28, 37, 44, 49, 52, 66, 70, 74, 77, 81, 87, 99, 101, 105, 110, 114, 118, 119, 123, 126, 128, 138, 149, 151, 153, 156, 157, 158, 167, 168, 169, 170, 177, 180, 183, 187, 189, 194, 201, and 206.

**PCBs, Total**

For compliance with the final effluent limitations based on the TMDL WLAs, Total PCBs shall be PCBs as Aroclors or PCBs as congeners, whichever concentration is greater.

**Persistent Pollutants**

Persistent pollutants are substances for which degradation or decomposition in the environment is nonexistent or very slow.

**Phenolic Compounds (chlorinated)**

The sum of 2-chlorophenol, 2,4-dichlorophenol, 4-chloro-3-methylphenol, 2,4,6-trichlorophenol, and pentachlorophenol.

**Phenolic Compounds (non-chlorinated)**

The sum of 2,4-dimethylphenol, 2-nitrophenol, 4-nitrophenol, 2,4-dinitrophenol, 4,6-dinitro-2-methylphenol, and phenol.

**Pollutant Minimization Program (PMP)**

PMP means waste minimization and pollution prevention actions that include, but are not limited to, product substitution, waste stream recycling, alternative waste management methods, and education of

the public and businesses. The goal of the PMP shall be to reduce all potential sources of Ocean Plan Table 1 pollutants through pollutant minimization (control) strategies, including pollution prevention measures as appropriate, to maintain the effluent concentration at or below the water quality-based effluent limitation. Pollution prevention measures may be particularly appropriate for persistent bioaccumulative priority pollutants where there is evidence that beneficial uses are being impacted. The Regional Water Board may consider cost effectiveness when establishing the requirements of a PMP. The completion and implementation of a Pollution Prevention Plan, if required pursuant to CWC section 13263.3(d), shall be considered to fulfill the PMP requirements.

### **Pollution Prevention**

Any action that causes a net reduction in the use or generation of a hazardous substance or other pollutant that is discharged into water and includes, but is not limited to, input change, operational improvement, production process change, and product reformulation (as defined in CWC section 13263.3). Pollution prevention does not include actions that merely shift a pollutant in wastewater from one environmental medium to another environmental medium, unless clear environmental benefits of such an approach are identified to the satisfaction of the State Water Resources Control Board (State Water Board), Regional Water Board, or USEPA.

### **Publicly Owned Treatment Works.**

A treatment works as defined by section 212 of the CWA, which is owned by a State or municipality (as defined by section 502(4) of the Act). This definition includes any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage or industrial wastes of a liquid nature. It also includes sewers, pipes and other conveyances only if they convey wastewater to a POTW Treatment Plant. The term also means the municipality which has jurisdiction over the Indirect Discharges to and the discharges from such treatment works. (40 CFR § 403.3(q).)

### **Reported Minimum Level**

The reported ML (also known as the Reporting Level or RL) is the ML (and its associated analytical method) chosen by the Discharger for reporting and compliance determination from the MLs included in this Order, including an additional factor if applicable as discussed herein. The MLs included in this Order correspond to approved analytical methods for reporting a sample result that are selected by the Regional Water Board either from Appendix II of the Ocean Plan in accordance with section III.C.5.a. of the Ocean Plan or established in accordance with section III.C.5.b. of the Ocean Plan. The ML is based on the proper application of method-based analytical procedures for sample preparation and the absence of any matrix interferences. Other factors may be applied to the ML depending on the specific sample preparation steps employed. For example, the treatment typically applied in cases where there are matrix-effects is to dilute the sample or sample aliquot by a factor of ten. In such cases, this additional factor must be applied to the ML in the computation of the reported ML. (See Ocean Plan section III.C.6.).

### **Satellite Collection System**

The portion, if any, of a sanitary sewer system owned or operated by a different public agency than the agency that owns and operates the wastewater treatment facility that a sanitary sewer system is tributary to.

### **Shellfish**

Organisms identified by the California Department of Health Services as shellfish for public health purposes (i.e., mussels, clams and oysters).

### **Significant Difference**

Statistically significant difference in the means of two distributions of sampling results at the 95 percent confidence level.

**Six-Month Median Effluent Limitation**

The highest allowable moving median of all “daily discharges” for any 180-day period.

**Standard Deviation ( $\sigma$ )**

Standard Deviation is a measure of variability that is calculated as follows:

$$\sigma = (\sum[(x - \mu)^2]/(n - 1))^{0.5}$$

where:

x is the observed value;

$\mu$  is the arithmetic mean of the observed values; and

n is the number of samples.

**State Water Quality Protection Areas (SWQPAs)**

Non-terrestrial marine or estuarine areas designated to protect marine species or biological communities from an undesirable alteration in natural water quality. All AREAS OF SPECIAL BIOLOGICAL SIGNIFICANCE (ASBS) that were previously designated by the State Water Board in Resolutions 74-28, 74-32, and 75-61 are now also classified as a subset of State Water Quality Protection Areas and require special protections afforded by the Ocean Plan.

**TCDD Equivalents**

The sum of the concentrations of chlorinated dibenzodioxins (2,3,7,8-CDDs) and chlorinated dibenzofurans (2,3,7,8-CDFs) multiplied by their respective toxicity factors, as shown in the table below.

Isomer Group	Toxicity Equivalence Factor
2,3,7,8-tetra CDD	1.0
2,3,7,8-penta CDD	0.5
2,3,7,8-hexa CDDs	0.1
2,3,7,8-hepta CDD	0.01
octa CDD	0.001
2,3,7,8 tetra CDF	0.1
1,2,3,7,8 penta CDF	0.05
2,3,4,7,8 penta CDF	0.5
2,3,7,8 hexa CDFs	0.1
2,3,7,8 hepta CDFs	0.01
octa CDF	0.001

**Test of Significant Toxicity (TST)**

A statistical approach used to analyze toxicity test data. The TST incorporates a restated null hypothesis, Welch’s t-test, and the biological effect thresholds for chronic and acute toxicity.

**Toxicity Identification Evaluation (TIE)**

Set of procedures to identify the specific chemical(s) responsible for toxicity. These procedures are performed in three phases (characterization, identification, and confirmation) using aquatic organism toxicity tests.

**Toxicity Reduction Evaluation (TRE)**

TRE is a study conducted in a step-wise process designed to identify the causative agents of effluent or ambient toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in toxicity. The first steps of the TRE consist of the collection of data relevant to the toxicity, including additional toxicity testing, and an evaluation of Facility operations and maintenance practices, and best management practices. A TIE may be required as part of the TRE, if appropriate.

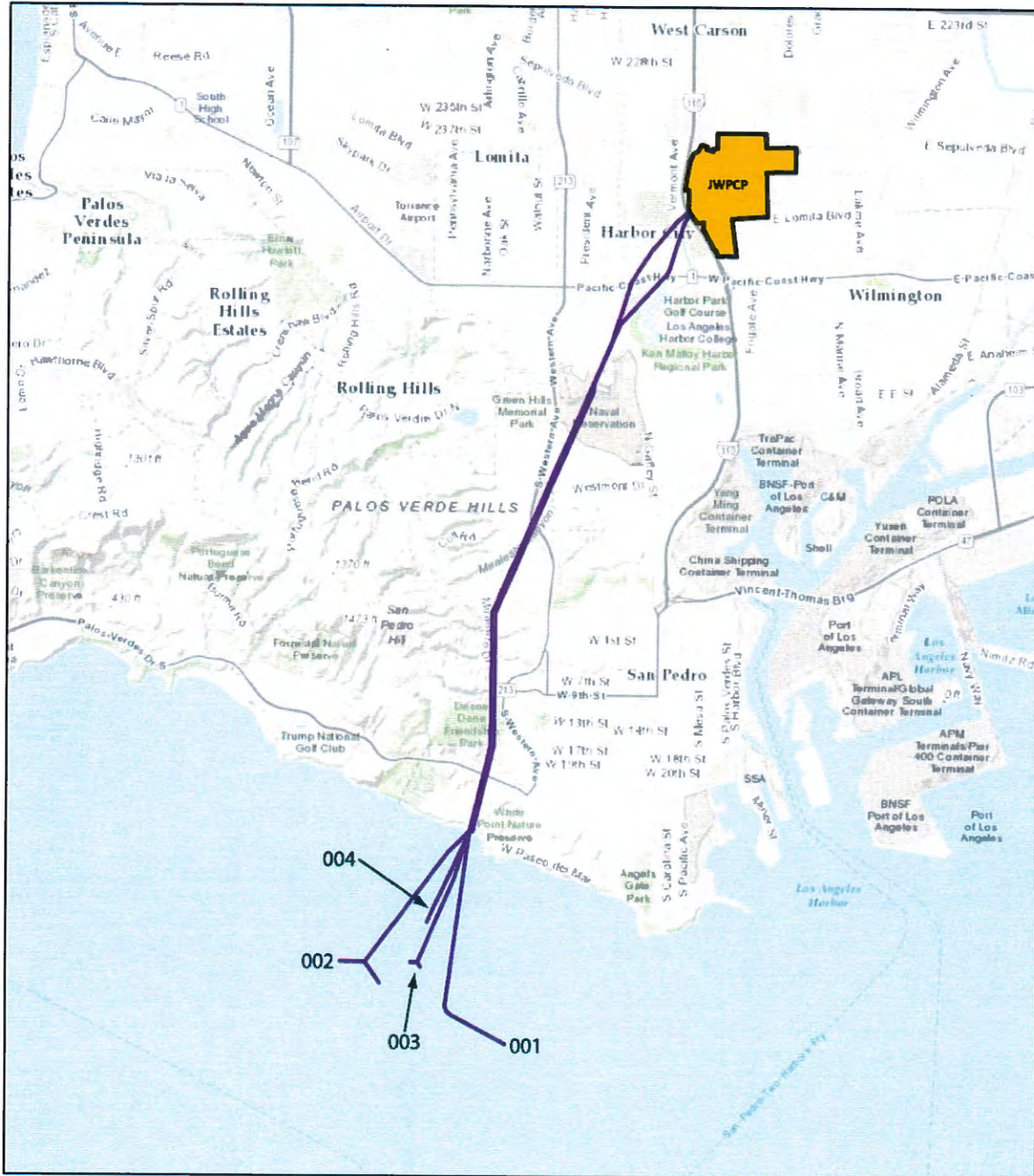
**Waste**

As used in the Ocean Plan, waste includes a Discharger's total discharge, of whatever origin, i.e., gross, not net, discharge.

**Water Recycling**

The treatment of wastewater to render it suitable for reuse, the transportation of treated wastewater to the place of use, and the actual use of treated wastewater for a direct beneficial use or controlled use that would not otherwise occur.

**ATTACHMENT B-1– JWPCP MAP**



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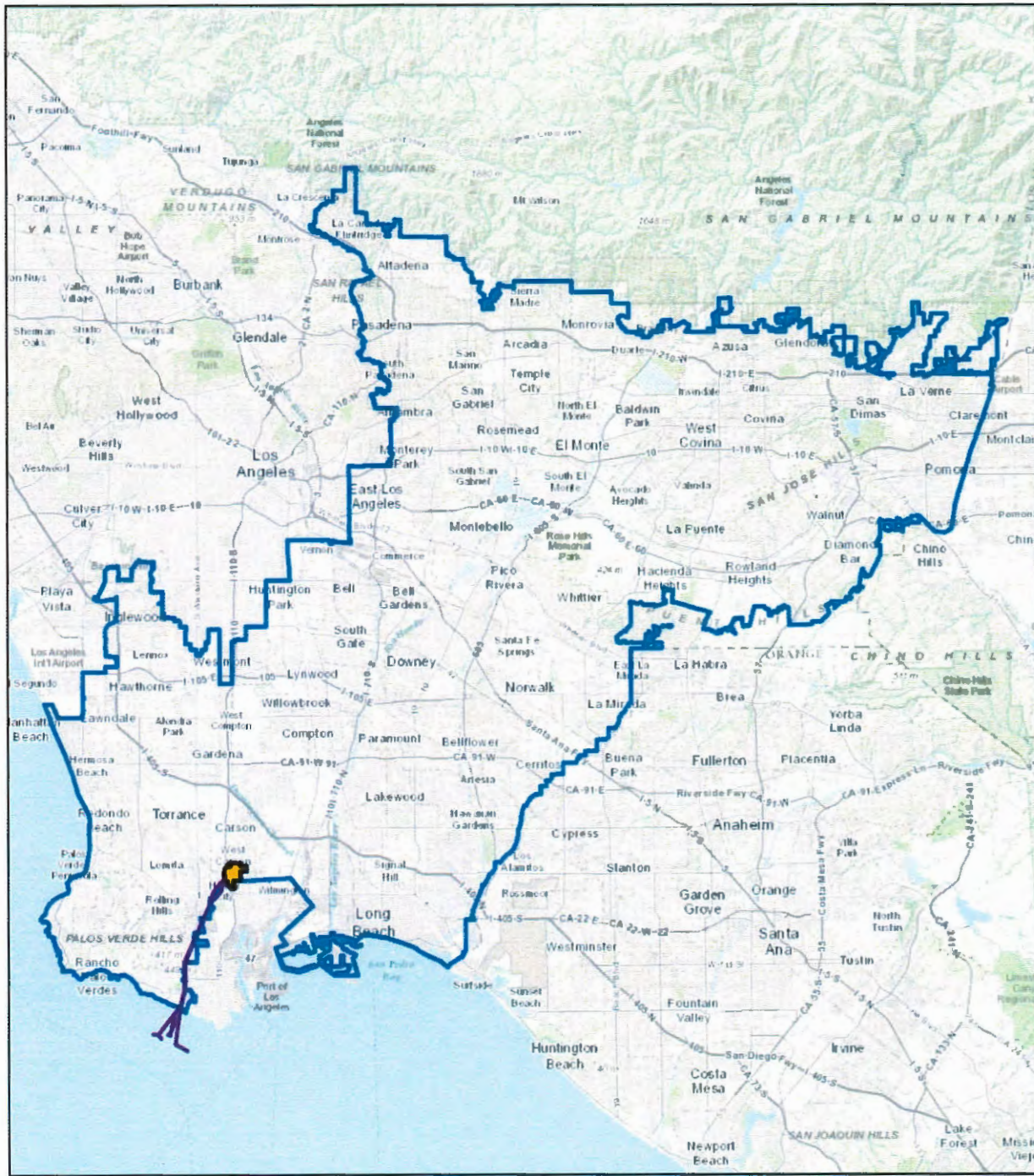
**Joint Water Pollution Control Plant**



**Legend**

- Outfalls
- JWPCP Property Boundary

**ATTACHMENT B-2 JWPCP SERVICE AREA**



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**Joint Water Pollution Control Plant  
 Service Area**






0 2.5 5 10 Miles

June 2016



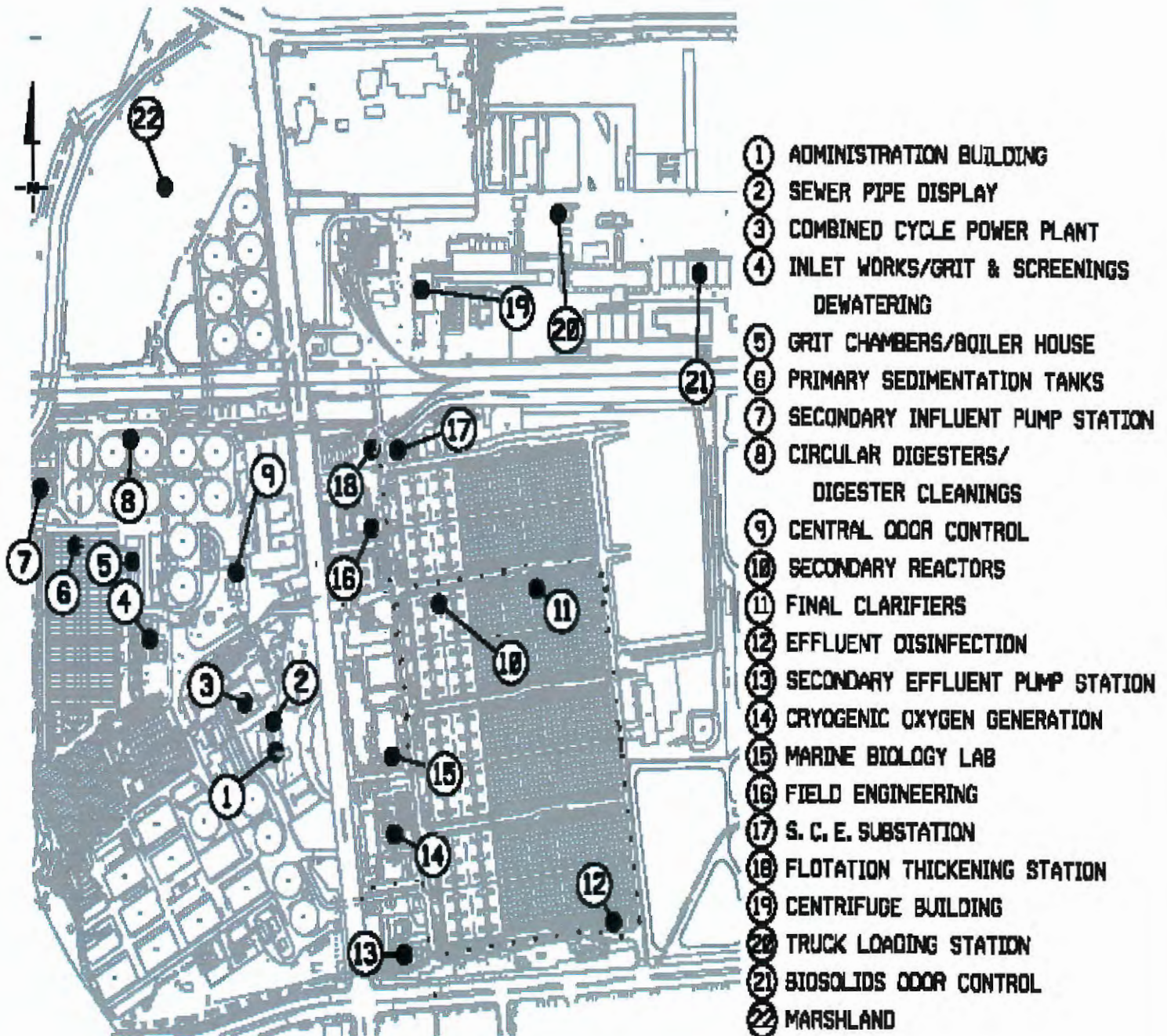
**Legend**

-  Outfalls
-  JWPCP Property Boundary
-  JWPCP Area Served

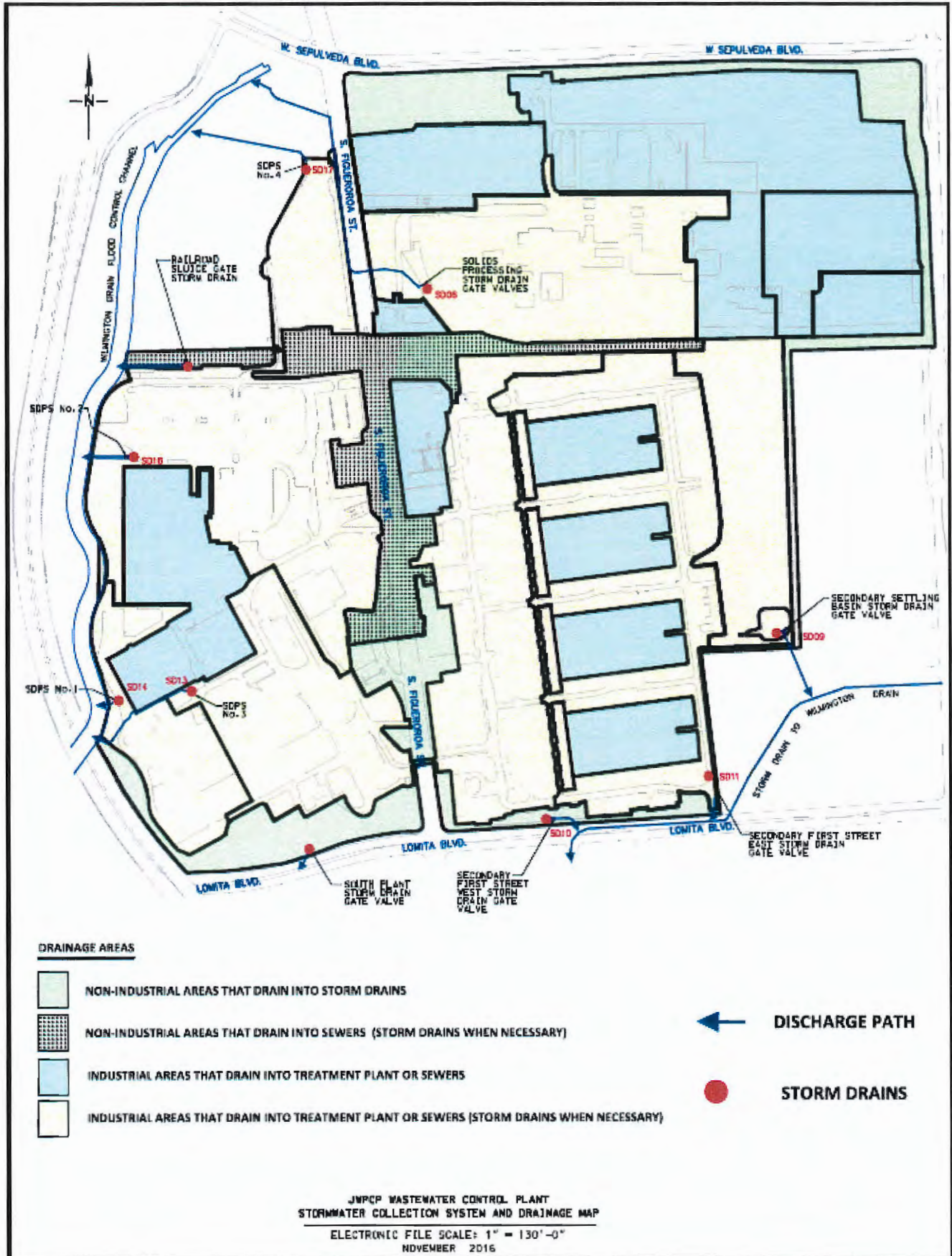


ATTACHMENT B-3 JWPCP SCHEMATIC

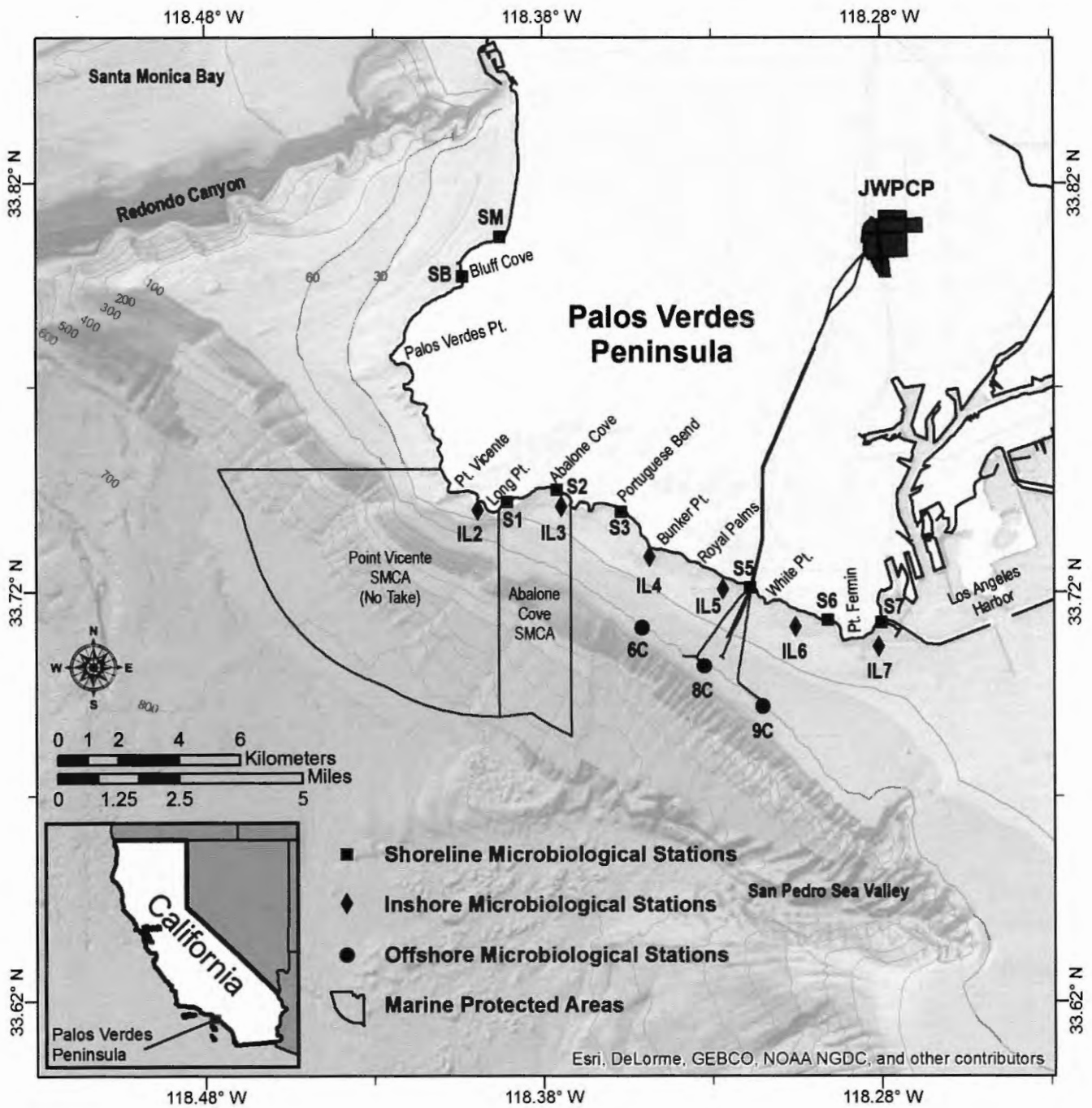
# JOINT WATER POLLUTION CONTROL PLANT



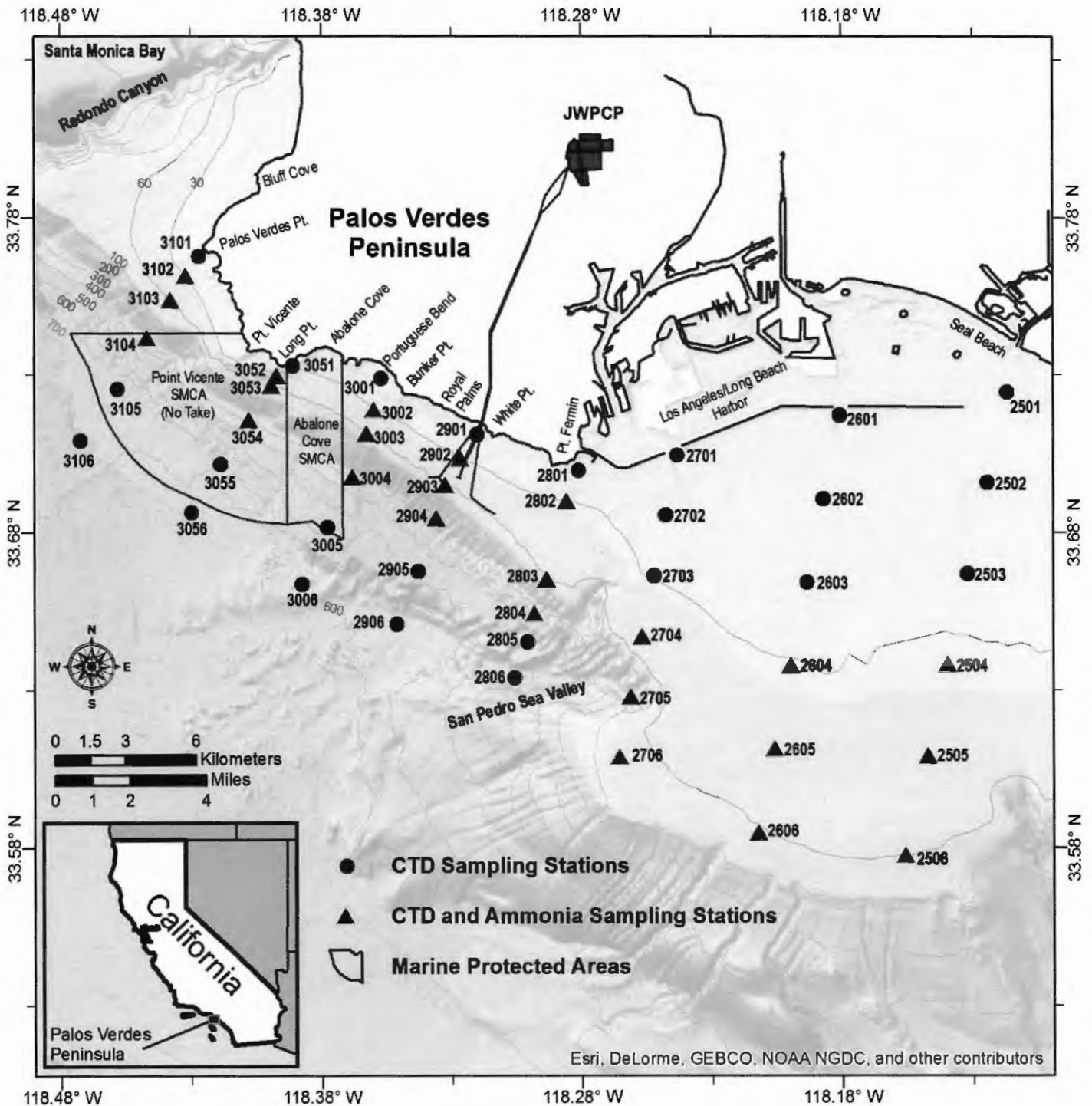
**ATTACHMENT B-4 STORM WATER COLLECTION SYSTEM**



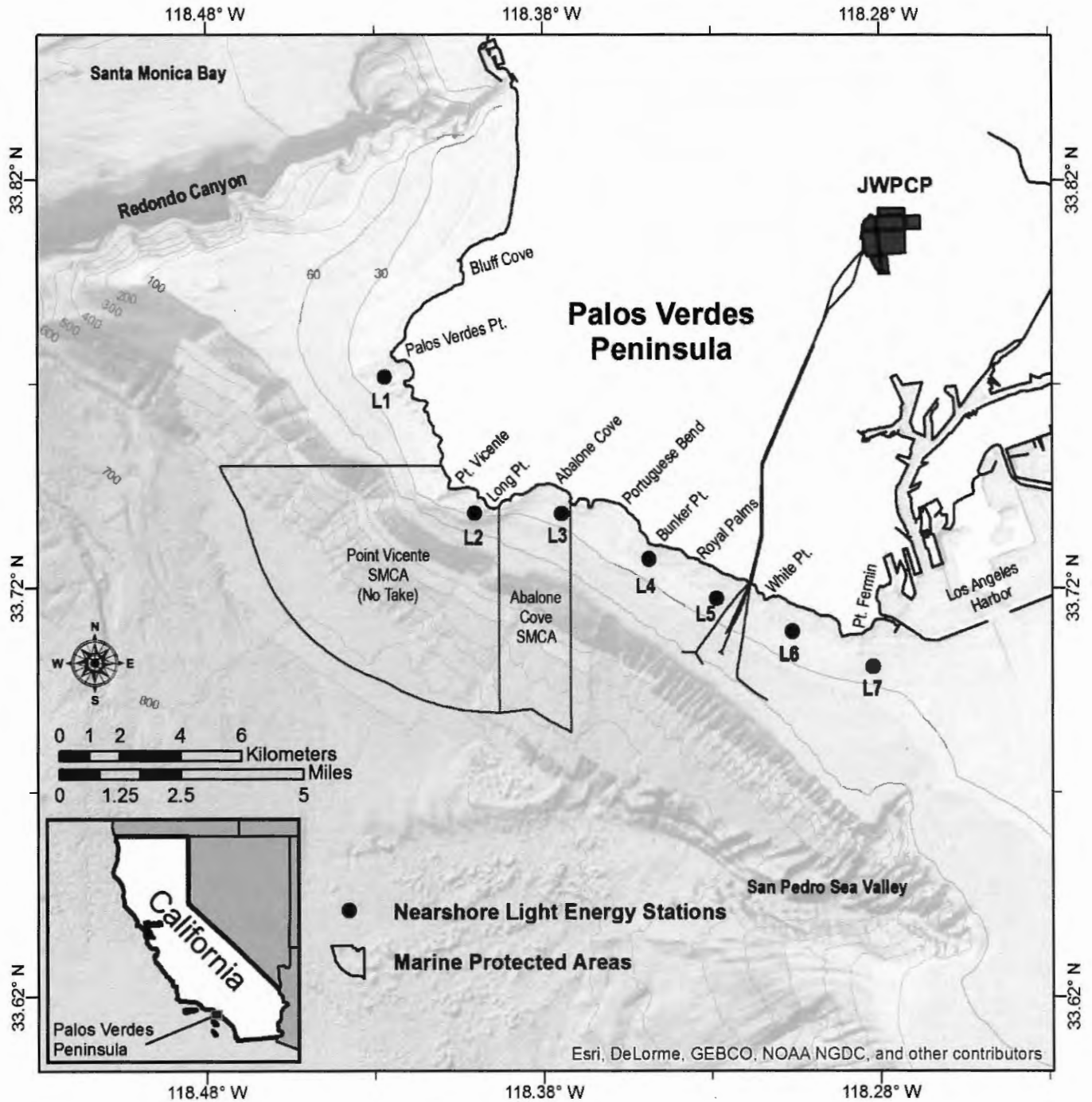
**ATTACHMENT B-5 SHORELINE, INSHORE AND OFFSHORE  
MICROBIOLOGICAL MONITORING STATIONS**



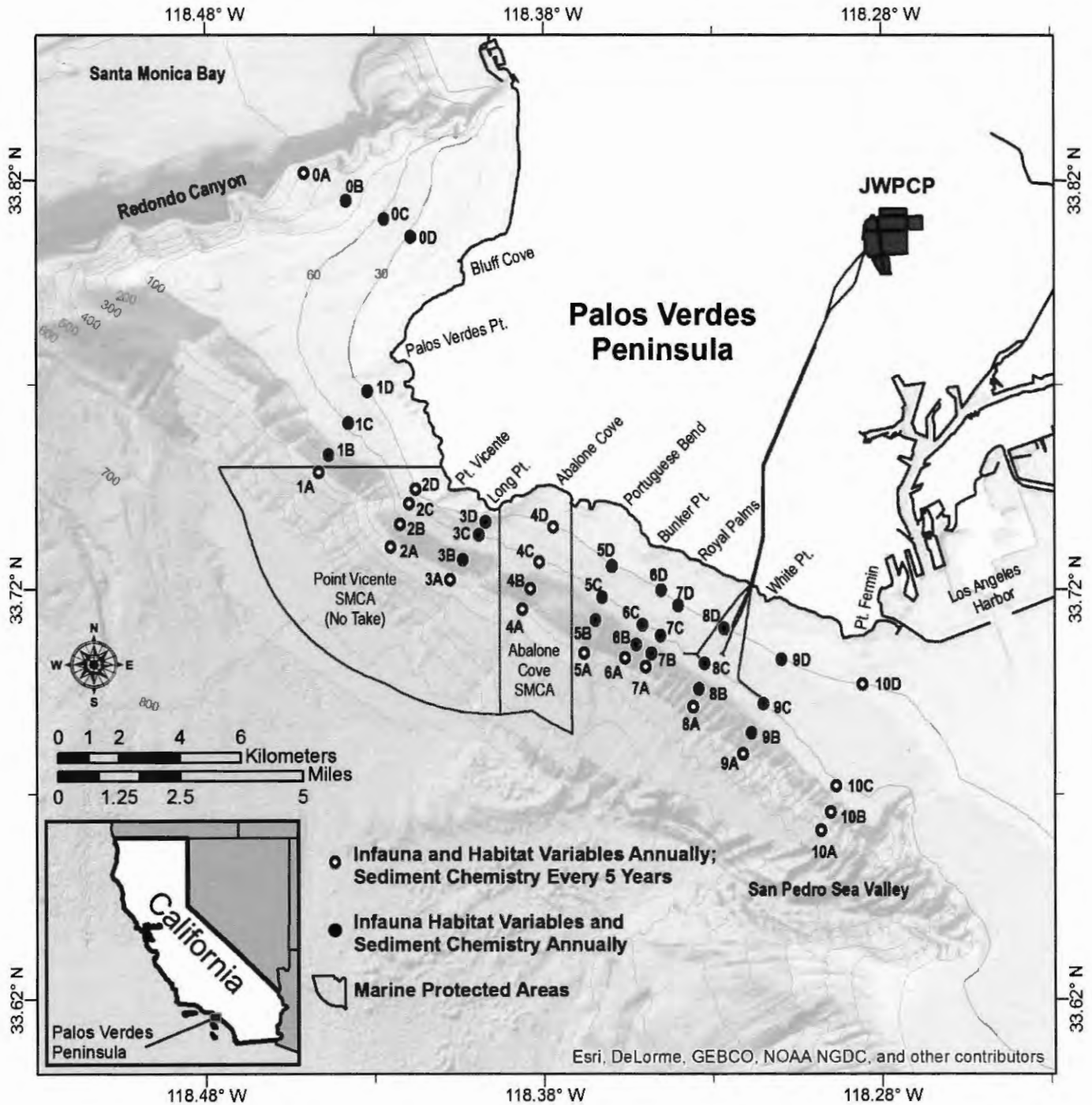
**ATTACHMENT B-6 NEARSHORE/OFFSHORE WATER QUALITY AND AMMONIA MONITORING STATIONS**



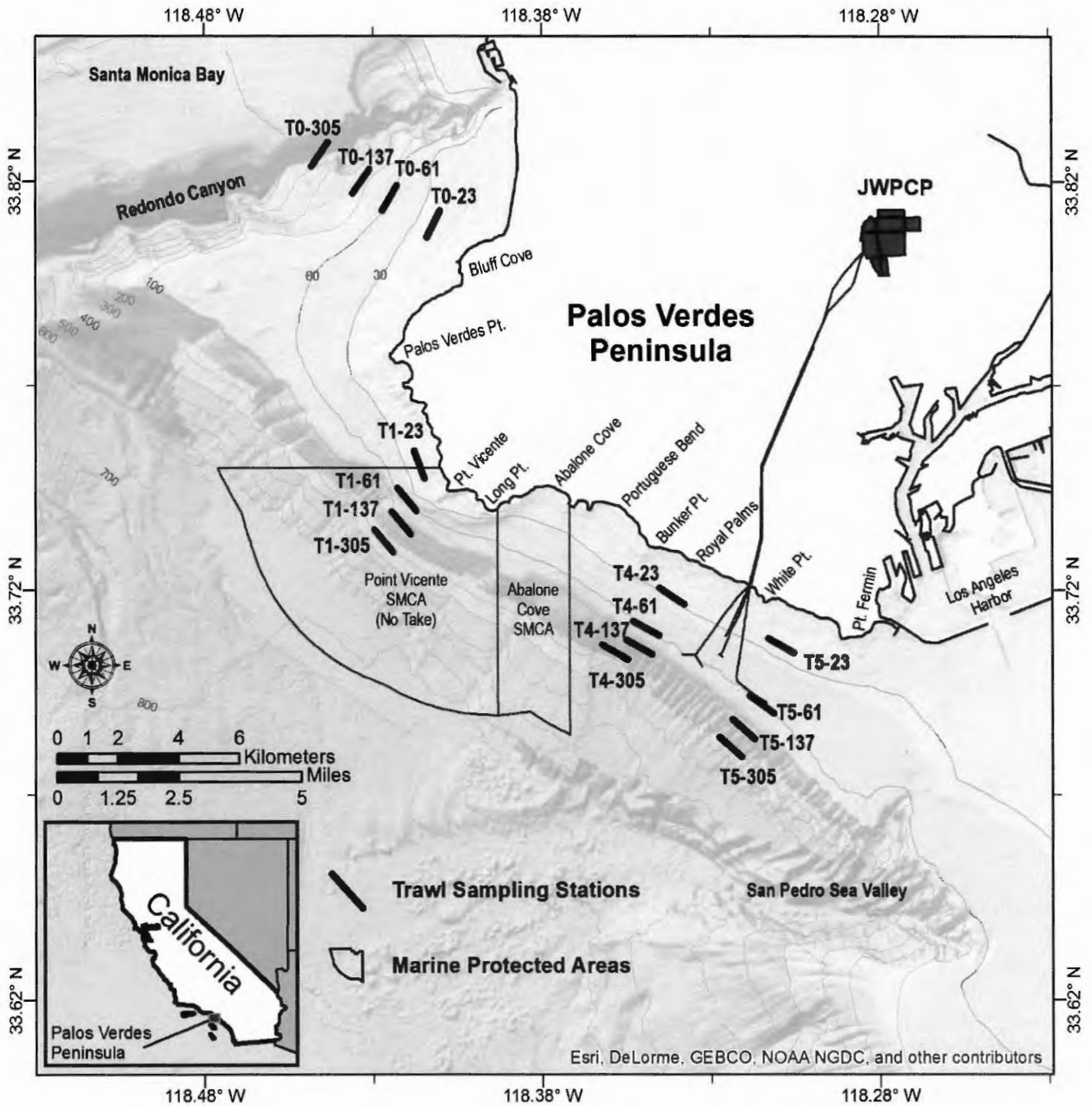
**ATTACHMENT B-7 JWPCP NEARSHORE LIGHT MONITORING STATIONS**



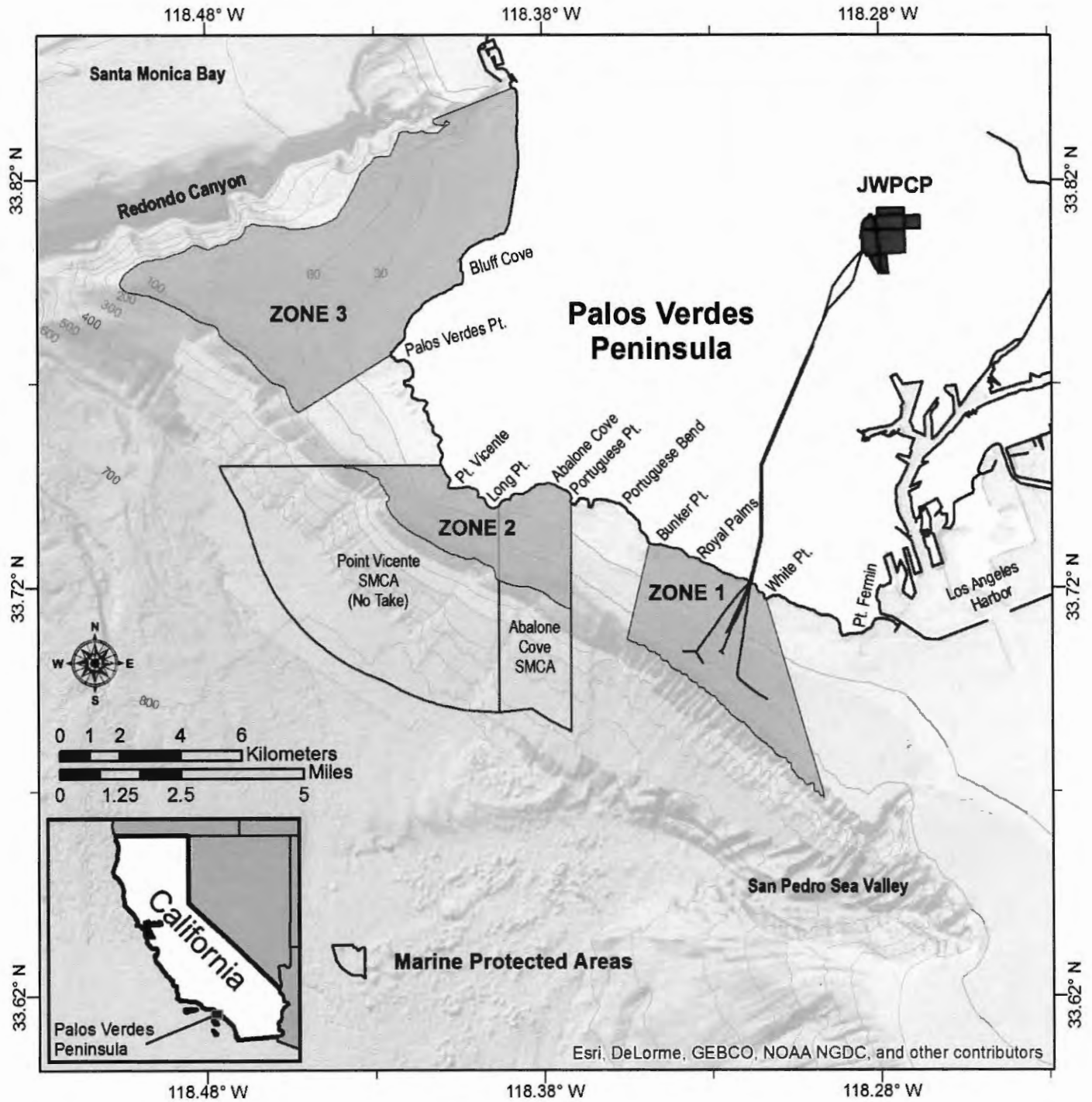
**ATTACHMENT B-8 BENTHIC INFAUNA AND SEDIMENT CHEMISTRY MONITORING STATIONS**



### ATTACHMENT B-9 TRAWL SAMPLING STATIONS



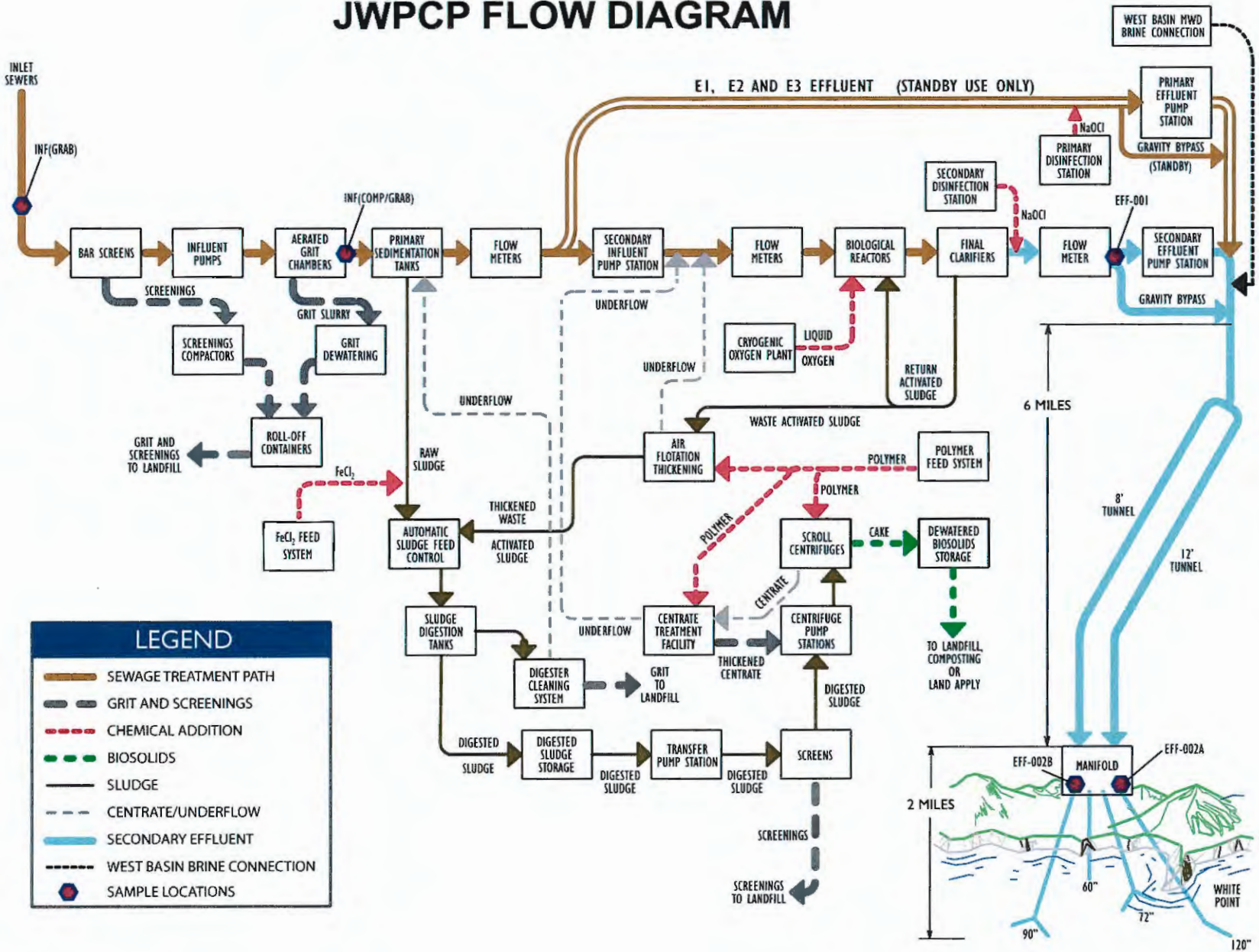
**ATTACHMENT B-10 LOCAL BIOACCUMULATION SAMPLING ZONES**





# JWPCP FLOW DIAGRAM

ATTACHMENT C - WASTEWATER FLOW SCHEMATIC 9/7/2017



ATTACHMENT C - FLOW SCHEMATIC

## ATTACHMENT D – STANDARD PROVISIONS

### I. STANDARD PROVISIONS – PERMIT COMPLIANCE

#### A. Duty to Comply

1. The Discharger must comply with all of the terms, requirements, and conditions of this Order. Any noncompliance constitutes a violation of the Clean Water Act (CWA) and the California Water Code (CWC) and is grounds for enforcement action; permit termination, revocation and reissuance, or modification; denial of a permit renewal application; or a combination thereof. (40 Code of Federal Regulations (CFR) § 122.41(a); CWC, §§ 13261, 13263, 13265, 13268, 13000, 13001, 13304, 13350, 13385.)
2. The Discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement. (40 CFR § 122.41(a)(1).)

#### B. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a Discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Order. (40 CFR § 122.41(c).)

#### C. Duty to Mitigate

The Discharger shall take all reasonable steps to minimize or prevent any discharge or biosolids use or disposal in violation of this Order that has a reasonable likelihood of adversely affecting human health or the environment. (40 CFR § 122.41(d).)

#### D. Proper Operation and Maintenance

The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by a Discharger only when necessary to achieve compliance with the conditions of this Order. (40 CFR § 122.41(e).)

#### E. Property Rights

1. This Order does not convey any property rights of any sort or any exclusive privileges. (40 CFR § 122.41(g).)
2. The issuance of this Order does not authorize any injury to persons or property or invasion of other private rights, or any infringement of state or local law or regulations. (40 CFR § 122.5(c).)

#### F. Inspection and Entry

The Discharger shall allow the Regional Water Board, State Water Board, USEPA, and/or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may be required by law, to (33 United States Code (USC) § 1318(a)(4)(b); 40 CFR § 122.41(i); CWC, §§ 13267, 13383):

1. Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order (33 USC § 1318(a)(4)(b)(i); 40 CFR § 122.41(i)(1); CWC, §§ 13267, 13383);
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order (33 USC § 1318(a)(4)(b)(ii); 40 CFR § 122.41(i)(2); CWC, §§ 13267, 13383);
3. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order (33 USC § 1318(a)(4)(b)(ii); 40 CFR § 122.41(i)(3); CWC, §§ 13267, 13383); and
4. Sample or monitor, at reasonable times, for the purposes of assuring Order compliance or as otherwise authorized by the CWA or the CWC, any substances or parameters at any location. (33 USC § 1318(a)(4)(b); 40 CFR § 122.41(i)(4); CWC, §§ 13267, 13383.)

#### **G. Bypass**

1. Definitions
  - a. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility. (40 CFR § 122.41(m)(1)(i)).
  - b. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities, which causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. (40 CFR § 122.41(m)(1)(ii)).
2. *Bypass not exceeding limitations.* The Discharger may allow any bypass to occur which does not cause exceedances of effluent limitations, but only if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions listed in Standard Provisions – Permit Compliance I.G.3, I.G.4, and I.G.5 below. (40 CFR § 122.41(m)(2)).
3. *Prohibition of bypass.* Bypass is prohibited, and the Regional Water Board may take enforcement action against a Discharger for bypass, unless (40 CFR § 122.41(m)(4)(i)):
  - a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage (40 CFR § 122.41(m)(4)(i)(A));
  - b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance (40 CFR § 122.41(m)(4)(i)(B)), and:
  - c. The Discharger submitted notice to the Regional Water Board as required under Standard Provisions–Permit Compliance I.G.5 below. (40 CFR §122.41(m)(4)(i)(C)).
4. The Regional Water Board may approve an anticipated bypass, after considering its adverse effects, if the Regional Water Board determines that it will meet the three conditions listed in Standard Provisions – Permit Compliance I.G.3 above. (40 CFR § 122.41(m)(4)(ii)).

5. Notice

- a. *Anticipated bypass.* If the Discharger knows in advance of the need for a bypass, it shall submit a notice, if possible at least 10 days before the date of the bypass. As of December 21, 2020 all notices must be submitted electronically by the Discharger to the initial recipient, as defined in 40 CFR § 127.2(b), in compliance with this section and 40 CFR part 3 (including, in all cases, subpart D of part 3), § 122.22, and 40 CFR part 127. Part 127 is not intended to undo existing requirements for electronic reporting. Prior to this date, and independent of part 127, the Discharger may be required to report electronically if specified by a particular permit or if required to do so by state law. (40 CFR § 122.41(m)(3)(i)).
- b. *Unanticipated bypass.* The Discharger shall submit notice of an unanticipated bypass as required in Standard Provisions - Reporting V.E below (24-hour notice). As of December 21, 2020 all notices must be submitted electronically by the Discharger to the initial recipient, as defined in 40 CFR § 127.2(b), in compliance with this section and 40 CFR part 3 (including, in all cases, subpart D of part 3), § 122.22, and 40 CFR part 127. Part 127 is not intended to undo existing requirements for electronic reporting. Prior to this date, and independent of part 127, the Discharger may be required to report electronically if specified by a particular permit or if required to do so by state law. (40 CFR § 122.41(m)(3)(ii)).

H. Upset

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the Discharger. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation. (40 CFR § 122.41(n)(1)).

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of Standard Provisions – Permit Compliance I.H.2 below are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review. (40 CFR § 122.41(n)(2)).
2. Conditions necessary for a demonstration of upset. A Discharger who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that (40 CFR § 122.41(n)(3)):
  - a. An upset occurred and that the Discharger can identify the cause(s) of the upset (40 CFR § 122.41(n)(3)(i));
  - b. The permitted facility was, at the time, being properly operated (40 CFR § 122.41(n)(3)(ii));
  - c. The Discharger submitted notice of the upset as required in Standard Provisions – Reporting V.E.2.b below (24-hour notice) (40 CFR § 122.41(n)(3)(iii)); and
  - d. The Discharger complied with any remedial measures required under Standard Provisions – Permit Compliance I.C above. (40 CFR § 122.41(n)(3)(iv)).
3. Burden of proof. In any enforcement proceeding, the Discharger seeking to establish the occurrence of an upset has the burden of proof. (40 CFR § 122.41(n)(4)).

## II. STANDARD PROVISIONS – PERMIT ACTION

### A. General

This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Order condition. (40 CFR § 122.41(f)).

### B. Duty to Reapply

If the Discharger wishes to continue an activity regulated by this Order after the expiration date of this Order, the Discharger must apply for and obtain a new permit. (40 CFR § 122.41(b)).

### C. Transfers

This Order is not transferable to any person except after notice to the Regional Water Board. The Regional Water Board may require modification or revocation and reissuance of the Order to change the name of the Discharger and incorporate such other requirements as may be necessary under the CWA and the CWC. (40 CFR §§ 122.41(l)(3), 122.61).

## III. STANDARD PROVISIONS – MONITORING

- A. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. (40 CFR § 122.41(j)(1)).

Monitoring must be conducted according to test procedures approved under 40 CFR part 136 for the analyses of pollutants unless another method is required under 40 CFR chapter 1, subchapters N or O. Monitoring must be conducted according to sufficiently sensitive test methods approved under 40 CFR part 136 for the analysis of pollutants or pollutant parameters or as required under 40 CFR chapter 1, subchapter N or O. For the purposes of this paragraph, a method is sufficiently sensitive when:

1. The method minimum level (ML) is at or below the level of the most stringent effluent limitation established in the permit for the measured pollutant or pollutant parameter, and either the method ML is at or below the level of the most stringent applicable water quality criterion for the measured pollutant or pollutant parameter or the method ML is above the applicable water quality criterion but the amount of the pollutant or pollutant parameter in the facility's discharge is high enough that the method detects and quantifies the level of the pollutant or pollutant parameter in the discharge; or
2. For situations in which none of the EPA-approved methods for a pollutant can achieve the MLs necessary to assess reasonable potential or to monitor compliance with a permit limit, the method has the lowest ML of the analytical methods approved under 40 CFR part 136 or required under 40 CFR chapter 1, subchapter N or O for the measured pollutant or pollutant parameter.

In the case of pollutants or pollutant parameters for which there are no approved methods under 40 CFR part 136 or otherwise required under 40 CFR chapter 1, subchapters N or O, monitoring must be conducted according to a test procedure specified in this Order for such pollutants or pollutant parameters. (40 CFR §§ 122.21(e)(3), 122.41(j)(4), 122.44(i)(1)(iv).)

## IV. STANDARD PROVISIONS – RECORDS

- A. Except for records of monitoring information required by this Order related to the Discharger's sewage biosolids use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR part 503), the Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required

by this Order, and records of all data used to complete the application for this Order, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Regional Water Board Executive Officer at any time. (40 CFR § 122.41(j)(2)).

**B. Records of monitoring information shall include:**

1. The date, exact place, and time of sampling or measurements (40 CFR § 122.41(j)(3)(i));
2. The individual(s) who performed the sampling or measurements (40 CFR § 122.41(j)(3)(ii));
3. The date(s) analyses were performed (40 CFR § 122.41(j)(3)(iii));
4. The individual(s) who performed the analyses (40 CFR § 122.41(j)(3)(iv));
5. The analytical techniques or methods used (40 CFR § 122.41(j)(3)(v)); and
6. The results of such analyses. (40 CFR § 122.41(j)(3)(vi)).

**C. Claims of confidentiality for the following information will be denied (40 CFR § 122.7(b)):**

1. The name and address of any permit applicant or Discharger (40 CFR § 122.7(b)(1)); and,
2. Permit applications and attachments, permits and effluent data. (40 CFR § 122.7(b)(2)).

**V. STANDARD PROVISIONS – REPORTING**

**A. Duty to Provide Information**

The Discharger shall furnish to the Regional Water Board, State Water Board, or USEPA within a reasonable time, any information which the Regional Water Board, State Water Board, or USEPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order or to determine compliance with this Order. Upon request, the Discharger shall also furnish to the Regional Water Board, State Water Board, or USEPA copies of records required to be kept by this Order. (40 CFR § 122.41(h); CWC, §§ 13267, 13383.)

**B. Signatory and Certification Requirements**

1. All applications, reports, or information submitted to the Regional Water Board, State Water Board, and/or USEPA shall be signed and certified in accordance with Standard Provisions – Reporting V.B.2, V.B.3, V.B.4, and V.B.5 below. (40 CFR § 122.41(k).)
2. All permit applications shall be signed by either a principal executive officer or ranking elected official. For purposes of this provision, a principal executive officer of a federal agency includes: (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of USEPA). (40 CFR § 122.22(a)(3)).
3. All reports required by this Order and other information requested by the Regional Water Board, State Water Board, or USEPA shall be signed by a person described in Standard Provisions – Reporting V.B.2 above, or by a duly authorized representative of that person. A person is a duly authorized representative only if:
  - a. The authorization is made in writing by a person described in Standard Provisions – Reporting V.B.2 above (40 CFR § 122.22(b)(1));
  - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant

manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) (40 CFR § 122.22(b)(2)); and

- c. The written authorization is submitted to the Regional Water Board and State Water Board. (40 CFR § 122.22(b)(3)).
4. If an authorization under Standard Provisions – Reporting V.B.3 above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Standard Provisions – Reporting V.B.3 above must be submitted to the Regional Water Board and State Water Board prior to or together with any reports, information, or applications, to be signed by an authorized representative. (40 CFR § 122.22(c)).
5. Any person signing a document under Standard Provisions – Reporting V.B.2 or V.B.3 above shall make the following 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 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.” (40 CFR § 122.22(d)).

Any person providing the electronic signature for documents described in Standard Provisions – V.B.1, V.B.2, or V.B.3 that are submitted electronically shall meet all relevant requirements of Standard Provisions – Reporting V.B, and shall ensure that all relevant requirements of 40 CFR part 3 (Cross-Media Electronic Reporting) and 40 CFR part 127 (NPDES Electronic Reporting Requirements) are met for that submission. (40 CFR § 122.22(e)).

### C. Monitoring Reports

1. Monitoring results shall be reported at the intervals specified in the MRP (Attachment E) in this Order. (40 CFR § 122.41(l)(4)).
2. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Regional Water Board or State Water Board for reporting the results of monitoring, biosolids use, or disposal practices. As of December 21, 2016, all reports and forms must be submitted electronically to the initial recipient defined in Standard Provisions – Reporting V.J and comply with 40 CFR part 3, 40 CFR section 122.22, and 40 CFR part 127. (40 CFR § 122.41(l)(4)(i)).
3. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under 40 CFR part 136, or another method required for an industry-specific waste stream under 40 CFR chapter 1, subchapters N or O, the results of such monitoring shall be included in the calculation and reporting of the data submitted in the DMR or biosolids reporting form specified by the Regional Water Board. (40 CFR § 122.41(l)(4)(ii)).
4. Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in this Order. (40 CFR § 122.41(l)(4)(iii)).

**D. Compliance Schedules**

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Order, shall be submitted no later than 14 days following each schedule date. (40 CFR § 122.41(l)(5)).

**E. Twenty-Four Hour Reporting**

1. The Discharger shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Discharger becomes aware of the circumstances. A report shall also be provided within five (5) days of the time the Discharger becomes aware of the circumstances. The report shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

For noncompliance events related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports must include the data described above (with the exception of time of discovery) as well as the type of event (i.e., combined sewer overflow, sanitary sewer overflow, or bypass event), type of overflow structure (e.g., manhole, combined sewer overflow outfall), discharge volume untreated by the treatment works treating domestic sewage, types of human health and environmental impacts of the event, and whether the noncompliance was related to wet weather.

As of December 21, 2020, all reports related to combined sewer overflows, sanitary sewer overflows, or bypass events must be submitted electronically to the initial recipient defined in Standard Provisions – Reporting V.J. The reports shall comply with 40 CFR part 3, 40 CFR section 122.22, and 40 CFR part 127. The Regional Water Board may also require the Discharger to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section. (40 CFR § 122.41(l)(6)(i)).

2. The following shall be included as information that must be reported within 24 hours:
  - a. Any unanticipated bypass that exceeds any effluent limitation in this Order. (40 CFR § 122.41(l)(6)(ii)(A)).
  - b. Any upset that exceeds any effluent limitation in this Order. (40 CFR § 122.41(l)(6)(ii)(B)).
3. The Regional Water Board may waive the above required written report on a case-by-case basis if an oral report has been received within 24 hours. (40 CFR § 122.41(l)(6)(ii)(B)).

**F. Planned Changes**

The Discharger shall give notice to the Regional Water Board as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required under this provision only when (40 CFR § 122.41(l)(1)):

1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in section 122.29(b) (40 CFR § 122.41(l)(1)(i)); or
2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are subject neither to effluent limitations in this Order nor to notification requirements under section



122.42(a)(1) (see Additional Provisions—Notification Levels VII.A.1). (40 CFR § 122.41(l)(1)(ii)).

**G. Anticipated Noncompliance**

The Discharger shall give advance notice to the Regional Water Board of any planned changes in the permitted facility or activity that may result in noncompliance with this Order's requirements. (40 CFR § 122.41(l)(2)).

**H. Other Noncompliance**

The Discharger shall report all instances of noncompliance not reported under Standard Provisions – Reporting V.C, V.D, and V.E above at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting V.E above. For noncompliance events related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports shall contain the information described in Standard Provision – Reporting V.E and the applicable required data in appendix A to 40 CFR part 127. The Regional Water Board may also require the Discharger to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section. (40 CFR § 122.41(l)(7)).

**I. Other Information**

When the Discharger becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Regional Water Board, State Water Board, or USEPA, the Discharger shall promptly submit such facts or information. (40 CFR § 122.41(l)(8)).

**J. Initial Recipient for Electronic Reporting Data**

The owner, operator, or the duly authorized representative is required to electronically submit NPDES information specified in appendix A to 40 CFR part 127 to the initial recipient defined in 40 CFR section 127.2(b). USEPA will identify and publish the list of initial recipients on its website and in the Federal Register, by state and by NPDES data group [see 40 CFR section 127.2(c)]. USEPA will update and maintain this listing. (40 CFR § 122.41(l)(9)).

**VI. STANDARD PROVISIONS – ENFORCEMENT**

- A. The Regional Water Board is authorized to enforce the terms of this permit under several provisions of the CWC, including, but not limited to, sections 13268, 13385, 13386, and 13387.
- B. The CWA provides that any person who violates section 301, 302, 306, 307, 308, 318 or 405 of the CWA, or any permit condition or limitation implementing any such sections in a permit issued under section 402, or any requirement imposed in a pretreatment program approved under sections 402(a)(3) or 402(b)(8) of the CWA, is subject to a civil penalty not to exceed \$25,000 per day for each violation. The CWA provides that any person who negligently violates sections 301, 302, 306, 307, 308, 318, or 405 of the CWA, or any condition or limitation implementing any of such sections in a permit issued under section 402 of the CWA, or any requirement imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of the CWA, is subject to criminal penalties of \$2,500 to \$25,000 per day of violation, or imprisonment of not more than one year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than \$50,000 per day of violation, or by imprisonment of not more than two years, or both. Any person who knowingly violates such conditions or limitations is subject to criminal penalties of \$5,000 to \$50,000 per day of violation, or imprisonment for not more than three years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than \$100,000 per day of

violation, or imprisonment of not more than 6 years, or both. Any person who knowingly violates section 301, 302, 303, 306, 307, 308, 318 or 405 of the CWA, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the CWA, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than \$250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than \$500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the CWA, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than \$1,000,000 and can be fined up to \$2,000,000 for second or subsequent convictions (40 CFR § 122.41(a)(2); CWC section 13385 and 13387).

- C. Any person may be assessed an administrative penalty by the Administrator of USEPA, or an administrative civil liability by the Regional Water Board, or State Water Board for violating section 301, 302, 306, 307, 308, 318 or 405 of this CWA, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the CWA. Administrative penalties for Class I violations are not to exceed \$10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed \$25,000. Penalties for Class II violations are not to exceed \$10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed \$125,000. (40 CFR § 122.41(a)(3)).
- D. The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than two years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than four years, or both. (40 CFR § 122.41(j)(5)).
- E. The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than six months per violation, or by both. (40 CFR § 122.41(k)(2)).

## VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

### A. Publicly-Owned Treatment Works (POTWs)

All POTWs shall provide adequate notice to the Regional Water Board of the following (40 CFR § 122.42(b)):

1. Any new introduction of pollutants into the POTW from an indirect discharger that would be subject to sections 301 or 306 of the CWA if it were directly discharging those pollutants (40 CFR § 122.42(b)(1)); and
2. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of adoption of the Order. (40 CFR § 122.42(b)(2)).
3. Adequate notice shall include information on the quality and quantity of effluent introduced into the POTW as well as any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW. (40 CFR § 122.42(b)(3)).

**ATTACHMENT E – MONITORING AND REPORTING PROGRAM**

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## **ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP CI 1758)**

Section 308 of the federal Clean Water Act (CWA) and sections 122.41(h), (j)-(l), 122.44(i), and 122.48 of title 40 of the Code of Federal Regulations (40 CFR) require that all NPDES permits specify monitoring and reporting requirements. California Water Code (CWC) sections 13267 and 13383 also authorize the Regional Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. This MRP establishes monitoring, reporting, and recordkeeping requirements that implement the federal and California laws and/or regulations.

### **I. GENERAL MONITORING PROVISIONS**

- A. All samples shall be representative of the waste discharge under conditions of peak load. Quarterly effluent analyses shall be performed during the first quarter (January, February, and March), the second quarter (April, May, and June), the third quarter (July, August, and September), and the fourth quarter (October, November, and December). Semiannual analyses shall be performed during the first quarter (January, February, and March) and third quarter (July, August, and September). Annual analyses shall be performed during the third quarter (July, August, and September). Should there be instances when monitoring could not be performed during these specified months, the Discharger must notify the Regional Water Board and state the reason why monitoring could not be conducted, and obtain approval from the Executive Officer for an alternate schedule. Results of quarterly, semiannual, and annual analyses shall be reported as due date specified in Table E-14 of the MRP.
- B. Pollutants shall be analyzed using the analytical methods described in 40 CFR § 136.3, 136.4, and 136.5; or where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or the State Water Board. Laboratories analyzing effluent samples and receiving water samples shall be certified by the State Water Resources Control Board, Division of Drinking Water (DDW) Environmental Laboratory Accreditation Program (ELAP) or approved by the Executive Officer and must include quality assurance/quality control (QA/QC) data in their reports. A copy of the laboratory certification shall be provided in the Annual Report due to the Regional Water Board each time a new certification and/or renewal of the certification is obtained from ELAP.
- C. Water/wastewater samples must be analyzed within allowable holding time limits as specified in 40 CFR § 136.3. All QA/QC analyses must be run on the same dates that samples are actually analyzed. The Discharger shall retain the QA/QC documentation in its files and make available for inspection and/or submit this documentation when requested by the Regional Water Board. Proper chain of custody procedures must be followed and a copy of this documentation shall be submitted with the monthly report.
- D. The Discharger shall calibrate and perform maintenance procedures on all monitoring instruments to insure accuracy of measurements, or shall ensure that both equipment activities will be conducted.
- E. For any analyses performed for which no procedure is specified in the United States Environmental Protection Agency (USEPA) guidelines, or in the MRP, the constituent or parameter analyzed and method or procedure used must be specified in the monitoring report.
- F. Each monitoring report must affirm in writing that "all analyses were conducted at a laboratory certified for such analyses by the State Water Resources Control Board, Division of Drinking Water, or approved by the Executive Officer and in accordance with current USEPA guideline procedures or as specified in this MRP."
- G. The monitoring report shall specify the USEPA analytical method used, the Method Detection Limit (MDL), and the Reporting Level (RL) [the applicable Minimum Level (ML) or Reported

Minimum Level (RML)] for each pollutant. The MLs are those published by the State Water Board in Appendix II of the 2015 Ocean Plan. The ML represents the lowest quantifiable concentration in a sample based on the proper application of all method-based analytical procedures and the absence of any matrix interference. When all specific analytical steps are followed and after appropriate application of method specific factors, the ML also represents the lowest standard in the calibration curve for that specific analytical technique. When there is deviation from the analytical method for dilution or concentration of samples, other factors are applied to the ML depending on the sample preparation. The resulting value is the reported Minimum Level.

- H. The Discharger shall select the analytical method that provides an ML lower than the effluent limitation or performance goal established for a given parameter or where no such requirement exists, the lowest applicable water quality objective in the Ocean Plan. If the effluent limitation, performance goal, or the lowest applicable water quality objective is lower than all the MLs in Appendix II of the 2015 Ocean Plan, the Discharger must select the method with the lowest ML for compliance purposes. The Discharger shall include in the annual summary reports a list of the analytical methods and MLs employed for each test.
- I. The Discharger shall instruct its laboratories to establish calibration standards so that the ML (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lower calibration standard. At no time is the Discharger to use analytical data derived from extrapolation beyond the lowest point of the calibration curve.
- J. The Discharger shall develop and maintain a record of all spills or bypasses of raw or partially treated sewage from its collection system or treatment plant according to the requirements in the WDR section of this Order. This record shall be made available to the Regional Water Board upon request and a spill summary shall be included in the annual summary report.
- K. If the Discharger samples and performs analyses (other than for process/operational control, startup, research, or equipment testing) any influent, effluent, or receiving water constituent more frequently than required by this Order using approved analytical methods, the results of those analyses shall be included in the monitoring report. These results shall be reflected in the calculation of the average (or median) used in demonstrating compliance with limitations set forth in this Order.
- L. For all bacterial analyses, sample dilutions should be performed so the expected range of values is bracketed (for example, with multiple tube fermentation method or membrane filtration method, 2 to 16,000 per 100 mL for total and fecal coliforms, at a minimum; and 1 to 1000 per 100 mL for *Enterococcus*). The detection methods used for each analysis shall be reported with the results of the analyses.
  - 1. Detection methods used for coliforms (total and fecal) shall be those presented in Table 1A of 40 CFR § 136, unless alternate methods have been approved in advance by the USEPA pursuant to 40 CFR § 136.
  - 2. Detection methods for *Escherichia coli* shall be those presented in Table 1A of 40 CFR § 136 or in the USEPA publication EPA 600/4-85/076, Test Methods for *Escherichia coli* and enterococci in Water By Membrane Filter Procedure, or any improved method determined by the Regional Water Board to be appropriate.
- M. All receiving and ambient water monitoring conducted in compliance with the MRP must be comparable with the Quality Assurance requirements of the Surface Water Ambient Monitoring Program (SWAMP). The Discharger shall submit all receiving water monitoring data in accordance with the California Environmental Exchange Network (CEDEN), when feasible.

- N. NPDES compliance monitoring focuses on the effects of a specific point source discharge. Generally, it is not designed to assess impacts from other sources of pollution (e.g., nonpoint source runoff, aerial fallout) or to evaluate the current status of important ecological resources in the water body. The scale of existing compliance monitoring programs does not match the spatial and, to some extent, temporal boundaries of the important physical and biological processes in the ocean. In addition, the spatial coverage provided by compliance monitoring programs is less than ten percent of the nearshore ocean environment. Better technical information is needed about status and trends in ocean waters to guide management and regulatory decisions, to verify the effectiveness of existing programs, and to shape policy on marine environmental protection.
- O. The Regional Water Board and USEPA, working with other groups, have developed a comprehensive basis for effluent and receiving water monitoring appropriate to large publicly owned treatment works (POTWs) discharging to waters of the Southern California Bight. This effort has culminated in the publication by the Southern California Coastal Water Research Project (SCCWRP) of the Model Monitoring Program guidance document (Schiff, K.C., J.S. Brown and S.B. Weisberg. 2001. *Model Monitoring Program for Large Ocean Dischargers in Southern California*. SCCWRP Tech. Rep. #357. Southern California Coastal Water Research Project, Westminster, CA. 101 pp.). This guidance provides the principles, framework and recommended design for effluent and receiving water monitoring elements that have guided development of the monitoring program described below.
- P. In July 2000, the Santa Monica Bay Restoration Project (SMBRP) published "An Assessment of the Compliance Monitoring System in Santa Monica Bay" to set forth recommendations and priorities for compliance monitoring in Santa Monica Bay. This report reasoned that a reduced level of receiving water monitoring is justified for large POTWs discharging to Santa Monica Bay due to improvements in effluent quality and associated decreases in receiving water impacts. Like the Model Monitoring Plan developed by SCCWRP, SMBRP recommendations are focused on providing answers to management questions and allowing a reduction in POTW receiving water monitoring where discharge effects are well understood. The monitoring plan set forth here has been guided by SMBRP recommendations.
- Q. The conceptual framework for the Model Monitoring Program has three components that comprise a range of spatial and temporal scales: (1) core monitoring; (2) regional monitoring; and (3) special studies.
1. Core monitoring is local in nature and focused on monitoring trends in quality and effects of the point source discharge. This includes effluent monitoring as well as some aspects of receiving water monitoring. In the monitoring program described below, these core components are typically referred to as local monitoring.
  2. Regional monitoring is focused on questions that are best answered by a region-wide approach that incorporates coordinated survey design and sampling techniques. The major objective of regional monitoring is to collect information required to assess how safe it is to swim in the ocean, how safe it is to eat seafood from the ocean, and whether the marine ecosystem is being protected. Key components of regional monitoring include elements to address pollutant mass emission estimations, public health concerns, monitoring of trends in natural resources, assessment of regional impacts from all contaminant sources, and protection of beneficial uses. The final design of regional monitoring programs is developed by means of steering committees and technical committees comprised of participating agencies and organizations and is not specified in this Order. Instead, for each regional component, the degree and nature of participation of the Discharger is specified. For this Order, these levels of effort are based upon past participation of the Discharger in regional monitoring programs.

The Discharger shall participate in regional monitoring activities coordinated by the SCCWRP or any other appropriate agency approved by the Regional Water Board. The procedures and time lines for the Regional Water Board approval shall be the same as detailed for special studies, below.

3. Special studies are focused on refined questions regarding specific effects or development of monitoring techniques and are anticipated to be of short duration and/or small scale, although multiyear studies also may be needed. Questions regarding effluent or receiving water quality, discharge impacts, ocean processes in the area of the discharge, or development of techniques for monitoring the same, arising out of the results of core or regional monitoring, may be pursued through special studies. These studies are by nature ad hoc and cannot be typically anticipated in advance of the five-year permit cycle.

The Discharger and the Regional Water Board shall consult annually to determine the need for special studies. Each year, the Discharger shall submit proposals for any proposed special studies to the Regional Water Board by December 31st for the following year's monitoring effort (July through June). The following year, detailed scopes of work for proposals, including reporting schedules, shall be presented by the Discharger at a Spring Regional Water Board meeting, to obtain the Regional Water Board approval and to inform the public. Upon approval by the Regional Water Board, the Discharger shall implement its special study or studies.

- R. Every five years SCCWRP coordinates regional monitoring within the Southern California Bight and compiles monitoring data collected by the dischargers and other participating entities. The fifth regional monitoring program (Bight '13) occurred primarily during summer 2013. The next (sixth) regional monitoring program (Bight '18) is expected to take place during 2018. While participation in regional monitoring programs is required under this Order, revisions to the Discharger's monitoring program at the direction of the Regional Water Board may be necessary to accomplish the goals of regional monitoring or to allow the performance of special studies to investigate regional or site-specific water issues of concern. These revisions may include a reduction or increase in the number of parameters to be monitored, the frequency of monitoring, or the number and size of samples to be collected. Such changes may be authorized by the Regional Water Board Executive Officer upon written notification to the Discharger.

Discharger participation in regional monitoring programs is required as a condition of this Order. The Discharger shall complete collection and analysis of samples in accordance with the schedule established by the Steering Committee directing the Bight-wide regional monitoring surveys. The level of participation shall be similar to that provided by the Discharger in previous regional surveys conducted in 1994, 1998, 2003, 2008, and 2013.

- S. Bay Comprehensive Monitoring Program. The Santa Monica Bay Restoration Commission adopted a new comprehensive monitoring program for Santa Monica Bay in April 2007. This new monitoring program, developed by the Commission's Technical Advisory Committee, culminates efforts that began in the mid-1990s with the identification of key management questions and monitoring priorities. It lays out new monitoring designs for five major habitats within the Bay:
  1. Pelagic Ecosystem
  2. Soft Bottom Ecosystem
  3. Hard Bottom Ecosystem

4. Rocky and Sandy Intertidal, and
5. Wetlands.

Monitoring design for each habitat includes a core motivating question, a number of related objectives, specific monitoring approaches, indicators, data products, and sampling designs detailing number and locations of stations, sampling frequency, and measurements to be collected. The Bay Monitoring Program also includes an implementation plan that includes a detailed schedule, cost estimates for individual Program elements, and recommendations on the Program's management structure, including data management and assessment strategies.

The Bay Monitoring Program is designed to be implemented in part through modifications to existing receiving water monitoring programs for major NPDES dischargers into coastal ocean waters. Some elements of this monitoring program already have been implemented, for example, through establishment of periodic Bight-wide regional monitoring surveys (Southern California Bight Pilot Project '94, Bight '98, Bight '03, Bight '08, and Bight '13) and kelp bed monitoring. However, other elements of the program have yet to be implemented.

SMBRC, USEPA, the Regional Water Board, the Discharger, affected NPDES permit holders, and other interested agencies and stakeholders will develop plans to collaboratively fund these elements of the program and determine each party's level of participation. It is anticipated that funding for the program from the Joint Outfall System will be supplied through a combination of modifications to the JWPCP's MRP, including redirection of existing effort and new monitoring efforts relevant to the JWPCP's discharge. Redirection of existing monitoring requirements and/or the imposition of additional monitoring efforts conducted under the terms of this Order are subject to a public hearing before the Regional Water Board. This Order may be reopened and modified by the Regional Water Board to incorporate conforming monitoring requirements and schedule dates for implementation of the Comprehensive Monitoring Program for Santa Monica Bay (Santa Monica Bay Restoration Commission, January 2007).

Each year, at a Spring Regional Water Board meeting, the Discharger shall provide an informational report summarizing to date its contributing activities towards coordinated implementation of the Comprehensive Monitoring Program for Santa Monica Bay (SMBRC, January 2007).

- T. This monitoring program for JWPCP is comprised of requirements to demonstrate compliance with the conditions of the NPDES permit, ensure compliance with State water quality standards, and mandate participation in regional monitoring and/or area-wide studies.

**II. MONITORING LOCATIONS**

The Discharger shall establish the following monitoring locations to demonstrate compliance with the effluent limitations, discharge specifications, and other requirements in this Order:

**Table E-1. Monitoring Station Locations**

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
<b>Influent Monitoring Station</b>		
--	INF-001	Calculated from measures collected at sampling stations located upstream of any in-plant return flows and/or where representative samples of the influent can be obtained.



Discharge Point Name	Monitoring Location Name	Monitoring Location Description		
<b>Effluent Monitoring Stations</b>				
001, 002, 003, and 004	EFF-001	The effluent sampling station shall be located downstream of any in-plant return flows but before entering discharge tunnel where representative samples of the effluent can be obtained.		
001, 002, 003, and 004	EFF-002A, EFF-002B	These effluent sampling stations shall be located at the outfall manifold at White Point. Samples taken at monitoring location EFF-002A shall be considered representative of discharges from Discharge Points 001 & 003. Samples taken at EFF-002B shall be considered representative of discharges from Discharge Points 002 & 004.		
<b>Receiving Water Monitoring Stations</b>				
<b>Inshore Stations for Microbiological Monitoring (Attachment B-5)</b>				
001, 002, 003, and 004	RW-IS-IL2	Long Point	33.73667	-118.40250
	RW-IS-IL3	Portuguese Point	33.73750	-118.37783
	RW-IS-IL4	Bunker Point	33.72522	-118.35175
	RW-IS-IL5	Royal Palms	33.71733	-118.32998
	RW-IS-IL6	West of Point Fermin	33.70820	-118.30848
	RW-IS-IL7	Cabrillo Beach	33.70333	-118.28400
<b>Offshore Stations for Microbiological (Attachment B-5)</b>				
001, 002, 003, and 004	RW-OS-6C	6C	33.70783	-118.35400
	RW-OS-8C	8C	33.69850	-118.33567
	RW-OS-9C	9C	33.68867	-118.31833
<b>Nearshore/Offshore Stations for Water Quality Monitoring (Attachment B-6)</b>				
001, 002, 003, and 004	RW-OS-2501	10 meter depth	33.72783	-118.12017
	RW-OS-2502	20 meter depth	33.69900	-118.12783
	RW-OS-2503	26 meter depth	33.67017	-118.13533
	RW-OS-2504*	33 meter depth	33.64133	-118.14283
	RW-OS-2505*	44 meter depth	33.61250	-118.15033
	RW-OS-2506*	60 meter depth	33.58100	-118.15900
	RW-OS-2601	19 meter depth	33.72050	-118.18433
	RW-OS-2602	23 meter depth	33.69400	-118.19050
	RW-OS-2603	23 meter depth	33.66750	-118.19667
	RW-OS-2604*	32 meter depth	33.64100	-118.20300
	RW-OS-2605*	47 meter depth	33.61467	-118.20917
	RW-OS-2606*	62 meter depth	33.58817	-118.21550
	RW-OS-2701	26 meter depth	33.70767	-118.24667
	RW-OS-2702	26 meter depth	33.68867	-118.25117
	RW-OS-2703	28 meter depth	33.66950	-118.25567
RW-OS-2704*	50 meter depth	33.65050	-118.26000	
RW-OS-2705*	100 meter depth	33.63133	-118.26450	

Discharge Point Name	Monitoring Location Name	Monitoring Location Description		
		Depth	Longitude	Latitude
001, 002, 003, and 004	RW-OS-2706*	80 meter depth	33.61217	-118.26900
	RW-OS-2801	10 meter depth	33.70283	-118.28433
	RW-OS-2802*	30 meter depth	33.69333	-118.28900
	RW-OS-2803*	60 meter depth	33.66850	-118.29683
	RW-OS-2804*	100 meter depth	33.65767	-118.30133
	RW-OS-2805	100 meter depth	33.64850	-118.30400
	RW-OS-2806	100 meter depth	33.63700	-118.30917
	RW-OS-2901	10 meter depth	33.71433	-118.32350
	RW-OS-2902*	30 meter depth	33.70700	-118.32983
	RW-OS-2903*	60 meter depth	33.69850	-118.33567
	RW-OS-2904*	100 meter depth	33.68783	-118.33900
	RW-OS-2905	100 meter depth	33.67100	-118.34617
	RW-OS-2906	100 meter depth	33.65417	-118.35433
	RW-OS-3001	10 meter depth	33.73217	-118.36033
	RW-OS-3002*	30 meter depth	33.72233	-118.36317
	RW-OS-3003*	60 meter depth	33.71467	-118.36600
	RW-OS-3004*	100 meter depth	33.70100	-118.37133
	RW-OS-3005	100 meter depth	33.68500	-118.38100
	RW-OS-3006	100 meter depth	33.66683	-118.39067
	RW-OS-3051	13 meter depth	33.73633	-118.39433
	RW-OS-3052*	30 meter depth	33.73317	-118.40050
	RW-OS-3053*	60 meter depth	33.73000	-118.40250
	RW-OS-3054*	100 meter depth	33.71900	-118.41100
	RW-OS-3055	100 meter depth	33.70500	-118.42200
	RW-OS-3056	100 meter depth	33.68967	-118.43317
	RW-OS-3101	10 meter depth	33.77100	-118.43017
	RW-OS-3102*	30 meter depth	33.76500	-118.43533
	RW-OS-3103*	60 meter depth	33.75733	-118.44100
	RW-OS-3104*	100 meter depth	33.74533	-118.44983
	RW-OS-3105	100 meter depth	33.72883	-118.46117
RW-OS-3106	100 meter depth	33.71250	-118.47550	
<b>Nearshore Light Energy Monitoring Stations (Attachment B-7)</b>				
001, 002, 003, and 004	RW-NS-L1	Palos Verdes Point	33.76833	-118.43033
	RW-NS-L2	Long Point	33.73500	-118.40367
	RW-NS-L3	Portuguese Point	33.73483	-118.37783
	RW-NS-L4	Bunker Point	33.72367	-118.35183
	RW-NS-L5	Royal Palms	33.71400	-118.33167
	RW-NS-L6	West of Point Fermin	33.70600	-118.30933
	RW-NS-L7	Cabrillo Beach	33.69733	-118.28533

Discharge Point Name	Monitoring Location Name	Monitoring Location Description		
<b>Bottom Stations for Benthic Sediment Chemistry Monitoring (Attachment B-8)</b>				
001, 002, 003, and 004	RW-B-0A	305 meter depth	33.81833	-118.45417
	RW-B-0B	152 meter depth	33.81167	-118.44167
	RW-B-0C	61 meter depth	33.80717	-118.43050
	RW-B-0D	30 meter depth	33.80283	-118.42267
	RW-B-1A	305 meter depth	33.74533	-118.44983
	RW-B-1B	152 meter depth	33.74950	-118.44683
	RW-B-1C	61 meter depth	33.75733	-118.44100
	RW-B-1D	30 meter depth	33.76500	-118.43533
	RW-B-2A	305 meter depth	33.72700	-118.42867
	RW-B-2B	152 meter depth	33.73250	-118.42583
	RW-B-2C	61 meter depth	33.73767	-118.42317
	RW-B-2D	30 meter depth	33.74117	-118.42133
	RW-B-3A	305 meter depth	33.71900	-118.41100
	RW-B-3B	152 meter depth	33.72383	-118.40733
	RW-B-3C	61 meter depth	33.73000	-118.40250
	RW-B-3D	30 meter depth	33.73317	-118.40050
	RW-B-4A	305 meter depth	33.71167	-118.38967
	RW-B-4B	152 meter depth	33.71667	-118.38733
	RW-B-4C	61 meter depth	33.72333	-118.38467
	RW-B-4D	30 meter depth	33.73183	-118.38050
	RW-B-5A	305 meter depth	33.70100	-118.37133
	RW-B-5B	152 meter depth	33.70900	-118.36800
	RW-B-5C	61 meter depth	33.71467	-118.36600
	RW-B-5D	30 meter depth	33.72233	-118.36317
	RW-B-6A	305 meter depth	33.69983	-118.35933
	RW-B-6B	152 meter depth	33.70300	-118.35583
	RW-B-6C	61 meter depth	33.70783	-118.35400
	RW-B-6D	30 meter depth	33.71633	-118.34850
	RW-B-7A	305 meter depth	33.69767	-118.35317
	RW-B-7B	152 meter depth	33.70083	-118.35150
	RW-B-7C	61 meter depth	33.70517	-118.34867
	RW-B-7D	30 meter depth	33.71267	-118.34350
RW-B-8A	305 meter depth	33.68783	-118.33900	
RW-B-8B	152 meter depth	33.69217	-118.33733	
RW-B-8C	61 meter depth	33.69850	-118.33567	
RW-B-8D	30 meter depth	33.70700	-118.32983	
RW-B-9A	305 meter depth	33.67633	-118.32433	
RW-B-9B	152 meter depth	33.68150	-118.32183	
RW-B-9C	61 meter depth	33.68867	-118.31833	
RW-B-9D	30 meter depth	33.69950	-118.31300	

Discharge Point Name	Monitoring Location Name	Monitoring Location Description		
		Depth	North Latitude	West Longitude
	RW-B-10A	305 meter depth	33.65767	-118.30133
	RW-B-10B	152 meter depth	33.66217	-118.29833
	RW-B-10C	61 meter depth	33.66850	-118.29683
	RW-B-10D	30 meter depth	33.69333	-118.28900
<b>Bottom Zones for Bioaccumulation Monitoring (Attachment B-10)</b>				
001, 002, 003, and 004	RW-BA-Z1	<b>Outfall zone:</b> inshore of the 150 meter depth contour between a line bearing 150° magnetic of White Point and a line bearing 180° magnetic off Bunker Point.		
	RW-BA-Z2	<b>Intermediate zone:</b> inshore of the 150 meter depth contour between a line bearing 180° (true) magnetic of Portuguese Point (33.73733, -118.37500) and a line bearing 270 (true) off 33.74667, -118.41367		
	RW-BA-Z3	<b>Distant zone:</b> inshore of the 150 meter depth contour and between a line bearing 225° magnetic off the southern face of Palos Verdes Point and a line bearing 235° magnetic off the south end of the Redondo Beach Pier.		
<b>Bottom Stations for Fish and Invertebrate Monitoring (Trawl Sampling Stations) (Attachment B-9)</b>				
001, 002, 003, and 004	RW-T-T0/23	23 meter depth	33.80317	-118.41733
	RW-T-T0/61	61 meter depth	33.80950	-118.43067
	RW-T-T0/137	137 meter depth	33.81383	-118.43933
	RW-T-T0/305	305 meter depth	33.82050	-118.45150
	RW-T-T1/23	26 meter depth	33.74417	-118.41817
	RW-T-T1/61	61 meter depth	33.73600	-118.42050
	RW-T-T1/137	137 meter depth	33.73067	-118.42233
	RW-T-T1/305	305 meter depth	33.72583	-118.42733
	RW-T-T4/23	27 meter depth	33.71317	-118.34133
	RW-T-T4/61	61 meter depth	33.70550	-118.34867
	RW-T-T4/137	137 meter depth	33.70100	-118.35083
	RW-T-T4/305	305 meter depth	33.70000	-118.35817
	RW-T-T5/23	23 meter depth	33.70483	-118.31633
	RW-T-T5/61	61 meter depth	33.69083	-118.32183
	RW-T-T5/137	137 meter depth	33.68517	-118.32683
	RW-T-T5/305	305 meter depth	33.68083	-118.33083

The North latitude and West longitude information in Table E-1 are approximate for administrative purposes. The asterisk (\*) shows the ammonia sampling locations.

### III. INFLUENT MONITORING REQUIREMENTS

Influent monitoring is required to determine compliance with NPDES permit conditions, to assess treatment plant performance and to assess effectiveness of the Pretreatment Program.

#### A. Monitoring Location INF-001

1. The Discharger shall monitor influent to the facility at INF-001 as follows. If more than one analytical test method is listed for a given parameter, the Discharger must select from the listed methods and corresponding Minimum Level:

**Table E-2. Influent Monitoring**

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	MGD	calculated	daily	1
Biochemical Oxygen Demand (BOD <sub>5</sub> 20°C)	mg/L	24-hr composite	weekly	1
Total Suspended Solids (TSS)	mg/L	24-hr composite	weekly	1
pH	pH units	grab	weekly	1
Oil and Grease	mg/L	grab <sup>2</sup>	weekly	1
Total Organic Carbon (TOC)	mg/L	24-hour composite	monthly	1
Organic Nitrogen	mg/L	24-hour composite	quarterly	1
Total phosphorus (as P)	mg/L	24-hr composite	quarterly	1
Arsenic	µg/L	24-hr composite	quarterly	1
Cadmium	µg/L	24-hr composite	quarterly	1
Chromium (VI) <sup>3</sup>	µg/L	grab	semiannually	1
Copper	µg/L	24-hr composite	monthly	1
Lead	µg/L	24-hr composite	quarterly	1
Mercury	µg/L	24-hr composite	quarterly	4
Nickel	µg/L	24-hr composite	quarterly	1
Selenium	µg/L	24-hr composite	quarterly	1
Silver	µg/L	24-hr composite	quarterly	1
Zinc	µg/L	24-hr composite	quarterly	1
Cyanide	µg/L	grab	quarterly	1
Ammonia Nitrogen	mg/L	24-hr composite	monthly	1

<sup>1</sup> Pollutants shall be analyzed using the analytical methods described in 40 CFR § 136; or where no methods are specified for a given pollutant, by methods approved by this Regional Water Board, the State Water Board, and USEPA Region 9. For any pollutant whose effluent limitation is lower than all the MLs specified in Appendix II of the Ocean Plan, the analytical method with the lowest ML must be selected.

<sup>2</sup> Oil and grease monitoring shall consist of a single grab sample at peak flow over a 24-hour period.

<sup>3</sup> The Permittee may, at its option, meet the hexavalent chromium limitation by analyzing for total chromium rather than hexavalent chromium.

<sup>4</sup> USEPA Method 245, with a reporting limit of 0.04 µg/L, shall be used to analyze total mercury.

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Phenolic Compounds (non-chlorinated) <sup>5</sup>	µg/L	24-hr composite	semiannually	1
Phenolic Compounds (chlorinated) <sup>5</sup>	µg/L	24-hr composite	quarterly	1
Endosulfan <sup>5</sup>	µg/L	24-hr composite	semiannually	1
Endrin	µg/L	24-hr composite	semiannually	1
Hexachlorocyclohexane (HCH) <sup>5</sup>	µg/L	24-hr composite	semiannually	1
Radioactivity (including gross alpha, gross, beta, combined radium-226 & radium-228, tritium, strontium-90 and uranium)	pCi/L	24-hr composite	quarterly	6
Acrolein	µg/L	grab	semiannually	1
Antimony	µg/L	24-hr composite	quarterly	1
Bis(2-chloroethoxy) methane	µg/L	24-hr composite	semiannually	1
Bis(2-chloroisopropyl) ether	µg/L	24-hr composite	semiannually	1
Chlorobenzene	µg/L	grab	semiannually	1
Chromium (III)	µg/L	calculated	quarterly	1
Di-n-butyl phthalate	µg/L	24-hr composite	quarterly	1
Dichlorobenzenes <sup>5</sup>	µg/L	24-hr composite	quarterly	1
Diethyl phthalate	µg/L	24-hr composite	semiannually	1
Dimethyl phthalate	µg/L	24-hr composite	semiannually	1
4,6-dinitro-2-methylphenol	µg/L	24-hr composite	semiannually	1
2,4-dinitrophenol	µg/L	24-hr composite	semiannually	1
Ethylbenzene	µg/L	grab	semiannually	1
Fluoranthene	µg/L	24-hr composite	semiannually	1
Hexachlorocyclopentadiene	µg/L	24-hr composite	semiannually	1
Nitrobenzene	µg/L	24-hr composite	quarterly	1
Thallium	µg/L	24-hr composite	quarterly	1
Toluene	µg/L	grab	quarterly	1
Tributyltin	ng/L	24-hour composite	quarterly	1
1,1,1-Trichloroethane	µg/L	grab	semiannually	1
Acrylonitrile	µg/L	grab	semiannually	1
Aldrin	µg/L	24-hr composite	semiannually	1
Benzene	µg/L	grab	semiannually	1
Benzidine	µg/L	24-hr composite	semiannually	1

<sup>5</sup> See section VIII of this Order and Attachment A for definition of terms

<sup>6</sup> Analyze these radiochemicals by the following USEPA methods: method 900.0 for gross alpha and gross beta, method 903.0 or 903.1 for radium-226, method 904.0 for radium-228, method 906.0 for tritium, method 905.0 for strontium-90, and method 908.0 for uranium. Analysis for combined radium-226 & 228 shall be conducted only if gross alpha and gross beta results for the same sample exceed 15 pCi/L or 50 pCi/L, respectively. If radium-226 & 228 exceeds 5 pCi/L, then analyze for tritium, strontium-90, and uranium.

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Beryllium	µg/L	24-hr composite	quarterly	1
Bis(2-chloroethyl) ether	µg/L	24-hr composite	semiannually	1
Bis(2-ethylhexyl) phthalate	µg/L	24-hr composite	quarterly	1
Carbon tetrachloride	µg/L	grab	semiannually	1
Chlordane <sup>5</sup>	µg/L	24-hr composite	semiannually (excluding chlordene-alpha and gamma)	1
Chlorodibromomethane	µg/L	grab	quarterly	1
Chloroform	µg/L	grab	quarterly	1
DDT <sup>5</sup>	µg/L	24-hr composite	quarterly	1
1,4-dichlorobenzene	µg/L	grab	semiannually	1
3,3'-dichlorobenzidine	µg/L	24-hr composite	semiannually	1
1,2-Dichloroethane	µg/L	grab	semiannually	1
1,1-Dichloroethylene	µg/L	grab	semiannually	1
Dichlorobromomethane	µg/L	grab	quarterly	1
Dichloromethane	µg/L	grab	quarterly	1
1,3-Dichloropropene	µg/L	grab	semiannually	1
Dieldrin	µg/L	24-hr composite	semiannually	1
2,4-dinitrotoluene	µg/L	24-hr composite	semiannually	1
1,2-diphenylhydrazine	µg/L	24-hr composite	semiannually	1
Halomethanes <sup>5</sup>	µg/L	grab	quarterly	1
Heptachlor	µg/L	24-hr composite	semiannually	1
Heptachlor epoxide	µg/L	24-hr composite	semiannually	1
Hexachlorobenzene	µg/L	24-hr composite	semiannually	1
Hexachlorobutadiene	µg/L	24-hr composite	semiannually	1
Hexachloroethane	µg/L	24-hr composite	semiannually	1
Isophorone	µg/L	24-hr composite	quarterly	1
N-nitrosodimethylamine	µg/L	24-hr composite	quarterly	1
N-nitrosodi-n-propylamine	µg/L	24-hr composite	semiannually	1
N-nitrosodiphenylamine	µg/L	24-hr composite	semiannually	1
Polycyclic Aromatic Hydrocarbons (PAHs) <sup>5</sup>	µg/L	24-hr composite	quarterly	1
Polychlorinated Biphenyls (PCBs) <sup>5</sup>	µg/L	24-hr composite	quarterly	11,12
TCDD Equivalents <sup>5</sup>	pg/L	24-hr composite	quarterly	7
1,1,2,2-Tetrachloroethane	µg/L	grab	semiannually	1
Tetrachloroethylene	µg/L	grab	quarterly	1
Toxaphene	µg/L	24-hr composite	semiannually	1
Trichloroethylene	µg/L	grab	semiannually	1
1,1,2-Trichloroethane	µg/L	grab	semiannually	1

<sup>7</sup> USEPA Method 1613 shall be used to analyze TCDD equivalents.

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
2,4,6-Trichlorophenol	µg/L	24-hr composite	quarterly	1
Vinyl chloride	µg/L	grab	semiannually	1
Methyl-tert-butyl-ether	µg/L	grab	quarterly	1

**IV. EFFLUENT MONITORING REQUIREMENTS**

Effluent monitoring is required to determine compliance with NPDES permit conditions and water quality standards; assess and improve plant performance, and identify operational problems; provide information on wastewater characteristics and flows for use in interpreting water quality and biological data; and to conduct reasonable potential analyses for toxic pollutants.

**A. Monitoring Location EFF-001, EFF-002A and EFF-002B**

The Discharger shall monitor at effluent monitoring location EFF-001 for all parameters except chlorine residual and bacteria. The chlorine residual and bacteria samples shall be collected at effluent manifold monitoring locations EFF-002A and EFF-002B. Effluent limitations for chlorine residual and bacteria applicable to discharges through Discharge Points 001 and 003 shall apply at manifold monitoring location EFF-002A. Effluent limitations for chlorine residual and bacteria applicable to discharges through Discharge Points 002 and 004 shall apply at manifold monitoring location EFF-002B.

If more than one analytical test method is listed for a given parameter, the Discharger must select from the listed methods and corresponding Minimum Level:

**Table E-3. Effluent Monitoring**

Parameter	Units	Sample Type	Minimum Sampling Frequency <sup>8</sup>	Required Analytical Test Method
Flow	MGD	recorder/totalizer	continuous	--
BOD <sub>5</sub> 20°C	mg/L	24-hr composite	weekly	1
Suspended solids	mg/L	24-hr composite	weekly	1
pH	pH units	grab	weekly	1
Oil and grease	mg/L	grab <sup>9</sup>	weekly	1
Temperature	°F	grab	daily	1

<sup>8</sup> For Discharge Points 001 and 002 the minimum frequency of analysis shall be once per discharge day, but no more than one analysis is required during the indicated sampling period for those constituents that are monitored less frequently. During routine maintenance activities lasting less than 24 hours at Discharge Points 001 and 002, sampling and analyses are not required except for parameters with instantaneous maximum effluent limitations: pH, oil and grease, settleable solids, turbidity, and total chlorine residuals. Compliance with the instantaneous maximum final effluent limitations (with the exception of total residual chlorine) for 001 and 002 may be determined at the compliance location for Discharge Points 003 and 004 during routine maintenance as long as there is no plant upset during maintenance and the sample is representative of the final effluent discharged through all points. The maximum daily, average weekly, and average monthly effluent limitations shall apply to flow weighted 24-hour composite samples. They may apply to grab samples if the collection of composite samples for those constituents is not appropriate because of the instability of the constituents.

<sup>9</sup> Oil and grease monitoring shall consist of a single grab sample at peak flow over a 24-hour period.



Parameter	Units	Sample Type	Minimum Sampling Frequency <sup>8</sup>	Required Analytical Test Method
Settleable solids	ml/L	grab	weekly	1
Total chlorine residual (at manifold stations)	mg/L	grab	daily	1
Turbidity	NTU	24-hr composite and grab	weekly	1
Total coliform (at manifold stations)	CFU/100 ml or MPN/100 ml	grab	daily	1
<i>Enterococcus</i> (at manifold stations)	CFU/100 ml or MPN/100 ml	grab	daily	1
Fecal coliform (at manifold stations)	CFU/100 ml or MPN/100 ml	grab	5 times/month	1
Total Organic Carbon	mg/L	24-hr composite	monthly	1
Ammonia nitrogen	mg/L	24-hr composite	weekly	1
Toxicity, chronic <sup>10</sup>	Pass or Fail, % Effect (TST)	24-hr composite	monthly	1
Cyanide	µg/L	grab	quarterly	1
Nitrate nitrogen	mg/L	24-hr composite	quarterly	1
Organic nitrogen	mg/L	24-hr composite	quarterly	1
Total Phosphorus(as P)	mg/L	24-hr composite	quarterly	1
Radioactivity (Including gross alpha, gross beta, combined radium-226 and radium-228, tritium, strontium-90 and uranium)	pCi/L	24-hr composite	quarterly	6
Tributyltin	ng/L	24-hr composite	semiannually	1
Aldrin	µg/L	24-hr composite	semiannually	1
Chlordane <sup>5</sup>	µg/L	24-hr composite	semiannually (except for chlordene-alpha and gamma)	<sup>1</sup> (testing for chlordene-alpha and chlordene-gamma shall be conducted only one time during year 3 of the Order)
DDT <sup>5</sup>	µg/L	24-hr composite	quarterly	1

<sup>10</sup> Whole effluent toxicity monitoring is required for Discharge Points 001 and 002, see section V. Whole Effluent Toxicity Testing Requirements.

Parameter	Units	Sample Type	Minimum Sampling Frequency <sup>8</sup>	Required Analytical Test Method
Dieldrin	µg/L	24-hr composite	semiannually	1
Endosulfan <sup>5</sup>	µg/L	24-hr composite	semiannually	1
Endrin	µg/L	24-hr composite	semiannually	1
HCH <sup>5</sup>	µg/L	24-hr composite	semiannually	1
Heptachlor	µg/L	24-hr composite	semiannually	1
Heptachlor epoxide	µg/L	24-hr composite	semiannually	1
PCBs as aroclors <sup>5</sup>	µg/L	24-hr composite	quarterly	1
PCBs as congeners <sup>5</sup>	µg/L	24-hr composite	annually	11, 12
Toxaphene	µg/L	24-hr composite	quarterly	1
2,4-Dinitrophenol	µg/L	24-hr composite	semiannually	1
2,4,6-Trichlorophenol	µg/L	24-hr composite	semiannually	1
2-Methyl-4,6-dinitrophenol	µg/L	24-hr composite	semiannually	1
Phenolic compounds (chlorinated) <sup>5</sup>	µg/L	24-hr composite	semiannually	1
Phenolic compounds (non-chlorinated) <sup>5</sup>	µg/L	24-hr composite	semiannually	1
Bis(2-chloro-ethoxy) methane	µg/L	24-hr composite	semiannually	1
Bis(2-chloro-isopropyl) ether	µg/L	24-hr composite	semiannually	1
Di-n-butylphthalate	µg/L	24-hr composite	semiannually	1

<sup>11</sup> PCBs as congeners shall be individually quantified (or quantified as mixtures of isomers of a single congener in co-elutions as appropriate) using USEPA proposed method 1668c. PCBs as congeners shall be analyzed using method EPA 1668c for three years and an alternate method may be used if none of the PCB congeners are detected for three years using method EPA 1668c.

USEPA recommends that until USEPA proposed method 1668c for PCBs is incorporated into 40 CFR § 136, Permittees should use for discharge monitoring reports/State monitoring reports: (1) USEPA method 608 for monitoring data, reported as aroclor results, that will be used for assessing compliance with WQBELs (if applicable) and (2) USEPA proposed method 1668c for monitoring data, reported as 41 congener results, that will be used for informational purposes to help assess concentrations in the receiving water.

<sup>12</sup> To facilitate interpretation of sediment/fish tissue data and TMDL development, PCB congeners whose analytical characteristics resemble those of PCB-18, 28, 37, 44, 49, 52, 66, 70, 74, 77, 81, 87, 99, 101, 105, 110, 114, 118, 119, 123, 126, 128, 138, 149, 151, 153, 156, 157, 158, 167, 168, 169, 170, 177, 180, 183, 187, 189, 194, 201, and 206 shall be reported as a sum and individually quantified (or quantified as mixtures of isomers of a single congener in co-elutions as appropriate).

Parameter	Units	Sample Type	Minimum Sampling Frequency <sup>8</sup>	Required Analytical Test Method
Dichlorobenzenes <sup>5</sup>	µg/L	grab	semiannually	1
Diethylphthalate	µg/L	24-hr composite	semiannually	1
Dimethylphthalate	µg/L	24-hr composite	semiannually	1
Fluoranthene	µg/L	24-hr composite	semiannually	1
Hexachlorocyclopentadiene	µg/L	24-hr composite	semiannually	1
Isophorone	µg/L	24-hr composite	semiannually	1
Nitrobenzene	µg/L	24-hr composite	semiannually	1
Benzidine	µg/L	24-hr composite	quarterly	1
Bis(2-chloroethyl) ether	µg/L	24-hr composite	semiannually	1
Bis(2-ethylhexyl) phthalate	µg/L	24-hr composite	semiannually	1
1,4-Dichlorobenzene	µg/L	grab	semiannually	1
3,3'-Dichlorobenzidine	µg/L	24-hr composite	semiannually	1
2,4-Dinitrotoluene	µg/L	24-hr composite	semiannually	1
1,2-Diphenylhydrazine	µg/L	24-hr composite	semiannually	1
Hexachlorobenzene	µg/L	24-hr composite	semiannually	1
Hexachlorobutadiene	µg/L	24-hr composite	semiannually	1
Hexachloroethane	µg/L	24-hr composite	semiannually	1
N-Nitrosodimethylamine	µg/L	24-hr composite	semiannually	1
N-Nitrosodi-n-propylamine	µg/L	24-hr composite	semiannually	1
N-Nitrosodiphenylamine	µg/L	24-hr composite	semiannually	1
PAHs <sup>5</sup>	µg/L	24-hr composite	semiannually	1
TCDD equivalents <sup>5</sup>	pg/L	24-hr composite	semiannually	7
Acrolein	µg/L	grab	semiannually	1
Acrylonitrile	µg/L	grab	semiannually	1
Benzene	µg/L	grab	semiannually	1
Carbon tetrachloride	µg/L	grab	semiannually	1
Chlorobenzene	µg/L	grab	semiannually	1
Chlorodibromomethane	µg/L	grab	quarterly	1
Chloroform	µg/L	grab	semiannually	1

Parameter	Units	Sample Type	Minimum Sampling Frequency <sup>8</sup>	Required Analytical Test Method
Dichlorobromomethane	µg/L	grab	semiannually	1
Dichloromethane	µg/L	grab	semiannually	1
1,1-Dichloroethylene	µg/L	grab	semiannually	1
1,2-Dichloroethane	µg/L	grab	semiannually	1
1,3-Dichloropropene	µg/L	grab	semiannually	1
Ethylbenzene	µg/L	grab	semiannually	1
Halomethanes <sup>5</sup>	µg/L	grab	semiannually	1
Methyl-tert-butyl-ether	µg/L	grab	semiannually	1
Toluene	µg/L	grab	semiannually	1
1,1,2,2-Tetrachloroethane	µg/L	grab	semiannually	1
1,1,1-Trichloroethane	µg/L	grab	semiannually	1
1,1,2-Trichloroethane	µg/L	grab	semiannually	1
Tetrachloroethylene	µg/L	grab	semiannually	1
Trichloroethylene	µg/L	grab	semiannually	1
Vinyl chloride	µg/L	grab	semiannually	1
Antimony	µg/L	24-hr composite	quarterly	1
Arsenic	µg/L	24-hr composite	quarterly	1
Beryllium	µg/L	24-hr composite	quarterly	1
Cadmium	µg/L	24-hr composite	quarterly	1
Chromium (III)	µg/L	calculated	quarterly	1
Copper	µg/L	24-hr composite	quarterly	1
Chromium (VI) <sup>3</sup>	µg/L	grab	quarterly	1
Lead	µg/L	24-hr composite	quarterly	1
Mercury	µg/L	24-hr composite	quarterly	4
Nickel	µg/L	24-hr composite	quarterly	1
Selenium	µg/L	24-hr composite	quarterly	1
Silver	µg/L	24-hr composite	quarterly	1
Thallium	µg/L	24-hr composite	quarterly	1
Zinc	µg/L	24-hr composite	quarterly	1

## B. Mass Emission Benchmarks

Constituents that have been assigned Mass Emission Benchmarks are listed in the NPDES Order under Section V. The Mass Emission Benchmarks have been established for the discharge through Discharge Point 001 and Point 002 and shall be reported in metric tons per year (MT/yr). The Discharger shall monitor and report the mass emission rate for all constituents that have mass emission benchmarks. For each constituent, the 12-month average mass emission rate and the concentration and flow used to calculate that mass emission rate shall be reported in the annual NPDES summary report. Mass emission benchmarks are not established for Discharge Points 003 and 004.

## V. WHOLE EFFLUENT TOXICITY (WET) TESTING REQUIREMENTS

### A. Chronic Toxicity Testing

#### 1. Discharge In-stream Waste Concentration (IWC) for Chronic Toxicity

The chronic IWC is the concentration of a pollutant or the parameter toxicity in the receiving water after mixing. The chronic toxicity IWC for Discharge Points 001 and 002 is 0.60 percent effluent; for 003 is 0.66 percent and for 004 is 0.86 percent.

#### 2. Sample Volume and Holding Time

The total sample volume shall be determined by the specific toxicity test method used. Sufficient sample volume shall be collected to perform the required toxicity test. For the receiving water, sufficient sample volume shall also be collected during accelerated monitoring for subsequent TIE studies, if necessary, at each sampling event. All toxicity tests shall be conducted as soon as possible following sample collection. No more than 36 hours shall elapse before the conclusion of sample collection and test initiation.

#### 3. Chronic Marine Species and Test Methods

If effluent samples are collected from outfalls discharging to receiving waters with salinity >1 ppt, the Discharger shall conduct the following chronic toxicity tests on effluent samples, at the in-stream waste concentration for the discharge, in accordance with species and test methods in *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms* (EPA/600/R-95/136, 1995). Artificial sea salts or hypersaline brine shall be used to increase sample salinity if needed. In no case shall these species be substituted with another test species unless written authorization from the Executive Officer is received.

- a. A static renewal toxicity test with the topsmelt, *Atherinops affinis* (Larval Survival and Growth Test Method 1006.0).
- b. A static non-renewal toxicity test with the red abalone, *Haliotis rufescens* (Larval Shell Development Test Method).
- c. A static non-renewal toxicity test with the giant kelp, *Macrocystis pyrifera* (Germination and Growth Test Method 1009.0).

#### 4. Species Sensitivity Screening

Species sensitivity screening shall be conducted during this permit's first required sample collection. The Discharger shall collect a single effluent sample to initiate and concurrently conduct three toxicity tests using the fish, an invertebrate, and the alga species previously referenced. This sample shall also be analyzed for the parameters required on a monthly frequency for the discharge, during that given month. As

allowed under the test method for the *Atherinops affinis*, a second and third sample may be collected for use as test solution renewal water as the seven-day toxicity test progresses. If the result of all three species is "Pass", then the species that exhibits the highest "Percent Effect" at the discharge IWC during species sensitivity screening shall be used for routine monitoring during the permit cycle. If only one species fails, then that species shall be used for routine monitoring during the permit cycle. Likewise, if two or more species result in "Fail", then the species that exhibits the highest "Percent Effect" at the discharge IWC during the suite of species sensitivity screening shall be used for routine monitoring during the permit cycle, until such time as a rescreening is required.

Species sensitivity rescreening is required every 24 months if there has been discharge during dry weather conditions. If the discharge is intermittent and occurs only during wet weather, rescreening is not required. If rescreening is necessary, the Discharger shall rescreen with the marine vertebrate species, a marine invertebrate species, and the alga species previously referenced, and continue to monitor with the most sensitive species. If the first suite of rescreening tests demonstrates that the same species is the most sensitive then the rescreening does not need to include more than one suite of tests. If a different species is the most sensitive or if there is ambiguity, then the Discharger may proceed with suites of screening tests for a minimum of three, but not to exceed five suites.

During the calendar month, toxicity tests used to determine the most sensitive test species shall be reported as effluent compliance monitoring results for the chronic toxicity MDEL.

#### 5. Quality Assurance and Additional Requirements

Quality assurance measures, instructions, and other recommendations and requirements are found in the test methods manual previously referenced. Additional requirements are specified below.

- a. The discharge is subject to determination of "Pass" or "Fail" from a chronic toxicity test using the Test of Significant Toxicity statistical t-test approach described in the *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, 2010), Appendix A, Figure A-1, and Table A-1, and Appendix B, Table B-1. The null hypothesis ( $H_0$ ) for the TST statistical approach is: Mean discharge IWC response  $\leq 0.75 \times$  Mean control response. A test result that rejects this null hypothesis is reported as "Pass." A test result that does not reject this null hypothesis is reported as "Fail." The relative "Percent Effect" at the discharge IWC is defined and reported for each toxicity test as:  $((\text{Mean control response} - \text{Mean discharge IWC response}) \div \text{Mean control response}) \times 100$ . This is a t-test (formally Student's t-Test), a statistical analysis comparing two sets of replicate observations – in the case of WET, only two test concentrations (i.e. a control and IWC). The purpose of this statistical test is to determine if the means of the two sets of observations are different (i.e. if the IWC or receiving water concentration differs from the control (the test result is "Pass" or "Fail")). The Welch's t-test employed by the TST statistical approach is an adaptation of Student's t-test and is used with two samples having unequal variances.
- b. If the effluent toxicity test does not meet all test acceptability criteria (TAC) specified in the referenced test method *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and*

*Estuarine Organisms* (EPA/600/R-95/136, 1995) (see Table E-8, below), then the Discharger must re-sample and re-test within 14 days.

**Table E-4. USEPA Test Methods and Test Acceptability Criteria**

Species & USEPA Test Method Number	Test Acceptability Criteria (TAC)
<p>Topsmelt, <i>Atherinops affinis</i>, Larval Survival and Growth Test Method 1006.0. (Table 3 of Test Method)</p>	<p>(1) The mean survival of larvae must be at least 80% in the controls.</p> <p>(2) If the test starts with 9 day old larvae, the mean weight per larva must exceed 0.85 mg in the reference and brine controls; the mean weight of preserved larvae must exceed 0.72 mg.</p> <p>(3) The LC<sub>50</sub> for survival must be within two standard deviations of the control chart mean for the laboratory. The LC<sub>50</sub> for survival with copper must be &lt;205 µg/L.</p> <p>(4) The 'minimum significant difference (%MSD) of &lt;25% relative to the control for survival for the reference toxicant test. The (%MSD) of &lt;50% relative to the control for growth for the reference toxicant test.</p>
<p>Red Abalone, <i>Haliotis rufescens</i>, Larval Shell Development Test Method (Table 3 of Test Method)</p>	<p>(1) The mean larval normality must be at least 80% in the controls.</p> <p>(2) The response from 56 µg/L zinc treatment must be significantly different from the control response.</p> <p>(3) The minimum significant difference (%MSD) is &lt;20% relative to the control for the reference toxicant.</p>
<p>Giant Kelp, <i>Macrocystis pyrifera</i>, Germination and Growth Test Method 1009.0 (Table 3 of Test Method)</p>	<p>(1) Mean control germination must be at least 70% in the controls.</p> <p>(2) Mean germination-tube length in the controls must be at least 10 µm in the controls.</p> <p>(3) The germination-tube growth NOEC must be below 35 µg/liter in the reference toxicant test.</p> <p>(4) The minimum significant difference (%MSD) is &lt;20% relative to the control for both germination and germ-tube length in the reference toxicant test.</p>

- c. Dilution water and control water, including brine controls, shall be 1-µm-filtered uncontaminated natural seawater, hypersaline brine prepared using uncontaminated natural seawater, or laboratory water prepared and used as specified in the test methods manual. If dilution water and control water is different from test organism culture water, then a second control using culture water shall also be used.

- d. Monthly reference toxicant testing is sufficient. All reference toxicant test results should be reviewed and reported using the EC25<sup>13</sup>.
  - e. The Discharger shall perform toxicity tests on final effluent samples. Chlorine and ammonia shall not be removed from the effluent sample prior to toxicity testing, unless explicitly authorized under this section of the MRP and the rationale is explained in the Fact Sheet (Attachment F).
6. Preparation of an Initial Investigation Toxicity Reduction Evaluation (TRE) Work Plan
- The Discharger shall prepare and submit a copy of the Discharger's initial investigation TRE work plan to the Executive Officer of the Regional Water Board for approval within 90 days of the effective date of this permit. If the Executive Officer does not disapprove the work plan within 60 days, the work plan shall become effective. The Discharger shall use USEPA manual EPA/833B-99/002 (municipal) as guidance, or the most current version. This work plan shall describe the steps that the Discharger intends to follow if toxicity is detected. At a minimum, the TRE Work Plan must contain the provisions in Attachment G. This work plan shall describe the steps that the Discharger intends to follow if toxicity is detected. At a minimum the work plan shall include:
- a. A description of the investigation and evaluation techniques that will be used to identify potential causes and sources of toxicity, effluent variability, and treatment system efficiency.
  - b. A description of the Facility's methods of maximizing in-house treatment efficiency and good housekeeping practices, and a list of all chemicals used in the operation of the Facility; and,
  - c. If a TIE is necessary, an indication of the person who would conduct the TIEs (i.e., an in-house expert or an outside contractor).
7. Accelerated Monitoring Schedule for Maximum Daily Single Result: "Fail."

The Maximum Daily single result shall be used to determine if accelerated testing needs to be conducted.

Once the Discharger becomes aware of this result, the Discharger shall implement an accelerated monitoring schedule within 5 calendar days of the receipt of the result. However, if the sample is contracted out to a commercial laboratory, the Discharger shall ensure that the first of four accelerated monitoring tests is initiated within seven calendar days of the Discharger becoming aware of the result. The accelerated monitoring schedule shall consist of four toxicity tests (including the discharge IWC), conducted at approximately two week intervals, over an eight week period; in preparation for the TRE process and associated reporting, these results shall also be reported using the EC25. If each of the accelerated toxicity tests results in "Pass," the Discharger shall return to routine monitoring for the next monitoring period. If one of the accelerated toxicity tests results in "Fail," the Discharger shall immediately implement the TRE Process conditions set forth below. During accelerated monitoring schedules, only TST results ("Pass" or "Fail") for chronic toxicity tests shall be reported as effluent compliance monitoring results for the chronic toxicity MDEL.

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<sup>13</sup> EC25 is a point estimate of the toxicant concentration that would cause an observable adverse effect (e.g. death, immobilization, or serious incapacitation) in 25 percent of the test organisms.



8. Toxicity Reduction Evaluation (TRE) Process

During the TRE Process, monthly effluent monitoring shall resume and TST results ("Pass" or "Fail") for chronic toxicity tests shall be reported as effluent compliance monitoring results for the chronic toxicity MDEL.

- a. **Preparation and Implementation of Detailed TRE Work Plan.** The Discharger shall immediately initiate a TRE using, according to the type of treatment facility, USEPA manual *Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants* (EPA/833/B-99/002, 1999) and, within 15 days, submit to the Executive Officer a Detailed TRE Work Plan, which shall follow the generic Initial Investigation TRE Work Plan revised as appropriate for this toxicity event. It shall include the following information, and comply with additional conditions set by the Executive Officer:
  - i. Further actions by the Discharger to investigate, identify, and correct the causes of toxicity.
  - ii. Actions the Discharger will take to mitigate the effects of the discharge and prevent the recurrence of toxicity.
  - iii. A schedule for these actions, progress reports, and the final report.
- b. **TIE Implementation.** The Discharger may initiate a TIE as part of a TRE to identify the causes of toxicity using the same species and test method and, as guidance, USEPA manuals: *Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures* (EPA/600/6-91/003, 1991); *Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity* (EPA/600/R-92/080, 1993); *Methods for Aquatic Toxicity Identification Evaluations, Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity* (EPA/600/R-92/081, 1993); and *Marine Toxicity Identification Evaluation (TIE): Phase I Guidance Document* (EPA/600/R-96-054, 1996). The TIE should be conducted on the species demonstrating the most sensitive toxicity response.
- c. Many recommended TRE elements parallel required or recommended efforts for source control, pollution prevention, and storm water control programs. TRE efforts should be coordinated with such efforts. As toxic substances are identified or characterized, the Discharger shall continue the TRE by determining the sources and evaluating alternative strategies for reducing or eliminating the substances from the discharge. All reasonable steps shall be taken to reduce toxicity to levels consistent with toxicity evaluation parameters.
- d. The Discharger shall continue to conduct routine effluent monitoring for compliance determination purposes while the TIE and/or TRE is taking place. Additional accelerated monitoring and TRE work plans are not required once a TRE has begun.
- e. The Regional Water Board recognizes that toxicity may be episodic and identification of causes and reduction of sources of toxicity may not be successful in all cases. The TRE may be ended at any stage if monitoring finds there is no longer toxicity.

## 9. Reporting

The Self-Monitoring Report (SMR) shall include a full laboratory report for each toxicity test. This report shall be prepared using the format and content of the test methods manual chapter called Report Preparation, and shall include:

- a. The valid toxicity test results for the TST statistical approach, reported as "Pass" or "Fail" and "Percent Effect" at the chronic toxicity IWC for the discharge. All toxicity test results (whether identified as valid or otherwise) conducted during the calendar month shall be reported on the SMR due date specified in Table E-16.
- b. Summary water quality measurements for each toxicity test (e.g. pH, dissolved oxygen, temperature, conductivity, hardness, salinity, chlorine, ammonia).
- c. The statistical analysis used in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, 2010) Appendix A, Figure A-1 and Table A-1, and Appendix B, Table B-1.
- d. TRE/TIE results. The Executive Officer shall be notified no later than 30 days from completion of each aspect of TRE/TIE analyses. Prior to completion of the final TIE/TRE report, the Discharger shall provide status updates in the monthly monitoring reports, indicating which TIE/TRE steps are underway and which steps have been completed.
- e. Statistical program (e.g., TST calculator, Comprehensive Environmental Toxicity Information System, etc.) output results, including graphical plots, for each toxicity test.
- f. Graphical plots and tabular data clearly showing the laboratory's performance of the reference toxicant, for each solution, for the previous 20 tests and the laboratory's performance of the control mean, control standard deviation, and control coefficient of variation, for each solution, for the previous 12-month period.
- g. Any additional QA/QC documentation or any additional chronic toxicity-related information, upon written request of the Regional Water Board Chief Deputy Executive Officer or Executive Officer.

### B. Ammonia Removal

1. Except with prior approval from the Executive Officer of the Regional Water Board, ammonia shall not be removed from bioassay samples. The Discharger must demonstrate the effluent toxicity is caused by ammonia because of increasing test pH when conducting the toxicity test. It is important to distinguish the potential toxic effects of ammonia from other pH sensitive chemicals, such as certain heavy metals, sulfide, and cyanide.
  - a. The following may be steps to demonstrate that the toxicity is caused by ammonia and no other toxicants before the Executive Officer would allow for control of pH in the test. There is consistent toxicity in the effluent and the maximum pH in the toxicity test is in the range to cause toxicity due to increased pH.
  - b. Chronic ammonia concentrations in the effluent are greater than 4 mg/L total ammonia.
  - c. Conduct graduated pH tests as specified in the toxicity identification evaluation methods. For example, mortality should be higher at pH 8 and lower at pH 6.

- d. Treat the effluent with a zeolite column to remove ammonia. Mortality in the zeolite treated effluent should be lower than the non-zeolite treated effluent. Then add ammonia back to the zeolite-treated samples to confirm toxicity due to ammonia.
2. When it has been demonstrated that toxicity is due to ammonia because of increasing test pH, pH may be controlled using appropriate procedures which do not significantly alter the nature of the effluent, after submitting a written request to the Regional Water Board, and receiving written permission expressing approval from the Executive Officer of the Regional Water Board.

### C. Chlorine Removal

Chlorine may be removed from the JWPCP effluent bioassay sampled from EFF-001 because there are no appropriate sampling locations that reflect dechlorinated conditions at the outfall.

## VI. LAND DISCHARGE MONITORING REQUIREMENTS – NOT APPLICABLE

## VII. RECYCLING REQUIREMENTS – NOT APPLICABLE

## VIII. RECEIVING WATER MONITORING REQUIREMENTS

All receiving water stations shall be located by state-of-the-art navigational methods (e.g. Differential Global Positioning System or DGPS); other means (e.g. visual triangulation, fathometer readings) may be used to improve the accuracy of locating stations. Water quality measurements are made with a Conductivity, Temperature and Depth Instrument (CTD), which also measures other parameters such as pH and light transmissivity.

### A. Inshore/Offshore Microbiological Monitoring

The inshore and offshore monitoring addresses the question: Are Ocean Plan and Santa Monica Bacteria TMDL compliance standards for bacteriological contamination being met? The data collected at inshore stations will provide the means to determine whether bacteriological standards for water contact and shellfish harvesting are being met in the area of greatest potential water contact and shellfish harvesting most proximal to the point of discharge. The data collected at the offshore sites will provide the means to determine whether bacteriological standards for water contact are being met in the area around the discharge point. Data from both inshore and offshore compliance sampling sites are augmented by the frequent (typical daily) manifold bacterial monitoring collected for plant operational purposes and which provides effluent bacterial densities actually discharged through the outfall system.

Shoreline, Inshore and Offshore microbiological sampling since 2006 demonstrates the bacteria concentrations increase between the outfall and the beaches, contrary to the pattern expected if discharge was adding to bacteria concentrations at the beach. In the event that an inshore or offshore sample exceeds an *Enterococcus* single sample maximum limit when a rain advisory is not in effect, and if an additional confirmatory sample taken within 72 hours also exceeds the limit, these monitoring requirements shall be augmented by one month of weekly *Enterococcus* sampling at four proximal onshore sampling locations defined below:

The shoreline bacteria monitoring, as follows, is required until June 30, 2018, to allow those implementing the Palos Verdes Peninsula and the Santa Monica JG7 Coordinated Integrated Monitoring Programs to establish a sampling program. Refer to Attachment B-5.

Shoreline Microbiological Monitoring Stations				
Discharge Point Name	Monitoring Location Name	Monitoring Location Description	Latitude	Longitude
001, 002, 003, and 004	RW-SL-SB	Bluff Cove	33.79380	-118.40700
	RW-SL-SM	Malaga Cove	33.80340	-118.39590
	RW-SL-S1	Long Point	33.73860	-118.39400
	RW-SL-S2	Abalone Cove	33.74160	-118.37920
	RW-SL-S3	Portuguese Bend	33.73620	-118.36020
	RW-SL-S5	White Point	33.71770	-118.32200
	RW-SL-S6	Wilder Addition Park	33.70980	-118.29900
	RW-SL-S7	Cabrillo Beach	33.70920	-118.28310

The Discharger shall monitor receiving water quality for all Shoreline Stations listed above for the constituents that follow:

Shoreline Microbiological Monitoring Requirements			
Parameter	Units	Sample Type	Minimum Sampling Frequency
Total coliform	CFU/100 ml (or MPN/100 ml)	grab in wave wash zone	weekly
Fecal coliform	CFU/100 ml (or MPN/100 ml)	grab in wave wash zone	weekly
<i>Enterococcus</i>	CFU/100 ml (or MPN/100 ml)	grab in wave wash zone	weekly
Visual observation <sup>14</sup>	--	--	weekly

Visual observations shall be recorded at the same time that bacteriological samples are collected. Monitoring at these eight stations is conducted for the purposes of public health assessment and to ensure protection for public recreational use of coastal ocean waters throughout Santa Monica Bay, and is not intended for use as compliance sites for JWPCP. In the event of stormy weather that makes sampling hazardous or impractical, these samples can be omitted.

The Discharger shall monitor bacteria at six inshore monitoring stations, IL2, IL3, IL4, IL5, IL6 and IL7, and three offshore monitoring stations, RW-OS-6C, RW-OS-8C and RW-OS-9C, located along the 200 foot (60 meter) depth contour (Attachment B-5) and listed in Table E-1 for the constituents which follow:

**Table E-5. Inshore/Offshore Microbiological Monitoring Requirements**

Parameter	Units	Sample Type	Minimum Sampling Frequency
Total coliform	CFU/100 ml (or MPN/100 ml)	grab at 0.5 meters below the surface	monthly
Fecal coliform	CFU/100 ml (or MPN/100 ml)	grab at 0.5 meters below the surface	monthly
<i>Enterococcus</i>	CFU/100 ml (or MPN/100 ml)	grab at 0.5 meters below the surface	monthly
Visual observation <sup>14</sup>	--	--	monthly

Visual observations shall be recorded at the same time that bacteriological samples are collected.

In the event of stormy weather that makes sampling hazardous or impractical, these samples may be omitted. Sampling may be conducted along a deeper depth contour during periods of adverse weather. If a kelp bed is present at any of the six inshore stations, sampling shall be conducted at the outer edge of the kelp bed rather than at the 30-foot depth contour.

**B. Nearshore/Offshore Water Quality Monitoring**

This monitoring is designed to determine if Ocean Plan objectives for physical and chemical parameters are being met. The data collected will provide the information necessary to demonstrate compliance with the standards. In addition, the data collected by the Discharger are a contribution to the Central Region Cooperative Water Quality Survey. This regionally coordinated survey provides integrated water quality surveys on a quarterly basis. These surveys cover more than 200 kilometers of coast in Ventura, Los Angeles, Orange and San Diego Counties from the nearshore zone to approximately 10 kilometers offshore. This cooperative program contributes to a regional understanding of seasonal patterns in the nearshore water column structure. The regional view provides context for determining the significance and causes of locally observed patterns in the area of wastewater outfalls.

In the event of stormy weather that makes sampling hazardous or impractical, these samples may be omitted. Sampling may be conducted along a deeper depth contour during periods of adverse weather. If a kelp bed is present at any of the six inshore stations, sampling shall be conducted at the outer edge of the kelp bed rather than at the 30-foot depth contour. The actual depth of all sampling stations shall be reported in the monthly monitoring reports.

**1. Nearshore/Offshore Water Quality Monitoring**

The Discharger shall monitor 48 nearshore/offshore stations on the Palos Verdes and San Pedro Shelf (Attachment B-6) listed in Table E-1, according to the analytical methods described in 40 CFR § 136, for the constituents which follow:

<sup>14</sup> Receiving water observations of any discoloration, turbidity, odor, and unusual or abnormal amounts of floating or suspended matter in the water shall be made and recorded at stations. The character and extent of such matter shall be described. The dates, times, and depths of sampling and these observations shall also be reported..

**Table E-6. Nearshore/Offshore Water Quality Monitoring Requirements**

Parameter	Units	Sample Type	Minimum Sampling Frequency
Dissolved oxygen	mg/L	continuous profile from surface to bottom (or maximum depth of 100 meters) <sup>15</sup>	Quarterly
Temperature	°C	continuous profile from surface to bottom (or maximum depth of 100 meters) <sup>15</sup>	quarterly
Salinity	ppt	continuous profile from surface to bottom (or maximum depth of 100 meters) <sup>15</sup>	quarterly
Transmissivity	% trans-mission	continuous profile from surface to bottom (or maximum depth of 100 meters) <sup>15</sup>	quarterly
Chlorophyll a	µg/L	continuous profile from surface to bottom (or maximum depth of 100 meters) <sup>15</sup>	quarterly
pH	pH units	continuous profile from surface to bottom (or maximum depth of 100 meters) <sup>15</sup>	quarterly
Ammonia (Attachment B-6, Table E-1)	µg/L	grab samples from surface to bottom (or maximum depth of 45 meters) <sup>16</sup>	quarterly
Visual observations <sup>14</sup>	--	--	quarterly

Water quality methods and protocols shall follow those described in the most current edition of the *Field Operations Manual for Marine Water Column, Benthic and Trawl Monitoring in Southern California*. Visual observations shall be recorded at each station.

The Discharger shall participate in the Central Region Cooperative Water Quality Survey steering and technical committees. Recommendations for changes in survey design that significantly alter the Water Quality Survey design described above shall be submitted to the Executive Officer for approval prior to implementation.

2. Nearshore Light Energy Survey

The Discharger shall monitor the following seven nearshore stations along the 60-foot (18.3-meter) depth contour (Attachment B-7) as listed in Table E-1 for the constituent which follows:

**Table E-7. Nearshore Light Energy Monitoring Requirements**

Parameter	Units	Sample Type	Minimum Sampling Frequency
Photosynthetic light energy	Quanta/sec/cm	underwater sensor	monthly

<sup>15</sup> Depth profile measurements shall be obtained using multiple sensors to measure parameters through the entire water column (from the surface to as close to the bottom as practicable).

<sup>16</sup> Discrete sampling for ammonia nitrogen shall be performed below the surface within 1 meter (3.1 feet) and at 15 meters (49.2 feet), 30 meters (98.4 feet), and 45 meters (147.6 feet), or as deep as practicable for those stations located in depths less than 45 meters.

All samples shall be taken between 10 a.m. and 2 p.m., ideally when the sun is not obscured by clouds (a slight haze is permissible). Sampling during a uniform cloud cover is permissible if sampling during clear weather cannot be completed during month. Measurement of photosynthetic light energy shall be made with a spherical underwater sensor and hemispherical reference cell on deck, both having equal quantum response from 400-700 nanometers.

**C. Benthic Infauna and Sediment Chemistry Monitoring**

1. Local Benthic Trends Survey

This survey is designed to determine if benthic conditions under the influence of the discharge are changing over time. The data collected are used for regular assessment of trends in sediment contamination and biological response along a fixed grid of sites within the influence (or historical influence) of the discharge. The resulting physical and chemical data will be used for assessment of trends in sediment contamination and to draw inferences concerning the relationship between effluent-derived alteration of the benthic habitat and patterns in infaunal community structure.

a. Infaunal Community and Habitat Variables Survey

The Discharger shall monitor the 44 bottom stations (Attachment B-8) listed in Table E-1 for the constituents in Table E-8:

**Table E-8. Infauna Monitoring Requirements**

Parameter	Units	Sample Type	Minimum Sampling Frequency
Benthic infauna community <sup>17</sup>	--	0.1 square meter Van Veen grab	annually
Total organic carbon	mg/kg	0.1 square meter Van Veen grab (upper 2 centimeters)	annually
Organic nitrogen	mg/kg	0.1 square meter Van Veen grab (upper 2 centimeters)	annually
Grain size	Phi size	0.1 square meter Van Veen grab (upper 2 centimeters)	annually

One sample shall be taken at each station for benthic infaunal community analysis. The entire contents of each sample shall be passed through a 1.0 millimeter screen to retrieve the benthic organisms. Sampling methods and protocols shall follow those described in the most current edition of the *Field Operations Manual for Marine Water Column, Benthic and Trawl Monitoring in Southern California*. All organisms contained within the sample shall be identified to the lowest possible taxon and counted. The resulting data shall be used to describe community structure at each station.

<sup>17</sup> Community analysis of benthic infauna shall include the number of species, the number of individuals per species, total numerical abundance per station, benthic response index (BRI) and biological indices, plus utilize appropriate regression analyses, parametric and nonparametric statistics, and multivariate techniques or other appropriate analytical techniques.

b. Sediment Chemistry Survey

The Discharger shall monitor the 24 Bottom Benthic Sediment Monitoring Stations listed in Table E-9 for the Sediment Chemistry Monitoring Requirements included in Table E-10 for every year of the permit. The remaining Bottom Benthic Sediment Monitoring Stations listed in Table E-1 shall also be monitored, in year three of the permits for the constituents which are listed below in Table E-10.

**Table E-9. Bottom Benthic Sediment Monitoring Stations**

Station Type	Monitoring Location Name	Location
Bottom Station	RW-B-0B	152 meter depth
Bottom Station	RW-B-0C	61 meter depth
Bottom Station	RW-B-0D	30 meter depth
Bottom Station	RW-B-1B	152 meter depth
Bottom Station	RW-B-1C	61 meter depth
Bottom Station	RW-B-1D	30 meter depth
Bottom Station	RW-B-3B	152 meter depth
Bottom Station	RW-B-3C	61 meter depth
Bottom Station	RW-B-3D	30 meter depth
Bottom Station	RW-B-5B	152 meter depth
Bottom Station	RW-B-5C	61 meter depth
Bottom Station	RW-B-5D	30 meter depth
Bottom Station	RW-B-6B	152 meter depth
Bottom Station	RW-B-6C	61 meter depth
Bottom Station	RW-B-6D	30 meter depth
Bottom Station	RW-B-7B	152 meter depth
Bottom Station	RW-B-7C	61 meter depth
Bottom Station	RW-B-7D	30 meter depth
Bottom Station	RW-B-8B	152 meter depth
Bottom Station	RW-B-8C	61 meter depth
Bottom Station	RW-B-8D	30 meter depth
Bottom Station	RW-B-9B	152 meter depth
Bottom Station	RW-B-9C	61 meter depth
Bottom Station	RW-B-9D	30 meter depth

**Table E-10. Sediment Chemistry Monitoring Requirements**

Parameter	Units	Sample Type	Minimum Sampling Frequency
Dissolved sulfides	mg/L	0.1 square meter Van Veen grab (upper 2 centimeters, porewater)	annually
Total organic carbon	% dry wt	0.1 square meter Van Veen grab (upper 2 centimeters)	annually
Organic nitrogen	mg/kg	0.1 square meter Van Veen grab (upper 2 centimeters)	annually



Parameter	Units	Sample Type	Minimum Sampling Frequency
Grain size	Phi size	0.1 square meter Van Veen grab (upper 2 centimeters)	annually
Arsenic	µg/kg	0.1 square meter Van Veen grab (upper 2 centimeters)	annually
Cadmium	µg/kg	0.1 square meter Van Veen grab (upper 2 centimeters)	annually
Chromium	µg/kg	0.1 square meter Van Veen grab (upper 2 centimeters)	annually
Copper	µg/kg	0.1 square meter Van Veen grab (upper 2 centimeters)	annually
Lead	µg/kg	0.1 square meter Van Veen grab (upper 2 centimeters)	annually
Mercury	µg/kg	0.1 square meter Van Veen grab (upper 2 centimeters)	annually
Nickel	µg/kg	0.1 square meter Van Veen grab (upper 2 centimeters)	annually
Silver	µg/kg	0.1 square meter Van Veen grab (upper 2 centimeters)	annually
Zinc	µg/kg	0.1 square meter Van Veen grab (upper 2 centimeters)	annually
DDT <sup>5</sup>	µg/kg	0.1 square meter Van Veen grab (upper 2 centimeters)	annually
PCB as Aroclors <sup>5</sup>	µg/kg	0.1 square meter Van Veen grab (upper 2 centimeters)	annually
PCB as Congeners <sup>5, 11, 12,</sup>	µg/kg	0.1 square meter Van Veen grab (upper 2 centimeters)	annually
Acute Sediment Toxicity	% survival	0.1 square meter Van Veen grab (upper 2 centimeters)	Refer to c below
Compounds on 303(d) list for Santa Monica Bay	µg/kg	0.1 square meter Van Veen grab (upper 2 centimeters)	annually

A separate grab sample shall be collected at each station whenever a biological sample is collected. Sub-samples (upper two centimeters) shall be taken from the grab for sediment chemistry analyses.

c. Acute Sediment Toxicity Monitoring

The Discharger shall conduct acute sediment toxicity monitoring as described in Table E-10 at the bottom stations in Table E-9. This testing shall be conducted in year three. Testing shall be conducted using one of the three amphipod species *Eohaustorius estuarius*, *Leptocheirus plumulosus*, and *Rhepoxynius abronius* in accordance with EPA 600/R-94/0925 (USEPA, 1994), *Methods for Assessing the Toxicity of Sediment-associated Contaminants with Estuarine and Marine Amphipods*, and the *Southern California Bight Project* sediment toxicity testing guidelines (Bight '13 Toxicology Committee, 2013). Test results shall be reported in percent survival, assessed for the presence of persistent toxicity, and the results

shall be included in the annual monitoring report. If persistent toxicity is observed at a sediment sampling location, a Phase I Toxicity Identification Evaluation (TIE) shall be conducted as defined in the *Sediment Toxicity Identification (TIE) Phase I, II, and III Guidance Document* (EPA/R-07/080). The Discharger shall submit a Sediment Toxicity TIE Work Plan within 90 days of the effective date of this Order. The work plan shall define persistent toxicity and outline the procedures that will take place if persistent toxicity is observed.

2. Regional Benthic Survey

This regional survey is designed to determine the extent, distribution, magnitude and trend of ecological change in soft-bottom benthic habitats within the Southern California Bight and the relationship between biological response and contaminant exposure. The data collected will be used to assess the condition of the sea-floor environment and the health of the biological resources in the Bight.

Sampling Design - A regional survey of benthic conditions within the Southern California Bight took place in 2013 (Bight'13). The final survey design was determined cooperatively by the participants represented on the Regional Steering Committee. The Discharger provided support to the Bight'13 benthic survey by participating in or performing the following activities:

- Participation on the Steering Committee
- Participation on the relevant Technical Committees (e.g., Information Management, Field Methods and Logistics, Benthos and Chemistry)
- Field sampling at sea
- Infaunal sample analysis
- Sediment chemistry analysis
- Data management

This level of participation in the 2013 survey was consistent with that provided by the Discharger during the 1994, 1998, 2003, 2008 Regional Benthic Surveys. The next regional survey is expected to take place in 2018 and the Discharger's level of participation shall be consistent with that provided in previous survey.

D. Fish and Invertebrate Monitoring

1. Local Demersal Fish and Invertebrate Survey

This survey is designed to determine if the health of demersal fish and epibenthic invertebrate communities in the vicinity of the discharge is changing over time. The data collected will be used for regular assessment of temporal trends in community structure along a fixed grid of sites within the vicinity of the discharge. Data also will be collected on trash to contribute to the Santa Monica Bay Restoration Project's Sources and Loadings program.

The Discharger shall monitor 16 trawling stations along four transects parallel to the shoreline (Attachment B-9) as specified in Table E-1 for the constituent which follows

**Table E-11. Demersal Fish and Invertebrates Monitoring Requirements**

Parameter	Units	Sample Type	Minimum Sampling Frequency
Demersal fish and invertebrates	--	10-minute otter trawl	semiannually (summer and winter)

Single otter trawls shall be taken at each station, with each trawl running along a line approximately parallel to the isobath. All organisms captured shall be identified to the lowest possible taxon and counted. Fish shall be size classed. Wet-weight biomass shall be estimated for all species. Each individual captured shall be examined for the presence of externally evident signs of disease or anomaly. Estimates of type and quantity of trash in each trawl shall be made. Sampling methods and protocols shall follow those described in the most current edition of the *Field Operations Manual for Marine Water Column, Benthic and Trawl Monitoring in Southern California*. The resulting data shall be used to describe community structure<sup>18</sup> at each station.

2. Regional Demersal Fish and Invertebrate Survey

This survey is designed to determine the extent, distribution, magnitude and trend of ecological change in demersal fish and epibenthic invertebrate communities within the Southern California Bight and the relationship between biological response and contaminant exposure. The data collected will be used to assess the condition of the seafloor environment and health of biological resources in the Bight.

A regional survey of trawl-caught demersal fish and epibenthic invertebrates within the Southern California Bight took place in 2013 (Bight'13). The final survey design was determined cooperatively by the participants as represented on the Regional Steering Committee. The Discharger provided support to the Bight'13 surveys by participating in or performing the following activities:

Participation on the Steering Committee

Participation on the relevant Technical Committees (e.g., Information Management, Field Methods and Logistics, Fish and Invertebrates)

Field sampling at sea

Trawl sample analysis

Data management

The level of participation in the 2013 survey was consistent with that provided by the Discharger during the 1998, 2003, and 2008 Regional Surveys. The next regional survey is expected to take place in 2018 and the Discharger's level of participation shall be consistent with that provided in previous surveys.

3. Bioaccumulation and Seafood Safety Monitoring

a. Local Bioaccumulation Survey

This survey is designed to determine if fish tissue contamination in the vicinity of the outfall is changing over time. The data collected will be used for regular assessment of temporal trends in two sentinel fish species.

The Discharger shall monitor 3 zones, listed as Bottom Bioaccumulation Zones in Attachment B-10 and Table E-1, for the constituents which follow:

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<sup>18</sup> Community analysis of demersal fish and macroinvertebrate communities shall include wet weight of fish and macroinvertebrate species (when combined weight of individuals of a species is greater than or equal to 0.1 kilogram), number of species, number of individuals per species, total numerical abundance per station, number of individuals in each 1-centimeter size class for each species of fish, species diversity, species evenness, cluster analyses, or other appropriate multivariate statistical techniques approved by the Executive Officer.

**Table E-12. Bioaccumulation Monitoring Requirements**

Parameter	Units	Sample Type	Minimum Sampling Frequency
DDT <sup>5</sup>	µg/kg	composite of liver tissue from 10 individuals of hornyhead turbot	annually
		composite of muscle tissue from 10 individuals of hornyhead turbot	annually
		composite of muscle tissue from 10 individuals of white croaker	annually
PCB as aroclors <sup>5</sup>	µg/kg	composite of liver tissue from 10 individuals of hornyhead turbot	annually
		composite of muscle tissue from 10 individuals of hornyhead turbot	annually
		composite of muscle tissue from 10 individuals of white croaker	annually
PCB as congeners <sup>5</sup>	µg/kg	composite of liver tissue from 10 individuals of hornyhead turbot	annually
		composite of muscle tissue from 10 individuals of hornyhead turbot	annually
		composite of muscle tissue from 10 individuals of white croaker	annually
% moisture	%	composite of liver tissue from 10 individuals of hornyhead turbot	annually
		composite of muscle tissue from 10 individuals of hornyhead turbot	annually
		composite of muscle tissue from 10 individuals of white croaker	annually
% lipid	%	composite of liver tissue from 10 individuals of hornyhead turbot	annually
		composite of muscle tissue from 10 individuals of hornyhead turbot	annually
		composite of muscle tissue from 10 individuals of white croaker	annually

Hornyhead turbot and White croaker within a consistent size are to be targeted. Additional parameters for analysis may be added to the list by the Executive Officer.

b. Local Seafood Safety Survey

This survey is designed to determine 1) Where seafood consumption advisories exist locally, do tissue concentrations of contaminants continue to exceed the Advisory Tissue Concentration (ATC) and 2) What are the tissue contaminant trends relative to the ATC in other species not currently subject to local consumption advisories. The data collected will be used to provide information necessary for the management of local seafood consumption advisories.

A regionally coordinated survey shall be conducted covering Santa Monica Bay, the Palos Verdes shelf and slope, and Los Angeles Harbor employing the sampling design proposed by the Santa Monica Bay Restoration Commission (SMBRC). The Discharger shall provide field sampling and analysis of tissue from the 3 zones, listed as Bottom Bioaccumulation Stations in Table E-1:

One species from each of five groups of fish (rockfish, kelpbass, sandbass, surfperches and croakers) shall be sampled from each of the three zones in years one, three and five of the permit. For rockfishes, scorpionfish (*Scorpaena guttata*) is the preferred species, followed by bocaccio (*Sebastes paucispinis*) and then by any other abundant and preferably benthic rockfish species. For surfperches, black surfperch (*Embiotoca jacksoni*) is the preferred species, followed by white surfperch (*Phanerodon furcatus*) and then by walleye surfperch (*Hyperprosopon argenteum*).

For fish tissue analysis, one composite sample of ten individuals of each target shall be collected within each of the three zones. Sampling should take place within the same season of the year (preferably late summer/early fall) and should focus upon a consistent size class of fish. All tissue samples shall be analyzed for:

**Table E-13. Seafood Safety Monitoring Requirements**

Parameter	Units	Sample Type	Minimum Sampling Frequency
% moisture	%	composite of muscle tissue from 10 individuals of each of 5 species	annually (during years 1, 3 and 5)*
% lipid	%	composite of muscle tissue from 10 individuals of each of 5 species	annually (during years 1, 3 and 5)*
Arsenic	µg/kg	composite of muscle tissue from 10 individuals of each of 5 species	annually (during years 1, 3 and 5)*
Mercury	µg/kg	composite of muscle tissue from 10 individuals of each of 5 species	annually (during years 1, 3 and 5)*
Selenium	µg/kg	composite of muscle tissue from 10 individuals of each of 5 species	annually (during years 1, 3 and 5)*
DDT <sup>5</sup>	µg/kg	composite of muscle tissue from 10 individuals of each of 5 species	annually (during years 1, 3 and 5)*
PCB as aroclors <sup>5</sup>	µg/kg	composite of muscle tissue from 10 individuals of each of 5 species	annually (during years 1, 3 and 5)*
PCB as congeners <sup>5</sup>	µg/kg	composite of muscle tissue from 10 individuals of each of 5 species	annually (during years 1, 3 and 5)*

\*The year one sampling shall be collected in 2018.

**c. Regional Seafood Safety Survey**

This regional survey is designed to determine if seafood tissue levels within the Southern California Bight are below levels that ensure public safety. The data collected will be used to assess levels of contaminants in the edible tissue of commercial or recreationally important fish within the Bight relative to Advisory Tissue Concentrations.

A regional survey of edible tissue contaminant levels in fish within the Southern California Bight shall be conducted at least once every ten years, encompassing a broader set of sampling sites and target species than those addressed in the local seafood survey. The objective is to determine whether any unexpected increases or decreases in contaminant levels have occurred in non-target species and/or at unsampled sites. The final survey design may be determined cooperatively by participants represented on a Regional Steering Committee or by the State of California's Office of Environmental Health and Hazard Assessment. A regional seafood safety survey within the Southern California Bight took place in 2009 (Bight'08). The final survey design was determined cooperatively by participants represented on the Regional Steering Committee and the SWAMP. The Discharger provided support to the Bight'08 Seafood Safety Survey by participating in or performing the following activities:

Participation on a Steering Committee

Participation on relevant Technical Committees (e.g., Information Management, Field Methods & Logistics, and Chemistry)

#### Tissue chemical analysis

The next regional survey is expected to occur in 2018. The Discharger's level of participation shall be consistent with that provided in previous surveys.

#### d. Regional Bioaccumulation/Predator Risk Survey

This regional survey is designed to determine if fish body burdens within the Southern California Bight are a health risk to higher trophic levels in the marine food web. The data collected will be used to estimate health risk to marine birds, mammals and wildlife from the consumption of fish tissue.

The most recent regional survey of contaminant bioaccumulation in seabird eggs of the Southern California Bight took place in 2013 (Bight'13). The final survey design was determined cooperatively by participants represented on the Regional Steering Committee. The Discharger provided support to the regional Bight'03 Predator Risk Surveys and the regional Bight'13 Bioaccumulation Survey by participating in the Steering Committee and relevant Technical Committees (e.g., Information Management, Field Methods & Logistics, and Chemistry) and participating in tissue chemical analysis and field sampling at sea.

The level of participation in tissue chemical analysis for the 2013 survey was consistent with that provided by the Discharger to the 1998 and 2003 Regional Bioaccumulation/ Predator Risk Surveys. The next regional survey is expected to occur in 2018 and the Discharger's level of participation shall be consistent with that provided in previous surveys.

#### E. Kelp Bed Monitoring

This regional survey is designed to determine if the extent of kelp beds in the Southern California Bight is changing over time and are some beds changing at rates different than others. The data collected in this regional survey will be used to assess status and trends in kelp bed health and spatial extent. The regional nature of the survey will allow the status of beds local to the discharge to be compared to regional trends.

The Discharger shall participate in the Central Region Kelp Survey Consortium (CRKSC) to conduct regional kelp bed monitoring in Southern California coastal waters. The CRKSC design is based upon quarterly measures of kelp canopy extent using aerial imaging. The Discharger shall provide up to \$10,000 per year in financial support to the CRKSC (annual level of support will depend on the number of participants in the program). The Discharger shall participate in the regional management and technical committees responsible for the development of the survey design and implementation of the assessment of kelp bed resources in the Bight.

Participation in this survey provides data to the SMBRC's Kelp Beds program.

### IX. OTHER MONITORING REQUIREMENTS

#### A. Outfall and Diffuser Inspection

This survey is designed to ensure that the outfall structures are in serviceable condition and that they can continue to be operated safely. The data collected will be used for a periodic assessment of the integrity of the outfall pipes and ballasting system.

Each ocean outfall (001, 002, 003 and 004) shall be inspected externally a minimum of once per year. Inspections shall include general observations and photographic/videographic records of the outfall pipes and adjacent ballast ocean bottom. The pipes shall be visually inspected by a diver, manned submarine, or remotely operated vehicle. A summary report

shall be submitted by August 1 of each year for the previous year. This written report, augmented with videographic and/or photographic images, will provide a description of the observed condition of the outfall structures from shallow water to their respective termini.

**B. Biosolids and Sludge Management**

The Discharger must comply with all Clean Water Act and regulatory requirements of 40 CFR § 257, 258, 501, and 503, including all applicable monitoring, record keeping, and reporting requirements. The Discharger must comply with the requirements in Attachment H of this Order.

**X. REPORTING REQUIREMENTS**

**A. General Monitoring and Reporting Requirements**

1. The Discharger shall comply with all Standard Provisions (Attachment D) related to monitoring, reporting, and recordkeeping.
2. If there is no discharge during any reporting period, the report shall so state.
3. Each monitoring report shall contain a separate section titled "Summary of Non-compliance" which discusses the compliance record and the corrective actions taken or planned that may be needed to bring the discharge into full compliance with waste discharge requirements. This section shall clearly list all non-compliance with discharge requirements as well as all excursions of effluent limitations.
4. The Discharger shall inform the Regional Water Board well in advance of any proposed construction or maintenance activity, or modification to the POTW that could potentially affect compliance with applicable requirements.
5. The date and time of sampling (as appropriate) shall be reported with the analytical values determined.
6. The laboratory conducting analyses shall be certified by the State Water Resources Control Board, Division of Drinking Water, Environmental Laboratory Accreditation Program (ELAP), in accordance with CWC section 13176, or approved by the Regional Water Board Executive Officer, in consultation with the State Water Board's Quality Assurance Program, and USEPA for that particular parameter and must include quality assurance/quality control (QA/QC) data in their reports. A copy of the laboratory certification shall be provided each time a new/renewal certification is obtained from ELAP and must be submitted with the annual summary report. Each monitoring report must affirm in writing that: "All analyses were conducted at a laboratory certified for such analyses by the California Department of Public Health, or approved by the Regional Water Board Executive Officer (in consultation with the State Water Board's Quality Assurance Program) and USEPA, and in accordance with current USEPA guideline procedures or as specified in this MRP."
7. Non-detect levels reported for the Joint Water Pollution Control Plant effluent are generally higher than effluent limitations or water quality objectives for DDT, chlordane, PCBs and PAHs. Therefore, the Discharger shall strive for lower analytical detection levels than those specified in Appendix II of the 2015 Ocean Plan to facilitate pollutant load quantification for future DDT and PCBs TMDLs.
8. Upon request by the Discharger, the Regional Water Board, in consultation with the State Water Board's Quality Assurance Program and/or USEPA, may establish an ML that is not contained in Appendix II of the 2015 Ocean Plan, to be included in the Discharger's NPDES permit, in any of the following situations:
  - a. When the pollutant under consideration is not included in Appendix II;

- b. When the Discharger agrees to use a test method that is more sensitive than those specified in 40 CFR § 136 (most recent revision);
  - c. When the Discharger agrees to use an ML lower than those listed in Appendix II;
  - d. When the Discharger demonstrates that the calibration standard matrix is sufficiently different from that used to establish the ML in Appendix II and proposes an appropriate ML for their matrix; or
  - e. When the Discharger uses a method whose quantification practices are not consistent with the definition of an ML. Examples of such methods are the USEPA-approved method 1613 for dioxins and furans, method 1624 for volatile organic substances, and method 1625 for semi-volatile organic substances. In such cases, the Discharger, Regional Water Board, State Water Board and USEPA shall agree on a lowest quantifiable limit, and that limit will substitute for the ML for reporting and compliance determination purposes.
9. Records and reports of marine monitoring surveys conducted to meet receiving water monitoring requirements shall include, at a minimum, the following information:
- a. A description of climatic and receiving water characteristics at the time of sampling (weather observations, unusual or abnormal amounts of floating debris, discoloration, wind speed and direction, swell or wave action, time of sampling or measurements, tidal stage and height, etc.).
  - b. The date, exact place and description of sampling stations, including differences unique to each station (e.g., date, time, station location, depth, and sample type).
  - c. A list of the individuals participating in field collection of samples or data and description of the sample collection and preservation procedures used in the various surveys.
  - d. A description of the specific method used for laboratory analysis, the date(s) the analyses were performed and the individuals participating in these analyses.
  - e. An in-depth discussion of the results of the survey. All tabulations and computations shall be explained.
10. The Discharger shall arrange all reported data in a tabular format. The data shall be summarized to clearly illustrate whether the facility is operating in compliance with this Order.
11. The Discharger shall attach a cover letter to the monitoring reports. The information contained in the cover letter shall clearly identify violations of the Order; discuss corrective actions taken or planned; and the proposed time schedule for corrective actions. Identified violations must include a description of the requirement that was violated and a description of the violation

**B. Self-Monitoring Reports (SMRs)**

1. The Discharger shall electronically submit SMRs using the State Water Board's California Integrated Water Quality System (CIWQS) Program website ([http://www.waterboards.ca.gov/water\\_issues/programs/ciwqs/](http://www.waterboards.ca.gov/water_issues/programs/ciwqs/)). The CIWQS website will provide additional information for SMR submittal in the event there will be a planned service interruption for electronic submittal.
2. The Discharger shall report in the SMR the results for all monitoring specified in this Order. The Discharger shall submit monthly, quarterly, semiannual, and annual SMRs including the results of all required monitoring using USEPA-approved test methods or



other test methods specified in this Order. SMRs are to include all new monitoring results obtained since the last SMR was submitted. If the Discharger monitors any pollutant more frequently than required by this Order, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the SMR.

3. Monitoring periods and reporting for all required monitoring shall be completed according to the following schedule, except where specific monitoring periods and reporting dates are required elsewhere in the Order. This Order changes the deadline for the quarterly compliance report from the first day to the 15<sup>th</sup> of the third month to make it consistent with the permits for all of the Dischargers' other facilities. The change also applies to the quarterly and semiannually sampled parameters.

**Table E-14. Monitoring Periods and Reporting Schedule**

Sampling Frequency	Monitoring Period Begins	Monitoring Period	SMR Due Date
Continuous	Permit effective date	All	Submit with monthly SMR
Daily	Permit effective date	(Midnight through 11:59 PM) or any 24-hour period that reasonably represents a calendar day for purposes of sampling.	Submit with monthly SMR
Weekly	Sunday following Permit effective date or on Permit effective date if on a Sunday	Sunday through Saturday	Submit with monthly SMR
Monthly	First day of calendar month following Permit effective date or on Permit effective date if that date is first day of the month	1 <sup>st</sup> day of calendar month through last day of calendar month	By the 15 <sup>th</sup> day of the third month after the month of sampling
Quarterly	Closest of January 1, April 1, July 1, or October 1 following (or on) Permit effective date	January 1 to March 31 April 1 to June 30 July 1 to September 30 October 1 to December 31	June 15 September 15 December 15 March 15
Semiannually	Closest of January 1 or July 1 following (or on) Permit effective date	January 1 to June 30 July 1 to December 31	September 15 March 15
Annually	January 1 following (or on) Permit effective date	January 1 through December 31	April 15

4. **Reporting Protocols.** The Discharger shall report with each sample result the applicable reported Minimum Level (reported ML, also known as the Reporting Level, or RL) and the current Method Detection Limit (MDL), as determined by the procedure in 40 CFR §136.

The Discharger shall report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:

- a. Sample results greater than or equal to the reported ML shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).
- b. Sample results less than the reported ML, but greater than or equal to the laboratory's MDL, shall be reported as "Detected, but Not Quantified," or DNQ. The estimated chemical concentration of the sample shall also be reported.

For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ. The laboratory may, if such information is available,

- include numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be percent accuracy ( $\pm$  a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.
- c. Sample results less than the laboratory's MDL shall be reported as "Not Detected," or ND.
  - d. Dischargers are to instruct laboratories to establish calibration standards so that the ML value (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Discharger to use analytical data derived from extrapolation beyond the lowest point of the calibration curve.
5. **Compliance Determination.** Compliance with effluent limitations for reportable pollutants shall be determined using sample reporting protocols defined above and Attachment A of this Order. For purposes of reporting and administrative enforcement by the Regional Water Board and State Water Board, the Discharger shall be deemed out of compliance with effluent limitations if the concentration of the reportable pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reported Minimum Level (ML).
6. **Multiple Sample Data.** When determining compliance with a measure of central tendency (arithmetic mean, geometric mean, median, etc.) of multiple sample analyses and the data set contains one or more reported determinations of "Detected, but Not Quantified" (DNQ) or "Not Detected" (ND), the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:
- a. The data set shall be ranked from low to high, ranking the reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.
  - b. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.
7. The Discharger shall submit SMRs in accordance with the following requirements:
- a. The Discharger shall arrange all reported data in a tabular format. The data shall be summarized to clearly illustrate whether the facility is operating in compliance with interim and/or final effluent limitations. The Discharger is not required to duplicate the submittal of data that is entered in a tabular format within CIWQS. When electronic submittal of data is required and CIWQS does not provide for entry into a tabular format within the system, the Discharger shall electronically submit the data in a tabular format as an attachment.
8. The Discharger shall attach a cover letter to the SMR. The information contained in the cover letter shall clearly identify violations of the waste discharge requirements; discuss corrective actions taken or planned; and the proposed time schedule for corrective actions. Identified violations must include a description of the requirement that was violated and a description of the violation.

**C. Discharge Monitoring Reports (DMRs)**

1. DMRs are USEPA reporting requirements. The Discharger shall electronically certify and submit DMRs together with SMRs using Electronic Self-Monitoring Reports module eSMR 2.5 or any upgraded version. Electronic DMR submittal shall be in addition to electronic SMR submittal. Information about electronic DMR submittal is available at the DMR website at:  
<[http://www.waterboards.ca.gov/water\\_issues/programs/discharge\\_monitoring](http://www.waterboards.ca.gov/water_issues/programs/discharge_monitoring)>.

**D. Other Reports**

1. Pretreatment Report

The Discharger shall submit annual pretreatment reports to the Regional Water Board, with copies to the State Water Board, and USEPA Region 9, describing the Discharger's pretreatment activities over the period. The annual reports shall contain, but not be limited to, the information required in the attached Pretreatment Reporting Requirements (Attachment I), or an approved revised version thereof. If the Discharger is not in compliance with any conditions or requirements of this Order, the Discharger shall include the reasons for noncompliance and shall state how and when the Discharger will comply with such conditions and requirements.

2. The Discharger shall report the results of any special studies, chronic toxicity testing, TRE/TIE, Pollutant Minimization Program (PMP), and Pollution Prevention Plan required by Special Provisions – section VIII.B. The Discharger shall submit reports in compliance with SMR reporting requirements described in subsection X.B. above

3. Annual Summary Report

By April 15 of each year, the Discharger shall submit an annual report containing a discussion of the previous year's influent/effluent results (including the average and peak flow for the year), the date of the outfall inspection, a recycled water progress report describing any updates to the development of increased recycled water production and upgrades to the treatment plant's collection system, the treatment processes, or the outfall system. The Discharger shall submit annual reports to the Regional Water Board in accordance with the requirements described in subsection X.B.7. above.

Each annual monitoring report shall contain a separate section titled "Reasonable Potential Analysis" which discusses whether or not reasonable potential was triggered for pollutants which do not have a final effluent limitation in the NPDES permit. This section shall contain the following statement: "The analytical results for this sampling period did/did not trigger reasonable potential." If reasonable potential was triggered, then the following information should also be provided:

- a. A list of the pollutant(s) that triggered reasonable potential;
  - b. The Ocean Plan criteria that was exceeded for each given pollutant;
  - c. The concentration of the pollutant(s);
  - d. The test method used to analyze the sample; and,
  - e. The date and time of sample collection.
4. Receiving Water Monitoring Report

An annual summary of the receiving water monitoring data collected during each sampling year (January-December) shall be prepared and submitted so that it is received

by the Regional Water Board by September 1st of the following year. The annual summary shall include data tables, and a description of receiving water data.

A detailed Receiving Water Monitoring Biennial Assessment Report of the data collected during the two previous calendar sampling years (January-December) shall be prepared and submitted so that it is received by the Regional Water Board by September 1st of every other year. Any effluent compliance issues during that period shall also be discussed. This report shall include a description of the nearfield zone and an in-depth analysis of the biological and chemical data following the Model Monitoring Program Guidance Document (Schiff, K.C., J.S. Brown and S.B. Weisberg, 2001. *Model Monitoring Program for Large Ocean Dischargers in Southern California*. SCCWRP Tech. Rep #357. *Southern California Coastal Water Research Project*, Westminster, CA. 101 pp.). Data shall be tabulated, summarized, graphed where appropriate, analyzed, interpreted, and generally presented in such a way as to facilitate ready understanding of its significance. Spatial and temporal trends shall be examined and compared. The relationship of physical and chemical parameters shall be evaluated. See also Section VIII of this MRP. All receiving water monitoring data shall be submitted in accordance with the California Environmental Data Exchange Network (CEDEN), when the system accepts data such as bioassessment /taxonomic data and continuous data. The Discharger shall submit all receiving water monitoring data in accordance with CEDEN, when feasible.

The first assessment report shall be due September 1, 2018, and cover the sampling periods of January-December 2016 and January-December 2017. Subsequent reports shall be due September 1, 2020, and September 1, 2022, to cover sampling periods from January 2018 to December 2019, and January 2020 to December 2021, respectively.

5. Outfall Inspection Report

By August 1 of each year, a summary report of the outfall inspection findings for the previous calendar year shall be prepared and submitted to the Regional Water Board. This written report, augmented with videographic and/or photographic images, shall provide a description of the observed external condition of the discharge pipes from shallow water to their respective termini.

The first summary report shall be due August 1, 2018, covering the monitoring period from January 2017 – December 2017.

6. Technical Report on Preventive and Contingency Plans

The Regional Water Board requires the Discharger to file with the Regional Water Board, within 90 days after the effective date of this Order, a technical report on its preventive (failsafe) and contingency (cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events. The technical report should:

- a. Identify the possible sources of accidental loss, untreated waste bypass, and contaminated drainage. Loading and storage areas, power outage, waste treatment unit outage, and failure of process equipment, tanks, and pipes should be considered.
- b. Evaluate the effectiveness of present facilities and procedures and state when they become operational.
- c. Describe facilities and procedures needed for effective preventive and contingency plans.

- d. Predict the effectiveness of the proposed facilities and procedures and provide an implementation schedule contingent interim and final dates when they will be constructed, implemented, or operational

7. Discharge Points 003 and 004 Outfall Reports

The Discharger shall electronically submit to the Regional Water Board a summary report of discharge to 003 and 004 outfalls within 5 days of the completion of the discharge. Each report shall include at a minimum, the rationale for the discharge; the date, time, and duration of the discharge; the flow rate and volume discharged; the type of water discharged; and confirmation that the required monitoring was conducted during the discharge event. In the event that the discharge endangers human health or the environment, the report shall be submitted within 24 hours of the completion of the discharge.

**ATTACHMENT F – FACT SHEET**

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**ATTACHMENT F – FACT SHEET**

As described in section I of this Order, the Regional Water Board incorporates this Fact Sheet as findings of the Regional Water Board supporting the issuance of this Order. This Fact Sheet includes the legal requirements and technical rationale that serve as the basis for the requirements of this Order.

This Order has been prepared under a standardized format to accommodate a broad range of discharge requirements for Dischargers in California. Only those sections or subsections of this Order that are specifically identified as “not applicable” have been determined not to apply to this Discharger. Sections or subsections of this Order not specifically identified as “not applicable” are fully applicable to this Discharger.

**I. PERMIT INFORMATION**

The following table summarizes administrative information related to the facility.

**Table F-1 Facility Information**

<b>WDID</b>	4B190107013
<b>Discharger</b>	Joint Outfall System (JOS)
<b>Name of Facility</b>	Joint Water Pollution Control Plant (JWPCP)
<b>Facility Address</b>	24501 South Figueroa Street.
	Carson, CA 90745
	Los Angeles County
<b>Facility Contact, Title and Phone</b>	Naoko Munakata, Supervising Engineer, (562) 908-4288 x 2830
<b>Authorized Person to Sign and Submit Reports</b>	Naoko Munakata, Supervising Engineer
<b>Mailing Address</b>	1955 Workman Mill Road, Whittier, CA 90601
<b>Billing Address</b>	1955 Workman Mill Road, Whittier, CA 90601
<b>Type of Facility</b>	Publicly-Owned Treatment Works
<b>Major or Minor Facility</b>	Major
<b>Threat to Water Quality</b>	1
<b>Complexity</b>	A
<b>Pretreatment Program</b>	Yes
<b>Reclamation Requirements</b>	Producer
<b>Facility Permitted Flow</b>	400 million gallons per day
<b>Facility Design Flow</b>	400 million gallons per day
<b>Watershed</b>	Santa Monica Bay Watershed Management Area
<b>Receiving Water</b>	Pacific Ocean
<b>Receiving Water Type</b>	Ocean waters

- A. The Joint Outfall System (hereinafter JOS, Permittee or Discharger) is the owner and operator of the Joint Water Pollution Control Plant (hereinafter JWPCP or Facility or Plant), a Publicly-Owned Treatment Works (POTW). The Regional Water Board has classified the Joint Water Pollution Control Plant as a major discharger. It has a Threat to Water Quality and Complexity rating of 1-A pursuant to California Code of Regulations (CCR), Title 23, section 2200.

The JOS was formerly referred to as the County Sanitation Districts of Los Angeles County. Ownership and operation of the JOS is proportionally shared among the signatory parties to the amended Joint Outfall Agreement effective July 1, 1995. These parties include County Sanitation Districts of Los Angeles County Nos. 1, 2, 3, 5, 8, 15, 16, 17, 18, 19, 21, 22, 23, 28,



29, and 34, and South Bay Cities Sanitation District of Los Angeles County.

For the purposes of this Order, references to the “Discharger” or “Permittee” in applicable federal and state laws, regulations, plans, or policy are held to be equivalent to references to the Discharger herein.

The Facility discharges wastewater to the Pacific Ocean, a water of the United States. The discharge was previously regulated by Order R4-2011-0151 and National Pollutant Discharge Elimination System (NPDES) No. CA0053813, adopted on September 1, 2011, and which expired on August 10, 2016 and was administratively extended until the adoption of this Order. Attachment B provides a map of the area around the Facility. Attachment C provides a flow schematic of the Facility.

The Discharger filed a report of waste discharge (ROWD) and submitted an application for renewal of its WDRs and NPDES permit on February 11, 2016. Supplemental information was requested on February 26, 2016, and received on March 24 and June 22, 2016. The application was deemed complete on July 21, 2016. A site visit was conducted on June 26, 2017 to observe operations and collect additional data to develop permit limitations and requirements for waste discharge

The Discharger is authorized to discharge subject to waste discharge requirements in this Order at the discharge locations described in Table 2 of this Order.

Regulations at 40 CFR section 122.46 limit the duration of NPDES permits to a fixed term not to exceed five years. Accordingly, Table 3 of this Order limits the duration of the discharge authorization. However, pursuant to CCR, title 23, section 2235.4, the terms and conditions of an expired permit are automatically continued pending reissuance of the permit if the Discharger complies with all federal NPDES requirements for continuation of expired permits.

- B. **Dilution Credits.** On February 22, 2016, JOS submitted a dilution study work plan to update the existing dilution study. An update of the dilution study was required because while the dilution study conducted for the R4-2011-0151 was approved by the State Water Resource Control Board, it was later modified by the Discharger in response to Regional Board concerns. On March 24, 2016, a work plan was approved and the *Final Joint Water Pollution Control Plant Outfalls Initial Dilution Calculation Study* (final report) was received on May 31, 2016.

All effluent from the JWPCP travels through two tunnels under the Palos Verdes Peninsula to the shoreline of the Pacific Ocean, where an underground manifold system of valves connects the tunnels to four ocean outfalls. The manifold and the starting point for the four outfalls are located near White Point, on the Palos Verdes Peninsula. The 120” outfall (001) lies to the south of the manifold and continuously discharges approximately 65% of the treated wastewater. The 90” outfall (002) lies south-west of the manifold and continuously discharges approximately 35% of the treated wastewater. The 72” outfall (003) is located between the 120” and 90” outfalls and is used during times of heavy rains to provide hydraulic relief for flow in the outfall system. The 60” outfall (004) is also located between the 90” and 120” outfalls and serves as a standby outfall to provide additional hydraulic relief during the very heaviest flows. All four of these outfalls terminate in diffuser sections that contain multiple ports with opposing discharge direction from a minimum depth of 100 feet for the 60” diffuser to the maximum diffuser depth of 210 feet at the end of the 90” outfall. The diffusers lie at the outer edge of a narrow shelf offshore of the Palos Verdes peninsula.

Regular visual observation of the diffusers confirms that ballasting stabilized the diffusers but without occluding the ports. The 2015 diffuser inspection showed that out of 740 ports on the 120” outfall; 2 were buried with no flow, another 10 were buried or partially blocked, but still flowing, and 11 more were covered by ballast rock, but flowing. On the 90” outfall, out of 102

ports; 7 ports were not flowing, 2 ports had reduced flow, and 1 port was covered by ballast rock, but was flowing. The 72" and 60" outfalls are not in service, so flow could not be assessed. The only scour noted was at the terminus of the 60" outfall. However, this section was determined to be structurally sound.

On May 31, 2016, JOS submitted the *Final Joint Water Pollution Control Plant Outfalls Initial Dilution Calculation Study* (final report). Based on effluent water quality during the last five years and ambient water quality data from the past 10 years in the Santa Monica Bay, the final report calculated a dilution ratio of 164:1 for Discharge Points 001 and 002 using the mixing zone modeling software with a design flow of 400 MGD and assuming that no currents influence the initial dilution. The initial dilution ratios for Discharge Points 003 and 004, during a combined discharge at the hydraulic maximum of 675 MGD, were 1:116 and 1:148, respectively. The recalculated values are very close to the initial dilution values (Dm) used in the R4-2011-0151: Outfall 001 and 002 had a Dm of 166:1, Outfall 004 had a Dm of 115:1 and Outfall 003 had a Dm of 150:1. Regional Water Board staff reviewed the final report, consulted with the EPA, and with the adoption of this Order, the Regional Water Board will approve the continued use of the existing dilution ratios.

The same study projected a different future minimum initial dilution ratio of 1:245 resulting from decreased discharges from 400 MGD to 87 MGD by 2035 due to recycled water use and increased reverse-osmosis-reject-brine discharge. Increased density of the discharge results in a deeper trapping depth. Although not modeled, increasing density could also result from additional brine discharge due to additional recycled water production at the proposed Metropolitan Water District of Southern California's advanced treatment plant, the County Sanitation Districts of Los Angeles County's Saugus and Valencia plants, and the West Basin Municipal Water District's Juanita Millender-McDonald Carson Regional Water Recycling Plant.

## II. FACILITY DESCRIPTION

### A. Description of Wastewater and Biosolids Treatment and Controls

Discharger owns and operates the JWPCP, located at 24501 South Figueroa Street in Carson, California. JWPCP has a monthly average daily dry weather treatment capacity of 400 million gallons per day (MGD) and a dry weather peak design capacity of 540 MGD of secondary treatment. The wet weather peak hydraulic capacity is 675 MGD. For the period from January 2012 to December 2015, secondary effluent discharge flow from JWPCP averaged 262 MGD with a maximum daily flow of 337 MGD.

JWPCP is part of an integrated network of facilities, known as the Joint Outfall System (JOS), which incorporates JWPCP and six upstream water reclamation plants - La Cañada, Whittier Narrows, San Jose Creek, Pomona, Los Coyotes and Long Beach. The six upstream plants are connected to 1,241 miles of interceptors and a common sewer system, which allows for the diversion of flows into or around each upstream plant. The flow from the six upstream plants can be bypassed, to a limited extent, to JWPCP. The biosolids generated from the upstream plants are returned to the joint outfall trunk sewers and conveyed to JWPCP for further treatment. The JOS serves an urban area of 656 square miles and includes all or part of 73 cities in addition to multiple communities and unincorporated areas. The JOS provides wastewater treatment services to much of Los Angeles County. There are approximately four million people in the JOS service area.

The treatment system at JWPCP consists of screening, grit removal, primary sedimentation, pure oxygen activated sludge reactors, secondary clarification, and chlorination (Attachment C). Effluent from the primary sedimentation tanks is biologically treated in pure oxygen activated sludge reactors. The secondary treated effluent is then clarified, chlorinated and pumped into the outfall manifold. The secondary treated effluent from JWPCP is routinely

discharged through Discharge Points 001 and 002 to the Pacific Ocean, a water of the United States, at White Point within the Palos Verdes Peninsula Sub-Watershed that is part of the Santa Monica Bay Watershed.

Solid fractions recovered from wastewater treatment processes include grit, primary screenings, primary biosolids and skimmings, thickened waste activated sludge, digested sludge screenings and digester cleaning solids. The fine solids (grit, primary screenings, digested sludge screenings, digester cleaning solids) which are primarily inorganic materials are hauled away to a landfill. The remaining solid fractions (primary sludge and skimmings, thickened waste activated sludge) are anaerobically digested on-site. The digested solids are screened, and dewatered using scroll centrifuges. JWPCP generates approximately 98,000 dry metric tons of Class B biosolids per year. The biosolids are hauled off-site for use in composting and land application, combined with municipal solid waste for co-disposal, or processed into a renewable fuel for cement kilns.

Methane gas generated in the anaerobic digestion process is used to produce power and digester heating steam in a total energy facility that utilizes gas turbines and waste-heat recovery steam generators. The on-site generation of electricity permits the JWPCP to produce its own electricity.

1. **Primary Treatment:** Primary treatment begins with two inlet works that receive flow from three influent sewers. Inlet Works No. 1 receives approximately 70% of the total plant flow and Inlet Works No. 2 receives the remaining 30%. Six bar screens for Inlet Works No. 1 and three bar screens for Inlet Works No. 2 remove solids by capturing large debris through bars spaced approximately 1 inch apart. Captured debris is continuously removed from each bar screen, by five equally spaced rakes, and deposited into a trough. The trough delivers the debris to one of two dewatering compactors. Water removed in the compactors is returned to the treatment process upstream of the bar screens while the dewatered debris is disposed of in a landfill. Wastewater effluent from the bar screens is directed to one of six grit chambers, which remove heavy inorganic material. Grit slurry is pumped from the chambers and dewatered with the use of cyclones and clarifiers. The water is returned to the inlet of the grit chambers and the dewatered grit is disposed of in a landfill. Wastewater from the grit chambers is then directed to the sedimentation tanks for settleable and floatable solids removal. The JWPCP has 52 primary sedimentation tanks arranged into three sedimentation tank batteries. The wastewater enters each tank through three inlet gates with diffusers. Flow is reduced from roughly 3 feet per second to 3 feet per minute to allow suspended solids to settle. Biosolids are directed through draw off lines and pumped to raw sludge transfer stations before transfer to anaerobic digesters. Floatable solids are pushed to the effluent end of the tank where they are pulled up into a skimmings trough, then conveyed to one of four skimmings wet wells. Ultimately the skimmings are directed to one of 24 circular anaerobic digesters, each with a volume of approximately 500,000 cubic feet, for final processing. Anaerobic digestion of the biosolids reduces the concentration of pathogens, offensive odors, and the overall amount of solids to be dewatered. It also produces methane as a by-product, which is used to power the JWPCP.
2. **Secondary Treatment:** A secondary influent pumping station pumps primary effluent to the secondary treatment facilities. Eight biological reactors, each with a design capacity of 50 MGD, convert finely divided and dissolved organic matter, that passes through primary treatment into settleable solids, than can be removed by final clarification. Each reactor is subdivided into four stages, each stage with three aerators/mixers to facilitate oxygen dissolution and mixing. The first stage of the reactors is operated as an anaerobic selector, with limited exposure to oxygen to suppress the growth of certain

organisms in the activated sludge. In the following three stages, the activated sludge consumes organic matter in the mixed liquor and produces more organisms. The fourth stage of some of the reactors also functions as a pH adjustment stage. The reactors are covered to retain the high purity oxygen gas introduced into the system and permit a high degree of oxygen utilization by the activated sludge.

After passing through the biological reactors, wastewater flows into the final clarifiers to separate the activated sludge solids from the biological reactor's mixed liquor. Each reactor has a bank of 26 sedimentation tanks where floatable material is skimmed off the top, collected, and directed to a sewer line. Solids that settle to the bottom are scraped to two hoppers where the sludge is collected and drawn off to return sludge pumping stations. There is one pumping station per reactor, each consisting of three pumps, that pumps activated sludge to the inlet of the reactors to keep an effective concentration of microorganisms in the reactors. However, a portion of the activated sludge is wasted from the reactor/clarifier system to maintain the desired population of microorganisms in the reactors.

A dissolved air flotation thickening system is used to concentrate the waste activated biosolids produced in secondary treatment. Solids on the surface of the flotation tank are collected using skimmers and then pumped to the anaerobic digestion system, located with the primary treatment facilities. The clarified effluent is returned to the secondary influent force main. Secondary effluent is disinfected using a bleach solution to achieve a chlorine residual of approximately 1-2 mg/L and then is either pumped or gravity fed, depending on tidal conditions, to the Pacific Ocean.

3. Food Waste Demonstration Project: A demonstration project is under way to provide co-digestion of food waste delivered as a slurry to feed the anaerobic digestions system. The slurry is offloaded into holding tanks that feed one test digester.
4. Solids Processing: Discharge from the 24 circular digesters is diverted into three pump station wet wells, one of which is the central wet well for transfer of digested biosolids to solids processing. The central wet well consists of three individual structures, each with a capacity of 822,800 gallons and equipped with two gas blowers that pump digester gas into the wet well to provide mixing. Biosolids are pumped using three digested sludge pumps through rotary screens and into centrifuge feed pumping station wet wells, housing a total of five pumps. The pumps are used to deliver digested sludge to the centrifuges, which are used to separate water from the suspended solids. There are currently 31 low-speed and 8 high-speed centrifuges. The high-speed centrifuges are capable of increasing gravity up to a factor of 3,000, while the low-speed centrifuges increase gravity by a factor of approximately 1,000. Diluted cationic polymer is used in the process to enhance flocculation. The dewatered cake (biosolids) drops through a hopper below each elevated centrifuge onto a conveyor belt, while the waste concentrate is collected through a second hopper into a central drainage system. Eighteen storage silos, each of which can hold up to 510 tons, store the biosolids prior to conveyance to truck loading stations. Centrate from the centrifuges is collected and gravity flows to the Centrate Treatment System Facility, where solids are concentrated using dissolved air flotation. The clarified effluent from the Centrate Treatment Facility discharges to a wet well, where it gravity flows to the influent of the JWPCP.
5. Power Generation: The JWPCP is self-reliant with respect to power generation. All of the power and most of the heating steam requirements for the plant are provided by three digester gas fired turbines, each equipped with a 9.9 MW electric generator, and one

steam turbine. Utility power is available whenever the on-site power plant is out of service.

Digester gas must be dewatered and scrubbed of particulate matter prior to combustion. Digester gas is first scrubbed, using two Venturi scrubbers and non-potable water, and particulate matter is regularly blown-down from the scrubber storage tanks. Two mist eliminators downstream of the Venturi scrubbers remove water droplets from the gas stream, and the digester gas is then further treated using two chillers that condense water vapor. From there, digester gas is directed to a surge tank prior to compression. Natural gas is used to boost the heat input during periods of low digester gas production. Three compressors are used to compress the digester gas, or a mixture of digester gas and natural gas, from approximately 10 inches of water column to approximately 350 pounds per square inch (psig). Prior to combustion in the gas turbine, the high-pressure digester gas is chilled to 40 degrees Fahrenheit, using a refrigeration system, to remove any remaining water vapor. Typically, only two gas turbines are in operation while one acts as a standby. During periods when the gas turbines are not operational, digester gas can be burned at two different flare stations, with the South Flare Station consisting of five waste gas flares and the North Flare Station consisting of seven waste gas flares. Waste heat from the gas turbine exhaust is used to produce steam, through the use of heat recovery steam generators, and directed to a steam turbine for power production and digester heating steam. The gas turbines are operated without waste heat recovery. Digester heating steam is provided by means of four digester gas-fired boilers, along with an additional natural gas-fired boiler for emergencies. These boilers both supplement and serve as a backup to the waste heat steam generation.

6. **Water Reclamation:** The JWPCP recycles approximately 20 MGD of effluent internally for treatment processes and maintenance. However, due to the plant's influent sources, salt levels are too high for reuse in irrigation or most industrial processes. More importantly, JWPCP serves a critical role in facilitating regional water reclamation by handling waste streams (e.g., solids and concentrates from reverse osmosis systems) from local and the upstream water recycling facilities (Whittier Narrows, San Jose Creek, Pomona, Los Coyotes and Long Beach). The recycled water from the upstream water reclamation plants are individually permitted.
7. **Pretreatment:** The Joint Water Pollution Control Plant has an industrial wastewater Pretreatment Program which is approved by USEPA and the Regional Water Board. The JOS continues to implement the Pretreatment Program throughout the Joint Water Pollution Control Plant's service area. Since Contract Cities and Agencies operate their respective collection systems that are tributary to the JOS's main trunk lines, some contract cities and agencies also perform certain nondomestic source control activities, e.g., Fats, Oils, and Grease (FOG) program.
8. **Storm water:** CWA section 402(p), as amended by the Water Quality Act of 1987, requires NPDES permits for storm water discharges. Pursuant to this requirement, in 1990, USEPA promulgated 40 CFR § 122.26 that established requirements for storm water discharges under an NPDES program. To facilitate compliance with federal regulations, on November 1991, the State Water Board issued a statewide general permit, General NPDES Permit No. CAS000001 and Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities. This permit was amended in September 1992 and reissued on April 17, 1997 in State Water Board Order No. 97-03-DWQ, and superseded by Order No. 2014-0057-DWQ on April 1, 2014 to regulate storm water discharges associated with industrial activity.

The JWPCP is subject to the requirements of California's General Permit for Stormwater Discharges Associated with Industrial Activities NPDES No. CAS000001, Water Quality

Order No. 2014-0057-DWQ (Industrial General Permit). The Discharger certified a Notice of Intent (WDID 4 19I007080) to comply with the requirements of the Industrial General Permit, which became effective July 1, 2015.

9. Stormwater runoff from the JWPCP is collected and discharged to the wastewater treatment facilities or sewer during normal operation and potentially to the Wilmington Drain flood control channel during heavy rainfall. The Discharger developed and currently implements a Storm Water Pollution Prevention Plan (SWPPP) to comply with the requirements of the State Water Board's Industrial General Permit.

**B. Discharge Points and Receiving Waters**

1. After chlorination, the secondary treated effluent travels about 6 miles through tunnels to the outfall manifold and then is discharged to the Pacific Ocean, at White Point off the Palos Verdes Peninsula. (Refer to the Flow Schematic, Attachment C).
2. JWPCP has fifteen Discharge Points (Discharge Points 001 through 015). Four outfalls (Discharge Points 001 through 004) are located at White Point, off the Palos Verdes Peninsula. Discharge Points 001 and 002 are routinely used for discharge of secondary treated wastewater. Discharge Point 003 is used only during times of heavy rains to provide hydraulic relief for flow in the outfall system. Discharge Point 004 serves as a standby outfall to provide additional hydraulic relief during the very heaviest flows. These four outfalls are described as follows:

**Table F-2 Outfall Descriptions**

Discharge Point	Description
001	<b>White Point 120-inch ocean outfall</b> (Latitude 33.6892, Longitude -118.3167) This outfall routinely discharges approximately 65% of the effluent from the JWPCP. It discharges south of the shoreline off White Point, San Pedro. The outfall is 7440 ft. long to the beginning of a single L-shaped diffuser leg which is 4440 ft. long. Depth at the beginning of the diffuser is 167 ft. and at the end of the diffuser is 190 ft.
002	<b>White Point 90-inch ocean outfall</b> (Latitude 33.7008, Longitude -118.3381) This outfall routinely discharges approximately 35% of the effluent from the JWPCP. It discharges southwest of the shoreline off White Point, San Pedro. The outfall is 7982 ft. long to the beginning of a y-shaped diffuser with two legs. Each leg is 1208 ft. long. Depth at the beginning of the diffusers is 196 ft. and at the end of the diffusers is 210 ft.
003	<b>White Point 72-inch ocean outfall</b> (Latitude 33.7008, Longitude -118.3300) This outfall is used only during times of heavy rains to provide hydraulic relief for flow in the outfall system. When used, it discharges off the White Point shoreline between Discharge Points 001 and 002 and about 160 ft. below the ocean surface. The outfall is about 6500 ft. long and connects to a diffuser with two legs, each approximately 200 ft. long.
004	<b>White Point 60-inch ocean outfall</b> (Latitude 33.7061, Longitude -118.3283) This outfall is used as a standby to provide additional hydraulic relief during the heaviest flow. When used, it discharges off the White Point shoreline between Discharge Serial Nos. 002 and 003 and about 110 ft. below the ocean surface. The outfall is about 5000 ft. long and connects to a single, very short diffuser.

3. Two discharge points (006 and 013) have been eliminated following facility modifications. The remaining nine discharge points, with seven of them being bypass points (Discharge Points 007-012 and 014) located prior to the headworks, provide for overflow, emergency bypass, and/or hydraulic relief of the JWPCP. This permit does not authorize

any discharge from these nine discharge points (Discharge Points 005, 007-012, 014, and 015).

4. In addition to the JWPCP effluent, the waste brine generated by the West Basin Municipal Water Districts' Carson Regional Water Recycling Plant is discharging to the ocean through the JWPCP's outfalls via a waste brine line connected to the JWPCP effluent tunnel. This discharge of waste brine is regulated under separate waste discharge requirements and a separate NPDES permit.

**C. Summary of Existing Requirements and Self-Monitoring Report (SMR) Data.**

Effluent limitations contained in the existing Order (Order R4-2011-0151) for discharges from Discharge Point 001 and Discharge Point 002 (Monitoring Location EFF-001 and EFF-002) and representative monitoring data from the term of the previous Order are as follows:

**Table F-3 Historic Effluent Limitations and Monitoring Data (Conventional and Non-Conventional Pollutants)**

Parameter	Units	Effluent Limitation in Order R4-2011-0151				Monitoring Data (From January 2012 –December 2015)		
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Maximum	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
Biochemical Oxygen Demand (BOD <sub>5</sub> 20°C)	mg/L	30	45	--	--	6.6	10.5	12.2
Total Suspended Solids (TSS)	mg/L	30	45	--	--	15.4	19	26
Oil & Grease <sup>1</sup>	mg/L	15	22.5	45	75	1.7	1.3	6.2
Settleable Solids <sup>1</sup>	mL/L	0.5	0.75	1.5	3.0	0.1	0.1	0.5
Nitrate-N	mg/L	--	--	--	--	0.15	--	0.15
Nitrite-N	mg/L	--	--	--	--	0.24	--	0.24
pH	pH Unit	6.0 – 9.0				7.7	--	7.7
Temperature	°F	--	--	100	--	87.8	--	89.9
Turbidity	NTU	75	100	--	225	5.2	6.3	9.6

Order No R4-2011-0151 established effluent limitations for toxic pollutants based on water quality objectives of the Ocean Plan. A summary of existing effluent limitations and monitoring data of toxic pollutants for the period from January 2012 to December 2015 is shown below. There was no discharge through outfalls 003 and 004.

<sup>1</sup> The effluent limitation is the same as that in Order No. R4-2011-0151 and is more stringent than the limitation specified in the Ocean Plan, but is retained because of the Antibacksliding Policy.

**Table F-4 Historic Effluent Limitations and Monitoring Data for Toxic Constituents at Discharge Points 001 and 002**

Parameter	Units	Effluent Limitation Order R4-2011-0151			Monitoring Data (From January 2012 –December 2015)		
		Average Monthly	Maximum Daily	Instan- taneous Maximum	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
Arsenic (As)	µg/L	--	--	--	1.52	--	2.46
Cadmium (Cd)	µg/L	--	--	--	0.21	--	0.38
Chromium III (Cr)	µg/L	--	--	--	0.92	--	2.92
Copper (Cu)	µg/L	--	--	--	1.82	--	7.3
Lead (Pb)	µg/L	--	--	--	0.25	--	0.59
Mercury (Hg)	µg/L	--	--	--	0.0013	--	0.0086
Nickel (Ni)	µg/L	--	--	--	5.89	--	32
Selenium (Se)	µg/L	--	--	--	2.83	--	5.81
Silver (Ag)	µg/L	--	--	--	<.02	--	<.02
Zinc (Zn)	µg/L	--	--	--	6.72	--	16.9
Cyanide	µg/L	--	--	--	5.08	--	11.4
Residual Chlorine	mg/L	330	1,300	10,000	40	--	180
Ammonia-N	mg/L	--	--	--	37.4	--	45.5
Acute Toxicity	TUa	--	5.3	--	3.8	--	--
Chronic Toxicity (Survival)	TUc	--	167	--	167	--	--
Non-Chlorinated Phenolic Compounds	µg/L	--	--	--	<0.32	--	<0.32
Chlorinated Phenolic Compounds	µg/L	--	--	--	<0.32	--	<0.32
Endosulfan	µg/L	--	--	--	<0.01	--	--
Endrin	µg/L	--	--	--	<0.002	--	--
HCH	µg/L	--	--	--	<0.02	--	--
Radioactivity					--	--	--
Gross alpha	pCi/L	--	--	--	--	--	11.9
Gross beta	pCi/L	--	--	--	--	--	19.3
Acrolein	µg/L	--	--	--	<0.49	--	<0.49
Antimony	µg/L	--	--	--	1.49	--	6.26
Bis (2- Chloroethoxy) methane	µg/L	--	--	--	<0.5	--	<0.5
Bis (2- Chloroisopropyl) ether	µg/L	--	--	--	<0.25	--	<0.25
Chlorobenzene	µg/L	--	--	--	<0.11	--	<0.11
Chromium VI (Cr)	µg/L	--	--	--	0.92	--	2.92
Di-n-Butyl Phthalate	µg/L	--	--	--	<.10	--	<.10



Parameter	Units	Effluent Limitation Order R4-2011-0151			Monitoring Data (From January 2012 –December 2015)		
		Average Monthly	Maximum Daily	Instan- taneous Maximum	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
Dichlorobenzene	µg/L	--	--	--	<0.5	--	<0.5
Diethyl phthalate	µg/L	--	--	--	<2.0	--	<2.0
Dimethyl phthalate	µg/L	--	--	--	<0.21	--	<0.21
4,6-dinitro-2-methylphenol	µg/L	--	--	--	<3.5	--	<3.5
2,4-dinitrophenol	µg/L	--	--	--	<0.2	--	<0.2
Ethylbenzene	µg/L	--	--	--	<0.18	--	<0.18
Fluoranthene	µg/L	--	--	--	<0.19	--	<0.19
Hexachlorocyclopentadiene	µg/L	--	--	--	<0.75	--	<0.75
Nitrobenzene	µg/L	--	--	--	<0.13	--	<0.13
Thallium	µg/L	--	--	--	<0.2	--	<0.2
Toluene	µg/L	--	--	--	<0.19	--	<0.19
Tributyltin	µg/L	--	--	--	<1.3	--	<1.3
1,1,1-trichloroethane	µg/L	--	--	--	<0.09	--	<0.09
Acrylonitrile	µg/L	--	--	--	<0.2	--	<0.2
Aldrin	µg/L	--	--	--	<0.002	--	<0.002
Benzene	µg/L	--	--	--	<0.15	--	<0.15
Benzidine	µg/L	0.012	--	--	<1.6	--	<1.6
Beryllium (Be)	µg/L	--	--	--	<0.04	--	<0.04
Bis (2-Chloroethyl) ether	µg/L	--	--	--	<0.13	--	<0.13
Bis(2-ethylhexyl)-phthalate	µg/L	--	--	--	2.2	--	14
Carbon tetrachloride	µg/L	--	--	--	<0.28	--	<0.28
Chlordane	µg/L	0.0038	--	--	<0.001	--	<0.001
Chlorodibromomethane	µg/L	--	--	--	<0.5	--	<0.5
Chloroform	µg/L	--	--	--	6.2	--	25.4
DDT	µg/L	0.028	--	--	<0.05	--	<0.05
1,4-Dichlorobenzene	µg/L	--	--	--	<0.16	--	<0.16
3,3'-dichlorobenzidine	µg/L	1.4	--	--	<0.66	--	<0.66
1,2-dichloroethane	µg/L	--	--	--	<0.11	--	<0.11
1,1-dichloroethylene	µg/L	--	--	--	<0.5	--	<0.5
Dichlorobromomethane	µg/L	--	--	--	0.51	--	1.5
Dichloromethane	µg/L	--	--	--	2.2	--	3

Parameter	Units	Effluent Limitation Order R4-2011-0151			Monitoring Data (From January 2012 –December 2015)		
		Average Monthly	Maximum Daily	Instan- taneous Maximum	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
1,3-dichloropropene	µg/L	--	--	--	<0.5	--	<0.5
Dieldrin	µg/L	--	--	--	<0.001	--	<0.001
2,4-Dinitrotolulene	µg/L	--	--	--	<0.2	--	<0.2
1,2-Diphenylhydrazine	µg/L	--	--	--	<0.02	--	<0.02
Halomethanes	µg/L	--	--	--	<0.5	--	<0.5
Heptachlor	µg/L	--	--	--	<0.0009	--	<0.0009
Heptachlor epoxide	µg/L	--	--	--	<0.0009	--	<0.0009
Hexachlorobenzene	µg/L	.035	--	--	<0.18	--	<0.18
Hexachlorobutadiene	µg/L	--	--	--	<0.33	--	<0.33
Hexachloroethane	µg/L	--	--	--	<0.14	--	<0.14
Isophorone	µg/L	--	--	--	<0.13	--	<0.13
N-Nitrosodimethylamine	µg/L	--	--	--	<0.32	--	<0.32
N-Nitrosodi-N-propylamine	µg/L	--	--	--	<0.12	--	<0.12
N-Nitrosodiphenylamine	µg/L	--	--	--	<0.14	--	<0.14
Polycyclic Aromatic Hydrocarbons (PAH)	µg/L	--	--	--	<0.2	--	<0.2
Total Polychlorinated Biphenyls (PCBs)	µg/L	0.0032	--	--	<0.5	--	<0.5
TCDD equivalents	µg/L	0.65	--	--	<.005	--	<.005
1,1,2,2-tetrachloroethane	µg/L	--	--	--	<0.1	--	<0.1
Tetrachloroethylene	µg/L	--	--	--	0.54	--	10.9
Toxaphene	µg/L	.035	--	--	<0.05	--	<0.05
Trichloroethylene	µg/L	--	--	--	<0.13	--	<0.13
1,1,2-trichloroethane	µg/L	--	--	--	<0.01	--	<0.01
2,4,6-Trichlorophenol	µg/L	--	--	--	<0.12	--	<0.12
Vinyl chloride	µg/L	--	--	--	<0.37	--	<0.37

#### **D. Compliance Summary**

No effluent violations were reported from 2012-2015. However, ten Sanitary Sewer Overflows (SSO) and spills were reported to the Regional Water Board in accordance with applicable permits. In addition, the composite sampling was collected based on time rather than flow.

In May 2017, the Discharger completed an internal audit of the JOS sampling, analysis and data processing protocols by its Laboratories Section to ensure sound operation and reliable results. During this investigation, it was identified that time weighted composite samples were collected for toxicity samples, instead of flow-weighted composite samples. Flow weighted composite samples, however, were collected for the water chemistry samples and an analysis conducted by JOS of ammonia concentrations versus the toxicity results indicated that the time weighted samples are representative of the effluent. In the May 2017 letter report, the Discharger reported that the root causes for the errors/omissions have been identified and that the operating procedures have been corrected.

#### **E. Receiving Water Description**

The JWPCP discharges into Santa Monica Bay. The Santa Monica Bay watershed is home to unique wetland, sand dune, and open ocean ecosystems that support a rich diversity of wildlife and serve as migration stopovers for marine mammals and birds. The Bay and its beaches are invaluable recreational resources and important sources of revenue for the region. The Bay is heavily used for fishing, swimming, surfing, diving, and other activities classified as water contact and noncontact recreation.

Section 403 of the Clean Water Act (CWA) requires dischargers to comply with specific Ocean Discharge Criteria established to address impacts on marine resources, including fisheries and endangered species. The JOS submitted a report on March 24, 2016, to demonstrate compliance with the section 403 Ocean Discharge Criteria. Based upon an evaluation of previous receiving water monitoring data and reports from other agencies, the JOS concluded that no unreasonable degradation of the marine environment is occurring with the current discharge receiving full secondary treatment and compliance with applicable water quality standards achieved.

#### **F. Planned Changes**

The February 11, 2016 JWPCP ROWD included information about changes planned for the term of the forthcoming Order. Construction of a third outfall tunnel is scheduled to begin in 2018. A project to truck brine from an advanced water treatment (AWT) system operated by the Santa Clara Valley Sanitation District (SCVSD) to the JWPCP for ocean disposal was also included in the ROWD. A demonstration project managed by the Metropolitan Water District (MWD), a project to co-digest food waste in the anaerobic digesters and a biogas conditioning project were also discussed after the ROWD submittal. All of these projects are discussed below.

A new 18-foot internal diameter effluent outfall tunnel from the JWPCP to the White Point Outfall Manifold at Royal Palms Beach will be constructed. The new tunnel is needed to meet current seismic standards and will also allow maintenance and seismic retrofitting of the existing tunnels. The tunnel will be completed in about seven years. While the ROWD for this NPDES Order included information about dewatering for this tunnel, JOS will submit a separate individual NPDES application for construction dewatering in advance of excavation at Royal Palms Beach between 2023 and 2025. JOS will discharge the dewatering water from the rest of the tunnel construction to the JWPCP sanitary sewer.

The project to truck brine to JWPCP is necessary to dispose of the concentrate generated by the SCVSD AWT desalter. This AWT system reduces the total dissolved solids and chloride concentrations in the effluent discharged to the Santa Clara River from the Valencia Water

Reclamation Plant. The Discharger estimated that an average of 6 trucks would be transporting 33,000 gallons of concentrate per day, not to exceed a maximum of 10 trucks per day transporting 52,000 GPD. Start-up of this facility is required by 2019; however, a court order prohibiting work on this project is expected to delay the design, construction, and operation of the facility.

An additional project that is currently in the design stage is the MWD Demonstration Project to construct and operate a small-scale advanced water treatment facility to treat secondary effluent from the JWPCP. The brine from this pilot facility will be discharged to the JWPCP. On March 9, 2016 the Discharger provided an evaluation of brine discharge from the MWD Demonstration Project to the JWPCP. The purpose of the Demonstration Project is to assess the viability and optimal parameters for a large-scale advanced water treatment facility (Full-Scale Project) designed to produce up to 150 MGD of purified water. The Demonstration Project will produce approximately 0.5 MGD of purified product water suitable for reuse.

A food waste recycling program is being implemented at JWPCP to assist local cities, businesses, and waste haulers to comply with state mandates to divert organics from landfills. The program will build upon the three years of experience gained from a food waste co-digestion demonstration project at JWPCP. A project is in the planning stages to expand the co-digestion of food waste from one digester to five digesters. This will increase JWPCP's co-digestion capacity from 62 tons per day to 310 tons per day of food waste. Construction of this food waste receiving and co-digestion system is expected to begin in 2018 and be completed in July 2020. All food waste will be processed offsite prior to co-digestion, to remove contaminants and is delivered as a slurry for direct injection into the digesters. Prior to completion of this project, increased receipts of food waste will be handled at JWPCP's existing Liquid Waste Disposal Station, which is already receiving septage waste and other high strength liquids.

An additional project is under design to construct a biogas conditioning system to purify digester gas currently being produced at JWPCP into renewable natural gas for use as vehicle fuel at JWPCP's existing CNG Fueling Station. The renewable natural gas will replace pipeline natural gas that is currently being compressed for vehicle fuel at the CNG Fueling Station. Construction of this project is scheduled for completion in September 2019.

A summary of these Planned Changes is provided in Table F-5.

**Table F-5 Planned Changes**

Item	Proposed Date of Operation	Application Date
New Effluent Tunnel Construction Dewatering		2017
Biogas Conditioning System for Production of Renewable Natural Gas Vehicle Fuel	2019	
Food Waste Receiving and Co-Digestion System	2020	
Metropolitan Water District Pilot Recycled Water Treatment Plant	2019	
Trucking of concentrate from the Valencia Water Reclamation Plant	2019 <sup>2</sup>	
Third 18-foot internal diameter Effluent Tunnel Construction	2025	

<sup>2</sup> Trucking of concentrate is expected to be delayed due to a court order prohibiting work on the design, construction, and operation of the SCVSD AWT system at the Valencia Water Reclamation Plant

**III. APPLICABLE PLANS, POLICIES, AND REGULATIONS.**

The requirements contained in this Order are based on the requirements and authorities described in this section.

**A. Legal Authorities**

This Order is issued pursuant to section 402 of the federal CWA and implementing regulations adopted by the U.S. Environmental Protection Agency (USEPA) and Chapter 5.5, Division 7 of the California Water Code (CWC) (commencing with Section 13370). It shall serve as a NPDES permit for point source discharges from this facility to surface waters. This Order also serves as Waste Discharge Requirements (WDRs) pursuant to article 4, Chapter 4, Division 7 of the CWC (commencing with Section 13260). Discharge Point 001, 002, 003 and 004 are all within the limit of State-regulated ocean waters.

**B. California Environmental Quality Act (CEQA)**

Under CWC section 13389, this action to adopt an NPDES permit is exempt from the provisions of Chapter 3 of CEQA, Public Resources Code 21100-21177.

**C. State and Federal Laws, Regulations, Policies, and Plans**

- 1. Water Quality Control Plan.** The Regional Water Board adopted a Water Quality Control Plan for the Los Angeles Region (Basin Plan) on June 13, 1994 that has been occasionally amended and designates beneficial uses, establishes water quality objectives (WQOs), establishes prohibitions, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. Requirements in this Order implement the Basin Plan including its subsequent amendments. Beneficial uses applicable to the Pacific Ocean are as follows:

**Table F-6 Basin Plan Beneficial Uses**

<b>Water Body Designation</b>	<b>Receiving Water Name</b>	<b>Beneficial Use(s)</b>
180701040601 (Formerly Hydro. Unit No. 405.12)	Point Vicente Beach, Royal Palms Beach, and White Point Beach	<u>Existing:</u> Navigation (NAV); contact (REC-1) and non-contact (REC-2) water recreation; commercial and sport fishing (COMM); marine habitat (MAR); wildlife habitat (WILD); and, shellfish harvesting (SHELL). <u>Potential:</u> Spawning, reproduction, and/or early development of fish (SPWN).
180701040601 (Formerly Hydro. Unit No. 405.12)	Pacific Ocean Nearshore Zone (The zone bounded by the shoreline and a line 1000 feet from the shoreline or the 30-foot depth contours, whichever is further from the shoreline)	<u>Existing:</u> Industrial service supply (IND); (NAV); (REC-1) (REC-2) (COMM); (MAR); (WILD); preservation of biological habitats (BIOL); preservation of rare, threatened, or endangered species (RARE); migration of aquatic organisms (MIGR); (SPWN); and (SHELL).
180701040601 (Formerly Hydro. Unit No. 405.12)	Pacific Ocean Offshore Zone	<u>Existing:</u> (IND); (NAV); (REC-1) (REC-2); (COMM); (MAR); (WILD); (RARE); (MIGR); (SPWN); and, (SHELL).

1. **California Thermal Plan.** In 1972, the State Water Board adopted the Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California (Thermal Plan), as amended. This plan contains temperature objectives for coastal waters. Requirements of this Order implement the Thermal Plan.
2. **California Ocean Plan.** In 1972, the State Water Board adopted the *Water Quality Control Plan for Ocean Waters of California, California Ocean Plan* (Ocean Plan) and amended it in 1978, 1983, 1988, 1990, 1997, 2000, 2005, 2009, 2012 and 2015. The latest amendment became effective on January 28, 2016. The Ocean Plan is applicable, in its entirety, to point source discharges to the ocean. The Ocean Plan identifies beneficial uses of ocean waters of the state to be protected at Discharge Points 001, 002, 003 and 004.

To protect the beneficial uses, the Ocean Plan establishes water quality objectives and a program of implementation. Requirements of this Order implement the 2015 Ocean Plan.

**Table F-7 Ocean Plan Beneficial Uses**

Discharge Point	Receiving Water	Beneficial Use(s)
001, 002, 003 and 004	Pacific Ocean	IND, REC-1, REC-2, NAV, COMM, mariculture, preservation and enhancement of designated Area of Special Biological Significance (ASBS), RARE, MAR, MIGR, SPWN, and SHELL.

3. **Santa Monica Bay Restoration Plan.** The JWPCP discharges to Santa Monica Bay, one of the most heavily used recreational areas in California. Recognizing the importance of the Bay as a national resource, the State of California and USEPA nominated Santa Monica Bay in the National Estuary Program, and Congress subsequently included Santa Monica Bay in the program. The USEPA, with support from the Santa Monica Bay Restoration Commission, developed the Bay Restoration Plan (BRP), which serves as a blueprint for restoring and enhancing the Bay. The Regional Water Board plays a lead role in the implementation of the BRP. Three of the proposed priorities of the BRP are reduction of pollutants of concern at the source (including municipal wastewater treatment plants), attainment of full secondary treatment at the County Sanitation Districts of Los Angeles County's Joint Water Pollution Control Plant and at the City of Los Angeles' Hyperion Treatment Plant, and implementation of the mass emission approach for discharges of pollutants to the Bay.
4. **Alaska Rule.** On March 30, 2000, USEPA revised its regulation that specifies when new and revised state and tribal water quality standards (WQS) become effective for CWA purposes (40 CFR part 131.21, 65 Federal Register 24641 (April 27, 2000)). Under the revised regulation (also known as the Alaska Rule), new and revised standards submitted to USEPA after May 30, 2000, must be approved by USEPA before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000, may be used for CWA purposes, whether or not approved by USEPA.
5. **Stringency of Requirements for Individual Pollutants.** This Order contains restrictions on individual pollutants that are no more stringent than required by the federal CWA and California Ocean Plan. Individual pollutant restrictions consist of technology-based effluent limitations (TBELs) and water quality-based effluent limitations (WQBELs). The TBELs consist of restrictions on BOD<sub>5</sub>20°C, TSS, pH, and

percent removal of BOD<sub>5</sub>20°C and TSS, which implement the minimum applicable federal technology-based requirements for POTWs. In addition, effluent limitations more stringent than federal technology-based requirements consisting of restrictions on oil and grease, settleable solids, and turbidity are necessary to implement State treatment standards in Table 2 of the Ocean Plan. This Order's technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements.

WQBELs for chlorine residual, bezidine, chlordane, 3,3'-dichlorobenzidine, hexachlorobenzene, toxaphene, DDT, Total PCBs, and TCDD equivalents have been scientifically derived to implement WQOs that protect beneficial uses. Both the beneficial uses and the WQOs have been approved pursuant to federal law and are the applicable federal water quality standards. All beneficial uses and WQOs contained in the Basin Plan and the Ocean Plan were approved under state law and submitted to and approved by USEPA prior to May 30, 2000. Any WQOs and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless "applicable water quality standards for purposes of the CWA" pursuant to 40 CFR § 131.21(c)(1). Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA.

6. **Antidegradation Policy.** Federal regulation 40 CFR section 131.12 requires that the state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution 68-16 ("Statement of Policy with Respect to Maintaining High Quality of Waters in California"). Resolution 68-16 is deemed to incorporate the federal antidegradation policy where the federal policy applies under federal law. Resolution 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings. The Regional Water Board's Basin Plan implements, and incorporates by reference, both the state and federal antidegradation policies. The discharges permitted in this Order are consistent with the antidegradation provisions of 40 CFR § 131.12 and State Water Board Resolution 68-16 and is described in further detail in Section IV.D.2. of this Fact Sheet.
7. **Anti-Backsliding Requirements.** CWA sections 402(o) and 303(d), and 40 CFR § 122.44(l) restrict backsliding in NPDES permits. These anti-backsliding provisions require that effluent limitations in a reissued permit be as stringent as those in the previous permit, with some exceptions in which limitations may be relaxed. The applicability of these requirements to this Order is discussed in detail in section IV.D.1. of this Fact Sheet.

The accompanying monitoring and reporting program (MRP) requires continued data collection and if monitoring data show reasonable potential for a constituent to cause or contribute to an exceedance of water quality standards, the Order will be reopened to incorporate WQBELs. Such an approach ensures that the discharge will adequately protect water quality standards for designated beneficial uses and conform with antidegradation policies and antibacksliding provisions.

8. **Endangered Species Act (ESA) Requirements.** This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under the California ESA (Fish and Wildlife Code, sections 2050 to 2097). This Order requires compliance with effluent limits, receiving water limits, and other requirements to protect the beneficial uses of waters of the state. The Discharger is responsible for meeting all requirements of the applicable ESA.

9. **Monitoring and Reporting.** 40 CFR § 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. CWC sections 13267 and 13383 authorize the Regional Water Board to require technical and monitoring reports. The MRP establishes monitoring and reporting requirements to implement federal and state requirements. This MRP is provided in Attachment E.
10. **Water Recycling.** State Water Board Resolution 2009-0011, *Adoption of a Policy for Water Quality Control for Recycled Water* (Revised January 22, 2013, effective April 25, 2013) directs the Regional Water Board to encourage recycling. Consistent with this policy, the Discharger shall submit a feasibility report evaluating the feasibility of additional recycling efforts to reduce the amount of treated effluent discharged as authorized in this Order, and a recycled water progress report describing any updates to the development of increased recycled water production and/or distribution. These reports shall be included in the annual report submittal, as described in the monitoring and reporting program (MRP).
11. **Standard and Special Provisions.** Standard Provisions, which apply to all NPDES permits in accordance with 40 CFR § 122.41, and additional conditions applicable to POTWs in accordance with 40 CFR § 122.42, are provided in Attachment D. The Regional Water Board has also included in this Order Special Provisions applicable to the Discharger. The rationale for the Special Provisions contained in this Order is provided in the attached Fact Sheet.

**D. Impaired Water Bodies on the CWA section 303(d) List**

On June 28, 2007, USEPA approved California's 2006 CWA section 303(d) List of Water Quality Limited Segments (303(d) list). The 303(d) list identifies water bodies where water quality standards are not expected to be met after implementation of technology-based effluent limitations by point sources (water quality limited bodies). The State Water Board proposed the California 2008-2010 Integrated Report from a compilation of the adopted Regional Water Boards' Integrated Reports containing 303(d) List of Impaired Waters and 305(b) Reports following recommendations from the Regional Water Boards and information solicited from the public and other interested parties. The Regional Water Boards' Integrated Reports were used to revise their 2006 303(d) List. On August 4, 2010, the State Water Board adopted the California 2008-2010 Integrated Report. On November 12, 2010, the USEPA approved California 2008-2010 Integrated Report Section 303(d) List of Impaired Waters requiring Total Maximum Daily Loads (TMDL) for the Los Angeles Region. The 303(d) List can be viewed at the following link:

[http://www.waterboards.ca.gov/water\\_issues/programs/tmdl/integrated2010.shtml](http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml).

Santa Monica Bay (Offshore and Nearshore) is on the 303(d) list for the following pollutants/stressors from point and non-point sources: DDT (tissue & sediment), debris, fish consumption advisory, Total PCBs (tissue & sediment), and sediment toxicity. *Santa Monica Bay Beaches* TMDLs for sediment toxicity and fish consumption advisory have not been scheduled. The *Santa Monica Bay Beaches Bacteria* TMDLs were approved by USEPA in 2003, as described in section III.E.7. of this Fact Sheet. The *Santa Monica Bay Nearshore and Offshore Debris* TMDL was approved by USEPA on March 20, 2012, and more details are provided in section III.E.8. of this Fact Sheet. The *Santa Monica Bay TMDL for DDT and PCBs* was approved and adopted by USEPA on March 26, 2012, and is further described in section III.E.9 of the Fact Sheet. The USEPA has determined that a TMDL is not required for the Santa Monica Bay sediment toxicity listing based on the lack of toxicity in regional surveys in 1994, 1998, 2003, and 2008.



### E. Other Plans, Policies and Regulations

1. **Secondary Treatment Regulations.** 40 CFR § 133 establishes the minimum levels of effluent quality to be achieved by secondary treatment. These limitations, established by USEPA, are incorporated into this Order, except where more stringent limitations are required by other applicable plans, policies, or regulations or to prevent backsliding.
2. **Storm Water.** CWA section 402(p), as amended by the Water Quality Act of 1987, requires NPDES permits for storm water discharges. Pursuant to this requirement, in 1990, USEPA promulgated 40 CFR § 122.26 that established requirements for storm water discharges under an NPDES program. To facilitate compliance with federal regulations, on November 1991, the State Water Board issued a statewide general permit, General NPDES Permit No. CAS000001 and Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities. This permit was amended in September 1992 and reissued on April 17, 1997 in State Water Board Order No. 97-03-DWQ, and superseded by Order No. 2014-0057-DWQ on April 1, 2014 to regulate storm water discharges associated with industrial activity.

The JWPCP is subject to the requirements of California's General Permit for Stormwater Discharges Associated with Industrial Activities NPDES No. CAS000001, Water Quality Order No. 2014-0057-DWQ (Industrial General Permit). The Discharger certified a Notice of Intent (WDID 4 19I007080) to comply with the requirements of the Industrial General Permit, which became effective July 1, 2015.

Stormwater runoff from the JWPCP is collected and discharged to the wastewater treatment facilities or sewer during normal operation and potentially to the Wilmington Drain flood control channel during heavy rainfall. The Discharger developed and currently implements a Storm Water Pollution Prevention Plan (SWPPP) to comply with the requirements of the State Water Board's Industrial General Permit.

3. **Sanitary Sewer Overflows (SSOs).** The CWA prohibits the discharge of pollutants from point sources to surface waters of the United States unless authorized under an NPDES permit. (33 USC sections 1311 and 1342). The State Water Board adopted General WDRs for Sanitary Sewer Systems, (Water Quality Order No. 2006-0003-DWQ; SSO WDR) on May 2, 2006, as amended, to provide a consistent, statewide regulatory approach to address SSOs. The SSO WDR requires public agencies that own or operate sanitary sewer systems with greater than one mile of pipes and sewer lines to apply for coverage under the SSO WDR, develop and implement sewer system management plans, and report all SSOs to the State Water Board's online SSO database. Regardless of the coverage obtained under the SSO WDR, the Discharger's collection system is part of the POTW that is subject to this NPDES permit. As such, pursuant to federal regulations, the Discharger must properly operate and maintain its collection system (40 CFR § 122.41 (e)), report any non-compliance (40 CFR § 122.41(1)(6) and (7)), and mitigate any discharge from the collection system in violation of this NPDES permit (40 CFR § 122.41(d)).

The requirements contained in this Order sections VII.C.3.b (Spill Cleanup Contingency Plan section), VII.C.4 (Construction, Operation and Maintenance Specifications section), and VII.C.6 (Spill Reporting Requirements section) are intended to be consistent with the requirements of the SSO WDR. The Regional Water Board and USEPA recognizes that there may be some overlap between these NPDES permit provisions and SSO WDR requirements, related to the collection systems. The requirements of the SSO WDR are considered the minimum thresholds (see Finding

11 of State Water Board Order No. 2006-0003-DWQ). To encourage efficiency, the Regional Water Board and USEPA will accept the documentation prepared by the Dischargers under the SSO WDR for compliance purposes as satisfying the requirements in sections VII.C.3.b, VII.C.4, and VII.C.6, provided the more stringent provisions contained in this NPDES permit are also addressed. Pursuant to SSO WDR, section D, provision 2(iii) and (iv), the provisions of this NPDES permit supersede the SSO WDR, for all purposes, including enforcement, to the extent the requirements may be deemed duplicative.

4. **Pretreatment.** Section 402 of the CWA and implementing regulations at 40 CFR § 403 establish pretreatment requirements for POTWs which receive pollutants from non-domestic users. This Order contains pretreatment program requirements pursuant to 40 CFR § 403 that are applicable to the Discharger.
5. **Sewage Sludge/Biosolids Requirements.** Section 405 of the CWA and implementing regulations at 40 CFR § 503 require that producers of sewage sludge/biosolids meet certain reporting, handling, and use or disposal requirements. The State has not been delegated the authority to implement this program; therefore, USEPA is the implementing agency. This Order contains sewage sludge/biosolids requirements pursuant to 40 CFR § 503 that are applicable to the Discharger.
6. **Watershed Management.** This Regional Water Board has been implementing a Watershed Management Approach (WMA) to address water quality protection in the Los Angeles Region, as detailed in the Watershed management initiative (WMI). The WMI is designed to integrate various surface and ground water regulatory programs while promoting cooperative, collaborative efforts within a watershed. It is also designed to focus limited resources on key issues and use sound science. Information about watersheds in the region can be obtained at the Regional Water Board's website at [http://www.waterboards.ca.gov/losangeles/water\\_issues/programs/regional\\_program/watershed/index.shtml](http://www.waterboards.ca.gov/losangeles/water_issues/programs/regional_program/watershed/index.shtml). The WMA emphasizes cooperative relationships between regulatory agencies, the regulated community, environmental groups, and other stakeholders in the watershed to achieve the greatest environmental improvements with the resources available.

The Regional Water Board has prepared and periodically updates its Watershed Management Initiative Chapter and the latest version was updated December 2007. This document contains a summary of the region's approach to watershed management. It addresses each watershed and the associated water quality problems and issues. It describes the background and history of each watershed, current and future activities, and addresses TMDL development. The information can be accessed on our website: <http://www.waterboards.ca.gov/losangeles>.

This Order and the accompanying Monitoring and Reporting Program (Attachment E) fosters implementation of this approach. The Monitoring and Reporting Program requires the discharger to participate in regional monitoring programs in the Southern California Bight.

7. **Santa Monica Bay Beaches Bacteria TMDLs.** The Regional Water Board has adopted two TMDLs to reduce bacteria at Santa Monica Bay beaches during dry and wet weather. The Regional Water Board adopted the Dry Weather and Wet Weather TMDLs on January 24, 2002 and December 12, 2002, respectively (Resolution Nos. 2002-004 and 2002-022). These TMDLs were approved by the State Water Board, State Office of Administrative Law (OAL) and USEPA Region 9 and became effective on July 15, 2003.

In these TMDLs, waste load allocations (WLAs) are expressed as the number of sample days at a shoreline monitoring site that may exceed the single sample targets for total coliform, fecal coliform and *Enterococcus* identified under "Numeric Target" in the TMDLs. WLAs are expressed as allowable exceedance days because the bacterial density and frequency of single sample exceedances are the most relevant to public health protection at beaches. The final shoreline compliance point for the WLAs in the TMDLs is the wave wash where there is a freshwater outlet (i.e., publicly owned storm drain or natural creek) to the beach, or at ankle depth at beaches without a freshwater outlet.

The JOS, as the owner of Joint Water Pollution Control Plant, is identified as a responsible jurisdiction in these TMDLs. In these TMDLs, JWPCP is assigned a WLA of zero days of exceedance of the single sample bacterial objectives during all three identified periods – summer dry weather, winter dry weather and wet weather. JWPCP's WLA of zero exceedance days requires that no discharge from its outfalls may cause or contribute to any exceedances of the single sample bacteria objectives at the shoreline compliance points identified in the TMDL and subsequently approved Coordinated Shoreline Monitoring Plan (dated April 7, 2004) submitted by responsible agencies and jurisdictions under the TMDLs. The shoreline monitoring data collected as part of the Los Angeles County MS4 Permit will be used to demonstrate compliance with the WLAs in these TMDLs.

8. **Santa Monica Bay Inshore and Offshore Debris TMDL.** The Regional Water Board adopted the Santa Monica Bay Inshore and Offshore Debris TMDL on November 04, 2010, to eliminate trash in the Santa Monica Bay. The WLAs assigned in this TMDL are applicable to MS4 Dischargers. These WLAs are regulated under the Los Angeles County MS4 permit No. R4-2012-0175
9. **Santa Monica Bay TMDL for DDT and PCB.** The USEPA adopted the TMDL on March 26, 2012. The concentrations of DDT and Total PCBs in the wastewater effluent are currently at or near the detection limits; however, due to historic discharges of DDT and Total PCBs to the Santa Monica Bay, these constituents continue to persist in the environment, particularly in the ocean sediments. The concentrations of PCBs and DDT in surface sediments have decreased substantially since the 1970s as much of the contamination has been carried away by currents, buried below the active sediment layer, or degraded as a result of natural processes. Despite the decreasing trend, the concentrations of DDT and PCBs in surface sediments today are at levels that can still accumulate in fish tissues at levels of concern for safe human health consumption. The JWPCP is identified as a responsible jurisdiction in this TMDL and as such, the TMDL sets Average Monthly and Average Annual WLAs for DDT and Total PCBs for the treatment plant. These WLAs have been incorporated into this Order as final effluent limitations.

The Santa Monica Bay TMDL for DDT and Total PCB also includes monitoring requirements, which are described here:

**Table F-8 Monitoring Requirements Santa Monica Bay DDT and PCB TMDL**

Type	JOINT WATER POLLUTION CONTROL PLANT
Effluent	Quarterly for DDTs and PCB Aroclors (same for influent). Annually for PCB Congeners
Sediments	Annual measurement of DDTs, PCB Aroclors and PCB Congeners at 24 fixed sites (additional 20 fixed sites in year 3)

Type	JOINT WATER POLLUTION CONTROL PLANT
Fish Trends	Sampling of Hornyhead turbot composites (muscle tissue and liver) and White Croaker (muscle tissue) at 3 zones, analyzed for DDTs, PCB Aroclors and PCB Congeners
Seafood Safety	Biennial sampling of multiple species (tissue-filet) at 3 zones for DDTs, PCB Aroclors and PCB congeners plus participation in Regional Seafood Safety Survey

**IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATION.**

The CWA requires point source dischargers to control the amount of conventional, non-conventional, and toxic pollutants that are discharged into the waters of the United States. The control of pollutants discharged is established through effluent limitations and other requirements in NPDES permits. There are two principal bases for effluent limitations in the Code of Federal Regulations: 40 CFR section 122.44(a) requires that permits include applicable technology-based limitations and standards; and 40 CFR section 122.44(d) requires that permits include water quality-based effluent limitations to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water. Where numeric water quality objectives have not been established, 40 CFR § 122.44(d) specifies that WQBELs may be established using USEPA criteria guidance under CWA section 304(a); proposed State criteria or a State policy interpreting narrative criteria supplemented with other relevant information may be used; or an indicator parameter may be established.

**A. Discharge Prohibitions.**

Discharge prohibitions in this Order are based on the requirements in section III.I of the Ocean Plan (2015).

**B. Technology-Based Effluent Limitations.**

1. Scope and Authority.

Technology-based effluent limitations require a minimum level of treatment for industrial/municipal point sources based on currently available treatment technologies while allowing the Discharger to use any available control techniques to meet the effluent limits. The 1972 CWA required POTWs to meet performance requirements based on available wastewater treatment technology. Section 301 of the CWA established a required performance level—referred to as “secondary treatment” --that all POTWs were required to meet by July 1, 1977. More specifically, section 301(b)(1)(B) of the CWA required that USEPA develop secondary treatment standards for POTWs as defined in section 304(d)(1). Based on this statutory requirement, USEPA developed national secondary treatment regulations which are specified in 40 CFR § 133. These technology-based regulations apply to all POTWs and identify the minimum level of effluent quality to be attained by secondary treatment in terms of BOD<sub>5</sub>20°C, TSS, and pH.

2. Applicable Technology-Based Effluent Limitations

Section 301(b) of the CWA and implementing USEPA permit regulations at 40 CFR § 122.44 require that permits include conditions meeting applicable technology-based requirements at a minimum, and more stringent effluent limitations necessary to meet minimum federal technology-based requirements based on Secondary Standards at 40 CFR § 133 and Best Professional Judgment (BPJ) in accordance with 40 CFR § 125.3. Secondary treatment is defined in terms of three parameters – BOD<sub>5</sub>20°C, TSS, and pH. The following summarizes the technology-based requirements for secondary treatment, which are applicable to the Facility:

**Table F-9 Summary of TBELs in 40 CFR part 133.102**

Parameter	Units	Effluent Limitations	
		Average Monthly	Average Weekly
BOD <sub>5</sub> 20°C	mg/L	30 mg/L	45 mg/L
TSS	mg/L	30 mg/L	45 mg/L
Removal Efficiency for BOD <sub>5</sub> 20°C	%	85	--
pH	6.0 to 9.0 pH Units		

Also, Table 2 of the 2015 Ocean Plan establishes the following TBELs for POTWs, which are applicable to the Plant:

**Table F-10 Summary of TBELs for POTWs established by the 2015 Ocean Plan**

Parameter	Units	Effluent Limitations		
		Average Monthly	Average Weekly	Instantaneous Maximum
Oil & Grease	mg/L	25	40	75
TSS	mg/L	--	--	--
Settleable Solids	mL/L	1.0	1.5	3.0
Turbidity	NTU	75	100	225
Removal Efficiency for TSS	%	75		
pH	6.0 to 9.0 pH units			

All TBELs from Order No. R4-2011-0151 for BOD<sub>5</sub>20°C, TSS, oil and grease, settleable solids, pH, and turbidity, are retained by this Order. Limitations for BOD<sub>5</sub>20°C, TSS, and pH are based on secondary treatment standards established by the USEPA at 40 CFR § 133. Limitations for oil and grease, settleable solids, and turbidity are based on requirements in the 2015 Ocean Plan. To be consistent with the Ocean Plan, daily maximum limitations for these three constituents in the existing permit are prescribed as instantaneous maximum limitations in this Order. Instantaneous maximum limitations of 3.0 ml/L for settleable solids and 75 mg/L for oil and grease are also prescribed in this Order based on the 2009 Ocean Plan. Since the average monthly, average weekly and maximum daily limitations for settleable solids and oil and grease in Order No. R4-2011-0151 are more stringent than those established by the 2012/2015 Ocean Plan, these limitations in Order No. R4-2011-0151 are carried over to this Order due to antibacksliding concerns. All TBELs are independent of the dilution ratio for the discharge outfall. In addition to the concentration-based effluent limitations, mass-based effluent limitations based on the flow rate of 385 MGD used in Order R4-2011-0151, are also included. The 1997 average design flow rate of 385 MGD, as implemented in the 2011 Order, is used because of the anti-backsliding policy.

The following table summarizes the TBELs for the discharge from the Facility.

**Table F-11 Summary of TBELs for Discharge Points 001, 002, 003 and 004**

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
BOD <sub>5</sub> 20°C	mg/L	30	45	--	--	--
	lbs/day <sup>3</sup>	96,300	144,500	--	--	--
	% removal	85	--	--	--	--
TSS	mg/L	30	45	--	--	--
	lbs/day <sup>3</sup>	96,300	144,500	--	--	--
	% removal	85	--	--	--	--
Oil and Grease	mg/L	15	22.5	45	--	75
	lbs/day <sup>3</sup>	48,200	72,200	144,500	--	241,000
Settleable Solids	ml/L	.5	.75	1.5	--	3.0
Turbidity	NTU	75	100	--	--	225
pH	pH unit	--	--	--	6.0	9.0

**C. Water Quality-Based Effluent Limitations (WQBELs)**

**1. Scope and Authority.**

Section 301(b) of the CWA and 40 CFR § 122.44(d) require that permits include limitations more stringent than applicable technology-based requirements where necessary to achieve water quality standards and State requirements. 40 CFR § 122.44(d)(1)(i) requires that permits include WQBELs for all pollutants which are or may be discharged at levels having the reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives or criteria within a standard. USEPA has applied CWA section 403(c) and 40 CFR § 125, Subpart M, following 40 CFR § 122.

The process for determining reasonable potential and calculating WQBELs when necessary is intended to protect the designated uses of the receiving water as specified in the Basin Plan, and achieve applicable water quality objectives and criteria that are contained in other state plans and policies, or any applicable water quality criteria contained in the Ocean Plan. Where reasonable potential has been established for a pollutant, but there is no numeric objective or criterion for the pollutant, WQBELs must be established using: 1) USEPA criteria guidance under CWA section 304(a), supplemented where necessary by other relevant information; 2) an indicator parameter for the pollutant of concern; or 3) a calculated numeric water quality criterion, supplemented with other relevant information, as provided in 20 CFR 122.44(d)(1)(vi).

<sup>3</sup> The mass emission rates are based on the 1997 average design flow of 385 MGD, and are calculated as follows: Flow (MGD) x Concentration (mg/L) x 8.34 (conversion factor) = lbs/day. During wet-weather storm events in which the flow exceeds the design capacity, the mass discharge rate limitations shall not apply, and concentration limitations will provide the only applicable effluent limitations.

## 2. **Applicable Beneficial Uses and Water Quality Criteria and Objectives**

The Basin Plan and Ocean Plan establish the beneficial uses and Water Quality Objectives for ocean waters of the State. The beneficial uses of the receiving waters affected by the discharge have been described previously in this Fact Sheet. The Basin Plan contains Water Quality Objectives for bacteria for water bodies designated for water contact recreation and the Ocean Plan contains water quality objectives for bacterial, physical, chemical, and biological characteristics, and radioactivity. The Water Quality Objectives from the Ocean Plan and Basin Plan were incorporated into this Order as either final effluent limitations (based on reasonable potential) or receiving water limitations.

## 3. **Expression of WQBELs**

Pursuant to 40 CFR § 122.45(d)(2), for POTW continuous discharges, all permit effluent limitations, standards, and prohibitions, including those necessary to achieve water quality standards, shall, unless impracticable, be stated as average weekly and average monthly discharge limitations. It is impracticable to include only average weekly and average monthly effluent limitations in the Order because a single daily discharge of certain pollutants, in excess amounts, can cause violations of water quality objectives. The effects of pollutants on aquatic organisms are often rapid. For many pollutants, an average weekly or average monthly effluent limitation alone is not sufficiently protective of beneficial uses. As a result, maximum daily effluent limitations, as referenced in 40 CFR § 122.45(d), are included in the Order for certain constituents.

The WQBELs for marine aquatic life toxics contained in this Order are based on Table 1 water quality objectives contained in the 2015 Ocean Plan that are expressed as six-month median, daily maximum, and instantaneous maximum water quality objectives. However, in the existing Order (Order No. R4-2011-0151), the calculated effluent limitations based on 6-month median objectives for marine aquatic life toxics in the 2009 Ocean Plan were prescribed as monthly average limitations. Applying the antibacksliding regulations, this Order retains the same approach and sets effluent limitations derived from six-month median water quality objectives for marine aquatic life toxics in the 2015 Ocean Plan as average monthly limitations. In addition, the 2015 Ocean Plan specifies that for the six-month median for intermittent discharges, the daily value shall be considered to equal zero for days on which no discharge occurred. Determining the Need for WQBELs

Order No. R4-2011-0151 contains effluent limitations for conventional, non-conventional and toxic pollutant parameters in Table 1 of the Ocean Plan. For this Order, the need for effluent limitations based on water quality objectives in Table 1 of the 2015 Ocean Plan was reevaluated in accordance with the Reasonable Potential Analysis (RPA) procedures contained in Appendix VI of the 2015 Ocean Plan. This statistical RPA method (RPcalc version 2.2) accounts for the averaging period of the water quality objective, accounts for and captures the long-term variability of the pollutant in the effluent, accounts for limitations associated with sparse data sets, accounts for uncertainty associated with censored data sets, and assumes a lognormal distribution of the facility-specific effluent data. The program calculates the upper confidence bound (UCB) of an effluent population percentile after complete mixing. In the evaluation employed in this Order, the UCB is calculated as the one-sided, upper 95th percent confidence bound for the 95th percentile of the effluent distribution after complete mixing. The calculated UCB95/95 is then compared to the appropriate objective to determine the potential for an exceedance of that objective and the need for an effluent limitation. For constituents that have an insufficient number of monitoring data or a substantial number of non-detected data with a reporting limit higher than the respective water quality

objective, the RPA result is likely to be inconclusive. The Ocean Plan requires that existing effluent limitations for these constituents are retained in the new Order, otherwise the permit shall include a reopener clause to allow for subsequent modification of the permit to include an effluent limitation if monitoring establishes that the discharge causes, has the reasonable potential to cause, or contributes to an excursion above a water quality objective. WQBELs were calculated using monitoring data collected between January 2012 and December 2015. WQBEL values resulting from data collected between January and December 2016 were also evaluated and where different from that calculated in the previous 4 years, were revised. However, where the additional year of data did not result in revision of the WQBELs, the earlier data and derived value are reported.

For Discharge Points 001 and 002, inconclusive results were reported for chlordane, benzidine, DDT, 3,3' dichlorobenzidine, hexchlorobenzene, toxaphene, PCBs, and TCDD equivalents. For chlordane, benzidine, 3,3'dichlorobenzidine, hexchlorobenzene, toxaphene, and TCDD equivalents limits from the previous permit have been met with the existing treatment system and were applied in this Order. The permit includes a reopener to incorporate a new limit or performance goal based on an updated reasonable potential analysis. The pollutants have not been detected in the final effluent, and the Discharger has made, and continues to make, an effort to achieve lower detection limits than are required in the 2015 Ocean Plan or 40 CFR 136. For Discharge Points 001, 002, 003 and 004 limits are applied for chlorine residual, benzidine, chlordane, 3,3'dichlorobenzidine, hexchlorobenzene, toxaphene, and TCDD equivalents. A TMDL has been established for DDT and PCBs, therefore the Order includes WQBELs for these pollutants at Discharge Points 001 and 002, where daily flow occurs. The MRP (Attachment E) of this Order also requires the Discharger to continue to monitor these constituents.

#### 4. **WQBEL Calculations**

From the Table 1 water quality objectives of the Ocean Plan, WQBELs are calculated according to the following equation for all pollutants, except for acute toxicity (if applicable) and radioactivity:

$$C_e = C_o + D_m (C_o - C_s)$$

Where

$C_e$  = the effluent limitation ( $\mu\text{g/L}$ )

$C_o$  = the water quality objective to be met at the completion of initial dilution ( $\mu\text{g/L}$ )

$C_s$  = background seawater concentration ( $\mu\text{g/L}$ ) (see Table F-11 below)

$D_m$  = minimum probable initial dilution expressed as parts seawater per part wastewater

Initial dilution is the process that results in the rapid and irreversible turbulent mixing of wastewater with ocean water around the point of discharge. For a submerged buoyant discharge, characteristic of most municipal and industrial wastes that are released from the submarine outfalls, the momentum of the discharge and its initial buoyancy act together to produce turbulent mixing. Initial dilution in this case is completed when the diluting wastewater ceases to rise in the water column and first begins to spread horizontally.

A 2016 dilution study confirmed that the existing initial dilution factors ( $D_m$ ) can apply. For Discharge Points 001 and 002 the value is 166:1, for Discharge Point 003, 150:1 and for Discharge Point 004, 115:1.



As site-specific water quality data is not available, in accordance with Table 1 implementing procedures, Cs equals zero for all pollutants, except the following:

**Table F-12 Pollutants with Background Seawater Concentration**

Constituent	Background Seawater Concentration (Cs)
Arsenic	3 µg/L
Copper	2 µg/L
Mercury	0.0005 µg/L
Silver	0.16 µg/L
Zinc	8 µg/L

The calculation of WQBELs for nickel, chlorine residual and ammonia are provided below for Discharge Points 001 and 002.

**Table F-13 Ocean Plan Water Quality Objectives (Co)**

Constituents	6-Month Median	Daily Maximum	Instantaneous Maximum
Nickel	5 µg/L	20 µg/L	50 µg/L
Chlorine Residual	2 µg/L	8 µg/L	60 µg/L
Ammonia	0.60 mg/L	2.4 mg/L	6 mg/L

Using the equation,  $C_e = C_o + D_m (C_o - C_s)$ , effluent limitations are calculated as follows, before rounding to two significant digits, for discharge through Discharge Points 001 and 002, with a dilution ratio (Dm) of 166:1. A similar procedure is followed for calculating additional limits, when necessary, for Discharge Points 003 and 004.

**Nickel**

$$C_e = 5 + 166 (5-0) = 835 \text{ µg/L (6 Month Median and Monthly Average)}$$

$$C_e = 20 + 166 (20-0) = 3,340 \text{ µg/L (Daily Maximum)}$$

$$C_e = 50 + 166 (50-0) = 8,350 \text{ µg/L (Instantaneous Maximum)}$$

The 2011 Order contained an average monthly Performance Goal (PG) for nickel of 13 µg/L. There is not reasonable potential for nickel to contribute to an exceedance of an ocean water quality objective at any outfall. The maximum instantaneous value for nickel was 38.4 µg/L and the maximum average monthly was 32.5 µg/L. Both are above the PG of 13 µg/L. On March 27, 2014, the Discharger submitted the results of a study on the source of the nickel. The investigation indicated that the increase in the final effluent nickel and cadmium concentration could be explained by unusually high heavy metal concentrations in ferrous chloride supplied to JOS, which is added to the distribution system upstream of facility to prevent sewer corrosion and control odors. Since all ferrous chloride suppliers are required to comply with JOS's specifications for heavy metal concentrations and regular sampling is conducted to ensure compliance with these specifications, the supplier was able to identify the heavy metal source. The supplier has been providing ferrous chloride with heavy metal concentrations within the specifications required by the JOS since determining the source and there have been no additional nickel performance goal exceedances.

The existing PG is 13 µg/L. While this is below the highest nickel values measured between 2012 and 2015, the results of the study analysis show the performance goal can

be achieved in the current Order. The existing value is maintained as the recalculation of the performance goal would result in a less stringent value

**Chlorine Residual**

$C_e = 2 + 166 (2-0) = 334 \mu\text{g/L} \approx 330 \mu\text{g/L}$  (6 Month Median and Monthly Average)

$C_e = 8 + 166 (8-0) = 1,340 \mu\text{g/L} \approx 1,300 \mu\text{g/L}$  (Daily Maximum)

$C_e = 20 + 166 (60-0) = 10,020 \approx 10,000 \mu\text{g/L}$  (Instantaneous Maximum)

Wastewater disinfection with chlorine usually produces the chlorine residual and the byproducts of chlorination are highly toxic to aquatic life. The maximum monthly chlorine residual at EFF-002A was 180  $\mu\text{g/L}$  and below the 2011 limit of 330  $\mu\text{g/L}$  and the maximum instantaneous concentration was 190  $\mu\text{g/L}$  and below the 2011 limit of 10,000  $\mu\text{g/L}$ . The RPA determination based on daily chlorine residual data shows no reasonable potential for chlorine residual discharge to exceed Ocean Plan limits. However, the daily maximum and instantaneous maximum limitations for chlorine residual are prescribed in this Order based on the facts that effluent from JWPCP is routinely chlorinated before discharge and there is the potential for a high effluent concentration of chlorine residual. As a result, chlorine residual limits are included in this Order, as they were in the 2011 Order. The limits are calculated above and given in Table F-14.

**Table F-14 Proposed Water Quality Objectives ( $C_e$ )**

Constituents	6-Month Median	Daily Maximum	Instantaneous Maximum
Chlorine Ocean @ 001, 002	330 $\mu\text{g/L}$	1,300 $\mu\text{g/L}$	10,000 $\mu\text{g/L}$

**Ammonia**

$C_e = 0.6 + 166 (.6-0) = 100.2 \text{ mg/L} \approx 100 \text{ mg/L}$  (6 Month Median and Monthly Average)

$C_e = 2.4 + 166 (2.4-0) = 400.8 \text{ mg/L} \approx 400 \text{ mg/L}$  (Daily Maximum)

$C_e = 6 + 166 (6-0) = 1,002 \text{ mg/L} \approx 1,000 \text{ mg/L}$  (Instantaneous Maximum)

These ammonia limits are not incorporated into this Order, but the Performance Goal (PG) has been increased from 40 to 47  $\text{mg/L}$ . These values remain lower than the six month median and monthly average limit based on the Ocean Plan of 100  $\text{mg/L}$  which would be met at the edge of the initial dilution plume.

The Discharger completed a special study on ammonia because the average monthly ammonia concentration exceeded the 2011 Performance Goal of 40  $\text{mg/L}$ . The report attributes the increases to regional changes in the sewershed and found that both the influent and effluent ammonia concentrations increased 15 to 20% between 2012 and 2015. Increases in recycling and conservation are the suspected causes and efforts to reduce ammonia concentrations continue.

The performance goal calculated from values through 2015 was 45  $\text{mg/L}$ , but the rate of increase in ammonia concentration is sufficient to re-assess the performance goal based on the additional year of operation between the ROWD submission in 2015 and the release of the tentative in 2017.

Based on the implementing procedures described above, effluent limitations have been calculated for all Table 1 pollutants (excluding acute toxicity and radioactivity) from the 2015 Ocean Plan and incorporated into this Order when applicable.

**Radioactivity:** The water quality objective for radioactivity in the 2015 California Ocean Plan states the value is not to exceed limits specified in Title 17, Division 1, Chapter 5, Subchapter 4, Group 3, Article 3, Section 30253 of the California Code of Regulations and future changes to incorporate provisions of federal law as the changes take effect. This regulation does not establish a numerical effluent limit for radionuclides. Regional Water Board staff used Best Professional Judgment (BPJ) to establish radioactivity performance goals based on a statistical analysis of effluent concentrations using the Minitab program to identify the 99% value for a daily maximum. The calculated Gross Beta performance goal is more stringent than the one in the existing Order and the Gross Alpha performance goal is slightly less stringent when calculated using effluent data from 2012-2016.

Should a study be required to determine the cause of ammonia or radioactivity concentrations above the performance goal, the Discharger shall submit a study plan for approval by the Executive Officer of the Regional Water Board.

5. **Whole Effluent Toxicity (WET).**

Whole effluent toxicity (WET) testing protects receiving waters from the aggregate toxic effect of a mixture of pollutants in the effluent or pollutants that are not typically monitored. An acute toxicity test is conducted over a short time period and measures mortality. A chronic toxicity test is conducted over a short or a longer period of time and may measure a sublethal endpoint such as reproduction or growth in addition to mortality. A constituent present at low concentrations may exhibit a chronic effect; however, a higher concentration of the same constituent may be required to produce an acute effect. Because of the nature of industrial discharges into the POTW sewershed, toxic constituents (or a mixture of constituents exhibiting toxic effects) may be present in the JWPCP effluent.

A total of 62 chronic and 62 acute WET tests were conducted on JWPCP final effluent between February 2011 and August 2015. One exceedance of the 167 TUc maximum daily final effluent limitation was reported for chronic toxicity. The discharge did exhibit reasonable potential to exceed the water quality objectives for chronic toxicity at the discharge points based on 2015 Ocean Plan procedures for calculating reasonable potential. There were no exceedances of the acute toxicity final effluent limitation of 5.3 TUA requirements during this time period; and the discharge did not exhibit reasonable potential to exceed the final effluent limitation acute toxicity criteria in the 2015 Ocean Plan using procedures for calculating reasonable potential.

The 2011 permit contained final effluent limitations for acute and chronic toxicity at Discharge Points 001, 002, 003 and 004. The 2017 permit contains final effluent limitations for chronic toxicity for 001 and 002, expressed as a maximum daily limitation. Since chronic toxicity is a more stringent requirement than acute toxicity, removal of the numeric acute toxicity effluent limitation does not constitute backsliding.

The Ocean Plan addresses the application of chronic and acute toxicity requirements based on minimum probable dilutions (Dm) for ocean discharges. Following the 2015 Ocean Plan, dischargers are required to conduct chronic toxicity monitoring for ocean discharges with Dm factors ranging from 99 to 349 and Regional Water Boards may require acute toxicity monitoring in addition to chronic toxicity monitoring. Dischargers with Dm factors below 99 are required to conduct only chronic toxicity testing. The Dm for Discharge Points 001 and 002 is 166, for Discharge Point 003 is 150 and for Discharge Point 004 is 115. The Dm is more than 99 for all outfalls and because the discharge does exhibit reasonable potential to exceed the water quality objectives for chronic toxicity, a chronic toxicity final effluent limitation has been assigned to Discharge

Points 001 and 002. No acute toxicity final effluent limitations have been assigned to the discharge since it is not required for these discharge points based on the requirements in the 2015 Ocean Plan and since the discharge did not exhibit reasonable potential to exceed the water quality objectives for acute toxicity.

The Ocean Plan establishes a daily maximum chronic toxicity objective of  $1.0 \text{ TU}_c = 100/(\text{No Observed Effect Concentration (NOEC)})$ , using a 5-concentration hypothesis test. In setting the chronic toxicity effluent limitation end conditions for this discharge, the Order continues to use Ocean Plan implementation procedures including:

- (1) West Coast WET Methods/Test Species for monitoring and limiting toxicity;
- (2) The IWC representing the critical condition for water quality protection;
- (3) The initial dilution procedure,  $D_m$ ; and,
- (4) A single toxicity test MDEL for compliance.

However, to improve statistical rigor, rather than directly applying the chronic toxicity objective using the NOEC statistical approach, the Order uses the Test of Significant Toxicity (TST) statistical approach to improve decision making for toxicity. This statistical approach is consistent with the Ocean Plan in that it provides maximum protection to the environment since it more reliably identifies chronic toxicity than the current NOEC hypothesis-testing approach (See 2015 California Ocean Plan, Section III.F and Appendix I; 2010 TST Technical Reference Document; and Diamond et al. 2013 Table 1). Use of the TST is also consistent with a memo dated June 18, 2010, from USEPA Office of Wastewater Management, *Final National Pollutant Discharge Elimination System (NPDES) Test of Significant Toxicity (TST) Implementation Document*.

The effluent data does exhibit reasonable potential to cause or contribute to an exceedance of the chronic toxicity water quality objective, and the JWPCP 2017 Order contains a numeric chronic toxicity effluent limitation for the primary outfalls 001 and 002. Compliance with the chronic toxicity requirement contained in the 2017 Order shall be determined in accordance to sections IX.C of the WDR. This Order contains a reopener to allow the Regional Water Board to modify the permit in the future, if necessary, to make it consistent with any new policy, plan, law, or regulation.

For this permit, chronic toxicity in the discharge is evaluated using a maximum daily effluent limitation that utilizes USEPA's 2010 TST hypothesis testing approach. The chronic toxicity effluent limitation is expressed as "Pass" for each maximum daily individual result.

In January 2010, USEPA published a guidance document titled *EPA Regions 8, 9 and 10 Toxicity Training Tool*, which among other things, discusses permit limit expression for chronic toxicity. The document acknowledges that NPDES regulations at 40 CFR § 122.45(d) require that all permit limits be expressed, unless impracticable, as an Average Weekly Effluent Limitation (AWEL) and an Average Monthly Effluent Limitation (AMEL) for POTWs. Following Section 5.2.3 of the Technical Support Document (TSD), the use of an AWEL is not appropriate for WET. In lieu of an AWEL for POTWs, USEPA recommends establishing a Maximum Daily Effluent Limitation (MDEL) for toxic pollutants and pollutants in water quality permitting, including WET. For an ocean discharge, this is appropriate because the 2015 Ocean Plan only requires a MDEL and does not include Average Monthly or Average Weekly Effluent Limitations for chronic toxicity (See 2015 California Ocean Plan, section II.D.7.).

The MDEL is the highest allowable value for the discharge measured during a calendar day or 24-hour period representing a calendar day. In June 2010, USEPA published

another guidance document titled *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, June 2010), in which they recommend the following: "Permitting authorities should consider adding the TST approach to their implementation procedures for analyzing valid WET data for their current NPDES WET Program." The TST approach is another statistical option for analyzing valid WET test data. Use of the TST approach does not result in any changes to EPA's WET test methods. Section 9.4.1.2 of USEPA's *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms* (EPA/600/R-95/0136, 1995), recognizes that, "the statistical methods recommended in this manual are not the only possible methods of statistical analysis." The TST approach can be applied to acute (survival) and chronic (sublethal) endpoints and is appropriate to use for both freshwater and marine EPA WET test methods.

The interpretation of the measurement result from USEPA's TST statistical approach (Pass/Fail) for effluent and receiving water samples is, by design, independent from the concentration-response patterns of the toxicity tests for samples when it is required. Therefore, when using the TST statistical approach, application of EPA's 2000 guidance on effluent and receiving waters concentration-response patterns will not improve the appropriate interpretation of TST results as long as all Test Acceptability Criteria and other test review procedures – including those related to Quality Assurance for effluent and receiving water toxicity tests, reference toxicant tests, and control performance (mean, standard deviation, and coefficient of variation) – described by the WET test methods manual and TST guidance, are followed. The 2000 guidance may be used to identify reliable, anomalous, or inconclusive concentration-response patterns and associated statistical results to the extent that the guidance recommends review of test procedures and laboratory performance already recommended in the WET test methods manual. The guidance does not apply to single concentration (IWC) and control statistical t-tests and does not apply to the statistical assumptions on which the TST is based. The Regional Water Board will not consider a concentration-response pattern as sufficient basis to determine that a TST t-test result for a toxicity test is anything other than valid, absent other evidence. In a toxicity laboratory, unexpected concentration-response patterns should not occur with any regular frequency and consistent reports of anomalous or inconclusive concentration-response patterns or test results that are not valid will require an investigation of laboratory practices.

Any Data Quality Objectives or Standard Operating Procedure used by the toxicity testing laboratory to identify and report valid, invalid, anomalous, or inconclusive effluent or receiving water toxicity test measurement results from the TST statistical approach which include a consideration of concentration-response patterns and/or percent minimum significant difference (PMSD) must be submitted for review by the Regional Water Board, in consultation with USEPA and the State Water Board's Quality Assurance Officer and Environmental Laboratory Accreditations Program (40 CFR § 122.44(h)). The PMSD criteria only apply to compliance for NOEC and the sublethal endpoints of the NOEC, and therefore are not used to interpret TST results, barring Test Acceptability Criteria (TAC).

#### **D. Final Effluent Limitation Considerations**

##### **1. Anti-Backsliding Requirements.**

The final effluent limitations in this Order are at least as stringent as the effluent limitations in the previous Order, No. R4-2011-0151. Section 402(o)(2) of the CWA provides statutory exceptions to the general prohibition of backsliding contained in CWA section 402(o)(1).

The results of the reasonable potential analysis for PCB and DDT continue to be inconclusive. NPDES regulations at § 122.44(d)(1)(vii)(B), however, require that NPDES permits include effluent limitations developed consistent with the assumptions and requirements of any WLA that has been assigned to the discharge as part of an approved TMDL. The PCB and DDT limits at Discharge Points 001 and 002 were revised to those established in the 2012 *Santa Monica Bay Total Maximum Daily Loads for DDTs and PCBs* based on the discharge of 100 % of the flow to 001 and 002. The effluent limitations for both PCBs and DDTs have become more stringent than those found in the previous Order. The effluent limitations for PCBs and DDT in this Order are based on the TMDL, adopted consistent with CWA section 303(d)(4) and the TMDL assures attainment of the water quality standards.

The final effluent limitations for DDT and PCB, as well as for acute and chronic toxicity, were removed at Discharge Points 003 and 004 because no discharge takes place at these outfalls except under emergency conditions during extreme storm events. In addition, the TMDL for DDT and PCB assumes no effluent is discharged at these outfalls.

The accompanying monitoring and reporting program requires continued data collection and if monitoring data show reasonable potential for a constituent to cause or contribute to an exceedance of water quality standards, the Order will be reopened to incorporate WQBELs. Such an approach ensures that the discharge will adequately protect water quality standards for designated beneficial uses and conform with antidegradation policies and antibacksliding provisions.

## 2. **Antidegradation Policies**

This Order includes both narrative and numeric final effluent limitations, receiving water limitations, performance goals, and mass emission benchmarks to maintain the chemical, physical, and biological characteristics, and to protect the beneficial uses of the receiving water. These requirements ensure that all water quality objectives are being met outside the zone of initial dilution, thereby maintaining the beneficial uses. The Ocean Plan allows for minimal degradation within the zone of initial dilution as long as the water quality objectives are maintained just outside the zone of initial dilution. The minimal degradation permitted by the Ocean Plan is consistent with the antidegradation policy because it maintains maximum benefit to the people of the State, it will not unreasonably affect the present and anticipated beneficial uses, and it will not result in water quality less than that prescribed in the policies.

The effluent limitations at Discharge Points 001 and 002 for PCBs and DDT made more restrictive based upon the Santa Monica Bay DDT and PCB TMDL. The remaining final effluent limitations in Order R4-2011-0151 for these outfalls were not removed because the pollutants continue to show reasonable potential to cause or contribute to an exceedance of the water quality objectives in the Ocean Plan, or could not be measured with sufficient precision to ensure those objectives were protected. The removal of the PCB, DDT, acute toxicity and chronic toxicity effluent limitations for the Discharge Points 003 and 004 are consistent with the antidegradation provisions of 40 CFR part 131.12 and State Water Board Resolution No. 68-16 because the discharge at these outfalls will not degrade existing high quality water. Discharge to these outfalls only occur during emergency conditions when storm conditions exceed the hydraulic capacity of the outfalls 001 and 002.

The mass-based final effluent limitations and mass emission benchmarks continue to be based on the 1997 average design flow rate of 385 MGD, even though the design flow rate has been 400 MGD since full secondary treatment was implemented. Average daily

flow rates generally declined since 2012 and averaged 260 MGD in 2016. As the discharge continues to drop, the quantity of pollutants discharged is expected to remain relatively constant or improve during the permit term.

The mass emission benchmarks are an additional incentive for the Discharger to maintain the current treatment quality since they set final effluent targets for the Discharger to meet based on current performance. Since the mass emission benchmarks are based on performance and do not exceed the water quality objectives for the receiving water, the increase of any mass emission benchmarks is not expected to result in additional degradation.

**3. Stringency of Requirements for Individual Pollutants**

This Order contains both technology-based and water quality-based effluent limitations for individual pollutants. The technology-based effluent limitations consist of restrictions on BOD<sub>5</sub>20°C, TSS, and pH. Restrictions on BOD<sub>5</sub>20°C, TSS, and pH are discussed in section IV.B. of this Fact Sheet. This Order's technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements.

Water quality-based effluent limitations have been derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and the water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. The scientific procedures for calculating individual water quality-based effluent limitations for priority pollutants are based on the 2015 Ocean Plan, which became effective on January 28, 2016. All beneficial uses and water quality objectives contained in the Basin Plan were approved under State law and approved by USEPA. Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA and applicable water quality standards.

**Table F-15. Summary of Final Effluent Limitations for Discharge Points 001 and 002.**

Parameter	Units	Effluent Limitations				Performance Goal <sup>4</sup>	Basis
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Maximum		
BOD <sub>5</sub> 20°C	mg/L	30	45	--	--	--	Existing/ Secondary treatment standard
	lbs/day	96,300	145,000	--	--		
	% removal	85	--	--	--		
TSS	mg/L	30	45	--	--	--	
	lbs/day	96,300	144,500	--	--		
	% removal	85	--	--	--		
pH	pH unit	6.0 – 9.0					
Oil and Grease	mg/L	15	22.5	45	75	--	Existing/ Ocean Plan
	lbs/day	48,200	72,200	144,500	241,000		
Settleable Solids	ml/L	0.5	0.75	1.5	3.0	--	Existing/ Ocean Plan
Turbidity	NTU	75	100	--	225	--	Existing/ Ocean Plan

<sup>4</sup> See Procedures for the determination of performance goals at section V. of Fact Sheet.

Parameter	Units	Effluent Limitations				Performance Goal <sup>4</sup>	Basis
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Maximum		
<b>Marine Aquatic Life Toxicants</b>							
Arsenic	µg/L	--	--	--	--	2.5	No RP
Cadmium	µg/L	--	--	--	--	0.1	No RP
Chromium (VI)	µg/L	--	--	--	--	1.5 <sup>5</sup>	No RP
Copper	µg/L	--	--	--	--	4.9 <sup>6</sup>	No RP
Lead	µg/L	--	--	--	--	0.4 <sup>7</sup>	No RP
Mercury	µg/L	--	--	--	--	0.04	No RP
Nickel	µg/L					13	No RP
Silver	µg/L	--	--	--	--	0.2	No RP
Selenium	µg/L	--	--	--	--	11 <sup>8</sup>	No RP
Zinc	µg/L	--	--	--	--	17 <sup>9</sup>	No RP
Cyanide	µg/L	--	--	--	--	10 <sup>10</sup>	No RP
<b>Chlorine Residual</b>	µg/L	330	--	1,300	10,000		No RP, BPJ
Ammonia as N	mg/L					47 <sup>11</sup>	No RP,
Phenolic compounds (non-chlorinated)	µg/L	--	--	--	--	3.6	No RP
Phenolic compounds (chlorinated)	µg/L	--	--	--	--	1.9	No RP
Endosulfan	µg/L	--	--	--	--	0.015	No RP
HCH	µg/L	--	--	--	--	0.015	No RP

- <sup>5</sup> The existing performance goal of 1.5 µg/L is used, and it is below the Ocean Plan limit.
- <sup>6</sup> Previous PG of 4.9 µg/L is carried forward based on best professional judgement because Discharger's special study was not able to identify and resolve a copper PG exceedance of 7.3 µg/L, and new information would otherwise call for a relaxation of the PG.
- <sup>7</sup> Existing PG of 0.4 µg/L is carried forward based on BPJ because Discharger's special study did not identify and resolve a lead PG exceedance of 0.59 µg/L, and new information would otherwise call for a relaxation of the PG.
- <sup>8</sup> The PG is calculated from 2003-2005 effluent data, before temporary and more stringent limits were imposed by the Discharger in 2006 for petroleum refinery discharges to comply with pretreatment requirements based on biosolids limits for composting and after full secondary treatment began in 2002. The PG was revised based on new information about the appropriate level of protection for marine and freshwater aquatic life.
- <sup>9</sup> The zinc performance goal is based on water quality information collected through December of 2016 and applied here because it is more accurate than the goal of 15.5 µg/L calculated from data through December of 2015.
- <sup>10</sup> The cyanide performance goal is based on water quality information collected through December of 2016 and applied here because it is more accurate than the goal of 11 µg/L calculated from data through December of 2015.
- <sup>11</sup> The ammonia performance goal is based on water quality information collected through December of 2016 and applied here because it is more accurate than the goal of 45 mg/L calculated from data collected through December of 2015.



Parameter	Units	Effluent Limitations				Performance Goal <sup>4</sup>	Basis
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Maximum		
Endrin	µg/L	--	--	--	--	0.01	No RP
<b>Chronic toxicity(TST)</b>	Pass or Fail	--	--	Pass	--	--	RP/Ocean Plan/BPJ
Radioactivity							
Gross alpha	pCi/L	--	--	--	--	10.9	No RP, BPJ
Gross beta	pCi/L	--	--	--	--	30.5	No RP, BPJ
<b>Human Health Toxicants – Non Carcinogens</b>							
Acrolein	µg/L	--	--	--	--	5.2	No RP
Antimony	µg/L	--	--	--	--	6.8 <sup>12</sup>	No RP
Bis (2-chloroethoxy) methane	µg/L	--	--	--	--	1.3	No RP
Bis (2-chloroisopropyl) ether	µg/L	--	--	--	--	1.6	No RP
Chlorobenzene	µg/L	--	--	--	--	1.2	No RP
Chromium (III)	µg/L					2.9 <sup>13</sup>	No RP
Di-n-butylphthalate	µg/L	--	--	--	--	4.4	No RP
Dichlorobenzenes	µg/L	--	--	--	--	0.5	No RP
Diethyl phthalate	µg/L	--	--	--	--	2.1	No RP
Dimethyl phthalate	µg/L	--	--	--	--	1.9	No RP
2-Methyl-4,6-dinitrophenol	µg/L	--	--	--	--	13	No RP
2,4-Dinitrophenol	µg/L	--	--	--	--	17	No RP
Ethyl benzene	µg/L	--	--	--	--	1.9	No RP
Fluoranthene	µg/L	--	--	--	--	1.9	No RP
Hexachlorocyclopentadine	µg/L	--	--	--	--	7.5	No RP
Nitrobenzene	µg/L	--	--	--	--	2.2	No RP
Thallium	µg/L	--	--	--	--	0.6	No RP
Toluene	µg/L	--	--	--	--	0.5	No RP
Tributyltin	µg/L	--	--	--	--	0.01	Inconclusive RP, Existing PG

<sup>12</sup> The antimony performance goal is based on water quality information collected through December of 2016 and applied here because it is more accurate than the goal of 6.3 µg/L calculated from data through December of 2015.

<sup>13</sup> Due to a low detection frequency and no reasonable potential, the previous value of 2.9 µg/L was used.

Parameter	Units	Effluent Limitations				Performance Goal <sup>4</sup>	Basis
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Maximum		
1,1,1-Trichloroethane	µg/L	--	--	--	--	1.8	No RP
Human Health Toxicants – Carcinogens							
Acrylonitrile	µg/L	--	--	--	--	2.7	No RP
Aldrin	µg/L	--	--	--	--	0.0037	No RP
Benzene	µg/L	--	--	--	--	0.75	No RP
Benzidine	µg/L	0.012	--	--	--	-	Inconclusive RP, Existing Limit
	lbs/day	0.039	--	--	--	--	
Beryllium	µg/L	--	--	--	--	0.15	No RP
Bis (2-chloroethyl) ether	µg/L	--	--	--	--	0.95	No RP
Bis (2-ethylhexyl) phthalate	µg/L	--	--	--	--	14	No RP
Carbon tetrachloride	µg/L	--	--	--	--	1.0	No RP
Chlordane	µg/L	0.0038	--	--	--		Inconclusive RP, Existing Limit
	lbs/day	0.012	--	--	--		
Chloro-dibromo-methane	µg/L	--	--	--	--	0.6	No RP
Chloroform	µg/L	--	--	--	--	25.4	No RP
DDT	µg/L	0.0158	--	--	--	--	TMDL limit
	lbs/day	0.051	--	--	--	--	
1,4-Dichlorobenzene	µg/L	--	--	--	--	1.0	No RP
3,3'dichlorobenzidine	µg/L	1.4	--	--	--		Inconclusive RP, Existing Limit
	lbs/day	4.5					
1,2-Dichloroethane	µg/L	--	--	--	--	0.6	No RP
1,1-Dichloroethylene	µg/L	--	--	--	--	1.1	No RP
Bromodichloroethane	µg/L	--	--	--	--	1.5	No RP
Dichloromethane	µg/L	--	--	--	--	3.0	No RP

Parameter	Units	Effluent Limitations				Performance Goal <sup>4</sup>	Basis
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Maximum		
1,3-Dichloropropene	µg/L	--	--	--	--	0.65	No RP
Dieldrin	µg/L	--	--	--	--	0.005	No RP
2,4-Dinitrotoluene	µg/L	--	--	--	--	1.0	No RP
1,2-Diphenylhydrazine	µg/L	--	--	--	--	0.65	No RP
Halo-methanes	µg/L	--	--	--	--	1.0	No RP
Heptachlor	µg/L	--	--	--	--	0.005	No RP
Heptachlor epoxide	µg/L	--	--	--	--	0.0033	No RP
Hexachlorobenzene	µg/L	0.035	--	--	--		Inconclusive RP, Existing Limit
	lbs/day	0.11	--	--	--		
Hexachlorobutadiene	µg/L	--	--	--	--	0.7	No RP
Hexachloroethane	µg/L	--	--	--	--	0.7	No RP
Isophorone	µg/L	--	--	--	--	0.65	No RP
N-Nitrosodimethylamine	µg/L	--	--	--	--	0.7	No RP
N-Nitrosodi-N-propylamine	µg/L	--	--	--	--	0.6	No RP
N-Nitrosodiphenylamine	µg/L	--	--	--	--	0.75	No RP
PAHs	µg/L	--	--	--	--	0.95	No RP
PCBs	µg/L	0.00035	--	--	--	--	TMDL limit
	lbs/day	0.001	--	--	--	--	
TCDD equivalents	pg/L	0.65	--	--	--		Inconclusive RP, Existing Limit
	lbs/day	2.1 x10 <sup>-6</sup>					
1,1,2,2-Tetrachloroethane	µg/L	--	--	--	--	0.4	No RP
Tetrachloroethylene	µg/L	--	--	--	--	20	No RP
Toxaphene	µg/L	0.035	--	--	--	--	Inconclusive RP, Existing Limit
	lbs/day	0.11	--	--	--	--	
Trichloroethylene	µg/L	--	--	--	--	0.85	No RP
1,1,2-Trichloroethane	µg/L	--	--	--	--	0.45	No RP
2,4,6-Trichlorophenol	µg/L	--	--	--	--	0.6	No RP

Parameter	Units	Effluent Limitations				Performance Goal <sup>4</sup>	Basis
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Maximum		
Vinyl chloride	µg/L	--	--	--	--	1.3	No RP

**Table F-16. Summary of Final Effluent Limitations for Discharge Point 003**

Parameter	Units	Effluent Limitations				Basis
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Maximum	
Chlorine Residual	µg/L	300		1,230	9,100	RP by BPJ/ Ocean Plan
Benzidine	µg/L	0.01				Inconclusive RP, Existing Limit
Chlordane	µg/L	0.003	--	--	--	Inconclusive RP, Existing Limit
3,3' -dichloror-benzidine	µg/L	1.2	--	--	--	Inconclusive RP, Existing Limit
Hexachloro-benzene	µg/L	0.032	--	--	--	Inconclusive RP, Existing Limit
TCDD equivalent	pg/L	0.59	--	--	--	Inconclusive RP, Existing Limit
Toxaphene	µg/L	0.032	--	--	--	Inconclusive RP, Existing Limit

**Table F-17. Summary of Final Effluent Limitations for Discharge Point 004**

Parameter	Units	Effluent Limitations				Basis
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Maximum	
Chlorine Residual	µg/L	230	--	930	7,000	RP by BPJ/Ocean Plan
Benzidine	µg/L	0.008				Inconclusive RP, Existing Limit
Chlordane	µg/L	0.003	--	--	--	Inconclusive RP, Existing Limit
3,3' -dichlororo-benzidine	µg/L	0.93	--	--	--	Inconclusive RP, Existing Limit
Hexachloro-benzene	µg/L	0.024	--	--	--	Inconclusive RP, Existing Limit
TCDD equivalent	pg/L	0.45	--	--	--	Inconclusive RP, Existing Limit
Toxaphene	µg/L	0.024	--	--	--	Inconclusive RP, Existing Limit

- E. Interim Effluent Limitations – Not Applicable**
- F. Land Discharge Specifications – Not Applicable**
- G. Recycling Specifications – Not Applicable**

## V. PERFORMANCE GOALS

Section III.F.1, of the 2015 Ocean Plan allows the Regional Water Board to establish more restrictive water quality objectives and effluent limitations than those set forth in the 2015 Ocean Plan as necessary for the protection of the beneficial uses of ocean waters.

Pursuant to this provision and to implement the recommendation of the Water Quality Advisory Task Force (Working Together for an Affordable Clean Water Environment, A final report presented to the California Water Quality Control Board, Los Angeles Region by Water Quality Advisory Task Force, September 30, 1993) that was adopted by the Regional Water Board on November 1, 1993, performance goals that are more stringent than those based on Ocean Plan objectives are prescribed in this Order. This approach is consistent with the antidegradation policy in that it requires the Discharger to maintain its treatment level and effluent quality, recognizing normal variations in treatment efficiency and sampling and analytical techniques. However, this approach does not address substantial changes in treatment plant operations that could significantly affect the quality of the treated effluent.

While performance goals were previously placed in many POTW permits in the Region, they have been discontinued for inland surface water discharges. For inland surface waters, the California Toxics Rule (40 CFR § 131.38) has resulted in effluent limitations as stringent as many performance goals. However, the Ocean Plan allows for significant dilution, and the continued use of performance goals serves to maintain existing treatment levels and effluent quality and supports State and federal antidegradation policies.

The performance goals are based upon the actual performance of the JWPCP and are specified only as an indication of the treatment efficiency of the Facility. Performance goals are intended to minimize pollutant loading (primarily for toxics), while maintaining the incentive for future voluntary improvement of water quality whenever feasible, without the imposition of more stringent limits based on improved performance. They are not considered enforceable limitations or standards for the regulation of the discharge from the treatment facility. The Executive Officer may modify any of the performance goals if the Discharger requests and has demonstrated that the change is warranted.

### A. Procedures for the Determination of Performance Goals

For constituents that have been routinely detected in the effluent (at least 20 percent detectable data), performance goals are based on the one-sided, upper 95 percent confidence bound for the 95th percentile of the effluent performance data (UCB95/95) from January 2012 through December 2015 using the RPA protocol contained in the 2015 Ocean Plan. The change in performance goal for all the constituents, resulting from evaluating data through December 2016, was considered and applied where a change was identified. Effluent data are assumed log normally distributed. Performance goals are calculated according to the equation  $PG = C_o + D_m (C_o - C_s)$  and setting  $C_o = UCB95/95$ .

1. If the maximum detected effluent concentration (MEC) is greater than the calculated performance goal, then the calculated performance goal is used as the performance goal;
2. If the maximum detected effluent concentration is less than the calculated performance goal, then the MEC is used as the performance goal, or;
3. If the performance goal determined in part 1 or 2 is greater than the WQO in the 2015 Ocean Plan after considering dilution, then the WQO is used as the performance goal'

For example, the performance goal for arsenic at Discharge Points 001 and 002 are calculated as follows:

**Arsenic**

$$C_o = UCB95/95 = 2.9965; D_m = 166; C_s = 3$$

$$CPG = \text{Performance Goal} = 2.9965 + 166(2.9965-3) = 2.46 \mu\text{g/L}$$

- B. For constituents where monitoring data have consistently shown nondetectable levels (less than 20 percent detectable data), the existing performance goals are maintained. If the maximum detected effluent concentration is less than the calculated value based on ML, then the MEC is used as the performance goal.
- C. For constituents with effluent limitations, if the performance goal derived from the steps, above, exceeds respective effluent limitation, then a performance goal is not prescribed for that constituent.

Performance goals for Discharge Points 001 and 002 are prescribed in this Order. The listed performance goals are not enforceable effluent limitations or standards. The Discharger shall maintain, if not improve, its treatment efficiency. Any two exceedances of the performance goals shall trigger an investigation into the cause of the exceedance. If the exceedance persists in three successive monitoring periods, the Discharger shall submit a written report to the Regional Water Board on the nature of the exceedance, the results of the investigation as to the cause of the exceedance, and the corrective actions taken or proposed corrective measures with timetable for implementation, if necessary.

**VI. RATIONALE FOR RECEIVING WATER LIMITATIONS.**

**A. Surface Water**

The Basin Plan and the Ocean Plan contain numeric and narrative water quality objectives applicable to all surface waters within the Los Angeles Region. Water quality objectives include an objective to maintain the high quality waters pursuant to federal regulations (40 CFR 131.12) and State Water Board Resolution No. 68-16. Receiving water limitations in the tentative Order are included to ensure protection of beneficial uses of the receiving water.

**B. Groundwater – Not Applicable.**

**VII. MASS EMISSION BENCHMARKS**

To address the uncertainty due to potential increases in toxic pollutant loadings from the Joint Water Pollution Control Treatment Plant discharge to the marine environment during the five-year permit term and to establish a framework for evaluating the need for an antidegradation analysis to determine compliance with State and federal antidegradation requirements at the time of permit reissuance, 12-month average mass emission benchmarks have been established for effluent discharged through the 90-inch and 120-inch Outfalls (Discharge Points 001 and 002). These mass emission benchmarks are not enforceable water quality based effluent limitations. They may be re-evaluated and revised during the five-year permit term. The mass emission benchmarks (in metric tons per year; MT/yr) for the JWPCP discharge were determined using the same procedure as described in section V of this Fact Sheet for the calculation of the Performance Goals. The concentration-based Performance Goals were calculated using data from January 2012 through December 2016 and were converted to mass-based Benchmarks using the 1997 average design flow rate of 385 MGD. The following equation was used for the calculation of the Mass Emission Benchmarks:

$$MT/yr = (C_e \mu\text{g/L}) \times (\text{Flow, } Q, 10^6 \text{ gal/day}) \times (3.785 \text{ L/gal}) \times (365 \text{ days/yr}) \times (1 \text{ MT}/10^{12} \mu\text{g/L})$$

Mass Emission Caps were assigned to copper, lead, silver, and zinc, in previous Orders to further protect the beneficial uses and to protect the Santa Monica Bay from further degradation; however, Mass Emission Benchmarks serve the same purpose and have been established for these metals of concern.

## VIII. RATIONALE FOR PROVISIONS.

### A. Standard Provisions

Standard Provisions, which apply to all NPDES permits in accordance with 40 CFR section 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 CFR section 122.42, are provided in Attachment D to the Order.

Sections 122.41(a)(1) and (b) through (n) of 40 CFR establish conditions that apply to all State-issued NPDES permits. These conditions must be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to the regulations must be included in the Order. Section 123.25(a)(12) allows the state to omit or modify conditions to impose more stringent requirements. In accordance with 40 CFR section 123.25, this Order omits federal conditions that address enforcement authority specified in 40 CFR sections 122.41(j)(5) and (k)(2) because the enforcement authority under the CWC is more stringent. In lieu of these conditions, this Order incorporates by reference CWC section 13387(e).

### B. Special Provisions

#### 1. Reopener Provisions

These provisions are based on 40 CFR § 123.25. The Regional Water Board may reopen the Order to modify conditions and requirements. Causes for modifications can include, but are not limited to, the promulgation of new regulations, modification in biosolids use or disposal practices, or adoption of new regulations by the State Water Board or Regional Water Board, including revisions to the Ocean Plan and Basin Plan.

#### 2. Special Studies and Additional Monitoring Requirements

- a. **Antidegradation Analysis and Engineering Report for Proposed Plant Expansion:** This provision is based on the State Water Board Resolution No. 68-16, which requires the Regional Water Board in regulating the discharge of waste to maintain high quality waters of the state. The Discharger must demonstrate that it has implemented adequate controls (e.g., adequate treatment capacity) to ensure that high quality waters will be maintained. This provision requires the Discharger to clarify that it has increased plant capacity through the addition of new treatment system(s) to obtain alternative effluent limitations for the discharge from the treatment system(s). This provision requires the Discharger to report specific time schedules for the plant's projects. This provision requires the Discharger to submit a report to the Regional Water Board for approval.
- b. **Operations Plan for Proposed Expansion.** This provision is based on section 13385(j)(1)(D) of the CWC and allows a time period not to exceed 90 days in which the Discharger may adjust and test the treatment system(s). This provision requires the Discharger to submit an Operations Plan describing the actions the Discharger will take during the period of adjusting and testing to prevent violations.
- c. **Treatment Plant Capacity.** The treatment plant capacity study required by this Order shall serve as an indicator for the Regional Water Board regarding the Facility's increasing hydraulic capacity and growth in the service area.
- d. **Toxicity Reduction Evaluation (TRE) Requirements.** If the discharge consistently exceeds an effluent limitation for toxicity as specified in this Order, the Discharger shall conduct a TRE as detailed in section V of the MRP (Attachment E). The TRE

will help the Discharger identify the possible source(s) of toxicity. The Discharger shall take all reasonable steps to reduce toxicity to the required level.

3. **Best Management Practices and Pollution Prevention**

- a. **Spill Clean-Up Contingency Plan (SCCP):** Since spills or overflows are a common event at the POTW, this Order requires the Discharger to review and update, if necessary, its SCCP after each incident. The Discharger shall ensure that the up-to-date SCCP is readily available to the sewage system personnel at all times and that the sewage personnel are familiar with it.
- b. **Pollutant Minimization Program (PMP):** This provision is based on the requirements of section III.C.9 of the Ocean Plan.

4. **Construction, Operation, and Maintenance Specifications**

This provision is based on the requirements of 40 CFR §122.41(e) and the previous Order.

5. **Special Provisions for Publicly-Owned Treatment Works (POTWs)**

- a. **Sludge (Biosolids) Requirements.** To implement CWA section 405(d), on February 19, 1993, USEPA promulgated 40 CFR § 503 to regulate the use and disposal of municipal sewage sludge. This regulation was amended on September 3, 1999. The regulation requires that producers of sewage sludge meet certain reporting, handling, and disposal requirements. It is the responsibility of the Discharger to comply with said regulations that are enforceable by USEPA, because California has not been delegated the authority to implement this program. The Discharger is also responsible for compliance with WDRs and NPDES permits for the generation, transport and application of biosolids issued by the State Water Board, other Regional Water Boards, Arizona Department of Environmental Quality or USEPA, to whose jurisdiction the Facility's biosolids will be transported and applied.
- b. **Pretreatment Program Requirements.** This permit contains pretreatment requirements consistent with applicable effluent limitations, national standards of performance, and toxic and performance effluent standards established pursuant to Sections 208(b), 301, 302, 303(d), 304, 306, 307, 403, 404, 405, and 501 of the CWA, and amendments thereto. This permit contains requirements for the implementation of an effective pretreatment program pursuant to Section 307 of the CWA; 40 CFR § 35 and 403; and/or Section 2233, Title 23, CCR.
- c. **Spill Reporting Requirements for POTWs.** This Order established a reporting protocol for how different types of spills, overflows, and bypasses of raw or partially treated sewage from the POTW shall be reported to regulatory agencies.
- d. **Collection System.** The State Water Board issued General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order 2006-0003-DWQ (General Order) on May 2, 2006. The State Water Board amended the Monitoring and Reporting Program for the General Order through Order WQ 2013-0058-EXEC on August 6, 2013. The General Order requires public agencies that own or operate sanitary sewer systems with sewer lines one mile of pipe or greater to enroll for coverage and comply with the General Order. The General Order requires agencies to develop sanitary sewer management plans and report all sanitary sewer overflows, among other requirements and prohibitions
- e. **Co-Digestion of Hauled-In Anaerobically Digestible Waste.** On September 25, 2013, the State Water Resource Control Board identified the conditions under which a POTW might add anaerobically digestible material to the waste stream without a



Process Facility/Transfer Station permit from the California Department of Resources Recycling and Recovery (CalRecycle). A pilot program to treat these wastes has been in operation at the JWPCP since February 2014 using standard operating procedures (SOP) developed in that year. The Discharger shall meet the following the requirements before full scale operation:

- i. The Regional Water Board shall be notified that the operation has commenced.
- ii. The Discharger shall report the hauler, waste type and quantity of the hauled-in waste in each annual monitoring report.
- i. The Discharger shall develop and implement standard operating procedures (SOP) for this activity within 90 days if the operation is ongoing, or prior to the initiation of hauling. The SOP shall include:
  - (1) A description of the anaerobically digestible material (ADM) to be treated using descriptors defined in CalRecycle regulations;
  - (2) A description of material handling procedures, including uploading, screening, or other processing, prior to anaerobic digestion;
  - (3) Transportation requirements;
  - (4) A plan for spill prevention and spill response;
  - (5) A description of procedures to be used to avoid the introduction of materials which could cause interference, pass-through, or upset of the treatment process, to avoid the introduction of prohibited materials, to control vectors and odors, and define annual, monthly and daily operation and maintenance;
  - (6) A plan for the disposition of any solid waste segregated before introduction to the digester;
  - (7) A training plan on the SOP for staff;
  - (8) Procedures to maintain records for a minimum of three years for each load received describing the hauler, waste type, and quantity received; and,
  - (9) Procedures to maintain records for a minimum of three years on the disposition, location and quantity of cumulative pre-digestion-segregated solid waste hauled off site.

**6. Other Special Provisions – Not applicable**

**7. Compliance Schedules – Not applicable**

**IX. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS.**

CWA section 308 and 40 CFR sections 122.41(h), (j)-(l), 122.44(i), and 122.48 require that all NPDES permits specify monitoring and reporting requirements. CWC sections 13267 and 13383 also authorize the Regional Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. The MRP, Attachment E of this Order establishes monitoring, reporting, and recordkeeping requirements that implement federal and state requirements. The

following provides the rationale for the monitoring and reporting requirements contained in the MRP for this facility.

**A. Influent Monitoring**

Influent monitoring is required to determine compliance with NPDES permit conditions, assess treatment plant performance; and, assess effectiveness of the Pretreatment Program.

Influent monitoring in this Order follows the influent monitoring requirements in the previous Order with minor changes. The monitoring frequencies for some parameters have been increased due to RP for those parameters.

**B. Effluent Monitoring**

The Discharger is required to conduct monitoring of the permitted discharges in order to evaluate compliance with permit limitations and conditions. Monitoring requirements are specified in the MRP (Attachment E). This Order requires compliance with the MRP, and is based on 40 CFR § 122.48, 122.44(i), 122.41(j), 122.62, 122.63, and 124.5. The MRP is a standard requirement in almost all NPDES permits (including this Order) issued by the Regional Water Board . In addition to containing definition of terms, it specifies general sampling/analytical protocols and the requirements of reporting spills, violation, and routine monitoring data in accordance with NPDES regulations, the CWC, and Regional Water Board policies. The MRP also contains sampling program specific for the Discharger's wastewater treatment plant. It defines the sampling stations and frequency, pollutants to be monitored, and additional reporting requirements. Pollutants to be monitored include all pollutants for which effluent limitations are specified.

Monitoring for those pollutants expected to be present in the discharge from the facility, will be required as shown on the proposed MRP (Attachment E) and as required in the Ocean Plan.

Monitoring frequency for the constituents is based on historic monitoring frequency, Best Professional Judgment, and the following criteria:

Criterion 1: Monitoring frequency will be monthly for those pollutants with reasonable potential to exceed water quality objectives (monitoring has shown an exceedance of the objectives);

Criterion 2: Monitoring frequency will be quarterly for those pollutants in which some or all of the historic effluent monitoring data detected the pollutants, but without reasonable potential to exceed water quality objectives; and

Criterion 3: Monitoring frequency will be semiannually for those pollutants in which all of the historic effluent monitoring data have had non-detected concentrations of the pollutants and without current reasonable potential to exceed water quality objectives.

**Table F-18. Effluent Monitoring Frequency Comparison**

Parameter	Monitoring Frequency (2010 Permit)	Monitoring Frequency (2017 Permit)
Flow	continuous	no change
BOD <sub>5</sub> 20°C	daily	weekly
Total Suspended Solids	daily	weekly
pH	weekly	weekly
Oil and Grease	weekly	weekly
Temperature	continuous	no change
Total Organic Carbon	monthly	no change

Parameter	Monitoring Frequency (2010 Permit)	Monitoring Frequency (2017 Permit)
Settleable Solids	daily	weekly
Dissolved Oxygen	weekly	no change
Turbidity	weekly	no change
Nitrate Nitrogen	quarterly	no change
Arsenic	monthly	no change
Cadmium	monthly	no change
Chromium	monthly	no change
Copper	monthly	no change
Lead	monthly	no change
Mercury	monthly	no change
Nickel	monthly	no change
Selenium	monthly	no change
Silver	monthly	no change
Zinc	monthly	no change
Cyanide	monthly	no change
Total Residual Chlorine (Discharge Point 001 Only)	daily	no change
Ammonia Nitrogen	weekly	no change
Toxicity, Chronic	monthly	no change
Toxicity, Acute	monthly	removed
Phenolic Compounds (non-chlorinated)	quarterly	semiannually <sup>14</sup>
Phenolic Compounds (chlorinated)	quarterly	semiannually <sup>14</sup>
Endosulfan	quarterly	semiannually <sup>14</sup>
Endrin	quarterly	semiannually <sup>14</sup>
HCH	quarterly	semiannually <sup>14</sup>
Radioactivity (including gross alpha, gross beta, combined radium-226 & radium-228, tritium, strontium-90 and uranium)	monthly	no change
Acrolein	quarterly	semiannually <sup>14</sup>
Antimony	quarterly	no change
Bis(2-chloroethoxy) methane	quarterly	semiannually <sup>14</sup>
Bis(2-chloroisopropyl) ether	quarterly	semiannually <sup>14</sup>
Chlorobenzene	quarterly	semiannually <sup>14</sup>
Chromium (III)	monthly	quarterly
Di-n-butyl-phthalate	quarterly	semiannually <sup>14</sup>

<sup>14</sup> No reasonable potential and more than 20% nondetects

Parameter	Monitoring Frequency (2010 Permit)	Monitoring Frequency (2017 Permit)
Dichlorobenzenes	quarterly	semiannually <sup>14</sup>
Diethyl phthalate	quarterly	semiannually <sup>14</sup>
Dimethyl phthalate	quarterly	semiannually <sup>14</sup>
4,6-dinitro-2-methylphenol	quarterly	semiannually <sup>14</sup>
2,4-Dinitrophenol	quarterly	semiannually <sup>14</sup>
Ethylbenzene	quarterly	semiannually <sup>14</sup>
Fluoranthene	quarterly	semiannually <sup>14</sup>
Hexachlorocyclopentadiene	quarterly	semiannually <sup>14</sup>
Nitrobenzene	quarterly	semiannually <sup>14</sup>
Thallium	quarterly	semiannually <sup>14</sup>
Toluene	quarterly	semiannually <sup>14</sup>
Tributyltin	quarterly	semiannually <sup>14</sup>
1,1,1-Trichloroethane	quarterly	semiannually <sup>14</sup>
Acrylonitrile	quarterly	semiannually <sup>14</sup>
Aldrin	quarterly	semiannually <sup>14</sup>
Benzene	quarterly	semiannually <sup>14</sup>
Benzidine	quarterly	no change
Beryllium	quarterly	semiannually <sup>14</sup>
Bis(2-chloroethyl) ether	quarterly	semiannually <sup>14</sup>
Bis(2-ethylhexyl) phthalate	quarterly	no change
Carbon tetrachloride	quarterly	semiannually <sup>14</sup>
Chlordane	quarterly	semiannually
Chlorodibromomethane	quarterly	semiannually <sup>14</sup>
Chloroform	quarterly	no change
DDT	quarterly	no change
1,4-dichlorobenzene	quarterly	semiannually <sup>14</sup>
3,3'-dichlorobenzidine	quarterly	no change
1,2-Dichloroethane	quarterly	semiannually <sup>14</sup>
1,1-Dichloroethylene	quarterly	semiannually <sup>14</sup>
Dichlorobromomethane	quarterly	no change
Dichloromethane	quarterly	no change
1,3-Dichloropropene	quarterly	semiannually <sup>14</sup>
Dieldrin	quarterly	semiannually <sup>14</sup>
2,4-dinitrotoluene	quarterly	semiannually <sup>14</sup>
1,2-diphenylhydrazine	quarterly	semiannually <sup>14</sup>
Halomethanes	quarterly	semiannually <sup>14</sup>
Heptachlor	quarterly	semiannually <sup>14</sup>

Parameter	Monitoring Frequency (2010 Permit)	Monitoring Frequency (2017 Permit)
Heptachlor epoxide	quarterly	semiannually <sup>14</sup>
Hexachlorobenzene	quarterly	no change
Hexachlorobutadiene	quarterly	semiannually <sup>14</sup>
Hexachloroethane	quarterly	semiannually <sup>14</sup>
Isophorone	quarterly	semiannually <sup>14</sup>
N-Nitrosodimethylamine	quarterly	semiannually <sup>14</sup>
N-Nitrosodi-N-propylamine	quarterly	semiannually <sup>14</sup>
N-Nitrosodiphenylamine	quarterly	semiannually <sup>14</sup>
PAHs	quarterly	semiannually <sup>14</sup>
PCBs as Aroclors	quarterly	no change
PCBs as Congeners	annually	no change
TCDD Equivalents	quarterly	no change
1,1,2,2-Tetrachloroethane	quarterly	semiannually <sup>14</sup>
Tetrachloroethylene	quarterly	no change
Toxaphene	quarterly	no change
Trichloroethylene	quarterly	semiannually <sup>14</sup>
1,1,2-Trichloroethane	quarterly	semiannually <sup>14</sup>
2,4,6-Trichlorophenol	quarterly	semiannually <sup>14</sup>
Vinyl chloride	quarterly	semiannually <sup>14</sup>
Methyl-tert-butyl-ether	quarterly	semiannually <sup>14</sup>

**C. Whole Effluent Toxicity Testing Requirements**

The rationale for WET has been discussed extensively in section IV.C.6. of this Fact Sheet.

**D. Receiving Water Monitoring.**

**1. Surface Water**

Receiving water monitoring is required to determine compliance with receiving water limitations and to characterize the water quality of the receiving water. Requirements are based on the Ocean Plan and the Basin Plan. The conceptual framework for the receiving water program has three components that comprise a range of spatial and temporal scales: (a) core monitoring; (b) regional monitoring; and (c) special studies. Additional information can be found in this attachment at II.F.

**2. Groundwater – Not Applicable**

**E. Other Monitoring Requirements**

**1. Outfall Inspection**

This survey investigates the condition of the outfall structures to determine if the structures are in serviceable condition to ensure their continued safe operation. The data collected will be used for a periodic assessment of the integrity of the outfall pipes and ballasting system.

**2. Biosolids/Sludge Monitoring**

Attachment H establishes monitoring and reporting requirements for the storage, handling and disposal practices of biosolids/sludge generated from the operation of this POTW.

**X. PUBLIC PARTICIPATION.**

The Regional Water Board has considered the issuance of WDRs that will serve as an NPDES permit for Joint Water Pollution Control Plant. As a step in the WDR adoption process, the Regional Water Board staff has developed tentative WDRs and has encouraged public participation in the WDR adoption process.

**A. Notification of Interested Parties**

The Regional Water Board notified the Discharger and interested agencies and persons of its intent to prescribe WDRs for the discharge and provided an opportunity to submit written comments and recommendations. Notification was provided through the following:

The public had access to the Regional Board's website at <http://www.waterboards.ca.gov/losangeles/>.

**B. Written Comments**

Interested persons were invited to submit written comments concerning tentative WDRs as provided through the notification process. Comments were due either in person or by mail to the Executive Office at the Regional Water Board at the address on the cover page of this Order, or by email submitted to [eerickson@waterboards.ca.gov](mailto:eerickson@waterboards.ca.gov).

To be fully responded to by staff and considered by the Regional Water Board, the written comments were due at the Regional Water Board office by 5:00 p.m. on **August 11, 2017**.

**C. Public Hearing**

The Regional Water Board held a public hearing on the tentative WDRs during its regular Board meeting on the following date and time and at the following location:

Date: September 7, 2017

Time: 9:00 a.m.

Location: City of Simi Valley Council Chambers

2929 Tapo Canyon Road, Simi Valley, California, 93030

Interested persons were invited to attend. At the public hearing, the Regional Water Board heard testimony, pertinent to the discharge, WDRs, and permit. For accuracy of the record, important testimony was requested in writing.

The Regional Water Board's web address is [www.waterboards.ca.gov/losangeles](http://www.waterboards.ca.gov/losangeles) where interested persons can access the current agenda for changes in Board meeting dates, times, and venues.

**D. Reconsideration of Waste Discharge Requirements**

Any aggrieved person may petition the State Water Board to review the decision of the Regional Water Board regarding the final WDRs. The petition must be received by the State Water Board at the following address within 30 calendar days of the Regional Water Board's action:

State Water Resources Control Board  
Office of Chief Counsel  
P.O. Box 100, 1001 I Street  
Sacramento, CA 95812-0100

For instructions on how to file a petition for review, see:

<[http://www.waterboards.ca.gov/public\\_notices/petitions/water\\_quality/wqpetition\\_instr.shtml](http://www.waterboards.ca.gov/public_notices/petitions/water_quality/wqpetition_instr.shtml)>

**E. Information and Copying**

The ROWD, related documents, tentative effluent limitations and special conditions, comments received, and other information are on file and may be inspected at 320 West 4th Street, Suite 200, Los Angeles, California and 75 Hawthorne Street, San Francisco, California any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Copying of documents may be arranged through the Regional Water Board by calling (213) 576-6600.

**F. Register of Interested Persons**

Any person interested in being placed on the mailing list for information regarding the WDRs and NPDES permit should contact the Regional Water Board, reference this facility, and provide a name, address, and phone number.

**G. Additional Information**

Requests for additional information or questions regarding this Order should be directed to Elizabeth Erickson at (213) 576-6665 or [eerickson@waterboards.ca.gov](mailto:eerickson@waterboards.ca.gov).

**ATTACHMENT G – TOXICITY REDUCTION EVALUATION (TRE) WORK PLAN OUTLINE  
INFORMATION AND DATA ACQUISITION**

**1. Operations and Performance Review**

**A. NPDES permit requirements**

1. Effluent limitations
2. Special conditions
3. Monitoring data and compliance history

**B. POTW design criteria**

1. Hydraulic loading capacities
2. Pollutant loading capacities
3. Biodegradation kinetics calculations/assumptions

**C. Influent and effluent conventional pollutant data**

1. Biochemical oxygen demand (BOD5)
2. Chemical oxygen demand (COD)
3. Suspended solids (SS)
4. Ammonia
5. Residual chlorine
6. pH

**D. Process control data**

1. Primary sedimentation - hydraulic loading capacity and BOD and SS removal
2. Activated sludge - Food-to-microorganism (F/M) ratio, mean cell residence time (MCRT), mixed liquor suspended solids (MLSS), sludge yield, and BOD and COD removal
3. Secondary clarification - hydraulic and solids loading capacity, sludge volume index and sludge blanket depth

**E. Operations information**

1. Operating logs
2. Standard operating procedures
3. Operations and maintenance practices

**F. Process side stream characterization data**

1. Sludge processing side streams
2. Tertiary filter backwash
3. Cooling water

**G. Combined sewer overflow (CSO) bypass data**

1. Frequency
2. Volume

**H. Chemical coagulant usage for wastewater treatment and sludge processing**

1. Polymer
2. Ferric chloride
3. Alum



- 2. POTW Influent and Effluent Characterization Data**
  - A. Toxicity**
  - B. Priority pollutants**
  - C. Hazardous pollutants**
  - D. Superfund Amendments and Reauthorization Act (SARA) 313 pollutants,**
  - E. Other chemical-specific monitoring results**
- 3. Sewage Residuals (raw, digested, thickened and dewatered sludge and incinerator ash) Characterization Data**
  - A. EP toxicity**
  - B. Toxicity Characteristic Leaching Procedure (TCLP)**
  - C. Chemical analysis**
- 4. Industrial Waste Survey (IWS)**
  - A. Information on IUs with categorical standards or local limits and other significant non-categorical IUs**
  - B. Number of IUs**
  - C. Discharge flow**
  - D. Standard Industrial Classification (SIC) code**
  - E. Wastewater flow**
    1. Types and concentrations of pollutants in the discharge
    2. Products manufactured
  - F. Description of pretreatment facilities and operating practices**
  - G. Annual pretreatment report**
  - H. Schematic of sewer collection system**
  - I. POTW monitoring data**
    1. Discharge characterization data
    2. Spill prevention and control procedures
    3. Hazardous waste generation
  - J. IU self-monitoring data**
    1. Description of operations
    2. Flow measurements
    3. Discharge characterization data
    4. Notice of sludge loading
    5. Compliance schedule (if out of compliance)
  - K. Technically based local limits compliance reports**
  - L. Waste hauler monitoring data manifests**
  - M. Evidence of POTW treatment interferences (i.e., biological process inhibition)**

## **ATTACHMENT H– BIOSOLIDS AND SLUDGE MANAGEMENT BIOSOLIDS USE AND DISPOSAL REQUIREMENTS**

(Note: "Biosolids" refers to non-hazardous sewage sludge as defined in 40 CFR §503.9. Sewage sludge that is hazardous, as defined in 40 CFR part 261, must be disposed of in accordance with the Resource Conservation and Recovery Act (RCRA).) 40 CFR §503 requirements identified below are for information only and are not regulated by this Order.

### **I. GENERAL REQUIREMENTS**

- A. All biosolids generated by the Permittee shall be reused or disposed of in compliance with the applicable portions of:
  - 1. 40 CFR part 503: for biosolids that are land applied, placed in surface disposal sites (dedicated land disposal sites or monofills), or incinerated; 40 CFR § 503 Subpart B (land application) applies to biosolids placed on the land for the purposes of providing nutrients or conditioning the soil for crops or vegetation. 40 CFR § 503 Subpart C (surface disposal) applies to biosolids placed on land for the purpose of disposal.
  - 2. 40 CFR part 258: for biosolids disposed of in a municipal solid waste landfill.
  - 3. 40 CFR part 257: for all biosolids use and disposal practices not covered under 40 CFR parts 258 or 503.
- B. The Permittee is responsible for assuring that all biosolids from its facility are used or disposed of in accordance with 40 CFR part 503, whether the Discharger uses or disposes of the biosolids itself, or transfers their biosolids to another party for further treatment, reuse, or disposal. The Discharger is responsible for informing subsequent preparers, applicators, and disposers of requirements they must meet under 40 CFR part 503.
- C. Duty to mitigate: The Permittee shall take all reasonable steps to prevent or minimize any biosolids use or disposal which may adversely impact human health or the environment.
- D. No biosolids shall be allowed to enter wetland or other waters of the United States.
- E. Biosolids treatment, storage, use or disposal shall not contaminate groundwater.
- F. Biosolids treatment, storage, use or disposal shall not create a nuisance such as objectionable odors or flies.
- G. The Permittee shall assure that haulers transporting biosolids off site for further treatment, storage, reuse, or disposal take all necessary measures to keep the biosolids contained.
- H. If biosolids are stored for over two years from the time they are generated, the Permittee must ensure compliance with all the requirements for surface disposal under 40 CFR part 503 Subpart C, or must submit a written request to USEPA with the information in part 503.20 (b), requesting permission for longer temporary storage.
- I. Sewage sludge containing more than 50 mg/kg PCBs shall be disposed of in accordance with 40 CFR part 761.
- J. There shall be adequate screening at the plant headworks and/or at the biosolids treatment units to ensure that all pieces of metal, plastic, glass, and other inert

objects with a diameter greater than 3/8 inches are removed.

**II. MONITORING**

- A. Biosolids shall be monitored for the metals required in 40 CFR § 503.16 (for land application) or § 503.26 (for surface disposal), using the methods in "Test Methods for Evaluating Solids Waste, Physical/Chemical Methods" (SW-846), as required in 503.8(b)(4), at the following minimum frequencies:

<b>Amount of Sewage Sludge (Metric Tons per 365 day period)</b>	<b>Frequency</b>
Greater than 0 but less than 290	Once per year
Equal to or greater than 290 but less than 1,500	Once per quarter
Equal to or greater than 1,500 but less than 15,000	Once per 60 days
Equal to or greater than 15,000	Once per month

For accumulated, previously untested biosolids, the Permittee shall develop a representative sampling plan, which addresses the number and location of sampling points, and collect representative samples.

Test results shall be expressed in milligrams pollutant per kilogram biosolids on a 100% dry weight basis.

Biosolids to be land applied shall be tested for organic nitrogen, ammonia nitrogen, and nitrate nitrogen at the frequencies required above.

- B. Biosolids shall be monitored for the following constituents at the frequency stipulated in 40 CFR § 503.16: arsenic, cadmium, copper, lead, mercury, molybdenum, nickel, selenium, zinc, organic nitrogen, ammonia nitrogen, and total solids. If biosolids are removed for use or disposal on a routine basis, sampling should be scheduled for regular intervals throughout the year. If biosolids are stored for an extended period prior to use or disposal, sampling may occur at regular intervals, or samples of the accumulated stockpile may be collected prior to use or disposal, corresponding to the tons accumulated in the stockpile for that period.
- C. Class 1 facilities (facilities with pretreatment programs or others designated as Class 1 by the Regional Administrator) and Federal facilities with > 5 MGD influent flow shall sample biosolids for pollutants listed under section 307 (a) of the Clean Water Act (as required in the pretreatment section of the permit for POTWs with pretreatment programs).

**III. PATHOGEN AND VECTOR CONTROL**

- A. Prior to land application, the Permittee shall demonstrate that the biosolids meet Class A or Class B pathogen reduction levels by one of the methods listed in 40 CFR § 503.32. Prior to disposal in a surface disposal site, the Permittee shall demonstrate that the biosolids meet Class B levels or shall ensure that the site is covered at the end of each operating day.
- B. If pathogen reduction is demonstrated using a "Process to Further Reduce Pathogens," the Permittee shall maintain daily records of the operating parameters used to achieve this reduction. If pathogen reduction is demonstrated by testing for fecal coliform and/or pathogens, samples must be collected at the frequency specified in Table 1 of 40 CFR § 503.16. If Class B is demonstrated using fecal coliform, at least seven grab samples must be collected during each monitoring period and a geometric mean calculated from these samples. The following holding times between sample collection and analysis shall not be exceeded: fecal coliform – 6 hours when cooled to

<4 degrees Celsius (extended to 24 hours when cooled to <4 degrees Celsius for Class A composted, Class B aerobically digested, and Class B anaerobically digested sample types); Salmonella spp. Bacteria – 24 hours when cooled to <4 degrees Celsius (unless using Method 1682 – 6 hours when cooled to 10 degrees Celsius); enteric viruses – 6 hours when cooled to <10 degrees Celsius (extended to one month when cooled to <4 degrees Celsius).

- C. For biosolids that are land applied or placed in a surface disposal site, the Permittee shall track and keep records of the operational parameters used to achieve Vector Attraction Reduction requirements in 40 CFR § 503.33 (b).

#### IV. NOTIFICATIONS

The Permittee either directly or through contractual arrangements with their biosolids management contractors shall comply with the following 40 CFR part 503 notification requirements:

- A. Notification of Non-compliance

The Permittee shall require appliers of their biosolids to notify USEPA Region 9 and their state permitting agency of any noncompliance within 24 hours if the non-compliance may seriously endanger health or the environment. For other instances of non-compliance, the Permittee shall require appliers of their biosolids to notify USEPA Region 9 and their state permitting agency of the non-compliance in writing within 10 working days of becoming aware of the non-compliance.

- B. Interstate Notification

If bulk biosolids are shipped to another State or to Indian Lands, the Permittee must send written notice within 60 days of the shipment and prior to the initial application of bulk biosolids to the permitting authorities in the receiving State or Indian Land (the USEPA Regional Office for the area and the State/Indian authorities).

- C. Land Application Notification

Prior to using any biosolids from this facility (other than Class A EQ composted biosolids or heat dried biosolids) at a new or previously unreported site, the Permittee shall notify USEPA and the State. This notification shall include the description and topographic map of the proposed site(s), names and addresses of the applier, and site owner, and a listing of any State or local permits which must be obtained. It shall also include a description of the crops or vegetation to be grown, proposed loading rates, and a determination of agronomic rates.

Within a given monitoring period, if any biosolids do not meet the applicable metals concentration limits specified under 40 CFR § 503.13, then the Permittee must pre-notify USEPA, and determine the cumulative metals loadings at that site to date, as required by 40 CFR § 503.12.

- D. Surface Disposal Notification

Prior to disposal at a new or previously unreported site, the Permittee shall notify USEPA and the State. The notice shall include a description and topographic map of the proposed site, depth to groundwater, whether the site is lined or unlined, site operator and site owner, and any state or local permits. It shall also describe procedures for ensuring grazing and public access restrictions for three years following site closure. The notice shall include a groundwater monitoring plan or description of why groundwater monitoring is not required.

**V. REPORTING**

The Permittee shall submit an annual biosolids report to USEPA Region 9 Biosolids Coordinator by February 19 of each calendar year. The report shall include:

- A. The amount of biosolids generated that year, in dry metric tons, and the amount accumulated from previous years.
- B. Results of all pollutant monitoring required in the Monitoring Section above. Results must be reported on a 100% dry weight basis.
- C. Descriptions of pathogen reduction methods, and vector attraction reduction methods, as required in 40 CFR § 503.17 and 503.27, and certifications.
- D. Results of any groundwater monitoring or certification by groundwater scientist that the placement of biosolids in a surface disposal site will not contaminate an aquifer.
- E. Except for Class A EQ composted and heat dried biosolids, names and addresses of land appliers and surface disposal site operators, and volumes applied (dry metric tons).
- F. Names and addresses of persons who received biosolids for storage, further treatment, disposal in a municipal waste landfill, deep well injection, or other reuse/disposal methods not covered above, and volumes delivered to each.

The following information must be submitted by the Permittee, unless the Permittee requires its biosolids management contractors to report this information directly to the USEPA Region 9 Biosolids Coordinator.

For land application sites (except sites where Class A EQ composted biosolids and heat dried biosolids are applied): locations of land application sites (with field names and numbers) used that calendar year, size of each field applied to, applier, and site owner; volumes applied to each field (in wet tons and dry metric tons), nitrogen applied, and calculated plant available nitrogen; crops planted, dates of planting, and dates of harvesting; for biosolids exceeding 40 CFR Part 503.13 Table 3 metals concentrations, the locations of sites where the biosolids were applied and cumulative metals loadings at the sites to date; certification of management practices at 40 CFR Part 503.14; and certifications of site restrictions at 40 CFR Part 503.32(b)(5).

For surface disposal sites: locations of sites, site operator and site owner, size of parcel on which biosolids were disposed, results of any groundwater monitoring, and certifications of management practices at 40 CFR Part 503.24.

- G. The annual biosolids report shall be submitted to USEPA using USEPA's NPDES Electronic Reporting Tool (NeT) and can be accessed at <http://www.epa.gov/compliance/national-pollutant-discharge-elimination-system-npdes-electronic-reporting-tool-net-fact>

## ATTACHMENT I – PRETREATMENT REPORTING REQUIREMENTS

The Joint Outfall System (Permittee) is required to submit annual Pretreatment Program Compliance Report (Report) to the Regional Water Board and United States Environmental Protection Agency, Region 9 (USEPA). This Attachment outlines the minimum reporting requirements of the Report. If there is any conflict between requirements stated in this attachment and provisions stated in the Waste Discharge Requirements (WDRs), those contained in the WDRs will prevail.

### A. Pretreatment Requirements

1. The Permittee shall be responsible and liable for the performance of all Control Authority pretreatment requirements contained in 40 CFR part 403, including any subsequent regulatory revisions to part 403. Where part 403 or subsequent revision places mandatory actions upon the Permittee as Control Authority but does not specify a timetable for completion of the actions, the Permittee shall complete the required actions within six months from the issuance date of this permit or the effective date of the part 403 revisions, whichever comes later. For violations of pretreatment requirements, the Permittee shall be subject to enforcement actions, penalties, fines and other remedies by the USEPA or other appropriate parties, as provided in the Act. USEPA may initiate enforcement action against a nondomestic user for noncompliance with applicable standards and requirements as provided in the act.
2. The Permittee shall enforce the requirements promulgated under sections 307(b), 307(c), 307(d) and 402(b) of the Act with timely, appropriate and effective enforcement actions. The Permittee shall cause all nondomestic users subject to federal categorical standards to achieve compliance no later than the date specified in those requirements or, in the case of a new nondomestic user, upon commencement of the discharge.
3. The Permittee shall perform the pretreatment functions as required in 40 CFR part 403 including, but not limited to:
  - a. Implement the necessary legal authorities as provided in 40 CFR part 403.8(f)(1);
  - b. Enforce the pretreatment requirements under 40 CFR parts 403.5 and 403.6;
  - c. Implement the programmatic functions as provided in 40 CFR part 403.8(f)(2); and
  - d. Provide the requisite funding and personnel to implement the pretreatment program as provided in 40 CFR part 403.8(f)(3).
4. The Permittee shall submit annually a report to USEPA Pacific Southwest Region, and the State describing its pretreatment activities over the previous year. In the event the Permittee is not in compliance with any conditions or requirements of this permit, then the Permittee shall also include the reasons for noncompliance and state how and when the Permittee shall comply with such conditions and requirements. This annual report shall cover operations from January 1 through December 31 and is due on April 15 of each year. The report shall contain, but not be limited to, the following information:
  - a. A summary of analytical results from representative, flow proportioned, 24-hour composite sampling of the publicly-owned treatment works (POTW)

influent and effluent for those pollutants USEPA has identified under section 307(a) of the Act which are known or suspected to be discharged by nondomestic users. This will consist of an annual full priority pollutant scan, with quarterly samples analyzed only for those pollutants detected in the full scan. The Permittee is not required to sample and analyze for asbestos. Sludge sampling and analysis are covered in the sludge section of this permit. The Permittee shall also provide any influent or effluent monitoring data for nonpriority pollutants which the Permittee believes may be causing or contributing to interference or pass through. Sampling and analysis shall be performed with the techniques prescribed in 40 CFR part 136;

- b. A discussion of Upset, Interference or Pass Through incidents, if any, at the treatment plant which the Permittee knows or suspects were caused by nondomestic users of the POTW system. The discussion shall include the reasons why the incidents occurred, the corrective actions taken and, if known, the name and address of the nondomestic user(s) responsible. The discussion shall also include a review of the applicable pollutant limitations to determine whether any additional limitations, or changes to existing requirements, may be necessary to prevent pass through or interference;
- c. An updated list of the Permittee's significant industrial users (SIUs) including their names and addresses, and a list of deletions, additions and SIU name changes keyed to the previously submitted list. The Permittee shall provide a brief explanation for each change. The list shall identify the SIUs subject to federal categorical standards by specifying which set(s) of standards are applicable to each SIU. The list shall also indicate which SIUs are subject to local limitations;
- d. The Permittee shall characterize the compliance status of each SIU by providing a list or table which includes the following information:
  - i. Name of the SIU;
  - ii. Category, if subject to federal categorical standards;
  - iii. The type of wastewater treatment or control processes in place;
  - iv. The number of samples taken by the POTW during the year;
  - v. The number of samples taken by the SIU during the year;
  - vi. For an SIU subject to discharge requirements for total toxic organics, whether all required certifications were provided;
  - vii. A list of the standards violated during the year. Identify whether the violations were for categorical standards or local limits;
  - viii. Whether the facility is in significant noncompliance (SNC) as defined at 40 CFR part 403.8(f)(2)(viii) at any time during the year; and
  - ix. A summary of enforcement or other actions taken during the year to return the SIU to compliance. Describe the type of action, final compliance date, and the amount of fines and penalties collected, if any. Describe any proposed actions for bringing the SIU into compliance.
- e. A brief description of any programs the POTW implements to reduce pollutants from nondomestic users that are not classified as SIUs;

- f. A brief description of any significant changes in operating the pretreatment program which differ from the previous year including, but not limited to, changes concerning the program's administrative structure, local limits, monitoring program or monitoring frequencies, legal authority, enforcement policy, funding levels, or staffing levels;
- g. A summary of the annual pretreatment budget, including the cost of pretreatment program functions and equipment purchases; and
- h. A summary of activities to involve and inform the public of the program including a copy of the newspaper notice, if any, required under 40 CFR part 403.8(f)(2)(viii).

**B. LOCAL LIMITS EVALUATION**

- 1. In accordance with 40 CFR part 122.44(j)(2)(ii), the POTW shall provide a written technical evaluation of the need to revise local limits under 40 CFR part 403.5(c)(1) within 180 days of issuance or reissuance of the Joint Water Pollution Control Plant NPDES permit.

**C. SIGNATORY REQUIREMENTS AND REPORT SUBMITTAL**

- 1. Signatory Requirements.

The annual report must be signed by a principal executive officer, ranking elected official or other duly authorized employee if such employee is responsible for the overall operation of the POTW. Any person signing these reports must make the following certification [40 CFR part 403.6(a)(2)(ii)]:

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

- 2. Report Submittal.

The Annual Pretreatment Report shall be submitted electronically using the State Water Board's California Integrated Water Quality System (CIWQS) Program website <http://www.waterboards.ca.gov/ciwqs/index.html>. The CIWQS website will provide additional information for SMR submittal in the event there will be a planned service interruption for electronic submittal.

A copy of the Annual Pretreatment Report must be sent to USEPA electronically to the following address: [R9Pretreatment@epa.gov](mailto:R9Pretreatment@epa.gov)