State of California
California Regional Water Quality Control Board
Santa Ana Region

June 18, 2021

ITEM: **6**

SUBJECT: Renewal of Waste Discharge Requirements for Orange County Sanitation District's Publicly Owned Treatment Works, Reclamation Plant No. 1, Treatment Plant No. 2, Collection System, and Outfalls – Order No. R8-2021-0010, NPDES Permit No. CA0110604

DISCUSSION:

See attached Fact Sheet (Attachment F) of Tentative WDRs Order No. R8-2021-0010.

RECOMMENDATION:

Adopt Order No. R8-2021-0010, NPDES No. CA0110604 as presented.

COMMENT SOLICITATION:

Comments were solicited from the discharger and the following agencies:

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ORDER NO. R8-2021-0010
NPDES NO. CA0110604

WASTE DISCHARGE REQUIREMENTS AND NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT FOR ORANGE COUNTY SANITATION DISTRICT PUBLICLY OWNED TREATMENT WORKS (RECLAMATION PLANT NO. 1, TREATMENT PLANT NO. 2, COLLECTION SYSTEM, AND OUTFALLS)

As set forth in this State Order/federal Permit, the following Discharger (Table 1) is authorized to discharge from the locations listed in Table 2 in accordance with both the State waste discharge requirements (WDRs) and the federal National Pollutant Discharge Elimination System (NPDES) permit requirements. The Order/Permit are consolidated under 40 CFR § 124.4(c)(2).

Table 1. Discharger Information

Discharger	Orange County Sanitation District
Name of Facilities (and POTW)	Reclamation Plant No. 1 (Fountain Valley), collection system and outfalls
	Treatment Plant No. 2 (Huntington Beach), collection system and outfalls
Facility Addresses	10844 Ellis Avenue, Fountain Valley, CA 92708-7018
	22212 Brookhurst Street, Huntington Beach, CA 92646-8406
	Orange County

Table 2. Discharge Location

Discharge Point	Effluent Description	Discharge Point Latitude (North)	Discharge Point Longitude (West)	Receiving Water
001 (120” Outfall)	Secondary treated effluent and reverse osmosis concentrate	33° 34' 36" N	118° 00' 36" W	Pacific Ocean (4.5 miles offshore)
002 (78” Outfall)	Secondary treated effluent and reverse osmosis concentrate	33° 36' 56" N	117° 58' 13" W	Pacific Ocean (1.5 miles offshore)
003 (Santa Ana River Overflow Weirs)	Secondary treated effluent and reverse osmosis concentrate	33° 38' 06" N	117° 57' 20" W	Santa Ana River

Table 3. Administrative Information for State WDRs

This Order was adopted on:	**<Adoption Date>**
This Order shall become effective on:	**<Effective Date>**
This Order shall expire on:	**<Expiration Date>**
The Discharger shall file a ROWD as an application for reissuance of WDRs in accordance with title 23, California Code of Regulations, and an application for reissuance of a NPDES permit no later than:	**180 days prior to the Order expiration date**
The USEPA and California Regional Water Quality Control Board, Santa Ana Region have classified this discharge as follows:	**Major**

I, Hope A. Smythe, Executive Officer, do hereby certify that this State Order with all attachments is a full, true, and correct copy of the Order adopted by the California Regional Water Quality Control Board, Santa Ana Region, on the date indicated above.

_____
Hope A. Smythe, Executive Officer

Table 4. Administrative Information for Federal NPDES Permit

This Permit was issued on:	**<Issuance Date>**
This Permit shall become effective on:	**<Effective Date>**
This Permit shall expire on:	**<Expiration Date>**
The Discharger shall file an application for reissuance of a NPDES permit in accordance with 40 CFR § 122.21(d) no later than:	**180 days prior to the Permit expiration date**
The USEPA has classified this discharge as follows:	**Major**

This federal NPDES Permit is signed and issued on the date indicated above, for the Regional Administrator.

_____
Tomás Torres, Water Division Director

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I. FACILITY INFORMATION

Information describing the Orange County Sanitation District (hereinafter "OC San", "Permittee" or "Discharger") is summarized in Tables 1 and 2, 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, Santa Ana Region (hereinafter "Santa Ana Water Board") and the United States Environmental Protection Agency, Region 9 (hereinafter "USEPA") find:

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) (Public Law 92-500, as amended, 33 U.S.C. 1251 et seq.) and implementing regulations adopted by USEPA and chapter 5.5, division 7 of the CWC (commencing with section 13370). It shall serve as the State's National Pollutant Discharge Elimination System (NPDES) permit authorizing the Discharger to discharge into waters of the United States at the discharge locations described in Table 2, subject to the WDRs in this Order (hereinafter "Order"). The Order/Permit are consolidated under 40 CFR § 124.4(c)(2).

Although Discharge Point 001 is beyond the limit of State-regulated ocean waters, effluent plume migration into State waters warrants joint regulation of the discharge by USEPA and the Santa Ana Water Board. Therefore, pursuant to 40 CFR § 124.4, this Order shall serve as a joint consolidated State and federal NPDES Permit authorizing the Discharger to discharge into waters of the United States at the discharge locations described in Table 2, subject to the limitations, conditions and all other requirements set forth herein (hereinafter "Order/Permit"). The Permit is both a federal permit and a state permit by operation of law.

B. Background and Rationale for Requirements. The Santa Ana Water Board and USEPA developed the requirements in this Order/Permit based on information submitted as part of the application, through monitoring and reporting programs, and other available information. The Fact Sheet (Attachment F), which contains background information and rationale for the requirements in this Order/Permit, is hereby incorporated into and constitutes Findings for this Order/Permit. Attachments A through E and G though H are also incorporated into this Order/Permit.

C. Permit Renewal Contingency. The Discharger's federal NPDES Permit renewal is contingent upon:

1. Determination by the U.S. Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service (NMFS) that the discharge is consistent with the federal Endangered Species Act (ESA) of 1973, as amended (16 U.S. Code (U.S.C.) section 1531 et seq.);

2. Determination by the NOAA NMFS that the proposed discharge is consistent with the Magnuson-Stevens Fishery Conservation and Management Act (MSA) of 1976, as amended (16 U.S.C. section 1801 et seq.);
3. Determination by the California Coastal Commission (CCC) that the proposed discharge is consistent with the Coastal Zone Management Act (CZMA) of 1972, as amended (16 U.S.C. section 1451 et seq.); and
4. The Santa Ana Water Board's certification/concurrence that the discharge will comply with applicable State water quality standards.

D. Notification of Interested Parties. The Santa Ana Water Board and USEPA have notified the Discharger and interested agencies and persons of their intent to jointly issue consolidated WDRs and NPDES Permit requirements; and has provided an opportunity to submit written comments and recommendations. Details of the notification are provided in the Fact Sheet and the joint public notice for this Order/Permit.

E. Consideration of Public Comment. The USEPA considered all written comments pertaining to the discharge. The Santa Ana Water Board, in a public meeting, heard and considered all comments pertaining to the discharge. Details of the Santa Ana Water Board's Public Hearing are provided in the Fact Sheet (Attachment F).

THEREFORE, IT IS HEREBY ORDERED, that this Order/Permit supersedes Order No. R8-2012-0035 except for enforcement purposes, and, in order to meet the provisions contained in division 7 of the Water Code (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/Permit. This action in no way prevents the Santa Ana Water Board and/or USEPA from taking enforcement action for violations of the previous Order/Permit.

III. DISCHARGE PROHIBITIONS

A. The discharge of waste/pollutants in a manner or at locations that have not been specifically authorized by this Order/Permit is prohibited.

B. The discharge of any radiological, chemical, or biological warfare agent or high-level radioactive waste into the ocean is prohibited.

C. Waste shall not be discharged to designated Areas of Special Biological Significance, except as provided in Chapter III.E of the Ocean Plan (i.e., Implementation Provisions for Marine Managed Areas).

D. Pipeline discharge of sludge to the ocean is prohibited by federal law; the discharge of municipal and industrial waste sludge 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 bypassing of untreated wastes containing concentrations of pollutants in excess of those in Table 4 or Table 3 of the California Ocean Plan to the ocean is prohibited.

F. The discharge of trash to surface waters of the State or the deposition of trash where it may be discharged into surface waters of the State is prohibited.

G. Discharge at Discharge Point 001 (120" outfall) is prohibited when the discharge does not receive a minimum initial dilution of at least 181:1 (D_m = 180), as modeled assuming no currents. Compliance shall be achieved by proper operation and maintenance of the discharge outfall to ensure that it (or its replacement, in whole or part) is in good working order and is consistent with, or can achieve better mixing than, 181:1. The Discharger shall notify the Santa Ana Water Board and USEPA if outfall ports will be retrofitted, as the 181:1 dilution assumes all outfall ports are operational.

H. Unless regulated by appropriate waste discharge requirements, the discharge to surface or groundwaters of waste which contains the following substances is prohibited: toxic substances or materials; pesticides; PCBs (polychlorinated biphenyls); mercury or mercury compounds; radioactive substances or material in excess of levels allowed by the California Code of Regulations. This list is not necessarily all-inclusive.

I. The discharge of untreated sewage to any surface water stream, natural or man-made, or to any drainage system intended to convey storm water runoff to surface water streams is prohibited.

J. The discharge of treated sewage to streams, lakes or reservoirs, or to tributaries thereto, which are designated MUN and which are used as a domestic water supply is prohibited unless approved by the California Department of Public Health. The discharge of treated sewage to waterbodies which are excepted from MUN (Basin Plan Table 3-1) but which are tributary to waters designated MUN and are used as a domestic water supply is prohibited unless the discharge of treated sewage to the drinking water supply is precluded or approved by the California Department of Public Health.

K. The discharge of wastewater to a water of the United States from any locations other than Discharge Point 001 (120" outfall) is prohibited, except during the following situations:

1. Emergency discharge of disinfected secondary effluent and/or reverse osmosis (RO) concentrate to Discharge Point 002 (78" outfall) when the flow rate exceeds the hydraulic capacity of Discharge Point 001, provided that discharges through Discharge Point 001 (120" outfall) and discharges to Orange County Water District (OCWD)'s water recycling facilities~~, if OCWD remains on-line,~~ are maximized to a functional capacity that is necessary to prevent infrastructure or equipment damage before wastewater is discharged through Discharge Point 002;

2. Emergency discharge of disinfected secondary effluent and/or RO concentrate to Discharge Point 003 (Santa Ana River overflow weirs) in the event of an extreme emergency (e.g., tsunami, earthquake, flood, and acts of war or terrorism) that precludes discharging all wastewater to Discharge Points 001 and 002, provided that discharges through Discharge Points 001 (120" outfall) and 002 (78" outfall) are maximized before wastewater is discharged through Discharge Point 003; or

3. Discharge of disinfected secondary effluent and/or RO concentrate to Discharge Point 002 (78” outfall) during planned essential maintenance or capital improvement projects to assure efficient operation of Discharge Point 001 (120” outfall) when there is no other feasible alternative.

The Santa Ana Water Board Executive Officer and USEPA Water Division Director are notified of the pending discharge as soon as possible. During a planned diversion such as essential maintenance or capital improvement projects, this notification shall be submitted a minimum of 10 days prior to diverting flow to Discharge Point 002 (78” outfall), and include the rationale for the discharge, the expected time, date, and the duration of the discharge. Projects warranting such a diversion must be approved by the Santa Ana Water Board Executive Officer and USEPA Water Division Director prior to diverting flow to Discharge Point 002. The Discharger shall take all steps required by the Santa Ana Water Board Executive Officer or USEPA Water Division Director to minimize any harm resulting from the discharge.

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Discharge Specifications – Discharge Points 001 and 002

1. Waste management systems that discharge to the ocean must be designed and operated in a manner that will maintain the indigenous marine life and a healthy and diverse marine community.
2. Waste discharged to the ocean must be essentially free of: Material that is floatable or will become floatable upon discharge; settleable material or substances that may form sediments which will degrade benthic communities or other aquatic life; substances which will accumulate to toxic levels in marine waters, sediments or biota; substances that significantly decrease the natural light to benthic communities and other marine life; and materials that result in aesthetically undesirable discoloration of the ocean surface.
3. Waste effluents shall be discharged in a manner which provides sufficient initial dilution (D_m = 180 for Discharge Point 001 and D_m = 36 for Discharge Point 002), with exception of radioactivity, to minimize the concentrations of substances not removed in the treatment.
4. Waste that contains pathogenic organisms or viruses should be discharged a sufficient distance from naturally occurring shellfishing and water contact sports are to maintain applicable bacterial standards without disinfection. Where conditions are such that an adequate distance cannot be attained, reliable disinfection in conjunction with a reasonable separation of the discharge point from the area of use must be provided. Disinfection procedures at Discharge Point 002 (78” outfall) that do not increase effluent toxicity and that constitute the least environmental and human hazard should be used.

B. Effluent Limitations – Discharge Points 001 and 002

1. Final Effluent Limitations – Discharge Point 001 (120" outfall)

a. The Discharger shall maintain compliance with the following effluent limitations at Discharge Point 001, with compliance measured at Monitoring Location EFF-001 as described in the Monitoring and Reporting Program (MRP), Attachment E:

Table 5. Effluent Limitations – Discharge Point 001 (120" outfall)

Parameter	Units	Effluent Limitations[1],[2]					
		Average Monthly[3]	Average Weekly[3]	Maximum Daily[3],[4]	Instantaneous Minimum[3],[4]	Instantaneous Maximum[3],[4]	Six-Month Median[3]
Carbonaceous Biochemical Oxygen Demand, 5-day @ 20°C ($CBOD_5$)[5]	mg/L	25	40	–	–	–	–
	lbs/day	42,951	68,722	–	–	–	–
	% removal[6]	≥ 85	–	–	–	–	–
Total Suspended Solids (TSS)	mg/L	30	45	–	–	–	–
	lbs/day	51,541	77,312	–	–	–	–
	% removal[6]	≥ 85	–	–	–	–	–
pH	standard units	–	–	–	6.0	9.0	–
Oil and Grease	mg/L	25	40	–	–	75	–
	lbs/day	42,951	68,722	–	–	128,853	–
Settleable Solids	ml/L	1.0	1.5	–	–	3.0	–
Turbidity	NTU	75	100	–	–	225	–
Total chlorine residual	mg/L	–	–	1.45	–	10.86	0.36
	lbs/day	–	–	2,491	–	18,658	618
Acute toxicity[7]	Pass or Fail	–	–	Pass	–	–	–
Chronic toxicity[7]	Pass or Fail	–	–	Pass	–	–	–
Radioactivity	pCi/L	[8]					
Benzidine	µg/L	0.0125	–	–	–	–	–
	lbs/day	0.0215	–	–	–	–	–

Parameter	Units	Effluent Limitations[1],[2]					
		Average Monthly[3]	Average Weekly[3]	Maximum Daily[3],[4]	Instantaneous Minimum[3],[4]	Instantaneous Maximum[3],[4]	Six-Month Median[3]
Hexachloro-benzene	µg/L	0.0380	–	–	–	–	–
	lbs/day	0.0653	–	–	–	–	–
Toxaphene	µg/L	0.0380	–	–	–	–	–
	lbs/day	0.0653	–	–	–	–	–
PCBs[3]	µg/L	0.0034	–	–	–	–	–
	lbs/day	0.0058	–	–	–	–	–
TCDD Equivalents[3]	pg/L	0.7059	–	–	–	–	–
	lbs/day	0.0000012	–	–	–	–	–

Notes:

[1] Mass emission effluent limitations (in lbs/day) are based on the average daily influent flow of 206 MGD projected for 2025, taken from the Discharger's 2017 Master Plan.

[2] The minimum probable initial dilution used to calculate WQBELs for Ocean Plan Table 3 pollutants is 181:1 (D_m=180).

[3] See Attachment A – Definitions.

[4] The maximum daily effluent limitations shall apply to flow weighted 24-hour composite samples. The instantaneous maximum/minimum effluent limitations shall apply to grab samples.

[5] In lieu of the parameter BOD_5 and the BOD_5 levels specified for effluent quality in 40 CFR § 133.102(a)(1), (2), and (3), the parameter $CBOD_5$ and the $CBOD_5$ levels specified for effluent quality in 40 CFR § 133.102(a)(4) are substituted and reported by the Discharger.

[6] In each calendar month, the arithmetic mean of $CBOD_5$ and TSS, by mass, of effluent samples collected at Monitoring Location EFF-001 as described in the MRP, shall not exceed 15 percent of the arithmetic mean of $CBOD_5$ and TSS, by mass, of influent samples collected at Monitoring Locations INF-001 and INF-002 as described in the MRP, at approximately the same times during the same periods.

[7] The maximum daily effluent limitation shall be reported as "Pass" or "Fail", and "% Effect". See section IV.B.1.b-c below and section V of Attachment E.

[8] 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. Reference to Section 30253 is prospective, including future changes to any incorporated provisions of federal law, as the changes take effect.

b. **Acute Toxicity:** The acute toxicity WQBEL for Discharge Point 001 (120" outfall) is expressed as a null hypothesis (H_0) and regulatory management decision (*b* value) of 0.80 for the acute toxicity methods in Attachment E of this Order/Permit. The null hypothesis for this discharge is:

H_0: Mean response (5.56% effluent) ≤ 0.80 mean response (Control).

Results obtained from an acute toxicity test shall be analyzed using the Test of Significant Toxicity (TST) statistical approach (EPA 833-R-10-003, 2010; Appendix A). Compliance with this acute toxicity WQBEL is demonstrated by rejecting the null hypothesis and reporting "0" = "Pass".

Percent Effect" (or Effect, in %) = [(Control mean response – IWC mean response) ÷ Control mean response)] ×100

c. **Chronic Toxicity:** The chronic toxicity WQBEL for Discharge Point 001 is expressed as a null hypothesis (H_0) and regulatory management decision (*b* value) of 0.75 for the chronic toxicity methods in Attachment E of this Order/Permit. The null hypothesis for this discharge is:

H_0: Mean response (0.556% effluent) ≤ 0.75 mean response (Control).

Results obtained from a chronic toxicity test shall be analyzed using the TST statistical approach (EPA 833-R-10-003, 2010; Appendix A). Compliance with this acute toxicity WQBEL is demonstrated by rejecting the null hypothesis and reporting "0" = "Pass".

Percent Effect" (or Effect, in %) = [(Control mean response – IWC mean response) ÷ Control mean response)] ×100

2. Final Effluent Limitations – Discharge Point 002 (78" outfall)

a. The Discharger shall maintain compliance with the following effluent limitations at Discharge Point 002 (78" outfall), with compliance measured at Monitoring Location EFF-002 or EMG-001 as described in the Monitoring and Reporting Program, Attachment E:

Table 6. Effluent Limitations – Discharge Point 002 (78" outfall)

Parameter	Units	Effluent Limitations[1],[2]					
		Average Monthly[3]	Average Weekly[3]	Maximum Daily[3],[4]	Instantaneous Minimum[3],[4]	Instantaneous Maximum[3],[4]	Six-Month Median[3]
Carbonaceous Biochemical Oxygen Demand 5-day @ 20°C ($CBOD_5$)[5]	mg/L	25	40	–	–	–	–
	lbs/day	47,955	76,728	–	–	–	–
	% removal[6]	≥ 85	–	–	–	–	–

Parameter	Units	Effluent Limitations[1],[2]					
		Average Monthly[3]	Average Weekly[3]	Maximum Daily[3],[4]	Instantaneous Minimum[3],[4]	Instantaneous Maximum[3],[4]	Six-Month Median[3]
Total Suspended Solids (TSS)	mg/L	30	45	–	–	–	–
	lbs/day	57,546	86,319	–	–	–	–
	% removal[6]	≥ 85	–	–	–	–	–
pH	standard units	–	–	–	6.0	9.0	–
Oil and Grease	mg/L	25	40	–	–	75	–
	lbs/day	47,955	76,728	–	–	143,865	–
Settleable Solids	ml/L	1.0	1.5	–	–	3.0	–
Turbidity	NTU	75	100	–	–	225	–
Total chlorine residual	mg/L	–	–	0.296	–	2.22	0.074
	lbs/day	–	–	568	–	4,258	142
Ammonia as N	mg/L	–	–	88.8	–	222	22.2
	lbs/day	–	–	170,336	–	425,840	42,584
Fecal coliform density	MPN /100 mL[7]	[~~7~~8]					
Enterococcus density	CFU /100 mL[7]	[~~7~~8]					
Chronic toxicity[~~8~~9]	Pass or Fail	–	–	Pass	–	–	–
Radioactivity	pCi/L	[~~9~~10]					
TCDD Equivalents[3]	pg/L	0.1443	–	–	–	–	–
	lbs/day	0.00000028	–	–	–	–	–

Parameter	Units	Effluent Limitations[1],[2]					
		Average Monthly[3]	Average Weekly[3]	Maximum Daily[3],[4]	Instantaneous Minimum[3],[4]	Instantaneous Maximum[3],[4]	Six-Month Median[3]
Notes:		[1] Mass emission effluent limitations (in lbs/day) are based on the Discharger's conservative estimate for hydraulic flow capacity of the outfall of 230 MGD. [2] The minimum probable initial dilution used to calculate WQBELs for Ocean Plan Table 3 pollutants and bacteria is 37:1 (D_m=36). [3] See Attachment A – Definitions. [4] The maximum daily effluent limitations shall apply to flow weighted 24-hour composite samples. The instantaneous maximum/minimum effluent limitations shall apply to grab samples. [5] In lieu of the parameter BOD_5 and the BOD_5 levels specified for effluent quality in 40 CFR § 133.102(a)(1), (2), and (3), the parameter $CBOD_5$ and the $CBOD_5$ levels specified for effluent quality in 40 CFR § 133.102(a)(4) are substituted and reported by the Discharger. [6] In each calendar month, the arithmetic mean of $CBOD_5$ and TSS, by mass, of effluent samples collected at Monitoring Location EFF-002 or EMG-001 as described in the MRP, shall not exceed 15 percent of the arithmetic mean of $CBOD_5$ and TSS, by mass, of influent samples collected at Monitoring Locations INF-001 and INF-002 as described in the MRP, at approximately the same times during the same periods. [7] Results may be reported as either Most Probable Number (MPN)/100 mL if the laboratory method used provides results in MPN/100 mL or Colony Forming Units (CFU)/100 mL if the laboratory method used provides results in CFU/100 mL. [~~7~~8] See section IV.B.2.b below for the effluent limitations for fecal coliform density and e*nterococcus* density. [~~8~~9] The maximum daily effluent limitation shall be reported as "Pass" or "Fail", and "% Effect". See section IV.B.2.c below and section V of Attachment E. [~~9~~10] 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. Reference to Section 30253 is prospective, including future changes to any incorporated provisions of federal law, as the changes take effect.					

b. **Bacteria Water Quality Based Effluent Limitations (WQBELs):** The discharge at Discharge Point 002 (78" outfall) shall meet the following effluent limitations for fecal coliform density and *enterococcus* density, with compliance measured at Monitoring Location EFF-002 or EMG-001, as described in the MRP:

Fecal Coliform

1. The 30-day geometric mean of fecal coliform density shall not exceed ~~a Most Probable Number (MPN) of fecal coliform bacteria of~~ 7,400 MPN/100 mL, calculated based on the five most recent samples; and
2. The single sample maximum shall not exceed 14,800 MPN/100 mL.

Enterococcus

1. The six-week rolling geometric mean of enterococcus bacteria, calculated weekly, shall not exceed 1,110 ~~colony forming units per 100 milliliters (~~CFU/100 mL~~)~~ or MPN/100 mL; and
2. No more than 10 percent of all enterococcus bacteria samples collected in a calendar month shall exceed a statistical threshold value of 4,070 CFU/100 mL or MPN/100 mL.

Compliance with these enterococcus limits shall be evaluated as follows:

- Six-week rolling geometric mean. Compliance with this limit shall be determined weekly by calculating the geometric mean of all enterococcus sample results from the past six weeks.
- 10 percent of sample. Compliance with this limit shall be determined based on measured sample results. The Discharger shall not report interpolated results. If the Discharger has 9 or fewer sample results in a calendar month, compliance shall be based on the highest result. If the Discharger has 10 to 19 sample results, compliance shall be based on the second highest result, and so on.

c. **Chronic Toxicity:** The chronic toxicity WQBEL for Discharge Point 001 is expressed as a null hypothesis (H_0) and regulatory management decision (*b* value) of 0.75 for the chronic toxicity methods in Attachment E – Monitoring and Reporting Program. The null hypothesis for this discharge is:

H_0: Mean response (2.78% effluent) ≤ 0.75 mean response (Control).

Results obtained from a chronic toxicity test shall be analyzed using the TST statistical approach (EPA 833-R-10-003, 2010; Appendix A). Compliance with this chronic toxicity WQBEL is demonstrated by rejecting the null hypothesis and reporting “0” = “Pass”.

Percent Effect” (or Effect, in %) = [(Control mean response – IWC mean response) ÷ Control mean response)] ×100

3. Interim Effluent Limitations – Not Applicable

C. Land Discharge Specifications – Not Applicable

D. Recycling Specifications – Not Applicable

V. PERFORMANCE GOALS AND MASS EMISSION BENCHMARKS

A. Performance goals – Discharge point 001

The performance goals for Discharge Point 001 (120" outfall) are prescribed below in Table 7 in this Order/Permit. Performance goals are based upon last 5-year actual performance data for the OC San's secondary treatment plants and are specified only as an indication of the treatment efficiency of the plants. The performance goals are not considered enforceable effluent limitations or standards for the regulation of discharge from the treatment facility.

The Discharger shall maintain existing treatment levels and 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 Discharger shall submit a written report to the Santa Ana Water Board and USEPA on the nature of the exceedance, the results of the investigation including the cause of the exceedance.

The Santa Ana Water Board and USEPA may reopen the Order/Permit to modify any of the performance goals if the Discharger submits a request and demonstrates that the change is warranted, including results of completion of GWRS final expansion.

B. Mass Emission Benchmarks – Discharge point 001

The following 12-month average mass emission benchmarks for Discharge Point 001 (120" outfall) are prescribed below in Table 7. For each parameter with a mass emission benchmark, the Discharger shall report the annual mass emission and the effluent concentrations and flows used to calculate the annual mass emission in the annual pretreatment report and annual receiving water monitoring report (effluent chapter).

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. For this Order/Permit, the mass emissions benchmarks (in metric tons per year; MT/yr) were determined based on 2015 through 2019 effluent mass emission and the Discharger's annual average influent flow of 206 MGD projected for 2025 (see section V of the fact sheet in Attachment F).

Table 7. Performance Goals and Mass Emission Benchmarks – Discharge point 001

Parameter	Average Monthly Performance Goals (µg/L)	12-month Average Mass Emission Benchmarks (MT/yr)
Marine Aquatic Life Toxicants		
Arsenic, total recoverable	6.62	1.88
Cadmium, total recoverable	0.24	0.07
Chromium (VI)[1]	1.55	0.44
Copper, total recoverable	18.31	5.21
Lead, total recoverable	0.62	0.18

Parameter	Average Monthly Performance Goals (µg/L)	12-month Average Mass Emission Benchmarks (MT/yr)
Mercury, total recoverable	0.0071	0.002
Nickel, total recoverable	23.50	6.69
Selenium, total recoverable	21.90	6.23
Silver, total recoverable	0.16	0.05
Zinc, total recoverable	46.01	13.09
Cyanide, total recoverable[2]	5.88	1.67
Ammonia as Nitrogen	36,743	10,457
Total Chlorine Residual[3]	~~133.85~~ --	38.09
Non-chlorinated Phenols[~~34~~]	1.56	0.44
Chlorinated Phenols[~~34~~]	0.54	0.15
Endosulfan[~~34~~]	0.011	0.003
Endrin	0.021	0.006
Hexachlorocyclohexane (HCH)[~~34~~]	0.011	0.003
Radioactivity[~~3~~]	[~~4~~] --	--
Human Health Toxicants – Non-Carcinogens		
Acrolein	10.65	3.03
Antimony	2.54	0.72
Bis(2-chloroethoxy) methane	10.65	3.03
Bis(2-chloroiso-propyl)ether	4.26	1.21
Chlorobenzene	4.26	1.21
Chromium (III)[1]	1.55	0.44
Di-n-butyl-phthalate	1.80	0.51
Dichlorobenzenes[~~34~~]	2.13	0.61
Diethyl phthalate	0.76	0.22
Dimethyl phthalate	4.26	1.21
4,6-dinitro-2-methylphenol	10.65	3.03
2,4-dinitrophenol	10.65	3.03
Ethylbenzene	4.26	1.21
Fluoranthene	2.13	0.61
Hexachlorocyclopentadiene	10.65	3.03

Parameter	Average Monthly Performance Goals (µg/L)	12-month Average Mass Emission Benchmarks (MT/yr)
Nitrobenzene	0.38	0.11
Thallium	0.20	0.06
Toluene	0.19	0.05
Tributyltin	0.25	0.07
1,1,1-Trichloroethane	4.26	1.21
Human Health Toxicants – Carcinogens		
Acrylonitrile	4.26	1.21
Aldrin	0.004	0.001
Benzene	4.26	1.21
Benzidine[53]	--	0.004
Beryllium	1.07	0.30
Bis(2-chloroethyl) ether	2.13	0.61
Bis(2-ethylhexyl) phthalate	3.90	1.11
Carbon tetrachloride	4.26	1.21
Chlordane[34,65]	0.004	0.001
Chlorodibromomethane	4.25	1.21
Chloroform	16.60	4.72
DDT[34]	0.011	0.003
1,4-dichloro-benzene	0.43	0.12
3,3'-dichloro-benzidine	1.47	0.42
1,2-dichloroethane	4.26	1.21
1,1-dichloro-ethylene	4.26	1.21
Dichlorobromomethane	8.98	2.56
Dichloro-methane	4.26	1.21
1,3-dichloropropene	4.26	1.21
Dieldrin	0.007	0.002
2,4-dinitrotoluene	10.65	3.03
1,2-diphenyl-hydrazine	2.13	0.61
Halomethanes	0.43	0.12
Heptachlor	0.009	0.003
Heptachlor epoxide	0.004	0.001

Parameter	Average Monthly Performance Goals (µg/L)	12-month Average Mass Emission Benchmarks (MT/yr)
Hexachlorobenzene[53]	--	0.01
Hexachlorobutadiene	2.13	0.61
Hexachloroethane	2.13	0.61
Isophorone	2.13	0.61
N-Nitroso-dimethylamine	10.65	3.03
N-Nitrosodi-N-propylamine	10.65	3.03
N-Nitroso-diphenylamine	2.13	0.61
Polycyclic Aromatic Hydrocarbons (PAHs)[34]	1.59	0.45
Total Polychlorinated Biphenyls (PCBs)[3,54]	--	0.001
TCDD Equivalents[3,54]	--	2.01×10^{-7}
1,1,2,2-Tetrachloroethane	4.26	1.21
Tetrachloroethylene	1.58	0.45
Toxaphene[53]	--	0.01
Trichloroethylene	4.26	1.21
1,1,2-Trichloroethane	4.26	1.21
2,4,6-Trichlorophenol	0.54	0.15
Vinyl chloride	4.26	1.21
Notes:	[1] The Discharger may at its option meet both the chromium III and the chromium VI performance goals or mass emission benchmarks by analyzing for total recoverable chromium. [2] Cyanide: If the Discharger can demonstrate to the satisfaction of the Santa Ana Water Board (subject to USEPA approval) that an analytical method is available to reliably distinguish between strongly and weakly complexed cyanide, effluent limitations for cyanide may be met (or performance goals may be evaluated) by the combined measurement of free cyanide, simple alkali metal cyanides, and weakly complexed organometalic cyanide complexes. In order for the analytical method to be acceptable, the recovery of free cyanide from	

Parameter	Average Monthly Performance Goals (µg/L)	12-month Average Mass Emission Benchmarks (MT/yr)
	metal complexes must be comparable to that achieved by the approved method in 40 CFR § 136. [3] Enforceable effluent limitations for these parameters have been determined due to RP. [34] See Attachment A for definition of terms. [4] ~~Radioactivity: Based on EPA's 2000 radionuclides rule (65 FR 76707), performance goals for gross alpha, gross beta, combined radium-226/228, uranium are 15 pCi/L, 50 pCi/L, 5 pCi/L, and 30 µg/L, respectively.~~ [5] ~~Enforceable average monthly effluent limitations for these parameters have been determined due to RP.~~ [65] Chlordane: The Discharger may temporarily suspend the monitoring requirements for alpha- and gamma-chlordene, if analytical standards for these compounds are not available. However, the Discharger is required to resume detection and quantification practices as soon as standards become available.	

VI. RECEIVING WATER LIMITATIONS

A. Surface Water Limitations

The discharge of waste by the Discharger shall not cause a violation of the California Ocean Plan water quality objectives and USEPA water quality criteria specified below. Compliance shall be determined from samples collected at stations representative of the area within the waste field where initial dilution is completed.

1. **Bacterial Characteristics**

   a. State Water Board Water-Contact Objectives

      i. 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 Santa Ana Water Board or USEPA (i.e., waters designated as REC-1), but including all kelp beds, the following bacterial water quality objectives shall be maintained throughout the water column:

         Fecal Coliform

A 30-day geometric mean of fecal coliform density shall not exceed 200/100 mL, calculated based on the geometric mean of the five most recent samples from each site, and a single sample maximum shall not exceed 400/100 mL.

Enterococci

A 6-week rolling geometric mean of enterococci, calculated weekly, shall not exceed 30 CFU or MPN per 100 mL. The geometric mean value shall be applied based on a statistically sufficient number of samples, which is generally not less than five samples distributed over a 6-week period.

A statistical threshold value of 110 CFU or MPN per 100 mL shall not be exceeded by more than 10 percent of all enterococci samples collected in a calendar month, calculated in a static manner.

ii. The Initial Dilution Zone of wastewater outfalls shall be excluded from designation as kelp beds for purposes of bacterial standards. Adventitious assemblages of kelp on waste discharge structures (e.g., outfall pipes and multiport diffusers) do not constitute kelp beds for purposes of bacterial standards.

b. State Water Board Beach Notification Levels

Minimum protective bacteriological standards for coastal waters adjacent to public beaches and for public water-contact sports areas in ocean waters are established in the California Code of Regulations, Title 17 (beginning at div. 1, ch. 5, section 7958 et seq.), which are not water quality objectives. When a public beach or public water-contact sports area fails to meet these standards, the California Department of Public Health 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. The 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.

c. State Water Board Shellfish Harvesting Standards

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

d. USEPA Recreational Water Quality Criteria (RWQC)

Ocean waters beyond the outer limit of the territorial sea shall not exceed the following RWQC for *Enterococcus* density beyond the zone of initial dilution in areas where primary contact recreation occurs. The 2012 RWQC describes the criteria are designed to protect “primary contact recreation”, including swimming, bathing, surfing, water skiing, tubing, water play by children, and similar water

contact activities where a high degree of bodily contact with the water, immersion and ingestion are likely (Recreational Water Quality Criteria, EPA-820-F-12-058, 2012, p. 6.).

Estimated illness rate of 32 per 1,000 primary contact recreators:

A 30-day geometric mean shall not exceed 30 CFU or MPN per 100 mL, which is calculated based on a statistically sufficient number of samples (generally not less than five samples equally spaced over any 30-day period).

A statistical threshold value corresponding to the 90th percentile of the same water quality distribution shall not exceed 110 CFU or MPN per 100 mL in the same 30-day interval.

2. **Physical Characteristics**

   a. Floating particulates and grease and oil shall not be visible.

   b. The discharge of waste shall not cause aesthetically undesirable discoloration of the ocean surface.

   c. Natural light shall not be significantly reduced at any point outside the initial dilution zone as the result of the discharge of waste.

   d. The rate of deposition of inert solids and the characteristics of inert solids in ocean sediments shall not be changed such that benthic communities are degraded.

   e. Trash from the discharge shall not be present in ocean waters, along shorelines or adjacent areas in amounts that adversely affect beneficial uses or cause nuisance.

3. **Chemical Characteristics**

   a. The dissolved oxygen concentration shall not at any time be depressed more than 10 percent from that which occurs naturally, as the result of the discharge of oxygen demanding waste materials.

   b. The pH shall not be changed at any time more than 0.2 units from that which occurs naturally.

   c. The dissolved sulfide concentration of waters in and near sediments shall not be significantly increased above that present under natural conditions.

   d. The concentration of substances, set forth in Chapter II, Table 3 of the California Ocean Plan, in marine sediments shall not be increased to levels which would degrade indigenous biota.

   e. The concentration of organic materials in marine sediments shall not be increased to levels which would degrade marine life.

   f. Nutrient materials shall not cause objectionable aquatic growths or degrade indigenous biota.

g. Numerical water quality objectives established in Table 3 of the California Ocean Plan shall not be exceeded as a result of discharges from the facility through Discharge Points 001 and 002 (as computed using an applicable dilution factor).

4. **Biological Characteristics**

   a. Marine communities, including vertebrate, invertebrate, and plant species, shall not be degraded.

   b. The natural taste, odor, and color of fish, shellfish, or other marine resources used for human consumption shall not be altered.

   c. The concentration of organic materials in fish, shellfish, or other marine resources used for human consumption shall not bioaccumulate to levels that are harmful to human health.

5. **Radioactivity**

   a. Discharge of radioactive waste, which meets the definition of "pollutant" at 40 CFR § 122.2, 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.
2. The Facility shall be protected to reduce infrastructure vulnerability to extreme wet weather events, flooding, storm surges, and projected sea level rise resulting from current and future impacts associated with climate change.
3. This Order/Permit expires on DATE, 20XX, after which, the terms and conditions of this Order/Permit are automatically continued pending issuance of a new Order, provided that all requirements of USEPA's NPDES regulations at 40 CFR 122.6 and the State's regulations at CCR title 23, section 2235.4 regarding the continuation of expired permits and waste discharge requirements are met.
4. The Discharger shall comply with the following Santa Ana Water Board standard provisions and USEPA Region 9 standard provisions. In the event that there is any conflict, duplication, or overlap between provisions or requirements specified by this Order/Permit, the more stringent provision or requirement shall apply:

   a. Consistent with the requirements in Attachment D. Standard Provisions – Reporting, section V.E. Twenty-Four Hour Reporting of this Order/Permit, 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/Permit, the Discharger shall notify the Santa Ana Water Board by telephone (951) 782-4130 and USEPA by telephone (415) 947-4179 and by email R9NPDES@epa.gov within 24 hours of having knowledge of such noncompliance and shall confirm this notification in writing within five (5) working days, unless the Santa Ana Water Board and USEPA waives written

confirmation. Other noncompliance requires written notification as above, at the time of the next self-monitoring report (SMR)/discharge monitoring report (DMR).

b. Neither the treatment nor the discharge of wastes shall cause, or threaten to cause, a pollution, contamination, or nuisance or as defined in California Water Code section 13050.

c. The Discharger shall take all reasonable steps to minimize and correct any adverse impact to receiving waters resulting from noncompliance with this Order/Permit, including accelerated or additional monitoring as may be necessary to determine the nature and impact of the noncomplying discharge.

d. The Discharger shall file with the Santa Ana Water Board and USEPA a Report of Waste Discharge/application for permit modification at least 180 days before making any material change in the character, location, or volume of the discharge. A material change includes, but is not limited to, the following: Adding a major industrial waste discharge to a discharge of essentially domestic sewage, or adding a new process or product by an industrial facility resulting in a change in the character of the waste; significantly changing the disposal method or location, such as changing the disposal to another drainage area or waterbody; significantly changing the method of treatment; increasing the treatment plant design capacity beyond that specified in this Order/Permit.

e. The Discharger shall maintain a full and complete copy of this Order/Permit at the site so that it is available to site operating personnel, the Santa Ana Water Board, the California State Water Resources Control Board (hereinafter “State Water Board”), and USEPA at all times. Key operating personnel shall be familiar with its content.

f. Collected screenings, sludge, and other solids removed from liquid wastes shall be managed in accordance with federal, state, and local regulations (see Attachment G - Biosolids).

g. Permit Transfer. In the event of any change in control or ownership of land or waste discharge facility presently owned or controlled by the Discharger, the Discharger shall notify the succeeding owner or operator of this Order/Permit by letter, a copy of which shall be sent to the Santa Ana Water Board and USEPA. As an alternative to transfers under 40 CFR § 122.61(a), this Permit/Order may be automatically transferred to a new permittee if: The minimum 30 day notice to the USEPA Water Division Director includes a written agreement between the Discharger and new permittee containing a specific date for transfer of permit responsibility, coverage, and liability between them; and the Director does not notify the Discharger and the proposed new permittee of his/her intent to modify or revoke and reissue the Permit. (A modification under this paragraph may also be a minor modification under 40 CFR § 122.63.) If this notice is not received, the transfer is effective on the date specified in the written agreement between the Discharger and the new permittee. (40 CFR § 122.61(b).)

h. The treatment facilities shall be designed, constructed, operated, and maintained to prevent inundation or washout due to floods with a 100-year return frequency.

i. The requirements prescribed herein do not authorize the commission of any act causing injury to the property of another, nor protect the Discharger from its liabilities under federal, state, or local laws, nor guarantee the Discharger a capacity right in the receiving waters.

j. Termination of Permits. The causes for terminating a permit during its term, or for denying a permit renewal application, are found at 40 CFR § 122.64 and are incorporated into this Order/Permit by reference.

k. Availability of Reports. Except for data determined to be confidential under 40 CFR § 2, all reports prepared in accordance with the terms of this Order/Permit shall be available for public inspection at the offices of the Santa Ana Water Board and USEPA. As required by the CWA, permit applications, permits, and effluent data shall not be considered confidential. (Pursuant to CWA section 308.)

l. Severability. The provisions of this Order/Permit are severable, and if any provision of this Order/Permit, or the application of any provision of this Order/Permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Order/Permit shall not be affected thereby. (Pursuant to CWA section 512.)

m. Civil and Criminal Liability. Except as provided in standard conditions (Attachment D) on Bypass and Upset, nothing in this Order/Permit shall be construed to relieve the Discharger from civil or criminal penalties for noncompliance. (Pursuant to CWA section 309.)

n. Oil and Hazardous Substances Liability. 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 under CWA section 311.

o. State, Tribe, or Territory Law. Nothing in this Order/Permit shall be construed to preclude the institution of any legal action or relieve the operator from any responsibilities, liabilities, or penalties established pursuant to any applicable State, Tribe, or Territory law or regulation under authority preserved by CWA section 510.

B. Monitoring and Reporting Program (MRP) Requirements

The Discharger shall comply with the MRP, and future revisions thereto, in Attachment E of this Order/Permit.

C. Special Provisions

1. Reopener Provisions

This Order/Permit may be reopened for modification prior to its expiration date in accordance with the requirements set forth at 40 CFR § 122 and 124 to:

a. Include an effluent limitation if monitoring establishes that the discharge causes, has the reasonable potential to cause, or contributes to an excursion above a California Ocean Plan Table 3 water quality objective.

b. Revise or modify the Order/Permit if present or future investigations demonstrate that the discharges governed by this Order/Permit have or will have a reasonable potential to cause or contribute to, or will cease to have, adverse impacts on water quality or beneficial uses of the receiving waters.

c. Include effluent limitations for pollutants determined to be present in the discharge.

d. Address any changes in State or federal plans, policies, or regulations that would affect the quality requirements of the discharge.

e. Include conditions or effluent or receiving water limitations based on newly available information (e.g., effluent toxicity, dilution, significant change in waste flow, strategic process study results, etc.).

f. Include revised effluent limitations or conditions to address acute or chronic toxicity in the effluent or receiving water, as a result of the discharge; or to implement new, revised, or newly interpreted water quality standards applicable to acute or chronic toxicity.

g. Revise performance goals or mass emission benchmarks contained in this Order/Permit (see Section V).

h. Incorporate a promulgated CWA section 405(d) standard for sewage sludge use or disposal more stringent than any requirements for sludge use or disposal in this Order/Permit, or control a pollutant or practice not limited in this Order/Permit. (40 CFR § 122.44(c).)

i. Incorporate any effluent standard or discharge prohibition (including any schedule of compliance specified in such effluent standard or prohibition) established under CWA section 307(a) for a pollutant which is present in the discharge, and such standard or prohibition is more stringent than any requirement for that pollutant in this Order/Permit.

j. This Order/Permit may be modified, or revoked and reissued, based on the results of Magnuson-Stevens Fishery Conservation and Management Act and/or Endangered Species Act section 7 consultation(s) with the National Marine Fisheries Service and/or U.S. Fish and Wildlife Service.

k. This Order/Permit may be reopened and modified if new or revised water quality objectives or total maximum daily loads (TMDLs) come into effect for contiguous water bodies (whether statewide, regional, or site-specific). In such cases, effluent limitations in this Order/Permit may be modified as necessary to reflect the updated water quality objectives and wasteload allocations in the TMDLs. Adoption of effluent limitations contained in this Order/Permit is not intended to restrict in any way future modifications based on legally adopted water quality

objectives, TMDLs, or as otherwise permitted under federal regulations governing NPDES permit modifications.

l. Or as otherwise authorized by law.

2. Southern California Bight Monitoring Exchange

The MRP (Attachment E) may be modified by the Santa Ana Water Board and USEPA to enable the Discharger to participate in comprehensive regional monitoring activities conducted in the Southern California Bight during the term of this permit. The intent of regional monitoring activities is to maximize the efforts of all monitoring partners using a cost-effective monitoring design and to best utilize the pooled scientific resources of the region. During these coordinated monitoring efforts, the Discharger's sampling and analytical effort may be reallocated to provide a regional assessment of the impact of wastewater discharges to the Southern California Bight; however, certain core elements (i.e., monthly water quality monitoring, quarterly REC-1 water quality monitoring, quarterly benthic monitoring, semi-annual trawl fish monitoring, and weekly Orange County Regional Shoreline REC-1 cooperative monitoring) shall remain unchanged. Anticipated modifications to the monitoring program will be coordinated so as to provide a comprehensive picture of the ecological and statistical significance of monitoring results and to determine cumulative impacts of various pollutant sources. If predictable relationships among the biological, water quality and effluent monitoring variables can be demonstrated, it may be appropriate to decrease the Discharger's monitoring effort. Conversely, the monitoring program may be intensified if it appears that the objectives cannot be achieved through the Discharger's existing monitoring program. These changes will improve the overall effectiveness of monitoring in the Southern California Bight. Minor changes may be made without further public notice.

3. Special Studies, Technical Reports and Additional Monitoring Requirements

a. Toxicity Reduction Requirements

If the discharge exceeds an effluent limitation for toxicity specified in Table 5 and 6, the Discharger shall conduct a Toxicity Reduction Evaluation (TRE) defined in Attachment A, in accordance with an approved TRE Work Plan, and take actions to mitigate the impact of the discharge and prevent recurrence of toxicity. A TRE is not an effluent limitation for toxicity.

i. TRE Work Plan

Within 90 days of the Order/Permit effective date, the Discharger shall prepare and submit a copy of their Initial Investigation Toxicity Reduction Evaluation (TRE) Workplan to the Santa Ana Water Board and USEPA for review and approval by the Santa Ana Water Board Executive Officer and USEPA Water Division Director. The TRE Work Plan must be developed in accordance with USEPA guidance, EPA manual *Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants* (EPA/ 833/B-99/002, 1999), and be of adequate detail to allow the Discharger to immediately initiate a TRE as required in this Provision. This plan shall outline

the procedures for identifying the source(s) of, and reducing or eliminating effluent toxicity and shall describe the steps the Discharger intends to follow if toxicity is measured above an acute or chronic WET permit limit. The TRE Work Plan should include, at minimum:

(a) A description of the investigation and evaluation techniques that would be used to identify potential causes and sources of the exceedance, effluent variability, and/or efficiency of the treatment system in removing toxic substances. This shall include a description of an accelerated chronic toxicity testing program;

(b) A description of the methods to be used for investigating and maximizing in-house treatment system efficiency and good housekeeping practices, and a list of all chemicals used in operations at the facility;

(c) A description of the evaluation process to be used to determine if implementation of a more detailed Toxicity Reduction Evaluation and Toxicity Identification Evaluation (TRE/TIE) is necessary;

(c) If a TIE is necessary, an indication of who would conduct the TIEs (i.e., an in-house expert or outside contractor).

ii. Accelerated Toxicity Monitoring Specifications and TRE/TIE Initiation

When a WET permit limit is exceeded during regular toxicity monitoring, and the testing meets all test acceptability criteria, the Discharger shall initiate accelerated monitoring as required below. The Discharger shall initiate a TRE to address effluent toxicity if any WET testing results exceed the WET permit limit during accelerated monitoring.

(a) If an acute or chronic WET permit limit is exceeded and the source(s) of toxicity is easily identified (e.g., a temporary plant upset), then the Discharger shall make necessary corrections to the facility and shall conduct one (1) additional toxicity test using the same species and test method. This test shall begin within 14 days of notification by the laboratory of the exceedance of the WET permit limit. If the additional toxicity test does not exceed the WET permit limit, then the Discharger may return to their regular testing frequency.

(b) If an acute or chronic WET permit limit is exceeded and the source of toxicity is not known, then the Discharger shall conduct four (4) additional toxicity tests using the same species and test method, approximately every two weeks, over an eight (8) week period. This testing shall begin within 14 days of notification by the laboratory of the exceedance of the WET permit limit. The following protocol shall be used for accelerated monitoring and TRE initiation:

(1) If none of the additional four (4) consecutive toxicity tests exceed the WET permit limit, then the Discharger may cease accelerated monitoring and resume their regular toxicity monitoring. However,

notwithstanding the accelerated monitoring results, if there is adequate evidence of a pattern of effluent toxicity, the Santa Ana Water Board Executive Officer and/or USEPA Water Division Director may require that the Discharger initiate a TRE.

(2) If one of the additional toxicity tests (in paragraphs ii(a) or ii(b) above) exceeds the WET permit limit, then, within 14 days of receipt of this test result, the Discharger shall cease accelerated monitoring and initiate a TRE using as guidance, based on the type of treatment facility, USEPA manual *Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants* (EPA/ 833/B-99/002, 1999). In conjunction, within 30 days of notification by the laboratory of any test result exceeding the WET permit limits during accelerated monitoring, the Discharger shall develop and submit a TRE Action Plan to the Santa Ana Water Board and USEPA, which shall include specific actions undertaken by the Discharger to investigate, identify, and correct the cause(s) of toxicity, including a TRE WET monitoring schedule; specific actions the Discharger will take to mitigate the impact of the discharge and prevent the recurrence of toxicity; and a schedule for these actions.

(c) 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 test method manuals: *Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents*, Phase I (EPA/600/6-91/005F, 1992); 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).

b. Dilution Model Update

No later than 4 years after the effective date of this Order/Permit, the Discharger shall submit a work plan for an updated dilution modeling that is reflective of current operations, including the increase in RO concentrate that may be discharged upon completion of the groundwater replenishment system (GWRS) final expansion project. The purpose of the study is to determine initial dilution under a reasonable worst-case scenario (e.g., strongest density stratification and zero current). The discharger shall include explanation of the conditions and data used, assessment of compliance with applicable water quality objectives, and determination of an appropriate dilution ratio for each outfall. Specifically, the work plan shall include:

- Model inputs and assumptions,

- Describe trapping levels and any boundary effects in the observed range of the ambient density stratification,
- Assume zero current, consistent with the California Ocean Plan,
- Account for a decrease in flow and an increase in pollutant concentrations,
- Include WET assessment using synthetic effluent to approximate future final conditions, and
- Include a sensitivity analysis for how different inputs affect the initial dilution, including effluent temperature and density.

c. Ocean Outfall Condition Assessment and Scoping Study

Within 180 days after completion of outfall condition assessment project for Discharge Point 001 (120" outfall) or Discharge Point 002 (78" outfall) if performed during this permit term, the Discharger shall submit a report of each comprehensive ocean outfall condition assessment to the Santa Ana Water Board and USEPA, which shall include, but not limited to:

- Field work findings (e.g., Barnacle Collar removal and manhole cover removal/ replacement),
- Any environmental impacts caused during the field works,
- Videographic/photographic records of the interior of the outfall pipe and ballast and manhole cover conditions,
- 3-D mapping,
- Analysis of the impacts of low flows on diffuser hydraulics and plugging, and
- The potential rehabilitation projects recommendation.

4. Best Management Practices and Pollution Prevention

a. Pollutant Minimization Program

The Discharger shall develop and conduct a Pollutant Minimization Program (PMP) as described below when there is evidence (e.g., sample results reported as detected, but not quantified (DNQ) when the effluent limitation is less than the method detection limit (MDL), sample results from analytical methods more sensitive than those methods required by this Order/Permit, presence of whole effluent toxicity, health advisories for fish consumption, 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 minimum level (ML), using definitions described in Attachment A and reporting protocols described in MRP section XII.B.4.

ii. The concentration of the pollutant is reported as not detected (ND) and the effluent limitation is less than the MDL, using definitions described in Attachment A and reporting protocols described in MRP section XII.B.4.

By March 1 of each year, the Discharger shall submit its annual PMP Report to the Santa Ana Water Board and USEPA, for the previous calendar year. The

PMP report shall include, but not be limited to, the following actions and submittals acceptable to the Santa Ana Water Board and USEPA:

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 pollutant, consistent with the control strategy; and

v. An annual status report that shall be sent to the Santa Ana Water Board and USEPA including: All PMP monitoring results for the previous year; a list of potential sources of the reportable pollutant(s); a summary of all actions undertaken pursuant to the control strategy; and a description of actions to be taken the following year.

b. Storm Water Management Plan

Onsite storm water at this POTW shall be captured, treated, and discharged with the treated municipal wastewater regulated under this Order/Permit. The Discharger shall file with the Santa Ana Water Board and USEPA, within 180 days of the effective date of this Order/Permit, an updated Storm Water Management Plan for discharges of storm water associated with industrial activities excluding construction activities at its treatment/reclamation plants to prevent trash being present in the discharge. The Storm Water Management Plan must include the trash management to incorporate the 2015 trash amendments of the Ocean Plan.

5. Construction, Operation and Maintenance Specifications

a. The Discharger's wastewater treatment plants shall be supervised and operated by persons possessing certificates of appropriate grade, pursuant to Title 23, Division 3, Chapter 26 of the California Code of Regulations. The Discharger shall report annually to the Santa Ana Water Board and USEPA a roster of such personnel, including job titles, duties, and level of State certification for each individual.

b. The Discharger shall develop an Operation and Maintenance Manual (O&M Manual). If an O&M Manual has been developed, then the Discharger shall update it as necessary to conform to the most recent plant changes and requirements. The O&M Manual shall be readily available to operating personnel onsite. The O&M Manual shall include:

i. A detailed description of safe and effective operation and maintenance of treatment processes, process control instrumentation, and equipment.

ii. A description of the treatment plant organization showing the number of employees, duties and qualifications, plant attendance schedules (daily, weekends and holidays, part-time, etc.), and emergency contact information. The description should include documentation that the personnel are knowledgeable and qualified to operate the treatment facility so as to achieve the required level of treatment at all times.

iii. A description of laboratory and quality assurance procedures.

iv. Process and equipment inspection and maintenance schedules.

v. A description of safeguards (e.g., standby or emergency power and/or storage capacity or other means) to assure that, should there be reduction, loss, or failure of electric power, the Discharger will be able to comply with the requirements of this Order/Permit.

vi. A description of and reference to the most current spill preventive and contingency plan for controlling accidental discharges, and for minimizing the effect of such events (see the paragraph c below).

c. **Spill Preventive and Contingency Plan (SPCP).** The Discharger shall file with the Santa Ana Water Board and USEPA, within 180 days after the effective date of this Order/Permit, the Discharger's spill preventive (fail-safe) and contingency plan (response and cleanup) in an up-to-date condition. The Discharger shall amend this plan whenever there is a change (e.g., in the design, construction, operation, or maintenance of the Facility) which materially affects the potential for spills and the response required for each potential spill. The Discharger shall review and amend the plan as appropriate after each spill from the POTW. At a minimum, this plan shall:

i. Identify the possible sources of accidental discharges, untreated or partially treated waste bypass, overflows, and contaminated drainage that reach water bodies including dry channels and beach sands. Loading and storage areas, power outage, waste treatment outage, and failure of process equipment, tanks, and collection system sewer pipes and pump stations should be considered.

ii. Evaluate the effectiveness of present facilities and procedures and when they become operational. Describe present facilities and procedures needed for effective preventive and contingency plans.

iii. Describe any new facilities and procedures needed. Predict the effectiveness of the proposed facilities and procedures and provide an implementation schedule containing interim and final dates when they will be constructed, implemented, or operational.

iv. Describe the activities and protocols to address clean-up of spills and containment measures, public notifications, monitoring, and the procedures to

be carried out if floatable material is visible on the water surface near the discharge point or has been washed ashore.

v. Describe proposed and completed training programs and schedules to train and familiarize plant operating personnel with the Discharger's SPCP for controlling accidental discharges and for minimizing the effects of such events. (California Water Code sections 13267(b) and 13268.)

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

a. Biosolids. The Discharger shall manage its sludge and biosolids in accordance with federal regulations (40 CFR § 257, 258 and 503) and the requirements specified in Attachment G of this Order/Permit.

b. Pretreatment. The Discharger shall implement and enforce its approved pretreatment program in accordance with federal pretreatment regulations (40 CFR § 403); pretreatment standards promulgated under CWA sections 307(b), 307(c), 307(d), and 402(b); pretreatment requirements specified under 40 CFR § 122.44(j); and the requirements specified in Attachment H of this Order/Permit.

c. Collection System. 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. Regardless of the coverage obtained under the General Order, as amended, the Discharger's collection system is part of the POTW that is subject to this Order/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(l)(6) and (7)), and mitigate any discharge from the collection system in violation of this Order/Permit (40 CFR § 122.41(d)).

d. Resource Recovery from Anaerobically Digestible Material. If the Discharger will receive hauled-in anaerobically digestible material for injection into an anaerobic digester, the Discharger shall notify the Santa Ana Water Board and USEPA and develop and implement Standard Operating Procedures for this activity. The Standard Operation Procedures shall be developed prior to receiving hauled-in anaerobically digestible material. The Standard Operating Procedures shall address material handling, including unloading, screening, or other processing prior to anaerobic digestion; transportation; spill prevention; and spill response. In addition, the Standard Operating Procedures shall address avoidance of the introduction of materials that could cause interference, pass-through, or upset of the treatment processes; avoidance of prohibited material; vector control; odor control; operation and maintenance; and the disposition of any solid waste segregated from introduction to the digester. The Discharger shall train its staff on the Standard Operating Procedures and shall maintain records for a minimum of five years for each load received, describing the hauler, waste type, and quantity received. In addition, the Discharger shall maintain

records for a minimum of five years for the disposition, location, and quantity of cumulative pre-digestion-segregated solid waste hauled offsite.

e. Ensuring Adequate Treatment Capacity. The Discharger shall submit a written report to the Santa Ana Water Board Executive Officer and USEPA Water Division Director within 90 days after the monthly average daily dry-weather influent flow rate equals or exceeds 75 percent of the daily dry-weather design flow of the treatment plants (i.e., 0.75 x 332 MGD = 249 MGD). The Discharger's senior administrative officer shall sign a letter in accordance with the Standard Provisions (Attachment D) which transmits the report and certifies that the policy-making body is adequately informed of the influent flow rate relative to the POTW design capacity. The report shall include the following: Daily average influent flow for the calendar month, the date on which the maximum daily flow occurred, and the rate of that maximum flow; the Discharger's best estimate of when the daily average influent flow for a calendar month will equal or exceed the design capacity of the treatment plants (i.e., 332 MGD); and the Discharger's intended schedule for studies, design, and other steps needed to provide additional treatment for the wastewater from the collection system before the waste flow exceeds the capacity of the POTW.

f. Asset Management. The Discharger shall develop an asset management program to cover the POTW. The Discharger shall:

i. Develop and utilize an asset management program within two years of the effective date of this Order/Permit. This program shall include a detailed inventory of critical assets; condition rating and/or likelihood of failure of said assets; rehabilitation and replacement planning, capacity assurance planning, and maintenance strategy to ensure the Discharger's system meets a desired level of service and plan for future needs and requirements; and funding source to support the planned asset maintenance, rehabilitation, and replacement activities. Critical assets may include, but are not limited to sewer lines, manholes, outfalls, pump stations, force mains, and wastewater treatment facility assets.

ii. Create and submit to the Santa Ana Water Board and USEPA an Asset Management Plan (AMP) within one year of the effective date of this Order/Permit. The AMP shall be updated and re-evaluated every five years. The AMP shall include the following components: A Rehabilitation and Replacement Plan identifying and prioritizing upcoming rehabilitation and replacement projects for critical assets and outlining a proposed schedule for completion of each project; a Maintenance Plan identifying major maintenance activities, frequency performed for critical assets, and estimates of ongoing and projected costs of maintenance activities; and a Sewer Collection System Map incorporating assets from the asset management inventory. Finally, the AMP shall include estimated costs for the Rehabilitation and Replacement Plan and the Maintenance Plan. Expenses may include operational, administrative, interest, or capital expenses. The cost estimate

shall include a determination of whether the planned expenditures are capital or operational and the source of funds: user or connection fees, grants, bonds, or reserves.

7. Other Special Provisions

a. Monitoring Data Accessibility. The Discharger shall make monitoring data accessible to the public via the Internet. Within 180 days of the effective date of this Order/Permit, the Discharger shall submit a report to the Santa Ana Water Board and USEPA that updates the Discharger's plans and activities making monitoring data accessible to the public via the Internet, including implementation schedules. The Santa Ana Water Board and USEPA shall be informed of any change, in writing, within 30 days of the change.

8. Compliance Schedules – Not Applicable

VIII. COMPLIANCE DETERMINATION

A. Effluent Limitations

Compliance with the effluent limitations contained in section IV of this Order/Permit shall be determined as specified below.

1. Sufficient sampling and analysis shall be required to determine compliance with the effluent limitation. If the analytical result of any single sample (daily discharge) monitored monthly, or less frequently, exceeds the AMEL (or 6-month median effluent limitation), then the Discharger shall increase the monitoring frequency to weekly until compliance with the effluent limitation is demonstrated.
2. Compliance with Effluent Limitations expressed as Single Constituents

   Dischargers are out of compliance with the effluent limitation if the concentration of the pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reported Minimum Level (i.e., ML or RL).
3. Compliance with Effluent Limitations expressed as 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., PCBs) 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 ~~less than the MDL, but considered as a detected value if reported as~~ DNQ.
4. 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:

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.

5. Average Monthly Effluent Limitation (AMEL)

   If the average (or when applicable, the median determined by subsection 4 above for multiple sample data reduction) of daily discharges over a calendar month exceeds (is higher than) the AMEL for a given parameter, an alleged violation will be flagged and the Discharger will 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). However, an alleged violation of the AMEL will be considered one violation for the purpose of assessing State mandatory minimum penalties. 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 2019 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. If no sample (daily discharge) is taken over any one calendar month, no compliance determination can be made for that month with respect to effluent violation determination, but compliance determination can be made for that month with respect to reporting violation determination.

   A month will begin on the first day of the calendar month and end on the last day of the calendar month, in order to calculate and report a consecutive (uninterrupted) average value for the AMEL for a calendar month.

6. Average Weekly Effluent Limitation (AWEL)

   If the average (or when applicable, the median determined by subsection 4 above for multiple sample data reduction) of daily discharges over a calendar week exceeds (is higher than) the AWEL for a given parameter, an alleged violation will be flagged and the Discharger will be considered out of compliance for each day of that week for that parameter (e.g., resulting in seven days of non-compliance). However, an alleged violation of the AWEL will be considered one violation for the purpose of assessing State mandatory minimum penalties. The average of daily discharges over a 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. If no sample

(daily discharge) is taken over a calendar week, no compliance determination can be made for that week with respect to effluent violation determination, but compliance determination can be made for that week with respect to reporting violation determination.

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

7. Maximum Daily Effluent Limitation (MDEL)

   If a daily discharge on a calendar day exceeds (is higher than) the MDEL for a given parameter, an alleged violation will be flagged and the Discharger will be considered out of compliance for that day for that parameter. 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.

8. Instantaneous Minimum Effluent Limitation

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

9. Instantaneous Maximum Effluent Limitation

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

10. Six-month Median Effluent Limitation (i.e., 180-day Median Effluent Limitation)

    If the median of daily discharges over any 180-day period exceeds (is higher than) the 6-month median effluent limitation for a given parameter, an alleged violation will be flagged and the Discharger will be considered out of compliance for each day of that 180-day period (e.g., resulting in 180 days of non-compliance in any 180-day period). The next assessment of compliance will occur when the next sample is taken. 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. If no sample (daily discharge) is taken over a 180-day period, no compliance determination can be made for that period with respect to effluent violation determination, but compliance determination can be made for that period with respect to reporting violation determination.

11. 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.

12. Mass Emission Rate

    The daily discharge mass emission rate for any calendar day is calculated using the following equations:

    $$\text{Daily Discharge mass emission rate (lb/day)} = \frac{8.34}{N}\sum_{i=1}^{N} Q_i C_i$$

    in which "N" is the number of samples taken over any calendar day. If grab samples are taken, "Ci" is the constituent concentration (mg/L) and "Qi" is the flow rate (MGD) associated with each "N" grab sample. If composite samples are taken, "Ci" is the constituent concentration (mg/L) in each composite sample and "Qi" is the average flow rate (MGD) during the period over which sample compositing occurs.

    The daily discharge concentration of a constituent shall be determined from the flow-weighted average of the same constituent in the combined waste stream using the following equation:

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

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

13. Bacterial Standards and Analysis

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

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

       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.

    b. 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.

c. Detection methods used for coliforms (total and fecal) and enterococcus shall be those presented in Table IA 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 Santa Ana Water Board and/or USEPA.

14. Sample Reporting Protocols

The Discharger must report with each sample result the reported Minimum Level, selected and used in accordance with Ocean Plan Chapters III.C.5 and 6, the laboratory's current Method Detection Limit. In accordance with Ocean Plan Chapter III.C.7, the Discharger must also 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 Minimum Level must be reported "as measured" by the laboratory (i.e., the measured chemical concentration in the sample).

b. Sample results less than the reported Minimum Level, but greater than or equal to the laboratory's Method Detection Limit, must be reported as "Detected, but Not Quantified", or "DNQ". The laboratory must write the estimated chemical concentration of the sample next to DNQ as well as the words "Estimated Concentration" (may be shortened to "Est. Conc.").

c. Sample results less than the laboratory's Method Detection Limit must be reported as "Not Detected", or "ND".

ATTACHMENT A – DEFINITIONS

Arithmetic Mean (μ)
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: Σx is the sum of the measured ambient water concentrations, and n is the number of samples.

Areas of Special Biological Significance (ASBS)
Those areas designated by the State Water Board as ocean areas requiring protection of species or biological communities to the extent that maintenance of natural water quality is assured. All Areas of Special Biological Significance are also classified as a subset of STATE WATER QUALITY PROTECTION AREAS (SWQPA). ASBS are also referred to as State Water Quality Protection Areas – Areas of Special Biological Significance (SWQPA-ASBS).

Average Monthly Effluent Limitation (AMEL)
Means 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. (40 CFR § 122.2)

Average Weekly Effluent Limitation (AWEL)
Means 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. (40 CFR § 122.2)

Best Management Practices (BMPs)
Means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of "waters of the United States". BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillages or leaks, sludge or waste disposal, or drainage from raw material storage. (40 CFR § 122.2)

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

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

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
Means a time-proportioned mixture of not less than eight discrete aliquots obtained at equal time intervals (e.g., 24-hour composite means a minimum of eight samples collected every three hours). The volume of each aliquot shall be directly proportional to the discharge flow

rate at the time of sampling, but not less than 100 ml. 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.

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 one day.

For composite sampling, if one 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, 2,4’DDD, and 4,4’DDMU.

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 (ML), but greater than or equal to the laboratory’s Maximum Detection Limit (MDL). Sample results reported as DNQ are estimated concentrations.

Dichlorobenzenes
Shall mean the sum of 1,2- and 1,3-dichlorobenzene.

Dilution Credit
Dilution Credit is the amount of dilution granted to a discharge in the calculation of a water quality-based effluent limitation, based on the allowance of a specified mixing zone. It is calculated from the dilution ratio or determined through conducting a mixing zone study or modeling of the discharge and receiving water.

Downstream Ocean Waters
Shall mean 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”.

Eelgrass Beds
Are aggregations of the aquatic plant species of the genus *Zostera*.

Enclosed Bays
Are indentations along the coast which 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
Shall mean the sum of endosulfan-alpha and -beta and endosulfan sulfate.

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, Suisun Bay, Carquinez Strait downstream to Carquinez Bridge, and appropriate areas of the Smith, Klamath, Mad, Eel, Noyo, Russian, Klamath, San Diego, and Otay Rivers. Estuaries do not include inland surface waters or ocean waters.

Facility or Activity
Means any NPDES “point source” or any other facility or activity (including land or appurtenances thereto) this is subject to regulation under the NPDES program. (40 CFR § 122.2)

Geometric Mean (GM)
Is a type of mean or average that indicates the central tendency or typical value of a set of numbers by using the product of their values (as opposed to the arithmetic mean which uses their sum). The geometric mean is defined as the nth root of the product of n numbers. The formula is expressed as: $GM = (C_1 \times C_2 \times \ldots \times C_n)^{1/n}$, where *C* is the sample value and n is the number of samples taken.

Grab Sample
Is a single sample collected during a period of time, not to exceed 15 minutes, which represents the composition of the discharge only at a particular time and place. 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
Shall mean the sum of bromoform, bromomethane (methyl bromide) and chloromethane (methyl chloride).

HCH
Shall mean the sum of the alpha, beta, gamma (lindane) and delta isomers of hexachlorocyclohexane.

Indicator Bacteria
Includes total coliform bacteria, fecal coliform bacteria (or *E. coli*) and/or Enterococcus bacteria.

Initial Dilution
Is the process which 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 Santa Ana Water Board and/or USEPA, 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 effluent 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 effluent limitation).

Kelp Beds
Are aggregations of marine algae of the order *Laminariales*, including species in the genera *Macrocystis*, *Nereocystis*, and *Pelagophycus*. Kelp beds include the total foliage canopy throughout the water column.

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

Marine Managed Areas
Are named, discrete geographic marine or estuarine areas along the California coast designated by law or administrative action, and intended to protect, conserve, or otherwise

manage a variety of resources and their uses. According to the California Public Resources Code (§§ 36600 et seq.) there are six classifications of marine managed areas, including State Marine Reserves, State Marine Parks and State Marine Conservation Areas, State Marine Cultural Preservation Areas, State Marine Recreational Management Areas, and State Water Qualtiy Protection Areas.

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) (40 CFR § 122.2). 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. Also, Maximum Daily Discharge Limitation (MDDL).

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 = (Xn/2 + X(n/2)+1)/2 (i.e., the midpoint between the n/2 and n/2+1).

Method Detection Limit (MDL)
Is the minimum measured concentration of a substance that can be reported with 99 percent confidence that the measured concentration is distinguishable from method blank results, as defined in 40 CFR § 136, Appendix B.

Minimum Level (ML)
Is the concentration at which the entire analytical system must give a recognizable signal and acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method-specified sample weights, volumes and processing steps have been followed.

Mixing Zone
Mixing Zone is a limited volume of receiving water that is allocated for mixing with a wastewater discharge where water quality criteria can be exceeded without causing adverse effects to the overall water body.

Multiport Diffusers
Are linear structures consisting of spaced ports or nozzles that are installed on submerged marine outfalls.

Municipal Separate Storm Sewer System (MS4)
Has the same meaning as set forth in 40 CFR § 122.26(b)(8).

Natural Light
Reduction of natural light may be determined by the Santa Ana Water Board and USEPA by measurement of light transmissivity or total irradiance, or both, according to the monitoring needs of the Santa Ana Water Board and USEPA.

No Discharge Zone (NDZ)
Is an area in which both treated and untreated sewage discharges from vessels are prohibited. Within NDZ boundaries, vessel operators are required to retain their sewage discharges onboard for disposal at sea (beyond 3 nautical miles from shore) or onshore at a pump-out facility.

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

Non-Storm Water Discharge
Is any runoff that is not the result of a precipitation event. This is often referred to as “dry weather flow”.

Not Detected (ND)
Sample results which are less than the laboratory’s MDL.

Ocean Waters
Are 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 (polynuclear aromatic hydrocarbons)
The sum of acenaphthylene, anthracene, 1,2-benzanthracene (benzo[a]anthracene), benzo[b/j]fluoranthene, benzo[k]fluoranthene, 1,12-benzoperylene (benzo[ghi]perylene), 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 or mixtures of isomers of a single congener in a co-elution: 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.

Permitting Authority
Means the State Water Board or Regional Waterboard, whichever issues the permit, and USEPA which issues the permit.

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 the 2019 Ocean Plan Table 3 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 Santa Ana Water Board and USEPA may consider cost effectiveness when establishing the requirements of a PMP. The completion and implementation of a Pollution Prevention Plan, if required pursuant to Water Code 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), Santa Ana Water Board, or USEPA.

Publicly-Owned Treatment Works (POTWs)
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 (RML)
Is the ML (and its associated analytical method) chosen by the Discharger for reporting and compliance determination from the MLs included in their permit, which is also known as the Reporting Level (RL). The MLs included in this permit correspond to approved analytical methods for reporting a sample result that are selected by the Santa Ana Water Board in accordance with Ocean Plan Chapter III.C.5. The ML is based on the proper application of method-specific analytical procedures 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 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 Chapter III.C.6 of the 2019 Ocean Plan.).

Salinity
Is a measure of the dissolved salts in a volume of water. For the purposes of the Ocean Plan, salinity shall be measured using a standard method approved by the Santa Ana Water Board

and USEPA (e.g., Standard Method 2520 B, EPA Method 120.1, EPA Method 160.1) and reported in parts per thousand (ppt). For historical salinity data not recorded in parts per thousand, the Santa Ana Water Boards and USEPA may accept converted data at their discretion.

Seawater
Is salt water that is in or from the ocean.

Sensitive Habitats
For the purposes of the Ocean Plan, are kelp beds, rocky substrate, surfgrass beds, eelgrass beds, oyster beds, spawning grounds for State or federally managed species, market squid nurseries, or other habitats in need of special protection as determined by the Water Boards.

Shellfish
Are organisms identified by the California Department of Public Health as shellfish for public health purposes (i.e., mussels, clams and oysters).

Significant Difference
Is defined as a statistically significant difference in the means of two distributions of sampling results at the 95 percent confidence level, unless otherwise specified by the permitting authority.

Single Sample Maximum (SSM)
A maximum value not to be exceeded in any single sample.

Six-Month Median Effluent Limitation (i.e., 180-Day Median Effluent Limitation)
The highest allowable moving median of daily values for any 180-day period in which daily values represent flow weighted average concentrations within a 24-hour period. For intermittent discharges, the daily value shall be considered to equal zero for days on which no discharge occurred.

Standard Deviation (σ)
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;
μ 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.

State Water Quality Protection Areas – General Protection (SWQPA-GP)
Designed by the State Water Board to protect marine species and biological communities from undesirable alteration in natural water quality within State Marine Parks and State Marine Conservation Areas.

Statistical Threshold Value (STV)
Is defined for the bacteria water quality objectives as a set value that approximates the 90th percentile of the water quality distribution of a bacterial population. The STV for the enterococcus water quality objective is 110 CFU/100mL.

Storm Water
Has the same meaning as set forth in 40 CFR § 122.26(b)(13).

Surfgrass Beds
Are aggregations of marine flowering plants of the genus *Phyllospadix*.

TCDD Equivalents (TEQ)
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 equivalency factor (TEF), as shown in the table below.

Congener	TEF	Minimum Level (pg/L)
chlorinated dibenzo-p-dioxins		
2,3,7,8-tetraCDD	1.0	5
1,2,3,7,8-pentaCDD	0.5	25
1,2,3,4,7,8-hexaCDD	0.1	25
1,2,3,6,7,8-hexaCDD	0.1	25
1,2,3,7,8,9-hexaCDD	0.1	25
1,2,3,4,6,7,8-heptaCDD	0.01	25
OctaCDD	0.001	50
chlorinated dibenzofurans		
2,3,7,8-tetraCDF	0.1	5
1,2,3,7,8-pentaCDF	0.05	25
2,3,4,7,8-pentaCDF	0.5	25
1,2,3,4,7,8-hexaCDF	0.1	25
1,2,3,6,7,8-hexaCDF	0.1	25
1,2,3,7,8,9-hexaCDF	0.1	25
2,3,4,6,7,8-hexaCDF	0.1	25
1,2,3,4,6,7,8-heptaCDF	0.01	25
1,2,3,4,7,8,9-heptaCDF	0.01	25
OctaCDF	0.001	50

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)
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.

Trash
Means all improperly discarded solid material from any production, manufacturing, or processing operations including, but not limited to, products, product packaging, or containers constructed of plastic, steel, aluminum, glass, paper, or other synthetic or natural materials.

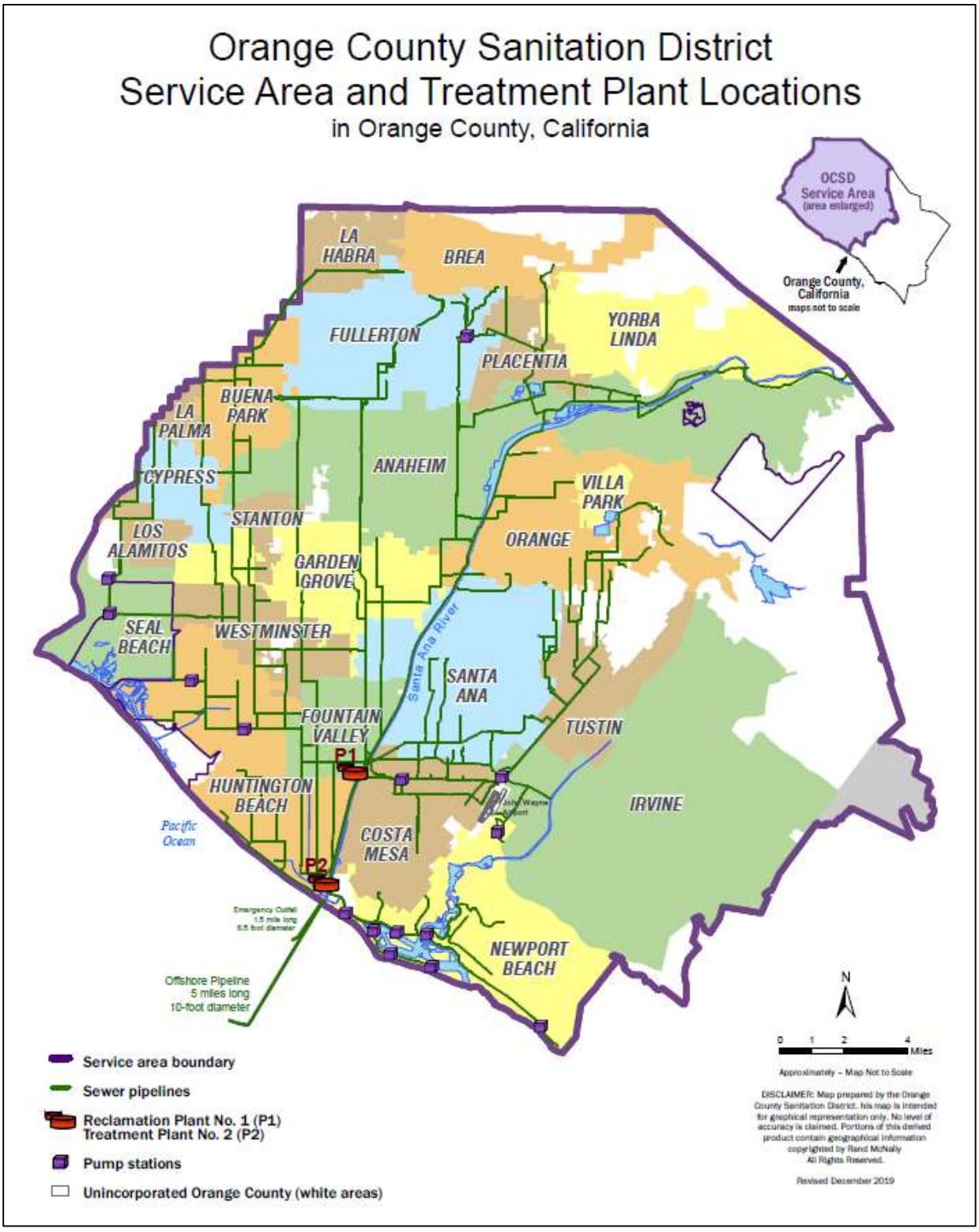
Trash Provisions
Are the water quality objective for Trash, as well as the prohibition of discharge set forth in Chapter III.I and implementation requirements set forth in Chapter III.L of the Ocean Plan.

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

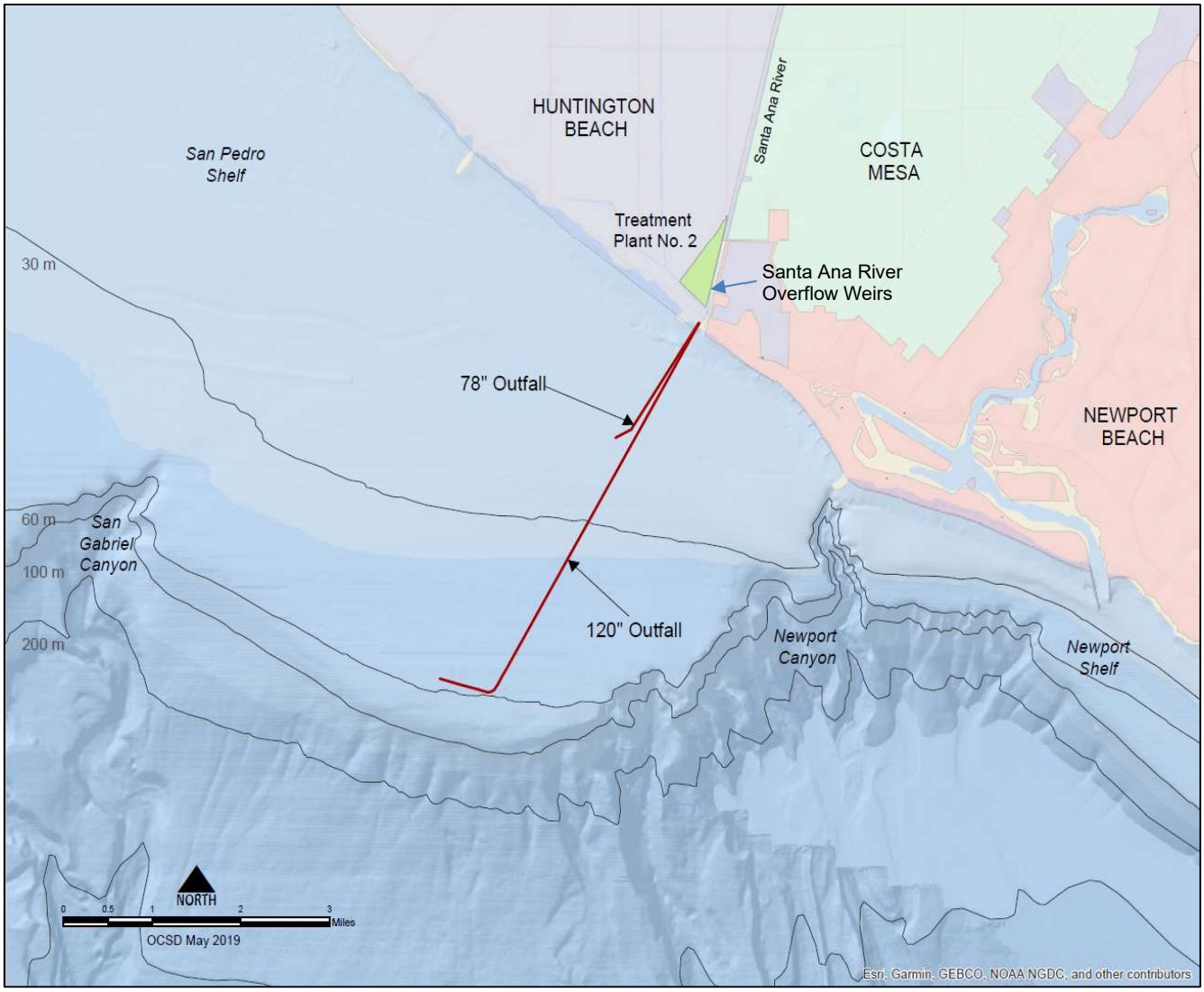
Water Reclamation
The treatment of wastewater to render it suitable for reuse, the transportation of treated wastewater to the place of use, and the actual use of treated wastewater for a direct beneficial use or controlled use that would not otherwise occur.

ATTACHMENT B – MAPS

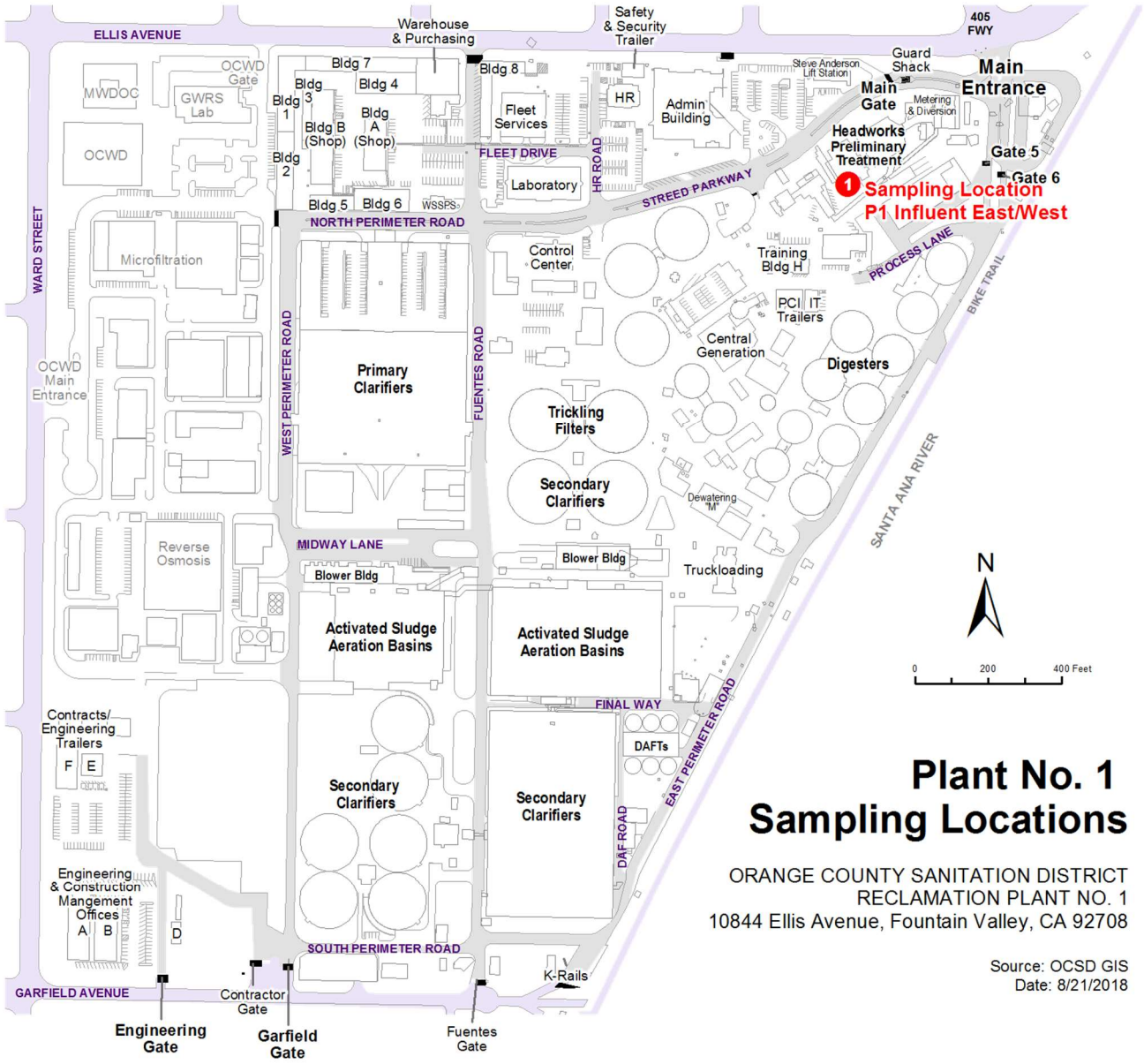
Attachment B1 – Map of Service Area and Treatment Plant Locations



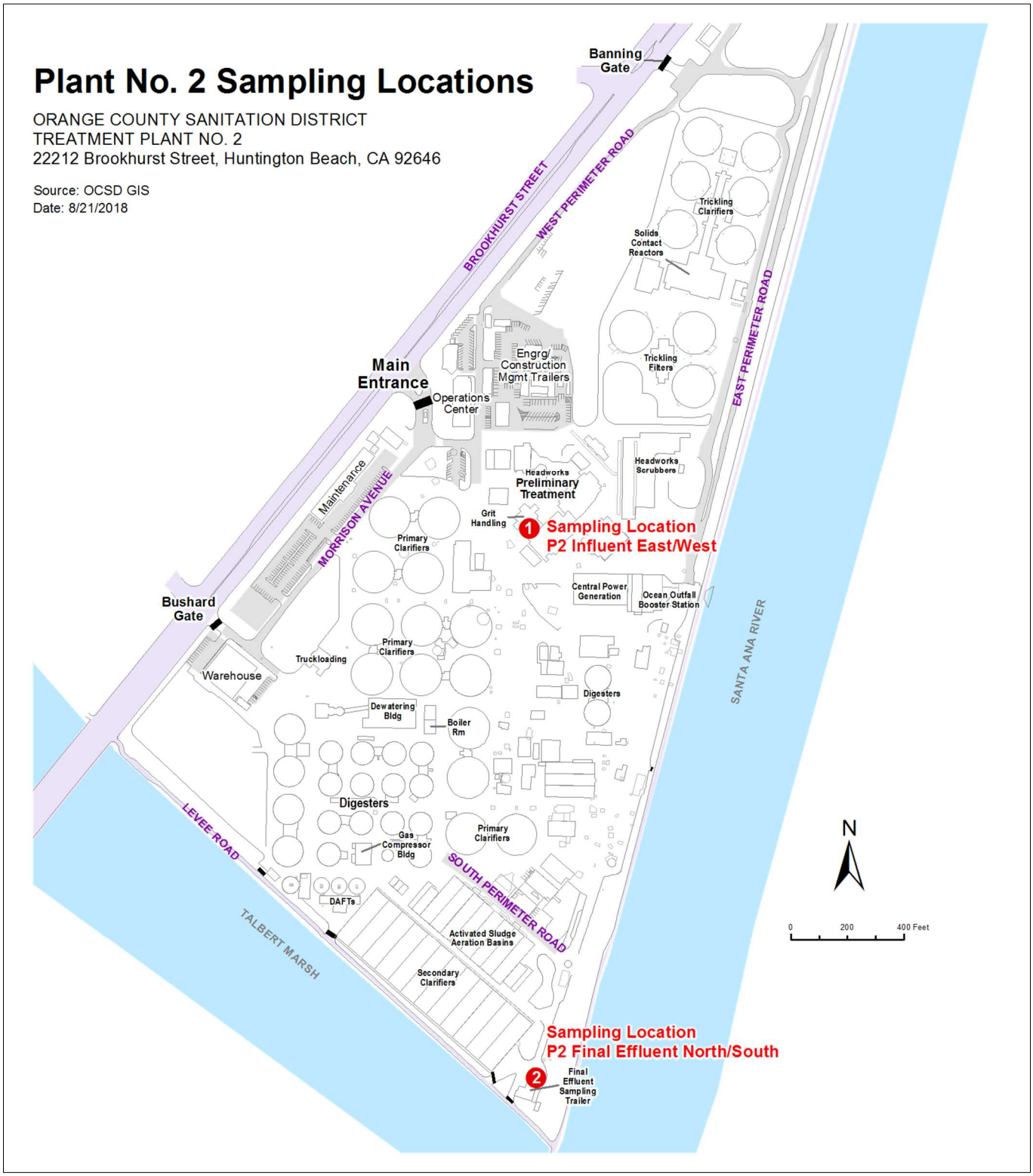
Attachment B2 – Map of Outfall Location



Attachment B3 – Site Layout of Plant No. 1 and Sampling Locations



Attachment B4 – Site Layout of Plant No. 2 and Sampling Locations



ATTACHMENT C – FLOW SCHEMATICS

Figure C-1. Simplified Flow Schematic and Monitoring Locations after GWRS Final Expansion in 2023

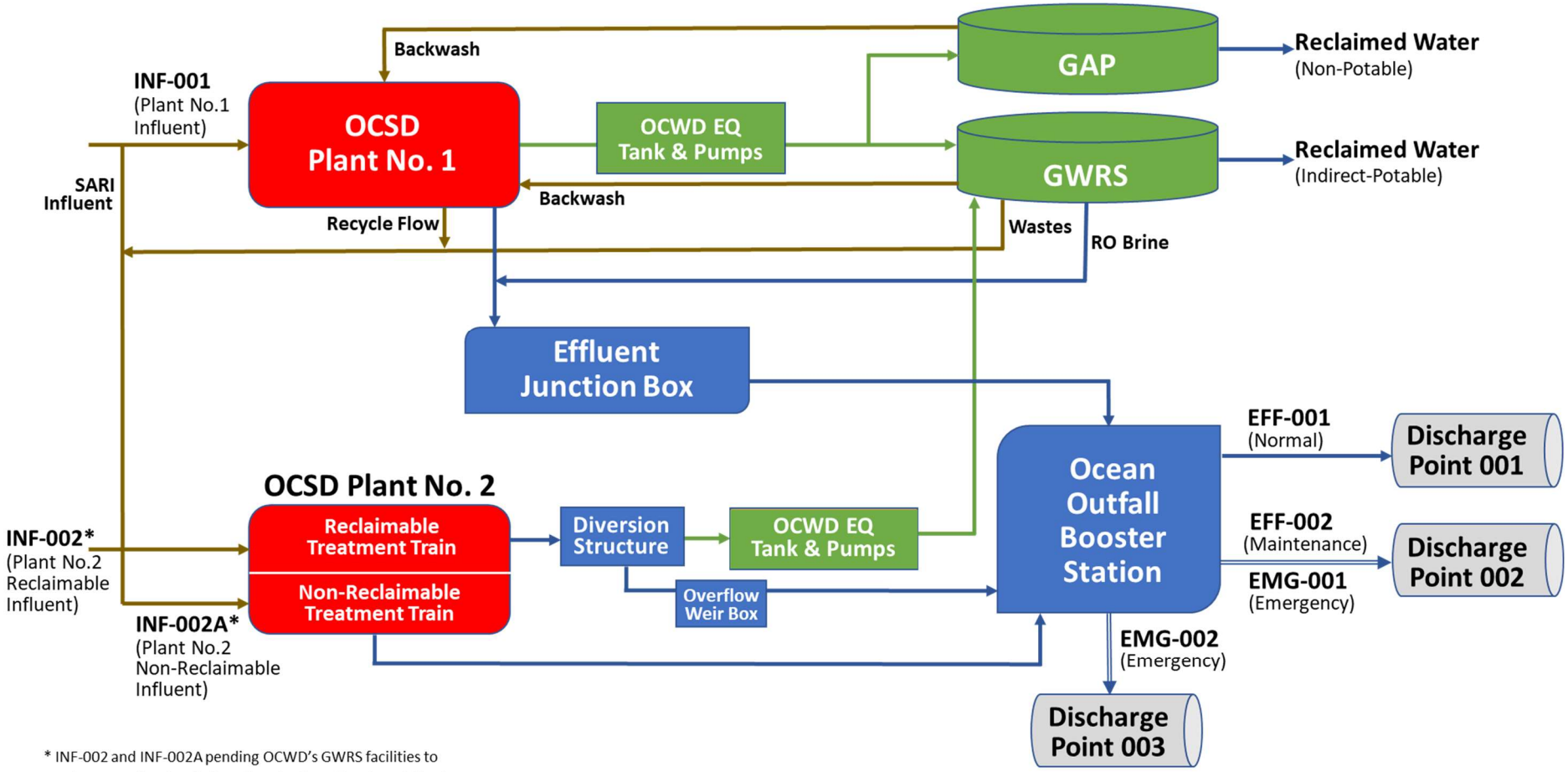


Figure C-2. Process Schematic for OC San Reclamation Plant No. 1

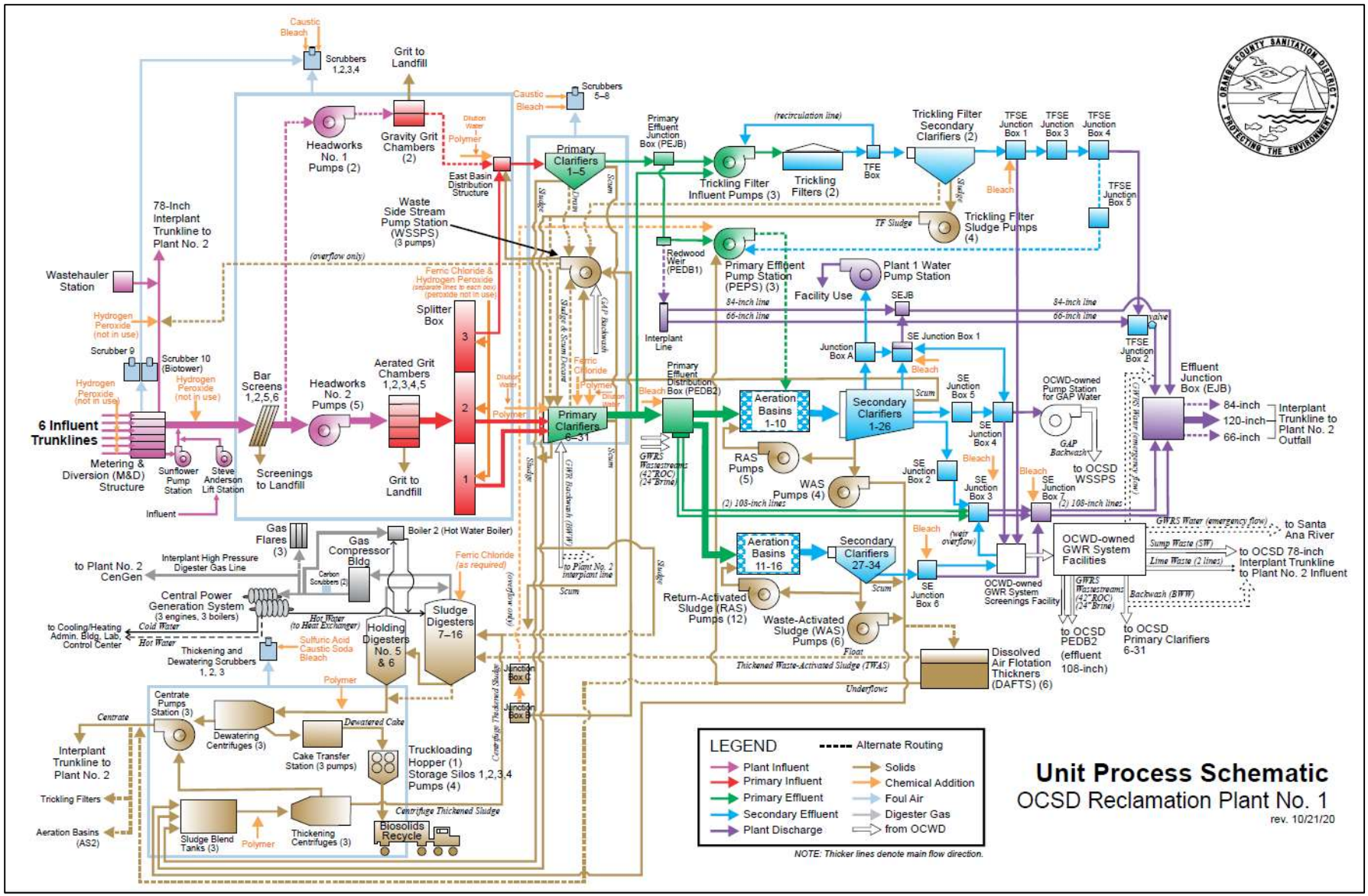


Figure C-3. Process Schematic for OC San Treatment Plant No. 2

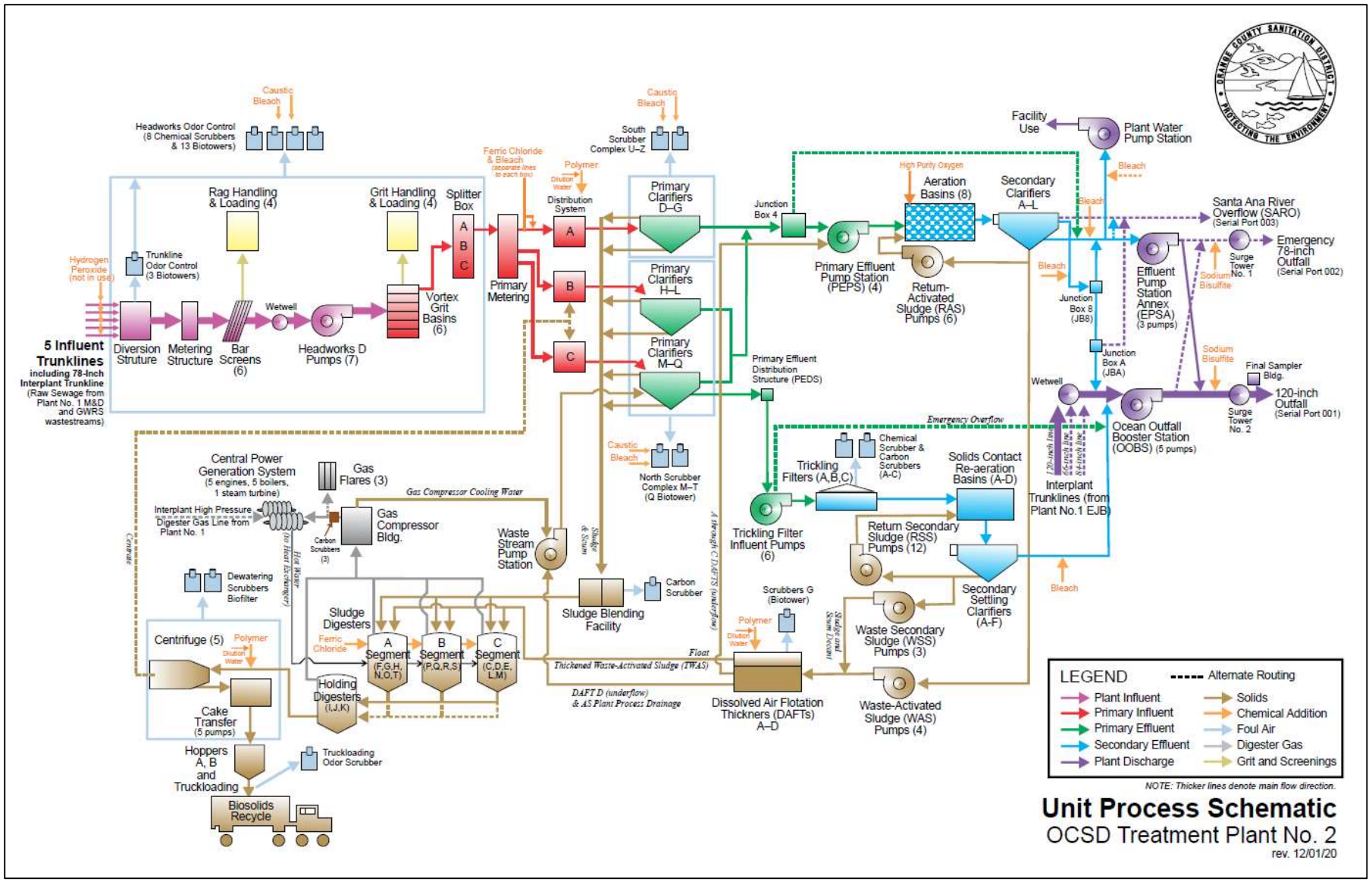


Figure C-4. Future Process Schematic for OC San Treatment Plant No. 2 after GWRS Final Expansion in 2023

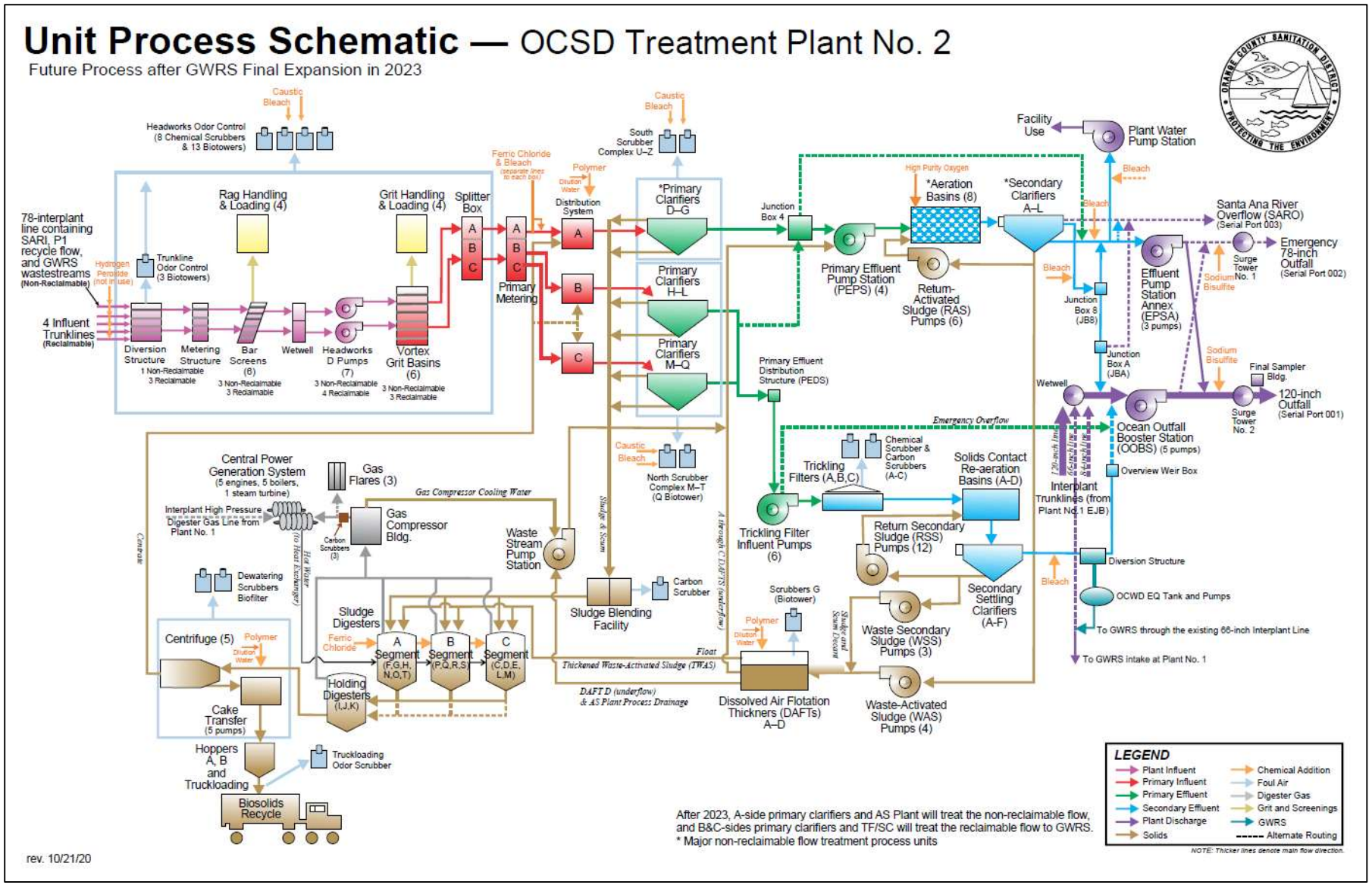
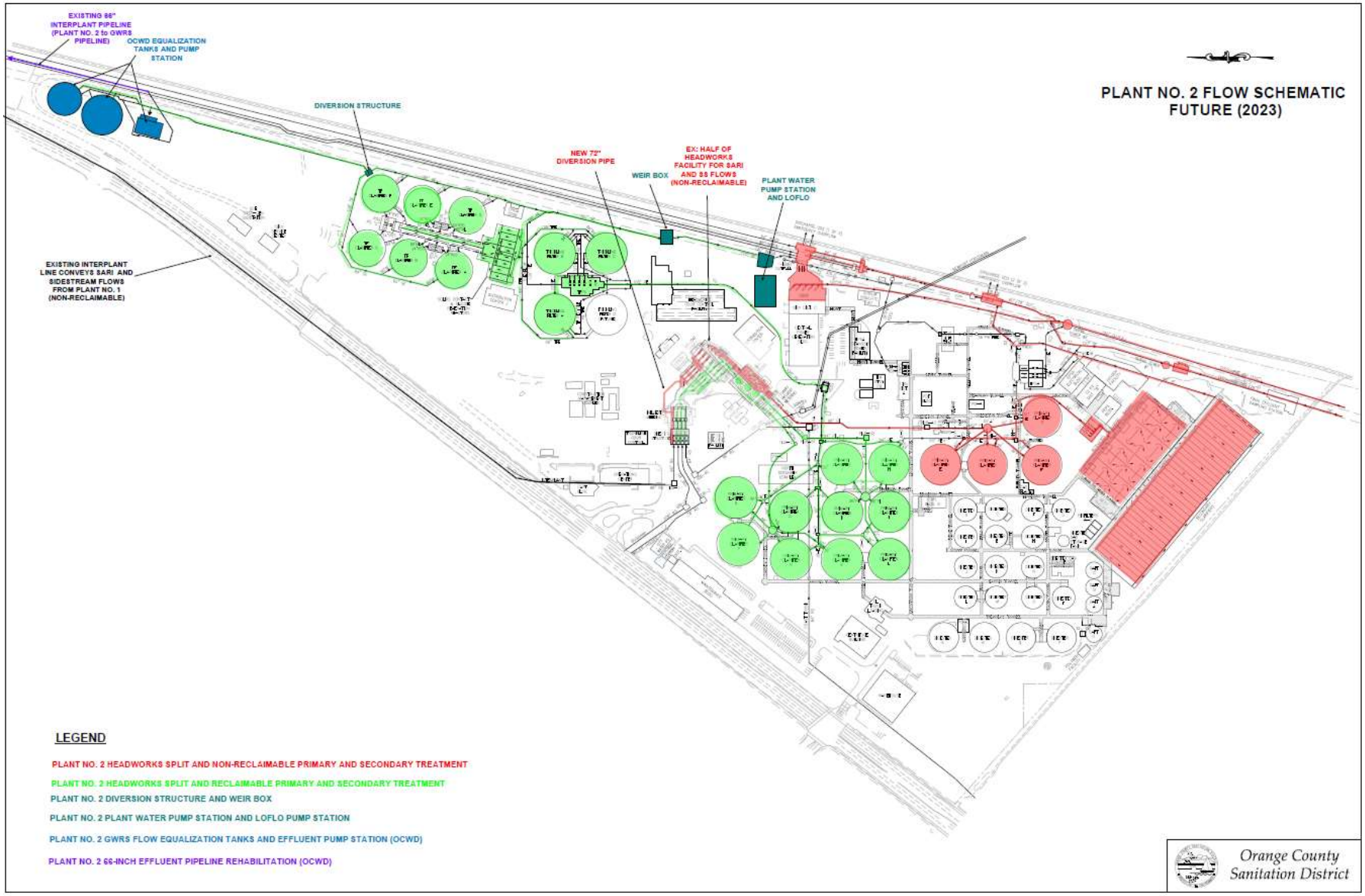


Figure C-5. Future Site Layout of OC San Treatment Plant No. 2



ATTACHMENT D – STANDARD PROVISIONS

I. STANDARD PROVISIONS – PERMIT COMPLIANCE

A. Duty to Comply

1. The Discharger must comply with all conditions, terms, and requirements of this Order/Permit. Any noncompliance constitutes a violation of the Clean Water Act (CWA) and California Water Code (CWC) and is grounds for enforcement action; for Order/Permit termination, revocation and reissuance, or modification; or denial of an Order/Permit renewal application. (40 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 CWA section 307(a) for toxic pollutants and with standards for sewage sludge use and disposal established under CWA section 405(d) within the time provided in the regulations that establish these standards or prohibitions or standards of sewages sludge use or disposal, even if the Order/Permit has not yet been modified to incorporate the requirement. (40 CFR § 122.41(a)(1).)
3. The CWA provides that any person who violates section 301, 302, 306, 307, 308, 318 or 405 of the Act, 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 Act, is subject to a civil penalty not to exceed $25,000 per day for each violation, as adjusted annually for inflation pursuant to the Federal Civil Penalties Inflation Adjustment Act Improvements Act of 2015, and as currently set forth in 40 CFR § 19.4. The Clean Water Act provides that any person who negligently violates sections 301, 302, 306, 307, 308, 318, or 405 of the Act, or any condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, or any requirement imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of $2,500 to $25,000 per day of violation, or imprisonment of not more than 1 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 2 years, or both. Any person who knowingly violates such sections, or 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 3 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 Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, 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).)

4. Any person may be assessed an administrative penalty by the Administrator for violating section 301, 302, 306, 307, 308, 318 or 405 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act. 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. The civil and administrative penalty amounts are adjusted annually for inflation pursuant to the Federal Civil Penalties Inflation Adjustment Act Improvements Act of 2015, and the current penalty amounts are set forth in 40 CFR § 19.4.

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/Permit. (40 CFR § 122.41(c).)

C. Duty to Mitigate

The Discharger shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this Order/Permit which 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/Permit. Proper operation and maintenance also include 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 the Order/Permit. (40 CFR § 122.41(e).)

E. Property Rights

1. This Order/Permit does not convey any property rights of any sort or any exclusive privilege. (40 CFR § 122.41(g).)
2. The issuance of this Order/Permit 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 Santa Ana Water Board, State Water Board, USEPA, and/or an authorized representative (including an authorized contractor acting as their representative), upon presentation of credentials and other documents as may be required by law, to (33 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/Permit (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/Permit (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/Permit (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/Permit compliance or as otherwise authorized by the CWA or the California Water Code, 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 effluent limitations to be exceeded, but only if it is also 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. (40 CFR § 122.41(m)(2).)
3. Prohibition of bypass. Bypass is prohibited, and the Santa Ana Water Board/USEPA 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 notices as required under Standard Provisions – Permit Compliance I.G.5. (40 CFR § 122.41(m)(4)(i)(C).)

4. The Santa Ana Water Board/USEPA may approve an anticipated bypass, after considering its adverse effects, if the Santa Ana Water Board/USEPA determines that it will meet the three conditions listed in Standard Provisions – Permit Compliance I.G.3. (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 prior notice, if possible, at least ten days before the date of the bypass. The notice shall be sent to the Santa Ana Water Board and USEPA. As of December 21, 2025 all notices submitted in compliance with this section must be submitted electronically by the Discharger to the Santa Ana Water Board and USEPA or initial recipient, as defined in 40 CFR § 127.2(b), in compliance with this section and 40 CFR § 3 (including, in all cases, subpart D to part 3), 122.22 and 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 Order/Permit or if required to do so by State law. (40 CFR § 122.41(m)(3)(i).)

b. Unanticipated bypass. The Discharger shall submit a notice of an unanticipated bypass as required in Attachment D. Standard Provisions – Reporting V.E (24-hour notice). As of December 21, 2025 all notices submitted in compliance with this section must be submitted electronically by the Discharger to the Santa Ana Water Board and USEPA or initial recipient, as defined in 40 CFR § 127.2(b), in compliance with this section and 40 CFR § 3 (including, in all cases, subpart D to part 3), 122.22 and 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 Order/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 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)); and
    c. The Discharger submitted notice of the upset as required in Standard Provisions – Reporting V.E.2.b (24-hour notice) (40 CFR § 122.41(n)(3)(iii)).
    d. The Discharger complied with any remedial measures required under Standard Provisions – Permit Compliance I.C. (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/Permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for Order/Permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Order/Permit condition. (40 CFR § 122.41(f).)

B. Duty to Reapply

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

C. Transfers

This Order/Permit is not transferable to any person except after notice to the Santa Ana Water Board/USEPA. The Santa Ana Water Board/USEPA may require modification or revocation and reissuance of the Order/Permit to change the name of the Discharger and incorporate such other requirements as may be necessary under the CWA and 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).)

B. Monitoring must be conducted according to test procedures approved under 40 CFR § 136 for the analyses of pollutants unless another method is required under 40 CFR § 1, subchapter N or O. (40 CFR § 122.41(j)(4).)

C. Monitoring for quantitative data shall be conducted in accordance with sufficiently sensitive analytical methods approved under 40 CFR § 136 or required under 40 CFR § 1, subchapter N or O. For the purposes of this requirement, a method approved under 40 CFR § 136 or required under 40 CFR § 1, subchapter N or O 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 Order/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. The method has the lowest ML of the analytical methods approved under 40 CFR § 136 or required under 40 CFR § 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 § 136 or otherwise required under 40 CFR § 1, subchapter N or O, monitoring must be conducted according to a test procedure specified in this Order for such pollutants or pollutant parameters. (40 C.F.R. §§ 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/Permit related to the Discharger's sewage sludge use and disposal activities, which shall be retained for a period of at least five (5) years (or longer as required by 40 CFR § 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/Permit, and records of all data used to complete the application for this Order/Permit, 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 Santa Ana Water Board/USEPA 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 C.F.R. § 122.7(b)):

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

B. Signatory and Certification Requirements

1. All applications, reports, or information submitted to the Santa Ana 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, V.B.5, and V.B.6 below. (40 CFR § 122.41(k)(1).)
2. 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 Order/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 6 months per violation, or by both. (40 CFR § 122.41(k)(2).)
3. For a municipality, State, federal, or other public agency. 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).)

4. All reports required by this Order/Permit and other information requested by the Santa Ana Water Board, State Water Board, and/or USEPA shall be signed by a person described in Standard Provisions – Reporting V.B.3, 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.3 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 Santa Ana Water Board, State Water Board, and USEPA (40 CFR § 122.22(b)(3).)
5. Changes to authorization. If an authorization under Standard Provisions – Reporting V.B.4 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.4 must be submitted to the Santa Ana Water Board, State Water Board, and USEPA prior to or together with any reports, information, or applications to be signed by an authorized representative. (40 CFR § 122.22(c).)
6. Certification. Any person signing a document under Standard Provisions – Reporting V.B.3 or V.B.4 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).)
7. Electronic reporting. If documents described in Standard Provisions – Reporting V.B.1, V.B.3, or V.B.4 are submitted electronically by or on behalf of the NPDES-regulated facility, any person providing the electronic signature for such documents shall meet all relevant requirements of Standard Provisions – Reporting V.B, and shall ensure shall ensure that all of the relevant requirements of 40 CFR § 3 (including, in all cases, subpart D to part 3) (Cross-Media Electronic Reporting) and 40 CFR § 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 elsewhere in this Order/Permit. (40 CFR § 122.41 (l)(4).)
2. Monitoring results must be reported on a Discharge Monitoring Report (DMR) or forms provided or specified by the Santa Ana Water Board, State Water Board, and/or USEPA for reporting results of monitoring of sludge use or disposal practices. As of December 21, 2016 all reports and forms submitted in compliance with this section must be submitted electronically by the Discharger to the initial recipient defined in Standard Provisions – Reporting V.J and comply with this section and 40 CFR § 3, 40 CFR § 122.22, and 40 CFR § 127. (40 CFR § 122.41(l)(4)(i).)
3. If the Discharger monitors any pollutant more frequently than required by this Order/Permit using test procedures approved under 40 CFR § 136, or another method required for an industry-specific waste stream under 40 CFR § 1, subchapter N or O, the results of such monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Santa Ana Water Board, State Water Board, and/or USEPA. (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/Permit. (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/Permit 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 (combined sewer overflows, sanitary sewer overflows or bypass events), type of overflow structure (e.g., manhole, combined sewer overflows), discharge volumes untreated by the treatment works treating domestic sewage, types of human

health and environmental impacts of the sewer overflow event, and whether the noncompliance was related to wet weather.

As of December 21, 2025, all reports related to combined sewer overflows, sanitary sewer overflows or bypass events must be submitted to the Santa Ana Water Board/USEPA and must be submitted electronically by the Discharger to the initial recipient defined in Standard Provisions – Reporting V.J. The reports shall comply with 40 CFR § 3, 40 CFR § 122.22, and 40 CFR § 127. The Santa Ana Water Board/USEPA 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 which must be reported within 24 hours:

   a. Any unanticipated bypass which exceeds any effluent limitation in this Order/Permit. (40 CFR § 122.41(l)(6)(ii)(A).)

   b. Any upset which exceeds any effluent limitation in the Order/Permit. (40 CFR § 122.41(l)(6)(ii)(B).)

   c. Violation of a maximum daily discharge limitation for any of the pollutants listed by the Santa Ana Water Board/USEPA in the Order/Permit to be reporting within 24 hours. (See 122.44(g).) (40 CFR § 122.41(l)(6)(ii)(C).)

3. The Santa Ana Water Board/USEPA 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)(iii).)

F. Planned Changes

The Discharger shall give notice to the Santa Ana Water Board/USEPA as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required 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 40 CFR § 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 which are subject neither to effluent limitations in the Order/Permit, nor to notification requirements under 40 CFR § 122.42(a)(1) (see Additional Provisions—Notification Levels VII.A). (40 CFR § 122.41(l)(1)(ii).)

3. The alteration or addition results in a significant change in the Discharger's sludge use or disposal practices, and such alteration, addition, or change may justify the application of Order/Permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the Order/Permit application process or not reported pursuant to an approved land application plan. (40 CFR § 122.41(l)(1)(iii).)

G. Anticipated Noncompliance

The Discharger shall give advance notice to the Santa Ana Water Board/USEPA of any planned changes in the permitted facility or activity that may result in noncompliance with Order/Permit 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, at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting V.E. 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 § 127. As of December 21, 2025, all reports related to combined sewer overflows, sanitary sewer overflows or bypass events submitted in compliance with this section must be submitted electronically by the Discharger to the Santa Ana Water Board/USEPA or initial recipient, as defined in 40 CFR § 127.2(b), in compliance with this section and 40 CFR § 3 (including, in all cases, subpart D to 3), 122.22, and 40 CFR § 127. (40 CFR § 122.41(l)(7).)

I. Other Information

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

J. Identification of the Initial Recipient for NPDES Electronic Reporting Data

The owner, operator, or the duly authorized representative of an NPDES-regulated entity is required to electronically submit the required NPDES information (as specified in appendix A to 40 CFR § 127) to the appropriate initial recipient defined in 40 CFR § 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 § 127.2(c)). USEPA will update and maintain this listing. (40 CFR § 122.41(l)(9).)

VI. STANDARD PROVISIONS – ENFORCEMENT

A. The Reginal Water Board and/or USEPA 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.

VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

A. Publicly-Owned Treatment Works (POTWs)

All POTWs shall provide adequate notice to the Santa Ana Water Board/USEPA 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 CWA sections 301 or 306 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 issuance of the Order/Permit. (40 CFR § 122.42(b)(2).)
3. For the purposes of this paragraph, adequate notice shall include information on the quality and quantity of effluent introduced into the POTW, and 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)

Section 308 of the federal Clean Water Act (CWA) and 40 CFR § 122.41(h), (j)-(l), 122.44(i) and 122.48 require that all NPDES permits specify monitoring and reporting requirements. California Water Code (CWC) sections 13267 and 13383 also authorize the Santa Ana Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. This MRP establishes monitoring, reporting, and recordkeeping requirements that implement federal and California laws and/or regulations. The Discharger shall comply with this MRP of this Order/Permit.

I. GENERAL MONITORING PROVISIONS

A. The Santa Ana 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.

B. This conceptual framework along with the California Ocean Plan has three components that comprise a range of spatial and temporal scales: (1) core monitoring; (2) regional monitoring; and (3) strategic process studies.

1. **Core Monitoring.** Core monitoring is local in nature and focuses on monitoring trends in quality and effects of the point source discharge. This includes discharge monitoring, as well as some aspects of receiving water monitoring. Core monitoring results for the effluent shall be submitted on monthly Discharge Monitoring Reports/State Monitoring Reports (DMR/SMR) and summarized in the annual receiving water monitoring report if needed. Core monitoring results for receiving water, including annotated QA/QC findings, shall be described and summarized in the annual receiving water monitoring report, due by March 15th of each year, for the previous fiscal year (July 1 through June 30). The annual receiving water monitoring report shall include the specified parameters for each station along with more detailed statistical comparisons, including analyses to elucidate spatial and temporal trends in the data, and in relation to the wastewater plume. Statistical methods shall include, but are not limited to, various multivariate techniques such as cluster analysis, ordination, and regression. The applicability and choice of statistical methods shall be explained in the report.

2. **Regional Monitoring.** Regional monitoring is focused on questions best answered by a region-wide approach that incorporates coordinated survey design and sampling techniques. Key components of regional monitoring include elements to address pollutant mass emission estimates, public health concerns, monitoring trends in natural resources, assessment of regional impacts from all contaminant

sources, and beneficial use protection. The final designs of regional monitoring programs are developed by means of steering and technical committees comprised of participating agencies. For each component of regional monitoring, this Order/Permit specifies the required degree and nature of participation by Orange County Sanitation District (OC San), based upon its past participation in regional monitoring programs. The degree and nature of OC San's participation in regional monitoring programs shall be briefly described and summarized in the annual receiving water monitoring report. Each year, as part of the annual receiving monitoring report, the Discharger shall provide an informational report summarizing to date its contributing activities towards coordinated implementation of regional monitoring programs.

Although participation in regional monitoring programs is required under this Order/Permit, revisions to Attachment E, at the direction of the Santa Ana Water Board and USEPA, may be necessary to accomplish the goals of regional monitoring.

3. **Strategic Process Studies.** Strategic process 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 multi-year studies may be needed. Questions regarding discharge 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, regional monitoring, or other relevant studies shall be pursued through these studies. These studies are by nature ad hoc and, typically, cannot be anticipated in advance of the five-year permit cycle. Monitoring efforts, status of in-progress studies, and summary results for completed strategic process studies shall be briefly described and summarized in the annual receiving water monitoring report.

   In the spring, beginning in 2022 and continuing every-other year during the term of this Order/Permit, the Discharger, Santa Ana Water Board, and USEPA shall consult to determine the need for strategic process studies. By October 1st, the Discharger shall submit proposals to the Santa Ana Water Board and USEPA for the following fiscal year's (July 1 through June 30) monitoring effort, or a letter explaining why no special studies are proposed. Final scopes of work, including reporting schedules, shall be presented by the Discharger at a spring meeting with Santa Ana Water Board and USEPA to obtain Santa Ana Water Board and USEPA approval. Upon approval, the Discharger shall implement its strategic process studies.

C. Every five years SCCWRP coordinates receiving water regional monitoring within the Southern California Bight and compiles monitoring data collected by the dischargers and other participating entities. The sixth regional monitoring program (Bight '18) occurred primarily during the summer of 2018. The next (seventh) regional monitoring program (Bight '23) is expected to take place during 2023. While participation in regional monitoring programs is required under this Order/Permit, revisions to the Discharger's monitoring program at the direction of the Santa Ana Water Board and

USEPA 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, which are applicable to receiving water monitoring program only. Such changes shall be authorized by the Santa Ana Water Board Executive Officer and USEPA Director upon written notification to the Discharger.

Permittee participation in regional monitoring programs is required as a condition of this Order/Permit. 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, 2013, and 2018.

D. All plant samples shall be representative of the waste discharge under conditions of peak load. Results of quarterly, semiannual, and annual analyses shall be reported by the due date specified in Table E-16 of the MRP. Should there be instances when monitoring could not be performed during these specified months, the Discharger must notify the Santa Ana Water Board and USEPA, state the reason why monitoring could not be conducted, and obtain approval from the Santa Ana Water Board and USEPA for an alternate schedule.

E. 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 the Santa Ana Water Board, the State Water Board, and/or USEPA. 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. USEPA published regulations for the Sufficiently Sensitive Methods Rule (SSM Rule) which became effective September 18, 2015. For the purposes of monitoring and reporting under the NPDES program, when more than one test procedure is approved under 40 CFR § 136 for the analysis of a pollutant or pollutant parameter, the test procedure must be sufficiently sensitive as defined at 40 CFR § 122.21(e)(3) and 122.44(i)(1)(iv). A USEPA-approved analytical method is sufficiently sensitive where:

1. The ML is at or below both the level of the applicable water quality criterion/objective and the permit limitation or performance goal for the measured pollutant or pollutant parameter; or
2. In permit applications, the ML is above the applicable water quality criterion/objective, but the amount of the pollutant or pollutant parameter in a facility's discharge is high enough that the method detects and quantifies the level of the pollutant or pollutant parameter in the discharge; or
3. The method has the lowest ML of the USEPA-approved analytical methods where none of the USEPA-approved analytical methods for a pollutant can achieve the MLs necessary to assess the need for effluent limitations or to monitor compliance with a permit limitation.

The MLs in Ocean Plan Appendix II remain applicable. However, there may be situations when analytical methods are published with MLs that are more sensitive than the MLs for analytical methods listed in the Ocean Plan. For instance, USEPA Method 1631E for mercury is not currently listed in Ocean Plan Table II, but it is published with an ML of 0.5 ng/L that makes it a sufficiently sensitive analytical method.

F. In conformance with federal regulations 40 CFR § 122.45(c), analyses to determine compliance with the effluent limitations for metals shall be conducted using the total recoverable method. For chromium (III) and (VI), the Discharger may, at its option, meet both the chromium (III) and the chromium (VI) limitations by analyzing for total recoverable chromium.

G. Water/wastewater samples must be analyzed within allowable holding time limits as specified in 40 CFR § 136.3. All quality assurance/quality control (QA/QC) analyses must be run in the same preparation and analytical batches in which 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 Santa Ana Water Board and/or USEPA. Proper chain of custody procedures must be followed, and a copy of this documentation shall be submitted with the monthly report.

H. If the Discharger samples and performs analyses (other than for process/operational control, startup, research, or equipment testing) on any influent, effluent, or receiving water constituent more frequently than required by this Order/Permit 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/Permit.

I. All monitoring instruments and devices used by the Discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy. In the event that continuous monitoring equipment is out of service for greater than a 24-hour period, the Discharger shall obtain a representative grab sample each day the equipment is out of service. The Discharger shall correct the cause(s) of failure of the continuous monitoring equipment as soon as practicable. In its monitoring report, the Discharger shall specify the period(s) during which the equipment was out of service and, if the problem has not been corrected, shall identify the steps which the Discharger is taking or proposes to take to bring the equipment back into service and the schedule for these actions.

J. For every item of monitoring data where the requirements are not met, the monitoring report shall include a statement discussing the reasons for noncompliance, the actions undertaken or proposed that will bring the discharge into full compliance with requirements at the earliest time and an estimate of the date when the Discharger will be in compliance. The Discharger shall notify the Santa Ana Water Board and USEPA by letter when compliance with the time schedule has been achieved.

K. Laboratory Certification. Laboratories analyzing monitoring samples shall be certified by the State Water Board, Environmental Laboratory Accreditation Program (ELAP), in accordance with CWC section 13176, and must include QA/QC data in their reports.

L. The Discharger shall have and implement an acceptable written QA plan for laboratory analyses. The Discharger shall ensure that the results of the Discharge Monitoring Report-Quality Assurance (DMR-QA) Study or the most recent Water Pollution Performance Evaluation Study are submitted annually to the State Water Board the following address:

State Water Resources Control Board
Quality Assurance Program Officer
Office of Information Management and Analysis
1001 I Street, Sacramento, CA 95814

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/Permit:

Table E-1. Monitoring Station Locations

Monitoring Location Type	Monitoring Location Name	Monitoring Location Description	Latitude	Longitude
Influent Monitoring Stations (n=2)				
Reclamation Plant No. 1 Influent	INF-001	Reclamation Plant No. 1 sampling stations shall be located at each point of inflow to the treatment plant and upstream of any in-plant return flows, where representative samples of the influent can be obtained.	33° 41.588' N	117° 56.294' W
Treatment Plant No. 2 Influent (Before OCWD receives reclaimed water from Plant No.2)	INF-002	Treatment Plant No. 2 sampling stations shall be located at each point of inflow to the treatment plant and upstream of any in-plant return flows, where representative samples of the influent can be obtained.	33° 38.342' N	117° 57.462' W
Treatment Plant No. 2 Influent (Pending until OCWD receives reclaimed water from Plant No.2)	INF-002	INF-002 sampling stations shall be located at each point of reclaimable inflow to the Treatment Plant No.2, where representative samples of the reclaimable influent can be obtained.	33° 38.342' N	117° 57.462' W

Monitoring Location Type	Monitoring Location Name	Monitoring Location Description	Latitude	Longitude
	INF-002A	INF-002A sampling station shall be located at a point of non-reclaimable influent from the 78-inch interplant trunkline containing SARI influent, Reclamation Plant No.1 recycle flow, and GWRS wastestream.	33° 38.317' N	117° 57.453' W
Effluent Monitoring Stations (n=2)				
Effluent discharged to Discharge Point 001 (during normal operation)	EFF-001	Sampling station shall be located downstream of any in-plant return flows, but before entering 120-inch outfall, where representative effluent samples can be obtained.	33° 38.012' N	117° 57.452' W
Effluent discharged to Discharge Point 002 (during essential maintenance or capital improvement projects)	EFF-002	Sampling station can be same as EFF-001, but before entering 78-inch outfall, where representative samples of the disinfected effluent discharge can be obtained.	33° 38.012' N	117° 57.452' W
Emergency Discharge Monitoring Stations (n=2)				
Emergency discharges to Discharge Point 002 (during an emergency)	EMG-001	Sampling station shall be located downstream of any in-plant return flows, but before entering the emergency 78-inch outfall, where representative samples of the disinfected effluent discharge can be obtained.	33° 38.012' N	117° 57.452' W
Santa Ana River Overflow to Discharge Point 003 (during an extreme emergency)	EMG-002	Sampling station shall be located before entering the Santa Ana River overflow weirs, where representative samples of the disinfected effluent discharge can be obtained.	33° 38.297' N	117° 57.356' W

Table E-2. Receiving Water Core and Regional Monitoring Station Locations

Station Description	Station Location Name	Latitude	Longitude	Depth (m)	CTD Sampling Depths (1 m intervals)	Discrete Sampling Depths (m)
Receiving Water Core Monitoring Stations						
Monthly Water Quality Monitoring Stations (n=28) * = Station sampled for ammonia (NH_3-N) and nitrate nitrogen.						
*	2103	33° 35.089' N	117° 56.678' W	110	1 - 75 m	1, 10, 20, 30, 40, 50, 60
*	2104	33° 34.199' N	117° 57.414' W	143	1 - 75 m	1, 10, 20, 30, 40, 50, 60
*	2105	33° 33.309' N	117° 58.150' W	280	1 - 75 m	1, 10, 20, 30, 40, 50, 60
*	2106	33° 32.420' N	117° 58.885' W	309	1 - 75 m	1, 10, 20, 30, 40, 50, 60
*	2183	33° 35.701' N	117° 57.744' W	36	1 - 2 m above bottom	1, 10, 20, 30, 34
*	2184	33° 34.811' N	117° 58.480' W	51	1 - 2 m above bottom	1, 10, 20, 30, 40, 49
*	2185	33° 33.922' N	117° 59.215' W	114	1 - 75 m	1, 10, 20, 30, 40, 50, 60
*	2186	33° 33.032' N	117° 59.951' W	247	1 - 75 m	1, 10, 20, 30, 40, 50, 60
*	2203	33° 36.313' N	117° 58.810' W	25	1 - 2 m above bottom	1, 10, 20, 23
*	2204	33° 35.423' N	117° 59.546' W	39	1 - 2 m above bottom	1, 10, 20, 30, 37
ZID boundary; *	2205	33° 34.534' N	118° 00.282' W	57	1 - 2 m above bottom	1, 10, 20, 30, 40, 50, 55
*	2206	33° 33.644' N	118° 01.018' W	185	1 - 75 m	1, 10, 20, 30, 40, 50, 60
*	2223	33° 36.924' N	117° 59.871' W	22	1 - 2 m above bottom	1, 10, 20
*	2224	33° 36.035' N	118° 00.608' W	31	1 - 2 m above bottom	1, 10, 20, 29

Station Description	Station Location Name	Latitude	Longitude	Depth (m)	CTD Sampling Depths (1 m intervals)	Discrete Sampling Depths (m)
*	2225	33° 35.146' N	118° 01.346' W	47	1 - 2 m above bottom	1, 10, 20, 30, 40, 45
*	2226	33° 34.257' N	118° 02.083' W	135	1 - 75 m	1, 10, 20, 30, 40, 50, 60
*	2303	33° 37.537' N	118° 00.936' W	21	1 - 2 m above bottom	1, 10, 19
*	2304	33° 36.649' N	118° 01.674' W	29	1 - 2 m above bottom	1, 10, 20, 27
*	2305	33° 35.760' N	118° 02.412' W	38	1 - 2 m above bottom	1, 10, 20, 30, 36
*	2306	33° 34.871' N	118° 03.149' W	114	1 - 75 m	1, 10, 20, 30, 40, 50, 60
--	2351	33° 38.151' N	118° 02.001' W	21	1 - 2 m above bottom	None
--	2352	33° 37.262' N	118° 02.739' W	29	1 - 2 m above bottom	None
--	2353	33° 36.373' N	118° 03.477' W	37	1 - 2 m above bottom	None
--	2354	33° 35.484' N	118° 04.214' W	123	1 - 75 m	None
--	2403	33° 38.765' N	118° 03.072' W	21	1 - 2 m above bottom	None
--	2404	33° 37.875' N	118° 03.808' W	30	1 - 2 m above bottom	None
--	2405	33° 36.986' N	118° 04.544' W	37	1 - 2 m above bottom	None
--	2406	33° 36.096' N	118° 05.280' W	60	1 - 2 m above bottom	None
Quarterly REC-1 Water Quality Monitoring Stations (Offshore Zone) (n=8) Quarterly REC-1 stations are monitored 5 days over a 30-day period in spring, summer, fall, and winter for geometric mean calculation (“spring” means April, May, or June; “summer” means July, August, or September; “fall” means October, November, or December; and “winter” means January, February, or March).						
--	2103	33° 35.089' N	117° 56.678' W	110	1 - 75 m	1, 10, 20, 30, 40, 50, 60

Station Description	Station Location Name	Latitude	Longitude	Depth (m)	CTD Sampling Depths (1 m intervals)	Discrete Sampling Depths (m)
--	2104	33° 34.199' N	117° 57.414' W	143	1 - 75 m	1, 10, 20, 30, 40, 50, 60
--	2183	33° 35.701' N	117° 57.744' W	36	1 - 2 m above bottom	1, 10, 20, 30, 34
--	2203	33° 36.313' N	117° 58.810' W	25	1 - 2 m above bottom	1, 10, 20, 23
--	2223	33° 36.924' N	117° 59.871' W	22	1 - 2 m above bottom	1, 10, 20
--	2303	33° 37.537' N	118° 00.936' W	21	1 - 2 m above bottom	1, 10, 19
--	2351	33° 38.151' N	118° 02.001' W	21	1 - 2 m above bottom	1, 10, 19
--	2403	33° 38.765' N	118° 03.072' W	21	1 - 2 m above bottom	1, 10, 19
Quarterly Benthic Monitoring Stations (n=11) Quarterly benthic stations are monitored for infauna and sediment geochemistry (except pesticides) every quarter in spring, summer, fall, and winter ("spring" means April, May, or June; "summer" means July, August, or September; "fall" means October, November, or December; and "winter" means January, February, or March) as well as sampled annually in summer for pesticides and annually for whole sediment toxicity.						
ZID Boundary	0	33° 34.573' N	118° 00.598' W	56	--	--
--	1	33° 34.657' N	118° 00.968' W	56	--	--
ZID Boundary	4	33° 34.498' N	117° 59.761' W	56	--	--
--	9	33° 34.363' N	117° 59.510' W	59	--	--
--	73	33° 34.596' N	118° 00.709' W	55	--	--
ZID Boundary	76	33° 34.459' N	118° 00.297' W	58	--	--
--	77	33° 34.373' N	117° 59.730' W	60	--	--
--	84	33° 34.648' N	118° 00.543' W	54	--	--
--	85	33° 34.532' N	118° 00.679' W	57	--	--

Station Description	Station Location Name	Latitude	Longitude	Depth (m)	CTD Sampling Depths (1 m intervals)	Discrete Sampling Depths (m)
Farfield Reference	CON	33° 36.037' N	118° 05.387' W	59	--	--
ZID Boundary	ZB	33° 34.545' N	118° 00.274' W	56	--	--
Annual Benthic Monitoring Stations (n=11) Annual benthic stations are monitored only in the “summer” (July, August, or September) for infauna and sediment geochemistry.						
--	3	33° 34.434' N	118° 00.660' W	60	--	--
--	5	33° 34.749' N	118° 01.612' W	59	--	--
--	10	33° 34.902' N	118° 02.081' W	62	--	--
--	12	33° 34.385' N	117° 59.054' W	58	--	--
--	13	33° 35.307' N	118° 02.944' W	59	--	--
--	37	33° 34.832' N	117° 57.369' W	56	--	--
--	74	33° 34.616' N	118° 00.230' W	57	--	--
--	75	33° 34.559' N	117° 59.974' W	60	--	--
--	78	33° 34.329' N	118° 00.035' W	63	--	--
--	86	33° 34.400' N	118° 00.380' W	57	--	--
--	87	33° 34.780' N	118° 00.842' W	60	--	--
1/5-year Benthic Monitoring Stations (n=35) 1/5-year benthic stations are monitored once every five years in the “summer” (July, August, or September) for infauna and sediment geochemistry.						
--	7	33° 35.325' N	118° 00.367' W	41	--	--
--	8	33° 35.164' N	117° 59.555' W	44	--	--
--	17	33° 33.961' N	118° 00.187' W	91	--	--
--	18	33° 34.064' N	118° 00.750' W	91	--	--
--	20	33° 34.599' N	118° 02.229' W	100	--	--
--	21	33° 35.313' N	118° 01.891' W	44	--	--
--	22	33° 35.204' N	117° 59.028' W	45	--	--
--	23	33° 33.968' N	117° 59.147' W	100	--	--
--	24	33° 33.563' N	118° 01.140' W	200	--	--

Station Description	Station Location Name	Latitude	Longitude	Depth (m)	CTD Sampling Depths (1 m intervals)	Discrete Sampling Depths (m)
--	25	33° 33.924' N	118° 02.176' W	200	--	--
--	27	33° 33.326' N	117° 59.708' W	200	--	--
--	29	33° 35.033' N	118° 03.113' W	100	--	--
--	30	33° 35.493' N	118° 02.899' W	46	--	--
--	33	33° 34.349' N	117° 57.866' W	100	--	--
--	36	33° 35.308' N	117° 57.495' W	45	--	--
--	38	33° 34.634' N	117° 57.317' W	100	--	--
--	39	33° 33.283' N	117° 58.531' W	200	--	--
--	40	33° 32.496' N	117° 59.775' W	303	--	--
--	41	33° 32.690' N	118° 01.149' W	303	--	--
--	42	33° 33.098' N	118° 02.598' W	303	--	--
--	44	33° 34.586' N	118° 05.422' W	241	--	--
--	55	33° 36.739' N	118° 05.413' W	40	--	--
--	56	33° 35.665' N	118° 05.417' W	100	--	--
--	57	33° 34.970' N	118° 05.418' W	200	--	--
--	58	33° 33.365' N	118° 05.347' W	300	--	--
--	59	33° 36.070' N	118° 03.701' W	40	--	--
--	60	33° 35.532' N	118° 04.017' W	100	--	--
--	61	33° 35.011' N	118° 04.326' W	200	--	--
--	62	33° 34.069' N	118° 04.568' W	300	--	--
--	63	33° 34.173' N	118° 03.407' W	200	--	--
--	64	33° 33.484' N	118° 03.663' W	300	--	--
--	65	33° 33.859' N	117° 57.230' W	200	--	--
--	83	33° 34.239' N	118° 01.414' W	100	--	--
--	C4	33° 35.056' N	117° 55.833' W	187	--	--
--	C5	33° 33.920' N	117° 55.620' W	296	--	--

Station Description	Station Location Name	Latitude	Longitude	Depth (m)	CTD Sampling Depths (1 m intervals)	Discrete Sampling Depths (m)
Semi-annual Trawl Fish and Epibenthic Macroinvertebrate Monitoring Stations (n=6) Semi-annual trawl stations are monitored in summer (July, August, or September) and winter (January, February, or March). * = Station is also sampled annually in one of the four quarters for demersal fish liver tissue chemistry and demersal fish liver histopathology.						
Outfall; *	T1	33° 34.641' N	118° 00.567' W	55	--	--
Farfield reference; *	T11	33° 36.055' N	118° 05.199' W	60	--	--
--	T12	33° 34.868' N	118° 01.670' W	57	--	--
--	T17	33° 35.309' N	118° 02.987' W	60	--	--
--	T22	33° 34.326' N	117° 59.856' W	60	--	--
--	T23	33° 34.336' N	117° 59.051' W	58	--	--
Annual Trawl Fish and Epibenthic Macroinvertebrate Monitoring Stations (n=8) Annual trawl stations are monitored in summer (July, August, or September).						
--	T2	33° 35.688' N	117° 59.561' W	35	--	--
--	T6	33° 35.946' N	118° 02.785' W	36	--	--
--	T10	33° 33.771' N	118° 00.250' W	137	--	--
--	T14	33° 34.672' N	118° 03.200' W	137	--	--
--	T18	33° 36.960' N	118° 05.273' W	36	--	--
--	T19	33° 35.394' N	118° 05.424' W	137	--	--
--	T24	33° 35.648' N	118° 01.274' W	36	--	--
--	T25	33° 34.245' N	118° 01.967' W	137	--	--
Annual Rig Fish Monitoring Zones (n=2) Annual rig fishing stations are monitored in summer (July, August, or September). ***** All station positions and depths shall be determined prior to the first sampling.						

Station Description	Station Location Name	Latitude	Longitude	Depth (m)	CTD Sampling Depths (1 m intervals)	Discrete Sampling Depths (m)
Zone 1 (outfall)	RF1	Inshore of the 60 m depth contour bounded by coordinates: 33° 36.272' N / 117° 57.264' W, 33° 37.522' N / 117° 59.374' W along the 15 m contour; 33° 34.698' N / 118° 01.713' W along the 80 m contour; and 33° 33.475' N / 117° 59.583' W along the 180 m contour.		*	--	--
Zone 3 (farfield reference)	RF3	Offshore of Huntington Beach along 60 m depth contour bounded by the coordinates: 33° 35.885' N / 118° 08.013' W; 33° 35.407' N / 118° 07.408' W; 33° 34.213' N / 118° 08.628' W; 33° 34.830' N / 118° 09.065' W.		*	--	--
Receiving Water Regional Monitoring Stations						
Quarterly Southern California Bight Regional Water Quality Monitoring Stations (n=60) * = Core water quality monitoring station sampled during Southern California Bight Regional Water Quality surveys (n=16).						
--	1701	33° 29.878' N	117° 44.721' W	10	1 - 2 m above bottom	--
--	1702	33° 29.180' N	117° 45.120' W	40	1 - 2 m above bottom	--
--	1703	33° 28.472' N	117° 45.524' W	60	1 - 2 m above bottom	--
--	1704	33° 28.071' N	117° 45.752' W	100	1 - 100 m	--
--	1705	33° 27.434' N	117° 46.115' W	400	1 - 100 m	--
--	1706	33° 26.455' N	117° 46.679' W	600	1 - 100 m	--
--	1801	33° 32.027' N	117° 46.910' W	10	1 - 2 m above bottom	--

Station Description	Station Location Name	Latitude	Longitude	Depth (m)	CTD Sampling Depths (1 m intervals)	Discrete Sampling Depths (m)
--	1802	33° 31.591' N	117° 47.158' W	40	1 - 2 m above bottom	--
--	1803	33° 31.154' N	117° 47.406' W	60	1 - 2 m above bottom	--
--	1804	33° 30.612' N	117° 47.710' W	100	1 - 100 m	--
--	1805	33° 29.782' N	117° 48.277' W	500	1 - 100 m	--
--	1806	33° 28.618' N	117° 48.847' W	600	1 - 100 m	--
--	1901	33° 33.682' N	117° 49.654' W	10	1 - 2 m above bottom	--
--	1902	33° 33.165' N	117° 49.944' W	60	1 - 2 m above bottom	--
--	1903	33° 32.762' N	117° 50.182' W	100	1 - 75 m	--
--	1904	33° 31.787' N	117° 50.734' W	405	1 - 75 m	--
--	1905	33° 30.810' N	117° 51.285' W	510	1 - 75 m	--
--	1906	33° 29.829' N	117° 51.842' W	550	1 - 75 m	--
--	2001	33° 35.335' N	117° 52.692' W	10	1 - 2 m above bottom	--
--	2002	33° 34.755' N	117° 53.028' W	60	1 - 2 m above bottom	--
--	2003	33° 34.565' N	117° 53.144' W	100	1 - 75 m	--
--	2004	33° 33.589' N	117° 53.708' W	345	1 - 75 m	--
--	2005	33° 32.613' N	117° 54.063' W	410	1 - 75 m	--
--	2006	33° 31.647' N	117° 54.824' W	470	1 - 75 m	--
--	2041	33° 35.969' N	117° 54.567' W	10	1 - 2 m above bottom	--
--	2042	33° 35.413' N	117° 54.930' W	53	1 - 2 m above bottom	--
--	2043	33° 34.908' N	117° 55.265' W	165	1 - 75 m	--
--	2044	33° 33.951' N	117° 55.887' W	300	1 - 75 m	--
--	2045	33° 33.013' N	117° 56.500' W	390	1 - 75 m	--
--	2046	33° 32.080' N	117° 57.110' W	432	1 - 75 m	--

Station Description	Station Location Name	Latitude	Longitude	Depth (m)	CTD Sampling Depths (1 m intervals)	Discrete Sampling Depths (m)
--	2101	33° 36.183' N	117° 55.749' W	10	1 - 2 m above bottom	--
--	2102	33° 35.631' N	117° 56.206' W	26	1 - 2 m above bottom	--
*	2103	33° 35.089' N	117° 56.678' W	110	1 - 75 m	--
*	2104	33° 34.199' N	117° 57.414' W	143	1 - 75 m	--
*	2105	33° 33.309' N	117° 58.150' W	280	1 - 75 m	--
*	2106	33° 32.420' N	117° 58.885' W	309	1 - 75 m	--
--	2201	33° 37.493' N	117° 57.831' W	10	1 - 2 m above bottom	--
--	2202	33° 36.901' N	117° 58.314' W	16	1 - 2 m above bottom	--
*	2203	33° 36.313' N	117° 58.810' W	25	1 - 2 m above bottom	--
*	2204	33° 35.423' N	117° 59.546' W	39	1 - 2 m above bottom	--
*	2205	33° 34.534' N	118° 00.282' W	57	1 - 2 m above bottom	--
*	2206	33° 33.644' N	118° 01.018' W	185	1 - 75 m	--
--	2301	33° 38.572' N	118° 00.064' W	10	1 - 2 m above bottom	--
--	2302	33° 38.053' N	118° 00.495' W	15	1 - 2 m above bottom	--
*	2303	33° 37.537' N	118° 00.936' W	21	1 - 2 m above bottom	--
*	2304	33° 36.649' N	118° 01.674' W	29	1 - 2 m above bottom	--
*	2305	33° 35.760' N	118° 02.412' W	38	1 - 2 m above bottom	--
*	2306	33° 34.871' N	118° 03.149' W	114	1 - 75 m	--
--	2401	33° 39.920' N	118° 02.103' W	10	1 - 2 m above bottom	--

Station Description	Station Location Name	Latitude	Longitude	Depth (m)	CTD Sampling Depths (1 m intervals)	Discrete Sampling Depths (m)
--	2402	33° 39.342' N	118° 02.593' W	16	1 - 2 m above bottom	--
*	2403	33° 38.765' N	118° 03.072' W	21	1 - 2 m above bottom	--
*	2404	33° 37.875' N	118° 03.808' W	29	1 - 2 m above bottom	--
*	2405	33° 36.986' N	118° 04.544' W	37	1 - 2 m above bottom	--
*	2406	33° 36.096' N	118° 05.280' W	60	1 - 2 m above bottom	--
--	2451	33° 41.475' N	118° 03.944' W	10	1 - 2 m above bottom	--
--	2452	33° 40.739' N	118° 04.584' W	17	1 - 2 m above bottom	--
--	2453	33° 39.987' N	118° 05.204' W	22	1 - 2 m above bottom	--
--	2454	33° 39.098' N	118° 05.946' W	30	1 - 2 m above bottom	--
--	2455	33° 38.210' N	118° 06.675' W	36	1 - 2 m above bottom	--
--	2456	33° 37.318' N	118° 07.411' W	42	1 - 2 m above bottom	--

Responsible Agency	Station Location Name	Latitude	Longitude	Depth	Station Location	Station Description
Orange County Regional Shoreline REC-1 Cooperative Monitoring Program Stations (Nearshore Zone) (n=36) r = Regional OCHCA station. c = OC San station. Orange County Regional Shoreline REC-1 stations are monitored at least once per week. * = These stations are monitored at least twice per week.						
OCSD-r	OSB03	33° 44.355' N	118° 06.449' W	surf	Seal Beach/ Sunset Beach	Projection of 8th St.
OCSD-r	OSB05	33° 44.296' N	118° 06.378' W	surf	Seal Beach/ Sunset Beach	100 yards south of Pier

Responsible Agency	Station Location Name	Latitude	Longitude	Depth	Station Location	Station Description
OCSD-r	OSB04	33° 44.209' N	118° 06.121' W	surf	Seal Beach/ Sunset Beach	Projection of 14th St.
OCSD-r	OSB01	33° 43.603' N	118° 05.041' W	surf	Seal Beach/ Sunset Beach	Projection of Seaway
OCSD-r	OSUB1	33° 42.986' N	118° 04.341' W	surf	Seal Beach/ Sunset Beach	Projection of Broadway
OCSD-c	39N	33° 42.114' N	118° 03.321' W	surf	Bolsa Chica/ Huntington Beach	Bolsa Chica Beach
OCSD-c	33N	33° 41.281' N	118° 02.495' W	surf	Bolsa Chica/ Huntington Beach	Projection of Bolsa Chica Reserve
OCSD-r	BCO-1	33° 40.994' N	118° 02.138' W	surf	Bolsa Chica/ Huntington Beach	Bolsa Chica Wetlands Channel
OCSD-c	27N	33° 40.587' N	118° 01.712' W	surf	Bolsa Chica/Huntington Beach	Bluffs at Sea Pointe (Dog Beach)
OCSD-r	HB1	33° 40.065' N	118° 01.937' W	surf	Bolsa Chica/ Huntington Beach	PCH & Goldenwest
OCSD-r	HB2	33° 40.022' N	118° 01.937' W	surf	Bolsa Chica/ Huntington Beach	PCH & 22nd St.
OCSD-r	HB3	33° 39.952' N	118° 00.933' W	surf	Bolsa Chica/ Huntington Beach	PCH & 20th St.
OCSD-c	21N	33° 39.843' N	118° 00.785' W	surf	Bolsa Chica/ Huntington Beach	Projection of 17th St.
OCSD-r	HB4	33° 39.680' N	118° 00.613' W	surf	Bolsa Chica/ Huntington Beach	PCH & 13th St.
OCSD-r	HB5	33° 39.414' N	118° 00.310' W	surf	Bolsa Chica/ Huntington Beach	PCH & 6th St.
OCSD-c	15N	33° 39.114' N	117° 59.846' W	surf	Bolsa Chica/ Huntington Beach	Projection of Jack's Snack Bar
OCSD-c	12N	33° 38.854' N	117° 59.413' W	surf	Bolsa Chica/ Huntington Beach	Projection of Beach Blvd

Responsible Agency	Station Location Name	Latitude	Longitude	Depth	Station Location	Station Description
OCSD-c	9N*	33° 38.565' N	117° 58.924' W	surf	Bolsa Chica/ Huntington Beach	Projection of Newland St.
OCSD-c	6N*	33° 38.331' N	117° 58.573' W	surf	Bolsa Chica/ Huntington Beach	Projection of Magnolia St.
OCSD-c	3N*	33° 38.018' N	117° 58.032' W	surf	Bolsa Chica/ Huntington Beach	Projection of Brookhurst St.
OCSD-c	0*	33° 37.764' N	117° 57.598' W	surf	Bolsa Chica/ Huntington Beach	Santa Ana River mouth
OCSD-r	TM	33° 37.994' N	117° 57.645' W	surf	Bolsa Chica/ Huntington Beach	PCH Bridge at Talbert Marsh
OCSD-r	SAR-N	33° 37.870' N	117° 57.434' W	surf	Bolsa Chica/ Huntington Beach	Santa Ana River mouth
OCSD-c	3S	33° 37.619' N	117° 57.264' W	surf	~~Bolsa Chica/ Huntington Beach~~Newport Beach	Projection Orange St.
OCSD-c	6S	33° 37.337' N	117° 56.704' W	surf	~~Bolsa Chica/ Huntington Beach~~Newport Beach	Projection 52nd/53rd St.
OCSD-c	9S	33° 37.033' N	117° 56.283' W	surf	~~Bolsa Chica/ Huntington Beach~~Newport Beach	Projection 38th St.
OCSD-c	15S	33° 36.342' N	117° 55.459' W	surf	~~Bolsa Chica/ Huntington Beach~~Newport Beach	Projection of 15th/16th St.
OCSD-c	21S	33° 36.059' N	117° 54.213' W	surf	~~Bolsa Chica/ Huntington Beach~~Newport Beach	Upcoast of Balboa Pier

Responsible Agency	Station Location Name	Latitude	Longitude	Depth	Station Location	Station Description
OCSD-c	27S	33° 35.646' N	117° 52.910' W	surf	~~Bolsa Chica/ Huntington Beach~~Newport Beach	The Wedge
OCSD-c	29S	33° 35.559' N	117° 52.508' W	surf	~~Bolsa Chica/ Huntington Beach~~Newport Beach	Corona del Mar State Beach
OCSD-r	BGC	33° 35.384' N	117° 52.117' W	surf	~~Bolsa Chica/ Huntington Beach~~Newport Beach	Little Corona Beach
OCSD-r	PPC	33° 34.490' N	117° 50.512' W	surf	Newport Beach/Crystal Cove	Pelican Point Beach (reef)
OCSD-c	39S	33° 34.700' N	117° 51.946' W	surf	Newport Beach/Crystal Cove	Pelican Point (ramp)
OCSD-r	WFC	33° 34.887' N	117° 51.342' W	surf	Newport Beach/Crystal Cove	Pelican Hill Waterfall
OCSD-r	ONB39	33° 34.450' N	117° 50.449' W	surf	Newport Beach/Crystal Cove	Crystal Cove - Los Trancos
OCSD-r	MDC	33° 33.607' N	117° 49.323' W	surf	Newport Beach/Crystal Cove	Muddy Creek Beach (Reef Point)

The North latitude and West longitude information in Table E-1 and E-2 are approximate for administrative purposes.

Figure E-1. Monthly Water Quality Monitoring Stations (n=28)

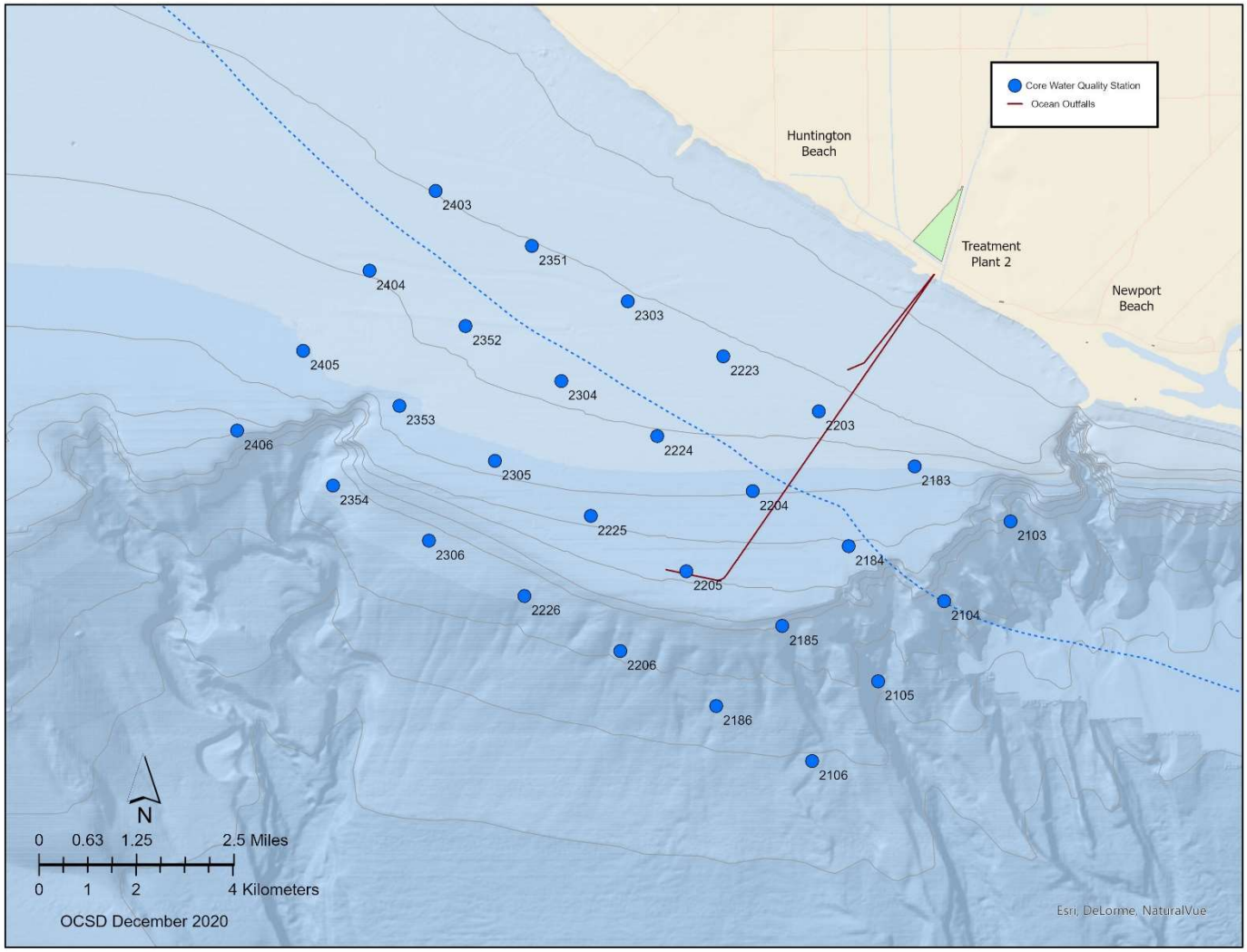


Figure E-2. Quarterly REC-1 Water Quality Monitoring Stations (Offshore Zone) (n=8)

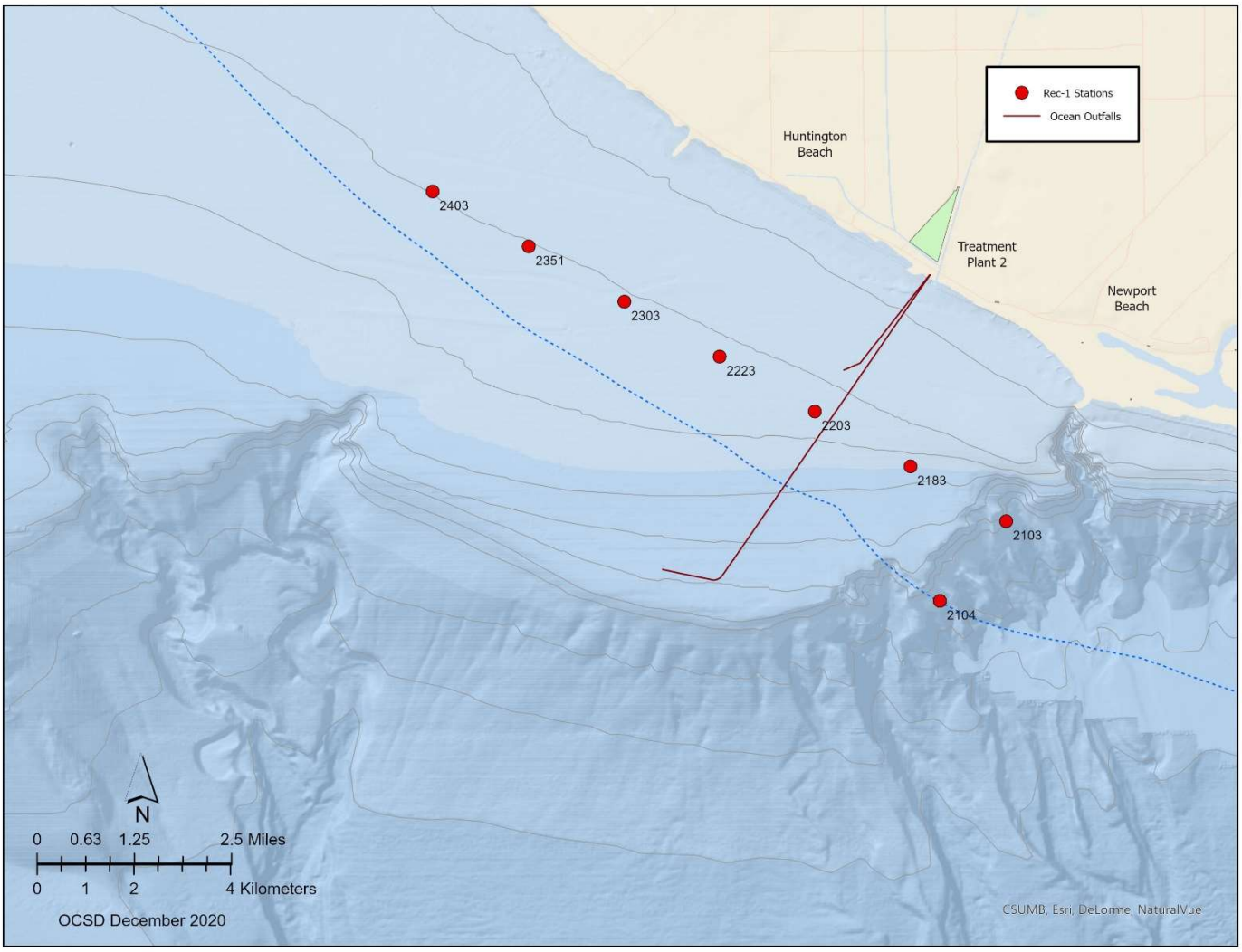


Figure E-3. Benthic Monitoring Stations: Quarterly (n=11), Annual (n=11), and 1/5-year (n=35)

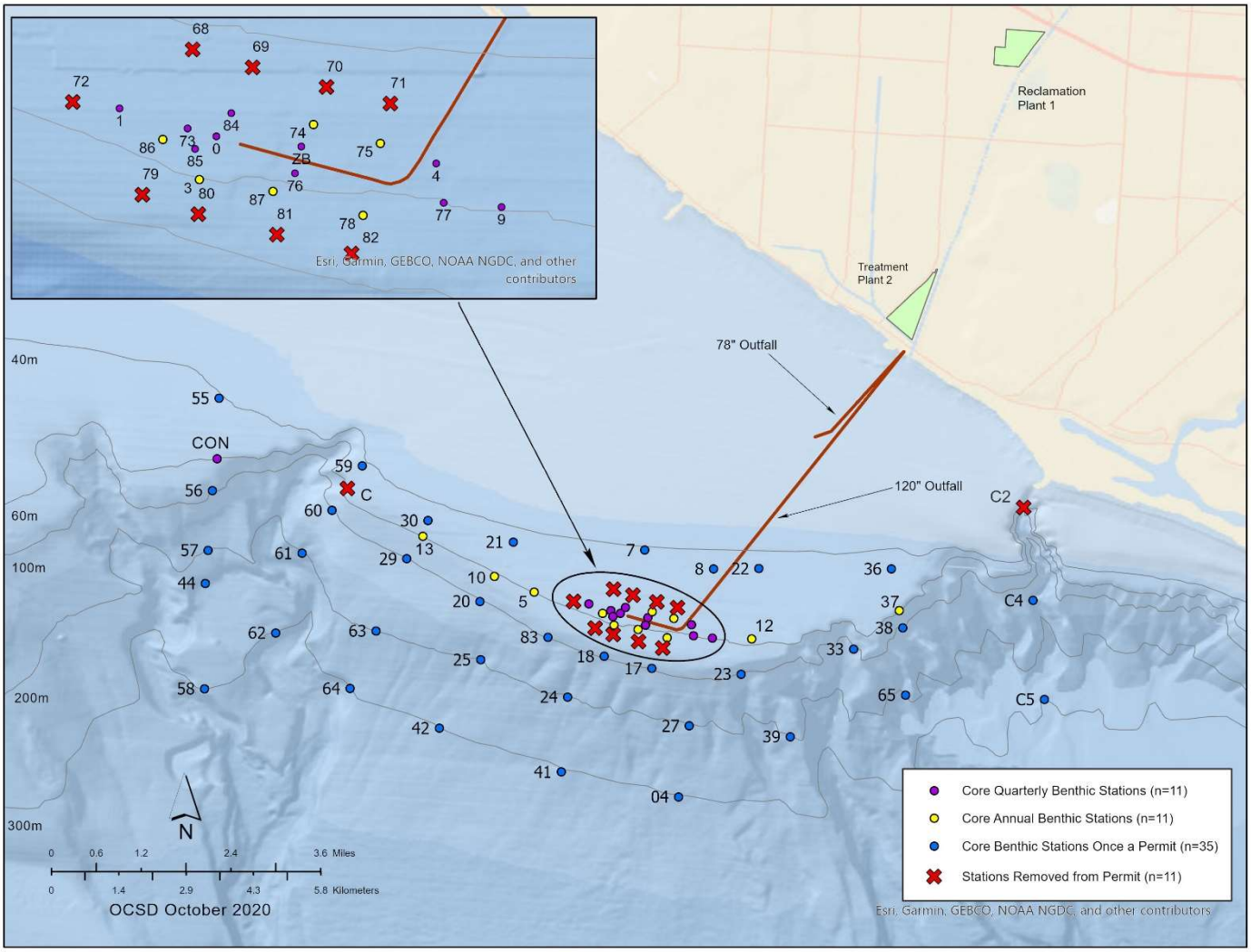


Figure E-4. Semi-annual Trawl Fish Monitoring Stations (n=6) and Annual Trawl Fish Monitoring Stations (n=8)

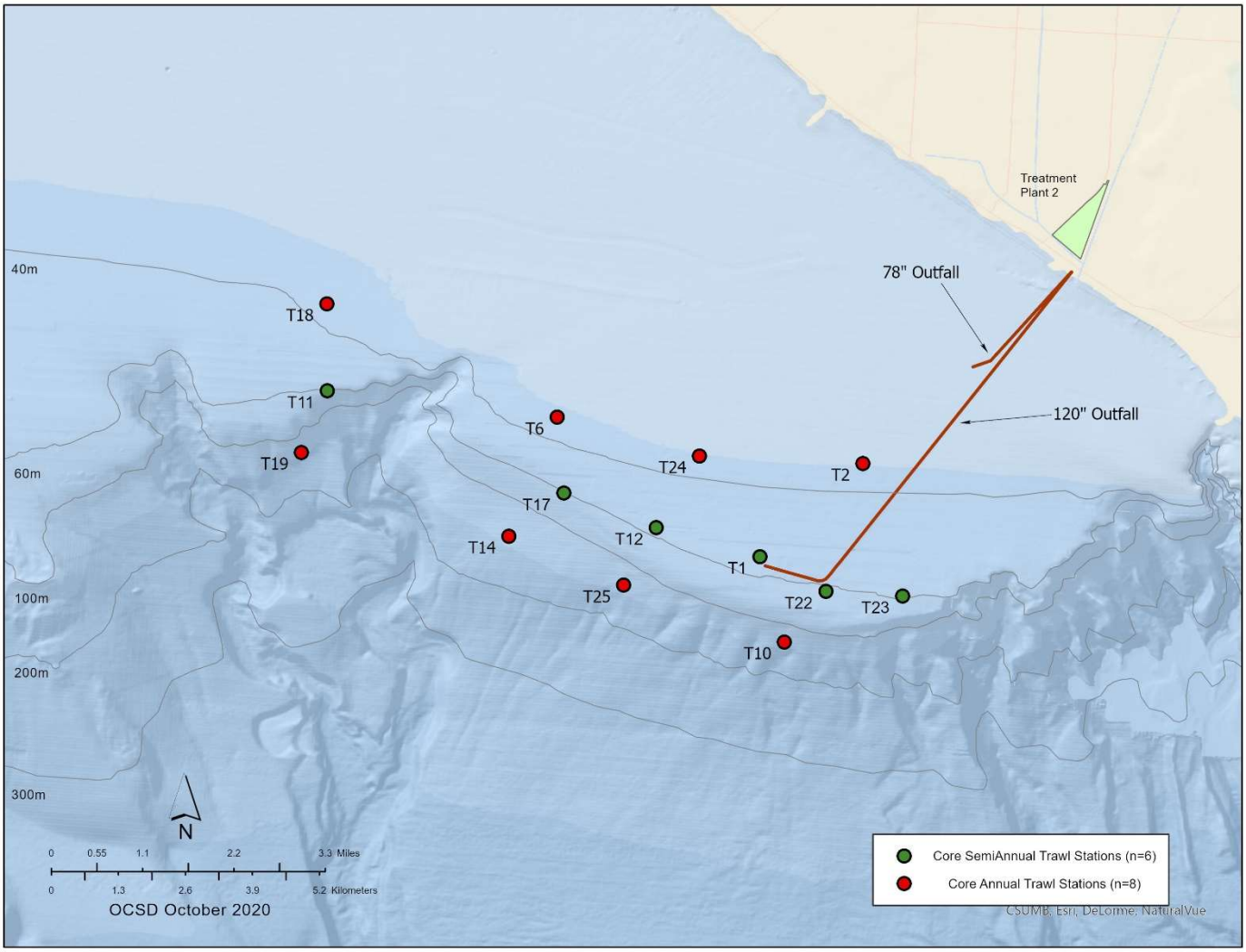


Figure E-5. Annual Rig Fish Monitoring Zones (n=2)

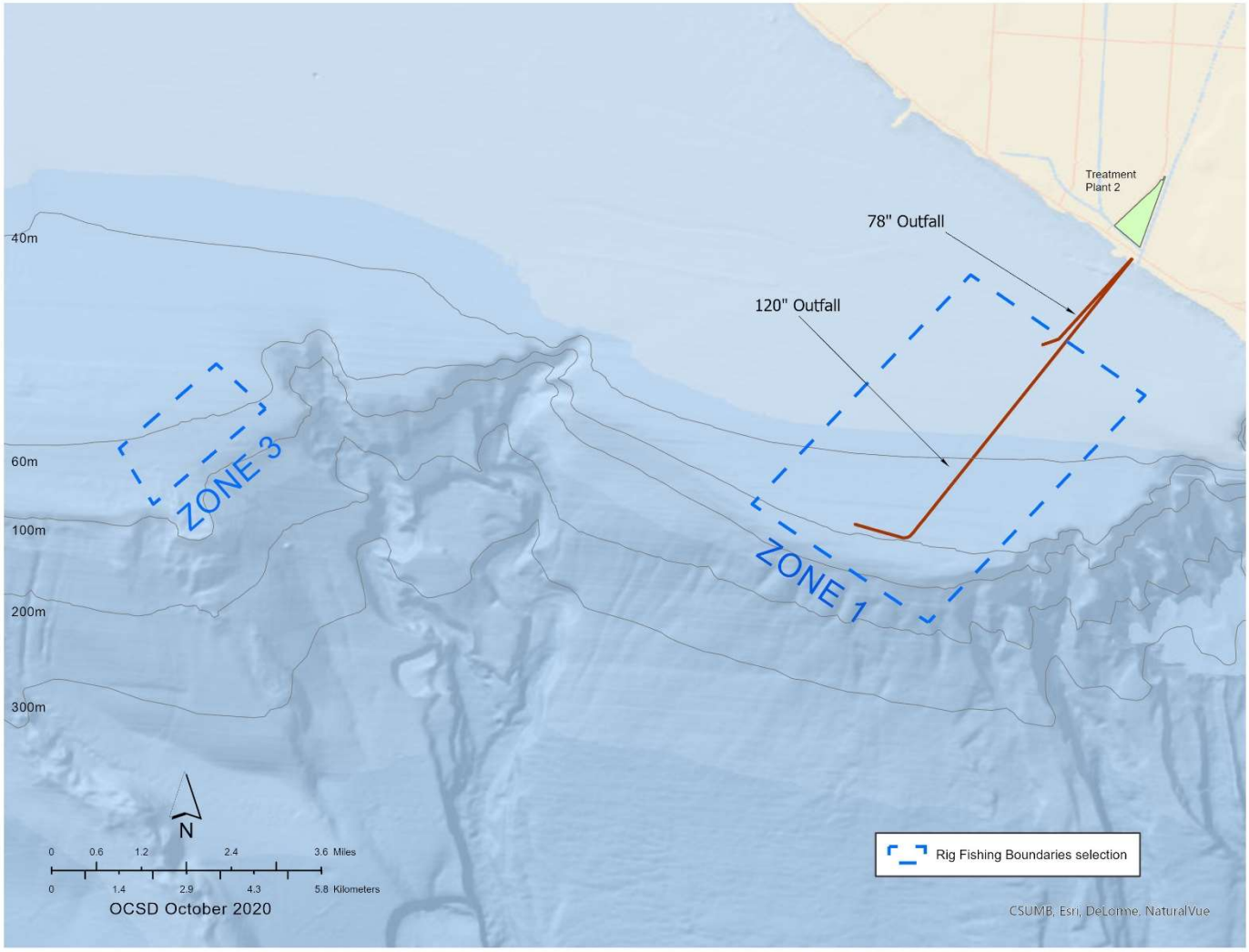


Figure E-6. Quarterly Central Bight Water Quality Monitoring Stations (n=60)

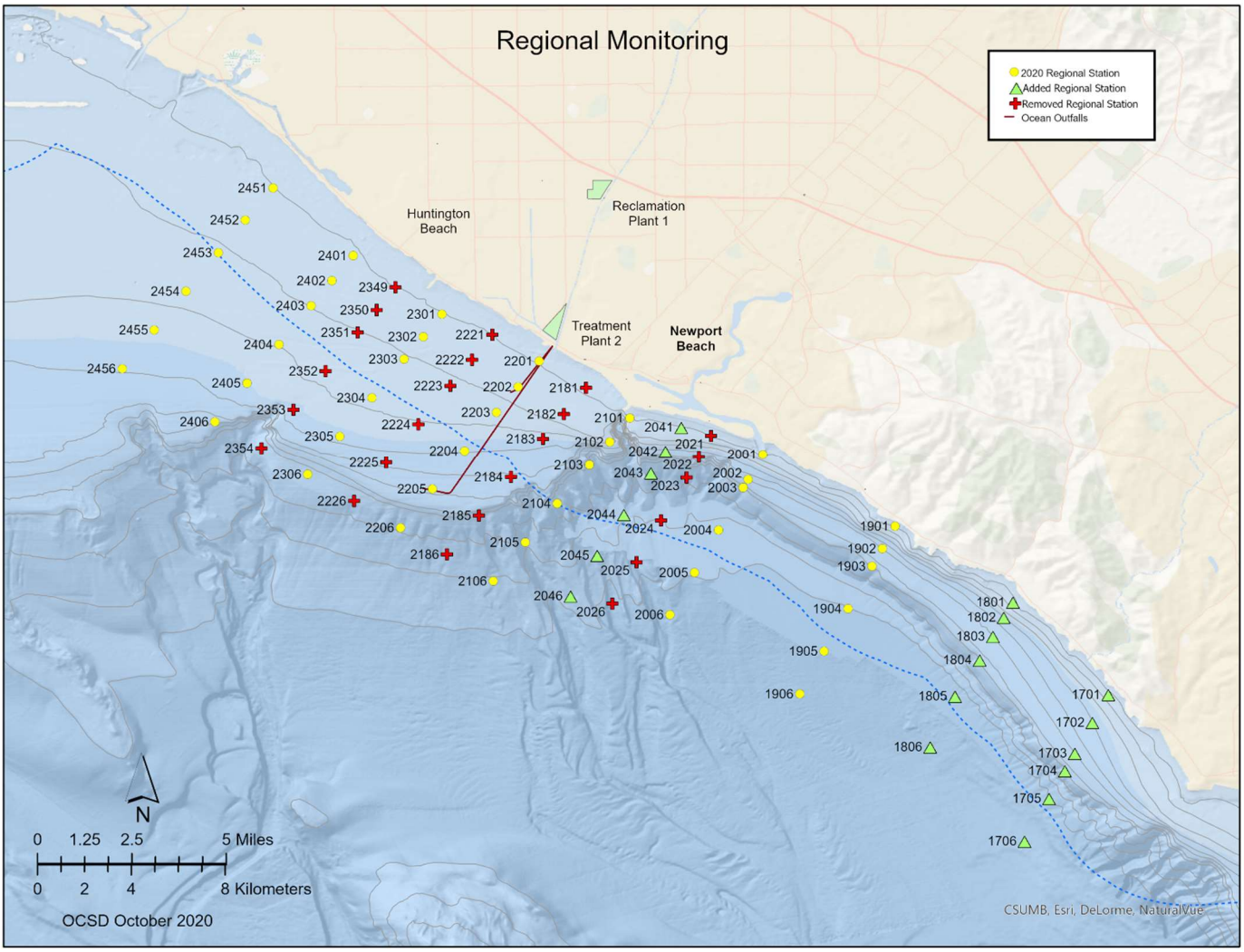
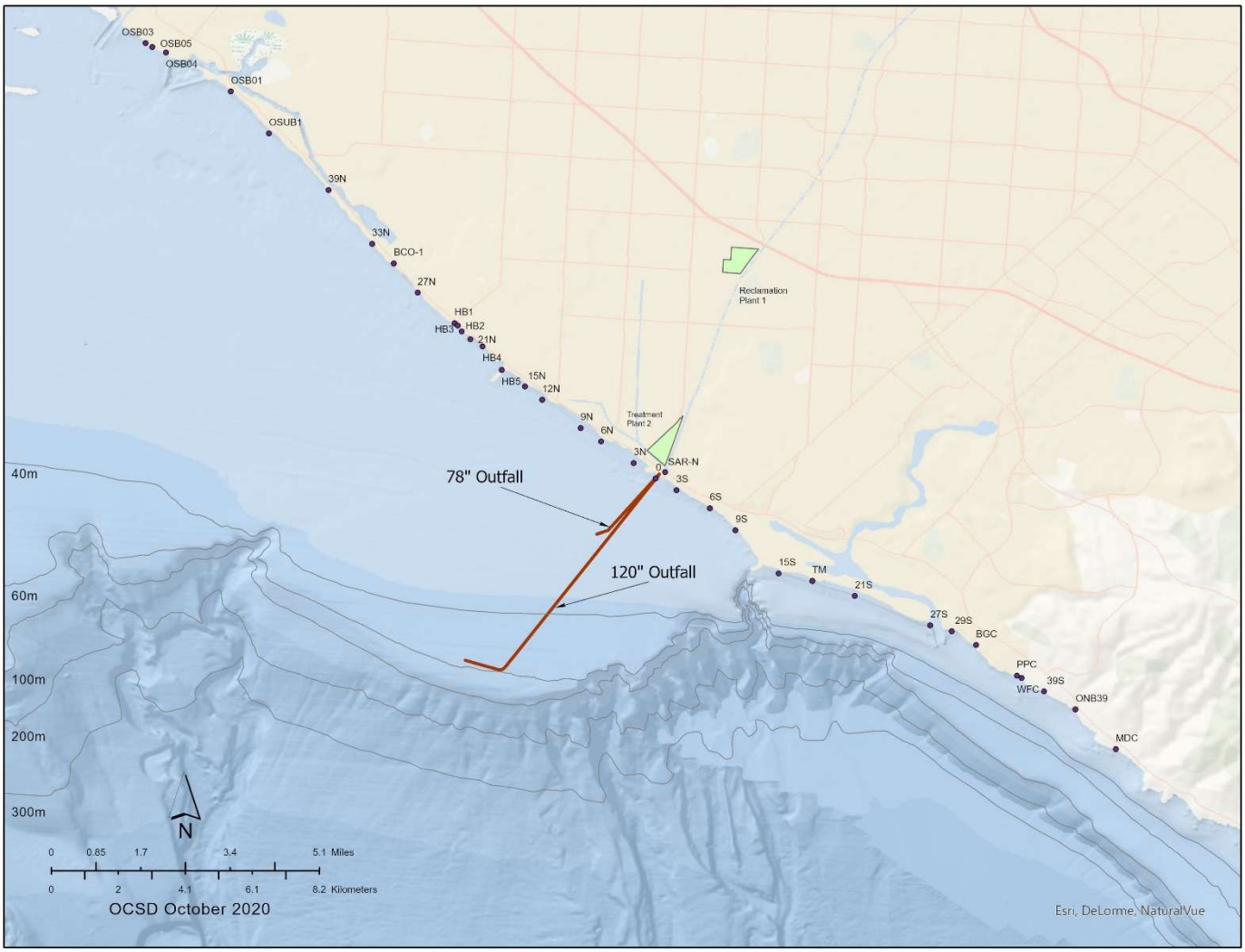


Figure E-7. Orange County Shoreline REC-1 Cooperative Monitoring Stations (Nearshore Zone) (n=36)



III. INFLUENT MONITORING REQUIREMENTS

A. Monitoring Location – Influent Monitoring Stations (n=2)

The Discharger shall monitor influent to Reclamation Plant No. 1 at INF-001 and Treatment Plant No. 2 at INF-002 (see Table E-1), as follows.

Table E-3. Influent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Method
Miscellaneous				
Flow rate	MGD	recorder/totalizer	continuous	[1]
Nitrite nitrogen	mg/L	24-hr composite	1/quarter	[1]
Nitrate nitrogen	mg/L	24-hr composite	1/quarter	[1]
Organic nitrogen	mg/L	24-hr composite	1/quarter	[1]
Total phosphorous (as P)	mg/L	24-hr composite	1/quarter	[1]
Secondary Treatment Standards and/or Ocean Plan Table 4 (formerly Table A) Effluent Limitations				
Biochemical oxygen demand, 5-day @ 20°C (BOD_5)	mg/L	24-hr composite	1/week	[1]
Carbonaceous biochemical oxygen demand, 5-day @ 20°C ($CBOD_5$)	mg/L	24-hr composite	1/day	[1]
Total suspended solids (TSS)	mg/L	24-hr composite	1/day	[1]
pH	standard units	grab	1/day	[1]
Grease and oil	mg/L	grab	1/month	[1]
Settleable solids	--	--	--	--
Turbidity	--	--	--	--
Ocean Plan Table 3 (formerly Table B) for Protection of Marine Aquatic Life				
Arsenic, total recoverable	μg/L	24-hr composite	1/month	[1]
Cadmium, total recoverable	μg/L	24-hr composite	1/month	[1]
Chromium (VI), total recoverable[2]	μg/L	24-hr composite	1/month	[1]

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Method
Copper, total recoverable	µg/L	24-hr composite	1/month	[1]
Lead, total recoverable	µg/L	24-hr composite	1/month	[1]
Mercury, total recoverable	ng/L	24-hr composite	1/month	[1,3]
Nickel, total recoverable	µg/L	24-hr composite	1/month	[1]
Selenium, total recoverable	µg/L	24-hr composite	1/month	[1]
Silver, total recoverable	µg/L	24-hr composite	1/month	[1]
Zinc, total recoverable	µg/L	24-hr composite	1/month	[1]
Cyanide	µg/L	grab	1/month	[1,4]
Total chlorine residual	--	--	--	--
Ammonia (as N)	mg/L	24-hr composite	1/week	[1]
Chlorinated phenols[5]	µg/L	24-hr composite	1/month	[1]
Non-chlorinated phenols[5]	µg/L	24-hr composite	1/month	[1]
Endosulfan[5]	µg/L	24-hr composite	2/year	[1]
Endrin	µg/L	24-hr composite	2/year	[1]
HCH[5]	µg/L	24-hr composite	2/year	[1]
Radioactivity	pCi/L	24-hr composite	1/month	[1,6]
Ocean Plan Table 3 (formerly Table B) for Protection of Human Health – Noncarcinogens				
Acrolein	µg/L	grab	1/quarter	[1]
Antimony, total recoverable	µg/L	24-hr composite	1/month	[1]
Bis(2-chloroethoxy)methane	µg/L	24-hr composite	1/month	[1]
Bis(2-chloroisopropyl)ether	µg/L	24-hr composite	1/month	[1]
Chlorobenzene	µg/L	grab	1/quarter	[1]
Chromium (III), total recoverable[2]	µg/L	24-hr composite	1/month	[1]
Di-n-butyl phthalate	µg/L	24-hr composite	1/month	[1]
Dichlorobenzenes[5]	µg/L	grab	1/quarter	[1]

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Method
Diethyl phthalate	µg/L	24-hr composite	1/month	[1]
Dimethyl phthalate	µg/L	24-hr composite	1/month	[1]
4,6-dinitro-2-methylphenol	µg/L	24-hr composite	1/month	[1]
2,4-dinitrophenol	µg/L	24-hr composite	1/month	[1]
Ethylbenzene	µg/L	grab	1/quarter	[1]
Fluoranthene	µg/L	24-hr composite	1/month	[1]
Hexachlorocyclopentadiene	µg/L	24-hr composite	1/month	[1]
Nitrobenzene	µg/L	24-hr composite	1/month	[1]
Thallium, total recoverable	µg/L	24-hr composite	1/month	[1]
Toluene	µg/L	grab	1/quarter	[1]
Tributyltin	µg/L	24-hr composite	1/quarter	[1,7]
1,1,1-trichloroethane	µg/L	grab	1/quarter	[1]
Ocean Plan Table 3 (formerly Table B) for Protection of Human Health – Carcinogens				
Acrylonitrile	µg/L	grab	1/quarter	[1]
Aldrin	µg/L	24-hr composite	2/year	[1]
Benzene	µg/L	grab	1/quarter	[1]
Benzidine	µg/L	24-hr composite	1/month	[1]
Beryllium, total recoverable	µg/L	24-hr composite	1/month	[1]
Bis(2-chloroethyl) ether	µg/L	24-hr composite	1/month	[1]
Bis(2-ethylhexyl) phthalate	µg/L	24-hr composite	1/month	[1]
Carbon tetrachloride	µg/L	grab	1/quarter	[1]
Chlordane[5,~~7~~8]	µg/L	24-hr composite	2/year	[1]
Chlorodibromomethane	µg/L	grab	1/quarter	[1]
Chloroform	µg/L	grab	1/quarter	[1]
DDT[5]	µg/L	24-hr composite	2/year	[1]
1,4-dichlorobenzene	µg/L	grab	1/quarter	[1]
3,3-dichlorobenzidine	µg/L	24-hr composite	1/month	[1]

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Method
1,2-dichloroethane	µg/L	grab	1/quarter	1
1,1-dichloroethylene	µg/L	grab	1/quarter	1
Dichlorobromomethane	µg/L	grab	1/quarter	1
Dichloromethane	µg/L	grab	1/quarter	1
1,3-dichloropropene[9]	µg/L	grab	1/quarter	1
Dieldrin	µg/L	24-hr composite	2/year	1
2,4-dinitrotoluene	µg/L	24-hr composite	1/month	1
1,2-diphenylhydrazine	µg/L	24-hr composite	1/month	1
Halomethanes[5]	µg/L	grab	1/quarter	1
Heptachlor	µg/L	24-hr composite	2/year	1
Heptachlor epoxide	µg/L	24-hr composite	2/year	1
Hexachlorobenzene	µg/L	24-hr composite	1/month	1
Hexachlorobutadiene	µg/L	24-hr composite	1/month	1
Hexachloroethane	µg/L	24-hr composite	1/month	1
Isophorone	µg/L	24-hr composite	1/month	1
N-nitrosodimethylamine	µg/L	24-hr composite	1/month	1
N-nitrosodi-N-propylamine	µg/L	24-hr composite	1/month	1
N-nitrosodiphenylamine	µg/L	24-hr composite	1/month	1
PAHs[5]	µg/L	24-hr composite	1/month	1
PCBs[5]	µg/L	24-hr composite	2/year	1
Individual PCB congeners	--	--	--	--
TCDD equivalents[5]	µg/L	24-hr composite	~~1/month~~ 1/quarter	1,~~8~~10
1,1,2,2-tetrachloroethane	µg/L	grab	1/quarter	1
Tetrachloroethylene	µg/L	grab	1/quarter	1
Toxaphene	µg/L	24-hr composite	2/year	1
Trichloroethylene	µg/L	grab	1/quarter	1

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Method
1,1,2-trichloroethane	µg/L	grab	1/quarter	[1]
2,4,6-trichlorophenol	µg/L	24-hr composite	1/month	[1]
Vinyl chloride	µg/L	grab	1/quarter	[1]

[1] As specified in 40 CFR § 136, or in this Order/Permit.

[2] For chromium (III) and (VI), the Discharger may, at its option, meet both the chromium (III) and the chromium (VI) limitations by analyzing for total recoverable chromium.

[3] Mercury, total recoverable: USEPA Method 1631E, with a quantitation level of 0.5 ng/L, shall be used to analyze total recoverable mercury in wastewater.

[4] Cyanide: If the Discharger can demonstrate to the satisfaction of the Santa Ana Water Board (subject to USEPA approval) that an analytical method is available to reliably distinguish between strongly and weakly complexed cyanide, effluent limitations for cyanide may be met (or performance goals may be evaluated) by the combined measurement of free cyanide, simple alkali metal cyanides, and weakly complexed organometalic cyanide complexes. In order for the analytical method to be acceptable, the recovery of free cyanide from metal complexes must be comparable to that achieved by the approved method in 40 CFR § 136.

[5] See Attachment A – Definitions.

[6] Radioactivity: The following methods shall be used: USEPA Method 900.0 or Standard Methods 7110B for gross alpha and gross beta; USEPA Method 903.0 or 903.1 for radium-226; USEPA Method 904.0 for radium-228; USEPA Method 906.0 for tritium; USEPA Method 905.0 for strontium-90; and USEPA Method 908.0, 908.1, or 200.8 for uranium. Analysis for combined radium-226 & 228 shall be conducted only if gross alpha or gross beta results for the same sample exceed the stipulated criteria. If combined radium-226 & 228 exceeds the stipulated criteria, then analyze for tritium, strontium-90, and uranium. Note that as of February 2021, the stipulated criteria for gross alpha, gross beta, and radium-226 & 228 are 15 pCi/L, 50 pCi/L, and 5 pCi/L, respectively. These criteria are prospective, including future changes to any incorporated provisions of federal law, as the changes take effect.

[7] Tributyltin: SM 6710B or other improved methods approved by the Santa Ana Water Board and USEPA shall be used to analyze tributyltin in wastewater.

[~~7~~8] Chlordane: The Discharger may temporarily suspend the monitoring requirements for alpha- and gamma-chlordene, if analytical standards for these compounds are not available. However, the Discharger is required to resume detection and quantification practices as soon as standards become available.

[9] 1,3-dichloropropene is the sum of cis- and trans-1,3-dichloropropene.

[~~8~~10]TCDD equivalents: TCDD equivalents shall mean the sum of the concentrations of 2,3,7,8-CDDs and 2,3,7,8-CDFs multiplied by their respective toxicity equivalency factor

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Method
(see Attachment A). For TCDD congeners, the Discharger shall use USEPA Method 1613 for dioxins and furans and the minimum levels, as specified in Attachment A – TCDD Equivalents.				

IV. EFFLUENT MONITORING REQUIREMENTS

A. Effluent Monitoring Stations (n=2)

Upon discharge through Discharge Point 001 or Discharge Point 002 during periods of essential maintenance or capital improvement projects of the 120-inch outfall conducted under 40 CFR § 122.41(m)(2), the Discharger shall monitor effluent at EFF-001 or EFF-002 (see Table E-1), respectively, as follows.

Table E-4. Effluent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Miscellaneous				
Flow rate	MGD	recorder/ totalizer	continuous	[1]
Fecal coliform density (Discharge Point 001)	MPN /100 mL[2]	grab	1/day	[1]
Fecal coliform density (Discharge Point 002)	MPN /100 mL[2]	grab	3/day	[1]
Enterococcus density (Discharge Point 001)	CFU /100 mL[2]	grab	1/day	[1,2]
Enterococcus density (Discharge Point 002)	CFU /100 mL[2]	grab	3/day	[1,2]
Nitrite nitrogen	mg/L	24-hr composite	1/month	[1]
Nitrate nitrogen	mg/L	24-hr composite	1/month	[1]
Organic nitrogen	mg/L	24-hr composite	1/month	[1]
Total nitrogen	lbs/year	calculated	1/year	--
Total phosphorous (as P)	mg/L	24-hr composite	1/month	[1]
Secondary Treatment Standards and/or Ocean Plan Table 4 (formerly Table A) Effluent Limitations				

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Biochemical oxygen demand, 5-day @ 20°C (BOD_5)[3]	mg/L	24-hr composite	1/week	[1]
Carbonaceous biochemical oxygen demand, 5-day @ 20°C ($CBOD_5$)[3]	mg/L	24-hr composite	1/day	[1]
Total suspended solids (TSS)[3]	mg/L	24-hr composite	1/day	[1]
pH	pH units	grab	1/day	[1]
Grease and oil	mg/L	grab	1/month	[1]
Settleable solids	ml/L	grab	1/day	[1]
Turbidity	NTU	24-hr composite	1/month	[1]
Ocean Plan Table 3 (formerly Table B) for Protection of Marine Aquatic Life				
Arsenic, total recoverable	μg/L	24-hr composite	1/month	[1]
Cadmium, total recoverable	μg/L	24-hr composite	1/month	[1]
Chromium (VI), total recoverable[4]	μg/L	24-hr composite	1/month	[1]
Copper, total recoverable	μg/L	24-hr composite	1/month	[1]
Lead, total recoverable	μg/L	24-hr composite	1/month	[1]
Mercury, total recoverable	ng/L	24-hr composite	1/month	[1,5]
Nickel, total recoverable	μg/L	24-hr composite	1/month	[1]
Selenium, total recoverable	μg/L	24-hr composite	1/month	[1]
Silver, total recoverable	μg/L	24-hr composite	1/month	[1]
Zinc, total recoverable	μg/L	24-hr composite	1/month	[1]
Cyanide	μg/L	grab	1/month	[1,6]
Total chlorine residual	μg/L	grab	1/12 hours	[1,7]
Ammonia (as N)	mg/L	24-hr composite	1/week	[1]
Acute toxicity, TST (Discharge Point 001)	Pass “0” or Fail “1”, % Effect	24-hr composite	1/quarter	[1]

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Chronic toxicity, TST	Pass "0" or Fail "1", % Effect	24-hr composite	1/month	[1]
Chlorinated phenols[8]	µg/L	24-hr composite	1/month	[1]
Non-chlorinated phenols[8]	µg/L	24-hr composite	1/month	[1]
Endosulfan[8]	µg/L	24-hr composite	2/year	[1]
Endrin	µg/L	24-hr composite	2/year	[1]
HCH[8]	µg/L	24-hr composite	2/year	[1]
Radioactivity	pCi/L	24-hr composite	1/month	[1,9]
Ocean Plan Table 3 (formerly Table B) for Protection of Human Health – Noncarcinogens				
Acrolein	µg/L	grab	1/quarter	[1]
Antimony, total recoverable	µg/L	24-hr composite	1/month	[1]
Bis(2-chloroethoxy) methane	µg/L	24-hr composite	1/month	[1]
Bis(2-chloroisopropyl) ether	µg/L	24-hr composite	1/month	[1]
Chlorobenzene	µg/L	grab	1/quarter	[1]
Chromium (III), total recoverable[4]	µg/L	24-hr composite	1/month	[1]
Di-n-butyl phthalate	µg/L	24-hr composite	1/month	[1]
Dichlorobenzenes[8]	µg/L	grab	1/quarter	[1]
Diethyl phthalate	µg/L	24-hr composite	1/month	[1]
Dimethyl phthalate	µg/L	24-hr composite	1/month	[1]
4,6-dinitro-2-methylphenol	µg/L	24-hr composite	1/month	[1]
2,4-dinitrophenol	µg/L	24-hr composite	1/month	[1]
Ethylbenzene	µg/L	grab	1/quarter	[1]
Fluoranthene	µg/L	24-hr composite	1/month	[1]
Hexachlorocyclopentadiene	µg/L	24-hr composite	1/month	[1]
Nitrobenzene	µg/L	24-hr composite	1/month	[1]

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Thallium, total recoverable	µg/L	24-hr composite	1/month	[1]
Toluene	µg/L	grab	1/quarter	[1]
Tributyltin	µg/L	24-hr composite	1/quarter	[1,10]
1,1,1-trichloroethane	µg/L	grab	1/quarter	[1]
Ocean Plan Table 3 (formerly Table B) for Protection of Human Health – Carcinogens				
Acrylonitrile	µg/L	grab	1/quarter	[1]
Aldrin	µg/L	24-hr composite	2/year	[1]
Benzene	µg/L	grab	1/quarter	[1]
Benzidine	µg/L	24-hr composite	1/month	[1]
Beryllium, total recoverable	µg/L	24-hr composite	1/month	[1]
Bis(2-chloroethyl) ether	µg/L	24-hr composite	1/month	[1]
Bis(2-ethylhexyl) phthalate	µg/L	24-hr composite	1/month	[1]
Carbon tetrachloride	µg/L	grab	1/quarter	[1]
Chlordane[8,~~10~~11]	µg/L	24-hr composite	2/year	[1]
Chlorodibromomethane	µg/L	grab	1/quarter	[1]
Chloroform	µg/L	grab	1/quarter	[1]
DDT[8]	µg/L	24-hr composite	2/year	[1]
1,4-dichlorobenzene	µg/L	grab	1/quarter	[1]
3,3-dichlorobenzidine	µg/L	24-hr composite	1/month	[1]
1,2-dichloroethane	µg/L	grab	1/quarter	[1]
1,1-dichloroethylene	µg/L	grab	1/quarter	[1]
Dichlorobromomethane	µg/L	grab	1/quarter	[1]
Dichloromethane	µg/L	grab	1/quarter	[1]
1,3-dichloropropene[12]	µg/L	grab	1/quarter	[1]
Dieldrin	µg/L	24-hr composite	2/year	[1]
2,4-dinitrotoluene	µg/L	24-hr composite	1/month	[1]
1,2-diphenylhydrazine	µg/L	24-hr composite	1/month	[1]

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Halomethanes[8]	µg/L	grab	1/quarter	[1]
Heptachlor	µg/L	24-hr composite	2/year	[1]
Heptachlor epoxide	µg/L	24-hr composite	2/year	[1]
Hexachlorobenzene	µg/L	24-hr composite	1/month	[1]
Hexachlorobutadiene	µg/L	24-hr composite	1/month	[1]
Hexachloroethane	µg/L	24-hr composite	1/month	[1]
Isophorone	µg/L	24-hr composite	1/month	[1]
N-nitrosodimethylamine	µg/L	24-hr composite	1/month	[1]
N-nitrosodi-N-propylamine	µg/L	24-hr composite	1/month	[1]
N-nitrosodiphenylamine	µg/L	24-hr composite	1/month	[1]
PAHs[8]	µg/L	24-hr composite	1/month	[1]
PCBs[8]	µg/L	24-hr composite	2/year	[1]
Individual PCB congeners	µg/L	24-hr composite	1/year	[1,~~11~~13]
TCDD equivalents[8]	µg/L	24-hr composite	1/~~month~~ quarter	[1,~~12~~14]
1,1,2,2-tetrachloroethane	µg/L	grab	1/quarter	[1]
Tetrachloroethylene	µg/L	grab	1/quarter	[1]
Toxaphene	µg/L	24-hr composite	2/year	[1]
Trichloroethylene	µg/L	grab	1/quarter	[1]
1,1,2-trichloroethane	µg/L	grab	1/quarter	[1]
2,4,6-trichlorophenol	µg/L	24-hr composite	1/month	[1]
Vinyl chloride	µg/L	grab	1/quarter	[1]

[1] As specified in 40 CFR § 136, or in this Order/Permit.

[2] ~~USEPA Method 1600 or other equivalent method shall be used to measure culturable enterococci.~~ Results may be reported as either MPN/100 mL if the laboratory method used provides results in MPN/100 mL or CFU/100 mL if the laboratory method used provides results in CFU/100 mL.

[3] Percent removal shall be calculated based on mass where:

% removal = (influent mass – effluent mass) / influent mass;

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method

influent mass (lbs/day) = influent flow (MGD) x influent concentration (mg/L) x 8.34;

effluent mass (lbs/day) = effluent flow (MGD) x effluent concentration (mg/L) x 8.34.

[4] For chromium (III) and (VI), the Discharger may, at its option, meet both the chromium (III) and the chromium (VI) limitations by analyzing for total recoverable chromium.

[5] Mercury, total recoverable: USEPA Method 1631E, with a quantitation level of 0.5 ng/L, shall be used to analyze total recoverable mercury in wastewater.

[6] Cyanide: If the Discharger can demonstrate to the satisfaction of the Santa Ana Water Board (subject to USEPA approval) that an analytical method is available to reliably distinguish between strongly and weakly complexed cyanide, effluent limitations for cyanide may be met (or performance goals may be evaluated) by the combined measurement of free cyanide, simple alkali metal cyanides, and weakly complexed organometalic cyanide complexes. In order for the analytical method to be acceptable, the recovery of free cyanide from metal complexes must be comparable to that achieved by the approved method in 40 CFR § 136.

[7] The minimum level (ML) for total chlorine residual in wastewater shall be less than or equal to 50 µg/L.

[8] See Attachment A – Definitions

[9] Radioactivity: The following methods shall be used: USEPA Method 900.0 or Standard Methods 7110B for gross alpha and gross beta; USEPA Method 903.0 or 903.1 for radium-226; USEPA Method 904.0 for radium-228; USEPA Method 906.0 for tritium; USEPA Method 905.0 for strontium-90; and USEPA Method 908.0, 908.1, or 200.8 for uranium. Analysis for combined radium-226 & 228 shall be conducted only if gross alpha or gross beta results for the same sample exceed the stipulated criteria. If combined radium-226 & 228 exceeds the stipulated criteria, then analyze for tritium, strontium-90, and uranium. Note that as of February 2021, the stipulated criteria for gross alpha, gross beta, and radium-226 & 228 are 15 pCi/L, 50 pCi/L, and 5 pCi/L, respectively. These criteria are prospective, including future changes to any incorporated provisions of federal law, as the changes take effect.

[10] Tributyltin: SM 6710B or other improved methods approved by the Santa Ana Water Board and USEPA shall be used to analyze tributyltin in wastewater.

[~~10~~11] Chlordane: The Discharger may temporarily suspend the monitoring requirements for alpha- and gamma-chlordene, if analytical standards for these compounds are not available. However, the Discharger is required to resume detection and quantification practices as soon as standards become available.

[12] 1,3-dichloropropene is the sum of cis- and trans-1,3-dichloropropene.

[~~11~~13] PCBs: USEPA draft Method 1668c (and quantitation levels) shall be used to analyze PCB congeners in wastewater. To facilitate interpretation of sediment and fish tissue data, individual 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,

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
126, 128, 138, 149, 151, 153/168, 156, 157, 158, 167, 169, 170, 177, 180, 183, 187, 189, 194, 201, and 206 shall be individually quantified and reported.				
~~12~~14 TCDD equivalents: TCDD equivalents shall mean the sum of the concentrations of 2,3,7,8-CDDs and 2,3,7,8-CDFs multiplied by their respective toxicity equivalency factor (see Attachment A). For TCDD congeners, the Discharger shall use USEPA Method 1613 for dioxins and furans and the minimum levels, as specified in Attachment A – TCDD Equivalents.				

B. Emergency Discharge Monitoring Stations (n=2)

Upon emergency discharge through Emergency Discharge Point 002, the Discharger shall monitor effluent at EMG-001 (see Table E-1). Upon emergency discharge through Emergency Discharge Point 003, the Discharger shall monitor effluent at EMG-002 (see Table E-1). At minimum, monitored parameters shall include bacteria indicator organisms (i.e., total coliform, fecal coliform, and enterococcus), parameters with secondary treatment and/or Ocean Plan Table 4 standards, and relevant pollutants of concern (e.g., Total chlorine residual and Ammonia (as N)) in Table E-4. During emergency discharge, the minimum sampling frequency shall be daily, until emergency discharge ceases.

C. Mass Emission Benchmarks

Constituents that have been assigned Mass Emission Benchmarks are listed in the NPDES Order/Permit under Section V.B. The Mass Emission Benchmarks have been established for the discharge through Discharge Point 001 (120” outfall) and shall be reported in metric tons per year (MT/yr). The Discharger shall monitor and report annually the mass emission rate for all constituents that have mass emission benchmarks. For each constituent, the 12-month average mass emission rate, and the effluent concentrations and flows used to calculate that mass emission rate shall be reported in the annual pretreatment report and annual receiving water monitoring report (effluent chapter).

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

A. Acute Whole Effluent Toxicity

1. Monitoring Frequency

   The Discharger shall conduct acute toxicity tests on 24-hour composite effluent samples (Table E-4). Once each calendar year, at a different time of year from the previous years, the Discharger shall split a 24-hour composite effluent sample and concurrently conduct toxicity tests using a fish and an invertebrate species. The Discharger shall then continue to conduct routine quarterly toxicity testing using the single, most sensitive species.

Acute toxicity test samples shall be collected at the designated NPDES sampling station for the effluent. In order to better relate toxicity to other effluent characteristics, it is recommended that at least twice per year the Discharger process a split toxicity sample for analysis of all other monitored parameters specified by the effluent monitoring program.

2. Marine and Estuarine Species and Test Methods

   Species and short-term test methods for estimating the acute toxicity of NPDES effluents are generally found in the fifth edition of *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms* (EPA/821/R-02/012, 2002; Table IA, 40 CFR § 136).

   For this Order/Permit, the Discharger shall conduct 96-hour static renewal toxicity tests with topsmelt, *Atherinops affinis*, representing a vertebrate species (Test Method 2006.0), and the mysid, *Americamysis bahia*, representing an invertebrate species (Test Method 2007.0).

   If laboratory-held cultures of the topsmelt, *Atherinops affinis*, are not available for testing, then the Discharger shall conduct a 96-hour static renewal toxicity test with the inland silverside, *Menidia beryllina* (Test Method 2006.0).

3. Quality Assurance

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

   b. For Discharge Point 001, an acute dilution allowance is authorized such that the critical acute instream waste concentration (IWC) is set at a percent effluent value lower than 100% effluent. The acute IWC for Discharge Point 001 is 5.56% effluent.

   c. Effluent dilution water and control water should be prepared and used as specified in the test methods manual for the test species. If the dilution water is different from test organism culture water, then a second control using culture water shall also be used. If the use of artificial sea salts is considered provisional in the test method, then artificial sea salts shall not be used to increase the salinity of the effluent sample prior to toxicity testing without written approval by the permitting authority.

   d. If organisms are not cultured in-house, then concurrent testing with a reference toxicant shall be conducted. If organisms are cultured in-house, then monthly reference toxicant testing is sufficient. Reference toxicant tests and effluent toxicity tests shall be conducted using the same test conditions (e.g., same test duration, etc.).

   e. If the effluent toxicity test during the reporting period for the month does not meet the Test Acceptability Criteria (TAC) in the WET method (EPA/600/R-95/136, 1995), then the permittee shall resample and retest within 14 days. The

results of this retest shall only replace that effluent toxicity test that did not meet TAC during the reporting period for the month.

f. If the discharged effluent is disinfected using chlorine, then total chlorine residual shall not be removed from the effluent sample prior to toxicity testing.

B. Chronic Whole Effluent Toxicity

1. Monitoring Frequency

The Discharger shall conduct chronic toxicity tests on 24-hour composite effluent samples (Table E-4). Once each calendar year, at a different time of year from the previous years, the Discharger shall split a 24-hour composite effluent sample and concurrently conduct three toxicity tests using a fish, an invertebrate, and an algal species. The Discharger shall then continue to conduct routine monthly toxicity testing using the single, most sensitive species.

Chronic toxicity test samples shall be collected at the designated NPDES sampling station for the effluent. In order to better relate toxicity to other effluent characteristics, it is recommended that at least twice per year the Discharger process a split toxicity sample for analysis of all other monitored parameters specified by the effluent monitoring program.

2. Marine and Estuarine Species and Test Methods

Species and short-term test methods for estimating the chronic toxicity of NPDES effluents are found in the first edition of *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) and applicable water quality standards; also see 40 CFR § 122.41(j)(4) and 122.44(d)(1)(iv), and 40 CFR § 122.21(j)(5)(viii) for POTWs.

The Discharger shall conduct a static renewal toxicity test with the topsmelt, *Atherinops affinis* (Larval Survival and Growth Test Method 1006.0); a static non-renewal toxicity test with the giant kelp, *Macrocystis pyrifera* (Germination and Growth Test Method 1009.0); and a toxicity test with one of the following invertebrate species:

Static non-renewal toxicity test with the red abalone, *Haliotis rufescens* (Larval Shell Development Test Method);

Static non-renewal toxicity test with the purple sea urchin, *Strongylocentrotus purpuratus*, or the sand dollar, *Dendraster excentricus* (Fertilization Test Method 1008.0).

If laboratory-held cultures of the topsmelt, *Atherinops affinis*, are not available for testing, then the Discharger shall conduct a static renewal toxicity test with the inland silverside, *Menidia beryllina* (Larval Survival and Growth Test Method 1006.0) in the third edition of *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms* (EPA/821/R-02/014, 2002).

3. Quality Assurance

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

   b. For Discharge Point 001, a chronic dilution allowance is authorized such that the critical chronic instream waste concentration (IWC) is set at a percent effluent value lower than 100% effluent. The chronic IWC for Discharge Point 001 is 0.556% effluent.

      For Discharge Point 002, a chronic dilution allowance is authorized such that the critical chronic instream waste concentration (IWC) is set at a percent effluent value lower than 100% effluent. The chronic IWC for Discharge Point 002 is 2.78% effluent.

   c. Effluent dilution water and control water should be prepared and used as specified in the test methods manual *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) and/or *Short- term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms* (EPA/821/R- 02/014, 2002). If the dilution water is different from test organism culture water, then a second control using culture water shall also be used. If the use of artificial sea salts is considered provisional in the test method, then artificial sea salts shall not be used to increase the salinity of the effluent sample prior to toxicity testing without written approval by the permitting authority.

   d. If organisms are not cultured in-house, then concurrent testing with a reference toxicant shall be conducted. If organisms are cultured in-house, then monthly reference toxicant testing is sufficient. Reference toxicant tests and effluent toxicity tests shall be conducted using the same test conditions (e.g., same test duration, etc.).

   e. If the effluent toxicity test during the reporting period for the month does not meet the Test Acceptability Criteria (TAC) in the WET method (EPA/600/R-95/136, 1995), then the permittee shall resample and retest within 14 days. The results of this retest shall only replace that effluent toxicity test that did not meet TAC during the reporting period for the month.

   f. If the discharged effluent is disinfected using chlorine, then total chlorine residual shall not be removed from the effluent sample prior to toxicity testing.

   g. pH drift during the toxicity test may contribute to artifactual toxicity when pH-dependent toxicants (e.g., ammonia, metals) are present in an effluent. To determine whether or not pH drift during the toxicity test is contributing to artifactual toxicity, the Discharger shall conduct three sets of parallel toxicity tests, in which the pH of one treatment is controlled at the pH of the effluent and the pH of the other treatment is not controlled, as described in Section 13.3.6 of the test methods manual, Short-term Methods for Estimating the

Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms (EPA/821/R-02/014, 2002). Toxicity is confirmed to be artifactual and due to pH drift when no toxicity above the chronic WET permit limit is observed in the treatments controlled at the pH of the effluent. If toxicity is confirmed to be artifactual and due to pH drift, then, following written approval by the permitting authority, the Discharger may use the procedures outlined in Section 13.3.6 of the test methods manual to control sample pH during the toxicity test.

C. Analysis and Reporting of Acute and Chronic Toxicity Monitoring Results

1. For Discharge Point 001, a full toxicity laboratory report for all acute and chronic toxicity testing shall be submitted as an attachment to the Self-Monitoring Report (SMR) for the month in which the toxicity tests are initiated. The laboratory report shall contain: all toxicity test results (raw data and statistical analyses) for each effluent and related reference toxicant tested; chain-of custody; the dates of sample collection and initiation of each toxicity test; control performance; all results for other effluent parameters monitored concurrently with the effluent toxicity tests via split samples; and schedule and progress reports on TRE/TIE studies.
2. For Discharge Point 002, a full toxicity laboratory report for all chronic toxicity testing shall be submitted as an attachment to the SMR for the month in which the toxicity tests are initiated. The laboratory report shall contain: all toxicity test results (raw data and statistical analyses) for each effluent and related reference toxicant tested; chain-of custody; the dates of sample collection and initiation of each toxicity test; control performance; all results for other effluent parameters monitored concurrently with the effluent toxicity tests via split samples; and schedule and progress reports on TRE/TIE studies.
3. The Discharger shall notify the Santa Ana Water Board and USEPA in writing within 14 days of exceedance of an acute or chronic WET permit limit. This notification shall describe actions the Discharger has taken or will take to investigate, identify, and correct the causes of toxicity; the status of actions required by this Order/Permit; and schedule for actions not yet completed; or reason(s) that no action has been taken.

VI. LAND DISCHARGE MONITORING REQUIREMENTS – NOT APPLICABLE

VII. RECYCLING MONITORING REQUIREMENTS – NOT APPLICABLE

VIII. RECEIVING WATER CORE MONITORING REQUIREMENTS

A. Water Quality Monitoring

1. Monitoring Locations – Monthly Water Quality Monitoring Stations (n=28)

   The Discharger shall monitor the receiving water at the Monthly Water Quality Stations specified in Table E-2, as follows. Reference conditions shall be confirmed for each survey. Water column profiling protocols and analytical methods shall follow those described in Orange County Sanitation District – Ocean Monitoring Program, Quality Assurance and Project Plan (QAPP) (OCSD, MRP QAPP), and

Orange County Sanitation District – Laboratory Monitoring and Compliance Division, Laboratory Standard Operating Procedures (OCSD, Laboratory Quality Manual).

Compliance shall be evaluated based on statistical comparisons between water quality profiles in the reference and plume-affected zones. Appropriate reference stations and plume-impacted stations for each survey day shall be determined based on available current measurements and the presence or absence of typical plume "signals" (e.g., colored dissolved organic matter (CDOM), ammonia (NH_3-N), and/or fecal indicator bacteria). Reference stations shall represent "natural" conditions, excluding the stations affected by the effluent plume.

Table E-5. Water Quality Monitoring

Parameter	Units	Sample Type	Sample Depth	Minimum Sampling Frequency	Required Analytical Test Method
Surface Observations[1]	--	visual	Surface	1/month	--
Salinity (calculated)	psu	profile	CTD sampling depths in Table E-2	1/month	[2]
Conductivity	S/m	profile		1/month	[2]
Temperature	°C	profile		1/month	[2]
Dissolved oxygen (DO)	mg/L	profile		1/month	[2]
Transmissivity	%	profile		1/month	[2]
Photosynthetically active radiation (PAR)	µEinsteins sec^{-1} cm^{-2}	profile		1/month	[2]
Chlorophyll-*a* fluorescence	µg/L	profile		1/month	[2]
pH	standard unit	profile		1/month	[2]
Ammonia (NH_3-N)	mg/L	grab	Discrete sampling depths in Table E-2	1/month	[2]
Nitrate nitrogen	mg/L	grab		1/month	[2]

[1] Receiving water observations of any discoloration, turbidity, odor, trash (see Attachment A for the definition of trash), and unusual or abnormal amounts of floating or suspended matter in the water or on the beach, rocks, jetties, or beach structures, 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. Recreational use at time of sampling, within a 100 meter radius of each sample location, shall also be recorded and submitted with results. In federal waters, the nature and extent of REC-1 activities shall be recorded and reported whenever a station is sampled. Recreational uses include, but are not limited to, swimming, wading, water-skiing, diving, surfing, and fishing.

Parameter	Units	Sample Type	Sample Depth	Minimum Sampling Frequency	Required Analytical Test Method
[2] As specified in 40 CFR § 136, or in the MRP QAPP and Laboratory Quality Manual.					

B. REC-1 Water Quality Monitoring (Offshore Zone)

Based on Chapter II.B.1 of the Ocean Plan, bacterial indicator standards shall be maintained throughout the water column in the Offshore Zone used for water contact sports, as determined by the Santa Ana Water Board or USEPA (i.e., waters designated as REC-1), to assure that the discharge does not pose a threat to water contact recreation.

1. Monitoring Locations – Quarterly REC-1 Water Quality Monitoring Stations (Offshore Zone) (n=8)

   The Discharger shall monitor the receiving water at the Quarterly REC-1 Water Quality Monitoring Stations (Offshore Zone) specified in Table E-2, as follows. Water column profiling protocols and analytical methods shall follow those described in the MRP QAPP and Laboratory Quality Manual.

Table E-6. REC-1 Water Quality Monitoring (Offshore Zone)

Parameter	Units	Sample Type	Sample Depth	Minimum Sampling Frequency	Required Analytical Test Method
Surface Observations[1]	--	visual	Surface	5 samples over a 30-day period/quarter See Table E-2.	--
Salinity (calculated)	psu	profile	CTD sampling depths in Table E-2		[2]
Conductivity	S/m	profile			[2]
Temperature	°C	profile			[2]
Dissolved oxygen (DO)	mg/L	profile			[2]
Transmissivity	%	profile			[2]
Photosynthetically active radiation (PAR)	µEinsteins sec^{-1} cm^{-2}	profile			[2]
Chlorophyll-*a* fluorescence	µg/L	profile			[2]
pH	standard units	profile			[2]
Ammonia (NH_3-N)	mg/L	grab	Discrete sampling		[2]
Nitrate nitrogen	mg/L	grab			[2]

Parameter	Units	Sample Type	Sample Depth	Minimum Sampling Frequency	Required Analytical Test Method
Total coliform density	MPN /100 mL[3]	grab	depths in Table E-2		2,~~3~~4
Enterococcus density	CFU /100 mL[3]	grab			2,4
Fecal coliform density	MPN /100 mL[3]	~~grab~~ calculated			2,~~3~~4
E. Coli density (converted to fecal coliform density)	MPN /100 mL[3]	grab			2,4

[1] Receiving water observations of any discoloration, turbidity, odor, trash (see Attachment A for the definition of trash), and unusual or abnormal amounts of floating or suspended matter in the water or on the beach, rocks, jetties, or beach structures, 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. Recreational use at time of sampling, within a 100 meter radius of each sample location, shall also be recorded and submitted with results. In federal waters, the nature and extent of REC-1 activities shall be recorded and reported whenever a station is sampled. Recreational uses include, but are not limited to, swimming, wading, water-skiing, diving, surfing, and fishing.

[2] As specified in 40 CFR § 136, or in the MRP QAPP and Laboratory Quality Manual.

~~[3] Test methods used for total and fecal coliforms shall be those presented in Table 1A of 40 CFR § 136, unless alternate methods have been approved in advance by USEPA pursuant to 40 CFR § 136, or improved methods have been determined by the Executive Officer and/or USEPA.~~

~~[4] *Enterococcus* shall be analyzed using the USEPA Method 1600 or other equivalent method to measure culturable enterococcus density.~~

[3] Results may be reported as either MPN/100 mL if the laboratory method used provides results in MPN/100 mL or CFU/100 mL if the laboratory method used provides results in CFU/100 mL.

[4] Total coliform and *E. coli* are analyzed using the Colilert-18 method and *Enterococcus* is analyzed using the Enterolert method. Values for *E. coli* are multiplied by 110% to determine fecal coliform values.

C. Sediment Monitoring

1. Monitoring Locations – Quarterly Benthic Monitoring Stations (n=11), Annual Benthic Monitoring Stations (n=11), and 1/5-year Benthic Monitoring Stations (n=35)

   Sediment Chemistry. Sediment samples collected for chemistry analyses shall be separate from those collected for benthic infauna community analyses or whole

sediment toxicity testing. The Discharger shall monitor sediment chemistry at the Quarterly, Annual, and 1/5-year Benthic Monitoring Stations specified in Table E-2. Sampling protocols and analytical methods (and reporting limits) shall follow those described in the MRP QAPP and Laboratory Quality Manual. Sediment samples for chemistry analyses shall be collected from the top 2 cm of undisturbed surface material in a 0.1 m^2 Van Veen grab sample. Results of chemistry analyses shall be reported on a dry weight basis.

Table E-7. Sediment Chemistry Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Miscellaneous				
Sediment grain size	phi	grab	See Table E-2.	[1]
Total organic carbon	%	grab		[1]
Dissolved sulfides	mg/kg	grab		[1]
Total nitrogen	mg/kg	grab		[1]
Total phosphorous	mg/kg	grab		[1]
Metals				
Aluminum, total recoverable	mg/kg	grab	See Table E-2.	[1]
Antimony, total recoverable	mg/kg	grab		[1]
Arsenic, total recoverable	mg/kg	grab		[1]
Barium, total recoverable	mg/kg	grab		[1]
Beryllium, total recoverable	mg/kg	grab		[1]
Cadmium, total recoverable	mg/kg	grab		[1]
Chromium, total recoverable	mg/kg	grab		[1]
Copper, total recoverable	mg/kg	grab		[1]
Iron, total recoverable	mg/kg	grab		[1]
Lead, total recoverable	mg/kg	grab		[1]
Mercury, total recoverable	mg/kg	grab		[1]
Nickel, total recoverable	mg/kg	grab		[1]
Selenium, total recoverable	mg/kg	grab		[1]
Silver, total recoverable	mg/kg	grab		[1]
Zinc, total recoverable	mg/kg	grab		[1]

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Pesticides[2]				
2,4'-DDT	µg/kg	grab	See Table E-2.	[1]
4,4'-DDT	µg/kg	grab		[1]
2,4'-DDD	µg/kg	grab		[1]
4,4'-DDD	µg/kg	grab		[1]
2,4'-DDE	µg/kg	grab		[1]
4,4'-DDE	µg/kg	grab		[1]
4,4'-DDMU	µg/kg	grab		[1]
Aldrin	µg/kg	grab		[1]
Dieldrin	µg/kg	grab		[1]
cis-Chlordane[3]	µg/kg	grab		[1]
trans-Chlordane[3]	µg/kg	grab		[1]
trans-Nonachlor	µg/kg	grab		[1]
Heptachlor	µg/kg	grab		[1]
Heptachlor epoxide	µg/kg	grab		[1]
Endosulfan	µg/kg	grab		[1]
Endrin	µg/kg	grab		[1]
Hexachlorobenzene	µg/kg	grab		[1]
Lindane (gamma-BHC)	µg/kg	grab		[1]
Mirex	µg/kg	grab		[1]
Polychlorinated Biphenyl (PCB) Congeners				
Individual PCB congeners[4]	µg/kg	grab	See Table E-2.	[1]
Polycyclic Aromatic Hydrocarbons (PAHs) – Low Molecular Weight				
Acenaphthene	µg/kg	grab	See Table E-2.	[1]
Acenaphthylene	µg/kg	grab		[1]
Anthracene	µg/kg	grab		[1]
Biphenyl	µg/kg	grab		[1]
Fluorene	µg/kg	grab		[1]

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
2-Methylnapthalene	µg/kg	grab		[1]
1-Methylphenanthrene	µg/kg	grab		[1]
Naphthalene	µg/kg	grab		[1]
1-Methylnapthalene	µg/kg	grab		[1]
2,6-Dimethylnaphthalene	µg/kg	grab		[1]
1,6,7-Trimethyl-naphthalene (2,3,5-Trimethylnaphthalene)	µg/kg	grab		[1]
Phenanthrene	µg/kg	grab		[1]
Polycyclic Aromatic Hydrocarbons (PAHs) – High Molecular Weight				
Benz[a]anthracene	µg/kg	grab	See Table E-2.	[1]
Benzo[a]pyrene	µg/kg	grab		[1]
Benzo[b/j]fluoranthene	µg/kg	grab		[1]
Benzo[e]pyrene	µg/kg	grab		[1]
Benzo[g,h,i]perylene	µg/kg	grab		[1]
Benzo[k]fluoranthene	µg/kg	grab		[1]
Chrysene	µg/kg	grab		[1]
Dibenz[a,h]anthracene	µg/kg	grab		[1]
Fluoranthene	µg/kg	grab		[1]
Indeno(1,2,3-c,d) pyrene	µg/kg	grab		[1]
Perylene	µg/kg	grab		[1]
Pyrene	µg/kg	grab		[1]

[1] As specified in the MRP QAPP and Laboratory Quality Manual.

[2] Pesticides: The Discharger shall monitor pesticides only in the summer (July, August, and September) at the quarterly and annual Benthic Monitoring Stations and once in five years (in summer) at the 1/5-year station specified in Table E-2.

[3] Chlordane: The Discharger may temporarily suspend the monitoring requirements for cis- and trans- chlordene, if analytical standards for these compounds are not available. However, the Discharger is required to resume detection and quantification practices as soon as standards become available.

[4] Individual PCB congeners: Individual 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,

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
114, 118, 119, 123, 126, 128, 138, 149, 151, 153/168, 156, 157, 158, 167, 169, 170, 177, 180, 183, 187, 189, 194, 201, and 206 shall be individually quantified and reported.				

2. Monitoring Locations – Quarterly Benthic Monitoring Stations (n=11), Annual Benthic Monitoring Stations (n=11), and 1/5-year Benthic Monitoring Stations (n=35)

   Benthic Infauna Community. Sediment samples collected for benthic infauna community analyses shall be separate from those collected for chemistry analyses or whole sediment toxicity testing. The Discharger shall monitor benthic infauna at the Quarterly, Annual, and 1/5-year Benthic Monitoring Stations specified in Table E-2. Sampling protocols, including treatment, storage, and analyses, shall follow those described in the MRP QAPP and Laboratory Quality Manual. Sediment samples for benthic infauna community analyses shall be washed and screened (1.0 mm mesh) from an entire 0.1 m^2 Van Veen grab sample and fixed and preserved for sorting. All retained organisms from the Quarterly, Annual, and 1/5-year stations shall be counted and identified to as low a taxon as possible.

Table E-8. Benthic Infauna Community Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Number of species, per grab sample	--	grab	See Table E-2.	[1]
Number of individuals per species, per grab sample	--	grab		[1]
Benthic response index (BRI)	--	grab		[1]
Shannon-Weiner's diversity index (H')	--	grab		[1]
Swartz's 75% dominance index (SDI)	--	grab		[1]
[1] As specified in the MRP QAPP and Laboratory Quality Manual.				

3. Monitoring Locations – Quarterly Benthic Monitoring Stations (n=11)

   Whole Sediment Toxicity. Sediment samples collected for whole sediment toxicity testing shall be separate from those collected for chemistry analyses or benthic infauna community analyses. The Discharger shall annually monitor whole sediment toxicity at the eleven (11) Quarterly Benthic Monitoring Stations specified in Table E-2. Sampling protocols and analyses shall follow those described in the MRP QAPP and Laboratory Quality Manual. Sediment samples for sediment

toxicity testing shall be collected from the top 2 cm of undisturbed surface material in a 0.1 m^2 Van Veen grab sample.

If a station sample result is statistically significant using a standard t-test of no difference and the magnitude of difference compared to the control is greater than 20 %, the station shall be re-sampled and re-tested in the following quarter to determine if the observed toxicity is persistent. If toxicity is persistent (i.e., the second test also tests significantly toxic), then the Discharger shall report the toxicity test results to the Santa Ana Water Board and USEPA and investigate the causes and report the investigation results and mitigation efforts in the annual monitoring report.

Table E-9. Whole Sediment Toxicity Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Whole sediment acute toxicity	% of home	grab	See Table E-2.	[1]
[1] USEPA 10-day static amphipod (*Eohaustorius estuarius*) survival test: *Methods for Assessing the Toxicity of Sediment-Associated Contaminants with Estuarine and Marine Amphipods* (EPA/600/R- 94/025, 1994).				

D. Demersal Fish and Epibenthic Macroinvertebrate Monitoring

1. Monitoring Locations – Semi-annual Trawl Fish and Epibenthic Macroinvertebrate Monitoring Stations (n=6) and Annual Trawl Fish and Epibenthic Macroinvertebrate Monitoring Stations (n=8)

   Demersal Fish and Epibenthic Macroinvertebrate Communities. Trawl samples collected for demersal fish and epibenthic macroinvertebrate community structure analyses may be the same as those collected for demersal fish tissue chemistry analyses. The Discharger shall monitor demersal fish and epibenthic macroinvertebrates at the Semi-Annual and Annual Trawl Fish and Epibenthic Macroinvertebrate Monitoring Stations specified in Table E-2. Sampling and analysis protocols shall follow those described in the MRP QAPP and Laboratory Quality Manual. At each station, a single trawl sample shall be collected using one standard semi-balloon otter trawl towed for at least 10 minutes along the respective isobath. Samples shall be processed, with all demersal fish and epibenthic macroinvertebrates, identified to species, counted, measured (fish only), and weighed.

Table E-10. Demersal Fish and Epibenthic Macroinvertebrate Community Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Number of species, per trawl sample	--	trawl	See Table E-2.	[1]
Number of individuals per species, per trawl sample	--	trawl		[1]
Wet weight of macroinvertebrate species, per trawl sample	kg	trawl		[1]
Wet weight of fish species, per trawl sample	kg	trawl		[1]
Size classes of fish species, per trawl sample	cm	trawl		[1]
Shannon-Weiner's diversity index (H')	--	trawl		[1]
Swartz's 75% dominance index (SDI)	--	trawl		[1]
Fish response index (FRI)	--	trawl		[1]
Abnormalities and disease symptoms	--	trawl		[1]

[1] As specified in the MRP QAPP and Laboratory Quality Manual.

2. Monitoring Locations – Semi-annual Trawl Fish Monitoring Stations (n=2)

   Demersal Fish Liver Tissue Chemistry. The trawl samples collected for demersal fish liver tissue chemistry analyses may be the same as those collected for demersal fish and epibenthic macroinvertebrate community structure analyses. The Discharger shall annually monitor flatfish (e.g., Pacific Sanddab, Hornyhead Turbot, and English Sole) at the two Semi-annual Trawl Fish and Epibenthic Macroinvertebrate Monitoring Stations specified in Table E-2. Sampling and analysis protocols (including reporting limits) shall follow those described in the MRP QAPP and Laboratory Quality Manual. At each station, a single trawl sample shall be collected using one standard semi-balloon otter trawl towed for at least 10 minutes along the specified isobath. A reasonable level of effort (i.e., five (5) trawls per station) shall be used to collect a maximum twenty (20) individuals of flatfish between 15-20 cm standard length at each station. Target fish will be identified to species, counted, measured to the nearest millimeter, weighed, bagged, and transported on wet ice to the Discharger's

laboratory for chemical analyses on liver tissue contaminants. Fish will be sorted into two composite samples per station, with a maximum of ten (10) individuals in each composite.

Table E-11. Demersal Fish Liver Tissue Chemistry Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Length of each fish sample, per trawl sample	cm	trawl	See Table E-2.	[1]
Wet weight of each fish sample, per trawl sample	kg	trawl		[1]
Percent lipid	%, wet g	composite of liver tissue, maximum of 20 individuals of flatfish per station		[1]
Arsenic	ng/wet g	composite of liver tissue, maximum of 20 individuals of flatfish per station		[1]
Mercury (methylmercury)	ng/wet g	composite of liver tissue, maximum of 20 individuals of flatfish per station		[1]
Selenium	ng/wet g	composite of liver tissue, maximum of 20 individuals of flatfish per station		[1]
Sum of individual PCB congeners[2]	ng/wet g	composite of liver tissue, maximum of 20 individuals of flatfish per station		[1]
Individual PCB congeners[2]	ng/wet g	composite of liver tissue, maximum of 20 individuals of flatfish per station		[1]
Sum of individual DDT derivatives[3]	ng/wet g	composite of liver tissue, maximum of 20 individuals of flatfish per station		[1]

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Sum of individual Chlordane derivatives[4]	ng/wet g	composite of liver tissue, maximum of 20 individuals of flatfish per station		[1]

[1] As specified in the MRP QAPP and Laboratory Quality Manual.

[2] Individual PCB congeners: Individual 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, 153/168, 156, 157, 158, 167, 169, 170, 177, 180, 183, 187, 189, 194, 201, and 206 shall be individually quantified and reported. The analytical report for individual PCB congeners shall be submitted electronically into the State Water Board's California Integrated Water Quality System (CIWQS) in a tabular format as an attachment.

[3] Individual DDT derivatives: 2,4'- and 4,4'-isomers of DDT, DDE, and DDD, plus 4,4'-DDMU.

[4] Individual Chlordane derivatives: Cis- and trans-chlordane, cis- and trans-chlordene, heptachlor, heptachlor epoxide, cis- and trans-nonachlor, and oxychlordane. The Discharger may temporarily suspend the monitoring requirements for cis- and trans-chlordene, if analytical standards for these compounds are not available. However, the Discharger is required to resume detection and quantification practices as soon as standards become available.

3. Monitoring Locations – Semi-annual Trawl Fish and Epibenthic Macroinvertebrate Monitoring Stations (n=2)

   Demersal Fish Liver Histopathology. Histopathological analyses shall be performed annually on liver tissues of flatfish from two Semi-annual Trawl Fish and Epibenthic Macroinvertebrate Monitoring Stations specified in Table E-2. A reasonable level of effort (i.e., five (5) trawls per location) shall be used to collect twenty (20) individuals of flatfish at each station. Fish species are the same as those targeted for liver tissue chemistry analyses (e.g., Pacific Sanddab, Hornyhead Turbot, and English Sole).

   The increased frequency of histopathological analyses in this Order/Permit cycle (i.e., annual) is different from that of the previous Order/Permit in order to capture potential environmental effects associated with the Discharger's increased water reclamation efforts.

4. Monitoring Locations – Annual Rig Fishing Monitoring Zones (n=2)

   Sport Fish Muscle Chemistry. The Discharger shall collect ten (10) sexually mature rockfish (e.g., Vermilion Rockfish, Copper Rockfish, and California Scorpionfish) at each Rig Fishing Monitoring Zone specified in Table E-2.

Sampling and analysis protocols (including reporting limits) shall follow those described in the MRP QAPP and Laboratory Quality Manual. Target fish will be identified to species, counted, measured to the nearest millimeter, weighed, bagged, and transported on wet ice to the Discharger's laboratory for chemical analyses on muscle tissue contaminants. Fish will be sorted into two composite samples per zone, with a maximum of five (5) individuals in each composite.

Table E-12. Sport Fish Muscle Chemistry Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Length of each fish sample	cm	hook and line	See Table E-2.	[1]
Wet weight of each fish sample	kg	hook and line		[1]
Percent lipid	%, wet g	composite of muscle tissue, maximum of 10 individuals of rockfish per zone		[1]
Arsenic, total	ng/wet g	composite of muscle tissue, maximum of 10 individuals of rockfish per zone		[1]
Mercury (methylmercury)	ng/wet g	composite of muscle tissue, maximum of 10 individuals of rockfish per zone		[1]
Selenium, total	ng/wet g	composite of muscle tissue, maximum of 10 individuals of rockfish per zone		[1]
Sum of individual PCB congeners[2]	ng/wet g	composite of muscle tissue, maximum of 10 individuals of rockfish per zone		[1]
Individual PCB congeners[2]	ng/wet g	composite of muscle tissue, maximum of 10 individuals of rockfish per zone		[1]
Sum of individual DDT derivatives[3]	ng/wet g	composite of muscle tissue, maximum of 10 individuals of rockfish per zone		[1]
Sum of individual Chlordane derivatives[4]	ng/wet g	composite of muscle tissue, maximum of 10 individuals of rockfish per zone		[1]

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method

[1] As specified in the MRP QAPP and Laboratory Quality Manual.

[2] Individual PCB congeners. Individual 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, 153/168, 156, 157, 158, 167, 169, 170, 177, 180, 183, 187, 189, 194, 201, and 206 shall be individually quantified and reported. The analytical report for individual PCB congeners shall be submitted electronically in the State Water Board's California Integrated Water Quality System (CIWQS) in a tabular format as an attachment.

[3] Individual DDT derivatives. 2,4'- and 4,4'-isomers of DDT, DDE, and DDD, plus 4,4'-DDMU.

[4] Individual Chlordane derivatives. Cis- and trans-chlordane, cis- and trans-chlordene, heptachlor, heptachlor epoxide, cis- and trans-nonachlor, and oxychlordane. The Discharger may temporarily suspend the monitoring requirements for cis- and trans-chlordene, if analytical standards for these compounds are not available. However, the Discharger is required to resume detection and quantification practices as soon as standards become available.

IX. RECEIVING WATER REGIONAL MONITORING REQUIREMENTS

Discharger participation in regional monitoring programs is a required condition of this Order/Permit. The Discharger shall participate in regional monitoring activities coordinated by the Southern California Coastal Water Research Project (SCCWRP), County of Orange Health Care Agency (HCA), the Southern California Coastal Ocean Observation System (SCCOOS), and other appropriate agencies once approved by the Santa Ana Water Board and USEPA.

The regional monitoring programs which must be conducted under this Order/Permit include:

A. Southern California Bight Regional Monitoring Program

The Discharger shall continue to participate in Southern California Bight Regional Monitoring Program studies, including water quality, benthic infauna, sediment chemistry, fish communities, fish predator risk, and ocean acidification, which are coordinated through the Southern California Coastal Water Research Project (SCCWRP) (e.g., the 1994 Southern California Bight Pilot Project, Bight'98, Bight'03, Bight'08, Bight'13, and Bight'18).

Participation in the Southern California Bight Regional Monitoring Program shall include aspects of the program relevant to understanding regional trends and answering regional questions related to public health (i.e., bacterial contamination), water quality, sediment geochemistry, biological communities, and seafood safety (e.g., fish tissue contamination) in the receiving waters environment. For sediment chemistry and benthic infauna communities, this level of effort shall be similar to the 35 one-off (i.e., 1/5-year) summer samples. For trawls, participation shall be equivalent to the 8 annual summer samples. In both cases (i.e., the benthic and trawl programs), 22

quarterly/annual benthic stations and 6 semi-annual trawl stations identified in the monitoring program should continue to be sampled, even during regional monitoring program events, to assess compliance and trends near the discharge.

The Discharger shall complete collection, analysis, and reporting of samples in accordance with the schedules established by the next Bight regional program development committee(s). Previous participation included method development, research, and monitoring activities involving microbiology, water quality data, marine sediments, fish/macrobenthic assemblages, fish tissue contamination, and harmful algal blooms related to point and nonpoint discharges to the marine environment. Levels of participation and areas of study are dependent upon the final study plans established by Bight regional program development committees, but will be equivalent to that provided by the Discharger in previous regional surveys conducted in 1994, 1998, 2003, 2008, 2013, and 2018. For Bight'18, this involved:

1. Participation in regional microbiological studies testing rapid methods and developing rapid methods for detection of fecal indicator bacteria in beach sands at 2 beach stations.
2. Collection and analysis of water quality samples for analyzing the relationship between nutrients discharged through POTW outfalls, upwelling, and harmful algal blooms. Note that this study was deferred to Bight'23 due to logistical sample deployment issues.
3. Collection and analysis of water quality samples for ocean acidification and hypoxia (OAH), including bongo net towing to collect pteropods, at 4 bongo net tow stations.
4. Collection and analysis of sediment grab samples for geochemistry and benthic infauna at 44 benthic stations .
5. Collection and analyses of fish and macroinvertebrate community structure at 21 trawl stations.
6. Collection and analysis of fish tissue from approximately two zones or the equivalent of 40 tissue samples for chemical contaminants (organics and metals), and analysis of selected biomarkers at a subset of these stations.

B. Southern California Bight Regional Water Quality Program

The Southern California Bight Regional Water Quality Program (SCBRWQP; previously known as the Central Bight Water Quality Cooperative Program or the Central Bight Regional Water Quality Monitoring Program) is a coordinated quarterly receiving water quality monitoring program conducted by OC San, the County Sanitation Districts of Los Angeles, the City of Los Angeles, the City of San Diego, and the City of Oxnard.

1. Monitoring Locations – Quarterly Southern California Bight Regional Water Quality Monitoring Stations (n=60)

   The Discharger shall monitor the receiving water at the Quarterly Southern California Bight Regional Water Quality Monitoring Stations specified in Table E-2

The Discharger shall complete collection and analysis of samples. Results shall be reported in the annual receiving water monitoring report and uploaded, as available, to www.sccoos.org. The Discharger's level of participation shall be consistent with that provided in previous quarterly regional surveys.

Table E-13. Southern California Bight Receiving Water Quality Monitoring

Parameter	Units	Sample Type	Sample Depth	Minimum Sampling Frequency	Required Analytical Test Method
Surface Observations[1]	--	visual	surface	1/quarter	--
Salinity (calculated)	psu	profile	CTD sampling depths in Table E-2	1/quarter	[2]
Conductivity	S/m	profile		1/quarter	[2]
Temperature	°C	profile		1/quarter	[2]
Dissolved oxygen (DO)	mg/L	profile		1/quarter	[2]
Transmissivity	%	profile		1/quarter	[2]
Photosynthetically active radiation (PAR)	µEinsteins sec^{-1} cm^{-2}	profile		1/quarter	[2]
Chlorophyll-*a* fluorescence	µg/L	profile		1/quarter	[2]
pH	pH units	profile		1/quarter	[2]

[1] Wind direction and speed, weather, and sea and tidal condition shall be recorded, with the source(s) of the data documented. Observations of unusual water color, turbidity, odor, oil and grease, trash, or other physical evidence of waste discharge and trash in the water shall be noted on the log sheet prepared at the time of sample collection. These observations shall be recorded whenever a station is sampled.

[2] As specified in 40 CFR § 136, or in the MRP QAPP and Laboratory Quality Manual.

C. Central Regional Kelp Survey

This regional survey is designed to determine if the extent of kelp beds in the Southern California Bight are changing over time and if the rate of change differs between kelp beds. A group of private and public agencies cooperatively monitors the health and standing crop of kelp beds using quarterly aerial imaging of kelp bed canopy cover within the central Bight. 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 kelp beds near to the discharge to be compared to regional trends.

The Discharger shall continue its current level of participation in the Central Region Kelp Survey Consortium (CRKSC) Monitoring Program to conduct regional kelp bed monitoring in Southern California coastal waters. The Discharger shall participate in the regional management and technical committees responsible for the development of the survey design and the assessment of kelp bed resources in the Bight.

D. Orange County Regional Shoreline REC-1 Cooperative Monitoring Program

This regional program is a coordinated shoreline REC-1 water quality monitoring effort conducted by the Discharger, the Orange County Health Care Agency (OCHCA), the South Orange County Wastewater Authority, and the Orange County Public Works (OC Watersheds) in the Ocean Water Protection Program, along Orange County's coastal shoreline (from Seal Beach to San Clemente State Beach). OCHCA reviews collected bacteriological data to determine whether a station meets Ocean Water-Contact Sports Standard (i.e., Assembly Bill 411; AB411), and uses these results as the basis for health advisories, postings, or beach closures. This Order/Permit requires a minimum level of participation in microbiological regional monitoring.

1. Monitoring Locations – Orange County Regional Shoreline REC-1 Cooperative Monitoring Stations (Nearshore Zone) (n=36)

   The Discharger shall monitor the receiving water at least once per week at the Orange County Regional Shoreline REC-1 Cooperative Monitoring Stations (Nearshore Zone or Surfzone) specified in Table E-2. The Discharger shall complete collection, analysis, and reporting of the regional samples required under this Order/Permit. Results shall be reported in the annual receiving water monitoring report, except that microbiological results shall continue to be reported on a timely basis (approximately daily) to the OCHCA, Environmental Health and placed on the Internet each month.

Table E-14. Orange County Regional Shoreline REC-1 Cooperative Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency[1]	Required Analytical Test Method
Surface Observations[2]	--	visual	See Table E-2.	3
Total coliform density	CFU/100 mL[4]	grab		3,4,5
Fecal coliform density	CFU/100 mL[4]	grab		3,4,5
Enterococcus density	CFU/100 mL[4]	grab		3,5

[1] In the event of stormy weather which makes sampling hazardous at certain surfzone stations, collection of samples at such stations can be omitted, provided that such omissions do not occur more than 5 days in any calendar year or occur at consecutive sampling times. The observations shall still be recorded and reported to the Santa Ana Water Board and USEPA for these stations at the time the sample was attempted to be collected.

Parameter	Units	Sample Type	Minimum Sampling Frequency[1]	Required Analytical Test Method

[2] Wind direction and speed, weather, and sea and tidal condition shall be recorded, with the source(s) of the data documented. Observations of unusual water color, turbidity, odor, oil and grease, trash, or other physical evidence of waste discharge and trash in the water shall be noted on the log sheet prepared at the time of sample collection. These observations shall be recorded whenever a station is sampled.

[3] As specified in 40 CFR § 136, or in the MRP QAPP and Laboratory Quality Manual.

[4] Results may be reported as either MPN/100 mL if the laboratory method used provides results in MPN/100 mL or CFU/100 mL if the laboratory method used provides results in CFU/100 mL.

~~[4]~~ [5] Test 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 USEPA pursuant to 40 CFR § 136, or improved methods have been determined by the Executive Officer and/or USEPA.

~~[5] *Enterococcus* shall be analyzed using the USEPA Method 1600 or other equivalent method to measure culturable enterococcus density.~~

E. Ocean Acidification and Hypoxia (OAH) Mooring

The Discharger shall monitor ocean acidification and hypoxia at a single location. An automated data quality control system shall be established for telemetered data (i.e., real-time, online ocean acidification data) based on the Integrated Ocean Observation System (IOOS) protocols.

X. STRATEGIC PROCESS STUDIES

The Discharger shall conduct Strategic Process Studies (SPS) to document the effectiveness of its source control and wastewater treatment operations in protecting the coastal ocean. SPS are designed to address unanswered questions raised by the Core monitoring program results and/or focus on issues of interest to the Discharger, the Santa Ana Water Board, and/or USEPA. SPS shall be proposed and be approved by the Santa Ana Water Board and USEPA to ensure appropriate focus and level of effort. Five studies below must be conducted under this Order/Permit using previously approved work plans as these studies have been approved during the term of the 2012 Order/Permit and are not yet completed:

A. ROMS-BEC Ocean Outfall Modeling: The Discharger works with SCCWRP and their collaborators to model and assess the spatial and temporal extent of its discharged effluent before and after the implementation of the GWRS Final Expansion.

B. Microplastics Characterization: This SPS characterizes the quantity and types of microplastics throughout the Discharger's treatment system. This study will also develop methods and analyses to help inform the transport, fate and impacts of microplastics through the Discharger's wastewater treatment process to the receiving environment.

C. In-vitro Cell Bioassay Monitoring Assessment: This study will provide a preliminary assessment of contaminants of emerging concern (CEC) in the receiving water using *in-vitro* cell bioassay techniques. Cell bioassays can be used as a screening tool to evaluate potential impacts resulting from changes in the effluent and receiving environment water quality associated with the GWRS Final Expansion.

D. Sediment Linear Alkylbenzenes: Linear Alkylbenzenes (LABs) were previously used to investigate whether other contaminants present in the sediment were associated with the effluent discharge. This SPS will provide updated data within the Discharger's monitoring area for evaluating future changes due to GWRS Final Expansion.

E. Meiofauna Baseline: The Discharger will investigate the impacts of increased RO concentrate flows from the GWRS Final Expansion on marine biota in the receiving water using meiofauna (animals ranging from 63 to 500 µm in size) which are known to be more sensitive to anthropogenic impacts than macrofauna. This SPS will characterize the meiofauna communities in the receiving environment and evaluate the suitability of using meiofauna for a before-after control-impact study of the GWRS Final Expansion.

XI. OTHER MONITORING REQUIREMENTS

A. Contaminants of Emerging Concern (CEC) Monitoring Study

The Discharger shall continue to investigate CEC in the discharge and/or receiving waters, following its approved CEC study workplan. Within six (6) months of the effective date of this Order/Permit, the Discharger shall submit for Executive Officer/Director approval an updated CEC study workplan and submit the special study final report with the application for permit reissuance. The workplan shall include, but is not limited to:

1. Updates of CEC identification for discharge monitoring (e.g., CEC concentrations and mass loadings, sample type, minimum sampling frequency, and analytical test method considering sensitivity, accuracy, availability, and cost). The parameters in Table E-15 may be re-evaluated and modified by the Executive officer/Director. The workplan may also propose surrogate or indicator CEC that may better characterized discharged CEC.

Table E-15. CEC Discharge Monitoring

Parameter	CAS #	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Hormones					
17α-Ethynyl estradiol	57-63-6	ng/L & lb/d	24-hr composite	1/year	[1]
17α-Estradiol	57-91-0	ng/L & lb/d	24-hr composite	1/year	[1]
17β-Estradiol	50-28-2	ng/L & lb/d	24-hr composite	1/year	[1]

Parameter	CAS #	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Estriol	50-27-1	ng/L & lb/d	24-hr composite	1/year	[1]
Estrone	53-16-7	ng/L & lb/d	24-hr composite	1/year	[1]
Progesterone	57-83-0	ng/L & lb/d	24-hr composite	1/year	[1]
Testosterone	58-22-0	ng/L & lb/d	24-hr composite	1/year	[1]
Industrial Endocrine Disrupting Compounds (IEDCs)					
Bisphenol A	80-05-7	ng/L & lb/d	24-hr composite	1/year	[1]
4-para-Nonylphenol	84852-15-3	ng/L & lb/d	24-hr composite	1/year	[1]
Nonylphenol diethoxylate	Not available	ng/L & lb/d	24-hr composite	1/year	[1]
Nonylphenol monoethoxylate	68412-54-4	ng/L & lb/d	24-hr composite	1/year	[1]
Octylphenol	27193-28-8	ng/L & lb/d	24-hr composite	1/year	[1]
4-n-Octylphenol diethoxylate	51437-90-2	ng/L & lb/d	24-hr composite	1/year	[1]
Octylphenol monoethoxylate	5143-89-9	ng/L & lb/d	24-hr composite	1/year	[1]
Pharmaceuticals and Personal Care Products (PPCPs)					
Acetaminophen	298-46-4	ng/L & lb/d	24-hr composite	1/year	[1]
Caffeine	58-08-2	ng/L & lb/d	24-hr composite	1/year	[1]
Carbamazepine	298-46-4	ng/L & lb/d	24-hr composite	1/year	[1]
DEET (N,N-Diethyl-m-toluamide)	134-62-3	ng/L & lb/d	24-hr composite	1/year	[1]
Diclofenac	15307-86-5	ng/L & lb/d	24-hr composite	1/year	[1]
Erythromycin	114-07-8	ng/L & lb/d	24-hr composite	1/year	[1]
Fluoxetine hydrochloride	56296-78-7	ng/L & lb/d	24-hr composite	1/year	[1]
Galaxolide (HHCB)	1222-05-5	ng/L & lb/d	24-hr composite	1/year	[1]
Gemfibrozil	25812-30-0	ng/L & lb/d	24-hr composite	1/year	[1]
Ibuprofen	15687-27-1	ng/L & lb/d	24-hr composite	1/year	[1]
Oxybenzone	131-57-7	ng/L & lb/d	24-hr composite	1/year	[1]

Parameter	CAS #	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Primidone	125-33-7	ng/L & lb/d	24-hr composite	1/year	[1]
Sulfamethoxazole	723-46-6	ng/L & lb/d	24-hr composite	1/year	[1]
Triclosan	3380-34-5	ng/L & lb/d	24-hr composite	1/year	[1]
Pesticides and Insecticides					
Fipronil	120068-37-3	ng/L & lb/d	24-hr composite	1/year	[1]
Fipronil Sulfone	120068-36-2	ng/L & lb/d	24-hr composite	1/year	[1]
Bifenthrin	82657-04-3	ng/L & lb/d	24-hr composite	1/year	[1]
Total Permethrin	52645-53-1	ng/L & lb/d	24-hr composite	1/year	[1]
Chlorpyrifos	2921-88-2	ng/L & lb/d	24-hr composite	1/year	[1]
Diazinon	333-41-5	ng/L & lb/d	24-hr composite	1/year	[1]
Flame Retardants					
BDE 47	Not available	ng/L & lb/d	24-hr composite	1/year	[1,2]
BDE 99	Not available	ng/L & lb/d	24-hr composite	1/year	[1,2]
BDE 100	Not available	ng/L & lb/d	24-hr composite	1/year	[1,2]
BDE 183	Not available	ng/L & lb/d	24-hr composite	1/year	[1,2]
TDCPP; tris(1,3-dichloro-2-propyl)phosphate	13674-87-8	ng/L & lb/d	24-hr composite	1/year	[1]
TCEP; tris(2-chloroethyl)phosphate	115-96-8	ng/L & lb/d	24-hr composite	1/year	[1]
TCPP; tris(1-chloro-2-propyl)phosphate	13674-84-5	ng/L & lb/d	24-hr composite	1/year	[1]
PFAS (per-and polyfluoroalkyl substances) compounds					
PFDA (Perfluorodecanoic acid)	335-76-2	ng/L & lb/d	24-hr composite	1/year	[3]
PFDoA (Perfluorododecanoic acid)	307-55-1	ng/L & lb/d	24-hr composite	1/year	[3]
PFHxA (Perfluorohexanoic acid)	307-24-4	ng/L & lb/d	24-hr composite	1/year	[3]

Parameter	CAS #	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
PFHpA (Perfluoroheptanoic acid)	375-85-9	ng/L & lb/d	24-hr composite	1/year	[3]
PFNA (Perfluorononanoic acid)	375-95-1	ng/L & lb/d	24-hr composite	1/year	[3]
PFOA (Perfluorooctanoic acid)	335-67-1	ng/L & lb/d	24-hr composite	1/year	[3]
PFTeDA (Perfluorotetradecanoic acid)	376-06-7	ng/L & lb/d	24-hr composite	1/year	[3]
PFTrDA (Perfluorotridecanoic acid)	72629-94-8	ng/L & lb/d	24-hr composite	1/year	[3]
PFUnDA (Perfluoroundecanoic acid)	2058-94-8	ng/L & lb/d	24-hr composite	1/year	[3]
PFBS (Perfluorobutane sulfonic acid)	375-73-5	ng/L & lb/d	24-hr composite	1/year	[3]
PFHxS (Perfluorohexane sulfonic acid)	355-46-4	ng/L & lb/d	24-hr composite	1/year	[3]
PFOS (Perfluorooctane sulfonic acid)	1763-23-1	ng/L & lb/d	24-hr composite	1/year	[3]

[1] USEPA Methods 1694 Modified or 1698 Modified; ASTM Methods D7065 or D7485; or other methodologies utilized by the U.S. Geological Survey, California Department of Public Health, or other federal or State agencies.

[2] USEPA Methods 1614A Modified using GC/MS SIM or other methodologies utilized by the U.S. Geological Survey, California Department of Public Health, or other federal or State agencies.

[3] USEPA Method 537.1 Modified with isotope dilution using LC/MS/MS or other methodologies to meet the required reporting limit of 50 ng/L.

2. Characterization of CEC monitoring data for the final effluent and receiving water including sediments, using previously collected monitoring data and monitoring data collected for this study. At minimum, this characterization shall include: identification of all monitored CECs, monitoring dates, frequency and duration; QA/QC information; reporting limits, minimum levels, and minimum detection limits achieved for each methodology; and an analysis of trends.
3. A preliminary workplan for collaborative studies: (1) CECs identification in reclaimed wastewater with the Orange County Water District, and (2) methods development for

measuring CECs in marine sediments with the Los Angeles County Sanitation Districts.

B. Outfall and Diffuser System Inspection

The Discharger shall externally inspect each ocean outfall (i.e., 120" and 78" outfalls) every 2.5 years to ensure that the outfall structures are in serviceable condition and that they can continue to be operated safely. Inspections shall include general observations including any collection of debris within the diversion structure surge chamber, and photographic/videographic records of the external outfall pipes and adjacent ballasting system. The inspections may be conducted by remotely operated vehicle, diver, or manned submarine. Within 60 days of the completion of the outfall and diffuser system inspection, a summary report of the inspection findings, including videographic and/or photographic images shall be submitted to the Santa Ana Water Board and USEPA.

XII. 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 Santa Ana Water Board and USEPA 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, Environmental Laboratory Accreditation Program (ELAP), in accordance with CWC section 13176, and must include quality assurance/quality control (QA/QC) data in their reports.
7. The Discharger shall have and implement an acceptable written NPDES monitoring and reporting program QAPP for all monitoring and analyses required under this Order/Permit. For each target analyte, required quality control samples shall be analyzed as described in the laboratory Quality Manual. A summary report of the QA/QC findings for all monitoring and analysis for the previous fiscal year (July 1 through June 30) shall be provided in the annual receiving water monitoring report.

8. QA/QC data associated with a sample must be reported when requested by the Santa Ana Water Board or USEPA. The Santa Ana Water Board and USEPA will reject laboratory data if quality control data is unavailable or unacceptable.
9. When requested by the Santa Ana Water Board or USEPA, the Discharger shall participate in the NPDES DMR QA performance study.
10. Dischargers are to instruct their 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 lowest calibration standard. At no time is the Discharger to use analytical data derived from extrapolation beyond the lowest point of the calibration curve. In accordance with Ocean Plan Chapter III.C.5.b, the Discharger's laboratory may employ a calibration standard lower than the ML in Appendix II of the Ocean Plan.
11. Upon request by the Discharger, the Santa Ana 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 2019 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. In such cases, the Discharger, Santa Ana 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.
12. Records and reports of receiving water 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, trash, discoloration, odor, oil and grease, wind speed and direction, swell or wave action, sea and tidal condition, time of sampling or measurements, 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 surveys. All tabulations and computations shall be explained.

13. The results of all monitoring data for this Order/Permit shall be reported in a tabulated format, acceptable by the Santa Ana Water Board and USEPA, that allows direct comparison with the limitations and conditions of this Order/Permit and clearly illustrates whether the facility is operating in compliance with this Order/Permit.

    All receiving water monitoring raw data files should be stored onsite and must be submitted to the Santa Ana Water Board and USEPA upon request.

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 at <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/Permit. The Discharger shall submit monthly 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 schedule in Table E-16. Monitoring and reporting due dates are specified elsewhere in this Order/Permit for: biosolids program annual report; pretreatment program annual reports; pollutant minimization program annual report; spill preventative and contingency plans update report; storm water management plan update; Initial Investigation TRE Workplan update; dilution model update; ocean outfall condition assessment reports; NPDES monitoring data availability via Internet update report; annual receiving water monitoring report (including a chapter for annotated QA/QC findings, chapters summarizing monitored activities for regional monitoring and strategic process studies, and a chapter for the annual mass emission); and outfall and diffuser systems inspection report.

Table E-16. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On…	Monitoring Period	SMR/DMR Due Date
Continuous	Effective date	All	Submit with monthly report
Hourly	Effective date	Hourly	Submit with monthly report
Daily (1/day)	Effective date	Midnight through 11:59 pm, or any 24-hr period that reasonably represents a calendar day for sampling purposes	Submit with monthly report
Weekly (1/week)	Sunday following effective date, or on effective date if Sunday	Sunday through Saturday	Submit with monthly report
Monthly (1/month)	First day of calendar month following effective date, or on effective date if first day of month	1st day of calendar month through last day of calendar month	15th day of 2nd month following the monitoring period, submit as monthly report
Quarterly (1/quarter)	Closest of January 1, April 1, July 1, or October 1 following (or on) effective date	January 1 through March 31 April 1 through June 30 July 1 through September 30 October 1 through December 31	May 15, August 15, November 15, February 15, submit with monthly report
Semi-annually (2/year)	Closest of January 1 or July 1 following (or on) effective date	January 1 through June 30 July 1 through December 31	August 15, February 15, submit with monthly report
Annually (1/year)	January 1 following (or on) effective date	January 1 through December 31	February 15, submit with monthly report
Other	On date specified in Order/Permit	As specified in Order/Permit	Submit with monthly report

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 (± 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/Permit. For purposes of reporting and administrative enforcement by the Santa Ana Water Board, State Water Board, and USEPA, 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 corresponding 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 DNQ or 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).

   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 (e.g., annual receiving water monitoring report).

b. 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. SMRs must be signed and certified as required by the Standard Provisions (Attachment D).

SMRs submitted to the State that are not DMRs shall also be submitted to USEPA at the following address, unless another USEPA address is specified in this Order/Permit. Signed and certified written reports and receiving water monitoring data may be submitted on a CD-ROM, with a signed cover letter.

U.S. EPA, Region 9
ATTN: NPDES Data Team (ENF 2-3)
Data Solution Section ECAD
75 Hawthorne Street
San Francisco, CA 94105-3901

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>.

D. Other Reports

1. **Pretreatment Report**. By October 31st of each year, the Discharger shall submit annual pretreatment reports to the Santa Ana Water Board, the State Water Board, and USEPA, describing the Discharger's pretreatment activities over the previous OCSD fiscal year (July 1 through June 30). The annual reports shall contain, but not be limited to, the information required in the attached *Pretreatment Reporting Requirements* (Attachment H), or an approved revised version thereof. If the Discharger is not in compliance with any conditions or requirements of this Order/Permit, the Discharger shall include the reasons for noncompliance and shall state how and when the Discharger will comply with such conditions and

requirements. Prior to the completion of the GWRS Final Expansion Project, the Discharger shall conduct annual technical review of local limits under 40 CFR § 403.5(c)(1) and submit the results as part of the annual pretreatment report. Within two (2) years of the completion of the GWRS Final Expansion Project, the Discharger shall provide a written technical evaluation of the need to revise local limits under 40 CFR § 403.5(c)(1).

2. **Biosolids Report.** By February 19th of each year, the Discharger shall submit an annual biosolids report into USEPA's CDX electronic reporting system, ~~with a hard copy to the Santa Ana Water Board,~~ with an electronic copy to the Santa Ana Water Board by email at santaana@waterboards.ca.gov, for the period covering the previous calendar year (January 1 through December 31). The annual reports shall contain, but not be limited to, the information required in the attached *Biosolids Reporting Requirements* (Attachment G), or an approved revised version thereof. If the Discharger is not in compliance with any conditions or requirements of this Order/Permit, the Discharger shall include the reasons for noncompliance and shall state how and when the Discharger will comply with such conditions and requirements.

3. **Receiving Water Monitoring Report**. By March 15th of each year, the Discharger shall submit an annual receiving water monitoring report for monitored activities during the previous fiscal year (July 1 through June 30), to the Santa Ana Water Board and USEPA. The report shall contain both tabular and graphical summaries of receiving water monitoring data and discuss the compliance record and actions undertaken or proposed which will bring the discharge into full compliance with receiving water monitoring requirements at the earliest time, and an estimate of the date when the Discharger will be in compliance. Receiving water core monitoring results, including annotated QA/QC findings, shall be described and summarized. Separate report chapters for receiving water regional monitoring and strategic process studies shall provide summaries of monitored activities during the previous fiscal year. A separate report chapter for effluent monitoring shall also provide summaries of effluent monitoring including the annual mass emission during the previous fiscal year.

4. **Strategic Process Study Proposal.** In the spring, beginning in 2022 and continuing every-other year during the term of this Order/Permit, the Discharger, Santa Ana Water Board, and USEPA shall consult to determine the need for strategic process studies. By October 1st, the Discharger shall submit proposals to the Santa Ana Water Board and USEPA for the following fiscal year's (July 1 through June 30) monitoring effort, or a letter explaining why no special studies are proposed. Upon approval by the Santa Ana Water Board and USEPA, the Discharger shall implement its strategic process studies. Final scopes of work, including reporting schedules, shall be presented by the Discharger at a spring meeting with Santa Ana Water Board and USEPA staffs to obtain Santa Ana Water Board and USEPA approval.

5. **Other Workplans and Reports.** The Discharger shall report the results of any special studies (e.g., TRE work plan, dilution model update and ocean outfall condition assessment), Pollutant Minimization Program (PMP), updated Storm Water Management Plan, Spill Preventive and Contingency Plan (SPCP), Asset Management Plan (AMP), and Monitoring Data Accessibility Plan required by Special Provisions – Section VII.C of this Order/Permit. The Discharger shall also submit the workplans and report the results of special monitoring studies (e.g., CEC monitoring study and outfall and diffuser system inspection) required by Other Monitoring Requirements – Section XI of Attachment E. The Discharger shall submit workplans and/or reports with the first monthly SMR scheduled to be submitted on or immediately following the report due date in compliance with SMR reporting requirements described in subsection XII.B above.

ATTACHMENT F – FACT SHEET

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FIGURE

Figure F-1. Previous and current Southern California Bight Regional Water Quality Program Station transects. 66

ATTACHMENT F – FACT SHEET

As described in section II.B of this Order/Permit, the California Regional Water Quality Control Board, Santa Ana Region (hereinafter Santa Ana Water Board) and USEPA incorporates this Fact Sheet as findings of the Santa Ana Water Board and USEPA supporting the issuance of this Order/Permit. This Fact Sheet includes the legal requirements and technical rationale that serve as the basis for the requirements of this Order/Permit.

This Order/Permit 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/Permit that are specifically identified as "not applicable" have been determined not to apply to this Discharger. Sections or subsections of this Order/Permit 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

WDID	8 300110002	
Discharger	Orange County Sanitation District	
Name of Facility (and POTW)	Reclamation Plant No. 1 (Fountain Valley), collection system and outfalls Treatment Plant No. 2 (Huntington Beach), collection system and outfalls	
Facility Address	Reclamation Plant No. 1	Treatment Plant No. 2
	10844 Ellis Avenue Fountain Valley, CA 92708	22212 Brookhurst Street Huntington Beach, CA 92646
	Orange County	
Facility Contact, Title and Phone	James Herberg, General Manager (714) 962-2411	
Authorized Person to Sign and Submit Reports	James Herberg, General Manager (714) 962-2411	
Mailing Address	10844 Ellis Avenue, Fountain Valley, CA 92708-7018	
Billing Address	Same	
Type of Facility	Publicly Owned Treatment Works (POTW)	
Major or Minor Facility	Major	
Threat to Water Quality	1	
Complexity	A	

Pretreatment Program	Yes	
Recycling Requirements	State Water Board Order WQ 2016-0068-DDW	
Facility Permitted Flow	332 MGD (dry weather)	
Facility Design Flow	Reclamation Plant No. 1	Treatment Plant No. 2
	182 MGD (dry weather) 345 MGD (peak wet weather)	150 MGD (dry weather) 317 MGD (peak wet weather)
Watershed	Santa Ana River Watershed	
Receiving Water	Pacific Ocean (Discharge Point Nos.001 and 002) Santa Ana River (Discharge Point No. 003)	
Receiving Water Type	Ocean and inland (tidal prism) waters	

A. Orange County Sanitation District (hereinafter OC San, Permittee or Discharger) is the owner and operator of Reclamation Plant No. 1 in Fountain Valley and Treatment Plant No. 2 in Huntington Beach (hereinafter treatment facilities), a Publicly-Owned Treatment Work (POTW).

For the purposes of this Order/Permit, 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.

B. The Facility discharges wastewater to the Pacific Ocean, a water of the United States. The Discharger was previously regulated by Order No. R8-2012-0035 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0110604 adopted on June 15, 2012 and expired on July 19, 2017. The Discharger filed a report of waste discharge and submitted an application for reissuance of its waste discharge requirements (WDRs) and NPDES permit on January 3, 2017, and the previous order was administratively extended by operation of law. Attachment B provides a map of the area around the Facility. Attachment C provides a flow schematic of the Facility.

C. Regulations at 40 CFR § 122.46 limit the duration of NPDES permits to a fixed term not to exceed five years. Accordingly, Table 3 of this Order/Permit limits the duration of the discharge authorization. However, pursuant to California Code of Regulations, 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. (See also 40 CFR § 122.6(d)).

II. FACILITY DESCRIPTION

A. Description of Wastewater and Biosolids Treatment and Controls

The Discharger's POTW serves approximately 480 square miles of central and northern Orange County, California. Currently, the POTW consists of approximately

388 miles of trunk sewer systems and force mains, 15 offsite pump stations, two wastewater treatment plants, and three outfalls. In addition to the domestic, commercial, and industrial wastewater received from this service area, through interagency agreements, influent flows are contributed by the Santa Ana Watershed Project Authority (SAWPA) including Stringfellow Superfund Site (EPA ID #CAT080012826), Irvine Ranch Water District, and the Sanitation District of Los Angeles County. During dry weather conditions, the Discharger also accepts small volumes (average daily amount up to 10 MGD) of dry weather urban runoff from within the service area. During 2018-2019, the Discharger's wastewater treatment plants received and processed influent volumes averaging 191 MGD.

Raw wastewater entering either Reclamation Plant No. 1 or Treatment Plant No. 2 passes through metering and diversion structures and continues to headworks facilities for preliminary treatment. Note that influent flow from SAWPA is tributary to Reclamation Plant No. 1 via the Santa Ana River Interceptor (SARI). Because the California Department of Health does not permit SARI flow for the Groundwater Replenishment System (GWRS) reclamation, all SARI flow is diverted to Treatment Plant No. 2 through the Interplant Interceptor for treatment and ocean discharge. Preliminary treatment includes grit and screenings removal. Caustic soda shock, ferrous chloride, calcium nitrate, magnesium hydroxide and polymer can be added to reduce corrosion and odor and provide enhanced primary treatment. The wastewater then receives primary treatment in primary sedimentation facilities. The primary effluent is routed to either trickling filters or activated sludge facilities for secondary treatment. Secondary treated trickling filter and activated sludge effluents from Reclamation Plant No. 1 are delivered to the Orange County Water District (OCWD) for further tertiary treatment and reclamation. The OC San discharges secondary treated effluent from Treatment Plant No. 2 through Discharge Point 001 (primary 120" ocean outfall) to the Pacific Ocean, a water of the United States, except under emergency circumstances. In 2023, when the Final Expansion of the GWRS is complete, Treatment Plant No. 2 effluents will also be reclaimed at the GWRS. SARI flow will be separated from other domestic wastewater at Plant No. 2, where it will be secondary treated before being discharged to the ocean. The use of continuous disinfection prior to discharge through Discharge Point No. 001 (120" outfall) has been ceased since May 2015. Effluent disinfection with chlorine bleach followed by de-chlorination with sodium bisulfite occurs at the other two discharge points 002 and 003. Dewatered biosolids are shipped offsite to land application, composting, thermal conversion, or landfill facilities. Attachment B provides a map of the area around the treatment facilities. Attachment C provides flow schematics of the full secondary treatment facilities.

OCWD receives two streams of OC San secondary treated wastewater, one for the Green Acres Project (GAP, out of service in winter) and the second one for the GWRS. Both GAP and GWRS are major regional wastewater reclamation projects owned and operated by OCWD and located adjacent to Reclamation Plant No. 1. Advanced treatment for the GWRS includes microfiltration, reverse osmosis, and advance oxidation (ultraviolet/peroxide). The Discharger provides approximately 100 % of secondary treated effluent from Plant No.1 to GWRS for advanced treatment and

reuse. In Fiscal Year 2018-19, the average effluent flow to OCWD was 117 MGD. The GWRS Final Expansion has been under construction since November 2019, which supports the Discharger's strategic goal of maximizing water recycling up to 175 MGD at both plants, and OCWD's goal to produce up to 130 MGD of purified recycled water by 2023. GAP can divert up to 7.5 MGD of the Discharger's secondary treated wastewater for tertiary treatment, disinfection, and reuse for landscaped irrigation and industrial uses. In Fiscal Year 2018-19 summer months, average flow to GAP was 4 MGD. The GAP and part of the GWRS generates waste streams (e.g., microfiltration backwash, sump waste, and lime waste) are recycled back into the OC San's primary treatment facility, except for RO reject (or concentrate) which are returned to OC San, blended with other secondary treated waste streams and discharged via ocean outfalls.

In 2019, average daily total influent flow to both plants was 192 MGD, but because of water recycling efforts, the average daily ocean discharge was 100 MGD. Based on 2017 OCSD Facilities Master Plan, the average daily influent flow projected for 2025 is 188~206 MGD during the dry weather season and 478~523 MGD during the peak wet weather season. Note that lower and upper bound flows are based on the current trend and a conservative approach, respectively. The projected 2025 average daily ocean discharges are 55~73 MGD for dry weather and 344~389 MGD for peak wet weather, of which RO concentrate flow is 23 MGD.

B. Discharge Points and Receiving Waters

Secondary treated effluents from Plant No. 1 and 2 are discharged to the Pacific Ocean through the Discharger's ocean outfall system. There are two booster pump stations (i.e., the Ocean Outfall Booster Station (OOBS) and the Effluent Pump Station Annex (EPSA)) that pump secondary effluent to two ocean outfalls: Discharge Point 001 via the 120" pipelines and Discharge Point 002 via the 78" pipelines. In addition to these two ocean outfalls, there are two overflow weirs at Plant No. 2 that discharge into the Santa Ana River.

1. **Discharge Point 001 (120" outfall)**. Discharge Point 001 (120" outfall) is the primary discharge point (activated ocean outfall, with a rated capacity of 480 MGD) to the Pacific Ocean terminating in a diffuser with 503 ports, at a depth of about 197 feet (60 meters) below mean sea level. Discharge Point 001 (120" outfall) is approximately 4.5 miles (3.9 nautical miles) offshore in federal waters as the territorial waters of the State end 3 nautical miles from shore. The Ocean Plan (Appendix 1, Ocean Waters) states, "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." This Order/Permit contains discharge prohibitions, effluent limitations, receiving water limitations, and other provisions to ensure that discharges from Discharge Point 001 do not affect State waters. The Ocean Plan minimum probable initial dilution (D_m = 180) for this outfall is 181:1.
2. **Discharge Point 002 (78" outfall).** Discharge Point 002 (78" outfall) is an emergency discharge point (deactivated ocean outfall, with a rated capacity of 230

MGD) to the Pacific Ocean terminating in a 130 ports diffuser, approximately 1.5 mile offshore from the mouth of the Santa Ana River, at a depth of about 65 feet (20 meters) below mean sea level. This outfall is used only during an emergency or planned essential maintenance or capital improvement projects to assure efficient operation of the 120" outfall under 40 CFR § 122.41(m)(2) since the 120" outfall was put into service in 1971. The Ocean Plan minimum probable initial dilution (Dm = 36) for this outfall is 37:1.

3. **Discharge Point 003 (Santa Ana River Overflow Weirs).** Discharge Point 003 (i.e., the Santa Ana River Overflow Weirs) is comprised of two extreme emergency discharge points (overflow) to the tidal prism in the Santa Ana River, which eventually flows to the Pacific Ocean. One of the overflow points is located at the termination structure upstream of the EPSA facility and other one is at the OOBS facility. The structure consists of a 50' long overflow weir with two 72" pipes. The total capacity is approximately 605 MGD (i.e., 130 MGD from EPSA and 475 MGD from OOBS), but the actual capacity depends on the water level at the river. This outfall has never discharged over the past 10 years; however, it remains available for extreme emergency uses (e.g., tsunami, earthquake, flood, and acts of war or terrorism).

Table F-2. Discharge Location

Discharge Point	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
001 (120" outfall)	Secondary treated effluent and reverse osmosis concentrate	33° 34' 36" N	118° 00' 36" W	Pacific Ocean (4.5 miles offshore)
002 (78" outfall)	Secondary treated effluent and reverse osmosis concentrate	33° 36' 56" N	117° 58' 13" W	Pacific Ocean (1.5 miles offshore)
003 (Santa Ana River overflow weirs)	Secondary treated effluent and reverse osmosis concentrate	33° 38' 06" N	117° 57' 20" W	Santa Ana River Tidal Prism

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

Effluent limitations contained in the existing Order/Permit for discharges from Discharge Point 001 (Monitoring Location EFF-001) and representative monitoring data for the period from May 2015 to December 2019 are as follows:

Table F-3. Historic Technology Based Effluent Limitations and Monitoring Data at EFF-001

Parameter	Units	Order No. R8-2012-0035 NPDES Permit No. CA0110604 Effluent Limitation			Discharge Monitoring Data (May 2015 – December 2019)		
		Average Monthly	Average Weekly	Instantaneous Maximum	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Instantaneous Maximum Discharge
Secondary Treatment Standards and/or Ocean Plan Table 4 Effluent Limitations							
Carbonaceous Biochemical Oxygen Demand, 5-day @ 20°C ($CBOD_5$)	mg/L	25	40	--	6.5	8.8	--
	lbs/day	57,129	91,406	--	6,072	8,580	--
Total Suspended Solids (TSS)	mg/L	30	45	--	7.4	9.6	--
	lbs/day	68,555	102,832	--	7,167	11,451	--
pH	standard units	6.0 to 9.0 (instantaneous minimum/maximum)			7.06 to 8.41		
Oil and grease	mg/L	25	40	75	1.39	1.39	1.39
	lbs/day	57,129	91,406	171,387	1,106	1,106	--
Settleable Solids	ml/L	1.0	1.5	3.0	--	--	2.5
Turbidity	NTU	75	100	225	6.73	6.73	6.73

Table F-4. Historic Water Quality Based Effluent Limitations and Monitoring Data at EFF-001

Parameter	Units	Order No. R8-2012-0035 NPDES Permit No. CA0110604 Effluent Limitation			Monitoring Data (May 2015 – December 2019)		
		Average Monthly (or 6-Month Median*)	Maximum Daily	Instantaneous Maximum	Highest Average Monthly (or 6-Month Median*)	Highest Maximum Daily Discharge	Highest Instantaneous Maximum Discharge
Ocean Plan Table 3 Water Quality Objectives for Protection of Marine Aquatic Life							
Total chlorine residual	mg/L	0.36*	1.45	10.86	0.09*	0.3	1.2
	lbs/day	823*	3,313	24,817	68*	359	--
Acute toxicity, TST	P or F	--	P	--	Pass		
Chronic toxicity, TST	P or F	--	P	--	Pass		
<u>Radioactivity</u> Gross Alpha Gross Beta Radium-226 & 228	pCi/L	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. Reference to section 30253 is prospective, including future changes to any incorporated provisions of federal law, as the changes take effect.			36 70 1.14	36 70 1.14	--
Ocean Plan Table 3 Water Quality Objectives for Protection of Human Health - Carcinogens							
Benzidine	µg/L	0.01249	--	--	ND	--	--
	lbs/day	0.0285	--	--	ND	--	--
Hexachloro-benzene	µg/L	0.0380	--	--	ND	--	--
	lbs/day	0.0868	--	--	ND	--	--
PCBs[1]	µg/L	0.0034	--	--	ND	--	--
	lbs/day	0.0078	--	--	ND	--	--
TCDD equivalents[1]	pg/L	0.706	--	--	~~0.983~~<u>ND</u>	--	--
	lbs/day	0.000001613	--	--	~~0.000019~~<u>ND</u>	--	--

Parameter	Units	Order No. R8-2012-0035 NPDES Permit No. CA0110604 Effluent Limitation			Monitoring Data (May 2015 – December 2019)		
		Average Monthly (or 6-Month Median*)	Maximum Daily	Instantaneous Maximum	Highest Average Monthly (or 6-Month Median*)	Highest Maximum Daily Discharge	Highest Instantaneous Maximum Discharge
Toxaphene	µg/L	0.03801	--	--	ND	--	--
	lbs/day	0.0869	--	--	ND	--	--

[1] See Attachment A for definitions.
ND: Not detected

D. Compliance Summary

Completion of Secondary Treatment Projects

Since the construction of the facilities that was required to achieve secondary treatment standards were not completed at the time the previous permit was issued, OC San entered into a consent decree mandating OC San to meet secondary treatment limits by December 31, 2012. After extensive process improvement and Capital Improvement Projects (CIP) including completion of the following:

- Trickling filter project at Reclamation Plant No. 1, completed in Spring 2006;
- Secondary treatment rehabilitation project at Treatment Plant No. 2, completed in Spring 2008;
- New trickling filters and solid contact basins at Treatment Plant No. 2, completed in Summer 2011. The project added 60 MGD of secondary treatment capacity; and
- New activated sludge system at Reclamation Plant No. 1, completed in Fall 2012. The project added 60 MGD of secondary treatment capacity.

The Discharger has officially declared the POTW at full secondary treatment on December 28, 2012 and continue operating at and meeting full secondary requirements.

Cessation of Continuous Disinfection Practices at Discharge Point 001 (120" outfall)

The disinfection program initiated in 2002 was based on using sodium hypochlorite (bleach) for disinfection and sodium bisulfite for dechlorination. Beginning in 2006, the Discharger started to note negative changes in the structure and health of benthic communities within the zone of initial dilution (ZID) around the diffuser to the 120-inch

outfall (the primary discharge point). To determine the causes of these changes to the marine environment, the Discharger conducted detailed studies divided into two phases: Phase I (2009-2010) for an analysis of historical data to identify any potential causes and Phase II (2011-2012) for investigation of operational changes and process improvements that occurred at the treatment facilities and the facility's dry-weather urban runoff diversion program. Based on the results of these investigations, the discharge of chlorinated effluent prior to 2012 resulted in a decline in benthic communities near the ZID. The benthic environment has been improved since 2012 due to reduction of the use of chlorine after achieving full secondary treatment.

After long-term beach water quality studies and oceanographic data evaluation by an Independent Advisory Panel (IAP) of experts hosted by the National Water Research Institute (NWRI), it was concluded that continuing to chlorinate full secondary treated effluent provides little to no public health benefit to local beaches. The Discharger has also achieved continuous compliance with the secondary treatment requirements of the Clean Water Act. On March 17, 2015, based on the observations and recommendations of the IAP and with public support, OC San received approval from the Santa Ana Regional Water Quality Control Board and USEPA to cease disinfection at Discharge Point 001 (120" outfall). OC San has ceased continuous chlorination/dechlorination since May 2015. The disinfection system would remain available for later use, if determined necessary. Use of disinfection remains at the other two discharge points (Discharge Points 002 and 003) to protect human health.

Planned 6-Week Diversion to Discharge Point 002 (78" outfall)

From September 11, 2012 through October 4, 2012, the Discharger temporarily diverted disinfected effluent from Discharge Point 001 (120" outfall) to Discharge Point 002 (78" outfall) as part of an infrastructure rehabilitation project (refer to as Capital Improvement Project J-112) to inspect, assess, and rehabilitate the Outfall Land Section and Ocean Outfall Booster Pump Station Piping. To minimize impacts to public health, the treated wastewater received enhanced disinfection so that state bacterial water contact standards were met prior to discharge and subsequent dilution. The Discharger conducted the J-112 environmental monitoring program including modeling to track the discharged plume, measure the effectiveness of the enhanced disinfection program, and determine environmental impacts to the receiving water during the diversion to the nearshore outfall. The lessons learned report and a more comprehensive report (i.e., 2012 OCSD Outfall Diversion Summary Report) were submitted to the Santa Ana Water Board and USEPA on March 25, 2014, which summarize the sampling methodology during the diversion and provide recommendations for improving monitoring during any future diversions to Discharge Point 002 (78" outfall).

Unintentional Bypass of primary effluent from Plant No. 2 to Discharge Point 001 (120" outfall)

The unintentional bypass of primary effluent into Discharge Point 001 (120" outfall) occurred on July 5, 2020 from 4:28 am to 5:02 am, a duration of 34 minutes, due to a power loss after an Edison transformer failed. The power loss affected equipment

throughout Treatment Plant No. 2 including the trickling filter influent pumps. The trickling filter weir overflowed with primary treated wastewater, approximately 0.94 million gallons of which discharged directly to the 120" outfall.

Another unanticipated bypass of primary effluent into the 120" outfall occurred at the same location due to failure of two of three lead pumps serving the trickling filters pump station (TFPS) during a wet weather event on December 28, 2020 at 7:09 pm for approximately 9 minutes. The estimated flow over the TFPS weir is total 78,500 gallons.

After discovering each incident, the Discharger notified the Santa Ana Water Board and USEPA and investigated the incident to determine the cause and duration of the incident, the volume discharged, and to evaluate and implement appropriate corrective actions to prevent this incident from reoccurring. As part of corrective actions, the TFPS lead pumps were disassembled, and their internal fans replaced. As a key sustainable action, OC San is currently in construction installing an upgraded power monitoring/power management control system to improve the power system response speed to prevent short term power loss event that can lock out equipment. This project is scheduled to be complete by 2023.

E. Planned Changes

GWRS Final Expansion Project

The GWRS is a regional water reclamation program that was initiated jointly by OC San and OCWD and began operation in January 2008. The GWRS Initial Expansion was completed in 2015, which allowed OCWD to take up to 135 MGD of secondary effluent from Plant No. 1 to produce 100 MGD of GWRS product water. Currently, the Discharger sends approximately 100% of secondary effluent from Plant No. 1 to GWRS to provide a drought-proof water supply for Orange County. Also, it delivers up to 4 MGD of secondary effluent from Plant No. 1 to GAP during the summer months to provide recycled water for landscaped irrigation and industrial uses.

The layout of the OCWD facilities has been designed to provide GWRS with an ultimate production capacity of 130 MGD. The GWRS ultimate production capacity of 130 MGD is referred to as the GWRS Final Expansion project. Based on the SP-173 Effluent Reuse Study for the evaluation of reclamation of Plant No. 2 effluent, the following projects are identified by the implementation plan for the GWRS Final Expansion and anticipated to be completed by 2023.

- Modify Plant 2 Headworks Facility to create a reclaimable and non-reclaimable treatment train. Reclaimable flows will go through existing preliminary, primary, and secondary (trickling filter solids contact) treatment before being pumped to GWRS.
- Build a Plant 2 effluent pump station that will convey approximately 50-85 MGD of secondary effluent from Plant No. 2 trickling filter solids contact process to the GWRS Facility.

- Build a 6 MG equalization storage tank at Plant No. 2 to store secondary effluent during peak day flows and be returned to the system during low flow periods to maintain a constant flow to the GWRS.
- Relocate the existing plant water pump station to a location more suitable for receiving the trickling filter solids contact treatment processes. After the GWRS Final Expansion, the activated sludge treatment process will treat only SARI and side-stream flows.
- Convert the unused 66-inch gravity reinforced concrete pipeline into a pressure pipeline using a trenchless pipe repair method, to convey the effluent pump station discharge.

This expansion would require a total flow from OC San plants of approximately 175 MGD to produce 130 MGD of indirect potable reuse water. The Final Expansion of the GWRS will enable the Discharger to recycle the majority of the wastewater generated in its service area and treated at its two wastewater treatment plants.

Organic Waste Co-Digestion Project

Construction and operation of an organic waste co-digestion facility is anticipated to be completed in 2022. An organic waste receiving facility will be constructed to receive, store, and feed approximately 150 tons of pre-processed food waste slurry to the digester complex at Plant No. 2 (by Digester M) to generate additional digester gas per recommendations of the Biosolids Master Plan. This facility will be replaced with a permanent receiving station following completion of a proposed program to replace existing digesters at Plant No. 2. Food waste will be fed into OC San's digesters, creating more gas and electricity, while producing a few extra truckloads of solids per week.

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 serves as WDRs pursuant to article 4, chapter 4, division 7 of the California Water Code (CWC) (commencing with section 13260). This Order/Permit 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 Water Code (commencing with section 13370). This Order shall serve as an NPDES permit for point source discharges from this POTW to waters of the United States. The Order/Permit are consolidated pursuant to 40 CFR. § 124.4(c)(2). Although Discharge Point 001 is beyond the limit of State-regulated ocean waters, effluent plume migration into State waters warrants joint regulation of the discharge by USEPA and the Santa Ana Water Board.

B. California Environmental Quality Act (CEQA)

Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of Chapter 3 of CEQA, (commencing with section 21100) of Division 13 of the Public Resources Code.

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

1. **Water Quality Control Plan.** The Santa Ana Regional Water Quality Control Board adopted a Water Quality Control Plan for the Santa Ana River Basin (hereinafter Basin Plan) in 1995, that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for the Offshore Zone and Nearshore Zone of the Pacific Ocean and the tidal prism of the Santa Ana River. In addition, the Basin Plan implements State Water Resources Control Board (State Water Board) Resolution No. 88-63 which established State policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply. Requirements in this Order/Permit implement the Basin Plan. Basin Plan beneficial uses applicable to the Pacific Ocean and/or the Santa Ana River tidal prism are as follows:

Table F-5. Basin Plan Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Use(s)
001 (120” outfall)	Pacific Ocean, Beyond the limit of State waters	**Offshore Zone:** Industrial service supply; navigation; water contact recreation; non-contact water recreation; commercial and sportfishing; wildlife habitat; rare, threatened, or endangered species; spawning, reproduction, and development; and marine habitat. **Nearshore Zone:** Industrial service supply; navigation; water contact recreation; non-contact water recreation; commercial and sportfishing; wildlife habitat; rare, threatened, or endangered species; spawning, reproduction, and development; marine habitat; and shellfish harvesting. **Santa Ana River, Reach 1:** Water contact recreation (access prohibited); non-contact water recreation; warm freshwater habitat; and wildlife habitat.
002 (78” outfall)	Pacific Ocean, Offshore Zone	
003 (Santa Ana River overflow weirs)	Santa Ana River Tidal Prism, Reach 1	

2. **California Ocean Plan.** The State Water Board adopted the Water Quality Control Plan for Ocean Waters of California, California Ocean Plan (hereinafter Ocean Plan) in 1972 and amended it in 1978, 1983, 1988, 1990, 1997, 2000, 2005, 2009, 2012, 2015, 2018, and 2019. 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 as summarized below:

Table F-6. Ocean Plan Beneficial Uses

Discharge Point	Receiving Water	Beneficial Uses
001 and 002	Pacific Ocean	Industrial water supply; water contact and non-contact recreation, including aesthetic enjoyment; navigation; commercial and sport fishing; mariculture; preservation and enhancement of designated Areas of Special Biological Significance (ASBS); rare and endangered species; marine habitat; fish spawning and shellfish harvesting

In order to protect the beneficial uses, the Ocean Plan establishes water quality objectives and a program of implementation. Requirements of this Order/Permit implement the Ocean Plan.

3. **California Thermal Plan.** 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 (hereinafter Thermal Plan) on January 7, 1971, and amended this plan on September 18, 1975. This plan contains temperature objectives for coastal and inland surface waters. Requirements of this Order/Permit implement the Thermal Plan.

4. **Antidegradation Policy.** Federal regulation 40 CFR § 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 Santa Ana Regional Water Quality Control Board's Basin Plan implements, and incorporates by reference, both the state and federal antidegradation policies. The permitted discharge must be consistent with the antidegradation provision of section 131.12 and State Water Board Resolution 68-16.

5. **Anti-Backsliding Requirements.** Sections 402(o) and 303(d)(4) of the CWA and federal regulations at 40 CFR § 122.44(l) restrict backsliding in NPDES permits. These anti-backsliding provisions require that effluent limitations in a reissued Order/Permit must be as stringent as those in the previous Order/Permit, with some exceptions in which limitations may be relaxed.

6. **Alaska Rule.** USEPA has revised its regulation that specifies when new and revised State and tribal water quality standards become effective for CWA purposes. (40 CFR § 131.21; 65 Fed. Reg. 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.

7. **Section 403(c) of the Clean Water Act (CWA):** Discharges to marine waters are subject to Section 403 of the CWA, which sets forth criteria to prevent unreasonable degradation of the marine environment and authorized imposition of any additional effluent limits necessary to protect the marine environment. Pursuant to 40 CFR § 125.122, unreasonable degradation of the marine environment is evaluated based on ten factors or based on the application of a state's water quality standards. Specifically, 40 CFR § 125.122(b) states that discharges in compliance with State water quality standards "shall be presumed not to cause unreasonable degradation of the marine environment, for any specific pollutants or conditions specified in the variance or the standard." USEPA and the Santa Ana Water Board are applying the Basin Plan and the Ocean Plan as specified in section III.C.1 and 2 of this Fact Sheet, except for evaluating acute/chronic toxicity for Discharge Points 001 and 002 using the TST statistical approach. ~~Chapter III.F of the Ocean Plan provides for more stringent requirements if necessary, to protect the designated beneficial uses of ocean waters.~~ USEPA has reviewed the previous studies to examine the comparison of ~~the Discharger's chronic~~ toxicity ~~data~~test results, ~~including use of~~ using the TST and NOEC statistical ~~methods~~ approaches and has determined that use of the TST statistical approach is consistent with the Ocean Plan and CWA § 403(c) in that it provides protection of the designated beneficial uses of ocean waters. TST statistical approach is also used in other NPDES permits for large publicly owned treatment works, including City of Los Angeles. Given the available dilution (i.e. 180), the receiving water monitoring requirements, ~~and~~ the Discharger's analysis of the ocean discharge criteria as part of its application (See Appendix E.1 Ocean Discharge Criteria Response to CWA 403(c)), and USEPA's additional 403(c) analysis, USEPA makes a determination that the discharges authorized in this permit will not cause unreasonable degradation of the marine environment.

8. **Federal Permit Renewal Contingency.** The renewal of the Discharger's federal permit by USEPA is contingent upon determination by the U.S. Fish and Wildlife Service (USFWS) and NOAA National Marine Fisheries Service (NMFS) that the proposed discharge is consistent with the: (1) federal Endangered Species Act (ESA); (2) the Magnuson-Stevens Fishery Conservation and Management Act (MSA); and (3) the Santa Ana Water Board's certification/concurrence that the discharge will comply with applicable State water quality standards.

   USEPA's reissuance of NPDES No. CA0110604 to OC San is subject to requirements of the ESA and MSA. USEPA may decide that changes to this permit are warranted based on the results of the completed consultation and a reopener provision to this effect has been included in the Order/Permit. Issuance of this NPDES permit which incorporates both federal requirements and State waste discharge requirements will serve as the State's concurrence that the discharge complied with State water quality standards. The California Coastal Commission has indicated that it is not necessary to obtain a consistency

certification pursuant to the Coastal Zone Management Act for the issuance of a federal NPDES permit containing secondary treatment standards.

9. **Endangered Species Act Requirements.** This Order/Permit 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 either the California Endangered Species Act (Fish and Game Code, §§ 2050 to 2097) or the Federal Endangered Species Act (16 U.S.C.A. §§ 1531 to 1544). In July 2020, USEPA requested updated information related to: (1) essential fish habitat and managed and associated species, and (2) threatened and endangered species and their designated critical habitats, in the vicinity of the OC San's outfalls from NMFS. Subsequently, EPA and NMFS exchanged information about the facility, discharge characteristics, action area, OC San's monitoring program, and past consultations in Southern California. USEPA determined that the draft permit would have no effect on listed bird species; may affect but is not likely to adversely affect listed fish and abalone species; and is likely to adversely affect listed sea turtle, seal, and whale species. These effect determinations are explained in the biological evaluation. USEPA is consulting with the United States Fish and Wildlife Service and the National Marine Fisheries Service. This Order/Permit requires compliance with effluent limits, receiving water limits, and other requirements to protect beneficial uses, including protecting threatened and endangered species. The Discharger is responsible for meeting all requirements of the applicable Endangered Species Act.

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

On April 6, 2018, USEPA issued a final decision regarding California's 2014- 2016 CWA Section 303(d) List of Impaired Waters. The list (hereinafter 303(d) list) identifies water bodies where water quality standards are not expected to be met after implementation of technology-based effluent limits by point sources. Huntington Beach State Park is included on the 303(d) list for PCBs (polychlorinated biphenyls). The offshore and nearshore zones off Huntington Beach State Park are the immediately affected receiving waters of discharges from the Facility. A total maximum daily load (TMDL) for PCBs is required but has not been established yet. As such, effluent limitations for PCBs have been established for the Facility until applicable waste load allocations are assigned in a TMDL. A TMDL to address the impairment is not currently scheduled for development.

E. Other Plans, Polices and Regulations

1. **Stringency of Requirements for Individual Pollutants.** This Order/Permit contains technology-based effluent limitations and WQBELs for individual pollutants. Technology-based effluent limitations consist of restrictions on carbonaceous biochemical oxygen demand (5-day), total suspended solids, and pH which implement the minimum, applicable federal technology-based requirements for POTWs. Also, effluent limitations consisting of restrictions on oil and grease, settleable solids, and turbidity are necessary to implement State treatment standards in Ocean Plan Table 4. Discharge Point 001 WQBELs

consisting of restrictions on total chlorine residual, acute toxicity, chronic toxicity, radioactivity, benzidine, hexachlorobenzene, PCBs, TCDD equivalents, and toxaphene more stringent than federal technology-based limitations are necessary to meet State water quality standards in the Ocean Plan Table 3. Discharge Point 002 WQBELs consisting of restrictions on fecal coliform density, *Enterococcus* density, total chlorine residual, ammonia (as nitrogen), chronic toxicity, radioactivity, and TCDD equivalents more stringent than federal technology-based limitations are necessary to meet State water quality standards in the Ocean Plan Table 3. All effluent limitations are discussed in Attachment F-Fact Sheet. Collectively, the restrictions on individual pollutants in this Order/Permit are no more stringent than required by the CWA.

2. **Federal Secondary Treatment Regulations.** The OC San achieved full secondary treatment on December 28, 2012 and continues discharging secondary treated flow. 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/Permit, except where more stringent limitations are required by other applicable plans, policies, or regulations or to prevent backsliding.

3. **Industrial Storm Water Requirements.** The Discharger is not required to be covered under the statewide NPDES general permit for storm water discharges associated with industrial activities (NPDES General Permit No. CAS000001) because all stormwater at the plants is collected by various drains and conveyed downstream of both plants' headworks for treatment. No storm water is diverted untreated to the outfalls. The Discharger has provided certification to the Santa Ana Water Board and USEPA that industrial storm water is managed by internal drainage systems at Reclamation Plant No. 1 and Treatment Plant No. 2, where storm water is captured, treated, and discharged with the treated wastewater regulated under this Order/Permit. This Order/Permit requires the Discharger to submit and implement a Storm Water Management Plan to address onsite storm water quality.

4. **Sanitary Sewer Overflows.** 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, which contains requirements for operation and maintenance of collection systems and for reporting and mitigating sanitary sewer overflows (SSOs). The Monitoring and Reporting Program for the General Order was amended through the State Water Board's Order WQ 2013-0058-EXEC on August 6, 2013. This General Order requires public agencies that own or operate sanitary sewer systems with greater than one mile of pipes or sewer lines to enroll for coverage under the General Order. The General Order also requires agencies to develop sanitary sewer management plans and report all SSOs, among other requirements and prohibitions. The Discharger's collection system is part of the POTW that is subject to this Order/Permit. The Discharger must comply with both the General Order and this Order/Permit.

5. **Pretreatment Requirements.** In compliance with 40 CFR § 403, OC San has

developed an approved Pretreatment Program for the POTW that it owns and operates. This Order/Permit includes the Discharger's approved Pretreatment Program and requires the Discharger to continue implementation and control of the Program throughout the service area of its POTW, including contributing jurisdictions.

The POTW, as Control Authority, may exercise its authority over the entire service area directly, as provided by State law, or may elect to enter into contracts or other multi-jurisdictional agreements with contributing jurisdictions. In case the POTW elects to enter into inter-jurisdictional agreements, the POTW must ensure that discharges received from entities outside of its political boundaries are regulated to the same extent as are discharges within its political boundaries. OC San applies one set of local limits to all discharges to its treatment facilities.

6. **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/Permit contains sewage sludge/biosolids requirements pursuant to 40 CFR § 503 that are applicable to the Discharger.

7. **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 Santa Ana Water Board and USEPA have also included in this Order/Permit Special Provisions applicable to the Discharger. The rationale for the Special Provisions contained in this Order/Permit is provided in this Fact Sheet.

IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

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 § 122.44(a) requires that permits include applicable technology-based limitations and standards; and 40 CFR § 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.

A. Discharge Prohibitions

Discharge Prohibitions in this Order/Permit are based on Ocean Plan discharge prohibitions, Basin Plan discharge prohibitions, and discharge prohibitions in the existing Order/Permit.

1. California Ocean Plan Discharge Prohibitions

a. Prohibition III.B, III.C, III.D, III.E, and III.F: This permit/order implements discharge prohibitions that are applicable under sections III.I.1.a, III.I.2.a, III.I.3.a, III.I.4.a, and III.I.6 of the 2019 California Ocean Plan, respectively.

b. Prohibition III.G (Discharge at Discharge Point 001 without minimum initial dilution of at least 181:1): This prohibition is necessary to ensure that the assumption used to derive the dilution credits established through this Order/Permit remains substantially the same so that the effluent limitations are protective of water quality. This Order considered a dilution credit of 180 (D_m = 180) based on the Discharger's *GWRS Final Expansion Final Implementation Plan, Project No. SP-173, Effluent Reuse Study (October 2016)* to conduct the reasonable potential analysis described in Section IV.C.3 of this Fact Sheet. Moreover, the instream waste concentration (IWC) for the chronic toxicity effluent limitation is based on this dilution credit. When future discharge flows drop below 32 MGD, as a result of GWRS final expansion project, the outfall will likely need to be retrofitted to ensure adequate dilution and to prevent seawater intrusion and potential diffuser plugging. The initial dilution of 181:1 assumes that all 503 outfall ports are operational.

2. Santa Ana River Basin Plan Discharge Prohibitions

a. **Prohibition III.H, III.I, and III.J:** This permit/order implements discharge prohibitions that are applicable under Chapter 5, Waste Discharge Prohibitions A, B.1, and B.2 of the 2019 Basin Plan, respectively.

3. Prohibition III.K (Discharge from any locations other than Discharge Point 001): This prohibition clarifies that any discharges other than those to Discharge Point 001 are unauthorized, except those to Discharge Point Nos. 002 and 003 as explicitly authorized during essential maintenance or an emergency.

B. Technology-Based Effluent Limitations (TBELs)

1. Scope and Authority

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 any more stringent effluent limitations necessary to meet applicable water quality standards. The discharge authorized by this Order/Permit must meet minimum federal technology-based effluent limitations (TBELs) based on secondary treatment standards for POTWs at 40 CFR § 133.

The CWA requires that technology-based effluent limitations be established based on several levels of controls:

a. Best practicable treatment control technology (BPT) represents the average of the best existing performance by well-operated facilities within an industrial category or subcategory. BPT standards apply to toxic, conventional, and non-conventional pollutants.

b. Best available technology economically achievable (BAT) represents the best existing performance of treatment technologies that are economically achievable within an industrial point source category. BAT standards apply to toxic and non-conventional pollutants.

c. Best conventional pollutant control technology (BCT) represents the control from existing industrial point sources of conventional pollutants including BOD, TSS, fecal coliform, pH, and oil and grease. The BCT standard is established after considering a two-part reasonableness test. The first test compares the relationship between the costs of attaining a reduction in effluent discharge and the resulting benefits. The second test examines the cost and level of reduction of pollutants from the discharge from publicly-owned treatment works to the cost and level of reduction of such pollutants from a class or category of industrial sources. Effluent limitations must be reasonable under both tests.

d. New source performance standards (NSPS) represent the best available demonstrated control technology standards. The intent of NSPS guidelines is to set limitations that represent state-of-the-art treatment technology for new sources.

The CWA requires USEPA to develop effluent limitations, guidelines and standards (ELGs) representing application of BPT, BAT, BCT, and NSPS. Section 402(a)(1) of the CWA and 40 CFR § 125.3 authorize the use of best professional judgment (BPJ) to derive technology-based effluent limitations on a case-by-case basis where ELGs are not available for certain industrial categories and/or pollutants of concern. Where BPJ is used, the Santa Ana Water Board and USEPA must consider specific factors outlined in 40 CFR § 125.3.

Regulations promulgated in 40 CFR § 125.3(a)(1) require technology-based effluent limitations for municipal Dischargers to be placed in NPDES permits based on Secondary Treatment Standards or Equivalent to Secondary Treatment Standards.

The Federal Water Pollution Control Act Amendments of 1972 (PL 92-500) established the minimum performance requirements for POTWs [defined in section 304(d)(1)]. Section 301(b)(1)(B) of that Act requires that such treatment works must, as a minimum, meet effluent limitations based on secondary treatment as defined by the USEPA Administrator.

Based on this statutory requirement, USEPA developed secondary treatment regulations, which are specified in 40 CFR § 133. These technology-based regulations apply to all municipal wastewater treatment plants and identify the minimum level of effluent quality attainable by secondary treatment in terms of biochemical oxygen demand (BOD_5), total suspended solids (TSS), and pH.

Table F-7. Federal Secondary Treatment Standards

Parameter	Units	30-day Average	7-day Average
BOD_5	mg/L	30	45
	influent % removal	not less than 85	--
$CBOD_5$ (if substituted)	mg/L	25	40
	influent % removal	not less than 85	--
TSS	mg/L	30	45
	influent % removal	not less than 85	--
pH	standard units	6.0 – 9.0 at all times	

On May 13, 2004, the Discharger requested the inclusion of effluent limitations for five-day carbonaceous biochemical oxygen demand ($CBOD_5$), as allowed by 40 CFR § 133.102(a)(4), for the period following completion of expanded secondary treatment facilities. In the 2004 Order/Permit, $CBOD_5$ effluent limitations were applied to the final effluent during partial or full nitrification at the Discharger's secondary treatment facilities, where effluent nitrification is used to reduce ammonia toxicity associated with wastewater treatment and RO concentrate flow from the Groundwater Replenishment System. As nitrifying bacteria use oxygen to degrade nitrogenous compounds otherwise not significantly removed in the secondary treatment process, higher oxygen demand values for the final effluent result. Consequently, the use of $CBOD_5$ effluent limits have been found to ensure that federal secondary treatment standards for POTWs are achieved while allowing the Discharger to use the treatment process of nitrification to reduce ammonia toxicity in the discharged effluent and comply with Ocean Plan requirements for acute and chronic toxicity. $CBOD_5$ effluent limitations have been carried over to this Order/Permit and are applied in lieu of BOD_5 effluent limitations.

The effluent limitations consisting of restrictions on grease and oil, settleable solids, and turbidity are necessary to implement State treatment standards in Ocean Plan Table 4, which are summarized as follows.

Table F-8. Ocean Plan Table 4 Effluent Limitations

Parameter	Units	30-day Average	7-day Average	Instantaneous Maximum
Grease and Oil	mg/L	25	40	75
Suspended Solids	mg/L	--	--	--
	influent % removal	not less than 75	--	--
Settleable Solids	ml/L	1.0	1.5	3.0

Turbidity	NTU	75	100	225
pH	standard units	6.0 – 9.0 at all times		

Compliance with mass emission effluent limitations for TBELs must be met end-of-pipe after Reclamation Plant No. 1 and Treatment Plant No. 2 effluents have commingled. The 2012 Order/Permit established mass emission effluent limitations based on the average daily influent flow projected for 2017 (i.e., 274 MGD). For Discharge Point 001, this Order/Permit establishes mass emission effluent limitations for TBELs based on the average daily upper bound influent flow of 206 MGD projected for 2025, taken from the Discharger's 2017 Master Plan. For Discharge Point 002, mass emission effluent limitations for TBELs continue to be based on the Discharger's conservative estimate for hydraulic flow capacity of the 78-inch outfall of 230 MGD.

2. Applicable Technology-Based Effluent Limitations

A summary of the applicable technology-based effluent limitations is shown in Tables F-14 and F-15, in section IV.E of this Fact Sheet.

C. Water Quality-Based Effluent Limitations (WQBELs)

1. Scope and Authority

CWA Section 301(b) and 40 CFR § 122.44(d) require that NPDES permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards and State requirements.

Section 122.44(d)(1)(i) of 40 CFR requires that permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a standard. Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the pollutant, water quality-based effluent limitations (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, such as a proposed state criterion or policy interpreting the state's narrative criterion, supplemented with other relevant information, as provided in section 122.44(d)(1)(vi). 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.

2. Applicable Beneficial Uses and Water Quality Criteria and Objectives

The Basin Plan and Ocean Plan designate beneficial uses, establish water quality objectives, and contain implementation programs and policies to achieve those objectives for all waters of the State. Applicable beneficial uses designated within the Basin Plan and Ocean Plan are listed in Tables F-5 and F-6, in section III.C of this fact sheet. The Basin Plan contains Water Quality Objectives for bacteria for water bodies designated for water contact recreation. The Ocean Plan establishes applicable water quality objectives for the protection of marine aquatic life and human health. The Ocean Plan also includes water quality objectives for bacterial characteristics, physical characteristics, chemical characteristics, biological characteristics, and radioactivity. The water quality objectives from the Ocean Plan and Basin Plan were incorporated into this Order/Permit as either final effluent limitations (based on reasonable potential) or receiving water limitations.

3. Determining the Need for WQBELs

a. RPA Methodology

The 2012 Order/Permit (Order No. R8-2012-0035) contains WQBELs for pollutant parameters based on Table B of the 2009 Ocean Plan. For this Order/Permit, the need for WQBELs based on water quality objectives in Table 3 of the 2019 Ocean Plan was statistically reevaluated in accordance with the Reasonable Potential Analysis (RPA) procedures contained in Appendix VI of the 2019 Ocean Plan.

The statistical RPA method 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/Permit, the UCB is calculated as the one-sided, upper 95 percent confidence bound for the 95th percentile of the effluent distribution after complete mixing. The calculated $UCB_{95/95}$ is then compared to the appropriate water quality objective to determine the potential for an exceedance of that objective and the need for a WQBEL. 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.

According to the Ocean Plan RPA procedure, the RPA can yield three endpoints:

Endpoint 1: An effluent limitation must be developed, and effluent monitoring for the pollutant is required;

Endpoint 2: An effluent limitation is not required, but the Santa Ana Water Board and/or USEPA may require monitoring for the pollutant or for the whole effluent toxicity (WET) as appropriate; or

Endpoint 3: The RPA is inconclusive, and monitoring for the pollutant or WET testing is required. An existing effluent limitation shall remain in the permit, otherwise a permit reopener clause shall be included to allow for subsequent modification of the permit to include an effluent limitation if the monitoring establishes that the discharge causes, has the reasonable potential to cause, or contributes to an excursion above the appropriate water quality objective.

b. Minimum Initial Dilution or Dilution Credits

The Discharger updated its dilution analysis as part of the planning process for the GWRS final expansion project (GWRS Final Expansion Final Implementation Plan, Project No. SP-173, Effluent Reuse Study, October 2016). The updated modeling included calibrating current conditions with the modeling completed in 2002 and 2008. The updated modeling continued to use NRFIELD in Visual Plumes, consistent with the past modeling.

The analysis included various scenarios for flow rates, including low effluent flows as the result of the GWRS final expansion project, densities (i.e. temperature and salinity changes based on low effluent flows), and critical stratification conditions (i.e. August to October 2014). The analysis shows that dilution is unlikely to be impacted by the increase in RO concentrate discharged because the total discharge flow will be decreased. As to be expected, model results were the most sensitive to discharge flow rate and stratification and ranged from 151:1 to 363:1 for the various scenarios. Based on the updated modeling, the Santa Ana Water Board and USEPA is carrying over the dilution ratio of 181:1, as this dilution (D_m = 180) is a representative of reasonable worst-case scenario (i.e. high discharge flow rate under strong stratified conditions) and is consistent with antidegradation and anti-backsliding requirements. With exception of radioactivity, the dilution ratio of 181:1 (D_m = 180) has been applied to the final effluent limitations for Discharge Point No. 001. The dilution ratio of 37:1 (D_m = 36) also has retained for Discharge Point No. 002 in this Order/Permit. Based on the Ocean Plan, water quality objectives for radioactivity shall apply directly to the undiluted waste effluent (i.e., D_m = 0 for radioactivity).

c. RPA for Pollutants in Table 3 of the Ocean Plan

RPAs were conducted using the State Water Board's RPcalc 2.0 software tool and minimum probable initial dilution values for Discharge Point 001 (i.e., D_m = 180) and Discharge Point 002 (i.e., D_m = 36), except for radioactivity. Effluent data provided in the Discharger's monitoring reports from May 2015 to December 2019, after the Discharger achieved full secondary treatment and ceased disinfection, were used in the analyses in order to be

representative of current performance. The results of these RPAs are summarized in Table F-9 for Discharge Point 001 (120" outfall) and Table F-10 for Discharge Point 002 (78" outfall).

Based on the RPA for Discharge Point 001, Endpoint 1 is established for total chlorine residual ~~and TCDD equivalents~~. Consequently, WQBELs for total chlorine residual ~~and TCDD equivalents~~ are included in the Order/Permit and periodic effluent monitoring is also required. The Discharger ceased continuous effluent disinfection using chlorination/dechlorination at Discharge Point 001 (120" outfall). However, sodium hypochlorite has been used as oxidant chemical to treat foul air (i.e., H_2S control) in scrubbers at primary treatment process and to control the bulking from filamentous organisms in the return activated sludge (RAS), which probably causes RP for total chlorine residual. Endpoint 2 is established for the majority of detected Table 3 pollutants. Consequently, WQBELs for these pollutants are not included in the Order/Permit, but periodic effluent monitoring for all Endpoint 2 pollutants is required. Endpoint 3 with inconclusive results was reported for benzidine, hexachlorobenzene, PCBs, TCDD equivalents, and toxaphene. Consequently, existing WQBELs for these ~~four~~ five pollutants are retained in this Order/Permit and periodic effluent monitoring is also required. This Order/Permit does not include effluent limitations for other pollutants displaying Endpoint 3; instead, monitoring requirements for those pollutants were included.

Based on the RPA for Discharge Point 002, Endpoint 1 is established for ammonia (as nitrogen), and total chlorine residual~~, and TCDD equivalents~~. Consequently, WQBELs for ~~these pollutants~~ammonia and total chlorine residual are included in the Order/Permit and periodic effluent monitoring is also required. Endpoint 2 is established for the majority of detected Table 3 pollutants. Consequently, WQBELs for these pollutants are not included in the Order/Permit, but periodic effluent monitoring for all Endpoint 2 pollutants is required. Endpoint 3 with inconclusive results was reported for TCDD equivalents and thus, existing WQBELs and quarterly effluent monitoring for TCDD equivalents are retained in this Order/Permit. This Order/Permit does not include effluent limitations for other pollutants displaying Endpoint 3; instead, monitoring requirements for those pollutants were included. ~~This Order/Permit does not include effluent limitations for pollutants displaying Endpoint 3 with inconclusive results; instead, monitoring requirements for those pollutants were included.~~

Step 13 of the RPA procedures in the Ocean Plan authorizes RPA based on best professional judgment (BPJ). Information may include the facility type, discharge type, solids loading analysis, lack of dilution, history of compliance problems, potential toxic impact of discharge, fish tissue residue data, water quality and beneficial uses of the receiving water, CWA 303(d) listing for the pollutant, the presence of endangered or threatened species or critical habitat, and other information. Based on Step 13 of the Ocean Plan (i.e.,

BPJ), reasonable potential for acute and chronic toxicity has been established for Discharge Point 001 and chronic toxicity for Discharge Point 002 because toxicity levels at POTWs can exceed applicable water quality standards, and numerical water quality objectives/criteria for the majority of chemical pollutants have not been established. In addition, reasonable potential for radioactivity has been established for Discharge Points 001 and 002 because POTWs accept waste from various facilities, including hospitals that could potentially discharge radioactivity into the sewershed, and the Discharger's wastewater treatment plants are not typically designed to remove radioactivity from the effluent. The discharge also had detectable concentrations of radioactivity (i.e., maximum effluent concentration (MEC) for gross alpha of 36 pCi/L and MEC for gross beta of 70 pCi/L). Thus, WQBELs for acute/chronic toxicity and radioactivity at Discharge Point 001 and a WQBLEL for chronic toxicity and radioactivity at Discharge Point 002 are included in this Order/Permit.

Table F-9. Reasonable Potential Analysis for Discharge Point No. 001 (120" Outfall)

Table 3 Pollutant	Most Stringent WQO (µg/L)	No. of Samples	No. of Non-Detects	Max Effluent Concentration (µg/L)	Max Effluent Concentration After Mixing[1] (µg/L)	Projected 95th Percentile (µg/L)	Result
Objectives for Protection of Marine Aquatic Life							
Ammonia (as N)	600	1,699	0	46,000	254	203	Endpoint 2
Arsenic	8	56	0	6.91	3.02	3.02	Endpoint 2
Cadmium	1	56	53	0.240	0.0013	---	Endpoint 2
Chlorinated Phenols	1	55	54	0.54	0.0030	---	Endpoint 2
Chromium (VI)[2]	2	56	6	1.55[2]	0.0086[2]	0.0095[2]	Endpoint 2
Acute Toxicity	PASS	26	0	NA	PASS	NA	Endpoint 1; BPJ
Chronic Toxicity	PASS	71	0	NA	PASS	NA	Endpoint 1; BPJ
Copper	3	56	0	25.2	2.1282	2.0901	Endpoint 2
Cyanide	1	52	1	5.88	0.0325	0.0372	Endpoint 2
Endosulfan	0.009	10	10	<0.0050	$<2.8\times10^{-5}$	---	Endpoint 3
Endrin	0.002	10	10	<0.0028	$<1.5\times10^{-5}$	---	Endpoint 3
HCH	0.004	10	10	<0.0050	$<2.8\times10^{-5}$	---	Endpoint 3
Lead	2	56	47	0.62	0.0034	---	Endpoint 2
Mercury	0.04	55	0	0.0071	5.4×10^{-4}	5.4×10^{-4}	Endpoint 2
Nickel	5	56	0	23.5	0.1298	0.1338	Endpoint 2
Non-chlorinated Phenols	30	55	53	1.56	0.008715	---	Endpoint 2
Radioactivity (Gross Alpha)	[3]	48	8	36 pCi/L	36 pCi/L	54.4435 pCi/L	Endpoint 1; BPJ
Radioactivity (Gross Beta)	[3]	56	0	70 pCi/L	70 pCi/L	76.3882 pCi/L	Endpoint 1; BPJ
Radioactivity (Radium, combined)	[3]	11	0	1.14 pCi/L	1.14 pCi/L	7.5682 pCi/L	Endpoint 1; BPJ
Selenium	15	56	0	21.9	0.1210	0.1509	Endpoint 2

Table 3 Pollutant	Most Stringent WQO (µg/L)	No. of Samples	No. of Non-Detects	Max Effluent Concentration (µg/L)	Max Effluent Concentration After Mixing[1] (µg/L)	Projected 95th Percentile (µg/L)	Result
Silver	0.7	55	46	0.16	0.16	---	Endpoint 2
Total Chlorine Residual[4]	2	5,100	358	1,200	6.63	0.7395	Endpoint 1
Zinc	20	56	0	64.7	8.31	8.21	Endpoint 2
Objectives for Protection of Human Health – Noncarcinogens							
1,1,1-Trichloroethane	540,000	54	54	<1.43	<0.0079	---	Endpoint 3
2,4-Dinitrophenol	4.0	55	55	<3.5	<0.0193	---	Endpoint 3
2-Methyl-4,6-Dinitrophenol	220	55	55	<1.7	<0.0094	---	Endpoint 3
Acrolein	220	54	54	<4.48	<0.0248	---	Endpoint 3
Antimony	1,200	56	0	2.54	0.0140	0.0146	Endpoint 2
Bis(2-Chloroethoxy)Methane	4.4	55	55	<1.1	<0.0061	---	Endpoint 3
Bis(2-Chloroisopropyl)Ether	1,200	55	55	<0.73	<0.0040	---	Endpoint 3
Chlorobenzene	570	54	54	<0.9	<0.0050	---	Endpoint 3
Chromium (III)[2]	190,000	56	6	1.55[2]	0.0086[2]	0.0095[2]	Endpoint 2
Dichlorobenzenes	5,100	55	55	<2	<0.0111	---	Endpoint 3
Diethyl Phthalate	33,000	55	54	0.76	0.0042	---	Endpoint 2
Dimethyl Phthalate	820,000	55	55	<1.64	<0.0091	---	Endpoint 3
Di-n-Butyl Phthalate	3,500	55	54	1.8	0.0099	---	Endpoint 2
Ethylbenzene	4,100	47	47	<1.8	<0.0099	---	Endpoint 3
Fluoranthene	15	55	55	<0.49	<0.0027	---	Endpoint 3
Hexachlorocyclopentadiene	58	55	55	<1.6	<0.0088	---	Endpoint 3
Nitrobenzene	4.9	55	54	0.38	0.0021	---	Endpoint 2
Thallium	2	56	48	0.20	0.0011	---	Endpoint 2
Toluene	85,000	54	50	0.19	0.0010	---	Endpoint 2
Tributyltin	0.0014	[5]	[5]	[5]	[5]	---	[5]
Objectives for Protection of Human Health – Carcinogens							
1,1,2,2-Tetrachloroethane	2.3	54	54	<0.53	<0.0029	---	Endpoint 3

Table 3 Pollutant	Most Stringent WQO (µg/L)	No. of Samples	No. of Non-Detects	Max Effluent Concentration (µg/L)	Max Effluent Concentration After Mixing[1] (µg/L)	Projected 95th Percentile (µg/L)	Result
1,1,2-Trichloroethane	9.4	54	54	<0.1	<0.0006	---	Endpoint 3
1,1-Dichloroethylene	0.9	54	54	<1.44	<0.0005	---	Endpoint 3
1,2-Dichloroethane	28	54	54	<0.98	<0.0055	---	Endpoint 3
1,2-Diphenylhydrazine	0.16	54	54	<0.60	<0.0033	---	Endpoint 3
1,3-Dichloropropylene	8.9	54	54	<1.56	<0.0087	---	Endpoint 3
1,4-Dichlorobenzene	18	109	109	<0.95	<0.0053	---	Endpoint 3
TCDD Equivalents	3.9×10^{-9}	18	~~9~~ 18	~~9.83×10^{-7}~~ $<7.0\times10^{-7}$	~~5.43×10^{-9}~~ $<3.9\times10^{-9}$	---	~~Endpoint 1~~ Endpoint 3; WQBEL carry over
2,4,6-Trichlorophenol	0.29	54	53	0.54	0.0030	---	Endpoint 2
2,4-Dinitrotoluene	2.6	55	55	<2.2	<0.0123	---	Endpoint 3
3,3'-Dichlorobenzidine	0.0081	55	55	<2.58	<0.0144	---	Endpoint 3
Acrylonitrile	0.10	54	54	<1.51	<0.0084	---	Endpoint 3
Aldrin	2.2×10^{-5}	10	10	<0.01	<0.00006	---	Endpoint 3
Benzene	5.9	54	54	<1.37	<0.0077	---	Endpoint 3
Benzidine	6.9×10^{-5}	54	54	<8.27	<0.0462	---	Endpoint 3; WQBEL carry over
Beryllium	0.033	55	55	<0.185	<0.0010	---	Endpoint 3
Bis(2-Chloroethyl)Ether	0.045	55	55	<0.96	<0.0053	---	Endpoint 3
Bis(2-Ethylhexyl)Phthalate	3.5	55	50	3.9	0.0215	---	Endpoint 2
Carbon Tetrachloride	0.90	54	54	<1.79	<0.01	---	Endpoint 3
Chlordane	2.3×10^{-5}	10	10	<0.05	$<2.8\times10^{-4}$	---	Endpoint 3
Chlorodibromomethane	8.6	54	9	4.86	0.0269	0.0235	Endpoint 2
Chloroform	130	54	1	16.6	0.0917	3.285	Endpoint 2
DDT (total)	0.00017	10	10	<0.0031	$<1.7\times10^{-5}$	---	Endpoint 3
Dichlorobromomethane	6.2	54	2	8.98	0.05	0.0534	Endpoint 2

Table 3 Pollutant	Most Stringent WQO (µg/L)	No. of Samples	No. of Non-Detects	Max Effluent Concentration (µg/L)	Max Effluent Concentration After Mixing[1] (µg/L)	Projected 95th Percentile (µg/L)	Result
Dichloromethane	450	54	47	8.9	0.0492	---	Endpoint 2
Dieldrin	4.0×10^{-5}	10	10	<0.01	$<5.587\times10^{-5}$	---	Endpoint 3
Halomethanes	130	54	49	1.37	0.0076	---	Endpoint 2
Heptachlor	5×10^{-5}	10	10	<0.01	$<5.587\times10^{-5}$	---	Endpoint 3
Heptachlor Epoxide	2×10^{-5}	10	10	<0.01	$<5.587\times10^{-5}$	---	Endpoint 3
Hexachlorobenzene	0.00021	55	55	<0.77	<0.0043	---	Endpoint 3; WQBEL carry over
Hexachlorobutadiene	14	55	55	<0.77	<0.0043	---	Endpoint 3
Hexachloroethane	2.5	55	55	<0.63	<0.0035	---	Endpoint 3
Isophorone	730	55	55	<0.77	<0.0043	---	Endpoint 3
N-Nitrosodimethylamine	7.3	55	55	<2.7	<0.0151	---	Endpoint 3
N-Nitrosodi-n-Propylamine	0.38	55	55	<1.36	<0.0076	---	Endpoint 3
N-Nitrosodiphenylamine	2.5	55	55	<1.47	<0.0082	---	Endpoint 3
PAHs (total)	0.0088	55	55	<1.5	<0.0083	---	Endpoint 3
PCBs	1.9×10^{-5}	10	10	<0.50	<0.0028	---	Endpoint 3; WQBEL carry over
Tetrachloroethylene	2.0	54	52	1.58	0.0087	---	Endpoint 2
Toxaphene	0.00021	10	10	<1.2	<0.0067	---	Endpoint 3; WQBEL carry over
Trichloroethylene	27	54	47	<1.49	<0.0083	---	Endpoint 3
Vinyl Chloride	36	54	54	<1.73	<0.0097	---	Endpoint 3

Abbreviations:

Max = maximum
WQO = water quality objective
µg/L = micrograms per liter
pCi/L = pico-curies per liter
NA = not applicable

Footnotes:

[1] Concentrations after mixing include a dilution factor of 180 (D_m), with exception of radioactivity (D_m=0), and applicable background seawater concentrations (C_s) for arsenic, copper, mercury, silver, and zinc.
[2] The Discharger monitored for total chromium, in lieu of chromium (III) and chromium (VI). The maximum detected concentration of total chromium (1.55 µg/L) is less than the water quality objective for chromium (III) and chromium (VI) (i.e., 190,000 µg/L and 2 µg/L, respectively).
[3] Not to exceed limits specified in title 17, division 1, chapter 5, subchapter 4, group 3, article 3, section 30253 of the CCR.
[4] While the discharger ceased chlorine disinfection of the effluent in May 2015, chlorine is still used at the facility for odor control and in-house water use.
[5] The discharger did not monitor for Tributylin.

Table F-10. Reasonable Potential Analysis for Discharge Point No. 002 (78" Outfall)

Table 3 Pollutant	Most Stringent WQO (µg/L)	No. of Samples	No. of Non-Detects	Max Effluent Concentration (µg/L)	Max Effluent Concentration After Mixing[1] (µg/L)	Projected 95th Percentile (µg/L)	Result
Objectives for Protection of Marine Aquatic Life							
Ammonia (as nitrogen)	600	1,699	0	46,000	1,243	993	Endpoint 1
Arsenic	8	56	0	6.91	3.02	3.1	Endpoint 2
Cadmium	1	56	53	0.240	0.0065	---	Endpoint 2
Chlorinated Phenolics	1	55	54	0.54	0.0146	---	Endpoint 2
Chromium (VI)[2]	2	56	6	1.55[2]	0.0419[2]	0.0464[2]	Endpoint 2
Chronic Toxicity	1.0 TU_c	0	0	NA	NA	NA	Endpoint 1; BPJ

Table 3 Pollutant	Most Stringent WQO (µg/L)	No. of Samples	No. of Non-Detects	Max Effluent Concentration (µg/L)	Max Effluent Concentration After Mixing[1] (µg/L)	Projected 95th Percentile (µg/L)	Result
Copper	3	56	0	25.2	2.627	2.446	Endpoint 2
Cyanide	1	52	1	5.88	0.1589	0.1819	Endpoint 2
Endosulfan (total)	0.009	10	10	<0.0050	<0.0001	---	Endpoint 3
Endrin	0.002	10	10	<0.0028	$<7.6\times10^{-5}$	---	Endpoint 3
HCH	0.004	10	10	<0.0050	<0.0001	---	Endpoint 3
Lead	2	56	47	0.62	0.0168	---	Endpoint 2
Mercury	0.04	55	0	0.0071	0.0007	0.0007	Endpoint 2
Nickel	5	56	0	23.5	0.6351	0.6545	Endpoint 2
Non-chlorinated Phenolics	30	55	53	1.56	0.0422	---	Endpoint 2
Radioactivity (Gross Alpha)	[3]	48	8	36 pCi/L	36 pCi/L	54.4435 pCi/L	Endpoint 1; BPJ
Radioactivity (Gross Beta)	[3]	56	0	70 pCi/L	70 pCi/L	76.3882 pCi/L	Endpoint 1; BPJ
Radioactivity (Radium, combined)	[3]	11	0	1.14 pCi/L	1.14 pCi/L	7.5682 pCi/L	Endpoint 1; BPJ
Selenium	15	3461	3380	21.9	0.5919	0.7383	Endpoint 2
Silver	0.7	55	46	0.16	0.16	---	Endpoint 2
Total Chlorine Residual[4]	2	5100	358	1,200	32.4	9.73	Endpoint 1
Zinc	20	56	0	64.7	9.53	9.03	Endpoint 2
Objectives for Protection of Human Health – Noncarcinogens							
1,1,1-Trichloroethane	540,000	54	54	<1.43	<0.0386	---	Endpoint 3
2,4-Dinitrophenol	4.0	55	55	<3.5	<0.0946	---	Endpoint 3
2-Methyl-4,6-Dinitrophenol	220	55	55	<1.7	<0.0459	---	Endpoint 3
Acrolein	220	54	54	<4.48	<0.01211	---	Endpoint 3
Antimony	1,200	56	0	2.54	0.0686	0.0712	Endpoint 2
Bis(2-Chloroethoxy)Methane	4.4	55	55	<1.1	<0.0297	---	Endpoint 3

Table 3 Pollutant	Most Stringent WQO (µg/L)	No. of Samples	No. of Non-Detects	Max Effluent Concentration (µg/L)	Max Effluent Concentration After Mixing[1] (µg/L)	Projected 95th Percentile (µg/L)	Result
Bis(2-Chloroisopropyl)Ether	1,200	55	55	<0.73	<0.0197	---	Endpoint 3
Chlorobenzene	570	54	54	<0.9	<0.0243	---	Endpoint 3
Chromium (III)[2]	190,000	56	6	1.55[2]	0.0419[2]	0.0464[2]	Endpoint 2
Dichlorobenzenes	5,100	55	55	<2	<0.0556	---	Endpoint 3
Diethyl Phthalate	33,000	55	54	0.76	0.0205	---	Endpoint 2
Dimethyl Phthalate	820,000	55	55	<1.64	<0.0443	---	Endpoint 3
Di-n-Butyl Phthalate	3,500	55	54	1.8	0.0486	---	Endpoint 2
Ethylbenzene	4,100	47	47	<1.8	<0.04866	---	Endpoint 3
Fluoranthene	15	55	55	<0.49	<0.0132	---	Endpoint 3
Hexachlorocyclopentadiene	58	55	55	<1.6	<0.0432	---	Endpoint 3
Nitrobenzene	4.9	55	54	0.38	0.0103	---	Endpoint 2
Thallium	2	56	48	0.20	0.0054	---	Endpoint 2
Toluene	85,000	54	50	0.19	0.0051	---	Endpoint 2
Tributyltin	0.0014	[5]	[5]	[5]	[5]	---	[5]
Objectives for Protection of Human Health – Carcinogens							
1,1,2,2-Tetrachloroethane	2.3	54	54	<0.53	<0.0143	---	Endpoint 3
1,1,2-Trichloroethane	9.4	54	54	<0.1	<0.0027	---	Endpoint 3
1,1-Dichloroethylene	0.9	54	54	<1.44	<0.0389	---	Endpoint 3
1,2-Dichloroethane	28	54	54	<0.98	<0.0265	---	Endpoint 3
1,2-Diphenylhydrazine	0.16	54	54	<0.60	<0.0162	---	Endpoint 3
1,3-Dichloropropylene	8.9	54	54	<1.56	<0.0422	---	Endpoint 3
1,4-Dichlorobenzene	18	109	109	<0.95	<0.0257	---	Endpoint 3
TCDD Equivalents	3.9×10^{-9}	18	~~9~~ 18	~~9.83×10^{-7}~~ $<7.0\times10^{-7}$	~~2.66×10^{-8}~~ $<1.9\times10^{-8}$	----	~~Endpoint 1~~ Endpoint 3; WQBEL carry over
2,4,6-Trichlorophenol	0.29	54	53	0.54	0.0146	---	Endpoint 2

Table 3 Pollutant	Most Stringent WQO (µg/L)	No. of Samples	No. of Non-Detects	Max Effluent Concentration (µg/L)	Max Effluent Concentration After Mixing[1] (µg/L)	Projected 95th Percentile (µg/L)	Result
2,4-Dinitrotoluene	2.6	55	55	<2.2	<0.0595	---	Endpoint 3
3,3'-Dichlorobenzidine	0.0081	55	55	<2.58	<0.0697	---	Endpoint 3
Acrylonitrile	0.10	54	54	<1.51	<0.0408	---	Endpoint 3
Aldrin	2.2×10^{-5}	10	10	<0.01	<0.0003	---	Endpoint 3
Benzene	5.9	54	54	<1.37	<0.0370	---	Endpoint 3
Benzidine	6.9×10^{-5}	54	54	<8.27	<0.2235	---	Endpoint 3
Beryllium	0.033	55	55	<0.185	<0.0051	---	Endpoint 3
Bis(2-Chloroethyl)Ether	0.045	55	55	<0.96	<0.0259	---	Endpoint 3
Bis(2-Ethylhexyl)Phthalate	3.5	55	50	3.9	0.1054	---	Endpoint 2
Carbon Tetrachloride	0.90	54	54	<1.79	<0.484	---	Endpoint 3
Chlordane	2.3×10^{-5}	10	10	<0.05	<0.0014	---	Endpoint 3
Chlorodibromomethane	8.6	54	9	4.86	0.1314	0.1152	Endpoint 2
Chloroform	130	54	1	16.6	0.4486	2.467	Endpoint 2
DDT (total)	0.00017	10	10	<0.0031	<0.0001	---	Endpoint 3
Dichlorobromomethane	6.2	54	2	8.98	0.2427	0.2611	Endpoint 2
Dichloromethane	450	54	47	8.9	0.2405	---	Endpoint 2
Dieldrin	4.0×10^{-5}	10	10	<0.01	<0.0003	---	Endpoint 3
Halomethanes	130	54	49	1.37	0.0370	---	Endpoint 2
Heptachlor	5×10^{-5}	10	10	<0.01	<0.0003	---	Endpoint 3
Heptachlor Epoxide	2×10^{-5}	10	10	<0.01	<0.0003	---	Endpoint 3
Hexachlorobenzene	0.00021	55	55	<0.77	<0.0208	---	Endpoint 3
Hexachlorobutadiene	14	55	55	<0.77	<0.0208	---	Endpoint 3
Hexachloroethane	2.5	55	55	<0.63	<0.017	---	Endpoint 3
Isophorone	730	55	55	<0.77	<0.0208	---	Endpoint 3
N-Nitrosodimethylamine	7.3	55	55	<2.7	<0.0730	---	Endpoint 3
N-Nitrosodi-n-Propylamine	0.38	55	55	<1.36	<0.0368	---	Endpoint 3
N-Nitrosodiphenylamine	2.5	55	55	<1.47	<0.0397	---	Endpoint 3

Table 3 Pollutant	Most Stringent WQO (µg/L)	No. of Samples	No. of Non-Detects	Max Effluent Concentration (µg/L)	Max Effluent Concentration After Mixing[1] (µg/L)	Projected 95th Percentile (µg/L)	Result
PAHs (total)	0.0088	55	55	<1.5	<0.0417	---	Endpoint 3
PCBs	1.9×10^{-5}	10	10	<0.05	<0.0014	---	Endpoint 3
Tetrachloroethylene	2.0	54	52	1.58	0.0427	---	Endpoint 2
Toxaphene	0.00021	10	10	<1.2	<0.0324	---	Endpoint 3
Trichloroethylene	27	54	47	<1.49	<0.0403	---	Endpoint 3
Vinyl Chloride	36	54	54	<1.73	<0.0468	---	Endpoint 3

Abbreviations:

Max = maximum
WQO = water quality objective
µg/L = micrograms per liter
pCi/L = pico-curies per liter
NA = not applicable

Footnotes:

[1] Concentrations after mixing include a dilution factor of 36 (D_m), with exception of radioactivity (D_m=0), and applicable background seawater concentrations (C_s) for arsenic, copper, mercury, silver, and zinc.
[2] Discharger monitored for total chromium, in lieu of chromium (III) and chromium (VI). The maximum detected concentration of total chromium (1.55 µg/L) is less than the water quality objective for chromium (III) and chromium (VI) (i.e., 190,000 µg/L and 2 µg/L, respectively).
[3] Not to exceed limits specified in title 17, division 1, chapter 5, subchapter 4, group 3, article 3, section 30253 of the CCR.
[4] While the discharger ceased chlorine disinfection of the effluent in May 2015, chlorine is still used at the facility for odor control and in-house water use.
[5] The discharger did not monitor for Tributylin.

4. WQBEL Calculations

a. Concentration-based WQBEL Calculations

From the Table 3 water quality objectives in the 2019 Ocean Plan, concentration-based WQBELs are calculated according to the following equation for all pollutants, except for acute and chronic toxicity (if applicable):

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

Where,

C_e = the effluent limitation

C_o = the water quality objective to be met at the completion of initial dilution

C_s = background seawater concentration (see Table F-11 below)

D_m = minimum probable initial dilution expressed as parts seawater per part wastewater (i.e., 180 for Discharge Point 001 and 36 for Discharge Point 002)

Background seawater concentration for all Table 3 pollutants is assumed to be zero ($C_s = 0$), except for the following five pollutants:

Table F-11. Pollutants with Background Seawater Concentrations (C_s)

Constituents	Background Seawater Concentration
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 copper, total chlorine residual, ammonia, and TCDDs are demonstrated below for Discharge Point 002, as examples:

Table F-12. Example – Ocean Plan Table 3 Water Quality Objectives (C_o)

Constituents	6-Month Median	Daily Maximum	Instantaneous Maximum	30 Day Average
Copper	3 μg/L	12 μg/L	30 μg/L	--
Total Chlorine Residual	2 μg/L	8 μg/L	60 μg/L	--
Ammonia	0.60 mg/L	2.4 mg/L	6 mg/L	--
TCDD equivalents	--	--	--	3.9×10^{-9} μg/L

Using the equation, $C_e=C_o+D_m(C_o-C_s)$, effluent limitations are calculated as follows. All calculations are based on discharge through Discharge Point 002 and, therefore, a dilution ratio (D_m) of 36 is applied.

Example - Copper

C_e = 3 + 36 (3 – 2) = 39 μg/L (6-month Median)

C_e = 12 + 36 (12 – 2) = 372 μg/L (Maximum Daily)

C_e = 30 + 36 (30 – 2) = 1,038 μg/L (Instantaneous Maximum)

Total Chlorine Residual

C_e = 2 + 36 (2 – 0) = 74 μg/L (6-month Median)

C_e = 8 + 36 (8 – 0) = 296 μg/L (Maximum Daily)

C_e = 60 + 36 (60 – 0) = 2,220 μg/L (Instantaneous Maximum)

Ammonia

C_e = 0.6 + 36 (0.6 – 0) = 22.2 mg/L (6-month Median)

C_e = 2.4 + 36 (2.4 – 0) = 88.8 mg/L (Maximum Daily)

C_e = 6 + 36 (6 – 0) = 222 mg/L (Instantaneous Maximum)

TCDD equivalents

$C_e = 3.9\times10^{-9} + 36 (3.9\times10^{-9} – 0) = 144.3\times10^{-9}$ μg/L = 0.144 pg/L (Average Monthly)

b. Mass-based WQBEL Calculations

The following equation from the 2019 Ocean Plan Chapter III.C.4.j is used to calculate all mass-based WQBELs.

Mass (in lbs/day) = 0.00834 x C_e x Q

where:

C_e = the effluent concentration limitation (μg/L)

Q = flow rate (MGD)

For example, in the case of PCBs where Q = 206 MGD for Discharge Point 001, the average monthly mass-based WQBEL is:

C_e = 0.00834 x 0.0034 μg/L x 206 MGD = 0.0058 lbs/day

For Discharge Point 001 (120” outfall), the previous Order/Permit established mass emission effluent limitations based on the average daily influent flow (Q) of 274 MGD projected for 2017. This Order/Permit establishes mass emission effluent limitations based on the average daily upper bound influent flow of 206 MGD projected for 2025, which was taken from the Discharger’s 2017 Master Plan. For Discharger Point

002 (78" outfall), consistent with the previous permit, mass emission effluent limitations are based on the Discharger's conservative estimate for the hydraulic flow capacity of the 78" outfall (Q) of 230 MGD. Since Discharge Point 002 is authorized for emergency situations, it is anticipated to use its maximum hydraulic flow capacity of 230 MGD during emergency discharges.

C. Bacteria WQBEL Calculations

Bacteria effluent limitations for Discharge Point 002 remain in the Order/Permit to ensure protection of human health and receiving water quality for REC-1 beneficial uses and compliance with REC-1 water quality objectives for bacteria in the Pacific Ocean.

The Ocean Plan was amended in 2018 to revise the bacterial objectives for ocean waters used for water contact recreation, which includes removal of the previously established total coliform objectives and the revised enterococci objectives based on the EPA 2012 Recreational Criteria for marine waters. This Order/Permit has established bacteria effluent limitations at Discharge Point 002 (78" outfall) based on the amended water quality objectives in Table 1 and 2 of the 2019 Ocean Plan. Fecal coliform and enterococcus WQBELs for Discharge Point 002 are determined using the equation, $C_e=C_o+D_m(C_o-C_s)$ and an Initial dilution of 37:1 ($D_m=36$). The background conditions for fecal coliform and enterococcus are assumed to be zero.

Table F-13. Bacteria Water Quality Objectives (C_o) in the Ocean Plan

Indicator	Magnitude	WQO
Fecal coliform density	30-day geometric mean	200 /100 mL
	Single sample maximum	400 /100 mL
Enterococci	6-week rolling geometric mean	30 CFU /100 mL
	Statistical threshold value	110 CFU /100 mL

Fecal Coliform

C_e = 200 + 36 (200 – 0) = 7,400 MPN/100 mL (30-day Geometric Mean)

C_e = 400 + 36 (400 – 0) = 14,800 MPN/100 mL (Single Sample Maximum)

Enterococcus

C_e = 30 + 36 (30 – 0) = 1,110 CFU/100 mL (6-Week Rolling Geometric Mean)

C_e = 110 + 36 (110 – 0) = 4,070 CFU/100 mL (Statistical Threshold Value)

Based on the implementing procedures described above, WQBELs have been calculated for bacteria and all Table 3 pollutants (excluding acute and chronic toxicity) from the 2019 Ocean Plan and incorporated into this Order/Permit when applicable. A summary of the applicable WQBELs are shown in Tables F-14 and F-15 in section IV.E of this Fact Sheet.

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 measures a sublethal endpoint such as reproduction or growth, and sometimes mortality. Because of the nature of industrial discharges and contaminants of emerging concern (CEC) used in households such as PPCPs, pesticides and PFAS which may be released into the POTW sewershed, toxic constituents in and of itself or in combination may be present in the effluent.

A total of 71 chronic and 26 acute WET tests was conducted on the effluent discharged to Discharge Point 001 (120" outfall) between May 2015 and December 2019. None of the testing results was reported as "Fail" for both acute and chronic toxicity. However, based on Step 13 of the RPA procedures in the Ocean Plan (i.e., best professional judgement), reasonable potential for acute and chronic toxicity has been established for Discharge Point 001 and chronic toxicity for Discharge Point 002 due to potentially toxic chemicals exceeding water quality standards and numerous chemicals having no specific water quality standard. Therefore, the protection of aquatic life through the evaluation of toxicity monitoring is necessary to examine the potential for the individual and/or combination of toxic chemicals that pass through the POTW.

The Ocean Plan addresses the application of chronic and acute toxicity requirements based on minimum probable initial dilutions (D_m) for ocean discharges. Following the Ocean Plan, dischargers are required to conduct chronic toxicity monitoring for ocean discharges with D_m factors ranging from 99 to 349; also, Santa Ana Water Boards or USEPA may require acute toxicity monitoring in addition to chronic toxicity monitoring. Dischargers with D_m factors below 99 are required to conduct only chronic toxicity testing. Since the D_m for Discharge Point 001 is 180, both acute and chronic toxicity final effluent limitations have been assigned to Discharge Point 001. Since the D_m for Discharge Point 002 (i.e., D_m = 36) is less than 99, only chronic toxicity monitoring is specified for Discharge Point 002. No acute toxicity final effluent limitations have been assigned to Discharge Point 002 consistent with 40 CFR § 122.44(d)(1)(v), and because the chronic toxicity final effluent limitation is protective of both chronic and acute toxicity.

The Ocean Plan establishes a daily maximum chronic toxicity objective of 1.0 TU_c = 100/NOEC and a daily maximum acute toxicity objective of 0.3 TU_a = 100/LC_{50}. In 2010, USEPA published a guidance document titled *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, 2010), in which they recommend the following: "Permitting authorities should consider adding the Test of Significant Toxicity (TST) statistical approach to their implementation procedures for analyzing valid WET data for their current NPDES WET Program." The TST hypothesis testing

approach more reliably identifies toxicity—in relation to the chronic (equal to or greater than 0.25) and acute (equal to or greater than 0.20) mean responses of regulatory management decision—than the NOEC hypothesis-testing approach used in the Ocean Plan. The TST statistical approach is the improved approach for addressing statistical uncertainty when used in combination with USEPA's toxicity test methods and is implemented in federal permits issued by USEPA Region 9. Therefore, this Order/Permit includes final effluent limitations for both Discharge Point 001 (120"outfall) and Discharge Point 002 (78" outfall) using the TST hypothesis testing approach. This statistical approach is consistent with the Ocean Plan in that it provides maximum protection to the environment since it more reliably identifies acute and chronic toxicity than the NOEC hypothesis-testing approach (See Chapter III.F and Appendix I of the 2019 California Ocean Plan).

The discharge is subject to determination of "Pass" or "Fail" from acute and/or chronic toxicity tests using the 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 TST's null hypothesis (H_0) for chronic toxicity is:

H_0: Mean discharge In-stream Waste Concentration (IWC) response ≤0.75 × Mean control response.

The TST's null hypothesis (H_0) for acute toxicity is:

H_0: Mean discharge In-stream Waste Concentration (IWC) response ≤0.80 × 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."

WQBEL Calculation for Chronic Toxicity (Discharge Points 001 and 002)

The chronic toxicity WQBEL for Discharge Point 001 is expressed as a null hypothesis (H_0) and regulatory management decision (b value) of 0.75 for the chronic toxicity methods in Attachment E – Monitoring and Reporting Program. The chronic toxicity In-stream Waste Concentration (IWC) is $100/D_m$ = 100/180 = 0.556% for Discharge Point 001 (120" outfall) and IWC = 100/36 = 2.78% for Discharge Point 002 (78" outfall).

The null hypothesis for chronic toxicity at Discharge Point 001 is:

H_0: Mean response (0.556% effluent) ≤ 0.75 mean response (Control)

The null hypothesis for chronic toxicity at Discharge Point 002 is:

H_0: Mean response (2.78% effluent) ≤ 0.75 mean response (Control)

WQBEL Calculation for Acute Toxicity (Discharge Point 001)

The acute toxicity WQBEL for Discharge Point 001 is expressed as a null hypothesis (H_0) and regulatory management decision (b value) of 0.80 for the acute toxicity methods in Attachment E – Monitoring and Reporting Program. The acute toxicity In-stream Waste Concentration (in % effluent) for Discharge Point 001 is $100/(0.1*D_m) = 100/(0.1*180) = 5.56\%$.

The null hypothesis for acute toxicity at Discharge Point 001 is:

H_0: Mean response (5.56% effluent) ≤ 0.80 mean response (Control).

Results obtained from evaluating statistically the IWC compared to the control shall be analyzed using the TST hypothesis testing approach in Attachment E – Monitoring and Reporting Program. Compliance with these acute and chronic toxicity WQBELs is demonstrated by rejecting the null hypothesis and reporting "Pass" or "P". The Maximum Daily Effluent Limitation (MDEL) for acute or chronic toxicity is exceeded and a violation will be flagged when WET test, analyzed using the TST statistical approach, results in "Fail".

D. Final Effluent Limitation Considerations

1. Anti-Backsliding Requirements

Sections 402(o) and 303(d)(4) of the CWA and federal regulations at 40 CFR § 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. All effluent limitations and conditions in this Order/Permit are at least as stringent as those in the previous Order/Permit.

This Order/Permit implements different bacteria indicators and water quality objectives based on Chapter II.B.1 of the 2019 Ocean Plan (i.e., State Water Board Water-Contact Objectives for Bacteria). The California Ocean Plan was amended in 2018 to revise the bacterial objectives for ocean waters used for water contact recreation, which includes removal of the previously established total coliform objectives and the revised enterococci objectives based on the EPA 2012 Recreational Criteria for marine waters. This Order/Permit has established bacteria effluent limitations at Discharge Point 002 (78" outfall) based on the amended objectives in the 2019 Ocean Plan. The new effluent limitations are expressed using different averaging periods than the previous limits and are therefore not directly comparable.

2. Antidegradation Policies

Pursuant to 40 CFR 131.12, the state water quality standards must include an antidegradation policy consistent with the federal antidegradation policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16. This resolution incorporates the federal antidegradation policy, where the federal policy applies under federal law. Resolution No. 68-16 requires that existing water quality be maintained unless it is demonstrated that any degradation is consistent with the maximum benefit to

the people of the State, will not unreasonably affect current or possible beneficial uses, and will not result in water quality less than prescribed in applicable policies.

A complete antidegradation analysis is required if the proposed activity results in a substantial increase in mass emissions of pollutants or if the activity results in significant impact to aquatic life. It is not necessary to do a complete antidegradation analysis if the reduction in water quality will be spatially localized or limited with respect to the waterbody. In such cases, a simple antidegradation analysis will suffice. The Santa Ana Water Board and USEPA believe that the simple antidegradation analysis presented herein is consistent with California and Federal antidegradation policies because effects from effluent discharges are spatially and temporally limited and not expected to have a significant impact on receiving water quality.

This Order/Permit 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 final effluent limitations from the previous Order/Permit have been retained. Bacteria limits at Discharge Point 002 (78” outfall) were updated to implement new State water quality objectives for bacteria in the 2019 Ocean Plan. The new effluent limitations for fecal coliform and enterococcus are consistent with the State’s antidegradation policy because the discharge is in compliance with new State Water Board water-contact objectives for bacteria in the Pacific Ocean. In addition, receiving water limitations for bacteria are included to further limit bacteria and to ensure that any increase in the bacteria levels due to cessation of disinfection at Discharge Point 001 (120” outfall) will be maintained below the applicable bacteria water quality standards. Full secondary treatment and these bacteria limitations will ensure that undisinfected effluent discharges will not adversely impact human health and receiving water quality for REC-1 beneficial uses.

The performance goal and mass emission benchmarks are additional incentives for the Discharger to maintain the current treatment quality since they set final effluent targets for the Discharger to meet based on current performance. Most mass emission benchmarks in this Order/Permit are more stringent due to improved performance by full secondary treatment and a basis of lower flow rate (i.e., the average daily influent flow of 206 MGD projected for 2025); however, the

mass emission benchmarks for some constituents (e.g., selenium) have increased due to increased concentrations in the influent and/or more sensitive analysis methods. Since the mass emission benchmarks are based on actual 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.

Compliance with all permit-specified concentration-based and mass emission-based limits, performance goals, mass emission benchmarks, and the secondary treatment requirements for final effluent discharges in the Order/Permit will result in the use of best practicable treatment or control of the discharge necessary to assure that a pollution or nuisance will not occur and that the highest water quality consistent with the maximum benefit to the people of the state will be maintained. Additionally, the secondary treatment facilities would support the Groundwater Replenishment System, reduce the effluent discharge volumes to the ocean, and reduce the need for emergency use of Discharge Point 002 (78" short outfall). Therefore, it is believed that these changes would represent socioeconomic and public benefits, and the Discharger meets the goals of the antidegradation policy. Based on these considerations, this Order/Permit is consistent with state and federal antidegradation requirements.

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 biochemical oxygen demand (5-day), carbonaceous biochemical oxygen demand (5-day), total suspended solids, and pH which implement the minimum, applicable federal technology-based requirements for POTWs. Also, effluent limitations consisting of restrictions on oil and grease, settleable solids, and turbidity more stringent than federal technology-based limitations are necessary to implement State treatment standards in Ocean Plan Table 4.

Water quality-based effluent limitations (WQBELs) 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 procedures for calculating the individual WQBELs are based on the Ocean Plan, which was approved by USEPA on February 14, 2006 and has since been further amended. All beneficial uses and water quality objectives contained in the Basin Plan were approved under state law and submitted to and approved by USEPA prior to May 30, 2000. Any water quality objectives 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).

Discharge Point 001 WQBELs consisting of restrictions on total chlorine residual, acute toxicity, chronic toxicity, radioactivity, benzidine, hexachlorobenzene,

PCBs, TCDD equivalents, and toxaphene more stringent than federal technology-based limitations are necessary to meet State water quality standards in the Ocean Plan. Discharge Point 002 WQBELs consisting of restrictions on ammonia (as N), total chlorine residual, fecal coliform density, *Enterococcus* density, chronic toxicity, radioactivity, and TCDD equivalents more stringent than federal technology-based limitations are necessary to meet State water quality standards in the Ocean Plan. All effluent limitations are discussed in Attachment F-Fact Sheet. Collectively, the restrictions on individual pollutants in this Order/Permit are no more stringent than required to implement the requirements of the CWA.

E. Final Effluent Limitations for Discharge Points 001 and 002

Table F-14. Summary of Effluent Limitations – Discharge Point 001 (120" outfall)

Parameter	Units	Effluent Limitations[1],[2]					Basis
		Average Monthly[3]	Average Weekly[3]	Maximum Daily[3],[4]	Instantaneous Maximum[3],[4]	Six-Month Median[3]	
Carbonaceous Biochemical Oxygen Demand, 5-day @ 20°C ($CBOD_5$)[5]	mg/L	25	40	–	–	–	Existing/ Secondary treatment standard
	lbs/day	42,951	68,722	–	–	–	
	% removal[6]	≥ 85	–	–	–	–	
Total Suspended Solids (TSS)	mg/L	30	45	–	–	–	Existing/ Secondary treatment standard
	lbs/day	51,541	77,312	–	–	–	
	% removal[6]	≥ 85	–	–	–	–	
pH	standard units	6.0 (instantaneous minimum) – 9.0 (instantaneous maximum)					Existing/ Secondary treatment standard/ Ocean plan
Oil and Grease	mg/L	25	40	–	75	–	Existing/ Ocean Plan
	lbs/day	42,951	68,722	–	128,853	–	
Settleable Solids	ml/L	1.0	1.5	–	3.0	–	Existing/ Ocean Plan
Turbidity	NTU	75	100	–	225	–	Existing/ Ocean Plan
Total chlorine residual	mg/L	–	–	1.45	10.86	0.36	RP
	lbs/day	–	–	2,491	18,658	618	

Parameter	Units	Effluent Limitations[1],[2]					Basis
		Average Monthly[3]	Average Weekly[3]	Maximum Daily[3],[4]	Instantaneous Maximum[3],[4]	Six-Month Median[3]	
Acute toxicity[7]	Pass or Fail	–	–	Pass	–	–	RP/BPJ
Chronic toxicity[7]	Pass or Fail	–	–	Pass	–	–	RP/BPJ
Radioactivity	pCi/L	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. Reference to Section 30253 is prospective, including future changes to any incorporated provisions of federal law, as the changes take effect.					RP/BPJ Ocean Plan
Benzidine	µg/L	0.0125	–	–	–	–	Inconclusive/ Carry-over;
	lbs/day	0.0215	–	–	–	–	
Hexachloro-benzene	µg/L	0.0380	–	–	–	–	Inconclusive/ Carry-over;
	lbs/day	0.0653	–	–	–	–	
Toxaphene	µg/L	0.0380	–	–	–	–	Inconclusive/ Carry-over;
	lbs/day	0.0653	–	–	–	–	
PCBs[3]	µg/L	0.0034	–	–	–	–	Inconclusive/ Carry-over;
	lbs/day	0.0058	–	–	–	–	
TCDD Equivalents[3]	pg/L	0.7059	–	–	–	–	Inconclusive/ Carry-overRP
	lbs/day	0.0000012	–	–	–	–	

[1] Mass emission effluent limitations (in lbs/day) are based on the average daily influent flow of 206 MGD projected for 2025, taken from the Discharger's 2017 Master Plan.
[2] The minimum probable initial dilution used to calculate WQBELs for Ocean Plan Table 3 pollutants is 181:1 (D_m = 180).
[3] See Attachment A – Definitions.
[4] The maximum daily effluent limitations shall apply to flow weighted 24-hour composite samples. The instantaneous maximum effluent limitations shall apply to grab samples.
[5] In lieu of the parameter BOD_5 and the BOD_5 levels specified for effluent quality in 40 CFR § 133.102(a)(1), (2), and (3), the parameter $CBOD_5$ and the $CBOD_5$ levels specified for effluent quality in 40 CFR § 133.102(a)(4) are substituted and reported by the Discharger.
[6] In each calendar month, the arithmetic mean of $CBOD_5$ and TSS, by mass, of effluent samples collected at Monitoring Location EFF-001 as described in the MRP, shall not exceed 15 percent of the arithmetic mean of $CBOD_5$ and TSS, by mass, of influent samples

collected at Monitoring Locations INF-001 and INF-002 as described in the MRP, at approximately the same times during the same periods.

[7] The maximum daily effluent limitation shall be reported as "Pass" or "Fail", and "% Effect". See section V of Attachment E.

Table F-15. Summary of Effluent Limitations – Discharge Point 002 (78" outfall)

Parameter	Units	Effluent Limitations[1],[2]					Basis
		Average Monthly[3]	Average Weekly[3]	Maximum Daily[3],[4]	Instantaneous Maximum[3],[4]	Six-Month Median[3]	
Carbonaceous Biochemical Oxygen Demand 5-day @ 20°C ($CBOD_5$)[5]	mg/L	25	40	–	–	–	Existing/ Secondary treatment standard
	lbs/day	47,955	76,728	–	–	–	
	% removal[6]	≥ 85	–	–	–	–	
Total Suspended Solids (TSS)	mg/L	30	45	–	–	–	Existing/ Secondary treatment standard
	lbs/day	57,546	86,319	–	–	–	
	% removal[6]	≥ 85	–	–	–	–	
pH	standard units	6.0 (instantaneous minimum) – 9.0 (instantaneous maximum)					Existing/ Secondary treatment standard/ Ocean plan
Oil and Grease	mg/L	25	40	–	75	–	Existing/ Carry-over; Ocean Plan
	lbs/day	47,955	76,728	–	143,865	–	
Settleable Solids	ml/L	1.0	1.5	–	3.0	–	Existing/ Carry-over; Ocean Plan
Turbidity	NTU	75	100	–	225	–	Existing/ Carry-over; Ocean Plan
Total chlorine residual	mg/L	–	–	0.296	2.22	0.074	RP
	lbs/day	–	–	568	4,258	142	
Ammonia as N	mg/L	–	–	88.8	222	22.2	RP
	lbs/day	–	–	170,336	425,840	42,584	

Parameter	Units	Effluent Limitations[1],[2]					Basis
		Average Monthly[3]	Average Weekly[3]	Maximum Daily[3],[4]	Instantaneous Maximum[3],[4]	Six-Month Median[3]	
Fecal coliform density	MPN /100 mL[7]	A 30-day geometric mean of fecal coliform density not to exceed 7,400 MPN/100 mL; and a single sample maximum not to exceed 14,800 MPN/100 mL.					RP/BPJ Ocean Plan
Enterococcus density	CFU /100 mL[7]	A six-week rolling geometric mean of enterococcus not to exceed 1,110 CFU/100 mL; and a statistical threshold value (STV), corresponding to the 90th percentile of all enterococcus samples collected in a calendar month, not to exceed of 4,070 CFU/100mL.					RP/BPJ Ocean Plan
Chronic toxicity[~~7~~8]	Pass or Fail	–	–	Pass	–	–	RP/BPJ
Radioactivity	pCi/L	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. Reference to Section 30253 is prospective, including future changes to any incorporated provisions of federal law, as the changes take effect.					RP/BPJ Ocean Plan
TCDD Equivalents[3]	pg/L	0.14430	–	–	–	–	Inconclusive/ Carry-over;~~RP~~
	lbs/day	0.00000028	–	–	–	–	

[1] Mass emission effluent limitations (in lbs/day) are based on the Discharger's conservative estimate for hydraulic flow capacity of the outfall of 230 MGD.

[2] The minimum probable initial dilution used to calculate WQBELs for Ocean Plan Table 3 pollutants and bacteria is 37:1 (D_m = 36).

[3] See Attachment A – Definitions.

[4] The maximum daily effluent limitations shall apply to flow weighted 24-hour composite samples. The instantaneous maximum effluent limitations shall apply to grab samples.

[5] In lieu of the parameter BOD_5 and the BOD_5 levels specified for effluent quality in 40 CFR § 133.102(a)(1), (2), and (3), the parameter $CBOD_5$ and the $CBOD_5$ levels specified for effluent quality in 40 CFR § 133.102(a)(4) are substituted and reported by the Discharger.

[6] In each calendar month, the arithmetic mean of $CBOD_5$ and TSS, by mass, of effluent samples collected at Monitoring Location EFF-002 or EMG-001 as described in the MRP, shall not exceed 15 percent of the arithmetic mean of $CBOD_5$ and TSS, by mass, of influent samples collected at Monitoring Locations INF-001 and INF-002 as described in the MRP, at approximately the same times during the same periods.

[7] Results may be reported as either MPN/100 mL if the laboratory method used provides results in MPN/100 mL or CFU/100 mL if the laboratory method used provides results in CFU/100 mL.

[~~7~~8] The maximum daily effluent limitation shall be reported as “Pass” or “Fail”, and “% Effect”. See section V of Attachment E.

F. Interim Effluent Limitations – Not Applicable

G. Land Discharge Specifications – Not Applicable

H. Recycling Specifications – Not Applicable

V. PERFORMANCE GOAL AND MASS EMISSION BENCHMARKS

A. Performance Goal

Section III.F.1, of the 2019 Ocean Plan allows the Santa Ana Water Board to establish more restrictive water quality objectives and effluent limitations than those set forth in the Ocean Plan as necessary for the protection of the beneficial uses of ocean waters.

Pursuant to this provision, performance goals that are more stringent than those based on Ocean Plan objectives are prescribed in this Order/Permit. 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 State-issued NPDES permits for POTWs, 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 last 5-year actual performance of the OC San’s treatment plants and are specified only as an indication of the treatment efficiency of the Facility. The performance goals are not considered enforceable effluent limitations or standards for the regulation of discharge from the treatment facility. They 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.

The Discharger shall maintain existing treatment levels and 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 Discharger shall submit a written report to the Santa Ana Water Board and USEPA on the nature of the exceedance and the results of the investigation including the cause of the exceedance.

The Santa Ana Water Board and USEPA recognize that OC San is going through upgrades of treatment plant operations including the GWRS final expansion and

participating in collaborative studies and activities with regional partnerships. This Order/Permit may be reopened to modify any of the performance goals if the Discharger requests and has demonstrated that the change is warranted, including results of completion of the GWRS final expansion.

Procedures for the Determination of Performance Goals

1. 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 ($UCB_{95/95}$) from May 2015 through December 2019 using the RPA protocol contained in the 2019 Ocean Plan. Effluent data are assumed log normally distributed. Performance goals are calculated according to the equation $C_{PG} = C_o+D_m(C_o-C_s)$ and setting $C_o = UCB_{95/95}$.

   a. If the maximum detected effluent concentration (MEC) is greater than the calculated performance goal (C_{PG}), then the calculated performance goal (C_{PG}) is used as the performance goal; or

   b. If the MEC is less than the calculated performance goal (C_{PG}), then the MEC is used as the performance goal.

   c. If the performance goal determined in part a or b above is greater than the Water Quality Objective (WQO) in the 2019 Ocean Plan after considering dilution, then the WQO is used as the performance goal.

      For example, the performance goals for arsenic and chloroform at Discharge Point 001 (120" outfall) are calculated as follows:

      Arsenic

      $C_o = UCB_{95/95}$ = 3.02 µg/L ; D_m = 180; C_s = background seawater concentration = 3 µg/L; MEC = 6.91 µg/L; C_{PG} = Performance Goal = (3.02 µg/L) + 180*(3.02 µg/L - 3 µg/L) = 6.62 µg/L.

      Since the MEC of 6.91 µg/L is greater than the calculated PG of 6.62 µg/L, the prescribed performance goal for arsenic is 6.62 µg/L.

      Chloroform

      $C_o = UCB_{95/95}$ = 3.285 µg/L ; D_m = 180; C_s = background seawater concentration = 0 µg/L; MEC = 16.6 µg/L; C_{PG} = Performance Goal = (3.285 µg/L) + 180*(3.285 µg/L - 0 µg/L) = 594.6 µg/L.

      Since the MEC of 16.6 µg/L is less than the calculated PG of 594.6 µg/L, the prescribed performance goal for chloroform is 16.6 µg/L.

2. For constituents where monitoring data have consistently shown nondetectable levels (less than 20 percent detectable data), performance goals are set at the multiplying factor of 2.13 times the Minimum Levels (ML) used for analysis, which is based on statistical procedures outlined in USEPA manual, the *Technical Support Document for Water Quality-Based Toxics Control* (TSD, 1991). These performance goals are estimated assuming a coefficient of variation of 0.6 and the

95 percent confidence interval of the 95th percentile based on an assumed lognormal distribution of daily efficient values (see Table 5-2 of USEPA's TSD)

a. If the MEC is greater than the calculated performance goal based on ML (i.e., 2.13*ML), then the calculated performance goal (i.e., 2.13*ML) is used as the performance goal; or

d. If the MEC is less than the calculated performance goal based on ML (i.e., 2.13*ML), then the MEC is used as the performance goal.

e. If the performance goal determined in part a or b above is greater than the Water Quality Objective (WQO) in the 2019 Ocean Plan after considering dilution, then the WQO is used as the performance goal.

For example, the performance goals for halomethanes and heptachlor at Discharge Point 001 (120" outfall) are calculated as follows:

Halomethanes (5 detected out of 54 samples)

MEC = 1.37 µg/L; ML = 0.2 µg/L; C_{PG} = Performance Goal = 2.13*0.2 = 0.43 µg/L.

Since the MEC of 1.37 µg/L is greater than the calculated PG of 0.43 µg/L, the prescribed performance goal for halomethanes is 0.43 µg/L

Heptachlor (all nondetected)

MEC = NA (all ND); ML = 0.01 µg/L; C_{PG} = Performance Goal = 2.13*0.01 = 0.012 µg/L.

C_o = WQO = 0.00005 µg/L; D_m = 180; C_s = background seawater concentration = 0 µg/L; C_{PG} = Performance Goal = (0.00005 µg/L) + 180*(0.00005 µg/L - 0 µg/L) = 0.009 µg/L.

Since the performance goal based on ML of 0.012 µg/L is greater than the calculated WQO-based performance goal of 0.009 µg/L, so the prescribed performance goal for heptachlor is 0.009 µg/L.

3. 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.

B. Mass Emission Benchmarks

To address the uncertainty due to potential increases in toxic pollutant loadings from the discharge to the marine environment during the five-year Order/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 Order/Permit reissuance, 12-month average mass emission benchmarks have been established for effluent discharged through Discharge Point 001 (120" outfall). These mass emission benchmarks are not enforceable water quality-based effluent limitations. They may be re-evaluated and revised during the five-year Order/Permit term.

The mass emission benchmarks (in metric tons per year; MT/yr) for the discharge were re-evaluated using the same procedures as described above in Section V.A of this Fact Sheet for the calculation of the Performance Goals. The concentration-based Performance Goals were calculated using effluent monitoring data from May 2015 through December 2019 and were converted to mass-based Benchmarks using the Discharger's annual average influent flow of 206 MGD projected for 2025. The following equation was used for the calculation of the Mass Emission Benchmarks:

Mass Emission Benchmark (MT/yr) = (C_{PG} µg/L) x (Q gal/day) x (3.785 L/gal) x (365 days/yr) x (1 MT/10^{12} µg)

where,

C_{PG}: Final performance goal calculated from Section V.A of the fact sheet (µg/L)

Q: Annual average influent flow projected for 2025 = 206×10^{6} gal/day

Most mass emission benchmarks in this Order/Permit are more stringent due to improved performance by completion of full secondary treatment facilities, the use of more sensitive analytical method with lower minimum levels, implementation of an extensive source control pretreatment program, and decreased discharge flowrate (i.e., the projected average daily influent flow reduced from 274 MGD to 206 MGD).

VI. RATIONALE FOR RECEIVING WATER LIMITATIONS

A. Surface Water

The Ocean Plan and Basin Plan contain numeric and narrative water quality standards applicable to surface waters of California. Water quality objectives include a policy 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 Order/Permit are based on the water quality objectives contained in the Ocean Plan chapters II.B, II.C, II.D, II.E, and II.F.

The Ocean Plan was amended in 2018 to revise the bacterial water quality objectives for ocean waters used for water contact recreation, which includes removal of the previously established total coliform objectives and the revised enterococci objectives based on the EPA 2012 Recreational Criteria for marine waters. The previously established fecal coliform objective has been retained as recent epidemiological studies conducted at southern California beaches showed that fecal coliform may be a better indicator of gastrointestinal illness than enterococci during certain types of exposures and environmental conditions. This Order/Permit has established receiving water limitations for bacteria based on these amended objectives in the 2019 Ocean Plan. Bacteria receiving water limitations are necessary to protect human health and the water contact recreation uses of the receiving water.

The Santa Ana Water Board and USEPA has determined that bacterial indicator standards for water contact recreation are applied throughout the water column of the Nearshore Zone (i.e., designated REC-1). Based on Chapter II.B.1 of the Ocean Plan, bacterial indicator standards shall also be maintained throughout the water

column in the Offshore Zone used for water contact sports, as determined by the Santa Ana Water Board and/or USEPA (i.e., waters designated as REC-1), to assure that the discharge does not pose a threat to water contact recreation. Receiving water limitations for enterococcus density in ocean waters beyond the outer limit of the State of California territorial marine waters are based on CWA section 304(a) water quality criteria (i.e., Recreational Water Quality Criteria). These criteria must be achieved beyond the zone of initial dilution in areas where primary contact recreation, as defined in USEPA guidance, occurs. USEPA describes the "primary contact recreation" use as protective when the potential for ingestion of, or immersion in, water is likely. Activities usually include swimming, water-skiing, skin-diving, surfing, and other activities likely to result in immersion (Water Quality Standards Handbook, EPA-823-B-94-005a, 1994, p. 2-2). The nature and extent of primary contact recreational use in federal waters is recorded and reported during water quality monitoring conducted under the receiving water core monitoring program.

B. Groundwater – Not Applicable

VII. RATIONALE FOR PROVISIONS

A. Standard Provisions

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

40 CFR § 122.41(a)(1) and (b) through (n) establish conditions that apply to all State-issued NPDES permits. The Order/Permit also incorporates federal conditions that address enforcement authority specified in 40 CFR § 122.41(a)(2) and (3). 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/Permit.

40 CFR § 123.25(a)(12) allows the state to omit or modify conditions to impose more stringent requirements. In accordance with 40 CFR § 123.25, this Order/Permit omits federal conditions that address enforcement authority specified in 40 CFR § 122.41(j)(5) and (k)(2) because the enforcement authority under the Water Code is more stringent. In lieu of these conditions, this Order/Permit incorporates by reference Water Code section 13387(e).

B. Special Provisions

1. Reopener Provisions

The reopener provisions are based on 40 CFR 122.44(c) and 40 CFR § 123.25. The Santa Ana Water Board and USEPA may reopen the Order/Permit to modify conditions and requirements for cause. Causes for modification can include, but are not limited to, the promulgation of new regulations, modification in sludge use or disposal practices, or adoption of new regulations by the State Water Board,

Santa Ana Water Board, or USEPA including revisions to the Ocean Plan and Basin Plan.

2. Southern California Bight Monitoring Exchange

The MRP (Attachment E) may be modified by the Santa Ana Water Board and USEPA to enable the Discharger to participate in comprehensive regional monitoring activities conducted in the Southern California Bight during the term of this permit. The intent of regional monitoring activities is to maximize the efforts of all monitoring partners using a cost-effective monitoring design and to best utilize the pooled scientific resources of the region. During these coordinated monitoring efforts, the Discharger's sampling and analytical effort may be reallocated to provide a regional assessment of the impact of wastewater discharges to the Southern California Bight; however, certain core elements (i.e., monthly water quality monitoring, quarterly REC-1 water quality monitoring, quarterly benthic monitoring, semi-annual trawl fish monitoring, and weekly Orange County Regional Shoreline REC-1 cooperative monitoring) shall remain unchanged. Anticipated modifications to the monitoring program will be coordinated so as to provide a comprehensive picture of the ecological and statistical significance of monitoring results and to determine cumulative impacts of various pollutant sources. If predictable relationships among the biological, water quality and effluent monitoring variables can be demonstrated, it may be appropriate to decrease the Discharger's monitoring effort. Conversely, the monitoring program may be intensified if it appears that the objectives cannot be achieved through the Discharger's existing monitoring program. These changes will improve the overall effectiveness of monitoring in the Southern California Bight. Minor changes may be made without further public notice.

3. Special Studies, Technical Reports, and Additional Monitoring Requirements

a. Toxicity Reduction Requirements

This Order/Permit requires the Discharger to develop procedures to conduct Toxicity Identification and Reduction Evaluations. This provision is based on Chapter III.C.10 of the Ocean Plan. If the discharge consistently exceeds an effluent limitation for toxicity as specified in this Order/Permit, the Discharger shall conduct a Toxicity Reduction Evaluation (TRE) as detailed in section VII.C.3.a of the Order/Permit. The TRE will help the Discharger identify the possible source(s) of toxicity. Once the source(s) of toxicity is identified, the Discharger shall take all reasonable steps to reduce toxicity to the required level.

b. Dilution Model Update

This Permit/Order requires the Discharger to complete an updated dilution analysis for all outfalls as part of its permit application for the next permit reissuance. The Discharger shall update its dilution modeling that is reflective of the future operations upon completion of the GWRS final expansion

project, which includes, but not limited to the increase in RO concentrate and density and lower discharge flow rate. The updated dilution analysis must continue to use near-field modeling to consider how the effluent plumes behave in the zone of initial dilution (ZID) and demonstrate the impacts of final GWRS expansion to dilution under a "reasonable worst-case scenario" (e.g., critical stratification condition).

c. Ocean Outfall Condition Assessment and Scoping Study

As the 120-inch outfall approaches the end of life in 2021, the Discharger is undertaking a condition assessment of the 120-inch ocean outfall (referred to as PS18-09). The project includes removal of accumulated biofouling (i.e., barnacle collar) surrounding the 504 diffuser ports, removal/replacement of manhole covers, the full-length underwater interior inspection of the 120-inch outfall pipe, 3-D scanning and modeling, and analysis of low flow impacts on the diffuser functionality. The first field activity for the 120" inch outfall assessment project (i.e., removal of the barnacles from the outfall ports) was started on July 20, 2020 after the receipt of the Army Corp. of Engineers' permit. OC San also plans to conduct a similar study for Discharge Point 002 (78" outfall) using lessons learned from this 120" outfall condition assessment and scoping study.

Upon completion of each outfall condition assessment project, a summary report of the field work findings, including videographic and/or photographic record of the interior of the outfall, 3-D mapping, and any environmental impacts caused during the field works shall be submitted to the Santa Ana Water Board and USEPA. In addition, a separate analysis report of the impacts of low flows on diffuser hydraulics and plugging shall be provided.

4. Best Management Practices and Pollution Prevention

a. Pollution Minimization Program

This provision is based on the requirements of Chapter III.C.9 of the 2019 Ocean Plan. The goal of the Pollutant Minimization Program is to reduce all potential sources of a pollutant through pollutant minimization strategies, including pollution prevention measures, in order to maintain the effluent concentration at or below the effluent limitation.

b. Storm Water Management Plan

This Order/Permit requires the Discharger to update its Storm Water Management Plan to implement the 2015 trash amendments of the Ocean Plan.

5. Construction, Operation, and Maintenance Specifications

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

a. Roster of Personnel

The Discharger shall update and report annually a roster of personnel who supervises and operates the wastewater treatment plants.

b. Operation and Maintenance Manual

This Order/Permit requires the Discharger to update an Operation and Maintenance Manual prior to start of operations and specifies its periodic updates.

c. Spill Preventive and Contingency Plan (SPCP)

Since spills or overflows are a common event at the POTW, this Order/Permit requires the Discharger to review and update, if necessary, its SPCP whenever there is a change which materially affects the potential for spills or after each incident. The Discharger shall ensure that the up-to-date SPCP is readily available to the sewage system personnel at all times and that the sewage personnel are familiar with it.

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

a. **Biosolids**

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 biosolid program.

b. **Pretreatment**

This Order/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, California Code of Regulations.

c. **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.

The General Order contains requirements for operation and maintenance of collection systems and for reporting and mitigating sanitary sewer overflows that are more extensive, and therefore, more stringent than the requirements under federal standard provisions. The Discharger and public agencies that are discharging wastewater into the facility's collection system were required to obtain enrollment for regulation under the General Order by December 1, 2006.

d. **Resource Recovery from Anaerobically Digestible Material**.

Some POTWs choose to accept organic material such as food waste, fats, oils, and grease into their anaerobic digesters for co-digestion to increase production of methane and other biogases for energy production and to prevent such materials from being discharged into the collection system, which could cause sanitary sewer overflows. The California Department of Resources Recycling and Recovery has proposed an exemption from requiring Process Facility/Transfer Station permits where this activity is regulated under waste discharge requirements or NPDES permits. The proposed exemption is restricted to anaerobically digestible material that has been prescreened, slurried, and processed/conveyed in a closed system to be co-digested with regular POTW sludge. The proposed exemption requires that a POTW develop Standard Operating Procedures for the proper handling, processing, tracking, and management of the anaerobically digestible material before it is received by the POTW.

Standard Operating Procedures are required for POTWs that accept hauled food waste, fats, oil, and grease for injection into anaerobic digesters. The development and implementation of Standard Operating Procedures for management of these materials is intended to allow the California Department of Resources Recycling and Recovery to exempt this activity from separate and redundant permitting programs. If the POTW does not accept food waste, fats, oil, or grease for resource recovery purposes, it is not required to develop and implement Standard Operating Procedures.

e. **Ensuring Adequate Treatment Capacity**

The Discharger shall submit a written report to the Santa Ana Water Board and USEPA within 90 days after the monthly average influent flow rate equals or exceeds 75 percent of the secondary design capacity of the POTW to prevent the waste flow exceeding the capacity of the POTW.

f. **Asset Management**

This Order/Permit requires the Discharger to develop an asset management program to cover the POTW.

7. Other Special Provisions

a. **Monitoring Data Accessibility**

This Order/Permit requires the Discharge to make monitoring data accessible to the public via the internet.

8. Compliance Schedules – Not Applicable

VIII. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

CWA section 308 and 40 CFR § 122.41(h), (j)-(*l*), 122.44(i), and 122.48 require that all NPDES permits specify monitoring and reporting requirements. California Water Code sections 13267 and 13383 also authorize the Santa Ana Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. The Monitoring and Reporting Program (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.

The MRP is guided, in part, by the principals, framework, and recommended design for discharge and receiving water monitoring presented in the Ocean Plan and *Model Monitoring Program for Large Ocean Dischargers in Southern California* (SCCWRP Tech. Rep. #357. Southern California Coastal Water Research Project, Westminster, CA. 2002). The conceptual framework for the MRP has three components that comprise a range of spatial and temporal scales: (1) core monitoring, (2) regional monitoring, and (3) strategic process studies.

Core Monitoring. Core monitoring is local in nature and focuses on monitoring trends in quality and effects of the point source discharge. This includes effluent monitoring, as well as many aspects of receiving water monitoring.

Regional Monitoring. Regional monitoring is focused on questions best answered by a region-wide approach that incorporates coordinated survey design and sampling techniques. Key components of regional monitoring include elements to address pollutant mass emission estimates, public health concerns, monitoring trends in natural resources, assessment of regional impacts from all contaminant sources, and beneficial use protection. The final designs of regional monitoring programs are developed by means of steering and technical committees comprised of participating agencies and organizations. For each component of regional monitoring, the MRP specifies the required degree and nature of participation by the Discharger, based upon its past participation in regional monitoring programs.

Strategic Process Studies. Strategic process 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 multi-year studies also may be needed. Questions regarding discharge 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 strategic process studies. These studies are by nature ad hoc and, typically, cannot be typically anticipated in advance of the five-year permit cycle.

A. Influent Monitoring

Influent monitoring is required to determine compliance with effluent limitations and permit conditions, assess the performance of treatment facilities and evaluate the effectiveness of pretreatment and nonindustrial source control programs.

Influent monitoring in this Order/Permit follows the influent monitoring requirements in the previous Order/Permit with minor changes. The sample type and monitoring frequencies for halomethanes and 1,4-Dichlorobenzene were changed to grab and 1/quarter, respectively, to be consistent with other volatiles constituents. The monitoring frequency for ammonia nitrogen has been changed to weekly for proper self-monitoring as scheduled in Table E-16. The monitoring requirements for tributyltin and TCDD equivalents have been included.

B. Effluent Monitoring

Effluent monitoring is required to determine compliance with effluent limitations and permit conditions, and to identify operational problems and improve treatment facility performance. Effluent monitoring also provides information on discharge characteristics and flows for use in interpreting receiving water monitoring data.

Effluent monitoring requirements also addresses the three management questions for effluent monitoring in *Model Monitoring Program for Large Ocean Discharges in Southern California* (SCCWRP, 2002; Model Monitoring Program):

Is the effluent concentration of selected constituents below levels that will protect human health and aquatic life?

What is the mass of selected constituents that are discharged annually?

Is the effluent concentration or mass changing over time?

Noteworthy changes for this Order/Permit include removal of total coliform monitoring at Discharge Point 002 (78” outfall) due to new bacteria water quality objectives in the 2019 Ocean Plan, more frequent monitoring for nutrient parameters, ~~increasing frequency for TCDD equivalents to monthly due to RP,~~ addition of annual monitoring for total nitrogen and quarterly monitoring for tributyltin, changes in monitoring frequencies for ammonia nitrogen for proper self-monitoring as scheduled in Table E-16, and changes in the sample type and/or monitoring frequencies for halomethanes and 1,4-Dichlorobenzene to be consistent with other volatile constituents.

In addition, effluent monitoring stations have been defined separately, for the effluent discharged to Discharge Point 001 during normal operations as EFF-001 and to Discharge Point 002 during planned essential maintenance or capital improvement projects as EFF-002, in order to determine compliance with each permit limitation and requirement.

C. Whole Effluent Toxicity Testing Requirements

The rationale for WET has been discussed extensively in Section IV.C.5. of this Fact Sheet. Noteworthy WET changes for this Order/Permit include WET testing for

Discharge Point 002 (78” outfall) using the TST hypothesis testing approach instead of NOEC statistical approach. This TST 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 previous NOEC hypothesis-testing approach.

D. Receiving Water Core Monitoring

To evaluate potential environmental and human health impacts from its discharge of final effluent into the Pacific Ocean, the Discharger conducts extensive water quality, sediment quality, fish and invertebrate community, and fish health monitoring off the coastal cities of Newport Beach and Huntington Beach, California.

1. Water Quality Monitoring

Offshore water quality monitoring data are used to determine compliance with receiving water limitations and Ocean Plan objectives for physical and chemical parameters, and assist in the interpretation of biological data. Water quality data collected provide the information necessary to demonstrate compliance with the water quality standards.

Water quality monitoring requirements also addresses the two management questions for water quality monitoring in the Model Monitoring Program:

Are water column physical and chemical parameters within ranges that ensure protection of the ecosystem?

What is the fate of the discharge plume?

Monthly water quality monitoring will be carried out over a large grid of 28 stations centered on Discharge Point 001 (120” outfall). The station grid covers from the coastline of Huntington Beach to Newport Beach.

Noteworthy changes for this Order/Permit include the addition of monthly monitoring for nitrate nitrogen to further investigate nutrients driving ocean acidification and the relationship between nutrients discharged through Discharge Point 001 (120” outfall) and harmful algal blooms.

2. REC-1 Water Quality Monitoring (Offshore Zone)

This REC-1 water quality monitoring is designed to determine if Ocean Plan water quality objectives for physical and chemical parameters and bacteria are being met. Data collected at these REC-1 monitoring stations provide the means to determine whether water quality standard and bacteriological objectives for water contact are being met.

REC-1 monitoring requirements also addresses the two management questions for REC-1 monitoring in the Model Monitoring Program:

Does sewage effluent reach water contact zones?

Are densities of bacteria in water contact zones below levels that will ensure public safety?

Quarterly (5-days/30-day period), REC-1 monitoring will be carried out over a picket-line of the 8 stations centered inshore of Discharge Point 001 (120" outfall), in State waters. The south-to-north station alignment is adjacent to the coastline of Huntington Beach and Newport Beach.

3. Sediment Monitoring

The purpose of sediment monitoring is to map the area of impact and detect spatial and temporal trends in sediment pollutants and benthic infauna in the area of the discharge, and to assess compliance with State water quality standards and federal criteria. 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 of the discharge.

Sediment monitoring requirements also addresses the two management questions for sediment monitoring in the Model Monitoring Program:

> Are sediments in the vicinity of the discharge impaired? If so, what is the spatial extent of impairment?
>
> Are sediment conditions changing over time?

The previous benthic sampling grid consisted of 29 semi-annual monitoring stations and 39 annual monitoring stations. The previous semi-annual station array is based on a sediment mapping study conducted by the Southern California Coastal Water Research Project (SCCWRP) from 2009 to 2012. This study recommended the design to best capture changes in sediment quality resulting from the effluent discharge.

The investigation into changes in benthic community health as a result of the District's effluent disinfection with chlorine bleach (*Changes in Biological Communities near the OCSD Outfall*, OCSD Marine Monitoring, 2013) revealed that impacts to benthic communities were localized to stations at and near (< 1 km) the 120" outfall diffuser. Impacts were seen at Stations 0, 1, 3, 4, 9, 84, 85, 86, 87, and ZB. All other stations were unaffected even though the degree of impact was severe at near outfall stations. Based on these results and over three decades of monitoring data, a more effective and efficient sediment monitoring station design has been constructed in this Order/Permit as below:

a. Quarterly sampling for sediment chemistry and benthic infauna at 11 stations immediately surrounding the 120" outfall diffuser along the 60-meter contour line, including 3 stations within the ZID boundaries. (Note that these quarterly monitoring stations were the first and the most severely impacted stations by effluent chlorination.)

b. Annual whole sediment toxicity sampling at the 11 quarterly monitoring stations.

c. Annual (summer) sampling for sediment chemistry and benthic infauna at 11 stations located near the outfall and extending northward and southward along the 60-meter contour line.

d. Once per 5 year (1/5-year) sampling for sediment chemistry and benthic infauna at an additional 35 stations centered on Discharge Point 001 (120" outfall) from Huntington Beach to Newport Beach coastlines.

Stations 68, 69, 70,71, 72, 79, 80, 81, and 82 were eliminated as they are redundant to the station design. Downcoast Station C2 and farfield upcoast Station C were also removed as the sediment quality and biological community at these stations have been consistently different from those of other 60 m stations including control station, considering outliers. Therefore, total number of stations is reduced from 68 stations to 57 stations. The reduction in taxonomic and sediment geochemical analyses would enable the Discharger to redirect its efforts toward SPS and special studies to evaluate potential environmental impacts related to increased wastewater reclamation efforts and investigate CEC identification and characterization in effluent and sediments and toward the regional monitoring programs including Bight 18.

With the new sediment monitoring design, the number of stations sampled annually in summer is reduced from 68 to 22, which can reduce the turn-around time for summer data from approximately 9 to 12 months to 3 months, especially for the 11 quarterly stations in all seasons. This will provide a rapid assessment of sediment conditions and a more rapid response to changes in sediment quality and/or benthic infauna community within the monitoring area.

Noteworthy changes for this Order/Permit also include the change in sampling frequency for 35 monitoring stations that previously sampled annually to one-off (i.e., once per 5 years) since these stations are either not directly or not significantly impacted by the effluent discharge. Three (3) stations (i.e., Stations 10, 13, and 37) at the 60-m contour line remains as annual monitoring stations. Sampling these 1/5-year monitoring stations allows long-term trend analysis to continue in these areas where change occurs much more slowly in response to changes in effluent quality than at the outfall diffuser.

4. Demersal Fish and Epibenthic Macroinvertebrate Monitoring

The purpose of demersal fish and epibenthic macroinvertebrate monitoring is to detect spatial and temporal trends in demersal fish and epibenthic community structure, demersal fish liver tissue chemistry and liver histopathology, and sport fish muscle tissue chemistry in the area of the discharge, and to assess compliance with State water quality standards and federal criteria. The demersal fish and epibenthic macroinvertebrate monitoring data collected are used for regular assessment of temporal trends in community structure along an array of sites within the influence of the discharge. The sport fish monitoring data collected are used to provide information necessary for the management of local seafood consumption advisories.

Demersal fish and epibenthic invertebrate monitoring requirements also address the four management questions for fish and epibenthic invertebrate monitoring and seafood safety monitoring in the Model Monitoring Program:

Is the health of fish populations and communities impaired? Are fish populations and communities changing over time? Is fish tissue contamination changing over time?

Are seafood tissue concentrations below levels that will ensure public safety?

Annual demersal fish and epibenthic community monitoring continues to be carried out over a grid of 14 stations upcoast of Discharge Point 001 (120" outfall); of these 14 stations, the 6 stations at the outfall depth (60 meters) are monitored semi-annually. The monitoring area covers approximately 27 square kilometers adjacent to the coastline of Huntington Beach and Newport Beach. Annual demersal fish tissue chemistry monitoring is carried out over two stations upcoast of Discharge Point 001 at the outfall depth. Annual sport fish muscle tissue chemistry monitoring is also conducted in summer at two zones. Noteworthy changes for this Order/Permit are listed below:

a. **Target fish species.** For demersal fish and epibenthic community monitoring, the previous Order/Permit required at least 10 individuals of each target species (i.e., Hornyhead Turbot and English Sole) per station. This Order/Permit allows the Discharger to collect 20 individuals total of flat fish (e.g., Pacific Sanddab, Hornyhead Turbot and English Sole) per station. For sport fish monitoring, the Discharger can collect 10 individuals total of rockfish (e.g., Vermilion Rockfish, Copper Rockfish, and California Scorpionfish) at each rig fish monitoring zone. Kelp bass and Sandbass are removed from the target species list in this Order/Permit because none of these fishes was caught by the Discharger at any of the three rig fishing zones in the past three monitoring periods (2014 – 2016).

b. **Demersal fish tissue chemistry monitoring - Target tissue.** The previous Order/Permit required sampling and analysis of both fish liver and muscle tissues in Hornyhead Turbot and English Sole for the assessment of predator wildlife risk by consuming these two target fish species. Noteworthy change in demersal fish tissue chemistry monitoring for this Order/Permit includes removal of muscle tissue and analysis of contaminants in fish liver tissue only. The concentration of contaminants in demersal fish muscle tissue were relatively negligible for two permit cycles compared with liver tissues, given that liver tissue has higher lipid content than muscle tissue and therefore can bioaccumulate higher concentrations of lipid-soluble contaminants such as PCBs and DDT. It stands to reason that when this demersal fish is consumed whole by a fish predator, it is likely that the predator will acquire considerably higher contaminant loads from liver tissue as compared to muscle tissue, rendering the muscle tissue analysis dispensable.

c. **Chemical analysis changes – Composite sampling**. To monitor bioaccumulation of organic contaminants (i.e., PCBs, DDT, and Chlordane) and metals (i.e., Arsenic, Selenium, and Mercury) in either demersal fish liver tissue or sport fish muscle tissue, composite samples of target fish will be

analyzed instead of individual sample analysis. This composite tissue analysis can minimize the variation between contaminant measurements, increase the ability to detect target compounds that are present in low concentrations, and improve the representativeness of the contaminant measurements at each sampling site, which is also consistent with fish tissue analysis protocols of other POTW ocean monitoring programs within the Southern California Bight.

d. **Monitoring frequency of demersal fish liver histopathology.** Liver histopathology will be conducted on an annual basis instead of once every permit cycle to facilitate rapid detection of potential adverse effects on fish health by the anticipated changes in effluent quality and characteristics with GWRS final expansion (e.g., increased RO concentrate flow). Fish liver histopathology was used in the investigation of effluent chlorination effects and was found to be a useful biomarker of impact and the only significant effect on fish health.

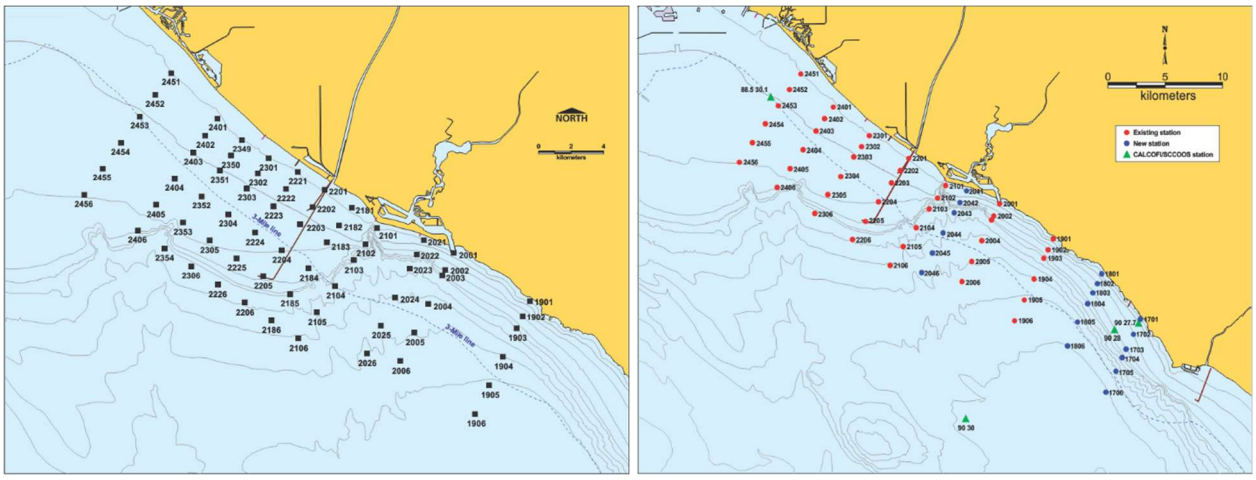
e. **Sport fish monitoring - Farfield reference zone.** The Discharger was not able to catch the number of fish samples required by the previous Order/Permit at the farfield reference zone (Zone 2) in two consecutive years (2014 – 2015) after the issuance of the previous 2012 Order/Permit. After consulting with scientists from the California Department of Fish and Wildlife, the reference zone was relocated to an area near the Huntington Beach oil rigs (Zone 3) as this site only met the species and number of fish requirements among several candidate sites. In this Order/Permit, Zone 2 was replaced with Zone 3 as a farfield reference zone.

E. Receiving Water Regional Monitoring

Discharger participation ~~and level of effort~~ in regional monitoring programs continues to be a required condition of the Order/Permit. Regional monitoring programs which must be conducted under the Order/Permit include: Southern California Bight Regional Monitoring Program, Southern California Bight Regional Water Quality Program, Central Regional Kelp Survey, Orange County Regional Shoreline REC-1 Cooperative Monitoring Program, and Ocean Acidification and Hypoxia (OAH) Mooring. The Discharger currently participates in all five programs. For the regional monitoring program, collaboration with other water sectors (e.g., water supply, wastewater, groundwater, and stormwater) is encouraged to evaluate implementation of integrated water resource projects that helps achieve sustainable integrated water resources management.

Noteworthy changes for the Southern California Bight Regional Water Quality Program under this Order/Permit include the addition of four field sampling surveys per year, removal of stations transects 2021, 2181, 2221, and 2349 for more equal spacing of transects, and creation of transect lines 1701, 1801, and 2041 to extend sampling downcoast to Dana Point.

Figure F-1. Previous and Current Southern California Bight Regional Water Quality Program Station Transects.



Overall, the number of Southern California Bight Regional Water Quality Program stations were reduced from 66 to 60. The number of Orange County Regional Shoreline REC-1 Cooperative Monitoring Program stations has been changed from 38 to 36 due to removal of two Stations (i.e., OSB02 and ELMORO) at the request of the Orange County Health Care Agency.

F. Strategic Process Studies

Discharger investigations conducted through strategic process studies continues to be a required condition of the Order/Permit. Strategic process studies which must be conducted under the Order/Permit include: ROMS-BEC Ocean Outfall Modeling, Microplastics Characterization, Contaminants of Emerging Concern Monitoring, Sediment Linear Alkylbenzenes, and Meiofauna Baseline. These studies have been approved by the Santa Ana Water Board and USEPA during the term of the 2012 Order/Permit but not yet completed by the Discharger. Additional studies will be proposed over the next permit cycle to ascertain if GWRS final expansion, which will result in lower outfall flows and higher concentration of the final effluent due to RO reject flow, will result in deleterious environmental impacts.

G. Other Monitoring Requirements

1. Contaminants of Emerging Concern (CEC) Monitoring Study

The Discharger shall continue to investigate CECs identification and characterization in the final effluent, listed in Table E-15 of the MRP (Attachment E). The Discharger has annually screened for 15 pharmaceuticals and personal care products (PPCPs), 7 hormones, 7 industrial endocrine disrupting compounds (IEDCs), and 9 flame retardants in the final effluent in the previous permit. In addition, this Order/Permit requires the Discharger to conduct monitoring for new CECs of 6 pesticides and insecticides (i.e., Fipronil, Fipronil Sulfone, Bifenthrin, Total Permethrin, Chlorpyrifos, and Diazinon), 3 flame

retardants (i.e., TDCPP, TCEP, and TCPP) and 12 per- and polyfluoroalkyl substances (PFAS) compounds.

With regard to PFAS compounds, POTWs are potentially significant receivers of PFAS from various sources, including disposal of landfill leachate and firefighting foam, results in PFAS in the influent to POTWs. Typical POTW treatment systems are not designed to remove PFAS, and therefore, the discharge from POTWs, especially those with industrial inputs, are possible contributors of PFAS to the surface waters. Based on the State Water Board's PFAS analytical data obtained from PFAS Investigative Orders, 12 PFAS compounds (i.e., PFDA, PFDoA, PFNA, PFHxA, PFHpA, PFOA, PFTA, PFTrDA, PFUnA, PFBS, PFHxS, and PFOS) are included in this Order/Permit to identify and understand PFAS in wastewater.

2. Outfall and Diffuser System 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 inspection frequency has been increased to twice per permit term as the 120-inch outfall approaches the end of life in 2021. The data collected will be used for a periodic assessment of the integrity of the outfall pipes and diffuser system.

3. Discharge Monitoring Report-Quality Assurance (DMR-QA) Study Program

Under the authority of section 308 of the CWA (33 U.S.C. § 1318), USEPA requires major and selected minor dischargers under the NPDES Program to participate in the annual DMR-QA Study Program. The DMR-QA Study evaluates the analytical ability of laboratories that routinely perform or support self-monitoring analyses required by NPDES permits. There are two options to satisfy the requirements of the DMR-QA Study Program: (1) The Discharger can obtain and analyze a DMR-QA sample as part of the DMR-QA Study; or (2) Per the waiver issued by USEPA to the State Water Board, the Discharger can submit the results of the most recent Water Pollution Performance Evaluation Study from its own laboratories or its contract laboratories. A Water Pollution Performance Evaluation Study is similar to the DMR-QA Study. Thus, it also evaluates a laboratory's ability to analyze wastewater samples to produce quality data that ensure the integrity of the NPDES Program. The Discharger shall ensure that the results of the DMR-QA Study or the results of the most recent Water Pollution Performance Evaluation Study are submitted annually to the State Water Board. The State Water Board's Quality Assurance Program Officer will send the DMR-QA Study results or the results of the most recent Water Pollution Performance Evaluation Study to USEPA's DMR-QA Coordinator and Quality Assurance Manager.

IX. PUBLIC PARTICIPATION

The Santa Ana Water Board and USEPA have considered the issuance of WDRs and an NPDES permit for OC San. As a step in this process, the Santa Ana Water Board and

USEPA staff have developed a tentative WDRs and draft permit and have encouraged public participation in the reissuance process.

A. Notification of Interested Parties

The Santa Ana Water Board and USEPA have notified the Discharger and interested agencies and persons of their intent to reissue the Order/Permit for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Notification was provided through the posting of the Notice and tentative Order/Permit on the Santa Ana Water Board's and USEPA's websites.

The public had access to the agenda and any changes in dates and locations through the Santa Ana Water Board's website at http://www.waterboards.ca.gov/santaana/ and USEPA's website at https://www.epa.gov/npdes-permits/npdes-permits-epas-pacific-southwest-region-region-9.

B. Written Comments

Interested persons were invited to submit written comments concerning the tentative WDRs and NPDES Order/Permit as provided through the notification process. Comments should be submitted either in person or by mail to the Executive Office at the Santa Ana Water Board at the address on the cover page of this Order/Permit, or by email to Ryan.Harris@waterboards.ca.gov or Song.Julie@epa.gov.

To be fully responded to by staff and considered by the Santa Ana Water Board and USEPA, the written comments were due by 5:00 p.m. on March 4, 2021.

C. Public Hearing

The Santa Ana 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:	~~May 7~~June 18, 2021
Time:	9 am
Location:	Meeting was remote, due to COVID-19 restrictions.

Interested persons were invited to attend. At the public hearing, the Santa Ana Water Board heard testimony, pertinent to the discharge, WDRs, and permit. For accuracy of the record, extensive testimony was requested in writing.

D. Reconsideration of Waste Discharge Requirements

Any aggrieved person by the adoption of the WDRs and Order/Permit may petition the State Water Board to review the decision of the Santa Ana Water Board and USEPA regarding the final WDRs and Order/Permit in accordance with Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., within 30 calendar days of the date of adoption of this Order at the following address, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day:

State Water Resources Control Board

Office of Chief Counsel
P.O. Box 100, 1001 I Street
Sacramento, CA 95812-0100

Or by email at waterqualitypetitions@waterboards.ca.gov

For instructions on how to file a petition for review, see the Water Quality Petitions Website:
(htttps://www.waterboards.ca.gov/public_notices/petitions/water_quality/wqpetition_instr.shtml)

E. Federal NPDES Permit Appeals

When a final NPDES permit is issued by USEPA, it will become effective 33 days following the date it is mailed to the Discharger, unless a request for review is filed. If a request for review is filed, only those permit conditions which are uncontested will go into effect pending disposition of the request for review. Requests for review must be filed within 33 days following the date the final permit is mailed and must meet the requirements of 40 CFR 124.19. All requests for review should be addressed to the Environmental Appeals Board (EAB) as follows. Requests sent through the U.S. Postal Service (except by Express Mail) must be addressed to the EAB's mailing address, which is:

U.S. Environmental Protection Agency
Clerk of the Board
Environmental Appeals Board (MC 1103B) Ariel Rios Building
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460-0001

All filings delivered by hand or courier, including Federal Express, UPS, and U.S. Postal Express Mail, should be directed to the following address:

Environmental Appeals Board
U.S. Environmental Protection Agency Colorado Building
1341 G Street, N.W., Suite 600
Washington, D.C. 20460

Those persons filing a request for review must have filed written comments on the draft federal permit. Otherwise, any such request for review may be filed only to the extent of changes from the draft to the final permit decision.

F. Information and Copying

The Report of Waste Discharge (ROWD), other supporting documents, and comments received are on file and may be inspected by appointment at the Santa Ana Water Board and USEPA addresses on the cover page of this Order/Permit, at any time between 9:00 a.m. and 3:00 p.m., Monday through Friday. Copying of documents may be arranged through either the Santa Ana Water Board by calling (951) 782-4130 or USEPA by calling (415) 972-3035.

G. 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 Santa Ana Water Board, reference this facility, and provide a name, address, and phone number.

H. Additional Information

Requests for additional information or questions regarding this Order/Permit should be directed to the Santa Ana Water Board or USEPA staffs.

Santa Ana Water Board: Ryan Harris at (951) 320-2008 or Ryan.Harris@waterboards.ca.gov.

USEPA: Julie Song at (415) 972-3035 or Song.Julie@epa.gov.

ATTACHMENT G – BIOSOLIDS

As described in section VII.C.6.a of this Order/Permit, the Santa Ana Water Board and USEPA incorporates these biosolids conditions as requirements of this Order/Permit.

I. GENERAL REQUIREMENTS

A. All biosolids generated by the Discharger shall be used or disposed of biosolids generated by the Discharger shall be used or disposed of in compliance with the applicable portions of 40 CFR § 257, 258 and 503, and the applicable State regulations. The Discharger is responsible for assuring that all biosolids produced at the facility are used or disposed of in accordance with these rules, whether the Discharger uses or disposes of the biosolids itself or transfers them to another party for further treatment and use or disposal. The Discharger is responsible for informing subsequent preparers, appliers, and disposers of the requirements that they must meet under these rules, and any monitoring requirements, including required frequencies of monitoring and maximum hold times for pathogen and indicator organism samples.

B. Duty to mitigate. The Discharger shall take all reasonable steps to prevent or minimize any biosolids use or disposal which has a likelihood of adversely affecting human health or the environment.

C. No biosolids shall be allowed to enter wetlands or other waters of the United States.

D. Biosolids treatment, storage, and use or disposal shall not contaminate groundwater.

E. Biosolids treatment, storage, and use or disposal shall be performed in a manner as to minimize nuisances such as objectionable odors or flies.

F. The Discharger shall assure that haulers transporting biosolids off site for further 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 State agency in which the spill occurred. All trucks hauling biosolids that are not Class A, as defined at 40 CFR 503.32(a), shall be cleaned as necessary after loading and after unloading, so as to have no biosolids on the exterior of the truck or wheels.

G. Trucks used to haul Class B biosolids shall not be used to haul animal feed or food on the return trip, unless approved by USEPA after a demonstration of the truck cleaning methods at the unloading site has been made.

H. If biosolids are stored for over two years from the time they are generated by the Discharger or their contractor, the Discharger must submit a written notification to USEPA with the information in 40 CFR § 503.20(b), demonstrating the need for longer temporary storage.

I. Any biosolids treatment, disposal, or storage site shall have facilities adequate to divert surface runoff from adjacent areas, to protect the site boundaries from erosion, and to prevent any conditions that would cause drainage from the materials in the site to

escape from the site. Adequate protection is defined as protection from at least a 100-year storm and from the highest tidal stage that may occur.

II. REQUIREMENTS FOR BIOSOLIDS LAND APPLICATION

"Land application" is the placement of biosolids on the land for the specific purpose of growing a crop or other vegetation. Land application requirements are addressed in 40 CFR § 503 subpart B.

A. A representative sample shall be representative sample shall be collected and analyzed for the pollutants required under 40 CFR § 503.13 and for total nitrogen, organic nitrogen, and ammonia nitrogen, at the following frequency, based on the tonnage of biosolids produced per year (as expressed on a 100% solids basis). All results shall be reported on a 100% dry weight basis:

   Less than 290 dry metric tons (dmt)/year: once/year.

   290 to 1,500 dmt/year: once/quarter or 4 samples of accumulated biosolids

   1,500 to 15,000 dmt/year: once/two months or 6 samples of accumulated biosolids.

   Over 15,000 dmt/year: monthly or 12 samples of accumulated biosolids.

B. The Discharger 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.

C. If Class B is demonstrated by testing fecal coliform, during each sampling event, 7 grab samples must be collected and analyzed, and the geometric mean of these samples calculated to determine the fecal coliform level for the sampling period.

D. When using fecal coliforms to demonstrate Class A, in conjunction with operational parameters or in conjunction with testing of enteric viruses and helminth ova, four grab samples of fecal coliform shall be collected and analyzed each sampling period. Each of these samples must have levels of <1,000 MPN/gram, dry weight basis.

E. If Class A or B pathogen requirements are met by monitoring pathogens and/or indicator organisms, samples must be collected in sterile containers, immediately cooled, and analysis started within the USEPA-specified holding times for these analyses: 8 hours for fecal coliform (24 hours for fecal coliform if the biosolids have been digested or composted), 24 hours for salmonella, 2 weeks for enteric viruses when frozen, 1 month for helminth ova when cooled to 4 degrees C).

F. If pathogen reduction is demonstrated using a Process to Significantly/Further Reduce Pathogens, the Discharger shall maintain daily records of the operating parameters used to achieve this reduction.

G. The Discharger shall track and keep records of the operational parameters used to achieve Vector Attraction Reduction (VAR) requirements in 40 CFR § 503.33(b). If VAR is met at the application site by incorporation or covering, the Discharger must obtain certification that these requirements have been met from the land applier or surface disposal site operator, and maintain these with their records.

III. REQUIREMENTS FOR SURFACE DISPOSAL

"Surface disposal" is the placement of biosolids on the land in a sludge-only dedicated land disposal site or monofill for the purpose of disposal. Surface disposal requirements are addressed in 40 CFR § 503 subpart C.

A. If the surface disposal site is unlined, a representative sample shall be collected and analyzed for the pollutants required under 40 CFR § 503.23, at the following frequency, based on the tonnage of biosolids produced per year (as expressed on a 100% solids basis). All results shall be reported on a 100% dry weight basis:

   Less than 290 dry metric tons (dmt)/year: once/year.

   290 to 1,500 dmt/year: once/quarter or 4 samples of accumulated biosolids

   1,500 to 15,000 dmt/year: once/two months or 6 samples of accumulated biosolids.

   Over 15,000 dmt/year: monthly or 12 samples of accumulated biosolids

B. The Discharger 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, or cover the site at the end of each operating day.

C. If Class B is demonstrated by testing fecal coliform, during each sampling event, 7 grab samples must be collected and analyzed, and the geometric mean of these samples calculated to determine the fecal coliform level for the sampling period.

D. If Class A or B pathogen requirements are met by monitoring pathogens and/or indicator organisms, samples must be collected in sterile containers, immediately cooled, and analysis started within the USEPA-specified holding times for these analyses: 8 hours for fecal coliform (24 hours for fecal coliform if the biosolids have been digested or composted), 24 hours for salmonella, 2 weeks for enteric viruses when frozen, 1 month for helminth ova when cooled to 4 degrees C).

E. If pathogen reduction is demonstrated using a Process to Significantly/Further Reduce Pathogens, the Discharger shall maintain daily records of the operating parameters used to achieve this reduction.

F. The Discharger shall track and keep records of the operational parameters used to achieve Vector Attraction Reduction (VAR) requirements in 40 CFR § 503.33(b). If VAR is met at the surface disposal site by incorporation or covering, the Discharger must obtain certification that these requirements have been met from the land applier or surface disposal site operator, and maintain these with their records.

IV. REQUIREMENTS FOR DISPOSAL IN MUNICIPAL LANDFILL

"Disposal in a municipal landfill" is the placement of biosolids in a landfill subject to the requirements in 40 CFR § 258 where it is mixed with other materials being placed in the landfill, or used as alternative daily or final cover at the landfill.

A. The Discharger shall ensure that the landfill used is in compliance with 40 CFR § 258 requirements and applicable State or Tribal requirements.

B. If the biosolids are less than 15% solids, the Discharger shall run a paint filter test on an as-needed basis to demonstrate that the biosolids does not contain free liquids.

V. NOTIFICATION REQUIREMENTS

The Discharger either directly or through contractual arrangements with their biosolids management contractors, shall comply with the following notification requirements.

A. Notification of non-compliance: The Discharger shall notify USEPA and the applicable Santa Ana Water Board or State agency of any non-compliance within 24 hours by phone or e-mail if the non-compliance may seriously endanger public health or the environment. A written report shall also be submitted within 5 working days of knowing the non-compliance. For other instances of non-compliance, the Discharger shall notify USEPA and the Santa Ana Water Board of the non-compliance in writing within 5 working days of becoming aware of the non-compliance. The Discharger shall require their biosolids management contractors to notify USEPA and the Santa Ana Water Board of any non-compliance within the same time-frames.

B. If biosolids are shipped to another State or to Tribal Lands, the Discharger shall send 30 days prior notice of the shipment to the USEPA and permitting authorities in the receiving State/Tribal authority.

C. The Discharger shall notify USEPA and the Santa Ana Water Board at least 60 days prior to starting a new biosolids use or disposal practice.

VI. REPORTING REQUIREMENTS

A. The Discharger shall submit an annual biosolids report into USEPA's CDX electronic reporting system, with an electronic copy to the Santa Ana Water Board by email at santaana@waterboards.ca.gov, by February 19 of each year for the period covering the previous calendar year. The report shall include the tonnages of biosolids (reported in dry metric tons, 100% dry weight), that were land applied (without further treatment by another party), land applied after further treatment by another preparer, disposed in a sludge-only surface disposal site, sent to a landfill for alternative cover or fill, stored on site or off site, or used for another purpose. The report shall include the following attachments:

1. Monitoring results from laboratories (results only, QA/QC pages not required). Copies of original lab reports must be available upon request and confirm the results are on a 100% dry weight basis. Lab reports for fecal coliforms must show the time the samples were collected and the time analysis was started.

2. If operational parameters were used to demonstrate compliance with pathogen reduction and vector attraction reduction, the minimum mean of these parameters for each sampling period (i.e., minimum mean cell residence times (MCRTs) and minimum temperatures).

3. If biosolids are stored on-site or off-site for more than 2 years, the information required in 40 CFR § 503.20(b) to demonstrate that the storage is temporary.

B. If biosolids were land applied, the Discharger shall have the person applying the biosolids submit a pdf report to USEPA and State agency showing the name of each field; location, ownership, size in acres; the dates of applications, seedings, harvesting; the tonnage applied to field, in actual and dry weight; the calculated Plant Available Nitrogen; and copies of applier's certifications of management practices and site restrictions.

ATTACHMENT H – PRETREATMENT

As described in section VII.C.6.b of this Order/Permit, the Santa Ana Water Board and USEPA incorporates these pretreatment conditions as requirements of this Order/Permit.

I. GENERAL PRETREATMENT REQUIREMENTS

A. The Discharger shall be responsible and liable for the performance of all Control Authority pretreatment requirements contained in 40 CFR § 403, including any subsequent regulatory revisions to Part 403. Where Part 403 or subsequent revision places mandatory actions upon the Discharger as Control Authority but does not specify a timetable for completion of the actions, the Discharger shall complete the required actions within one (1) year 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 Discharger 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.

B. Prior to the completion of GWRS Final Expansion project, the Discharger shall conduct annual Technical Review of local limits under 40 CFR § 403.5(c)(1) and submit the results as part of the annual pretreatment report. Within two (2) years of the completion of the GWRS Final Expansion project, the Discharger shall provide a written technical evaluation of the need to revise local limits under 40 CFR § 403.5(c)(1), as required in 40 CFR § 122.44(j)(2)(ii).

C. The Discharger shall enforce the requirements promulgated under CWA sections 307(b), 307(c), 307(d) and 402(b) with timely, appropriate and effective enforcement actions. The Discharger shall cause all nondomestic users subject to federal categorical standards to achieve compliance no later than the date specified in those requirements or, in the case of a new nondomestic user, upon commencement of the discharge.

D. The Discharger shall perform the pretreatment functions as required in 40 CFR § 403 including, but not limited to:

1. Implement the necessary legal authorities as provided in 40 CFR § 403.8(f)(1);
2. Enforce the pretreatment requirements under 40 CFR § 403.5 and 403.6;
3. Implement the programmatic functions as provided in 40 CFR § 403.8(f)(2); and
4. Provide the requisite funding and personnel to implement the pretreatment program as provided in 40 CFR § 403.8(f)(3).

E. The Discharger shall submit annually a report to USEPA and the Santa Ana Water Board describing its pretreatment activities over the previous year. In the event the Discharger is not in compliance with any conditions or requirements of this Order/Permit, then the Discharger shall also include the reasons for noncompliance and state how and when the Discharger shall comply with such conditions and requirements. This annual report shall cover operations from July 1 through June 30

and is due on October 31st of each year. The report shall contain, but not be limited to, the following information:

1. A summary of analytical results from representative, flow proportioned, 24-hour composite sampling of the POTW's influent and effluent for those pollutants USEPA has identified under CWA section 307(a) 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 Discharger is not required to sample and analyze for asbestos. Sludge sampling and analysis are covered in the sludge section of this Order/Permit. The Discharger shall also provide any influent or effluent monitoring data for nonpriority pollutants which the Discharger believes may be causing or contributing to interference or pass through. Sampling and analysis shall be performed with the techniques prescribed in 40 CFR § 136.
2. A discussion of Upset, Interference or Pass Through incidents, if any, at the treatment plant which the Discharger knows or suspects were caused by nondomestic users of the POTW system. The discussion shall include the reasons why the incidents occurred, 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.
3. An updated list of the Discharger'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 Discharger shall provide a brief explanation for each change. The list shall identify the SIUs subject to federal categorical standards by specifying which set(s) of standards are applicable to each SIU. The list shall also indicate which SIUs are subject to local limitations.
4. The Discharger shall characterize the compliance status of each SIU by providing a list or table which includes the following information: Name of the SIU; category, if subject to federal categorical standards; type of wastewater treatment or control processes in place; number of samples taken by the POTW during the year; number of samples taken by the SIU during the year; for an SIU subject to discharge requirements for total toxic organics, whether all required certifications were provided; a list of the standards violated during the year, where categorical standards and/or local limits violations are identified; whether the facility is in significant noncompliance (SNC) as defined at 40 CFR § 403.8(f)(2)(viii) at any time during the year; and a summary of enforcement or other actions taken during the year to return the SIU to compliance, where the type of action, final compliance date, and the amount of fines and penalties collected, if any, are described, including any proposed actions for bringing the SIU into compliance.
5. A brief description of any programs the POTW implements to reduce pollutants from nondomestic users that are not classified as SIUs.

6. 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;
7. A summary of the annual mass emission, and the effluent concentrations and flows used to calculate the annual mass emission (see section V.B of the Order/Permit);
8. A summary of the annual pretreatment budget, including the cost of pretreatment program functions and equipment purchases;
9. 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 § 403.8(f)(2)(viii); and
10. Results from annual Technical Review of local limits which is conducted under 40 CFR § 403.5(c)(1). See Section I.B of Attachment H.

RESPONSE TO WRITTEN COMMENTS

on the Tentative Order and the public notice draft NPDES permit for

The Orange County Sanitation District
Reclamation Plant No. 1, Treatment Plant No. 2, Wastewater Collection System, and Outfalls

The United States Environmental Protection Agency, Region 9 (hereinafter "USEPA") and the California Regional Water Quality Control Board, Santa Ana Region (hereinafter "Santa Ana Water Board" or "SARWQCB") received written comments on the tentative order (No. R8-2021-0010) and the public notice draft NPDES permit (No. CA0110604), consolidated under 40 C.F.R. § 124.4(c)(2), distributed for public comment during the public notice period from February 2, 2021 to March 4, 2021 from the following:

1. Orange County Sanitation District (March 3, 2021, corrected March 4, 2021)
2. County of Orange, OC Public Works (March 4, 2021)
3. Orange County Coastkeeper (March 4, 2021)

We summarized the comments and responded in the table below. For the full content and context of the comments, readers should refer to the comment letters. Where Orange County Coastkeeper submitted its comments in a tabular format, we responded in the same tabular format.

In addition to making minor editorial and formatting changes, we also made the staff-initiated revisions related to factual corrections (see the table below - 4. Staff-Initiated Changes).

Revisions to the tentative order are shown with underline text for additions and ~~strikethrough~~ text for deletions. Section numbers to be revised correspond to the tentative order/draft permit publicly noticed on February 2, 2021.

#	Section	Comment	Response	Proposed Revisions
1. Orange County Sanitation District ("OC San")				
1	III.K.1	The Orange County Sanitation District (hereinafter "OC San") requests that the phrase "to a functional capacity that is necessary to prevent infrastructure or equipment damage" be added to Discharge Prohibition section III.K.1 to clarify the term "maximized".	We revised the tentative order/draft permit as proposed.	K. The discharge of wastewater to a water of the United States from any locations other than Discharge Point 001 (120" outfall) is prohibited, except during the following situations: 1. Emergency discharge of disinfected secondary effluent …. provided that discharges through Discharge Point 001 (120" outfall) and discharges to Orange County Water District (OCWD)'s water recycling facilities~~, if OCWD remains on-line,~~ are maximized to a functional capacity that is necessary to prevent infrastructure or equipment damage before wastewater is discharged through Discharge Point 002;
2	VIII.A.3	OC San requests that the proposed language in the draft permit section VIII.A.3 be replaced by the specific language within Section III.C.8.b of the California Ocean Plan. It is appropriate to use California Ocean Plan language to define how DNQ values are applied. Generating a sum (which may exceed permit limits) by adding a series of values whose certainty is estimated or questionable does not yield a result which is reliable and is inconsistent with California Ocean Plan requirements.	Consistent with the California Ocean Plan provision in section III.C.8.b, we revised the tentative order/draft permit as proposed.	3. Compliance with Effluent Limitations expressed as Sum of Several Constituents … Individual pollutants of the group will be considered to have a concentration of zero if the constituent is reported as ND or ~~less than the MDL, but considered as a detected value if reported as~~ DNQ.

#	Section	Comment	Response	Proposed Revisions
3	Attachment E Table E-2	In OC San's 2012 permit, the quarterly Regional sampling entailed sampling 38 Regional stations in conjunction with the 28 Core water quality stations (n=66). Under the new permit, OC San will sample the 28 Core and the 44 Regional stations (n=72). Provided that the Core and Regional receiving water monitoring scheme is accurately described above, OC San accepts all water quality sampling requirements in the Draft NPDES permit and seeks no changes.	USEPA and the Santa Ana Water Board appreciate the clarification.	None.
4	Attachment E Table E-3 Table E-4	OC San requests that a footnote be added to Tables E-3 and E-4 to specify that 1,3-dichloropropene is the sum of cis- and trans-1,3-dichloropropene	Footnotes 9 and 12 for 1,3-dichloropropene were added to Tables E-3 and E-4, respectively.	[9] 1,3-dichloropropene is the sum of cis- and trans-1,3-dichloropropene.
5	Attachment E Table E-3 Table E-4	OC San requests one of the following actions from the USEPA/SARWQCB: 1) Provide OC San with a list of laboratories approved for the analysis of tributyltin by the SARWQCB's Executive Officer; 2) Provide an exception within Section I.K of Attachment E that exempts tributyltin analysis from the ELAP certification; or 3) Make a formal request to California ELAP to add	On April 1, 2021, ELAP updated its Field of Accreditation (FOA) Table 109 to include tributyltin by analytical method of SM 6710B - 2011 (Subgroup Code: 109.800). USEPA and the Santa Ana Water Board highly recommend the OC San laboratories apply for and obtain ELAP accreditation to analyze for tributyltin by SM 6710B. Meanwhile, until OC San obtains ELAP accreditation for this method, USEPA and the Santa Ana Water Board will	[7] Tributyltin: SM 6710B or other improved methods approved by the Santa Ana Water Board and USEPA shall be used to analyze tributyltin in wastewater.

<table>
<tr><th>#</th><th>Section</th><th>Comment</th><th>Response</th><th>Proposed Revisions</th></tr>
<tr><td></td><td></td><td>tributyltin to ELAP's Field of Accreditation (FOA) forms, so that laboratories can apply for and obtain ELAP accreditation to analyze for tributyltin in wastewater.</td><td>allow the use of SM 6710B upon OC San's request.
Footnotes 7 and 10 were added to Tables E-3 and E-4, respectively, to clarify the tributyltin analytical method.</td><td></td></tr>
<tr><td>6</td><td>Attachment E Table E-6</td><td>OC San requests that the Santa Ana Water Board approve its request to analyze for E. coli using Colilert-18 (IDEXX) in lieu of fecal coliform as done in the past for REC-1 Water Quality Monitoring (Offshore Zone).</td><td>Based on supporting documents and the 3-year QA/QC data for comparison of fecal coliforms to E. coli (i.e., Attachment A through E of supplemental information package submitted by OC San on March 24, 2021), USEPA and the Santa Ana Water Board allow the use of E. coli as a surrogate for fecal coliform, which is also consistent with Appendix III.11 of the 2019 California Ocean Plan stating that "[t]he Regional Water Board may allow analysis for Escherichia coli (E. coli) by approved test methods to be substituted for fecal coliforms if sufficient information exists to support comparability with approved methods and substitute the existing methods". The tentative order/draft permit has been revised as proposed, to enable OC San to continue to analyze E. Coli using Colilert-18 and report the results in fecal coliform by multiplying E. coli density by 110 %.
Footnote 4 was revised to address analytical test methods for total coliform, fecal coliform and</td><td>Table E-6. REC-1 Water Quality Monitoring (Offshore Zone)
<table>
<tr><th>Parameter</th><th>Units</th><th>Sample Type</th><th>Required Analytical Test Method</th></tr>
<tr><td>Total coliform density</td><td>MPN /100 mL[3]</td><td>grab</td><td>2,3,4</td></tr>
<tr><td>Enterococcus density</td><td>CFU /100 mL[3]</td><td>grab</td><td>2,4</td></tr>
<tr><td>Fecal coliform density</td><td>MPN /100 mL[3]</td><td>~~grab~~ calculated</td><td>2,3,4</td></tr>
<tr><td>E. Coli density (converted to fecal coliform density)</td><td>MPN /100 mL[3]</td><td>grab</td><td>2,4</td></tr>
</table>
[3] ~~Test methods used for total and fecal coliforms shall be those presented in Table 1A of 40 CFR § 136, unless alternate methods have been approved in advance by USEPA pursuant to 40 CFR § 136, or improved methods have been determined by the Executive Officer and/or USEPA.~~</td></tr>
</table>

<table>
<tr><th>#</th><th>Section</th><th>Comment</th><th>Response</th><th>Proposed Revisions</th></tr>
<tr><td></td><td></td><td></td><td>enterococcus monitoring at REC-1 water quality monitoring stations.</td><td>[4] ~~Enterococcus shall be analyzed using the USEPA Method 1600 or other equivalent method to measure culturable enterococcus density.~~
[4] Total coliform and E. coli are analyzed using the Colilert-18 method and Enterococcus is analyzed using the Enterolert method. Values for E. coli are multiplied by 110% to determine fecal coliform values.</td></tr>
<tr><td>7</td><td>Attachment F - IV.C.3.c
Table F-4
Table F-9
Table F-10
Table F-14
Table F-15</td><td>OC San requests that the Reasonable Potential Analysis (RPA) for TCDD equivalents be revised to reflect corrected TEQ results. OC San believes that the likely result of this reanalysis will be the removal of the proposed changes to TCDD equivalents analysis, allowing OC San to continue the previous practice of analyzing only the effluent sample for TCDD equivalents on a quarterly basis.</td><td>USEPA and the Santa Ana Water Board appreciate receiving the corrected effluent data for TCDD equivalents, including blank sample results, for the period from May 2015 to December 2019. Based on this data review and section VII.A.3 of the previous 2012 permit, USEPA and the Santa Ana Water Board agree that all total TCDD equivalents results should have been reported as “zero” or “not detected” (ND). See the revised Table F-4 of the tentative order/draft permit.

USEPA and the Santa Ana Water Board re-conducted RPA for TCDD equivalents using the corrected data, which resulted in a change of the reasonable potential result from Endpoint 1 (RP) to Endpoint 3 (Inconclusive). According to the California Ocean Plan RPA procedure, the existing effluent limits for TCDD equivalents are retained in the final Order/Permit. Therefore, there is no change in the effluent limits for TCDD</td><td>Table F-4. Historic Water Quality Based Effluent Limitations and Monitoring Data at EFF-001
<table>
<tr><th rowspan="2">Parameter</th><th rowspan="2">Units</th><th colspan="3">Monitoring Data (May 2015 – December 2019)</th></tr>
<tr><th>Highest Average Monthly (or 6-Month Median*)</th><th>Highest Maximum Daily Discharge</th><th>Highest Instantaneous Maximum Discharge</th></tr>
<tr><td rowspan="2">TCDD equivalents</td><td>pg/L</td><td>~~0.983~~ ND</td><td>--</td><td>--</td></tr>
<tr><td>lbs/day</td><td>~~0.000019~~ ND</td><td>--</td><td>--</td></tr>
</table>
c. RPA for Pollutants in Table 3 of the Ocean Plan
Based on the RPA for Discharge Point 001, Endpoint 1 is established for total chlorine residual ~~and TCDD equivalents~~. Consequently, WQBELs for total chlorine residual ~~and TCDD equivalents~~ are included in the Order/Permit and periodic effluent monitoring is also required. … Endpoint 3 with inconclusive results was</td></tr>
</table>

#	Section	Comment	Response	Proposed Revisions
			equivalents as compared to what we proposed in the tentative order/draft permit. Based on the RPA results, Table F-9 and F-10 and section IV.C.3.c of Attachment F have been revised. In addition, the monitoring frequency for TCDD equivalents in both the influent and the effluent has been reduced from monthly to quarterly due to an inconclusive (Endpoint 3) RP finding. Influent monitoring for TCDD equivalents is required to assess the performance of treatment plants and determine the effectiveness of pretreatment program regarding dioxin and dioxin-like compounds.	reported for benzidine, hexachlorobenzene, PCBs, TCDD equivalents, and toxaphene. Consequently, existing WQBELs for these ~~four~~ five pollutants are retained in this Order/Permit and periodic effluent monitoring is also required. This Order/Permit does not include effluent limitations for other pollutants displaying Endpoint 3; instead, monitoring requirements for those pollutants were included. Based on the RPA for Discharge Point 002, Endpoint 1 is established for ammonia (as nitrogen), and total chlorine residual~~, and TCDD equivalents~~. Consequently, WQBELs for ~~these pollutants~~ ammonia and total chlorine residual are included in the Order/Permit and periodic effluent monitoring is also required. … Endpoint 3 with inconclusive results was reported for TCDD equivalents and thus, existing WQBELs and quarterly effluent monitoring for TCDD equivalents are retained in this Order/Permit. This Order/Permit does not include effluent limitations for other pollutants displaying Endpoint 3; instead, monitoring requirements for those pollutants were included. ~~This Order/Permit does not include effluent limitations for pollutants displaying Endpoint 3 with inconclusive results; instead, monitoring requirements for those pollutants were included.~~

Table F-9. Reasonable Potential Analysis for Discharge Point No. 001 (120" Outfall)

Table 3 Pollutant	Most Stringent WQO (µg/L)	No. of Samples	No. of Non-Detects
TCDD Equivalents	3.9×10^{-9}	18	~~9~~ 18
Max Effluent Conc. (µg/L)	**MEC After Mixing (µg/L)**	**Projected 95th Percentile (µg/L)**	**Result**
~~9.83×10^{-7}~~ $<7.0\times10^{-7}$	~~5.43×10^{-9}~~ $<3.9\times10^{-9}$	---	~~Endpoint 1~~ Endpoint 3; WQBEL carry over

Table F-10. Reasonable Potential Analysis for Discharge Point No. 002 (78" Outfall)

Table 3 Pollutant	Most Stringent WQO (µg/L)	No. of Samples	No. of Non-Detects
TCDD Equivalents	3.9×10^{-9}	18	~~9~~ 18
Max Effluent Conc. (µg/L)	**MEC After Mixing (µg/L)**	**Projected 95th Percentile (µg/L)**	**Result**
~~9.83×10^{-7}~~ $<7.0\times10^{-7}$	~~2.66×10^{-8}~~ $<1.9\times10^{-8}$	---	~~Endpoint 1~~ Endpoint 3; WQBEL carry over

<table>
<tr><th>#</th><th>Section</th><th>Comment</th><th>Response</th><th>Proposed Revisions</th></tr>
<tr><td></td><td></td><td></td><td></td><td>Table F-14. Summary of Effluent Limitations – Discharge Point 001 (120” outfall)
<table>
<tr><th>Parameter</th><th>Units</th><th>Average Monthly</th><th>Basis</th></tr>
<tr><td rowspan="2">TCDD Equivalents</td><td>pg/L</td><td>0.7059</td><td rowspan="2">~~RP~~ Inconclusive/ Carry over</td></tr>
<tr><td>lbs/day</td><td>0.0000012</td></tr>
</table>
Table F-15. Summary of Effluent Limitations – Discharge Point 002 (78” outfall)
<table>
<tr><th>Parameter</th><th>Units</th><th>Average Monthly</th><th>Basis</th></tr>
<tr><td rowspan="2">TCDD Equivalents</td><td>pg/L</td><td>0.14430</td><td rowspan="2">~~RP~~ Inconclusive/ Carry over</td></tr>
<tr><td>lbs/day</td><td>0.00000028</td></tr>
</table></td></tr>
<tr><td>8</td><td>Table 6
IV.B.2.b
VI.A.1.a & d
Attachment E
Table E-4
Table E-6
Table E-14
Attachment F
Table F-15</td><td>OC San has used Enterolert to test for enterococci in REC-1, and data is reported in MPN/100 mL. Enterolert (IDEXX) is a USEPA approved culture method under 40 CFR Part 136 for testing of enterococci in ambient water. OC San requests that the Draft Permit be revised to provide the flexibility to report test results for Enterococcus, fecal coliform, and total coliform in either CFU/100mL or MPN/100mL.</td><td>USEPA and the Santa Ana Water Board have reviewed the supporting documents (i.e., Attachments K, L, and M of OC San’s supplemental information package submitted by OC San on March 24, 2021) to examine the comparison of the Enterolert (in MPN/100 mL) and USEPA 1600 (in CFU/100 mL) methods for detection of enterococcus, and have found that no significant difference and high comparability were observed between the two methods. In addition, the 2019 Ocean Plan, Appendix III.10 states that</td><td>A footnote for the flexibility of bacteria density units has been added in Tables 6, E-4, E-6, E-14, and F-15 as below.
Table 6
[7] Results may be reported as either Most Probable Number (MPN)/100 mL if the laboratory method used provides results in MPN/100 mL or Colony Forming Units (CFU)/100 mL if the laboratory method used provides results in CFU/100 mL.
Table E-4
2 ~~USEPA Method 1600 or other equivalent method shall be used to measure culturable enterococci.~~</td></tr>
</table>

#	Section	Comment	Response	Proposed Revisions
			"Test methods used for enterococcus shall be those presented in U.S. EPA 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 Board to be appropriate". Therefore, the permitting authorities are allowing OC San to continue to use the Enterolert test as a method for enterococcus detection in either wastewater or receiving water. Since Enterolert provides a most probable number (MPN) result, the permit was revised to provide the flexibility to report test results for enterococcus in either CFU/100 mL or MPN/100 mL.	Results may be reported as either MPN/100 mL if the laboratory method used provides results in MPN/100 mL or CFU/100 mL if the laboratory method used provides results in CFU/100 mL. **Table E-6** [3] Results may be reported as either MPN/100 mL if the laboratory method used provides results in MPN/100 mL or CFU/100 mL if the laboratory method used provides results in CFU/100 mL. **Table E-14** [3] As specified in 40 CFR § 136, or in the MRP QAPP and Laboratory Quality Manual. [4] Results may be reported as either MPN/100 mL if the laboratory method used provides results in MPN/100 mL or CFU/100 mL if the laboratory method used provides results in CFU/100 mL. [45] Test 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 USEPA pursuant to 40 CFR § 136, or improved methods have been determined by the Executive Officer and/or USEPA [5] ~~*Enterococcus* shall be analyzed using the USEPA Method 1600 or other equivalent method to measure culturable enterococcus density.~~ **Table F-15** [7] Results may be reported as either MPN/100 mL if the laboratory method used provides results in MPN/100 mL or CFU/100 mL if the laboratory

#	Section	Comment	Response	Proposed Revisions
				method used provides results in CFU/100 mL. **Section IV.B.2.b.** Bacteria Water Quality Based Effluent Limitations (WQBELs): … **Fecal Coliform** 1. The 30-day geometric mean of fecal coliform density shall not exceed ~~a Most Probable Number (MPN) of fecal coliform bacteria of~~ 7,400 MPN/100 mL, calculated based on the five most recent samples; and 2. The single sample maximum shall not exceed 14,800 MPN/100 mL. **Enterococcus** 1. The six-week rolling geometric mean of enterococcus bacteria, calculated weekly, shall not exceed 1,110 ~~colony forming units per 100 milliliters (~~CFU/100 mL~~)~~ or MPN/100 mL; and 2. No more than 10 percent of all enterococcus bacteria samples collected in a calendar month shall exceed a statistical threshold value of 4,070 CFU/100 mL or MPN/100 mL. **Section VI.A.1.a.i.** Within a zone… Enterococci 1. A 6-week rolling geometric mean of enterococci, calculated weekly, shall not exceed 30 CFU or MPN per 100 mL. The geometric mean value shall be applied based on a statistically sufficient number of samples, which is generally not less than five samples distributed over a 6-week period.

#	Section	Comment	Response	Proposed Revisions
				2. A statistical threshold value of 110 CFU or MPN per 100 mL shall not be exceeded by more than 10 percent of all enterococci samples collected in a calendar month, calculated in a static manner. **Section VI.A.1.d.** USEPA Recreational Water Quality Criteria (RWQC) … Estimated illness rate of 32 per 1,000 primary contact recreators: A 30-day geometric mean shall not exceed 30 CFU or MPN per 100 mL, which is calculated based on a statistically sufficient number of samples (generally not less than five samples equally spaced over any 30-day period). A statistical threshold value corresponding to the 90th percentile of the same water quality distribution shall not exceed 110 CFU or MPN per 100 mL in the same 30-day interval.
2. County of Orange, OC Public Works				

<table>
<tr>
<td>1-1</td>
<td>Attachment E
Table E-2</td>
<td>Shoreline station locations between the Santa Ana River mouth and Crystal Cove would be better characterized as Newport Beach instead of Bolsa Chica/Huntington Beach.</td>
<td>We updated Table E-2 of the tentative order/draft permit as proposed.</td>
<td>
Table E-2. Receiving Water Core and Regional Monitoring Station Locations
<table>
<tr><th>Station Location Name</th><th>Station Location</th><th>Station Description</th></tr>
<tr><td colspan="3">Orange County Regional Shoreline REC-1 Cooperative Monitoring Program Stations (Nearshore Zone) (n=36)
r = Regional OCHCA station. c = OC San station.
Orange County Regional Shoreline REC-1 stations are monitored at least once per week.
* = These stations are monitored at least twice per week.</td></tr>
<tr><td>3S</td><td><s>Bolsa Chica/ Huntington Beach</s> Newport Beach</td><td>Projection Orange St.</td></tr>
<tr><td>6S</td><td><s>Bolsa Chica/ Huntington Beach</s> Newport Beach</td><td>Projection 52nd/53rd St.</td></tr>
<tr><td>9S</td><td><s>Bolsa Chica/ Huntington Beach</s> Newport Beach</td><td>Projection 38th St.</td></tr>
<tr><td>15S</td><td><s>Bolsa Chica/ Huntington Beach</s> Newport Beach</td><td>Projection of 15th/16th St.</td></tr>
<tr><td>21S</td><td><s>Bolsa Chica/ Huntington Beach</s> Newport Beach</td><td>Upcoast of Balboa Pier</td></tr>
</table>
</td>
</tr>
</table>

<table>
<tr><th>#</th><th>Section</th><th>Comment</th><th>Response</th><th>Proposed Revisions</th></tr>
<tr><td></td><td></td><td></td><td></td><td>
<table>
<tr><td>27S</td><td><s>Bolsa Chica/ Huntington Beach</s> Newport Beach</td><td>The Wedge</td></tr>
<tr><td>29S</td><td><s>Bolsa Chica/ Huntington Beach</s> Newport Beach</td><td>Corona del Mar State Beach</td></tr>
<tr><td>BGC</td><td><s>Bolsa Chica/ Huntington Beach</s> Newport Beach</td><td>Little Corona Beach</td></tr>
<tr><td>PPC</td><td>Newport Beach/ Crystal Cove</td><td>Pelican Point Beach (reef)</td></tr>
<tr><td>39S</td><td>Newport Beach/ Crystal Cove</td><td>Pelican Point (ramp)</td></tr>
<tr><td>WFC</td><td>Newport Beach/ Crystal Cove</td><td>Pelican Hill Waterfall</td></tr>
<tr><td>ONB39</td><td>Newport Beach/ Crystal Cove</td><td>Crystal Cove - Los Trancos</td></tr>
<tr><td>MDC</td><td>Newport Beach/ Crystal Cove</td><td>Muddy Creek Beach (Reef Point)</td></tr>
</table>
</td></tr>
<tr><td>1-2</td><td>Attachment E Table E-2</td><td>Table E-2 identifies the appropriate agency responsible for monitoring at various stations across North Orange County. The County would also recommend that stations HB1, HB2, HB3, HB4, HB5, BGC,</td><td>To avoid any confusion, the Order/Permit will not refer to the Orange County MS4 permit requirements. The Discharger’s participation in the Orange County Regional Shoreline REC-1 Cooperative Monitoring Program is required only to meet the regional</td><td>None.</td></tr>
</table>

#	Section	Comment	Response	Proposed Revisions
		PPC, WFC, and MDC be footnoted as "also satisfies the requirements of the Orange County MS4 permit.	monitoring requirements under this tentative order/draft NPDES permit.	
2	Attachment F - VIII.E	County of Orange requests the inclusion of the following statement in the final Order/Permit. "Collaboration is encouraged across water sectors (water supply, wastewater, groundwater, and stormwater) to evaluate implementation of integrated water resource projects that helps achieve sustainable integrated water resources management consistent with the 2020 California Water Resilience Portfolio."	The proposed statement has been included in the Fact Sheet (Attachment F), section VIII.E of the tentative order/draft permit.	**E. Receiving Water Regional Monitoring** Discharger participation ~~and level of effort~~ in regional monitoring programs continues to be a required condition of the Order/Permit. Regional monitoring programs which must be conducted under the Order/Permit include: Southern California Bight Regional Monitoring Program, Southern California Bight Regional Water Quality Program, Central Regional Kelp Survey, Orange County Regional Shoreline REC-1 Cooperative Monitoring Program, and Ocean Acidification and Hypoxia (OAH) Mooring. The Discharger currently participates in all five programs. For the regional monitoring program, collaboration with other water sectors (e.g., water supply, wastewater, groundwater, and stormwater) is encouraged to evaluate implementation of integrated water resource projects that helps achieve sustainable integrated water resources management.
3. Orange County Coastkeeper ("Coastkeeper")				

I.a	V.A	Orange County Coastkeeper (hereinafter "Coastkeeper") is concerned about the performance goals' lack of enforceability. The Order's exceedance response procedures are nonspecific and lack meaningful enforcement power. There are no further specified requirements for the scope, content, or timing of the investigation and no indication of what happens if exceedances persist even after report. Coastkeeper respectfully requests the Order be modified to establish meaningful enforcement actions for performance goal exceedances.	The performance goals and mass emission benchmarks are based on actual performance and are calculated using the 95th percentile of the final effluent monitoring data from May 2015 through September 2019. Since performance goals are only assigned to a pollutant if the pollutant did not have reasonable potential to exceed the water quality objectives during the preceding permit term, the calculated performance goals are always less than the water quality objectives. As a result, an exceedance of a performance goal does not automatically indicate that there was an exceedance of the water quality objectives. Such an exceedance is not subject to enforcement. The performance goal and mass emission benchmarks are designed to provide an early measure of changes in effluent quality which may substantially increase the toxic pollutant concentration/loading discharged to the marine environment. Consistent with State and federal antidegradation policies, these performance goals and benchmarks are intended to serve as a basis for antidegradation analyses during renewal of the permit. Performance goals and mass emission benchmarks are also designed to encourage consistent treatment performance, recognize normal variations in treatment efficiency and sampling and analytical techniques,	None.

#	Section	Comment	Response	Proposed Revisions
			evaluate its pretreatment program, and minimize pollutant loading. See the Permit Fact Sheet (Attachment F), section V. Pursuant to CWA sections 308 and 402, the Santa Ana Water Board and USEPA are authorized to collect necessary and appropriate information and make regulatory decisions. If the Discharger exceeds the performance goal in two consecutive monitoring periods, an investigation is required. If the Discharger does exceed the water quality objectives for any pollutant, the Santa Ana Water Board and USEPA may reopen the permit at any time to include a final effluent limitation for that pollutant. Because the performance goals are more stringent than the water quality objectives in the California Ocean Plan and they are only applied to pollutants that do not have reasonable potential to exceed the water quality objectives, the performance goals are not considered enforceable limitations for the regulation of the discharge from the treatment facilities. The 2014 California Permit Quality Review also states that "[p]erformance goals are not limits but are used solely for informational purposes and may be used in reopening a permit, if necessary."	

#	Section	Comment	Response	Proposed Revisions
I.b	V.B	Coastkeeper notes that the Order's mass emission benchmarks include at least one instance of a less stringent standard (e.g., selenium) as compared to the 2012 Permit. Coastkeeper respectfully requests the Order be modified to establish more stringent mass emission benchmarks to comply with State and federal antidegradation requirements.	The mass emission benchmarks in the previous 2012 permit were carried over from the 1998 evaluation. In this Order/Permit, we re-evaluated the mass emission benchmarks based on actual effluent data from May 2015 to December 2019 and updated discharge flow using a different approach. The method for calculating performance goals and mass emission benchmarks was significantly modified from the 1998 approach to be more consistent with other ocean dischargers' permits adopted by the Regional Water Boards (e.g., Hyperion permit). See section V of the Permit Fact Sheet (Attachment F). The new mass emission benchmarks in this Order/Permit are therefore not directly comparable with the previous values in the 2012 or earlier permits. Most mass emission benchmarks have significantly reduced due to improved performance by completion of full secondary treatment facilities and implementation of an extensive source control pretreatment program. However, as commented, mass emission benchmarks for some constituents (e.g., selenium) have increased, probably due to the use of more sensitive analytical method with a lower detection limit and increased concentrations in the influent. Despite the elevated mass emissions of some constituents, we believe that the	None.

<table>
<tr><th>#</th><th>Section</th><th>Comment</th><th>Response</th><th>Proposed Revisions</th></tr>
<tr><td></td><td></td><td></td><td>increase of any mass emission benchmarks is not expected to result in additional degradation of water quality since there is no reasonable potential to exceed the water quality objectives for those constituents.</td><td></td></tr>
<tr><td>I.c</td><td>V.A
Table 7</td><td>Coastkeeper requests that parameters with effluent limitations remain within the effluent limitation framework, at least for monthly averages. By way of example, Coastkeeper requests the Table 7 average monthly performance goal for Total Chlorine Residual be removed and replaced with an enforceable average monthly effluent limitation.</td><td>We agree that the constituents with effluent limitations remain within the effluent limitation framework. As requested, the average monthly performance goals for total chlorine residual and radioactivity were removed from the Table 7 of the tentative order/draft permit because effluent limitations for these parameters have been determined.
Since the performance goal is not an enforceable effluent limitation and the California Ocean Plan, Table 3 does not include the 30-day average water quality objective for total chlorine residual, average monthly effluent limitation for total chlorine residual is not required in the Order/Permit.</td><td>Table 7. Performance Goals and Mass Emission Benchmarks – Discharge point 001
<table>
<tr><th>Parameter</th><th>Average Monthly Performance Goals (µg/L)</th><th>12-month Average Mass Emission Benchmarks (MT/yr)</th></tr>
<tr><td colspan="3">Marine Aquatic Life Toxicants</td></tr>
<tr><td>Total Chlorine Residual[3]</td><td>~~133.85~~ --</td><td>38.09</td></tr>
<tr><td>Radioactivity[3]</td><td>[4] --</td><td>--</td></tr>
</table>
[3] Enforceable effluent limitations for these parameters have been determined due to RP.
~~[4] Radioactivity: Based on EPA's 2000 radionuclides rule (65 FR 76707), performance goals for gross alpha, gross beta, combined radium-226/228, uranium are 15 pCi/L, 50 pCi/L, 5 pCi/L, and 30 µg/L, respectively.~~
~~[5] Enforceable average monthly effluent limitations for these parameters have been determined due to RP.~~</td></tr>
</table>

#	Section	Comment	Response	Proposed Revisions
		In addition, Coastkeeper requests the performance goals and mass emission benchmarks be revised to apply to all active and then-operable discharge points, at the least Discharge Point 002 during planned diversions. As Discharge Point 001 reaches end of life, Coastkeeper anticipates Discharge Point 002 may be used more frequently during essential Discharge Point 001 maintenance.	We were not able to calculate the performance goals and mass emission benchmarks for other emergency outfalls, as Discharge Point 002 and Discharge Point 003 did not discharge during the period from May 2015 to December 2019. For the last 10 years, there has been only one-time discharge to Discharge Point 002 in 2012. Since OC San is currently undertaking a comprehensive condition assessment for Discharge Point 001 to ensure this primary outfall maintains a desired level of operation, we do not anticipate Discharge Point 002 to be used more frequently during the next permit term. Therefore, no revisions were made to the tentative order/draft permit.	None.
II	Attachment E - VIII.C.2	The Order describes the discharge of chlorinated effluent resulted in a decline in benthic communities with negative changes observed, which leads to the cessation of continuous disinfection practices at Discharge Point 001 (120" outfall). Since the Discharger continues to use disinfection practices at Discharge Points 002 and 003 to protect human health, Coastkeeper requests the Order be revised to require benthic community testing around	We do not agree that monitoring for benthic community is required for Discharge Point 002. Negative changes in the structure and health of benthic communities were noticed after 4 years of continuous disinfection practices at Discharge Point 001, which was a chronic impact. There has been no discharge to Discharge Point 003 and only one discharge to Discharge Point 002 over the past 10 years. From September 11, 2012 to October 4, 2012 (i.e., 6 weeks), OC San temporarily diverted disinfected secondary treated effluent to Discharge	None.

#	Section	Comment	Response	Proposed Revisions
		Discharge Point 002 in light of ongoing continuous disinfection practices.	Point 002 due to the infrastructure rehabilitation project. We believe that the discharge of chlorinated effluent once in 10 years and for a short period (i.e., up to few weeks) does not negatively impact benthic communities around Discharge Point 002. Even though there is no continuous benthic monitoring around Discharge Point 002, receiving water quality around Discharge Point 002 has been monitored quarterly under the Sothern California Bight water quality monitoring program. OC San also conducted the extensive environmental monitoring program to characterize the temporal and spatial extent of the discharged effluent and anticipated impacts to the receiving water before, during and after 2012 diversion to Discharge Point 002.	
III	Attachment F - II.E. GWRS Final Expansion Project	Coastkeeper supports the planned diversion of approximately 175 MGD from the OC San plants via the Groundwater Replenishment System (“GWRS”) Final Expansion. Coastkeeper applauds the GWRS for its pioneering efforts and believes the GWRS is the most sustainable option for drought resiliency and water affordability.	USEPA and the Santa Ana Water Board appreciate Coastkeeper’s support on the GWRS Final Expansion project.	None.

#	Section	Comment	Response	Proposed Revisions
IV	Attachment E - XI.A. PFAS monitoring	Coastkeeper commends the inclusion of per- and polyfluoroalkyl substance (PFAS) in the Order's Monitoring and Reporting Program. Coastkeeper encourages the SARWQCB and EPA to continuously revise the Order as necessary and permissible to ensure the Order is up to date on the most current PFAS data and legislation.	USEPA and the Santa Ana Water Board appreciate your comments.	None.
4. Staff-Initiated Changes				
1	Attachment E Table E-2	N/A	We revised a footnote in Table E-2, Receiving Water Core Monitoring Stations, to specify sampling stations for nitrate nitrogen.	**Table E-2. Receiving Water Core and Regional Monitoring Station Locations** **Receiving Water Core Monitoring Stations** **Monthly Water Quality Monitoring Stations (n=28)** * = Station sampled for ammonia (NH_3-N) and nitrate nitrogen.

<table>
<tr>
<td>2</td>
<td>Attachment C
Figure C-1
Attachment E
Table E-1</td>
<td>N/A</td>
<td>We received additional information from OC San to clarify future influent monitoring station locations at Treatment Plant No. 2 after GWRS final expansion. There will be additional monitoring station (INF-002A) at Plant No.2 for non-reclaimable influent including SARI influent, Plant No.1 recycle flow, and GWRS Wastestream, which is pending until the GWRS Final Expansion project is complete and the Orange County Water District (OCWD) starts receiving secondary treated wastewater from the Treatment Plant No. 2. We made the change based on information provided by OC San and updated Table E-1 and an associated figure (i.e., Figure C-1) of flow schematic and monitoring locations after GWRS final expansion.</td>
<td>
Table E-1. Monitoring Station Locations
<table>
<tr><th>Monitoring Location Type</th><th>Monitoring Location Name</th><th>Monitoring Location Description</th><th>Latitude</th><th>Longitude</th></tr>
<tr><td colspan="5">Influent Monitoring Stations (n=2)</td></tr>
<tr><td>Reclamation Plant No.1 Influent</td><td>INF-001</td><td>Reclamation Plant No. 1 sampling stations shall be located at each point of inflow to the treatment plant and upstream of any in-plant return flows, where representative samples of the influent can be obtained.</td><td>33° 41.588' N</td><td>117° 56.294' W</td></tr>
<tr><td>Treatment Plant No. 2 Influent
(Before OCWD receives reclaimed water from Plant No.2)</td><td>INF-002</td><td>Treatment Plant No. 2 sampling stations shall be located at each point of inflow to the treatment plant and upstream of any in-plant return flows, where representative samples of the influent can be obtained.</td><td>33° 38.342' N</td><td>117° 57.462' W</td></tr>
</table>
</td>
</tr>
</table>

#	Section	Comment	Response	Proposed Revisions
				Treatment Plant No. 2 Influent (Pending until OCWD receives reclaimed water from Plant No.2) — INF-002 — INF-002 sampling stations shall be located at each point of reclaimable inflow to the Treatment Plant No.2, where representative samples of the reclaimable influent can be obtained. — 33° 38.342' N — 117° 57.462' W
				Treatment Plant No. 2 Influent (Pending until OCWD receives reclaimed water from Plant No.2) — INF-002A — INF-002A sampling station shall be located at a point of non-reclaimable influent from the 78-inch interplant trunkline containing SARI influent, Reclamation Plant No.1 recycle flow, and GWRS wastestream. — 33° 38.317' N — 117° 57.453' W
3	Attachment E Table E-3 Table E-4	N/A	Based on the most recent ELAB Fields of Accreditation Tables 106 and 112 for radionuclides in drinking water and non-potable water, respectively, footnotes 6 of Tables E-3 and footnote 9 of Table E-4 in the tentative order/draft permit were	[6] Radioactivity: The following methods shall be used: USEPA Method 900.0 or Standard Methods 7110B for gross alpha and gross beta; USEPA Method 903.0 or 903.1 for radium-226; USEPA Method 904.0 for radium-228; USEPA Method 906.0 for tritium; USEPA Method 905.0 for strontium-90; and USEPA Method

<table>
<tr><th>#</th><th>Section</th><th>Comment</th><th>Response</th><th>Proposed Revisions</th></tr>
<tr><td></td><td></td><td></td><td>revised to update radioactivity analysis methods.</td><td>908.0, 908.1, or 200.8 for uranium. Analysis for combined radium-226 & 228 shall be conducted only if gross alpha or gross beta results for the same sample exceed the stipulated criteria. If combined radium-226 & 228 exceeds the stipulated criteria, then analyze for tritium, strontium-90, and uranium. Note that as of February 2021, the stipulated criteria for gross alpha, gross beta, and radium-226 & 228 are 15 pCi/L, 50 pCi/L, and 5 pCi/L, respectively. These criteria are prospective, including future changes to any incorporated provisions of federal law, as the changes take effect.</td></tr>
<tr><td>4</td><td>Attachment E Table E-4</td><td>N/A</td><td>As a result of ESA consultation, we included an annual monitoring and reporting requirement for total nitrogen in Table E-4 of the tentative order/draft permit. OC San shall calculate and report annual mass loading of total nitrogen (lbs/year) based on effluent monitoring data of all nitrogen forms including ammonia nitrogen.</td><td>Table E-4. Effluent Monitoring
<table>
<tr><th>Parameter</th><th>Units</th><th>Sample Type</th><th>Minimum Sampling Frequency</th><th>Required Analytical Test Method</th></tr>
<tr><td>Total nitrogen</td><td>lbs/year</td><td>calculated</td><td>1/year</td><td>--</td></tr>
</table></td></tr>
<tr><td>5</td><td>Attachment E - XII.D.2. Biosolids Report</td><td>N/A</td><td>We revised Attachment E, Section XII.D.2 to be consistent with the reporting requirements stated in Attachment G (Biosolids), Section VI.A.</td><td>2. Biosolids Report. By February 19th of each year, the Discharger shall submit an annual biosolids report into USEPA’s CDX electronic reporting system, ~~with a hard copy to the Santa Ana Water Board,~~ with an electronic copy to the Santa Ana Water Board by email at santaana@waterboards.ca.gov, for the period covering the previous calendar year (January 1 through December 31).</td></tr>
</table>

#	Section	Comment	Response	Proposed Revisions
6	Attachment F F- III.C.7	N/A	We revised Fact Sheet (attachment F) section III.C.7 to update the rationale for toxicity monitoring using the TST statistical approach.	**7. Section 403(c) of the Clean Water Act (CWA):** … USEPA and the Santa Ana Water Board are applying the Basin Plan and the Ocean Plan as specified in section III.C.1 and 2 of this Fact Sheet, except for evaluating acute/chronic toxicity for Discharge Points 001 and 002 using the TST statistical approach. ~~Chapter III.F of the Ocean Plan provides for more stringent requirements if necessary, to protect the designated beneficial uses of ocean waters.~~ USEPA has reviewed the previous studies to examine the comparison of ~~the Discharger's chronic~~ toxicity ~~data~~ test results, ~~including use of~~ using the TST and NOEC statistical ~~methods~~ approaches and has determined that use of the TST statistical approach is consistent with the Ocean Plan and CWA § 403(c) in that it provides protection of the designated beneficial uses of ocean waters. TST statistical approach is also used in other NPDES permits for large publicly owned treatment works, including City of Los Angeles. Given the available dilution (i.e. 180), the receiving water monitoring requirements, ~~and~~ the Discharger's analysis of the ocean discharge criteria as part of its application (See Appendix E.1 Ocean Discharge Criteria Response to CWA 403(c)), and USEPA's additional 403(c) analysis, USEPA makes a determination that the discharges authorized in this permit will not cause unreasonable degradation of the marine environment.

ORANGE COUNTY SANITATION DISTRICT
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March 4, 2021

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Julie Song
U.S. EPA Region 9
75 Hawthorne St. WTR 2-3
San Francisco, CA 94105

SUBJECT: Comments on Draft Order No. R8-2021-0010 and NPDES No. CA0110604

The Orange County Sanitation District (OC San; formerly known as OCSD) is submitting the following comments on Tentative Order No. R8-2021-0010 and NPDES No. CA0110604 (Draft Permit) pursuant to USEPA and the Santa Ana Regional Water Quality Control Board's (SARWQCB) Public Notice issued on February 02, 2021. Thank you for the opportunity to provide comments on this Draft Permit, which is critical to the successful operation of the OC San's wastewater treatment facilities.

OC San also appreciates the thoughtful approach taken by USEPA and SARWQCB to develop permit requirements and conditions that recognize OC San's innovative operations, strategic long-range planning, state-of-the-art regional water reuse advancements, and our continuing efforts to safeguard receiving water quality, enhance beneficial uses, and protect public health.

In response to the Public Notice, we respectfully propose eight minor revisions to the Draft Permit to: (1) clarify potential areas of misinterpretation, (2) address unique OC San operational considerations, and (3) ensure that permit requirements are consistent with requirements established in the California Ocean Plan. Table 1 summarizes the revisions proposed by OC San.

Table 1
Summary of Requested Revisions and Clarifications: Tentative Order No. R8-2021-0010

Comment No.	Page of Tentative Order	Permit Section	Issue
1	9	III.K.1	Clarification of term "maximized"
2	36	VIII.A.3	Implement appropriate Ocean Plan language regarding DNQ results
3	E-8	Table E-2	Clarification of receiving water monitoring stations and frequencies
4	E-31/E-36	Table E-3 Table E-4	Clarification of 1,3-dichloropropene monitoring requirements
5	E-30/E-35	Table E-3 Table E-4	Clarification of tributyltin analysis procedures
6	E-45	Table E-6	Proposed use of E.Coli tests in lieu of fecal coliform
7	F-31	Table F-9	Data correction for Reasonable Potential Analysis of 2,3,7,8-TCDD
8	14-16 E-33, E-45, E59, F-49	Table 6 Table E-4 Table E-6 Table E-14 Table F-15	Clarification of bacteriological reporting units

OC San's specific comments on the Draft Permit are presented below. In conjunction with these specific comments, for your ease of review, we have attached a copy of Draft Permit which presents our recommended revisions in track changes format.

Specific Comments:

1. **Draft Permit Section III. Discharge Prohibitions K.1 (Page 9)**

   OC San requests clarification of the term "maximized" under this section. As applied during an emergency event, the maximum hydraulic capacity may be restricted due to a variety of operational circumstances not limited to maintenance activities or preventing infrastructure or equipment damage operating at maximum capacity. For example, although the Orange County Water District's water recycling facilities may be on-line during an emergency event, they may not be operating at their 100 mgd maximum hydraulic capacity due to maintenance activities. In regard to OC San, the flow capacity of the main outfall Discharge point 001 ("120") is 480 mgd; however, operating at this flow capacity could damage the pipe such as the flapper valve/outfall gate. Thus, under this scenario, OC San would put Discharge point 002 (78"/1-mile outfall) in-service if flows were reaching for example 450 mgd and reasonably trending to reach 480 mgd.

   Proposed Revision: To address the varied potential operational issues that may affect discharge capacity, OC San recommends the following revised language: "…. provided that discharges through Discharge Point 001 (120" outfall) and discharges to Orange County Water District (OCWD)'s water recycling facilities are maximized to a functional capacity that is necessary to prevent infrastructure or equipment damage before wastewater is discharged through Discharge Point 002;".

2. **Draft Permit Section VIII. Compliance Determination A.3 (Page 36)**

   Subsection A.3 states **"….** *Individual pollutants of the group will be considered to have a concentration of zero if the constituent is reported as ND or less than the MDL, but considered as a detected value if reported as DNQ".*

   In accordance with Section III.C.8.b of the California Ocean Plan (2019) states:

   > *"Individual pollutants of the group will be considered to have a concentration of zero if the constituent is reported as ND or DNQ".*

   It is appropriate to use California Ocean Plan language to define how DNQ values are applied. DNQ values represent estimated values that lack reliability of values above reportable limits. Generating a sum (which may exceed permit limits) by adding a series of values whose certainty is estimated or questionable does not yield a result which is reliable and is inconsistent with California Ocean Plan requirements. It should be noted that the Pollutant Minimization Program (PMP) requirements of Section VII.C.4.a address circumstances where a DNQ value and detection limit is in excess of a water quality concentration standard.

   Recommended Revision: OC San requests that the proposed language be replaced by the specific language within Section III.C.8.b of the California Ocean Plan.

3. **Draft Permit Attachment E – Table E-2 Receiving Water Core and Regional Monitoring Stations Locations (Page E-8)**

   USEPA had the following question pertaining to this section of the Draft Permit during our initial comments submitted on November 2, 2020:

   > *"I don't understand why the number of stations is 20. Core water quality monitoring stations under this Bight monitoring are now total 16 including 2103-2016, 2203-2206, 2303-2306, and 2403-2406 (4 stations added back)".*

OC San believes there is a misunderstanding about how the Core and Regional water quality stations are sampled and seeks to clarify the sampling schema. OC San samples the 28 Core water quality stations monthly. In the second month of each quarter (Feb May, Aug, and Oct) OC San samples the Regional Monitoring water quality stations (n = 44 in the Draft Permit and see Attachment-A Map). The timing of the Regional sampling is done in coordination with the other POTWs participating in the Regional Monitoring effort. The quarterly Regional sampling occurs within the same week as the Core sampling for data comparability. The Core monitoring is usually completed within a single day and the Regional sampling will occur over two days for a total of three days of monitoring effort per quarterly Regional sampling.

To summarize, in OC San's current permit, the quarterly Regional sampling entailed sampling 38 Regional stations in conjunction with the 28 Core water quality stations (n=66). Under the new permit, OC San will sample the 28 Core and the 44 Regional stations (n=72).

Recommended Revision: None. Provided that the Core and Regional receiving water monitoring scheme is accurately described above, OC San accepts all water quality sampling requirements in the Draft NPDES permit and seeks no changes.

4. Draft Permit Attachment E – Section III, Table E-3 Influent Monitoring (Page E-31) and Table E-4 Effluent Monitoring (Page E-36)

OC San's analytical method separately analyzes 1,3-dichloropropene as cis-1,3-Dichloropropene and trans-1,3-Dichloropropene.

Recommended Revision: OC San requests that a footnote be added to Tables E-3 and E-4 to specify that 1,3-Dichloropropene is the sum of cis- and trans-1,3-dichloropropene.

5. Draft Permit Attachment E – Table E-3. Influent Monitoring (Page E-30) and Table E-4. Effluent Monitoring (Page E-35)

Section I.K of Attachment E requires that laboratories analyzing monitoring samples be accredited by the State Water Board Environmental Laboratory Accreditation Program (ELAP). ELAP, however, does not accredit, certify, or approve any laboratories for the analysis of tributyltin (see OC San's correspondence with ELAP in Attachment-B).

Recommended Revision: To address the fact that ELAP does not accredit or certify laboratories for the analysis of tributyltin, OC San requests one of the following actions from the USEPA/SARWQCB:

1) Provide OC San with a list of laboratories approved for the analysis of tributyltin by the SARWQCB's Executive Officer;

2) Provide an exception within Section I.K of Attachment E that exempts tributyltin analysis from the ELAP certification; or

3) Make a formal request to California ELAP to add tributyltin to ELAP's Field of Accreditation (FOA) forms, so that laboratories can apply for and obtain ELAP accreditation to analyze for tributyltin in wastewater.

6. Draft Permit Attachment E – Table E-6. REC-1 Water Quality Monitoring (Offshore Zone) (Page E-45)

USEPA had responded to our initial comments on November 2, 2020 stating the Draft Permit no longer requires *E. coli*. monitoring and had directed OC San to measure total and fecal coliform density using the approved methods presented in Table 1A of 40 CFR 136, which is the same as effluent bacteria monitoring approaches. Footnote 3 has been added to address test methods for both coliforms. In addition, USEPA provided the following reference:

> "*Test methods used for total and fecal coliforms shall be those presented in Table 1A of 40 CFR § 136, unless alternate methods have been approved in advance by USEPA pursuant to 40 CFR § 136, or improved methods have been determined by the Executive Officer and/or USEPA*."

In review of the 2019 California Ocean Plan, it states that *"Test methods used for enterococcus shall be those presented in U.S. EPA 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 Board to be appropriate. The Regional Water Board may allow analysis for Escherichia coli (E. coli) by approved test methods to be substituted for fecal coliforms if sufficient information exists to support comparability with approved methods and substitute the existing methods"*.

Recommended Revision: Based on this finding, OC San requests that the SARWQCB approve our request to analyze for *E. coli* in lieu of fecal coliforms as done in the past for REC-1 Water Quality Monitoring (Offshore Zone). Colilert-18 (IDEXX) is a USEPA approved method for use in surface waters by testing of total coliforms and *E. coli*, but is not approved for fecal coliforms. Other reasons for requesting use of Colilert-18 include the high throughput of samples and meeting sample holding time (8 hours) which would not be viable using multiple tube fermentation, and in previous OC San's permits the use of *E. coli* was approved as a surrogate to fecal coliform (*E. coli* density is used to convert to fecal coliform density). See historical permit language in Attachment-C.

7. Draft Permit Attachment F – Fact Sheet, section IV.C, Table F-9. (Page F-31)

USEPA had responded during our initial comments on November 2, 2020 recommending checking all TCDD equivalents data with each method blank result and MDL and provide valid results from May 2015 to December 2019 for reconsideration. SARWQCB also stated that the sampling frequency in the new permit represents an increase from four (4) samples per year to 12 samples per year.

OC San reviewed all TCDD equivalent data from the date range suggested by the SARWQCB. OC San found that TCDD equivalent results during the date range in question were not reported appropriately. During the date range in question, all sample results and blank results should have been reported as "0" or "ND". Please see Attachment-D for supporting information. Based on this review, OC San will be resubmitting prior monitoring reports with corrected TCDD sample results that show "0" or "ND".

Regarding the number of annual samples, OC San believes that SARWQCB has miscalculated. SARWQCB may have overlooked the fact that not only did the frequency increase, but the new permit also added monitoring requirements for both influent sampling points in addition to the effluent sampling point.

- *Current Permit: 1 sampling point (Effluent) x Quarterly sampling = 4 Annual Samples.*
- *Proposed Permit: 3 sampling points (Effluent plus both influents) x Monthly Sampling = 36 Annual Samples*

Recommended Revision. OC San requests that the Reasonable Potential Analysis for TCDD equivalents be revised to reflect corrected TEQ results. OC San believes that the likely result of this reanalysis will be the removal of the proposed changes to TCDD equivalents analysis, allowing OC San to continue the previous practice of analyzing only the effluent sample for TCDD equivalents on a quarterly basis. See Attachment-D for technical details of TCDD Equivalents reported results.

8. Draft Permit Multiple Reference to Enterococcus – CFU/100ml: Permit (Page 14-16), Attachment E Monitoring and Reporting (E-33, E-45, E-59), Attachment F – Fact Sheet Table F-15 (F-49)

USEPA had responded to our initial comments on November 2, 2020 disagreeing with OC San's request to change units for Enterolert test be reported in MPN/100ml based on new bacteria objectives in the 2019 California Ocean Plan, *Enterococcus* units were established to be in CFU/100 mL. USEPA recommends using EPA Method 1600 or other equivalent method to measure culturable enterococci.

The 2019 California Ocean Plan states that "US.EPA recommends U.S. EPA Method 1600 or other equivalent method to measure culturable enterococci". Enterolert (IDEXX) is a USEPA approved culture method under 40 CFR Part 136 for testing of enterococci in ambient water. OC San uses Enterolert to test for enterococci in REC-1, and data is reported in MPN/100mL.

Recommended Revision: OC San requests that the Draft Permit be revised to provide the flexibility to report test results for *Enterococcus*, fecal coliform, and total coliform in either CFU/100mL or MPN/100mL. The practice of allowing bacteriological results to be reported in either CFU/100mL or MPN/100mL is consistent with the Los Angeles RWQCB, which has established such requirements within the City of Los Angeles Hyperion NPDES permit (Order No. R4-2017-0045, NPDES CA0110604). See Attachment-E for the City of Los Angeles reporting language on how the two units (MPN/100mL and CFU/100mL) were expressed for total coliform, fecal coliform, and *Enterococcus* throughout their permit.

Attachment-E includes an email correspondence with California ELAP of the State Water Resources Control Board confirming that Enterolert is an approved method. In addition, an FOA table is included that lists Enterolert as an approved method for testing of enterococci in ambient waters (Subgroup Code: 126.019, Analyte Code: 001).

OC San believes that the above-proposed clarifications and revisions are minor and non-substantive in nature and do not constitute a level of significance that warrants reissuance of a revised Tentative Order or establishment of a new public review period. Please be advised that, while all eight comments are important, we respectively request your special attention on Comments 2, 7 and 8, as they represent issues of high priority to OC San.

Thank you again for this opportunity to review the Public Notice Draft Permit. OC San is proud of its successful operations and monitoring program that are dedicated to protecting public health and the environment. In addition, we wish to acknowledge the USEPA and SARWQCB for supporting OC San's role as a responsible and responsive regional resource that offers water quality solutions for a diverse range of stakeholders across water sectors in Orange County.

If you have any questions regarding these comments or require further information, please contact me at (714) 593-7450.

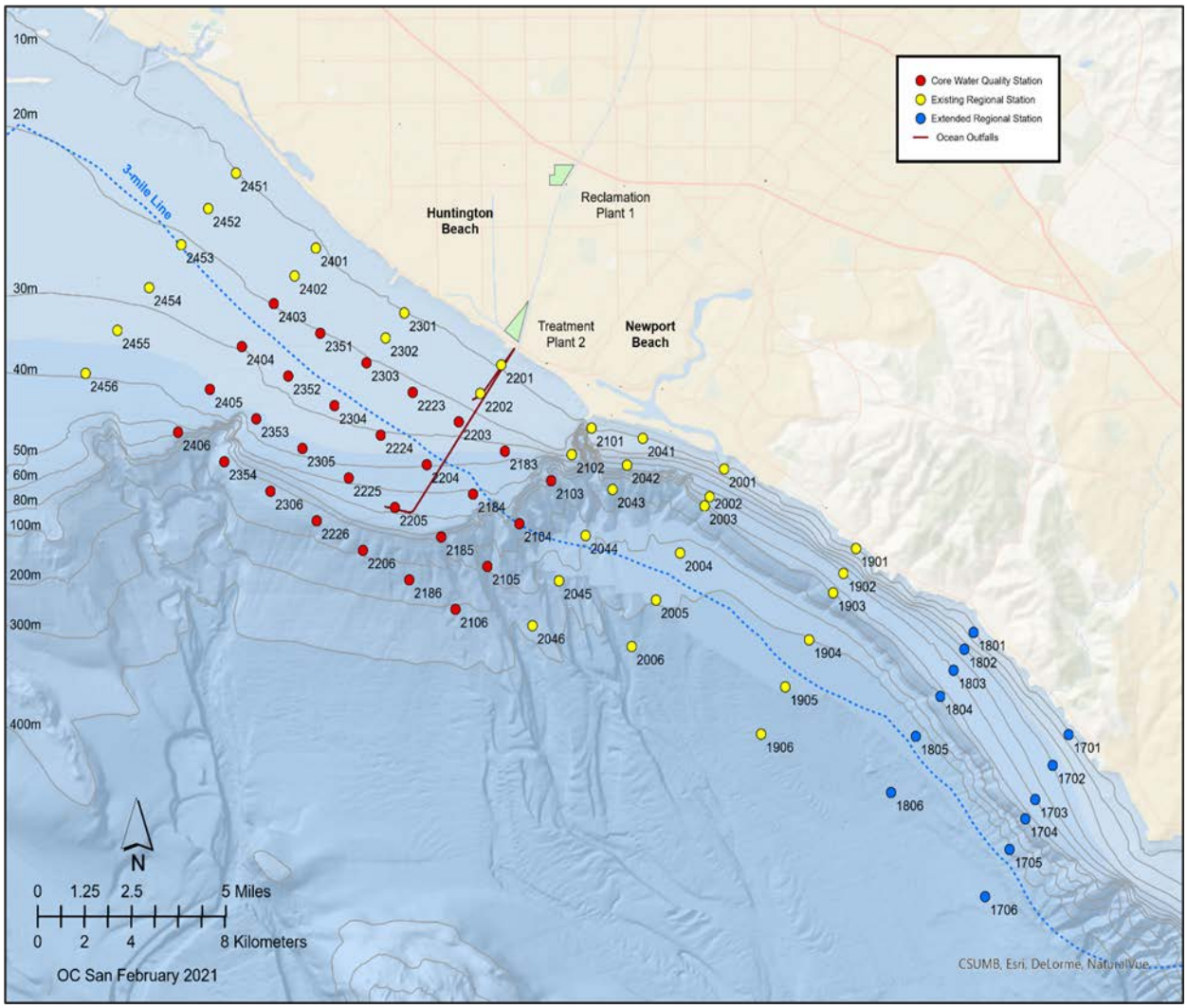
Lan C. Wiborg
Director of Environmental Services

LCW:TM:pe
H:\dept\es\610\Gen_Letters-Memos\2021

Attachments
1) Attachment A – Map
2) Attachment B – ELAP Correspondence
3) Attachment C – E. Coli Density
4) Attachment D – Technical Details of TCDD Equivalents Reported Results
5) Attachment E – Supporting Information for Units for Total Coliform, Fecal Coliform, and Enterococcus
6) Draft Permit copy (all OC San's comments and visual strikeouts)

c: T. Torres (via email)
H. Smythe (via email)
J. Lara (via email)
R. Harris (via email)

ATTACHMENT A – MAP



ATTACHMENT B – ELAP CORRESPONDENCE

EXTERNAL: Re: Labs accredited to analyze tributyltin

Reply | Reply All | Forward | ...

W WB-DWP-ELAPCA_Technical <elapca_technical@waterboards.ca.gov>
To Manzella, Joseph
Cc WB-DWP-ELAPCA_Technical

Mon 2/8/2021 4:40 PM

You forwarded this message on 2/8/2021 5:39 PM.
If there are problems with how this message is displayed, click here to view it in a web browser.

Warning: This email originated from outside OC San. Do not click links or open attachments unless you recognize the sender and are expecting the message.

Hello Joe,

Thank you for contacting ELAP. Some approved methods do not appear on our FOA tables because ELAP only offers accreditation for analytical test methods that have been approved by a California State Regulatory Agency for use for regulatory purpose. Agencies such as the California Department of Toxic Substances Control and the State and Regional Water Quality Control Boards use ELAP accredited laboratory data for environmental and public health decisions and determine which methods are offered for accreditation by ELAP. ELAP advises contacting your customer to discuss selection of methods which are appropriate for the tests needed and, if necessary, request approval for intended use with the appropriate State Regulatory Agency. The State Regulatory Agency will make a formal request to ELAP to update our FOA forms if they determine the method you would like to use meets their data quality objectives.

Thank you,

California Environmental Laboratory Accreditation Program
State Water Resources Control Board
1001 I Street | Sacramento, CA 95814
(916) 323-3431 |elapca@waterboards.ca.gov

For the latest updates on ELAP visit our website atwww.waterboards.ca.gov/elap

Environmental Laboratory Accreditation Program
STATE WATER RESOURCES CONTROL BOARD

From: Manzella, Joseph <JManzella@OCSD.COM>
Sent: Wednesday, February 3, 2021 3:41 PM
To: WB-DWP-ELAPCA <ELAPCA@waterboards.ca.gov>
Subject: Labs accredited to analyze tributyltin

EXTERNAL:

Hello ELAP staff,

Our upcoming NPDES permit requires us to analyze for tributyltin in wastewater. I was unable to find tributyltin on any of the FOT forms I looked at. Does ELAP have a list of laboratories who are accredited to analyze for tributyltin in wastewater?

Thank you,

OCSAN ORANGE COUNTY SANITATION DISTRICT
Joe Manzella
Laboratory, Monitoring and Compliance | Principal Environmental Specialist
Office: 714.593.7490 | www.ocsan.gov

ATTACHMENT C – E. COLI DENSITY

OC San Permit (2012)

ORANGE COUNTY SANITATION DISTRICT
RECLAMATION PLANT NO. 1 AND TREATMENT PLANT NO. 2
ATTACHMENT E – Monitoring and Reporting Program

ORDER NO. R8-2012-0035
NPDES NO. CA0110604
Page E-37

Parameter	Units	Sample Type	Sample Depth	Minimum Sampling Frequency	Required Analytical Test Method
pH	pH units	profile			[2]
Ammonia (NH_3-N)	mg/L	grab	discrete sampling depths in Table E-2		[2]
Total coliform density	MPN/ 100 mL	grab			[2]
Fecal coliform density (calculated)	MPN/ 100 mL	grab			[2]
Enterococcus density	MPN/ 100 mL	grab			[2]
E. coli density (converted to Fecal coliform density)	MPN/ 100 mL	grab			[2]

[1] Wind direction and speed, weather, and sea and tidal condition shall be recorded, with the source(s) of the data documented. Observations of unusual water color, turbidity, odor, oil and grease, or other physical evidence of waste discharge in the water shall be noted on the log sheet prepared at the time of sample collection. These observations shall be recorded whenever a station is sampled.

[2] As specified in the 2011 edition of 40 CFR 136, or in the MRP QAPP and Laboratory QAP. Total coliform and *E. coli* are analyzed using the Colilert-18 method and *Enterococcus* is analyzed using the Enterolert method. Values for *E. coli* are multiplied by 110% to determine fecal coliform values.

OC San Permit (1998)

13. For the Offshore Zone, compliance with Receiving Water Limitation D.1.a.1.b shall be determined by sampling and analyzing for *Escherichia coli* using the ColilertJ Method[15]. When this method is used in lieu of a standard fecal coliform test, values for *E. coli* shall be multiplied by 110% to determine compliance with fecal coliform receiving water limitations.

ATTACHMENT D – Technical Details of TCDD Equivalents Reported Results

After review of all TCDD equivalent data collected between the dates of May 2015 and December 2019, the OC San Quality Assurance team has determined that the data was not reported appropriately to the RWQCB. Two approaches were taken to re-evaluate the data:

1) All TCDD congener results between the detection limit (EDL) and the reporting limit (either PQL or ML) should have been qualified as "DNQ". Any TCDD Congener results qualified as "DNQ" should not be used in the calculation of the total TEQ, in accordance with Permit section VIII.A.3. After review, all TCDD congeners detected in effluent samples and method blanks met the criteria to be qualified as DNQ. Therefore, all total TEQ results for the period between May 2015 and December 2019 should have been reported as "0" or "ND". Results are shown in table 1.
2) If the RWQCB deems it appropriate to include DNQ values in the TEQ calculations, there are still other data validation questions to consider. In several method blanks, TCDD congeners were detected at levels between the EDL and the PQL or ML. In such cases, guidelines published in multiple EPA documents[1,2,3,4] describe the following course of action (paraphrased):

   Any compound detected in the sample that was also detected in any associated blank is not reported if the sample concentration is less than five times (5X) the blank concentration.

   In this case, any numeric results for samples are presented as non-detect if they are less than five times the concentration found in the blank. The resulting total TEQ values are shown in table 2 below. All results are well below the permit limit of 0.706 pg/L.

[1] USEPA Region II: Data Validation SOP for EPA Method 1613, Revision B, SOP HW-25, Revision 3, December 2010; Section 10, Action 3. https://www.epa.gov/sites/production/files/2015-06/documents/SOP_HWSS_25_revision_3.pdf

[2] USEPA Region IV: Data Validation SOP for Chlorinated Dioxin/Furan Analysis by HRGC/HRMS, Revision 7.0, March 2014; Section 5.5. https://www.epa.gov/sites/production/files/2015-06/documents/r4diosop.pdf

[3] USEPA Office of Superfund Remediation and Technology Innovation (OSRTI): National Functional Guidelines for High Resolution Superfunds Methods Data Review, EPA 542-B-16-001, April 2016; Part B, CDD/CDF Data Review, Section V.E.2 and Table 6. https://www.epa.gov/sites/production/files/2016-05/documents/hrsm_nfg.pdf

[4] USEPA Region X: Data Validation and Review Guidelines for PCDD/PCDF Using Method 1613B, and SW 846 Method 8290A, EPA-910-R-14-003, May 2014; Section 6.15, Action 1. https://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=P100JJP7.TXT

Table 1: Total TEQ results calculated in accordance with NPDES Permit section VIII.A.3.

Sample Number	Sampled Date	Total TEQ result	Units
1845996	7/7/2015	0	pg/L
1866375	10/6/2015	0	pg/L
1885939	01/05/2016	0	pg/L
1902576	04/05/2016	0	pg/L
1922735	07/05/2016	0	pg/L
1940726	10/4/2016	0	pg/L
1959045	01/03/2017	0	pg/L
1977341	04/04/2017	0	pg/L
1995315	07/05/2017	0	pg/L
2014305	10/03/2017	0	pg/L
2035417	01/09/2018	0	pg/L
2053219	04/03/2018	0	pg/L
2072848	07/10/2018	0	pg/L
2091360	10/02/2018	0	pg/L
2111567	01/08/2019	0	pg/L
2130424	04/02/2019	0	pg/L
2151764	07/02/2019	0	pg/L
2172722	10/01/2019	0	pg/L

Complete raw data showing all TCDD congener values, along with associated detection limits and reporting limits, can be examined in the Excel file provided.

Table 2: Total TEQ results calculated using DNQ values, with blank values treated in accordance with EPA method 1613B validation SOP.

Sample Number	Sampled Date	Total TEQ result	Units
1845996	7/7/2015	0	pg/L
1866375	10/6/2015	0	pg/L
1885939	01/05/2016	0	pg/L
1902576	04/05/2016	0	pg/L
1922735	07/05/2016	0	pg/L
1940726	10/4/2016	0	pg/L
1959045	01/03/2017	0.000492	pg/L
1977341	04/04/2017	0.000489	pg/L
1995315	07/05/2017	0	pg/L
2014305	10/03/2017	0.0139	pg/L
2035417	01/09/2018	0	pg/L
2053219	04/03/2018	0.00210	pg/L
2072848	07/10/2018	0	pg/L
2091360	10/02/2018	0	pg/L
2111567	01/08/2019	0	pg/L
2130424	04/02/2019	0	pg/L
2151764	07/02/2019	0	pg/L
2172722	10/01/2019	0	pg/L

Complete raw data showing all TCDD congener values, along with associated detection limits and reporting limits, can be examined in Excel file provided.

ATTACHMENT E – Supporting Information for Units for Total Coliform, Fecal Coliform, and Enterococcus

1) Email Correspondence with ELAP

RE: EXTERNAL: RE: Question on Enterolert (IDEXX) for Testing of Ambient Water

Choi, Samuel
To Oaxaca, Jacob@Waterboards

Hi Jacob,

thank you for the response!
I looked at the FOT list and confirmed the Enterolert test is approved for ambient water.
Thank you and have a great weekend!

Sam

Table 126: Microbiological Methods for Ambient Water
Fields of Accreditation in Ambient Water

Laboratory Name:
Certificate #:

Please refer to footnotes at the end of this Table

Subgroup Code	Analyte Code	Method	Analyte	Technology	Enter Y for Selection
126.015	001	SM 9223 B-2004 Colilert	E. coli (Enumeration)	Enzyme substrate	
126.017	001	SM 9223 B-2004 Colilert 18	E. coli (Enumeration)	Enzyme substrate	
126.019	001	Enterolert	Enterococci	Enzyme substrate	
126.021	001	m-ColiBlue24	E. coli (Enumeration)	MF	
126.023	001	EPA 1103.1	E. coli (Enumeration)	MF	
126.025	001	EPA 1106.1	Enterococci	MF	
126.027	001	EPA 1600	Enterococci	MF	
126.029	001	EPA 1603	E. coli (Enumeration)	MF	

From: Oaxaca, Jacob@Waterboards <Jacob.Oaxaca@Waterboards.ca.gov>
Sent: Friday, February 12, 2021 3:57 PM
To: Choi, Samuel <SChoi@OCSD.COM>
Subject: EXTERNAL: RE: Question on Enterolert (IDEXX) for Testing of Ambient Water

Warning: This email originated from outside OC San. Do not click links or open attachments unless you recognize the sender and are expecting the message.

I got your email below and I'm looking at ELAP's method offerings under FOA Table 126 which includes Enterolert (IDEXX) for testing of enterococci.

Take a look at the FOA table and let me know if that addresses your needs.

Thanks,

Jacob

From: Choi, Samuel <SChoi@OCSD.COM>
Sent: Thursday, February 11, 2021 1:40 PM
To: Oaxaca, Jacob@Waterboards <Jacob.Oaxaca@Waterboards.ca.gov>
Subject: Question on Enterolert (IDEXX) for Testing of Ambient Water

EXTERNAL:

Hi Jacob,
I hope you're doing well!
I wanted to ask if you could confirm that ELAP recognizes Enterolert (IDEXX) method as an approved method for testing of enterococci in ambient water (specifically ocean water)?
I know it's listed as an EPA approved method under 40 CFR 136 (Table 1A), but wanted to verify with ELAP.
Thank you!
Sam

2. Table 126: Microbiological Methods for Ambient Water Fields of Accreditation in Ambient Water

Laboratory Name:
Certificate #:

Please refer to footnotes at the end of this Table

Subgroup Code	Analyte Code	Method	Analyte	Technology	Enter Y for Selection
126.001	001	SM 9213 D-2007	E. coli (Enumeration)	MF	
126.003	001	SM 9221 B,C-2006	Total Coliform (Enumeration)	MTF	
126.003	002	SM 9221 C,E-2006	Fecal Coliform (Enumeration)	MTF	
126.003	003	SM 9221 C,F-2006	E. coli (Enumeration)	MTF	
126.005	001	SM 9222 B-2006	Total Coliform (Enumeration)	MF	
126.005	002	SM 9222 B-2006	E. coli (Enumeration)	MF	
126.005	003	SM 9222 D-2006	Fecal Coliform (Enumeration)	MF	
126.005	004	SM 9222 G-2006	E. coli (Enumeration)	MF	
126.009	001	SM 9230 B-2007	Fecal Streptococci	MTF	
126.011	001	SM 9230 C-2007	Enterococci	MF	
126.011	002	SM 9230 C-2007	Fecal Streptococci	MF	
126.013	001	SM 9230 D-2007	Enterococci	MTF	
126.015	001	SM 9223 B-2004 Colilert	E. coli (Enumeration)	Enzyme substrate	
126.017	001	SM 9223 B-2004 Colilert 18	E. coli (Enumeration)	Enzyme substrate	
126.019	**001**	**Enterolert**	**Enterococci**	**Enzyme substrate**	
126.021	001	m-ColiBlue24	E. coli (Enumeration)	MF	
126.023	001	EPA 1103.1	E. coli (Enumeration)	MF	
126.025	001	EPA 1106.1	Enterococci	MF	
126.027	001	EPA 1600	Enterococci	MF	
126.029	001	EPA 1603	E. coli (Enumeration)	MF	
126.031	001	EPA 1604	E. coli (Enumeration)	MF	

Footnotes:

Laboratories are required to check with all of the CA ELAP approved PT providers to find a PT study.

Where PTs are available, laboratories are required to participate in PT studies for the matrix selected.

Water Pollution PT studies are required for aqueous matrices.

3) Example Language from City of Los Angeles Hyperion NPDES Permit

VIII. RECEIVING WATER MONITORING REQUIREMENTS

All receiving water stations shall be located by state-of-the-art navigational methods (e.g. DGPS); other means (e.g. visual triangulation, fathometer readings) may be used to improve the accuracy of locating stations.

A. Inshore Water Quality Monitoring

This monitoring is designed to determine if Ocean Plan and Basin Plan objectives for bacteria are being met. Data collected at inshore stations provide the means to determine whether bacteriological objectives for water contact and shellfish harvesting are being met in the area of greatest potential for water contact and shellfish harvesting activities most proximal to the points of discharge.

The Permittee shall monitor the 11 inshore stations listed in Table E-2 (See Figure E-1) of this MRP for the following parameters:

Table E-9. Inshore Microbiological Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Total coliform	CFU/100 mL or MPN/100mL	Grab at surface and midwater	Annually (summer)[29]	30
Fecal coliform	CFU/100 mL or MPN/100mL	Grab at surface and midwater	Annually (summer)[29]	30
Enterococcus	CFU/100 mL or MPN/100mL	Grab at surface and midwater	Annually (summer)[29]	30

Table E-10. Offshore Water Quality Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Dissolved oxygen	mg/L	continuous profile[31]	Quarterly	32
Temperature	°C	continuous profile[31]	Quarterly	32
Salinity	ppt	continuous profile[31]	Quarterly	32
Transmissivity	% transmittance	continuous profile[31]	Quarterly	32
Chlorophyll a	µg/L	continuous profile[31]	Quarterly	32
pH	pH units	continuous profile[31]	Quarterly	32
Ammonia	µg/L	discrete sampling at specified depth[33]	Quarterly	32
Fecal coliform	CFU/100 mL or MPN/100mL	discrete sampling at specified depth[33]	Quarterly	32
Total coliform	CFU/100 mL or MPN/100mL	discrete sampling at specified depth[33]	Quarterly	32
Enterococcus	CFU/100 mL or MPN/100mL	discrete sampling at specified depth[33]	Quarterly	32
Visual observations[34]	---	---	Quarterly	---

SAMPLE_NUMBER	SAMPLING_POINT	SAMPLED_DATE	ANALYSIS	NAME	FORMATTED_ENTRY	UNITS	EDL or MDL	RL	OCSD_QUALIFIER
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	Analysis Date	07/22/2015	NONE	0		
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	Extraction Date	07/13/2015	NONE	0		
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	1,2,3,4,6,7,8-HpCDD	ND	PG_L	4	41.7	
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	1,2,3,4,6,7,8-HpCDD TEQ	0.00	PG_L	0		
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	1,2,3,4,6,7,8-HpCDF	ND	PG_L	4	41.7	
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	1,2,3,4,6,7,8-HpCDF TEQ	0.00	PG_L	0		
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	1,2,3,4,7,8,9-HpCDF	ND	PG_L	4	41.7	
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	1,2,3,4,7,8,9-HpCDF TEQ	0.00	PG_L	0		
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	1,2,3,4,7,8-HxCDD	ND	PG_L	4	41.7	
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	1,2,3,4,7,8-HxCDD TEQ	0.00	PG_L	0		
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	1,2,3,4,7,8-HxCDF	ND	PG_L	4	41.7	
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	1,2,3,4,7,8-HxCDF TEQ	0.00	PG_L	0		
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	1,2,3,6,7,8-HxCDD	ND	PG_L	4	41.7	
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	1,2,3,6,7,8-HxCDD TEQ	0.00	PG_L	0		
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	1,2,3,6,7,8-HxCDF	ND	PG_L	4	41.7	
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	1,2,3,6,7,8-HxCDF TEQ	0.00	PG_L	0		
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	1,2,3,7,8,9-HxCDD	ND	PG_L	4	41.7	
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	1,2,3,7,8,9-HxCDD TEQ	0.00	PG_L	0		
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	1,2,3,7,8,9-HxCDF	ND	PG_L	4	41.7	
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	1,2,3,7,8,9-HxCDF TEQ	0.00	PG_L	0		
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	1,2,3,7,8-PeCDD	ND	PG_L	4	41.7	
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	1,2,3,7,8-PeCDD TEQ	0.00	PG_L	0		
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	1,2,3,7,8-PeCDF	ND	PG_L	4	41.7	
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	1,2,3,7,8-PeCDF TEQ	0.00	PG_L	0		
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	2,3,4,6,7,8-HxCDF	ND	PG_L	4	41.7	
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	2,3,4,6,7,8-HxCDF TEQ	0.00	PG_L	0		
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	2,3,4,7,8-PeCDF	ND	PG_L	4	41.7	
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	2,3,4,7,8-PeCDF TEQ	0.00	PG_L	0		
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	2,3,7,8-TCDD	ND	PG_L	4	8.33	
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	2,3,7,8-TCDD TEQ	0.00	PG_L	0		
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	2,3,7,8-TCDF	ND	PG_L	4	8.33	
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	2,3,7,8-TCDF TEQ	0.00	PG_L	0		
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	OCDD	ND	PG_L	8	83.3	
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	OCDD TEQ	0.00	PG_L	0		
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	OCDF	ND	PG_L	8	83.3	
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	OCDF TEQ	0.00	PG_L	0		
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	Total HpCDD	ND	PG_L	4	41.7	
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	Total HpCDF	ND	PG_L	4	41.7	
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	Total HxCDD	ND	PG_L	4	41.7	
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	Total HxCDF	ND	PG_L	4	41.7	
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	Total PeCDD	ND	PG_L	4	41.7	
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	Total PeCDF	ND	PG_L	4	41.7	
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	Total TCDD	ND	PG_L	4	8.33	
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	Total TCDF	ND	PG_L	4	8.33	
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	Total TEQ	0.00	PG_L	0		
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	Analysis Date	10/17/2015	NONE	0		
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	Extraction Date	10/13/2015	NONE	0		
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	1,2,3,4,6,7,8-HpCDD	ND	PG_L	4	54.9	
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	1,2,3,4,6,7,8-HpCDD TEQ	0.00	PG_L	0		
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	1,2,3,4,6,7,8-HpCDF	ND	PG_L	4	54.9	
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	1,2,3,4,6,7,8-HpCDF TEQ	0.00	PG_L	0		
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	1,2,3,4,7,8,9-HpCDF	ND	PG_L	4	54.9	
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	1,2,3,4,7,8,9-HpCDF TEQ	0.00	PG_L	0		
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	1,2,3,4,7,8-HxCDD	ND	PG_L	4	54.9	
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	1,2,3,4,7,8-HxCDD TEQ	0.00	PG_L	0		
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	1,2,3,4,7,8-HxCDF	ND	PG_L	4	54.9	
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	1,2,3,4,7,8-HxCDF TEQ	0.00	PG_L	0		
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	1,2,3,6,7,8-HxCDD	ND	PG_L	4	54.9	
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	1,2,3,6,7,8-HxCDD TEQ	0.00	PG_L	0		
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	1,2,3,6,7,8-HxCDF	ND	PG_L	4	54.9	
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	1,2,3,6,7,8-HxCDF TEQ	0.00	PG_L	0		
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	1,2,3,7,8,9-HxCDD	ND	PG_L	4	54.9	
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	1,2,3,7,8,9-HxCDD TEQ	0.00	PG_L	0		
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	1,2,3,7,8,9-HxCDF	ND	PG_L	4	54.9	
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	1,2,3,7,8,9-HxCDF TEQ	0.00	PG_L	0		
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	1,2,3,7,8-PeCDD	ND	PG_L	4	54.9	
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	1,2,3,7,8-PeCDD TEQ	0.00	PG_L	0		
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	1,2,3,7,8-PeCDF	ND	PG_L	4	54.9	
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	1,2,3,7,8-PeCDF TEQ	0.00	PG_L	0		
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	2,3,4,6,7,8-HxCDF	ND	PG_L	4	54.9	
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	2,3,4,6,7,8-HxCDF TEQ	0.00	PG_L	0		
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	2,3,4,7,8-PeCDF	ND	PG_L	4	54.9	
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	2,3,4,7,8-PeCDF TEQ	0.00	PG_L	0		
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	2,3,7,8-TCDD	ND	PG_L	4	11.0	
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	2,3,7,8-TCDD TEQ	0.00	PG_L	0		
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	2,3,7,8-TCDF	ND	PG_L	4	11.0	
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	2,3,7,8-TCDF TEQ	0.00	PG_L	0		
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	OCDD	ND	PG_L	8	110	
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	OCDD TEQ	0.00	PG_L	0		

1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	OCDF	ND	PG_L	8	110	
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	OCDF TEQ	0.00	PG_L	0		
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	Total HpCDD	ND	PG_L	4	54.9	
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	Total HpCDF	ND	PG_L	4	54.9	
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	Total HxCDD	ND	PG_L	4	54.9	
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	Total HxCDF	ND	PG_L	4	54.9	
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	Total PeCDD	ND	PG_L	4	54.9	
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	Total PeCDF	ND	PG_L	4	54.9	
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	Total TCDD	ND	PG_L	4	11.0	
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	Total TCDF	ND	PG_L	4	11.0	
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	Total TEQ	0.00	PG_L	0		
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	Analysis Date	01/20/2016 12:00:00 AM	NONE	0		
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	1,2,3,4,6,7,8-HpCDD	ND	PG_L	4	25.0	
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	1,2,3,4,6,7,8-HpCDD TEQ	0.00	PG_L	0		
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	1,2,3,4,6,7,8-HpCDF	ND	PG_L	4	25.0	
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	1,2,3,4,6,7,8-HpCDF TEQ	0.00	PG_L	0		
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	1,2,3,4,7,8,9-HpCDF	ND	PG_L	4	25.0	
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	1,2,3,4,7,8,9-HpCDF TEQ	0.00	PG_L	0		
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	1,2,3,4,7,8-HxCDD	ND	PG_L	4	25.0	
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	1,2,3,4,7,8-HxCDD TEQ	0.00	PG_L	0		
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	1,2,3,4,7,8-HxCDF	ND	PG_L	4	25.0	
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	1,2,3,4,7,8-HxCDF TEQ	0.00	PG_L	0		
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	1,2,3,6,7,8-HxCDD	ND	PG_L	4	25.0	
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	1,2,3,6,7,8-HxCDD TEQ	0.00	PG_L	0		
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	1,2,3,6,7,8-HxCDF	ND	PG_L	4	25.0	
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	1,2,3,6,7,8-HxCDF TEQ	0.00	PG_L	0		
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	1,2,3,7,8,9-HxCDD	ND	PG_L	4	25.0	
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	1,2,3,7,8,9-HxCDD TEQ	0.00	PG_L	0		
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	1,2,3,7,8,9-HxCDF	ND	PG_L	4	25.0	
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	1,2,3,7,8,9-HxCDF TEQ	0.00	PG_L	0		
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	1,2,3,7,8-PeCDD	ND	PG_L	4	25.0	
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	1,2,3,7,8-PeCDD TEQ	0.00	PG_L	0		
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	1,2,3,7,8-PeCDF	ND	PG_L	4	25.0	
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	1,2,3,7,8-PeCDF TEQ	0.00	PG_L	0		
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	2,3,4,6,7,8-HxCDF	ND	PG_L	4	25.0	
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	2,3,4,6,7,8-HxCDF TEQ	0.00	PG_L	0		
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	2,3,4,7,8-PeCDF	ND	PG_L	4	25.0	
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	2,3,4,7,8-PeCDF TEQ	0.00	PG_L	0		
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	2,3,7,8-TCDD	ND	PG_L	4	5.00	
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	2,3,7,8-TCDD TEQ	0.00	PG_L	0		
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	2,3,7,8-TCDF	ND	PG_L	4	5.00	
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	2,3,7,8-TCDF TEQ	0.00	PG_L	0		
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	OCDD	ND	PG_L	8	50.0	
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	OCDD TEQ	0.00	PG_L	0		
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	OCDF	ND	PG_L	8	50.0	
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	OCDF TEQ	0.00	PG_L	0		
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	Total HpCDD	ND	PG_L	4	25.0	
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	Total HpCDF	ND	PG_L	4	25.0	
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	Total HxCDD	ND	PG_L	4	25.0	
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	Total HxCDF	ND	PG_L	4	25.0	
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	Total PeCDD	ND	PG_L	4	25.0	
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	Total PeCDF	ND	PG_L	4	25.0	
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	Total TCDD	ND	PG_L	4	5.00	
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	Total TCDF	ND	PG_L	4	5.00	
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	Total TEQ	0.00	PG_L	0		
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	Analysis Date	04/17/2016	NONE	0		
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	Extraction Date	04/13/2016	NONE	0		
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	1,2,3,4,6,7,8-HpCDD	ND	PG_L	4	25.0	
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	1,2,3,4,6,7,8-HpCDD TEQ	0.00	PG_L	0		
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	1,2,3,4,6,7,8-HpCDF	ND	PG_L	4	25.0	
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	1,2,3,4,6,7,8-HpCDF TEQ	0.00	PG_L	0		
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	1,2,3,4,7,8,9-HpCDF	ND	PG_L	4	25.0	
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	1,2,3,4,7,8,9-HpCDF TEQ	0.00	PG_L	0		
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	1,2,3,4,7,8-HxCDD	ND	PG_L	4	25.0	
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	1,2,3,4,7,8-HxCDD TEQ	0.00	PG_L	0		
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	1,2,3,4,7,8-HxCDF	ND	PG_L	4	25.0	
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	1,2,3,4,7,8-HxCDF TEQ	0.00	PG_L	0		
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	1,2,3,6,7,8-HxCDD	ND	PG_L	4	25.0	
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	1,2,3,6,7,8-HxCDD TEQ	0.00	PG_L	0		
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	1,2,3,6,7,8-HxCDF	ND	PG_L	4	25.0	
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	1,2,3,6,7,8-HxCDF TEQ	0.00	PG_L	0		
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	1,2,3,7,8,9-HxCDD	ND	PG_L	4	25.0	
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	1,2,3,7,8,9-HxCDD TEQ	0.00	PG_L	0		
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	1,2,3,7,8,9-HxCDF	ND	PG_L	4	25.0	
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	1,2,3,7,8,9-HxCDF TEQ	0.00	PG_L	0		
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	1,2,3,7,8-PeCDD	ND	PG_L	4	25.0	
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	1,2,3,7,8-PeCDD TEQ	0.00	PG_L	0		
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	1,2,3,7,8-PeCDF	ND	PG_L	4	25.0	
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	1,2,3,7,8-PeCDF TEQ	0.00	PG_L	0		
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	2,3,4,6,7,8-HxCDF	ND	PG_L	4	25.0	

1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	2,3,4,6,7,8-HxCDF TEQ	0.00	PG_L	0	
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	2,3,4,7,8-PeCDF	ND	PG_L	4	25.0
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	2,3,4,7,8-PeCDF TEQ	0.00	PG_L	0	
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	2,3,7,8-TCDD	ND	PG_L	4	5.00
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	2,3,7,8-TCDD TEQ	0.00	PG_L	0	
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	2,3,7,8-TCDF	ND	PG_L	4	5.00
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	2,3,7,8-TCDF TEQ	0.00	PG_L	0	
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	OCDD	ND	PG_L	8	50.0
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	OCDD TEQ	0.000945	PG_L	0	
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	OCDF	ND	PG_L	8	50.0
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	OCDF TEQ	0.00	PG_L	0	
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	Total HpCDD	ND	PG_L	4	25.0
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	Total HpCDF	ND	PG_L	4	25.0
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	Total HxCDD	ND	PG_L	4	25.0
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	Total HxCDF	ND	PG_L	4	25.0
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	Total PeCDD	ND	PG_L	4	25.0
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	Total PeCDF	ND	PG_L	4	25.0
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	Total TCDD	ND	PG_L	4	5.00
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	Total TCDF	ND	PG_L	4	5.00
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	Total TEQ	0.000945	PG_L	0	
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	Analysis Date	07/21/2016	NONE	0	
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	Extraction Date	07/19/2016	NONE	0	
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	1,2,3,4,6,7,8-HpCDD	ND	PG_L	4	25.0
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	1,2,3,4,6,7,8-HpCDD TEQ	0	PG_L	0	
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	1,2,3,4,6,7,8-HpCDF	ND	PG_L	4	25.0
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	1,2,3,4,6,7,8-HpCDF TEQ	0	PG_L	0	
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	1,2,3,4,7,8,9-HpCDF	ND	PG_L	4	25.0
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	1,2,3,4,7,8,9-HpCDF TEQ	0	PG_L	0	
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	1,2,3,4,7,8-HxCDD	ND	PG_L	4	25.0
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	1,2,3,4,7,8-HxCDD TEQ	0	PG_L	0	
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	1,2,3,4,7,8-HxCDF	ND	PG_L	4	25.0
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	1,2,3,4,7,8-HxCDF TEQ	0	PG_L	0	
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	1,2,3,6,7,8-HxCDD	ND	PG_L	4	25.0
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	1,2,3,6,7,8-HxCDD TEQ	0	PG_L	0	
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	1,2,3,6,7,8-HxCDF	ND	PG_L	4	25.0
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	1,2,3,6,7,8-HxCDF TEQ	0	PG_L	0	
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	1,2,3,7,8,9-HxCDD	ND	PG_L	4	25.0
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	1,2,3,7,8,9-HxCDD TEQ	0	PG_L	0	
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	1,2,3,7,8,9-HxCDF	ND	PG_L	4	25.0
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	1,2,3,7,8,9-HxCDF TEQ	0	PG_L	0	
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	1,2,3,7,8-PeCDD	ND	PG_L	4	25.0
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	1,2,3,7,8-PeCDD TEQ	0	PG_L	0	
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	1,2,3,7,8-PeCDF	ND	PG_L	4	25.0
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	1,2,3,7,8-PeCDF TEQ	0	PG_L	0	
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	2,3,4,6,7,8-HxCDF	ND	PG_L	4	25.0
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	2,3,4,6,7,8-HxCDF TEQ	0	PG_L	0	
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	2,3,4,7,8-PeCDF	ND	PG_L	4	25.0
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	2,3,4,7,8-PeCDF TEQ	0	PG_L	0	
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	2,3,7,8-TCDD	ND	PG_L	4	5.00
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	2,3,7,8-TCDD TEQ	0	PG_L	0	
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	2,3,7,8-TCDF	ND	PG_L	4	5.00
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	2,3,7,8-TCDF TEQ	0	PG_L	0	
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	OCDD	ND	PG_L	8	50.0
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	OCDD TEQ	0	PG_L	0	
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	OCDF	ND	PG_L	8	50.0
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	OCDF TEQ	0	PG_L	0	
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	Total HpCDD	ND	PG_L	4	25.0
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	Total HpCDF	ND	PG_L	4	25.0
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	Total HxCDD	ND	PG_L	4	25.0
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	Total HxCDF	ND	PG_L	4	25.0
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	Total PeCDD	ND	PG_L	4	25.0
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	Total PeCDF	ND	PG_L	4	25.0
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	Total TCDD	ND	PG_L	4	5.00
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	Total TCDF	ND	PG_L	4	5.00
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	Total TEQ	0	PG_L	0.7	34.5
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	Analysis Date	10/29/2016 12:00:00 AM	NONE	0	
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	Dilution factor	1	NONE	0	
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	Extraction Date	10/20/2016	NONE	0	
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	1,2,3,4,6,7,8-HpCDD	ND	PG_L	1.23	55.6
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	1,2,3,4,6,7,8-HpCDD TEQ	0	PG_L	0	
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	1,2,3,4,6,7,8-HpCDF	ND	PG_L	1.2	55.6
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	1,2,3,4,6,7,8-HpCDF TEQ	0	PG_L	0	
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	1,2,3,4,7,8,9-HpCDF	ND	PG_L	1.16	55.6
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	1,2,3,4,7,8,9-HpCDF TEQ	0	PG_L	0	
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	1,2,3,4,7,8-HxCDD	ND	PG_L	1.42	55.6
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	1,2,3,4,7,8-HxCDD TEQ	0	PG_L	0	
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	1,2,3,4,7,8-HxCDF	ND	PG_L	1.39	55.6
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	1,2,3,4,7,8-HxCDF TEQ	0	PG_L	0	
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	1,2,3,6,7,8-HxCDD	ND	PG_L	1.43	55.6
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	1,2,3,6,7,8-HxCDD TEQ	0	PG_L	0	

1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	1,2,3,6,7,8-HxCDF	ND	PG_L	1.42	55.6	
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	1,2,3,6,7,8-HxCDF TEQ	0	PG_L	0		
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	1,2,3,7,8,9-HxCDD	ND	PG_L	1.38	55.6	
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	1,2,3,7,8,9-HxCDD TEQ	0	PG_L	0		
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	1,2,3,7,8,9-HxCDF	ND	PG_L	1.38	55.6	
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	1,2,3,7,8,9-HxCDF TEQ	0	PG_L	0		
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	1,2,3,7,8-PeCDD	ND	PG_L	1.44	55.6	
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	1,2,3,7,8-PeCDD TEQ	0	PG_L	0		
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	1,2,3,7,8-PeCDF	ND	PG_L	1.02	55.6	
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	1,2,3,7,8-PeCDF TEQ	0	PG_L	0		
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	2,3,4,6,7,8-HxCDF	ND	PG_L	1.32	55.6	
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	2,3,4,6,7,8-HxCDF TEQ	0	PG_L	0		
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	2,3,4,7,8-PeCDF	ND	PG_L	1.01	55.6	
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	2,3,4,7,8-PeCDF TEQ	0	PG_L	0		
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	2,3,7,8-TCDD	ND	PG_L	1.28	11.1	
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	2,3,7,8-TCDD TEQ	0	PG_L	0		
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	2,3,7,8-TCDF	ND	PG_L	1.56	11.1	
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	2,3,7,8-TCDF TEQ	0	PG_L	0		
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	OCDD	ND	PG_L	1.74	111	
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	OCDD TEQ	0	PG_L	0		
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	OCDF	ND	PG_L	1.2	111	
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	OCDF TEQ	0	PG_L	0		
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	Total HpCDD	ND	PG_L	1.23	55.6	
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	Total HpCDF	ND	PG_L	1.18	55.6	
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	Total HxCDD	ND	PG_L	4.52	55.6	
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	Total HxCDF	ND	PG_L	1.38	55.6	
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	Total PeCDD	ND	PG_L	2.91	55.6	
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	Total PeCDF	ND	PG_L	1.01	55.6	
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	Total TCDD	ND	PG_L	3.54	11.1	
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	Total TCDF	ND	PG_L	2.26	11.1	
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	Total TEQ	0	PG_L	0		
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	Analysis Date	01/17/2017 12:00:00 AM	NONE	0		
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	Dilution factor	1	NONE	0		
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	Extraction Date	01/13/2017	NONE	0		
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	1,2,3,4,6,7,8-HpCDD	ND	PG_L	0.93	54.9	
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	1,2,3,4,6,7,8-HpCDD TEQ	0	PG_L	0		
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	1,2,3,4,6,7,8-HpCDF	ND	PG_L	0.577	54.9	
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	1,2,3,4,6,7,8-HpCDF TEQ	0	PG_L	0		
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	1,2,3,4,7,8,9-HpCDF	ND	PG_L	0.57	54.9	
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	1,2,3,4,7,8,9-HpCDF TEQ	0	PG_L	0		
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	1,2,3,4,7,8-HxCDD	ND	PG_L	0.485	54.9	
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	1,2,3,4,7,8-HxCDD TEQ	0	PG_L	0		
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	1,2,3,4,7,8-HxCDF	ND	PG_L	0.612	54.9	
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	1,2,3,4,7,8-HxCDF TEQ	0	PG_L	0		
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	1,2,3,6,7,8-HxCDD	ND	PG_L	0.513	54.9	
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	1,2,3,6,7,8-HxCDD TEQ	0	PG_L	0		
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	1,2,3,6,7,8-HxCDF	ND	PG_L	0.653	54.9	
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	1,2,3,6,7,8-HxCDF TEQ	0	PG_L	0		
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	1,2,3,7,8,9-HxCDD	ND	PG_L	0.518	54.9	
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	1,2,3,7,8,9-HxCDD TEQ	0	PG_L	0		
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	1,2,3,7,8,9-HxCDF	ND	PG_L	0.619	54.9	
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	1,2,3,7,8,9-HxCDF TEQ	0	PG_L	0		
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	1,2,3,7,8-PeCDD	ND	PG_L	0.794	54.9	
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	1,2,3,7,8-PeCDD TEQ	0	PG_L	0		
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	1,2,3,7,8-PeCDF	ND	PG_L	1.17	54.9	
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	1,2,3,7,8-PeCDF TEQ	0	PG_L	0		
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	2,3,4,6,7,8-HxCDF	ND	PG_L	0.582	54.9	
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	2,3,4,6,7,8-HxCDF TEQ	0	PG_L	0		
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	2,3,4,7,8-PeCDF	ND	PG_L	1.15	54.9	
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	2,3,4,7,8-PeCDF TEQ	0	PG_L	0		
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	2,3,7,8-TCDD	ND	PG_L	0.664	11	
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	2,3,7,8-TCDD TEQ	0	PG_L	0		
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	2,3,7,8-TCDF	ND	PG_L	0.713	11	
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	2,3,7,8-TCDF TEQ	0	PG_L	0		
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	OCDD	1.64	PG_L	1.03	110	DNQ
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	OCDD TEQ	0.000492	PG_L	0		
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	OCDF	ND	PG_L	0.859	110	
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	OCDF TEQ	0	PG_L	0		
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	Total HpCDD	ND	PG_L	0.93	54.9	
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	Total HpCDF	ND	PG_L	0.573	54.9	
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	Total HxCDD	ND	PG_L	0.51	54.9	
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	Total HxCDF	ND	PG_L	0.615	54.9	
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	Total PeCDD	ND	PG_L	0.794	54.9	
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	Total PeCDF	ND	PG_L	1.16	54.9	
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	Total TCDD	ND	PG_L	0.664	11	
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	Total TCDF	ND	PG_L	0.713	11	
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	Total TEQ	0.000492	PG_L	0		
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	Analysis Date	04/13/2017 12:00:00 AM	NONE	0		
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	Dilution factor	1	NONE	0		
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	Extraction Date	04/08/2017	NONE	0		

1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	1,2,3,4,6,7,8-HpCDD	ND	PG_L	1.98	54.9	
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	1,2,3,4,6,7,8-HpCDD TEQ	0	PG_L	0		
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	1,2,3,4,6,7,8-HpCDF	ND	PG_L	1.3	54.9	
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	1,2,3,4,6,7,8-HpCDF TEQ	0	PG_L	0		
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	1,2,3,4,7,8,9-HpCDF	ND	PG_L	1.32	54.9	
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	1,2,3,4,7,8,9-HpCDF TEQ	0	PG_L	0		
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	1,2,3,4,7,8-HxCDD	ND	PG_L	0.836	54.9	
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	1,2,3,4,7,8-HxCDD TEQ	0	PG_L	0		
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	1,2,3,4,7,8-HxCDF	ND	PG_L	1.67	54.9	
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	1,2,3,4,7,8-HxCDF TEQ	0	PG_L	0		
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	1,2,3,6,7,8-HxCDD	ND	PG_L	0.88	54.9	
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	1,2,3,6,7,8-HxCDD TEQ	0	PG_L	0		
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	1,2,3,6,7,8-HxCDF	ND	PG_L	1.76	54.9	
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	1,2,3,6,7,8-HxCDF TEQ	0	PG_L	0		
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	1,2,3,7,8,9-HxCDD	ND	PG_L	0.842	54.9	
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	1,2,3,7,8,9-HxCDD TEQ	0	PG_L	0		
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	1,2,3,7,8,9-HxCDF	ND	PG_L	1.71	54.9	
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	1,2,3,7,8,9-HxCDF TEQ	0	PG_L	0		
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	1,2,3,7,8-PeCDD	ND	PG_L	1.1	54.9	
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	1,2,3,7,8-PeCDD TEQ	0	PG_L	0		
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	1,2,3,7,8-PeCDF	ND	PG_L	1.47	54.9	
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	1,2,3,7,8-PeCDF TEQ	0	PG_L	0		
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	2,3,4,6,7,8-HxCDF	ND	PG_L	1.6	54.9	
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	2,3,4,6,7,8-HxCDF TEQ	0	PG_L	0		
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	2,3,4,7,8-PeCDF	ND	PG_L	1.42	54.9	
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	2,3,4,7,8-PeCDF TEQ	0	PG_L	0		
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	2,3,7,8-TCDD	ND	PG_L	1.36	11	
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	2,3,7,8-TCDD TEQ	0	PG_L	0		
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	2,3,7,8-TCDF	ND	PG_L	1.21	11	
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	2,3,7,8-TCDF TEQ	0	PG_L	0		
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	OCDD	1.63	PG_L	1.2	110	DNQ
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	OCDD TEQ	0.000489	PG_L	0		
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	OCDF	ND	PG_L	1.35	110	
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	OCDF TEQ	0	PG_L	0		
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	Total HpCDD	ND	PG_L	1.98	54.9	
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	Total HpCDF	ND	PG_L	1.31	54.9	
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	Total HxCDD	ND	PG_L	0.869	54.9	
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	Total HxCDF	ND	PG_L	1.68	54.9	
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	Total PeCDD	ND	PG_L	1.1	54.9	
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	Total PeCDF	ND	PG_L	1.44	54.9	
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	Total TCDD	ND	PG_L	1.36	11	
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	Total TCDF	ND	PG_L	1.21	11	
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	Total TEQ	0.000489	PG_L	0		
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	Analysis Date	07/27/2017 12:00:00 AM	NONE	0		
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	Dilution factor	1	NONE	0		
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	Extraction Date	07/14/2017	NONE	0		
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	1,2,3,4,6,7,8-HpCDD	ND	PG_L	1.08	40.3	
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	1,2,3,4,6,7,8-HpCDD TEQ	0	PG_L	0		
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	1,2,3,4,6,7,8-HpCDF	ND	PG_L	1.03	40.3	
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	1,2,3,4,6,7,8-HpCDF TEQ	0	PG_L	0		
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	1,2,3,4,7,8,9-HpCDF	ND	PG_L	1.05	40.3	
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	1,2,3,4,7,8,9-HpCDF TEQ	0	PG_L	0		
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	1,2,3,4,7,8-HxCDD	ND	PG_L	1.04	40.3	
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	1,2,3,4,7,8-HxCDD TEQ	0	PG_L	0		
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	1,2,3,4,7,8-HxCDF	ND	PG_L	1.26	40.3	
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	1,2,3,4,7,8-HxCDF TEQ	0	PG_L	0		
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	1,2,3,6,7,8-HxCDD	ND	PG_L	1.1	40.3	
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	1,2,3,6,7,8-HxCDD TEQ	0	PG_L	0		
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	1,2,3,6,7,8-HxCDF	ND	PG_L	1.33	40.3	
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	1,2,3,6,7,8-HxCDF TEQ	0	PG_L	0		
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	1,2,3,7,8,9-HxCDD	ND	PG_L	1.05	40.3	
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	1,2,3,7,8,9-HxCDD TEQ	0	PG_L	0		
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	1,2,3,7,8,9-HxCDF	ND	PG_L	1.3	40.3	
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	1,2,3,7,8,9-HxCDF TEQ	0	PG_L	0		
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	1,2,3,7,8-PeCDD	ND	PG_L	1.13	40.3	
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	1,2,3,7,8-PeCDD TEQ	0	PG_L	0		
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	1,2,3,7,8-PeCDF	ND	PG_L	0.977	40.3	
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	1,2,3,7,8-PeCDF TEQ	0	PG_L	0		
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	2,3,4,6,7,8-HxCDF	ND	PG_L	1.22	40.3	
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	2,3,4,6,7,8-HxCDF TEQ	0	PG_L	0		
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	2,3,4,7,8-PeCDF	ND	PG_L	0.943	40.3	
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	2,3,4,7,8-PeCDF TEQ	0	PG_L	0		
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	2,3,7,8-TCDD	ND	PG_L	1.08	8.06	
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	2,3,7,8-TCDD TEQ	0	PG_L	0		
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	2,3,7,8-TCDF	ND	PG_L	1.06	8.06	
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	2,3,7,8-TCDF TEQ	0	PG_L	0		
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	OCDD	ND	PG_L	1.32	80.6	
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	OCDD TEQ	0	PG_L	0		
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	OCDF	ND	PG_L	0.835	80.6	
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	OCDF TEQ	0	PG_L	0		

1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	Total HpCDD	ND	PG_L	1.08	40.3	
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	Total HpCDF	ND	PG_L	1.04	40.3	
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	Total HxCDD	ND	PG_L	1.08	40.3	
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	Total HxCDF	ND	PG_L	1.28	40.3	
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	Total PeCDD	ND	PG_L	1.13	40.3	
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	Total PeCDF	ND	PG_L	0.96	40.3	
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	Total TCDD	ND	PG_L	1.08	8.06	
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	Total TCDF	ND	PG_L	1.06	8.06	
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	Total TEQ	0	PG_L	0		
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	Analysis Date	10/23/2017 12:00:00 AM	NONE	0		
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	Dilution factor	1	NONE	0		
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	Extraction Date	10/19/2017	NONE	0		
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	1,2,3,4,6,7,8-HpCDD	1.13	PG_L	0.952	43.5	DNQ
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	1,2,3,4,6,7,8-HpCDD TEQ	0.0113	PG_L	0		
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	1,2,3,4,6,7,8-HpCDF	ND	PG_L	0.939	43.5	
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	1,2,3,4,6,7,8-HpCDF TEQ	0	PG_L	0		
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	1,2,3,4,7,8,9-HpCDF	ND	PG_L	0.933	43.5	
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	1,2,3,4,7,8,9-HpCDF TEQ	0	PG_L	0		
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	1,2,3,4,7,8-HxCDD	ND	PG_L	0.92	43.5	
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	1,2,3,4,7,8-HxCDD TEQ	0	PG_L	0		
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	1,2,3,4,7,8-HxCDF	ND	PG_L	0.916	43.5	
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	1,2,3,4,7,8-HxCDF TEQ	0	PG_L	0		
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	1,2,3,6,7,8-HxCDD	ND	PG_L	0.971	43.5	
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	1,2,3,6,7,8-HxCDD TEQ	0	PG_L	0		
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	1,2,3,6,7,8-HxCDF	ND	PG_L	0.947	43.5	
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	1,2,3,6,7,8-HxCDF TEQ	0	PG_L	0		
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	1,2,3,7,8,9-HxCDD	ND	PG_L	0.893	43.5	
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	1,2,3,7,8,9-HxCDD TEQ	0	PG_L	0		
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	1,2,3,7,8,9-HxCDF	ND	PG_L	0.94	43.5	
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	1,2,3,7,8,9-HxCDF TEQ	0	PG_L	0		
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	1,2,3,7,8-PeCDD	ND	PG_L	1.27	43.5	
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	1,2,3,7,8-PeCDD TEQ	0	PG_L	0		
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	1,2,3,7,8-PeCDF	ND	PG_L	1	43.5	
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	1,2,3,7,8-PeCDF TEQ	0	PG_L	0		
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	2,3,4,6,7,8-HxCDF	ND	PG_L	0.884	43.5	
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	2,3,4,6,7,8-HxCDF TEQ	0	PG_L	0		
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	2,3,4,7,8-PeCDF	ND	PG_L	0.975	43.5	
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	2,3,4,7,8-PeCDF TEQ	0	PG_L	0		
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	2,3,7,8-TCDD	ND	PG_L	1.86	8.7	
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	2,3,7,8-TCDD TEQ	0	PG_L	0		
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	2,3,7,8-TCDF	ND	PG_L	0.919	8.7	
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	2,3,7,8-TCDF TEQ	0	PG_L	0		
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	OCDD	7.66	PG_L	0.939	87	DNQ
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	OCDD TEQ	0.00230	PG_L	0		
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	OCDF	1.12	PG_L	1.04	87	DNQ
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	OCDF TEQ	0.000336	PG_L	0		
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	Total HpCDD	2.42	PG_L	0.952	43.5	DNQ
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	Total HpCDF	ND	PG_L	0.936	43.5	
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	Total HxCDD	ND	PG_L	0.934	43.5	
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	Total HxCDF	ND	PG_L	0.921	43.5	
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	Total PeCDD	ND	PG_L	1.27	43.5	
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	Total PeCDF	ND	PG_L	0.987	43.5	
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	Total TCDD	ND	PG_L	1.86	8.7	
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	Total TCDF	ND	PG_L	0.919	8.7	
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	Total TEQ	0.0139	PG_L	0		
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	Analysis Date	02/10/2018 12:00:00 AM	NONE	0		
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	Dilution factor	1	NONE	0		
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	Extraction Date	02/03/2018	NONE	0		
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	1,2,3,4,6,7,8-HpCDD	ND	PG_L	1.19	49	
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	1,2,3,4,6,7,8-HpCDD TEQ	0	PG_L	0		
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	1,2,3,4,6,7,8-HpCDF	ND	PG_L	1.07	49	
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	1,2,3,4,6,7,8-HpCDF TEQ	0	PG_L	0		
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	1,2,3,4,7,8,9-HpCDF	ND	PG_L	1.06	49	
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	1,2,3,4,7,8,9-HpCDF TEQ	0	PG_L	0		
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	1,2,3,4,7,8-HxCDD	ND	PG_L	1.09	49	
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	1,2,3,4,7,8-HxCDD TEQ	0	PG_L	0		
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	1,2,3,4,7,8-HxCDF	ND	PG_L	1.11	49	
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	1,2,3,4,7,8-HxCDF TEQ	0	PG_L	0		
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	1,2,3,6,7,8-HxCDD	ND	PG_L	1.11	49	
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	1,2,3,6,7,8-HxCDD TEQ	0	PG_L	0		
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	1,2,3,6,7,8-HxCDF	ND	PG_L	1.12	49	
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	1,2,3,6,7,8-HxCDF TEQ	0	PG_L	0		
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	1,2,3,7,8,9-HxCDD	ND	PG_L	1.08	49	
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	1,2,3,7,8,9-HxCDD TEQ	0	PG_L	0		
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	1,2,3,7,8,9-HxCDF	ND	PG_L	1.05	49	
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	1,2,3,7,8,9-HxCDF TEQ	0	PG_L	0		
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	1,2,3,7,8-PeCDD	ND	PG_L	1.08	49	
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	1,2,3,7,8-PeCDD TEQ	0	PG_L	0		
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	1,2,3,7,8-PeCDF	ND	PG_L	1.34	49	
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	1,2,3,7,8-PeCDF TEQ	0	PG_L	0		

2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	2,3,4,6,7,8-HxCDF	ND	PG_L	1.04	49	
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	2,3,4,6,7,8-HxCDF TEQ	0	PG_L	0		
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	2,3,4,7,8-PeCDF	ND	PG_L	1.33	49	
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	2,3,4,7,8-PeCDF TEQ	0	PG_L	0		
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	2,3,7,8-TCDD	ND	PG_L	1.19	9.8	
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	2,3,7,8-TCDD TEQ	0	PG_L	0		
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	2,3,7,8-TCDF	ND	PG_L	1.47	9.8	
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	2,3,7,8-TCDF TEQ	0	PG_L	0		
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	OCDD	ND	PG_L	2.01	98	
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	OCDD TEQ	0	PG_L	0		
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	OCDF	ND	PG_L	1.12	98	
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	OCDF TEQ	0	PG_L	0		
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	Total HpCDD	ND	PG_L	1.19	49	
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	Total HpCDF	ND	PG_L	1.06	49	
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	Total HxCDD	ND	PG_L	2.97	49	
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	Total HxCDF	ND	PG_L	1.08	49	
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	Total PeCDD	ND	PG_L	1.08	49	
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	Total PeCDF	ND	PG_L	1.34	49	
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	Total TCDD	ND	PG_L	1.71	9.8	
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	Total TCDF	ND	PG_L	1.47	9.8	
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	Total TEQ	0	PG_L	0		
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	Analysis Date	04/19/2018 12:00:00 AM	NONE	0		
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	Dilution factor	1	NONE	0		
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	Extraction Date	04/15/2018	NONE	0		
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	1,2,3,4,6,7,8-HpCDD	ND	PG_L	1.27	50	
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	1,2,3,4,6,7,8-HpCDD TEQ	0	PG_L	0		
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	1,2,3,4,6,7,8-HpCDF	ND	PG_L	1.11	50	
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	1,2,3,4,6,7,8-HpCDF TEQ	0	PG_L	0		
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	1,2,3,4,7,8,9-HpCDF	ND	PG_L	1.08	50	
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	1,2,3,4,7,8,9-HpCDF TEQ	0	PG_L	0		
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	1,2,3,4,7,8-HxCDD	ND	PG_L	1.17	50	
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	1,2,3,4,7,8-HxCDD TEQ	0	PG_L	0		
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	1,2,3,4,7,8-HxCDF	ND	PG_L	1.16	50	
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	1,2,3,4,7,8-HxCDF TEQ	0	PG_L	0		
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	1,2,3,6,7,8-HxCDD	ND	PG_L	1.22	50	
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	1,2,3,6,7,8-HxCDD TEQ	0	PG_L	0		
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	1,2,3,6,7,8-HxCDF	ND	PG_L	1.26	50	
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	1,2,3,6,7,8-HxCDF TEQ	0	PG_L	0		
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	1,2,3,7,8,9-HxCDD	ND	PG_L	1.23	50	
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	1,2,3,7,8,9-HxCDD TEQ	0	PG_L	0		
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	1,2,3,7,8,9-HxCDF	ND	PG_L	1.22	50	
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	1,2,3,7,8,9-HxCDF TEQ	0	PG_L	0		
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	1,2,3,7,8-PeCDD	ND	PG_L	1.17	50	
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	1,2,3,7,8-PeCDD TEQ	0	PG_L	0		
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	1,2,3,7,8-PeCDF	ND	PG_L	1.06	50	
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	1,2,3,7,8-PeCDF TEQ	0	PG_L	0		
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	2,3,4,6,7,8-HxCDF	ND	PG_L	1.13	50	
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	2,3,4,6,7,8-HxCDF TEQ	0	PG_L	0		
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	2,3,4,7,8-PeCDF	ND	PG_L	0.914	50	
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	2,3,4,7,8-PeCDF TEQ	0	PG_L	0		
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	2,3,7,8-TCDD	ND	PG_L	1.2	10	
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	2,3,7,8-TCDD TEQ	0	PG_L	0		
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	2,3,7,8-TCDF	ND	PG_L	0.907	10	
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	2,3,7,8-TCDF TEQ	0	PG_L	0		
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	OCDD	4.05	PG_L	1.2	100	DNQ
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	OCDD TEQ	0.00122	PG_L	0		
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	OCDF	2.93	PG_L	1.21	100	DNQ
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	OCDF TEQ	0.000879	PG_L	0		
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	Total HpCDD	ND	PG_L	1.27	50	
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	Total HpCDF	ND	PG_L	1.1	50	
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	Total HxCDD	ND	PG_L	1.23	50	
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	Total HxCDF	ND	PG_L	1.19	50	
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	Total PeCDD	ND	PG_L	1.17	50	
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	Total PeCDF	ND	PG_L	0.983	50	
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	Total TCDD	ND	PG_L	1.2	10	
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	Total TCDF	ND	PG_L	0.907	10	
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	Total TEQ	0.00210	PG_L	0		
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	Analysis Date	08/01/2018 12:00:00 AM	NONE	0		
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	Dilution factor	1	NONE	0		
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	Extraction Date	07/29/2018	NONE	0		
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	1,2,3,4,6,7,8-HpCDD	ND	PG_L	0.849	41.7	
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	1,2,3,4,6,7,8-HpCDD TEQ	0	PG_L	0		
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	1,2,3,4,6,7,8-HpCDF	ND	PG_L	0.92	41.7	
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	1,2,3,4,6,7,8-HpCDF TEQ	0	PG_L	0		
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	1,2,3,4,7,8,9-HpCDF	ND	PG_L	0.881	41.7	
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	1,2,3,4,7,8,9-HpCDF TEQ	0	PG_L	0		
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	1,2,3,4,7,8-HxCDD	ND	PG_L	0.915	41.7	
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	1,2,3,4,7,8-HxCDD TEQ	0	PG_L	0		
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	1,2,3,4,7,8-HxCDF	ND	PG_L	0.936	41.7	
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	1,2,3,4,7,8-HxCDF TEQ	0	PG_L	0		

2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	1,2,3,6,7,8-HxCDD	ND	PG_L	0.885	41.7	
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	1,2,3,6,7,8-HxCDD TEQ	0	PG_L	0		
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	1,2,3,6,7,8-HxCDF	ND	PG_L	0.939	41.7	
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	1,2,3,6,7,8-HxCDF TEQ	0	PG_L	0		
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	1,2,3,7,8,9-HxCDD	ND	PG_L	0.912	41.7	
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	1,2,3,7,8,9-HxCDD TEQ	0	PG_L	0		
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	1,2,3,7,8,9-HxCDF	ND	PG_L	0.97	41.7	
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	1,2,3,7,8,9-HxCDF TEQ	0	PG_L	0		
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	1,2,3,7,8-PeCDD	ND	PG_L	0.903	41.7	
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	1,2,3,7,8-PeCDD TEQ	0	PG_L	0		
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	1,2,3,7,8-PeCDF	ND	PG_L	0.9	41.7	
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	1,2,3,7,8-PeCDF TEQ	0	PG_L	0		
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	2,3,4,6,7,8-HxCDF	ND	PG_L	0.872	41.7	
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	2,3,4,6,7,8-HxCDF TEQ	0	PG_L	0		
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	2,3,4,7,8-PeCDF	ND	PG_L	0.799	41.7	
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	2,3,4,7,8-PeCDF TEQ	0	PG_L	0		
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	2,3,7,8-TCDD	ND	PG_L	0.864	8.33	
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	2,3,7,8-TCDD TEQ	0	PG_L	0		
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	2,3,7,8-TCDF	ND	PG_L	0.963	8.33	
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	2,3,7,8-TCDF TEQ	0	PG_L	0		
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	OCDD	ND	PG_L	1.03	83.3	
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	OCDD TEQ	0	PG_L	0		
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	OCDF	ND	PG_L	0.848	83.3	
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	OCDF TEQ	0	PG_L	0		
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	Total HpCDD	ND	PG_L	0.849	41.7	
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	Total HpCDF	ND	PG_L	0.9	41.7	
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	Total HxCDD	ND	PG_L	2.33	41.7	
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	Total HxCDF	ND	PG_L	0.928	41.7	
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	Total PeCDD	ND	PG_L	0.903	41.7	
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	Total PeCDF	ND	PG_L	0.847	41.7	
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	Total TCDD	ND	PG_L	1.33	8.33	
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	Total TCDF	ND	PG_L	0.963	8.33	
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	Total TEQ	0	PG_L	0		
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	Analysis Date	10/22/2018 12:00:00 AM	NONE	0		
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	Dilution factor	1	NONE	0		
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	Extraction Date	10/16/2018	NONE	0		
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	1,2,3,4,6,7,8-HpCDD	ND	PG_L	1.26	50	
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	1,2,3,4,6,7,8-HpCDD TEQ	0	PG_L	0		
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	1,2,3,4,6,7,8-HpCDF	ND	PG_L	1.27	50	
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	1,2,3,4,6,7,8-HpCDF TEQ	0	PG_L	0		
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	1,2,3,4,7,8,9-HpCDF	ND	PG_L	1.27	50	
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	1,2,3,4,7,8,9-HpCDF TEQ	0	PG_L	0		
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	1,2,3,4,7,8-HxCDD	ND	PG_L	1.45	50	
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	1,2,3,4,7,8-HxCDD TEQ	0	PG_L	0		
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	1,2,3,4,7,8-HxCDF	ND	PG_L	1.28	50	
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	1,2,3,4,7,8-HxCDF TEQ	0	PG_L	0		
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	1,2,3,6,7,8-HxCDD	ND	PG_L	1.48	50	
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	1,2,3,6,7,8-HxCDD TEQ	0	PG_L	0		
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	1,2,3,6,7,8-HxCDF	ND	PG_L	1.38	50	
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	1,2,3,6,7,8-HxCDF TEQ	0	PG_L	0		
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	1,2,3,7,8,9-HxCDD	ND	PG_L	1.49	50	
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	1,2,3,7,8,9-HxCDD TEQ	0	PG_L	0		
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	1,2,3,7,8,9-HxCDF	ND	PG_L	1.33	50	
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	1,2,3,7,8,9-HxCDF TEQ	0	PG_L	0		
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	1,2,3,7,8-PeCDD	ND	PG_L	1.23	50	
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	1,2,3,7,8-PeCDD TEQ	0	PG_L	0		
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	1,2,3,7,8-PeCDF	ND	PG_L	1.31	50	
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	1,2,3,7,8-PeCDF TEQ	0	PG_L	0		
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	2,3,4,6,7,8-HxCDF	ND	PG_L	1.24	50	
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	2,3,4,6,7,8-HxCDF TEQ	0	PG_L	0		
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	2,3,4,7,8-PeCDF	ND	PG_L	1.19	50	
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	2,3,4,7,8-PeCDF TEQ	0	PG_L	0		
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	2,3,7,8-TCDD	ND	PG_L	1.15	10	
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	2,3,7,8-TCDD TEQ	0	PG_L	0		
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	2,3,7,8-TCDF	ND	PG_L	0.986	10	
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	2,3,7,8-TCDF TEQ	0	PG_L	0		
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	OCDD	ND	PG_L	1.76	100	
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	OCDD TEQ	0	PG_L	0		
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	OCDF	ND	PG_L	1.78	100	
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	OCDF TEQ	0	PG_L	0		
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	Total HpCDD	ND	PG_L	1.26	50	
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	Total HpCDF	ND	PG_L	1.27	50	
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	Total HxCDD	ND	PG_L	1.49	50	
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	Total HxCDF	ND	PG_L	1.31	50	
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	Total PeCDD	ND	PG_L	1.23	50	
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	Total PeCDF	ND	PG_L	1.25	50	
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	Total TCDD	ND	PG_L	1.15	10	
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	Total TCDF	ND	PG_L	0.986	10	
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	Total TEQ	0	PG_L	0		
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	Analysis Date	02/01/2019 12:00:00 AM	NONE	0		

2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	Dilution Factor	1	NONE	0		
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	Extraction Date	01/25/2019	NONE	0		
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	1,2,3,4,6,7,8-HpCDD	ND	PG_L	1.17	53.2	
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	1,2,3,4,6,7,8-HpCDD TEQ	0	PG_L	0		
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	1,2,3,4,6,7,8-HpCDF	ND	PG_L	1.12	53.2	
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	1,2,3,4,6,7,8-HpCDF TEQ	0	PG_L	0		
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	1,2,3,4,7,8,9-HpCDF	ND	PG_L	1.11	53.2	
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	1,2,3,4,7,8,9-HpCDF TEQ	0	PG_L	0		
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	1,2,3,4,7,8-HxCDD	ND	PG_L	1.24	53.2	
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	1,2,3,4,7,8-HxCDD TEQ	0	PG_L	0		
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	1,2,3,4,7,8-HxCDF	ND	PG_L	1.33	53.2	
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	1,2,3,4,7,8-HxCDF TEQ	0	PG_L	0		
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	1,2,3,6,7,8-HxCDD	ND	PG_L	1.23	53.2	
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	1,2,3,6,7,8-HxCDD TEQ	0	PG_L	0		
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	1,2,3,6,7,8-HxCDF	ND	PG_L	1.39	53.2	
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	1,2,3,6,7,8-HxCDF TEQ	0	PG_L	0		
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	1,2,3,7,8,9-HxCDD	ND	PG_L	1.27	53.2	
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	1,2,3,7,8,9-HxCDD TEQ	0	PG_L	0		
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	1,2,3,7,8,9-HxCDF	ND	PG_L	1.34	53.2	
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	1,2,3,7,8,9-HxCDF TEQ	0	PG_L	0		
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	1,2,3,7,8-PeCDD	ND	PG_L	1.22	53.2	
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	1,2,3,7,8-PeCDD TEQ	0	PG_L	0		
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	1,2,3,7,8-PeCDF	ND	PG_L	1.44	53.2	
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	1,2,3,7,8-PeCDF TEQ	0	PG_L	0		
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	2,3,4,6,7,8-HxCDF	ND	PG_L	1.31	53.2	
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	2,3,4,6,7,8-HxCDF TEQ	0	PG_L	0		
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	2,3,4,7,8-PeCDF	ND	PG_L	1.27	53.2	
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	2,3,4,7,8-PeCDF TEQ	0	PG_L	0		
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	2,3,7,8-TCDD	ND	PG_L	1.18	10.6	
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	2,3,7,8-TCDD TEQ	0	PG_L	0		
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	2,3,7,8-TCDF	ND	PG_L	1.29	10.6	
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	2,3,7,8-TCDF TEQ	0	PG_L	0		
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	OCDD	ND	PG_L	1.93	106	
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	OCDD TEQ	0	PG_L	0		
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	OCDF	ND	PG_L	1.5	106	
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	OCDF TEQ	0	PG_L	0		
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	Total HpCDD	ND	PG_L	1.17	53.2	
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	Total HpCDF	ND	PG_L	1.11	53.2	
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	Total HxCDD	ND	PG_L	1.26	53.2	
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	Total HxCDF	ND	PG_L	1.34	53.2	
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	Total PeCDD	ND	PG_L	1.22	53.2	
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	Total PeCDF	ND	PG_L	1.35	53.2	
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	Total TCDD	ND	PG_L	1.18	10.6	
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	Total TCDF	ND	PG_L	1.29	10.6	
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	Total TEQ	0	PG_L	0		
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	Analysis Date	05/07/2019 12:00:00 AM	NONE	0		
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	Dilution factor	1	NONE	0		
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	Extraction Date	05-01-2019	NONE	0		
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	1,2,3,4,6,7,8-HpCDD	ND	PG_L	1.33	40	
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	1,2,3,4,6,7,8-HpCDD TEQ	0	PG_L	0		
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	1,2,3,4,6,7,8-HpCDF	ND	PG_L	0.849	40	
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	1,2,3,4,6,7,8-HpCDF TEQ	0	PG_L	0		
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	1,2,3,4,7,8,9-HpCDF	ND	PG_L	0.824	40	
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	1,2,3,4,7,8,9-HpCDF TEQ	0	PG_L	0		
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	1,2,3,4,7,8-HxCDD	ND	PG_L	1.2	40	
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	1,2,3,4,7,8-HxCDD TEQ	0	PG_L	0		
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	1,2,3,4,7,8-HxCDF	ND	PG_L	0.793	40	
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	1,2,3,4,7,8-HxCDF TEQ	0	PG_L	0		
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	1,2,3,6,7,8-HxCDD	ND	PG_L	1.17	40	
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	1,2,3,6,7,8-HxCDD TEQ	0	PG_L	0		
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	1,2,3,6,7,8-HxCDF	ND	PG_L	0.814	40	
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	1,2,3,6,7,8-HxCDF TEQ	0	PG_L	0		
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	1,2,3,7,8,9-HxCDD	ND	PG_L	1.24	40	
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	1,2,3,7,8,9-HxCDD TEQ	0	PG_L	0		
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	1,2,3,7,8,9-HxCDF	ND	PG_L	0.804	40	
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	1,2,3,7,8,9-HxCDF TEQ	0	PG_L	0		
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	1,2,3,7,8-PeCDD	ND	PG_L	1.18	40	
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	1,2,3,7,8-PeCDD TEQ	0	PG_L	0		
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	1,2,3,7,8-PeCDF	ND	PG_L	1.02	40	
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	1,2,3,7,8-PeCDF TEQ	0	PG_L	0		
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	2,3,4,6,7,8-HxCDF	ND	PG_L	0.754	40	
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	2,3,4,6,7,8-HxCDF TEQ	0	PG_L	0		
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	2,3,4,7,8-PeCDF	ND	PG_L	0.933	40	
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	2,3,4,7,8-PeCDF TEQ	0	PG_L	0		
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	2,3,7,8-TCDD	ND	PG_L	1.36	8	
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	2,3,7,8-TCDD TEQ	0	PG_L	0		
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	2,3,7,8-TCDF	ND	PG_L	1.13	8	
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	2,3,7,8-TCDF TEQ	0	PG_L	0		
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	OCDD	ND	PG_L	1.81	80	
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	OCDD TEQ	0	PG_L	0		

2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	OCDF	ND	PG_L	1.4	80	
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	OCDF TEQ	0	PG_L	0		
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	Total HpCDD	ND	PG_L	1.33	40	
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	Total HpCDF	ND	PG_L	0.837	40	
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	Total HxCDD	ND	PG_L	1.22	40	
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	Total HxCDF	ND	PG_L	0.79	40	
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	Total PeCDD	ND	PG_L	1.18	40	
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	Total PeCDF	ND	PG_L	0.975	40	
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	Total TCDD	ND	PG_L	1.36	8	
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	Total TCDF	ND	PG_L	1.13	8	
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	Total TEQ	0	PG_L	0		
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	Analysis Date	07/16/2019 12:00:00 AM	NONE	0		
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	Dilution factor	1	NONE	0		
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	Extraction Date	07-11-2019	NONE	0		
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	1,2,3,4,6,7,8-HpCDD	ND	PG_L	1.09	44.8	
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	1,2,3,4,6,7,8-HpCDD TEQ	0	PG_L	0		
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	1,2,3,4,6,7,8-HpCDF	ND	PG_L	1.03	44.8	
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	1,2,3,4,6,7,8-HpCDF TEQ	0	PG_L	0		
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	1,2,3,4,7,8,9-HpCDF	ND	PG_L	1.03	44.8	
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	1,2,3,4,7,8,9-HpCDF TEQ	0	PG_L	0		
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	1,2,3,4,7,8-HxCDD	ND	PG_L	1.11	44.8	
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	1,2,3,4,7,8-HxCDD TEQ	0	PG_L	0		
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	1,2,3,4,7,8-HxCDF	ND	PG_L	1.03	44.8	
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	1,2,3,4,7,8-HxCDF TEQ	0	PG_L	0		
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	1,2,3,6,7,8-HxCDD	ND	PG_L	1.03	44.8	
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	1,2,3,6,7,8-HxCDD TEQ	0	PG_L	0		
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	1,2,3,6,7,8-HxCDF	ND	PG_L	1.01	44.8	
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	1,2,3,6,7,8-HxCDF TEQ	0	PG_L	0		
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	1,2,3,7,8,9-HxCDD	ND	PG_L	0.986	44.8	
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	1,2,3,7,8,9-HxCDD TEQ	0	PG_L	0		
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	1,2,3,7,8,9-HxCDF	ND	PG_L	1.05	44.8	
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	1,2,3,7,8,9-HxCDF TEQ	0	PG_L	0		
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	1,2,3,7,8-PeCDD	ND	PG_L	2.01	44.8	
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	1,2,3,7,8-PeCDD TEQ	0	PG_L	0		
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	1,2,3,7,8-PeCDF	ND	PG_L	1.09	44.8	
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	1,2,3,7,8-PeCDF TEQ	0	PG_L	0		
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	2,3,4,6,7,8-HxCDF	ND	PG_L	0.975	44.8	
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	2,3,4,6,7,8-HxCDF TEQ	0	PG_L	0		
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	2,3,4,7,8-PeCDF	ND	PG_L	0.984	44.8	
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	2,3,4,7,8-PeCDF TEQ	0	PG_L	0		
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	2,3,7,8-TCDD	ND	PG_L	1.37	8.97	
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	2,3,7,8-TCDD TEQ	0	PG_L	0		
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	2,3,7,8-TCDF	ND	PG_L	0.986	8.97	
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	2,3,7,8-TCDF TEQ	0	PG_L	0		
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	OCDD	ND	PG_L	0.898	89.7	
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	OCDD TEQ	0	PG_L	0		
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	OCDF	ND	PG_L	0.911	89.7	
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	OCDF TEQ	0	PG_L	0		
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	Total HpCDD	ND	PG_L	1.09	44.8	
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	Total HpCDF	ND	PG_L	1.03	44.8	
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	Total HxCDD	ND	PG_L	6.3	44.8	
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	Total HxCDF	ND	PG_L	1.02	44.8	
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	Total PeCDD	ND	PG_L	2.01	44.8	
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	Total PeCDF	ND	PG_L	1.03	44.8	
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	Total TCDD	ND	PG_L	1.45	8.97	
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	Total TCDF	ND	PG_L	0.986	8.97	
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	Total TEQ	0	PG_L	0		
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	Analysis Date	10/29/2019 12:00:00 AM	NONE	0		
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	Dilution factor	1	NONE	0		
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	Extraction Date	10-22-2019	NONE	0		
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	1,2,3,4,6,7,8-HpCDD	ND	PG_L	1.12	48.5	
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	1,2,3,4,6,7,8-HpCDD TEQ	0	PG_L	0		
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	1,2,3,4,6,7,8-HpCDF	ND	PG_L	1.01	48.5	
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	1,2,3,4,6,7,8-HpCDF TEQ	0	PG_L	0		
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	1,2,3,4,7,8,9-HpCDF	ND	PG_L	0.957	48.5	
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	1,2,3,4,7,8,9-HpCDF TEQ	0	PG_L	0		
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	1,2,3,4,7,8-HxCDD	ND	PG_L	1.19	48.5	
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	1,2,3,4,7,8-HxCDD TEQ	0	PG_L	0		
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	1,2,3,4,7,8-HxCDF	ND	PG_L	0.818	48.5	
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	1,2,3,4,7,8-HxCDF TEQ	0	PG_L	0		
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	1,2,3,6,7,8-HxCDD	ND	PG_L	1.18	48.5	
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	1,2,3,6,7,8-HxCDD TEQ	0	PG_L	0		
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	1,2,3,6,7,8-HxCDF	ND	PG_L	0.865	48.5	
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	1,2,3,6,7,8-HxCDF TEQ	0	PG_L	0		
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	1,2,3,7,8,9-HxCDD	ND	PG_L	1.25	48.5	
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	1,2,3,7,8,9-HxCDD TEQ	0	PG_L	0		
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	1,2,3,7,8,9-HxCDF	ND	PG_L	0.832	48.5	
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	1,2,3,7,8,9-HxCDF TEQ	0	PG_L	0		
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	1,2,3,7,8-PeCDD	ND	PG_L	1.2	48.5	
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	1,2,3,7,8-PeCDD TEQ	0	PG_L	0		

2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	1,2,3,7,8-PeCDF	ND	PG_L	0.621	48.5	
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	1,2,3,7,8-PeCDF TEQ	0	PG_L	0		
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	2,3,4,6,7,8-HxCDF	ND	PG_L	0.783	48.5	
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	2,3,4,6,7,8-HxCDF TEQ	0	PG_L	0		
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	2,3,4,7,8-PeCDF	ND	PG_L	0.568	48.5	
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	2,3,4,7,8-PeCDF TEQ	0	PG_L	0		
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	2,3,7,8-TCDD	ND	PG_L	1.07	9.71	
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	2,3,7,8-TCDD TEQ	0	PG_L	0		
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	2,3,7,8-TCDF	ND	PG_L	0.46	9.71	
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	2,3,7,8-TCDF TEQ	0	PG_L	0		
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	OCDD	ND	PG_L	1.4	97.1	
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	OCDD TEQ	0	PG_L	0		
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	OCDF	ND	PG_L	1.05	97.1	
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	OCDF TEQ	0	PG_L	0		
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	Total HpCDD	ND	PG_L	1.12	48.5	
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	Total HpCDF	ND	PG_L	0.982	48.5	
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	Total HxCDD	ND	PG_L	1.23	48.5	
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	Total HxCDF	ND	PG_L	0.824	48.5	
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	Total PeCDD	ND	PG_L	1.2	48.5	
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	Total PeCDF	ND	PG_L	0.593	48.5	
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	Total TCDD	ND	PG_L	1.07	9.71	
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	Total TCDF	ND	PG_L	0.46	9.71	
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	Total TEQ	0	PG_L	0		

SAMPLE_NUMBER	SAMPLING_POINT	SAMPLED_DATE	ANALYSIS	NAME	FORMATTED_ENTRY	UNITS	EDL or MDL	RL	OCSD_QUALIFIER
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	Analysis Date	07/22/2015	NONE	0		
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	Extraction Date	07/13/2015	NONE	0		
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	1,2,3,4,6,7,8-HpCDD	ND	PG_L	4	41.7	
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	1,2,3,4,6,7,8-HpCDD TEQ	0.00	PG_L	0		
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	1,2,3,4,6,7,8-HpCDF	ND	PG_L	4	41.7	
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	1,2,3,4,6,7,8-HpCDF TEQ	0.00	PG_L	0		
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	1,2,3,4,7,8,9-HpCDF	ND	PG_L	4	41.7	
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	1,2,3,4,7,8,9-HpCDF TEQ	0.00	PG_L	0		
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	1,2,3,4,7,8-HxCDD	ND	PG_L	4	41.7	
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	1,2,3,4,7,8-HxCDD TEQ	0.00	PG_L	0		
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	1,2,3,4,7,8-HxCDF	ND	PG_L	4	41.7	
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	1,2,3,4,7,8-HxCDF TEQ	0.00	PG_L	0		
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	1,2,3,6,7,8-HxCDD	ND	PG_L	4	41.7	
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	1,2,3,6,7,8-HxCDD TEQ	0.00	PG_L	0		
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	1,2,3,6,7,8-HxCDF	ND	PG_L	4	41.7	
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	1,2,3,6,7,8-HxCDF TEQ	0.00	PG_L	0		
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	1,2,3,7,8,9-HxCDD	ND	PG_L	4	41.7	
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	1,2,3,7,8,9-HxCDD TEQ	0.00	PG_L	0		
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	1,2,3,7,8,9-HxCDF	ND	PG_L	4	41.7	
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	1,2,3,7,8,9-HxCDF TEQ	0.00	PG_L	0		
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	1,2,3,7,8-PeCDD	ND	PG_L	4	41.7	
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	1,2,3,7,8-PeCDD TEQ	0.00	PG_L	0		
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	1,2,3,7,8-PeCDF	ND	PG_L	4	41.7	
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	1,2,3,7,8-PeCDF TEQ	0.00	PG_L	0		
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	2,3,4,6,7,8-HxCDF	ND	PG_L	4	41.7	
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	2,3,4,6,7,8-HxCDF TEQ	0.00	PG_L	0		
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	2,3,4,7,8-PeCDF	ND	PG_L	4	41.7	
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	2,3,4,7,8-PeCDF TEQ	0.00	PG_L	0		
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	2,3,7,8-TCDD	ND	PG_L	4	8.33	
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	2,3,7,8-TCDD TEQ	0.00	PG_L	0		
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	2,3,7,8-TCDF	ND	PG_L	4	8.33	
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	2,3,7,8-TCDF TEQ	0.00	PG_L	0		
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	OCDD	ND	PG_L	8	83.3	
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	OCDD TEQ	0.00	PG_L	0		
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	OCDF	ND	PG_L	8	83.3	
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	OCDF TEQ	0.00	PG_L	0		
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	Total HpCDD	ND	PG_L	4	41.7	
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	Total HpCDF	ND	PG_L	4	41.7	
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	Total HxCDD	ND	PG_L	4	41.7	
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	Total HxCDF	ND	PG_L	4	41.7	
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	Total PeCDD	ND	PG_L	4	41.7	
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	Total PeCDF	ND	PG_L	4	41.7	
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	Total TCDD	ND	PG_L	4	8.33	
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	Total TCDF	ND	PG_L	4	8.33	
1845996	FIN_EFF_S	07-Jul-15	TEQ_WK	Total TEQ	0.00	PG_L	0		
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	Analysis Date	10/17/2015	NONE	0		
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	Extraction Date	10/13/2015	NONE	0		
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	1,2,3,4,6,7,8-HpCDD	ND	PG_L	4	54.9	
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	1,2,3,4,6,7,8-HpCDD TEQ	0.00	PG_L	0		
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	1,2,3,4,6,7,8-HpCDF	ND	PG_L	4	54.9	
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	1,2,3,4,6,7,8-HpCDF TEQ	0.00	PG_L	0		
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	1,2,3,4,7,8,9-HpCDF	ND	PG_L	4	54.9	
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	1,2,3,4,7,8,9-HpCDF TEQ	0.00	PG_L	0		
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	1,2,3,4,7,8-HxCDD	ND	PG_L	4	54.9	
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	1,2,3,4,7,8-HxCDD TEQ	0.00	PG_L	0		
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	1,2,3,4,7,8-HxCDF	ND	PG_L	4	54.9	
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	1,2,3,4,7,8-HxCDF TEQ	0.00	PG_L	0		
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	1,2,3,6,7,8-HxCDD	ND	PG_L	4	54.9	
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	1,2,3,6,7,8-HxCDD TEQ	0.00	PG_L	0		
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	1,2,3,6,7,8-HxCDF	ND	PG_L	4	54.9	
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	1,2,3,6,7,8-HxCDF TEQ	0.00	PG_L	0		
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	1,2,3,7,8,9-HxCDD	ND	PG_L	4	54.9	
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	1,2,3,7,8,9-HxCDD TEQ	0.00	PG_L	0		
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	1,2,3,7,8,9-HxCDF	ND	PG_L	4	54.9	
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	1,2,3,7,8,9-HxCDF TEQ	0.00	PG_L	0		
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	1,2,3,7,8-PeCDD	ND	PG_L	4	54.9	
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	1,2,3,7,8-PeCDD TEQ	0.00	PG_L	0		
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	1,2,3,7,8-PeCDF	ND	PG_L	4	54.9	
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	1,2,3,7,8-PeCDF TEQ	0.00	PG_L	0		
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	2,3,4,6,7,8-HxCDF	ND	PG_L	4	54.9	
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	2,3,4,6,7,8-HxCDF TEQ	0.00	PG_L	0		
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	2,3,4,7,8-PeCDF	ND	PG_L	4	54.9	
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	2,3,4,7,8-PeCDF TEQ	0.00	PG_L	0		
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	2,3,7,8-TCDD	ND	PG_L	4	11.0	
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	2,3,7,8-TCDD TEQ	0.00	PG_L	0		
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	2,3,7,8-TCDF	ND	PG_L	4	11.0	
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	2,3,7,8-TCDF TEQ	0.00	PG_L	0		
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	OCDD	ND	PG_L	8	110	
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	OCDD TEQ	0.00	PG_L	0		

1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	OCDF	ND	PG_L	8	110	
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	OCDF TEQ	0.00	PG_L	0		
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	Total HpCDD	ND	PG_L	4	54.9	
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	Total HpCDF	ND	PG_L	4	54.9	
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	Total HxCDD	ND	PG_L	4	54.9	
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	Total HxCDF	ND	PG_L	4	54.9	
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	Total PeCDD	ND	PG_L	4	54.9	
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	Total PeCDF	ND	PG_L	4	54.9	
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	Total TCDD	ND	PG_L	4	11.0	
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	Total TCDF	ND	PG_L	4	11.0	
1866375	FIN_EFF_S	06-Oct-15	TEQ_WK	Total TEQ	0.00	PG_L	0		
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	Analysis Date	01/20/2016 12:00:00 AM	NONE	0		
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	1,2,3,4,6,7,8-HpCDD	ND	PG_L	4	25.0	
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	1,2,3,4,6,7,8-HpCDD TEQ	0.00	PG_L	0		
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	1,2,3,4,6,7,8-HpCDF	ND	PG_L	4	25.0	
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	1,2,3,4,6,7,8-HpCDF TEQ	0.00	PG_L	0		
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	1,2,3,4,7,8,9-HpCDF	ND	PG_L	4	25.0	
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	1,2,3,4,7,8,9-HpCDF TEQ	0.00	PG_L	0		
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	1,2,3,4,7,8-HxCDD	ND	PG_L	4	25.0	
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	1,2,3,4,7,8-HxCDD TEQ	0.00	PG_L	0		
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	1,2,3,4,7,8-HxCDF	ND	PG_L	4	25.0	
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	1,2,3,4,7,8-HxCDF TEQ	0.00	PG_L	0		
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	1,2,3,6,7,8-HxCDD	ND	PG_L	4	25.0	
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	1,2,3,6,7,8-HxCDD TEQ	0.00	PG_L	0		
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	1,2,3,6,7,8-HxCDF	ND	PG_L	4	25.0	
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	1,2,3,6,7,8-HxCDF TEQ	0.00	PG_L	0		
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	1,2,3,7,8,9-HxCDD	ND	PG_L	4	25.0	
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	1,2,3,7,8,9-HxCDD TEQ	0.00	PG_L	0		
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	1,2,3,7,8,9-HxCDF	ND	PG_L	4	25.0	
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	1,2,3,7,8,9-HxCDF TEQ	0.00	PG_L	0		
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	1,2,3,7,8-PeCDD	ND	PG_L	4	25.0	
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	1,2,3,7,8-PeCDD TEQ	0.00	PG_L	0		
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	1,2,3,7,8-PeCDF	ND	PG_L	4	25.0	
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	1,2,3,7,8-PeCDF TEQ	0.00	PG_L	0		
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	2,3,4,6,7,8-HxCDF	ND	PG_L	4	25.0	
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	2,3,4,6,7,8-HxCDF TEQ	0.00	PG_L	0		
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	2,3,4,7,8-PeCDF	ND	PG_L	4	25.0	
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	2,3,4,7,8-PeCDF TEQ	0.00	PG_L	0		
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	2,3,7,8-TCDD	ND	PG_L	4	5.00	
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	2,3,7,8-TCDD TEQ	0.00	PG_L	0		
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	2,3,7,8-TCDF	ND	PG_L	4	5.00	
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	2,3,7,8-TCDF TEQ	0.00	PG_L	0		
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	OCDD	ND	PG_L	8	50.0	
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	OCDD TEQ	0.00	PG_L	0		
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	OCDF	ND	PG_L	8	50.0	
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	OCDF TEQ	0.00	PG_L	0		
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	Total HpCDD	ND	PG_L	4	25.0	
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	Total HpCDF	ND	PG_L	4	25.0	
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	Total HxCDD	ND	PG_L	4	25.0	
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	Total HxCDF	ND	PG_L	4	25.0	
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	Total PeCDD	ND	PG_L	4	25.0	
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	Total PeCDF	ND	PG_L	4	25.0	
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	Total TCDD	ND	PG_L	4	5.00	
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	Total TCDF	ND	PG_L	4	5.00	
1885939	FIN_EFF_S	05-Jan-16	TEQ_WK	Total TEQ	0.00	PG_L	0		
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	Analysis Date	04/17/2016	NONE	0		
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	Extraction Date	04/13/2016	NONE	0		
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	1,2,3,4,6,7,8-HpCDD	ND	PG_L	4	25.0	
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	1,2,3,4,6,7,8-HpCDD TEQ	0.00	PG_L	0		
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	1,2,3,4,6,7,8-HpCDF	ND	PG_L	4	25.0	
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	1,2,3,4,6,7,8-HpCDF TEQ	0.00	PG_L	0		
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	1,2,3,4,7,8,9-HpCDF	ND	PG_L	4	25.0	
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	1,2,3,4,7,8,9-HpCDF TEQ	0.00	PG_L	0		
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	1,2,3,4,7,8-HxCDD	ND	PG_L	4	25.0	
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	1,2,3,4,7,8-HxCDD TEQ	0.00	PG_L	0		
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	1,2,3,4,7,8-HxCDF	ND	PG_L	4	25.0	
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	1,2,3,4,7,8-HxCDF TEQ	0.00	PG_L	0		
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	1,2,3,6,7,8-HxCDD	ND	PG_L	4	25.0	
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	1,2,3,6,7,8-HxCDD TEQ	0.00	PG_L	0		
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	1,2,3,6,7,8-HxCDF	ND	PG_L	4	25.0	
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	1,2,3,6,7,8-HxCDF TEQ	0.00	PG_L	0		
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	1,2,3,7,8,9-HxCDD	ND	PG_L	4	25.0	
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	1,2,3,7,8,9-HxCDD TEQ	0.00	PG_L	0		
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	1,2,3,7,8,9-HxCDF	ND	PG_L	4	25.0	
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	1,2,3,7,8,9-HxCDF TEQ	0.00	PG_L	0		
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	1,2,3,7,8-PeCDD	ND	PG_L	4	25.0	
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	1,2,3,7,8-PeCDD TEQ	0.00	PG_L	0		
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	1,2,3,7,8-PeCDF	ND	PG_L	4	25.0	
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	1,2,3,7,8-PeCDF TEQ	0.00	PG_L	0		
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	2,3,4,6,7,8-HxCDF	ND	PG_L	4	25.0	

1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	2,3,4,6,7,8-HxCDF TEQ	0.00	PG_L	0	
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	2,3,4,7,8-PeCDF	ND	PG_L	4	25.0
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	2,3,4,7,8-PeCDF TEQ	0.00	PG_L	0	
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	2,3,7,8-TCDD	ND	PG_L	4	5.00
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	2,3,7,8-TCDD TEQ	0.00	PG_L	0	
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	2,3,7,8-TCDF	ND	PG_L	4	5.00
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	2,3,7,8-TCDF TEQ	0.00	PG_L	0	
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	OCDD	ND	PG_L	8	50.0
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	OCDD TEQ	0.00	PG_L	0	
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	OCDF	ND	PG_L	8	50.0
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	OCDF TEQ	0.00	PG_L	0	
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	Total HpCDD	ND	PG_L	4	25.0
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	Total HpCDF	ND	PG_L	4	25.0
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	Total HxCDD	ND	PG_L	4	25.0
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	Total HxCDF	ND	PG_L	4	25.0
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	Total PeCDD	ND	PG_L	4	25.0
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	Total PeCDF	ND	PG_L	4	25.0
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	Total TCDD	ND	PG_L	4	5.00
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	Total TCDF	ND	PG_L	4	5.00
1902576	FIN_EFF_S	05-Apr-16	TEQ_WK	Total TEQ	0	PG_L	0	
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	Analysis Date	07/21/2016	NONE	0	
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	Extraction Date	07/19/2016	NONE	0	
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	1,2,3,4,6,7,8-HpCDD	ND	PG_L	4	25.0
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	1,2,3,4,6,7,8-HpCDD TEQ	0	PG_L	0	
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	1,2,3,4,6,7,8-HpCDF	ND	PG_L	4	25.0
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	1,2,3,4,6,7,8-HpCDF TEQ	0	PG_L	0	
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	1,2,3,4,7,8,9-HpCDF	ND	PG_L	4	25.0
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	1,2,3,4,7,8,9-HpCDF TEQ	0	PG_L	0	
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	1,2,3,4,7,8-HxCDD	ND	PG_L	4	25.0
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	1,2,3,4,7,8-HxCDD TEQ	0	PG_L	0	
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	1,2,3,4,7,8-HxCDF	ND	PG_L	4	25.0
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	1,2,3,4,7,8-HxCDF TEQ	0	PG_L	0	
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	1,2,3,6,7,8-HxCDD	ND	PG_L	4	25.0
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	1,2,3,6,7,8-HxCDD TEQ	0	PG_L	0	
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	1,2,3,6,7,8-HxCDF	ND	PG_L	4	25.0
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	1,2,3,6,7,8-HxCDF TEQ	0	PG_L	0	
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	1,2,3,7,8,9-HxCDD	ND	PG_L	4	25.0
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	1,2,3,7,8,9-HxCDD TEQ	0	PG_L	0	
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	1,2,3,7,8,9-HxCDF	ND	PG_L	4	25.0
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	1,2,3,7,8,9-HxCDF TEQ	0	PG_L	0	
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	1,2,3,7,8-PeCDD	ND	PG_L	4	25.0
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	1,2,3,7,8-PeCDD TEQ	0	PG_L	0	
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	1,2,3,7,8-PeCDF	ND	PG_L	4	25.0
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	1,2,3,7,8-PeCDF TEQ	0	PG_L	0	
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	2,3,4,6,7,8-HxCDF	ND	PG_L	4	25.0
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	2,3,4,6,7,8-HxCDF TEQ	0	PG_L	0	
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	2,3,4,7,8-PeCDF	ND	PG_L	4	25.0
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	2,3,4,7,8-PeCDF TEQ	0	PG_L	0	
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	2,3,7,8-TCDD	ND	PG_L	4	5.00
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	2,3,7,8-TCDD TEQ	0	PG_L	0	
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	2,3,7,8-TCDF	ND	PG_L	4	5.00
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	2,3,7,8-TCDF TEQ	0	PG_L	0	
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	OCDD	ND	PG_L	8	50.0
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	OCDD TEQ	0	PG_L	0	
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	OCDF	ND	PG_L	8	50.0
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	OCDF TEQ	0	PG_L	0	
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	Total HpCDD	ND	PG_L	4	25.0
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	Total HpCDF	ND	PG_L	4	25.0
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	Total HxCDD	ND	PG_L	4	25.0
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	Total HxCDF	ND	PG_L	4	25.0
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	Total PeCDD	ND	PG_L	4	25.0
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	Total PeCDF	ND	PG_L	4	25.0
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	Total TCDD	ND	PG_L	4	5.00
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	Total TCDF	ND	PG_L	4	5.00
1922735	FIN_EFF_S	05-Jul-16	TEQ_WK	Total TEQ	0	PG_L	0.7	34.5
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	Analysis Date	10/29/2016 12:00:00 AM	NONE	0	
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	Dilution factor	1	NONE	0	
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	Extraction Date	10/20/2016	NONE	0	
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	1,2,3,4,6,7,8-HpCDD	ND	PG_L	1.23	55.6
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	1,2,3,4,6,7,8-HpCDD TEQ	0	PG_L	0	
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	1,2,3,4,6,7,8-HpCDF	ND	PG_L	1.2	55.6
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	1,2,3,4,6,7,8-HpCDF TEQ	0	PG_L	0	
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	1,2,3,4,7,8,9-HpCDF	ND	PG_L	1.16	55.6
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	1,2,3,4,7,8,9-HpCDF TEQ	0	PG_L	0	
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	1,2,3,4,7,8-HxCDD	ND	PG_L	1.42	55.6
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	1,2,3,4,7,8-HxCDD TEQ	0	PG_L	0	
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	1,2,3,4,7,8-HxCDF	ND	PG_L	1.39	55.6
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	1,2,3,4,7,8-HxCDF TEQ	0	PG_L	0	
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	1,2,3,6,7,8-HxCDD	ND	PG_L	1.43	55.6
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	1,2,3,6,7,8-HxCDD TEQ	0	PG_L	0	

1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	1,2,3,6,7,8-HxCDF	ND	PG_L	1.42	55.6	
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	1,2,3,6,7,8-HxCDF TEQ	0	PG_L	0		
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	1,2,3,7,8,9-HxCDD	ND	PG_L	1.38	55.6	
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	1,2,3,7,8,9-HxCDD TEQ	0	PG_L	0		
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	1,2,3,7,8,9-HxCDF	ND	PG_L	1.38	55.6	
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	1,2,3,7,8,9-HxCDF TEQ	0	PG_L	0		
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	1,2,3,7,8-PeCDD	ND	PG_L	1.44	55.6	
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	1,2,3,7,8-PeCDD TEQ	0	PG_L	0		
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	1,2,3,7,8-PeCDF	ND	PG_L	1.02	55.6	
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	1,2,3,7,8-PeCDF TEQ	0	PG_L	0		
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	2,3,4,6,7,8-HxCDF	ND	PG_L	1.32	55.6	
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	2,3,4,6,7,8-HxCDF TEQ	0	PG_L	0		
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	2,3,4,7,8-PeCDF	ND	PG_L	1.01	55.6	
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	2,3,4,7,8-PeCDF TEQ	0	PG_L	0		
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	2,3,7,8-TCDD	ND	PG_L	1.28	11.1	
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	2,3,7,8-TCDD TEQ	0	PG_L	0		
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	2,3,7,8-TCDF	ND	PG_L	1.56	11.1	
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	2,3,7,8-TCDF TEQ	0	PG_L	0		
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	OCDD	ND	PG_L	1.74	111	
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	OCDD TEQ	0	PG_L	0		
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	OCDF	ND	PG_L	1.2	111	
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	OCDF TEQ	0	PG_L	0		
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	Total HpCDD	ND	PG_L	1.23	55.6	
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	Total HpCDF	ND	PG_L	1.18	55.6	
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	Total HxCDD	ND	PG_L	4.52	55.6	
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	Total HxCDF	ND	PG_L	1.38	55.6	
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	Total PeCDD	ND	PG_L	2.91	55.6	
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	Total PeCDF	ND	PG_L	1.01	55.6	
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	Total TCDD	ND	PG_L	3.54	11.1	
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	Total TCDF	ND	PG_L	2.26	11.1	
1940726	FIN_EFF_S	04-Oct-16	TEQ_WK	Total TEQ	0	PG_L	0		
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	Analysis Date	01/17/2017 12:00:00 AM	NONE	0		
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	Dilution factor	1	NONE	0		
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	Extraction Date	01/13/2017	NONE	0		
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	1,2,3,4,6,7,8-HpCDD	ND	PG_L	0.93	54.9	
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	1,2,3,4,6,7,8-HpCDD TEQ	0	PG_L	0		
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	1,2,3,4,6,7,8-HpCDF	ND	PG_L	0.577	54.9	
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	1,2,3,4,6,7,8-HpCDF TEQ	0	PG_L	0		
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	1,2,3,4,7,8,9-HpCDF	ND	PG_L	0.57	54.9	
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	1,2,3,4,7,8,9-HpCDF TEQ	0	PG_L	0		
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	1,2,3,4,7,8-HxCDD	ND	PG_L	0.485	54.9	
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	1,2,3,4,7,8-HxCDD TEQ	0	PG_L	0		
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	1,2,3,4,7,8-HxCDF	ND	PG_L	0.612	54.9	
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	1,2,3,4,7,8-HxCDF TEQ	0	PG_L	0		
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	1,2,3,6,7,8-HxCDD	ND	PG_L	0.513	54.9	
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	1,2,3,6,7,8-HxCDD TEQ	0	PG_L	0		
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	1,2,3,6,7,8-HxCDF	ND	PG_L	0.653	54.9	
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	1,2,3,6,7,8-HxCDF TEQ	0	PG_L	0		
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	1,2,3,7,8,9-HxCDD	ND	PG_L	0.518	54.9	
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	1,2,3,7,8,9-HxCDD TEQ	0	PG_L	0		
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	1,2,3,7,8,9-HxCDF	ND	PG_L	0.619	54.9	
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	1,2,3,7,8,9-HxCDF TEQ	0	PG_L	0		
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	1,2,3,7,8-PeCDD	ND	PG_L	0.794	54.9	
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	1,2,3,7,8-PeCDD TEQ	0	PG_L	0		
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	1,2,3,7,8-PeCDF	ND	PG_L	1.17	54.9	
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	1,2,3,7,8-PeCDF TEQ	0	PG_L	0		
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	2,3,4,6,7,8-HxCDF	ND	PG_L	0.582	54.9	
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	2,3,4,6,7,8-HxCDF TEQ	0	PG_L	0		
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	2,3,4,7,8-PeCDF	ND	PG_L	1.15	54.9	
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	2,3,4,7,8-PeCDF TEQ	0	PG_L	0		
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	2,3,7,8-TCDD	ND	PG_L	0.664	11	
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	2,3,7,8-TCDD TEQ	0	PG_L	0		
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	2,3,7,8-TCDF	ND	PG_L	0.713	11	
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	2,3,7,8-TCDF TEQ	0	PG_L	0		
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	OCDD	1.64	PG_L	1.03	110	DNQ
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	OCDD TEQ	0.000492	PG_L	0		
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	OCDF	ND	PG_L	0.859	110	
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	OCDF TEQ	0	PG_L	0		
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	Total HpCDD	ND	PG_L	0.93	54.9	
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	Total HpCDF	ND	PG_L	0.573	54.9	
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	Total HxCDD	ND	PG_L	0.51	54.9	
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	Total HxCDF	ND	PG_L	0.615	54.9	
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	Total PeCDD	ND	PG_L	0.794	54.9	
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	Total PeCDF	ND	PG_L	1.16	54.9	
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	Total TCDD	ND	PG_L	0.664	11	
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	Total TCDF	ND	PG_L	0.713	11	
1959045	FIN_EFF_S	03-Jan-17	TEQ_WK	Total TEQ	0.000492	PG_L	0		
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	Analysis Date	04/13/2017 12:00:00 AM	NONE	0		
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	Dilution factor	1	NONE	0		
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	Extraction Date	04/08/2017	NONE	0		

1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	1,2,3,4,6,7,8-HpCDD	ND	PG_L	1.98	54.9	
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	1,2,3,4,6,7,8-HpCDD TEQ	0	PG_L	0		
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	1,2,3,4,6,7,8-HpCDF	ND	PG_L	1.3	54.9	
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	1,2,3,4,6,7,8-HpCDF TEQ	0	PG_L	0		
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	1,2,3,4,7,8,9-HpCDF	ND	PG_L	1.32	54.9	
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	1,2,3,4,7,8,9-HpCDF TEQ	0	PG_L	0		
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	1,2,3,4,7,8-HxCDD	ND	PG_L	0.836	54.9	
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	1,2,3,4,7,8-HxCDD TEQ	0	PG_L	0		
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	1,2,3,4,7,8-HxCDF	ND	PG_L	1.67	54.9	
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	1,2,3,4,7,8-HxCDF TEQ	0	PG_L	0		
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	1,2,3,6,7,8-HxCDD	ND	PG_L	0.88	54.9	
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	1,2,3,6,7,8-HxCDD TEQ	0	PG_L	0		
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	1,2,3,6,7,8-HxCDF	ND	PG_L	1.76	54.9	
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	1,2,3,6,7,8-HxCDF TEQ	0	PG_L	0		
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	1,2,3,7,8,9-HxCDD	ND	PG_L	0.842	54.9	
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	1,2,3,7,8,9-HxCDD TEQ	0	PG_L	0		
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	1,2,3,7,8,9-HxCDF	ND	PG_L	1.71	54.9	
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	1,2,3,7,8,9-HxCDF TEQ	0	PG_L	0		
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	1,2,3,7,8-PeCDD	ND	PG_L	1.1	54.9	
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	1,2,3,7,8-PeCDD TEQ	0	PG_L	0		
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	1,2,3,7,8-PeCDF	ND	PG_L	1.47	54.9	
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	1,2,3,7,8-PeCDF TEQ	0	PG_L	0		
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	2,3,4,6,7,8-HxCDF	ND	PG_L	1.6	54.9	
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	2,3,4,6,7,8-HxCDF TEQ	0	PG_L	0		
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	2,3,4,7,8-PeCDF	ND	PG_L	1.42	54.9	
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	2,3,4,7,8-PeCDF TEQ	0	PG_L	0		
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	2,3,7,8-TCDD	ND	PG_L	1.36	11	
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	2,3,7,8-TCDD TEQ	0	PG_L	0		
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	2,3,7,8-TCDF	ND	PG_L	1.21	11	
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	2,3,7,8-TCDF TEQ	0	PG_L	0		
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	OCDD	1.63	PG_L	1.2	110	DNQ
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	OCDD TEQ	0.000489	PG_L	0		
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	OCDF	ND	PG_L	1.35	110	
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	OCDF TEQ	0	PG_L	0		
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	Total HpCDD	ND	PG_L	1.98	54.9	
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	Total HpCDF	ND	PG_L	1.31	54.9	
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	Total HxCDD	ND	PG_L	0.869	54.9	
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	Total HxCDF	ND	PG_L	1.68	54.9	
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	Total PeCDD	ND	PG_L	1.1	54.9	
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	Total PeCDF	ND	PG_L	1.44	54.9	
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	Total TCDD	ND	PG_L	1.36	11	
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	Total TCDF	ND	PG_L	1.21	11	
1977341	FIN_EFF_S	04-Apr-17	TEQ_WK	Total TEQ	0.000489	PG_L	0		
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	Analysis Date	07/27/2017 12:00:00 AM	NONE	0		
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	Dilution factor	1	NONE	0		
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	Extraction Date	07/14/2017	NONE	0		
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	1,2,3,4,6,7,8-HpCDD	ND	PG_L	1.08	40.3	
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	1,2,3,4,6,7,8-HpCDD TEQ	0	PG_L	0		
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	1,2,3,4,6,7,8-HpCDF	ND	PG_L	1.03	40.3	
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	1,2,3,4,6,7,8-HpCDF TEQ	0	PG_L	0		
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	1,2,3,4,7,8,9-HpCDF	ND	PG_L	1.05	40.3	
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	1,2,3,4,7,8,9-HpCDF TEQ	0	PG_L	0		
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	1,2,3,4,7,8-HxCDD	ND	PG_L	1.04	40.3	
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	1,2,3,4,7,8-HxCDD TEQ	0	PG_L	0		
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	1,2,3,4,7,8-HxCDF	ND	PG_L	1.26	40.3	
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	1,2,3,4,7,8-HxCDF TEQ	0	PG_L	0		
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	1,2,3,6,7,8-HxCDD	ND	PG_L	1.1	40.3	
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	1,2,3,6,7,8-HxCDD TEQ	0	PG_L	0		
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	1,2,3,6,7,8-HxCDF	ND	PG_L	1.33	40.3	
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	1,2,3,6,7,8-HxCDF TEQ	0	PG_L	0		
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	1,2,3,7,8,9-HxCDD	ND	PG_L	1.05	40.3	
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	1,2,3,7,8,9-HxCDD TEQ	0	PG_L	0		
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	1,2,3,7,8,9-HxCDF	ND	PG_L	1.3	40.3	
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	1,2,3,7,8,9-HxCDF TEQ	0	PG_L	0		
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	1,2,3,7,8-PeCDD	ND	PG_L	1.13	40.3	
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	1,2,3,7,8-PeCDD TEQ	0	PG_L	0		
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	1,2,3,7,8-PeCDF	ND	PG_L	0.977	40.3	
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	1,2,3,7,8-PeCDF TEQ	0	PG_L	0		
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	2,3,4,6,7,8-HxCDF	ND	PG_L	1.22	40.3	
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	2,3,4,6,7,8-HxCDF TEQ	0	PG_L	0		
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	2,3,4,7,8-PeCDF	ND	PG_L	0.943	40.3	
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	2,3,4,7,8-PeCDF TEQ	0	PG_L	0		
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	2,3,7,8-TCDD	ND	PG_L	1.08	8.06	
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	2,3,7,8-TCDD TEQ	0	PG_L	0		
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	2,3,7,8-TCDF	ND	PG_L	1.06	8.06	
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	2,3,7,8-TCDF TEQ	0	PG_L	0		
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	OCDD	ND	PG_L	1.32	80.6	
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	OCDD TEQ	0	PG_L	0		
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	OCDF	ND	PG_L	0.835	80.6	
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	OCDF TEQ	0	PG_L	0		

1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	Total HpCDD	ND	PG_L	1.08	40.3	
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	Total HpCDF	ND	PG_L	1.04	40.3	
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	Total HxCDD	ND	PG_L	1.08	40.3	
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	Total HxCDF	ND	PG_L	1.28	40.3	
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	Total PeCDD	ND	PG_L	1.13	40.3	
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	Total PeCDF	ND	PG_L	0.96	40.3	
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	Total TCDD	ND	PG_L	1.08	8.06	
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	Total TCDF	ND	PG_L	1.06	8.06	
1995315	FIN_EFF_S	05-Jul-17	TEQ_WK	Total TEQ	0	PG_L	0		
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	Analysis Date	10/23/2017 12:00:00 AM	NONE	0		
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	Dilution factor	1	NONE	0		
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	Extraction Date	10/19/2017	NONE	0		
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	1,2,3,4,6,7,8-HpCDD	1.13	PG_L	0.952	43.5	DNQ
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	1,2,3,4,6,7,8-HpCDD TEQ	0.0113	PG_L	0		
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	1,2,3,4,6,7,8-HpCDF	ND	PG_L	0.939	43.5	
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	1,2,3,4,6,7,8-HpCDF TEQ	0	PG_L	0		
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	1,2,3,4,7,8,9-HpCDF	ND	PG_L	0.933	43.5	
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	1,2,3,4,7,8,9-HpCDF TEQ	0	PG_L	0		
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	1,2,3,4,7,8-HxCDD	ND	PG_L	0.92	43.5	
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	1,2,3,4,7,8-HxCDD TEQ	0	PG_L	0		
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	1,2,3,4,7,8-HxCDF	ND	PG_L	0.916	43.5	
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	1,2,3,4,7,8-HxCDF TEQ	0	PG_L	0		
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	1,2,3,6,7,8-HxCDD	ND	PG_L	0.971	43.5	
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	1,2,3,6,7,8-HxCDD TEQ	0	PG_L	0		
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	1,2,3,6,7,8-HxCDF	ND	PG_L	0.947	43.5	
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	1,2,3,6,7,8-HxCDF TEQ	0	PG_L	0		
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	1,2,3,7,8,9-HxCDD	ND	PG_L	0.893	43.5	
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	1,2,3,7,8,9-HxCDD TEQ	0	PG_L	0		
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	1,2,3,7,8,9-HxCDF	ND	PG_L	0.94	43.5	
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	1,2,3,7,8,9-HxCDF TEQ	0	PG_L	0		
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	1,2,3,7,8-PeCDD	ND	PG_L	1.27	43.5	
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	1,2,3,7,8-PeCDD TEQ	0	PG_L	0		
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	1,2,3,7,8-PeCDF	ND	PG_L	1	43.5	
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	1,2,3,7,8-PeCDF TEQ	0	PG_L	0		
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	2,3,4,6,7,8-HxCDF	ND	PG_L	0.884	43.5	
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	2,3,4,6,7,8-HxCDF TEQ	0	PG_L	0		
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	2,3,4,7,8-PeCDF	ND	PG_L	0.975	43.5	
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	2,3,4,7,8-PeCDF TEQ	0	PG_L	0		
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	2,3,7,8-TCDD	ND	PG_L	1.86	8.7	
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	2,3,7,8-TCDD TEQ	0	PG_L	0		
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	2,3,7,8-TCDF	ND	PG_L	0.919	8.7	
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	2,3,7,8-TCDF TEQ	0	PG_L	0		
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	OCDD	7.66	PG_L	0.939	87	DNQ
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	OCDD TEQ	0.00230	PG_L	0		
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	OCDF	1.12	PG_L	1.04	87	DNQ
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	OCDF TEQ	0.000336	PG_L	0		
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	Total HpCDD	2.42	PG_L	0.952	43.5	DNQ
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	Total HpCDF	ND	PG_L	0.936	43.5	
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	Total HxCDD	ND	PG_L	0.934	43.5	
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	Total HxCDF	ND	PG_L	0.921	43.5	
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	Total PeCDD	ND	PG_L	1.27	43.5	
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	Total PeCDF	ND	PG_L	0.987	43.5	
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	Total TCDD	ND	PG_L	1.86	8.7	
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	Total TCDF	ND	PG_L	0.919	8.7	
2014305	FIN_EFF_S	03-Oct-17	TEQ_WK	Total TEQ	0.0139	PG_L	0		
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	Analysis Date	02/10/2018 12:00:00 AM	NONE	0		
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	Dilution factor	1	NONE	0		
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	Extraction Date	02/03/2018	NONE	0		
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	1,2,3,4,6,7,8-HpCDD	ND	PG_L	1.19	49	
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	1,2,3,4,6,7,8-HpCDD TEQ	0	PG_L	0		
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	1,2,3,4,6,7,8-HpCDF	ND	PG_L	1.07	49	
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	1,2,3,4,6,7,8-HpCDF TEQ	0	PG_L	0		
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	1,2,3,4,7,8,9-HpCDF	ND	PG_L	1.06	49	
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	1,2,3,4,7,8,9-HpCDF TEQ	0	PG_L	0		
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	1,2,3,4,7,8-HxCDD	ND	PG_L	1.09	49	
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	1,2,3,4,7,8-HxCDD TEQ	0	PG_L	0		
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	1,2,3,4,7,8-HxCDF	ND	PG_L	1.11	49	
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	1,2,3,4,7,8-HxCDF TEQ	0	PG_L	0		
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	1,2,3,6,7,8-HxCDD	ND	PG_L	1.11	49	
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	1,2,3,6,7,8-HxCDD TEQ	0	PG_L	0		
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	1,2,3,6,7,8-HxCDF	ND	PG_L	1.12	49	
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	1,2,3,6,7,8-HxCDF TEQ	0	PG_L	0		
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	1,2,3,7,8,9-HxCDD	ND	PG_L	1.08	49	
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	1,2,3,7,8,9-HxCDD TEQ	0	PG_L	0		
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	1,2,3,7,8,9-HxCDF	ND	PG_L	1.05	49	
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	1,2,3,7,8,9-HxCDF TEQ	0	PG_L	0		
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	1,2,3,7,8-PeCDD	ND	PG_L	1.08	49	
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	1,2,3,7,8-PeCDD TEQ	0	PG_L	0		
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	1,2,3,7,8-PeCDF	ND	PG_L	1.34	49	
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	1,2,3,7,8-PeCDF TEQ	0	PG_L	0		

2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	2,3,4,6,7,8-HxCDF	ND	PG_L	1.04	49	
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	2,3,4,6,7,8-HxCDF TEQ	0	PG_L	0		
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	2,3,4,7,8-PeCDF	ND	PG_L	1.33	49	
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	2,3,4,7,8-PeCDF TEQ	0	PG_L	0		
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	2,3,7,8-TCDD	ND	PG_L	1.19	9.8	
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	2,3,7,8-TCDD TEQ	0	PG_L	0		
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	2,3,7,8-TCDF	ND	PG_L	1.47	9.8	
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	2,3,7,8-TCDF TEQ	0	PG_L	0		
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	OCDD	ND	PG_L	2.01	98	
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	OCDD TEQ	0	PG_L	0		
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	OCDF	ND	PG_L	1.12	98	
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	OCDF TEQ	0	PG_L	0		
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	Total HpCDD	ND	PG_L	1.19	49	
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	Total HpCDF	ND	PG_L	1.06	49	
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	Total HxCDD	ND	PG_L	2.97	49	
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	Total HxCDF	ND	PG_L	1.08	49	
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	Total PeCDD	ND	PG_L	1.08	49	
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	Total PeCDF	ND	PG_L	1.34	49	
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	Total TCDD	ND	PG_L	1.71	9.8	
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	Total TCDF	ND	PG_L	1.47	9.8	
2035417	FIN_EFF_S	09-Jan-18	TEQ_WK	Total TEQ	0	PG_L	0		
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	Analysis Date	04/19/2018 12:00:00 AM	NONE	0		
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	Dilution factor	1	NONE	0		
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	Extraction Date	04/15/2018	NONE	0		
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	1,2,3,4,6,7,8-HpCDD	ND	PG_L	1.27	50	
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	1,2,3,4,6,7,8-HpCDD TEQ	0	PG_L	0		
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	1,2,3,4,6,7,8-HpCDF	ND	PG_L	1.11	50	
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	1,2,3,4,6,7,8-HpCDF TEQ	0	PG_L	0		
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	1,2,3,4,7,8,9-HpCDF	ND	PG_L	1.08	50	
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	1,2,3,4,7,8,9-HpCDF TEQ	0	PG_L	0		
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	1,2,3,4,7,8-HxCDD	ND	PG_L	1.17	50	
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	1,2,3,4,7,8-HxCDD TEQ	0	PG_L	0		
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	1,2,3,4,7,8-HxCDF	ND	PG_L	1.16	50	
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	1,2,3,4,7,8-HxCDF TEQ	0	PG_L	0		
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	1,2,3,6,7,8-HxCDD	ND	PG_L	1.22	50	
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	1,2,3,6,7,8-HxCDD TEQ	0	PG_L	0		
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	1,2,3,6,7,8-HxCDF	ND	PG_L	1.26	50	
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	1,2,3,6,7,8-HxCDF TEQ	0	PG_L	0		
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	1,2,3,7,8,9-HxCDD	ND	PG_L	1.23	50	
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	1,2,3,7,8,9-HxCDD TEQ	0	PG_L	0		
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	1,2,3,7,8,9-HxCDF	ND	PG_L	1.22	50	
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	1,2,3,7,8,9-HxCDF TEQ	0	PG_L	0		
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	1,2,3,7,8-PeCDD	ND	PG_L	1.17	50	
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	1,2,3,7,8-PeCDD TEQ	0	PG_L	0		
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	1,2,3,7,8-PeCDF	ND	PG_L	1.06	50	
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	1,2,3,7,8-PeCDF TEQ	0	PG_L	0		
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	2,3,4,6,7,8-HxCDF	ND	PG_L	1.13	50	
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	2,3,4,6,7,8-HxCDF TEQ	0	PG_L	0		
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	2,3,4,7,8-PeCDF	ND	PG_L	0.914	50	
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	2,3,4,7,8-PeCDF TEQ	0	PG_L	0		
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	2,3,7,8-TCDD	ND	PG_L	1.2	10	
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	2,3,7,8-TCDD TEQ	0	PG_L	0		
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	2,3,7,8-TCDF	ND	PG_L	0.907	10	
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	2,3,7,8-TCDF TEQ	0	PG_L	0		
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	OCDD	4.05	PG_L	1.2	100	DNQ
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	OCDD TEQ	0.00122	PG_L	0		
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	OCDF	2.93	PG_L	1.21	100	DNQ
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	OCDF TEQ	0.000879	PG_L	0		
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	Total HpCDD	ND	PG_L	1.27	50	
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	Total HpCDF	ND	PG_L	1.1	50	
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	Total HxCDD	ND	PG_L	1.23	50	
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	Total HxCDF	ND	PG_L	1.19	50	
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	Total PeCDD	ND	PG_L	1.17	50	
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	Total PeCDF	ND	PG_L	0.983	50	
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	Total TCDD	ND	PG_L	1.2	10	
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	Total TCDF	ND	PG_L	0.907	10	
2053219	FIN_EFF_S	03-Apr-18	TEQ_WK	Total TEQ	0.00210	PG_L	0		
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	Analysis Date	08/01/2018 12:00:00 AM	NONE	0		
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	Dilution factor	1	NONE	0		
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	Extraction Date	07/29/2018	NONE	0		
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	1,2,3,4,6,7,8-HpCDD	ND	PG_L	0.849	41.7	
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	1,2,3,4,6,7,8-HpCDD TEQ	0	PG_L	0		
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	1,2,3,4,6,7,8-HpCDF	ND	PG_L	0.92	41.7	
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	1,2,3,4,6,7,8-HpCDF TEQ	0	PG_L	0		
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	1,2,3,4,7,8,9-HpCDF	ND	PG_L	0.881	41.7	
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	1,2,3,4,7,8,9-HpCDF TEQ	0	PG_L	0		
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	1,2,3,4,7,8-HxCDD	ND	PG_L	0.915	41.7	
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	1,2,3,4,7,8-HxCDD TEQ	0	PG_L	0		
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	1,2,3,4,7,8-HxCDF	ND	PG_L	0.936	41.7	
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	1,2,3,4,7,8-HxCDF TEQ	0	PG_L	0		

2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	1,2,3,6,7,8-HxCDD	ND	PG_L	0.885	41.7
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	1,2,3,6,7,8-HxCDD TEQ	0	PG_L	0	
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	1,2,3,6,7,8-HxCDF	ND	PG_L	0.939	41.7
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	1,2,3,6,7,8-HxCDF TEQ	0	PG_L	0	
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	1,2,3,7,8,9-HxCDD	ND	PG_L	0.912	41.7
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	1,2,3,7,8,9-HxCDD TEQ	0	PG_L	0	
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	1,2,3,7,8,9-HxCDF	ND	PG_L	0.97	41.7
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	1,2,3,7,8,9-HxCDF TEQ	0	PG_L	0	
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	1,2,3,7,8-PeCDD	ND	PG_L	0.903	41.7
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	1,2,3,7,8-PeCDD TEQ	0	PG_L	0	
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	1,2,3,7,8-PeCDF	ND	PG_L	0.9	41.7
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	1,2,3,7,8-PeCDF TEQ	0	PG_L	0	
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	2,3,4,6,7,8-HxCDF	ND	PG_L	0.872	41.7
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	2,3,4,6,7,8-HxCDF TEQ	0	PG_L	0	
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	2,3,4,7,8-PeCDF	ND	PG_L	0.799	41.7
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	2,3,4,7,8-PeCDF TEQ	0	PG_L	0	
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	2,3,7,8-TCDD	ND	PG_L	0.864	8.33
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	2,3,7,8-TCDD TEQ	0	PG_L	0	
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	2,3,7,8-TCDF	ND	PG_L	0.963	8.33
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	2,3,7,8-TCDF TEQ	0	PG_L	0	
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	OCDD	ND	PG_L	1.03	83.3
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	OCDD TEQ	0	PG_L	0	
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	OCDF	ND	PG_L	0.848	83.3
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	OCDF TEQ	0	PG_L	0	
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	Total HpCDD	ND	PG_L	0.849	41.7
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	Total HpCDF	ND	PG_L	0.9	41.7
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	Total HxCDD	ND	PG_L	2.33	41.7
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	Total HxCDF	ND	PG_L	0.928	41.7
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	Total PeCDD	ND	PG_L	0.903	41.7
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	Total PeCDF	ND	PG_L	0.847	41.7
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	Total TCDD	ND	PG_L	1.33	8.33
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	Total TCDF	ND	PG_L	0.963	8.33
2072848	FIN_EFF_S	10-Jul-18	TEQ_WK	Total TEQ	0	PG_L	0	
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	Analysis Date	10/22/2018 12:00:00 AM	NONE	0	
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	Dilution factor	1	NONE	0	
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	Extraction Date	10/16/2018	NONE	0	
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	1,2,3,4,6,7,8-HpCDD	ND	PG_L	1.26	50
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	1,2,3,4,6,7,8-HpCDD TEQ	0	PG_L	0	
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	1,2,3,4,6,7,8-HpCDF	ND	PG_L	1.27	50
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	1,2,3,4,6,7,8-HpCDF TEQ	0	PG_L	0	
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	1,2,3,4,7,8,9-HpCDF	ND	PG_L	1.27	50
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	1,2,3,4,7,8,9-HpCDF TEQ	0	PG_L	0	
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	1,2,3,4,7,8-HxCDD	ND	PG_L	1.45	50
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	1,2,3,4,7,8-HxCDD TEQ	0	PG_L	0	
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	1,2,3,4,7,8-HxCDF	ND	PG_L	1.28	50
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	1,2,3,4,7,8-HxCDF TEQ	0	PG_L	0	
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	1,2,3,6,7,8-HxCDD	ND	PG_L	1.48	50
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	1,2,3,6,7,8-HxCDD TEQ	0	PG_L	0	
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	1,2,3,6,7,8-HxCDF	ND	PG_L	1.38	50
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	1,2,3,6,7,8-HxCDF TEQ	0	PG_L	0	
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	1,2,3,7,8,9-HxCDD	ND	PG_L	1.49	50
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	1,2,3,7,8,9-HxCDD TEQ	0	PG_L	0	
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	1,2,3,7,8,9-HxCDF	ND	PG_L	1.33	50
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	1,2,3,7,8,9-HxCDF TEQ	0	PG_L	0	
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	1,2,3,7,8-PeCDD	ND	PG_L	1.23	50
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	1,2,3,7,8-PeCDD TEQ	0	PG_L	0	
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	1,2,3,7,8-PeCDF	ND	PG_L	1.31	50
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	1,2,3,7,8-PeCDF TEQ	0	PG_L	0	
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	2,3,4,6,7,8-HxCDF	ND	PG_L	1.24	50
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	2,3,4,6,7,8-HxCDF TEQ	0	PG_L	0	
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	2,3,4,7,8-PeCDF	ND	PG_L	1.19	50
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	2,3,4,7,8-PeCDF TEQ	0	PG_L	0	
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	2,3,7,8-TCDD	ND	PG_L	1.15	10
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	2,3,7,8-TCDD TEQ	0	PG_L	0	
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	2,3,7,8-TCDF	ND	PG_L	0.986	10
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	2,3,7,8-TCDF TEQ	0	PG_L	0	
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	OCDD	ND	PG_L	1.76	100
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	OCDD TEQ	0	PG_L	0	
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	OCDF	ND	PG_L	1.78	100
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	OCDF TEQ	0	PG_L	0	
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	Total HpCDD	ND	PG_L	1.26	50
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	Total HpCDF	ND	PG_L	1.27	50
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	Total HxCDD	ND	PG_L	1.49	50
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	Total HxCDF	ND	PG_L	1.31	50
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	Total PeCDD	ND	PG_L	1.23	50
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	Total PeCDF	ND	PG_L	1.25	50
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	Total TCDD	ND	PG_L	1.15	10
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	Total TCDF	ND	PG_L	0.986	10
2091360	FIN_EFF_S	02-Oct-18	TEQ_WK	Total TEQ	0	PG_L	0	
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	Analysis Date	02/01/2019 12:00:00 AM	NONE	0	

2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	Dilution Factor	1	NONE	0		
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	Extraction Date	01/25/2019	NONE	0		
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	1,2,3,4,6,7,8-HpCDD	ND	PG_L	1.17	53.2	
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	1,2,3,4,6,7,8-HpCDD TEQ	0	PG_L	0		
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	1,2,3,4,6,7,8-HpCDF	ND	PG_L	1.12	53.2	
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	1,2,3,4,6,7,8-HpCDF TEQ	0	PG_L	0		
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	1,2,3,4,7,8,9-HpCDF	ND	PG_L	1.11	53.2	
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	1,2,3,4,7,8,9-HpCDF TEQ	0	PG_L	0		
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	1,2,3,4,7,8-HxCDD	ND	PG_L	1.24	53.2	
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	1,2,3,4,7,8-HxCDD TEQ	0	PG_L	0		
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	1,2,3,4,7,8-HxCDF	ND	PG_L	1.33	53.2	
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	1,2,3,4,7,8-HxCDF TEQ	0	PG_L	0		
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	1,2,3,6,7,8-HxCDD	ND	PG_L	1.23	53.2	
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	1,2,3,6,7,8-HxCDD TEQ	0	PG_L	0		
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	1,2,3,6,7,8-HxCDF	ND	PG_L	1.39	53.2	
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	1,2,3,6,7,8-HxCDF TEQ	0	PG_L	0		
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	1,2,3,7,8,9-HxCDD	ND	PG_L	1.27	53.2	
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	1,2,3,7,8,9-HxCDD TEQ	0	PG_L	0		
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	1,2,3,7,8,9-HxCDF	ND	PG_L	1.34	53.2	
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	1,2,3,7,8,9-HxCDF TEQ	0	PG_L	0		
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	1,2,3,7,8-PeCDD	ND	PG_L	1.22	53.2	
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	1,2,3,7,8-PeCDD TEQ	0	PG_L	0		
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	1,2,3,7,8-PeCDF	ND	PG_L	1.44	53.2	
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	1,2,3,7,8-PeCDF TEQ	0	PG_L	0		
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	2,3,4,6,7,8-HxCDF	ND	PG_L	1.31	53.2	
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	2,3,4,6,7,8-HxCDF TEQ	0	PG_L	0		
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	2,3,4,7,8-PeCDF	ND	PG_L	1.27	53.2	
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	2,3,4,7,8-PeCDF TEQ	0	PG_L	0		
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	2,3,7,8-TCDD	ND	PG_L	1.18	10.6	
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	2,3,7,8-TCDD TEQ	0	PG_L	0		
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	2,3,7,8-TCDF	ND	PG_L	1.29	10.6	
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	2,3,7,8-TCDF TEQ	0	PG_L	0		
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	OCDD	ND	PG_L	1.93	106	
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	OCDD TEQ	0	PG_L	0		
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	OCDF	ND	PG_L	1.5	106	
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	OCDF TEQ	0	PG_L	0		
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	Total HpCDD	ND	PG_L	1.17	53.2	
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	Total HpCDF	ND	PG_L	1.11	53.2	
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	Total HxCDD	ND	PG_L	1.26	53.2	
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	Total HxCDF	ND	PG_L	1.34	53.2	
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	Total PeCDD	ND	PG_L	1.22	53.2	
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	Total PeCDF	ND	PG_L	1.35	53.2	
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	Total TCDD	ND	PG_L	1.18	10.6	
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	Total TCDF	ND	PG_L	1.29	10.6	
2111567	FIN_EFF_S	08-Jan-19	TEQ_WK	Total TEQ	0	PG_L	0		
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	Analysis Date	05/07/2019 12:00:00 AM	NONE	0		
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	Dilution factor	1	NONE	0		
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	Extraction Date	05-01-2019	NONE	0		
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	1,2,3,4,6,7,8-HpCDD	ND	PG_L	1.33	40	
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	1,2,3,4,6,7,8-HpCDD TEQ	0	PG_L	0		
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	1,2,3,4,6,7,8-HpCDF	ND	PG_L	0.849	40	
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	1,2,3,4,6,7,8-HpCDF TEQ	0	PG_L	0		
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	1,2,3,4,7,8,9-HpCDF	ND	PG_L	0.824	40	
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	1,2,3,4,7,8,9-HpCDF TEQ	0	PG_L	0		
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	1,2,3,4,7,8-HxCDD	ND	PG_L	1.2	40	
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	1,2,3,4,7,8-HxCDD TEQ	0	PG_L	0		
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	1,2,3,4,7,8-HxCDF	ND	PG_L	0.793	40	
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	1,2,3,4,7,8-HxCDF TEQ	0	PG_L	0		
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	1,2,3,6,7,8-HxCDD	ND	PG_L	1.17	40	
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	1,2,3,6,7,8-HxCDD TEQ	0	PG_L	0		
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	1,2,3,6,7,8-HxCDF	ND	PG_L	0.814	40	
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	1,2,3,6,7,8-HxCDF TEQ	0	PG_L	0		
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	1,2,3,7,8,9-HxCDD	ND	PG_L	1.24	40	
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	1,2,3,7,8,9-HxCDD TEQ	0	PG_L	0		
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	1,2,3,7,8,9-HxCDF	ND	PG_L	0.804	40	
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	1,2,3,7,8,9-HxCDF TEQ	0	PG_L	0		
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	1,2,3,7,8-PeCDD	ND	PG_L	1.18	40	
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	1,2,3,7,8-PeCDD TEQ	0	PG_L	0		
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	1,2,3,7,8-PeCDF	ND	PG_L	1.02	40	
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	1,2,3,7,8-PeCDF TEQ	0	PG_L	0		
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	2,3,4,6,7,8-HxCDF	ND	PG_L	0.754	40	
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	2,3,4,6,7,8-HxCDF TEQ	0	PG_L	0		
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	2,3,4,7,8-PeCDF	ND	PG_L	0.933	40	
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	2,3,4,7,8-PeCDF TEQ	0	PG_L	0		
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	2,3,7,8-TCDD	ND	PG_L	1.36	8	
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	2,3,7,8-TCDD TEQ	0	PG_L	0		
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	2,3,7,8-TCDF	ND	PG_L	1.13	8	
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	2,3,7,8-TCDF TEQ	0	PG_L	0		
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	OCDD	ND	PG_L	1.81	80	
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	OCDD TEQ	0	PG_L	0		

2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	OCDF	ND	PG_L	1.4	80	
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	OCDF TEQ	0	PG_L	0		
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	Total HpCDD	ND	PG_L	1.33	40	
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	Total HpCDF	ND	PG_L	0.837	40	
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	Total HxCDD	ND	PG_L	1.22	40	
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	Total HxCDF	ND	PG_L	0.79	40	
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	Total PeCDD	ND	PG_L	1.18	40	
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	Total PeCDF	ND	PG_L	0.975	40	
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	Total TCDD	ND	PG_L	1.36	8	
2130424	FIN_EFF_S	02-Apr-19	TEQ_WK	Total TCDF	ND	PG_L	1.13	8	
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2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	Dilution factor	1	NONE	0		
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	Extraction Date	07-11-2019	NONE	0		
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	1,2,3,4,6,7,8-HpCDD	ND	PG_L	1.09	44.8	
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	1,2,3,4,6,7,8-HpCDD TEQ	0	PG_L	0		
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	1,2,3,4,6,7,8-HpCDF	ND	PG_L	1.03	44.8	
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	1,2,3,4,6,7,8-HpCDF TEQ	0	PG_L	0		
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	1,2,3,4,7,8,9-HpCDF	ND	PG_L	1.03	44.8	
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	1,2,3,4,7,8,9-HpCDF TEQ	0	PG_L	0		
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	1,2,3,4,7,8-HxCDD	ND	PG_L	1.11	44.8	
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	1,2,3,4,7,8-HxCDD TEQ	0	PG_L	0		
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	1,2,3,4,7,8-HxCDF	ND	PG_L	1.03	44.8	
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	1,2,3,4,7,8-HxCDF TEQ	0	PG_L	0		
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	1,2,3,6,7,8-HxCDD	ND	PG_L	1.03	44.8	
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	1,2,3,6,7,8-HxCDD TEQ	0	PG_L	0		
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	1,2,3,6,7,8-HxCDF	ND	PG_L	1.01	44.8	
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	1,2,3,6,7,8-HxCDF TEQ	0	PG_L	0		
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	1,2,3,7,8,9-HxCDD	ND	PG_L	0.986	44.8	
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	1,2,3,7,8,9-HxCDD TEQ	0	PG_L	0		
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	1,2,3,7,8,9-HxCDF	ND	PG_L	1.05	44.8	
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	1,2,3,7,8,9-HxCDF TEQ	0	PG_L	0		
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	1,2,3,7,8-PeCDD	ND	PG_L	2.01	44.8	
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	1,2,3,7,8-PeCDD TEQ	0	PG_L	0		
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	1,2,3,7,8-PeCDF	ND	PG_L	1.09	44.8	
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	1,2,3,7,8-PeCDF TEQ	0	PG_L	0		
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	2,3,4,6,7,8-HxCDF	ND	PG_L	0.975	44.8	
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	2,3,4,6,7,8-HxCDF TEQ	0	PG_L	0		
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	2,3,4,7,8-PeCDF	ND	PG_L	0.984	44.8	
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	2,3,4,7,8-PeCDF TEQ	0	PG_L	0		
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	2,3,7,8-TCDD	ND	PG_L	1.37	8.97	
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	2,3,7,8-TCDD TEQ	0	PG_L	0		
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	2,3,7,8-TCDF	ND	PG_L	0.986	8.97	
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	2,3,7,8-TCDF TEQ	0	PG_L	0		
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	OCDD	ND	PG_L	0.898	89.7	
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	OCDD TEQ	0	PG_L	0		
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	OCDF	ND	PG_L	0.911	89.7	
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	OCDF TEQ	0	PG_L	0		
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	Total HpCDD	ND	PG_L	1.09	44.8	
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	Total HpCDF	ND	PG_L	1.03	44.8	
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	Total HxCDD	ND	PG_L	6.3	44.8	
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	Total HxCDF	ND	PG_L	1.02	44.8	
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	Total PeCDD	ND	PG_L	2.01	44.8	
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	Total PeCDF	ND	PG_L	1.03	44.8	
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	Total TCDD	ND	PG_L	1.45	8.97	
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	Total TCDF	ND	PG_L	0.986	8.97	
2151764	FIN_EFF_S	02-Jul-19	TEQ_WK	Total TEQ	0	PG_L	0		
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	Analysis Date	10/29/2019 12:00:00 AM	NONE	0		
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	Dilution factor	1	NONE	0		
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	Extraction Date	10-22-2019	NONE	0		
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	1,2,3,4,6,7,8-HpCDD	ND	PG_L	1.12	48.5	
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	1,2,3,4,6,7,8-HpCDD TEQ	0	PG_L	0		
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	1,2,3,4,6,7,8-HpCDF	ND	PG_L	1.01	48.5	
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	1,2,3,4,6,7,8-HpCDF TEQ	0	PG_L	0		
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	1,2,3,4,7,8,9-HpCDF	ND	PG_L	0.957	48.5	
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	1,2,3,4,7,8,9-HpCDF TEQ	0	PG_L	0		
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	1,2,3,4,7,8-HxCDD	ND	PG_L	1.19	48.5	
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	1,2,3,4,7,8-HxCDD TEQ	0	PG_L	0		
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	1,2,3,4,7,8-HxCDF	ND	PG_L	0.818	48.5	
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	1,2,3,4,7,8-HxCDF TEQ	0	PG_L	0		
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	1,2,3,6,7,8-HxCDD	ND	PG_L	1.18	48.5	
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	1,2,3,6,7,8-HxCDD TEQ	0	PG_L	0		
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	1,2,3,6,7,8-HxCDF	ND	PG_L	0.865	48.5	
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	1,2,3,6,7,8-HxCDF TEQ	0	PG_L	0		
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	1,2,3,7,8,9-HxCDD	ND	PG_L	1.25	48.5	
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	1,2,3,7,8,9-HxCDD TEQ	0	PG_L	0		
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	1,2,3,7,8,9-HxCDF	ND	PG_L	0.832	48.5	
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	1,2,3,7,8,9-HxCDF TEQ	0	PG_L	0		
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	1,2,3,7,8-PeCDD	ND	PG_L	1.2	48.5	
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	1,2,3,7,8-PeCDD TEQ	0	PG_L	0		

2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	1,2,3,7,8-PeCDF	ND	PG_L	0.621	48.5	
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	1,2,3,7,8-PeCDF TEQ	0	PG_L	0		
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	2,3,4,6,7,8-HxCDF	ND	PG_L	0.783	48.5	
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	2,3,4,6,7,8-HxCDF TEQ	0	PG_L	0		
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	2,3,4,7,8-PeCDF	ND	PG_L	0.568	48.5	
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	2,3,4,7,8-PeCDF TEQ	0	PG_L	0		
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	2,3,7,8-TCDD	ND	PG_L	1.07	9.71	
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	2,3,7,8-TCDD TEQ	0	PG_L	0		
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	2,3,7,8-TCDF	ND	PG_L	0.46	9.71	
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	2,3,7,8-TCDF TEQ	0	PG_L	0		
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	OCDD	ND	PG_L	1.4	97.1	
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	OCDD TEQ	0	PG_L	0		
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	OCDF	ND	PG_L	1.05	97.1	
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	OCDF TEQ	0	PG_L	0		
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	Total HpCDD	ND	PG_L	1.12	48.5	
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	Total HpCDF	ND	PG_L	0.982	48.5	
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	Total HxCDD	ND	PG_L	1.23	48.5	
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	Total HxCDF	ND	PG_L	0.824	48.5	
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	Total PeCDD	ND	PG_L	1.2	48.5	
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	Total PeCDF	ND	PG_L	0.593	48.5	
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	Total TCDD	ND	PG_L	1.07	9.71	
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	Total TCDF	ND	PG_L	0.46	9.71	
2172722	FIN_EFF_S	01-Oct-19	TEQ_WK	Total TEQ	0	PG_L	0		

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OCPublicWorks.com

Administrative Services

OC Development Services

OC Facilities Design & Construction Management

OC Facilities Maintenance & CUF

OC Fleet Services

OC Construction

OC Environmental Resources

OC Operations & Maintenance

OC Infrastructure Programs

OC Survey

ORANGE COUNTY OC Public Works

Via email

March 4, 2021

ATTN: Ryan Harris
Wastewater Section
Santa Ana Regional Water Quality Control Board
3737 Main Street, Ste. 500
Riverside, CA 92501

Subject: County of Orange Comments on Waste Discharge Requirements and National Pollutant Discharge Elimination System Permit for Orange County Sanitation District Publicly Owned Treatment Works, Order No. R8-2021-0010

Dear Mr. Harris,

Thank you for the opportunity to provide comments and recommendations on the subject draft Order No. R8-2021-0010 (draft order). The County of Orange, OC Public Works (County) leads implementation of the Orange County Stormwater Program on behalf of the Orange County Flood Control District (OCFCD) and Orange County cities through the municipal separate storm sewer system permit Order No. R8-2009-0030 (MS4 permit). In this capacity, the County has collaborated closely with the Orange County Sanitation District (OC San) on several important programs that benefit surface water quality in North Orange County, such as the Urban Runoff Diversion Program, the Countywide Area Spill Control (CASC) Program, and the Orange County Regional Shoreline REC-1 Cooperative Monitoring (also called the Unified Beach Water Quality Program). Our comments and recommendations on the draft order concern two areas: 1) regional shoreline cooperative monitoring; and 2) encouraging regional collaboration of integrated water resources projects.

1. Comments on the Regional Shoreline REC-1 Cooperative Monitoring

Attachment E, Section IX.D of the draft order notes the agencies involved in the Regional Cooperative REC-1 Cooperative Monitoring across North and South Orange County, including OC San, Orange County Health Care Agency (OCHCA), OC Public Works, and the South Orange County Wastewater Authority. The section notes County involvement in this program but provides limited context for the County's role on behalf of the MS4 permittees. The County therefore recommends that a clarifying sentence be added that "nine of the shoreline monitoring stations also satisfy the requirements of both this Order and the Orange County MS4 permit." Additionally, the following comments are provided on Table E-2 of Attachment E (starting on page E-18):

- Shoreline station locations between the Santa Ana River mouth and Crystal Cove would be better characterized as Newport Beach instead of Bolsa Chica/Huntington Beach.
- Table E-2 identifies the appropriate agency responsible for monitoring at various stations across North Orange County. The County would also recommend that stations HB1, HB2, HB3, HB4, HB5, BGC, PPC, WFC, and MDC be footnoted as "also satisfies the requirements of the Orange County MS4 permit."

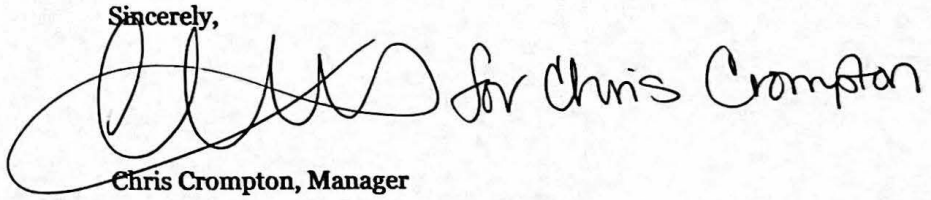
2. Encouraging Regional Collaboration of Integrated Water Resources Projects

The findings of the MS4 permit recognize the importance of integrated watershed management initiatives and regional planning and coordination in the development and implementation of programs and policies related to water quality protection. The Orange County Stormwater Program has worked to develop new regional multi-benefit projects for the four principal watersheds of North Orange County with OC San and other potential project partners. These watershed improvement projects planning efforts align with several statewide and national water and integrated water resources initiatives including the 2020 California Water Resilience Portfolio, the State Water Resources Control Board Strategy to Optimize Resource Management of Stormwater (STORMS) Project 1a: Promote Storm Water Capture and Use & Project 1b: Identify and Eliminate Barriers to Storm Water Capture and Use, and the National Water Reuse Action Plan (WRAP). Consistent with these initiatives, the County encourages incentivizing collaboration across water sectors and removing potential regulatory barriers to achieve sustainable integrated water resource projects. Therefore, a finding may be appropriate for inclusion in the draft order that memorializes these ongoing efforts:

> Collaboration is encouraged across water sectors (water supply, wastewater, groundwater, and stormwater) to evaluate implementation of integrated water resource projects that helps achieve sustainable integrated water resources management consistent with the 2020 California Water Resilience Portfolio.

If you have any questions or need additional information, please contact James Fortuna at (714) 955-0680.

Sincerely,



Chris Crompton, Manager
North OC Watershed Management Area

Cc: Orange County Sanitation District

ORANGE COUNTY COASTKEEPER
3151 Airway Avenue, Suite F-110
Costa Mesa, CA 92626
Phone 714-850-1965
www.coastkeeper.org

March 4, 2021

ATTN: Ryan Harris
Wastewater Section
Santa Ana Regional Water Quality Control Board
3737 Main Street, Ste. 500
Riverside, CA 92501
Email: Ryan.Harris@waterboards.ca.gov

RE: Tentative Order No. R8-2021-0010 / NPDES Permit No. CA0110604 – Waste Discharge Requirements and NPDES Permit for OCSD Reclamation Plant No. 1, Treatment Plant No. 2, Collection System, and Outfalls

Dear Mr. Harris:

Orange County Coastkeeper is a non-profit environmental organization with the mission to protect and promote sustainable water resources that are swimmable, drinkable, and fishable. Coastkeeper represents thousands of members, including Orange County residents and strong supporters of environmental quality and public health. Members of Coastkeeper live and own homes in the Santa Ana Watershed and use and enjoy the surrounding waters, including the Santa Ana River and its terminus at the Pacific Ocean at Huntington State Beach. Members of Coastkeeper use these waterways to participate in a variety of water sports and other activities, including, but not limited to, surfing, swimming, boating, kayaking, bird watching, wildlife viewing, hiking, biking, fishing, wading, standup paddle boarding, walking, and running. Additionally, members of Coastkeeper use the waters to engage in scientific studies including monitoring and restoration activities.

Coastkeeper respectfully submits the following comments on behalf of our organizational interests and our membership regarding the proposed Tentative Order No. R8-2021-0010 and NPDES Permit No. CA 0110604 Waste Discharge Requirements and the NPDES Permit (the "Order") to be issued by the State of California, California Regional Water Quality Control Board, Santa Ana Region (the "SARWQCB") and the U.S. Environmental Protection Agency ("EPA") for Orange County Sanitation District ("OCSD" or "Discharger") Reclamation Plant No. 1, Treatment Plant No. 2, Collection System, and Outfalls pursuant to Article 4, Chapter 4, Division 7 of the California Water Code and Section 402 of the federal Clean Water Act. OCSD previously operated under Order No. R8-2012-0035 and NPDES Permit No. CA0110604 (the "2012 Permit").

Coastkeeper respectfully requests the SARWQCB and EPA modify the Order in accordance with the comments below. Coastkeeper sincerely appreciates the opportunity for public comment and involvement and would welcome any questions from the SARWQCB and/or EPA.

I. PERFORMANCE GOALS AND MASS EMISSION BENCHMARKS

Section V of the Order establishes performance goals and mass emission benchmarks for Discharge Point 001. Table 7 sets forth the performance goal and mass emission benchmark values and parameters.

a. Performance Goals

Coastkeeper is concerned about the performance goals' lack of enforceability. Per the Order, "[t]he Discharger shall maintain existing treatment levels and the effluent quality at or below the performance goal concentrations." Order § V.A (emphasis added). Notwithstanding this mandate, the Order explicitly states "[t]he performance goals are not considered enforceable effluent limitations or standards." Order § V.A. The Order describes the following procedures for the Discharger to comply with in the event of performance goal exceedances:

1. Two consecutive performance goal exceedances trigger an investigation into the cause. There are no further specified requirements for the scope, content, or timing of the investigation.

2. If an exceedance persists for three successive monitoring periods, the Discharger must submit a written report to the SARWQCB and EPA "on the nature of the exceedance, the results of the investigation including the cause of the exceedance." There are no further specified requirements for the scope, content, or timing of the report.

3. There is no indication of what happens if exceedances persist after the report.

The Order's exceedance response procedures are nonspecific and lack meaningful enforcement power. Coastkeeper respectfully requests the Order be modified to establish meaningful enforcement actions for performance goal exceedances. As the performance goals were "based upon last 5-year actual performance data for the OC San's secondary treatment plants," it should not be overly burdensome to hold the Discharger accountable for meeting the goals. Order § V.A (emphasis added).

b. Mass Emission Benchmarks

The Order also establishes mass emission benchmarks, which "are not enforceable water quality-based effluent limitations." Order § V.B. Mirroring the 2012 Permit, the Order includes these benchmarks in part to "establish a framework for evaluating the need for an antidegredation analysis to determine compliance with State and federal antidegradation requirements at the time of Order/Permit reissuance." Order, Attachment F § V.B; 2012 Permit VI.C.5.a. Notwithstanding this stated purpose, Coastkeeper notes that the Order's mass emission benchmarks include at least one instance of a less stringent standard as compared to the 2012 Permit.[1] Coastkeeper respectfully requests the Order be modified to establish more stringent mass emission benchmarks.

c. Effluent Limitation Interplay and Discharge Point Applicability

Table 7 sets forth the performance goal and mass emission benchmark values and parameters. Table 7 includes parameters which have Table 5 and Table 6 effluent limitations. Coastkeeper requests that parameters with effluent limitations remain within the effluent limitation framework, at least for monthly averages. By way of example, Coastkeeper requests the Table 7 average monthly

[1] Whereas the 2012 Permit set the annual mass emission effluent benchmark for Selenium at 1.92 MT/yr, the Order proposes a 12-month average mass emission benchmark for Selenium at 6.23 MT/yr. *Compare* 2012 Permit, Table E-5 *with* Order, Table 7. *See also* Order, Attachment F § IV.D.2.

performance goal for Total Chlorine Residual be removed and replaced with an enforceable average monthly effluent limitation.

Finally, Coastkeeper highlights that the performance goals and mass emission benchmarks only apply to Discharge Point 001 (120" outfall). "As the 120-inch outfall approaches the end of life in 2021," Coastkeeper requests the performance goals and mass emission benchmarks be revised to apply to all active and then-operable discharge points. Order, Attachment F § VII.3.c. At the least, Coastkeeper requests the performance goals and mass emission benchmarks apply to Discharge Point 002 during planned diversions. As Discharge Point 001 reaches end of life, Coastkeeper anticipates Discharge Point 002 may be used more frequently during essential Discharge Point 001 maintenance. *See* Order, Attachment F § VII.3.c (describing the Discharge Point 001 condition assessment project).

II. CONTINUOUS DISINFECTION PRACTICES – BENTHIC MONITORING

Attachment F of the Order discusses the cessation of continuous disinfection practices at Discharge Point 001 (120" outfall). The Order describes how the discharge of chlorinated effluent "resulted in a decline in benthic communities" with "negative changes" observed. Order, Attachment F § II.D. The Order also notes that an expert Independent Advisory Panel (IAP) concluded "continuing to chlorinate full secondary treated effluent provides little to no public health benefit to local beaches." Order, Attachment F § II.D. Based on IAP observations and recommendations, the Discharger ceased continuous chlorination/dechlorination at Discharge Point 001. "The benthic environment has been improved . . . due to reduction of the use of chlorine after achieving full secondary treatment." Order, Attachment F § II.D. The Discharger continues to use disinfection practices at Discharge Points 002 and 003 "to protect human health." Order, Attachment F § II.D. According to Figure E-3, there are no benthic monitoring stations immediately near Discharge Point 002. *See* Order, Figure E-3.

Coastkeeper requests the Order be revised to require benthic community testing around Discharge Point 002 in light of ongoing continuous disinfection practices. *See* Order, Figure E-3.

III. GROUNDWATER REPLENISHMENT SYSTEM

Coastkeeper supports the planned diversion of approximately 175 MGD from the OCSD plants via the Groundwater Replenishment System ("GWRS") Final Expansion. *See* Order, Attachment F § II.E. Coastkeeper applauds the GWRS for its pioneering efforts and believes the GWRS is the most sustainable option for drought resiliency and water affordability – particularly amidst the realities of sea level rise and climate change. Coastkeeper acknowledges the GWRS has limited capacity for reclaimed waters and maintains these waters should come from OCSD and not other energy-intensive water sources such as desalination plants.

IV. PFAS

Coastkeeper commends the inclusion of per- and polyfluoroalkyl substance (PFAS) in the Order's Monitoring and Reporting Program. *See* Order, Attachment E, Table E-15. Coastkeeper appreciates the SARWQCB and EPA's ongoing attention to these emerging contaminants. Coastkeeper encourages the SARWQCB and EPA to continuously revise the Order as necessary and permissible to ensure the Order is up to date on the most current PFAS data and legislation.

V. CONCLUSION

Coastkeeper thanks the SARWQCB and EPA for their consideration of our comments. If you have any questions regarding Coastkeeper's comments, please feel free to call me at (714) 850-1965 or email me at lauren@coastkeeper.org.

Regards,



Lauren Chase
Staff Attorney
Orange County Coastkeeper

City of Villa Park

17855 Santiago Boulevard, Villa Park, California 92861-4187 *www.villapark.org*
(714) 998-1500 • Fax: (714) 998-1508

May 24, 2021

Hope Smythe
Executive Officer
Santa Ana Regional Water Quality Control Board
3737 Main Street, Suite 500
Riverside, CA 92501-3348

RE: OC San's Draft NPDES permit (Order No. R8-2021-0010 and NPDES No. CA0110604)

Dear Ms. Smythe,

I would like to express my support for the adoption of the Orange County Sanitation District's (OC San) National Pollutant Discharge Elimination System (NPDES) permit and Order for final adoption. OC San's primary mission is to protect public health and the environment through its services. For more than 65 years, OC San has been providing regional service of wastewater collection, treatment, ocean disposal and recycling for approximately 2.6 million people in central and northwest Orange County. Beyond these services, OC San continues to provide ongoing innovative and collaborative regional environmental stewardship efforts such as its long standing dry weather runoff program improving recreational water quality in Orange County, along with other impactful projects including the initial expansion of the Groundwater Replenishment System, diversion of nuisance groundwater and surface water flows with high concentrations of selenium and nitrates from Peters Canyon Channel for treatment and reuse. Overall providing such services and leadership presence in the Orange County watershed, OC San continues to improve the overall health, wellness, and economy of the residents and businesses in Orange County.

To meet the demands of Orange County, OC San continues to execute its Capital Improvement Program to ensure sustainability and structural integrity of OC San's regional sewer infrastructure throughout Orange County. In Fiscal Year 2020-2021, OC San is on track to bid and issue $500 million of construction contracts for over 35 projects. Through these projects, the regional wastewater system will continue to safely collect, transport, treat, dispose and recycle 189 million gallons of wastewater every day.

As the Mayor of the City of Villa Park this request will directly support our shared efforts to improve the reliability of our regional wastewater treatment system. We wholeheartedly support this adoption as it will deliver regional benefits to our community and improve quality of life. If we can provide any additional information on our shared commitment to this adoption of the NPDES permit, please let us know. Please do not hesitate to contact me at (714) 276-7013 or via email at cmiles@villapark.org should you have any questions.

Sincerely,

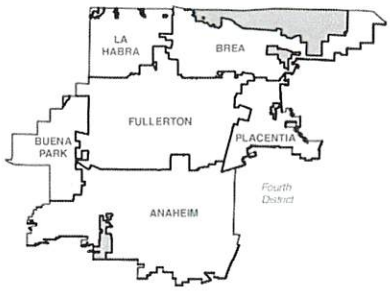
Crystal Miles
Mayor
City of Villa Park

CRYSTAL MILES, Mayor • CHAD ZIMMERMAN, Mayor Pro Tem
ROBERT COLLACOTT, Councilman • ROBBIE PITTS, Councilman • VINCE ROSSINI, Councilman

DOUG CHAFFEE

VICE CHAIRMAN
ORANGE COUNTY BOARD OF SUPERVISORS
SUPERVISOR, FOURTH DISTRICT

ORANGE COUNTY HALL OF ADMINISTRATION
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SANTA ANA, CALIFORNIA 92701 PHONE (714) 834-3440 FAX (714) 834-2045
doug.chaffee@ocgov.com
bos.ocgov.com/fourth



May 25, 2021

Hope Smythe
Executive Officer
Santa Ana Regional Water Quality Control Board
3737 Main Street, Suite 500
Riverside, CA 92501-3348

RE: OC San's Draft NPDES permit (Order No. R8-2021-0010 and NPDES No. CA0110604)

Dear Ms. Smythe,

I would like to express my support for the adoption of the Orange County Sanitation District's (OC San) National Pollutant Discharge Elimination System (NPDES) permit and Order for final adoption. OC San's primary mission is to protect public health and the environment through its services. For more than 65 years, OC San has been providing regional service of wastewater collection, treatment, ocean disposal and recycling for approximately 2.6 million people in central and northwest Orange County. Beyond these services, OC San continues to provide ongoing innovative and collaborative regional environmental stewardship efforts such as its long standing dry weather runoff program improving recreational water quality in Orange County, along with other impactful projects including the initial expansion of the Groundwater Replenishment System, diversion of nuisance groundwater and surface water flows with high concentrations of selenium and nitrates from Peters Canyon Channel for treatment and reuse. Overall, providing such services and leadership presence in the Orange County watershed, OC San continues to improve the overall health, wellness, and economy of the residents and businesses in Orange County.

To meet the demands of Orange County, OC San continues to execute its Capital Improvement Program to ensure sustainability and structural integrity of OC San's regional sewer infrastructure throughout Orange County. In Fiscal Year 2020-2021, OC San is on track to bid and issue $500 million of construction contracts for over 35 projects. Through these projects, the regional wastewater system will continue to safely collect, transport, treat, dispose and recycle 189 million gallons of wastewater every day.

As the Vice Chair of the Board of Supervisors, this request will directly support our shared efforts to improve the reliability of our regional wastewater treatment system. We wholeheartedly support this adoption as it will deliver regional benefits to our community and improve quality of life. If we can provide any additional information on our shared commitment to this adoption of the NPDES permit, please let us know. Please do not hesitate to contact Beatriz Mendoza at (714) 834-3440 or via email at beatriz.mendoza@ocgov.com should you have any questions.

Sincerely,

Doug Chaffee
Supervisor, Fourth District
Orange County Board of Supervisors

Office of the City Council

May 25, 2021

Ms. Hope Smythe
Executive Officer
Santa Ana Regional Water Quality Control Board
3737 Main Street, Suite 500
Riverside, CA 92501-3348

RE: OC San's Draft NPDES permit (Order No. R8-2021-0010 and NPDES No. CA0110604)

Dear Ms. Smythe:

I would like to express my support for the adoption of the Orange County Sanitation District's (OC San) National Pollutant Discharge Elimination System (NPDES) permit and Order for final adoption. OC San's primary mission is to protect public health and the environment through its services. For more than 65 years, OC San has been providing regional service of wastewater collection, treatment, ocean disposal and recycling for approximately 2.6 million people in central and northwest Orange County. Beyond these services, OC San continues to provide ongoing innovative and collaborative regional environmental stewardship efforts such as its long standing dry weather runoff program improving recreational water quality in Orange County along with other impactful projects including the initial expansion of the Groundwater Replenishment System, diversion of nuisance groundwater, and surface water flows with high concentrations of selenium and nitrates from Peters Canyon Channel for treatment and reuse. Overall providing such services and leadership presence in the Orange County watershed, OC San continues to improve the overall health, wellness, and economy of the residents and businesses in Orange County.

To meet the demands of Orange County, OC San continues to execute its Capital Improvement Program to ensure sustainability and structural integrity of OC San's regional sewer infrastructure throughout Orange County. In Fiscal Year 2020-2021, OC San is on track to bid and issue $500 million of construction contracts for over 35 projects. Through these projects, the regional wastewater system will continue to safely collect, transport, treat, dispose, and recycle 189 million gallons of wastewater every day.

As the Mayor Pro Tem of the City of Tustin, this request will directly support our shared efforts to improve the reliability of our regional wastewater treatment system. We wholeheartedly support this adoption as it will deliver regional benefits to our community and improve quality of life. If we can provide any additional information on our shared commitment to this adoption of the NPDES permit, please let us know. Please do not hesitate to contact Doug Stack, Director of Public Works, at (714) 573-3163 or via email at dstack@tustinca.org should you have any questions.

Sincerely,

Austin Lumbard
Mayor Pro Tem

Irvine Ranch
WATER DISTRICT

May 26, 2021

VIA EMAIL: Hope.Smythe@waterboards.ca.gov

Ms. Hope Smythe
Executive Officer
Santa Ana Regional Water Quality Control Board
3737 Main Street, Suite 500
Riverside, CA 92501-3348

Re: OC San's Draft NPDES Permit (Order No. R8-2021-0010 and NPDES No. CA0110604)

Dear Ms. Smythe:

The Irvine Ranch Water District would like to express its support for the adoption of the Orange County Sanitation District's (OC San) National Pollutant Discharge Elimination System (NPDES) Permit and Order. We understand that the permit and associated order is quickly coming before the Santa Ana Regional Water Quality Control Board for final adoption.

For more than 65 years, OC San has been providing regional wastewater collection, treatment, ocean disposal and recycling for approximately 2.6 million people in central and northwest Orange County. Beyond its core services of sewage collection and treatment, OC San adds to Orange County's environmental stewardship efforts through its dry weather runoff program improving recreational water quality in Orange County, partnering on the Groundwater Replenishment System, and treating diverted nuisance groundwater and surface water flows with high concentrations of selenium and nitrates from the Peters Canyon Channel for treatment and reuse. Through all of these services, OC San protects public health and the environment.

Approving the NPDES Permit and Order will allow OC San to continue this important work. It for this reason that IRWD supports its final adoption. Should you have any questions about our support, or if we can be of assistance to you or your staff, please feel free to contact me at (949) 453-5590.

Sincerely,

Paul A. Cook, P.E.
General Manager

cc: Julio Lara, Santa Ana Regional Water Quality Control Board
Julie Song, U.S. Environmental Protection Agency

DIRECTORS

DENIS R. BILODEAU, P.E.
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SINCE 1933

ORANGE COUNTY WATER DISTRICT

ORANGE COUNTY'S GROUNDWATER AUTHORITY

OFFICERS

President
STEPHEN R. SHELDON

First Vice President
CATHY GREEN

Second Vice President
TRI TA

General Manager
MICHAEL R. MARKUS, P.E., D.WRE

May 28, 2021

Sent via email to:
Hope.Smythe@waterboards.ca.gov;
julio.lara@waterboards.ca.gov

Hope Smythe
Executive Officer
Santa Ana Regional Water Quality Control Board
3737 Main Street, Suite 500
Riverside, CA 92501-3348

RE: OC San's Draft NPDES permit (Order No. R8-2021-0010 and NPDES No. CA0110604)

Dear Ms. Smythe,

I would like to express my support for the adoption of the Orange County Sanitation District's (OC San) National Pollutant Discharge Elimination System (NPDES) permit and Order for final adoption. As the Board President of the Orange County Water District (OCWD), I know this permit will directly support our shared efforts to improve the reliability of our regional wastewater treatment system, enhance local water supplies, and improve groundwater quality and reliability for more than 2.5 million people in our service area. We wholeheartedly support this adoption; OCWD relies on OC San for both the supply of high-quality secondary effluent and the disposal of treatment residuals (e.g., reverse osmosis concentrate) to operate the Groundwater Replenishment System (GWRS), a project that increases local water reliability.

The GWRS is the world's largest potable reuse facility, which purifies treated wastewater to drinking water standards, creating a new supply of water used to replenish the Orange County Groundwater Basin. A regional asset managed by OCWD, the Basin provides 77% of the drinking water for north and central Orange County. OCWD, along with our project partner, OC San, is currently constructing the Final Expansion of the GWRS to increase production from 100 million gallons of water per day (MGD) to 130 MGD by 2023— enough water for 1 million people. When complete, this project will allow the region to recycle 100% of OC San's reclaimable flows—an industry first.

PO Box 8300
Fountain Valley, CA 92728-8300

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Fountain Valley, CA 92708

(714) 378-3200
(714) 378-3373 fax

www.ocwd.com

In addition, to meet the demands of Orange County, OC San continues to execute its Capital Improvement Program to ensure sustainability and structural integrity of OC San's regional sewer infrastructure throughout Orange County. In Fiscal Year 2020-2021, OC San is on track to bid and issue $500 million of construction contracts for over 35 projects. Through these projects, the regional wastewater system will continue to safely collect, transport, treat, dispose, and recycle 189 million gallons of wastewater every day.

If we can provide additional information on our shared commitment to the adoption of the NPDES permit, kindly let us know. Please do not hesitate to contact me or OCWD Legislative Liaison Alicia Dunkin at adunkin@ocwd.com or (714) 477-3750 if you have questions and/or if we may be of any assistance on water policy issues in the coming year.

Sincerely,

Stephen R. Sheldon

Stephen R. Sheldon
Board President

Peter Chang
Chief Executive Officer
Alissa Deming, MS, DVM, PhD
VP of Conservation Medicine and Science
Kirsten Donald
Director of Education
Debra Finster
VP of Development
Michele Hunter
Director of Operations and Animal Care
Daniela Moore
Director of Development and Marketing

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Hope Smythe
Executive Officer
Santa Ana Regional Water Quality Control Board
3737 Main Street, Suite 500
Riverside, CA 92501-3348

May 28, 2021

RE: OC San's Draft NPDES permit (Order No. R8-2021-0010 and NPDES No. CA0110604)

Dear Ms. Smythe,

I would like to express my support for the adoption of the Orange County Sanitation District's (OC San) National Pollutant Discharge Elimination System (NPDES) permit and Order for final adoption. Pacific Marine Mammal Center, a 501(c)(3) nonprofit whose mission is to rescue, rehabilitate and releases marine mammals and inspire ocean stewardship through research, education and collaboration, has been fortunate enough to partner with OC San throughout the years and has seen firsthand its great work.

OC San's primary mission is to protect public health and the environment through its services. For more than 65 years, OC San has been providing regional service of wastewater collection, treatment, ocean disposal and recycling for approximately 2.6 million people in central and northwest Orange County. Beyond these services, OC San continues to provide ongoing innovative and collaborative regional environmental stewardship efforts such as its long standing dry weather runoff program improving recreational water quality in Orange County, along with other impactful projects including the initial expansion of the Groundwater Replenishment System, diversion of nuisance groundwater and surface water flows with high concentrations of selenium and nitrates from Peters Canyon Channel for treatment and reuse. Overall, providing such services and leadership presence in the Orange County watershed, OC San continues to improve the overall health, wellness, and economy of the residents and businesses in Orange County.

To meet the demands of Orange County, OC San continues to execute its Capital Improvement Program to ensure sustainability and structural integrity of OC San's regional sewer infrastructure throughout Orange County. In Fiscal Year 2020-2021, OC San is on track to bid and issue $500 million of construction contracts for over 35 projects. Through these projects, the regional wastewater system will continue to safely collect, transport, treat, dispose and recycle 189 million gallons of wastewater every day.

As the CEO of the Pacific Marine Mammal Center, this request will directly support our shared efforts to improve the reliability of our regional wastewater treatment system. We wholeheartedly support this adoption as it will deliver regional benefits to our community and improve quality of life. If we can provide any additional information on our shared commitment to this adoption of the NPDES permit, please let us know. Please do not hesitate to contact me at (949) 494-3050 or via email at pchang@pacificmmc.org should you have any questions.

Sincerely,

Peter Chang
Chief Executive Officer

ORANGE COUNTY
OC Public Works

County Administration South
601 North Ross Street
Santa Ana, CA 92701

P.O. Box 4048
Santa Ana, CA 92702

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info@ocpw.ocgov.com

OCPublicWorks.com

Administrative Services

OC Development Services

OC Facilities Design & Construction Management

OC Facilities Maintenance & CUF

OC Fleet Services

OC Construction

OC Environmental Resources

OC Operations & Maintenance

OC Infrastructure Programs

OC Survey

June 1, 2021

Hope Smythe
Executive Officer
Santa Ana Regional Water Quality Control Board
3737 Main Street, Suite 500
Riverside, CA 92501-3348

RE: OC San's Draft NPDES permit (Order No. R8-2021-0010 and NPDES No. CA0110604)

Dear Ms. Smythe,

I would like to express my support for the adoption of the Orange County Sanitation District's (OC San) National Pollutant Discharge Elimination System (NPDES) permit and Order for final adoption. OC San's primary mission is to protect public health and the environment through its services. For more than 65 years, OC San has been providing regional service of wastewater collection, treatment, ocean disposal and recycling for approximately 2.6 million people in central and northwest Orange County.

Beyond these services, OC San has been a valued partner of the County of Orange and Orange County Flood Control District (OCFCD) in ongoing innovative and collaborative regional environmental stewardship efforts. For example, OC San accepts dry weather runoff from three diversion locations operated by OCFCD on the Santa Ana River, Greenville-Banning Channel and from storm drains via the Adams Street Pump Station, which have improved recreational water quality in Orange County. Additionally, OC San, Orange County Water District and the County collectively lead integrated regional water management (IRWM) planning for north Orange County through The OC Plan, working with regional stakeholders in establishing priorities for water resource needs, integrating water resource solutions across traditional bounds, and jointly advocating for policies and funding that assist these goals. Overall providing such services and leadership presence in the north Orange County watersheds, OC San continues to improve the overall health, wellness, and economy of the residents and businesses in Orange County.

To meet the demands of Orange County, OC San continues to execute its Capital Improvement Program to ensure sustainability and structural integrity of OC San's regional sewer infrastructure throughout Orange County. In Fiscal Year 2020-2021, OC San is on track to bid and issue $500 million of construction contracts for over 35 projects. Through these projects, the regional wastewater system will continue to safely collect, transport, treat, dispose and recycle 189 million gallons of wastewater every day.

As the Deputy Director of OC Environmental Resources for the County of Orange, I value how OC San directly supports our shared efforts to improve the quality, performance and reliability of our regional water resources. We support the adoption of Order No. R8-2021-0010 as it will deliver regional benefits to our community and improve quality of life. Please do not hesitate to contact me at (714) 955-0601 or via email at amanda.carr@ocpw.ocgov.com should you have any questions.

Sincerely,

Amanda Carr
Deputy Director, OC Environmental Resources, OC Public Works

CITY of CYPRESS

5275 Orange Avenue, Cypress, California 90630

Phone 714-229-6700 www.cypressca.org

June 1, 2021

Hope Smythe
Executive Officer
Santa Ana Regional Water Quality Control Board
3737 Main Street, Suite 500
Riverside, CA 92501-3348

RE: OC Sanitation District Draft NPDES permit (Order No. R8-2021-0010 and NPDES No. CA0110604)

Dear Ms. Smythe,

The City of Cypress expresses support for the adoption of the Orange County Sanitation District's (OC San) National Pollutant Discharge Elimination System (NPDES) permit and Order for final adoption. For more than 65 years, OC San has been providing regional service of wastewater collection, treatment, ocean disposal and recycling for approximately 2.6 million people in central and northwest Orange County.

OC San provides regional environmental stewardship efforts such as its long standing dry weather runoff program improving recreational water quality in Orange County, along with other projects including the initial expansion of the Groundwater Replenishment System. OC San continues to improve the overall health, wellness, and economy of the residents and businesses by providing these services and leadership presence. OC San also continues to execute its Capital Improvement Program to ensure sustainability and structural integrity of its regional sewer infrastructure. In Fiscal Year 2020-2021, OC San is on track to bid and issue $500 million of construction contracts for over 35 projects. Through these projects, the regional wastewater system will continue to safely collect, transport, treat, dispose and recycle 189 million gallons of wastewater every day.

This request will directly support our shared efforts to improve the reliability of our regional wastewater treatment system. We support this adoption as it will deliver regional benefits to our community and improve quality of life. Please do not hesitate to contact Mike Smith, Water Quality Manager at (714) 229-6752 or via email at waterquality@cypressca.org should you have any questions.

Sincerely,

Douglas A. Dancs, P.E.
Public Works Director

cc: City Council

Jon E. Peat, Mayor
Stacy Berry, Mayor Pro Tem **Anne Hertz**, Council Member
Frances Marquez, Ph.D., Council Member **Paulo M. Morales**, Council Member

City of La Habra

"A Caring Community"

ADMINISTRATION

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Fax: (562) 383-4474

Received
MAY
CRWQCB
Santa Ana Region 8

May 24, 2021

Hope Smythe
Executive Officer
Santa Ana Regional Water Quality Control Board
3737 Main Street, Suite 500
Riverside, CA 92501-3348

RE: OC San's Draft NPDES permit (Order No. R8-2021-0010 and NPDES No. CA0110604)

Dear Ms. Smythe:

On behalf of the City of La Habra, as well as our residents and the local business community, I am writing to express our support for the adoption of the Orange County Sanitation District's (OC San) National Pollutant Discharge Elimination System (NPDES) permit and Order for final adoption. OC San's primary mission is to protect public health and the environment and for the past 65 years, OC San has provided regional service of wastewater collection, treatment, ocean disposal, and recycling for approximately 2.6 million people in central and northwest Orange County.

Beyond these services, OC San continues to be a leader in the field, cultivating innovative and collaborative regional environmental stewardship efforts that serve the community, such as the dry weather runoff program that improves recreational water quality in Orange County, as well as other impactful projects like the initial expansion of the Groundwater Replenishment System. These services do so much to protect and preserve Orange County's watershed, and OC San continues to improve the overall health, wellness, and economy of the residents and businesses that call Orange County home.

To meet the growing demands of Orange County, OC San continues to execute its Capital Improvement Program with an emphasis on sustainability and improvement of OC San's regional sewer infrastructure. **During Fiscal Year 2020-2021, OC San is on track to bid and issue $500 million of construction contracts for more than 35 capital infrastructure projects**. Through these projects, the regional wastewater system will continue to safely collect, transport, treat, dispose, and recycle 189 million gallons of wastewater each and every day.

As a partner of OC San, the City of La Habra supports shared efforts that seek to improve the reliability of our regional wastewater treatment system. We wholeheartedly support this adoption as it will deliver regional benefits to our community and improve quality of life. If we can provide any additional information on our shared commitment to this adoption of the NPDES permit, please contract our Public Works Director, Mr. Elias Saykali, at 562-383-4170.

Sincerely,

Rose Espinoza
Mayor

cc: La Habra City Council
Jim Sadro, City Manager
Elias Saykali, Director of Public Works
Julio Lara, Santa Ana Regional Water Quality Control Board
Julie Song, Environmental Protection Agency