California Regional Water Quality Control Board
San Diego Region

Response to Comments Report

Tentative Order No. R9 2017-0020
NPDES NO. CA0108952

Waste Discharge Requirements
for the Sweetwater Authority
Richard A. Reynolds Desalination Facility
Discharge to the Lower Sweetwater River Basin

June 21, 2017

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Abbreviations used in this document:

Abbreviation	Definition
AMEL	Average Monthly Effluent Limitation
CCC	Criteria Continuous Concentration is the highest concentration of a pollutant to which aquatic life can be exposed for an extended period of time (4 days) without deleterious effects.
CEQA	California Environmental Quality Act
CMC	Criteria Maximum Concentration is the highest concentration of a pollutant to which aquatic life can be exposed for a short period of time (1-hour average) without deleterious effects.
CTR	California Toxics Rule
CV	Coefficient of Variation
Discharger	Sweetwater Authority
Drinking Water Permit	Order No. WQ 2014-0194-DWQ, *Statewide National Pollutant Discharge Elimination System (NPDES) Permit for Drinking Water System Discharges to Waters of the United States*
ECA	Effluent Concentration Allowance
Facility	Reynolds Desalination Facility
IWC	In-Stream Waste Concentration
LTA	Long-Term Average is the effluent concentration allowance adjusted for the effluent variability.
MDEL	Method Detection Limit
MRP	Monitoring and Reporting Program is Attachment E to Tentative Order No. R9-2017-0020. The MRP establishes conditions for the Discharger to conduct routine or episodic self-monitoring of the discharges regulated under the Tentative Order at specified locations. The MRP requires the Discharger to report the results to the San Diego Water Board with information necessary to evaluate discharge characteristics and compliance status.
NOEC	No observed effect concentration is the highest concentration of toxicant to which organisms are exposed in a full life-cycle or partial life-cycle (short-term) test, that causes no observable adverse effects on the test organisms (i.e., the highest concentration of toxicant in which the values for the observed responses are not statistically significantly different from the controls).
NPDES	National Pollutant Discharge Elimination System
PMP	Pollutant Minimization Plan
POTW	Publicly-Owned Treatment Works
RMD	Regulatory Management Decisions
San Diego Water Board	California Water Quality Control Board, San Diego Region
SDF	San Diego Formation Well
SIP	*Policy for Implementation of Toxics Standards for Inland Surface Waters, and Enclosed Bays, and Estuaries of California*

Abbreviation	Definition
SOCs	Synthetic Organic Chemicals are organic (carbon based) chemicals that are less volatile than volatile organic compounds. SOCs are used as pesticides, defoliants, fuel additives, and as ingredients for other organic compounds. They are all manmade and do not naturally occur in the environment. Some of the more well-known SOCs are atrazine, dioxins, and polychlorinated biphenyls (PCBs).
Tentative Order	Tentative Order No. R9-2017-0020
TST	The Test of Significant Toxicity is a statistical method that uses hypothesis testing techniques based on research and peer-reviewed publications. The TST approach examines whether the effluent and the control differ by an unacceptable amount that would have a measured detrimental effect on the ability of aquatic organisms to thrive and survive.
USEPA	United States Environmental Protection Agency
WET	Whole Effluent Toxicity

Introduction

This report contains the San Diego Water Board responses to written comments on Tentative Order No. R9 2017-0020, *Waste Discharge Requirements for the Sweetwater Authority Richard A. Reynolds Desalination Facility Discharge to the Lower Sweetwater River Basin* (Tentative Order). The Tentative Order was made available for public review and comment on March 30, 2017 for 33 days, with the comment period ending on May 1, 2017.

The San Diego Water Board revised the Tentative Order based on the comments received.

Comments and Responses

The written comments and staff responses are set forth in the table that follows. The table includes the San Diego Water Board responses to comments, and any actions taken to revise the Tentative Order in response to the comments.

No.	Comment	Response	Action Taken
James L. Smyth, Sweetwater Authority (Discharger), dated May 1, 2017			
1	The proposed effluent limitations for copper and cyanide are inappropriate and unnecessary, and the current limitations should be retained. In addition, the Tentative Order should retain the current synthetic organic chemical (SOC) priority pollutant performance goals, as the effluent limitations for the SOC priority pollutants appear to be based on errant data which is inappropriate for the reasonable potential assessment and establishment of an effluent limitation. Lastly, the effluent limitations for all San Diego Formation (SDF) well purges for copper and selenium for EFF-002 through EFF-010 should be deleted, as these discharges are already permitted by the State. Even if the effluent limitations for copper and selenium were proper, it is improper to use effluent data for SDF wells that have not yet been placed into production.	Detailed responses to this comment are provided in the responses to comment nos. 2 through 5.	See responses to comment nos. 2 through 5.
2	Copper (Tentative Order section IV.A, Tables 4 and 5) Over the past three permit renewals for the Reynolds Desalination Facility (Facility), the discharge brine total recoverable copper effluent limitation has been progressively lowered. In 2004 (Order No. R9-2004-0111), the effluent limitation for total recoverable copper was set at the California Toxics Rule (CTR) chronic saltwater criteria of 3.7 µg/L, in the 2010 permit renewal it was lowered to 2.9 µg/L (Order No. R9-2010-0012), and now in 2017 to 2.1 µg/L (Tentative Order). While the San Diego Water Board has followed the effluent limitation development protocols outlined in the *Policy for Implementation of Toxics Standards for Inland Surface Waters, and Enclosed Bays, and Estuaries of California* (SIP), the progressively lowered copper effluent limitation (to a level far below the CTR chronic	Title 40 of the Code of Federal Regulations (40 CFR) section 122.44(d) requires that permits include water quality-based effluent limitations (WQBELs) to attain and maintain applicable numerical and narrative water quality criteria to protect the beneficial uses of the receiving waters. The San Diego Water Board conducted a reasonable potential analysis as required by section 1.3 of the SIP using the monitoring data collected during the previous permit term. For copper, the San Diego Water Board found that the discharge from the Facility has a reasonable potential to cause or contribute to an exceedance of the applicable water quality standards because the concentration of copper in the receiving water is greater than the	None necessary.

No.	Comment	Response	Action Taken
	saltwater criteria) has negatively impacted the ability of Sweetwater Authority (Discharger) to operate the Facility as a beneficial use by limiting operational flexibility. Because the existing and proposed levels are far below the adopted standard for the receiving water, there is no risk of adverse impacts for the discharge, and by extension no basis for reducing the effluent limitation below CTR levels. Including the proposed lower effluent limitation would constitute an abuse of discretion. The Discharger is concerned that the proposed copper average monthly effluent limitation (AMEL) of 2.1 µg/L is reflective of past operational data and does not take into consideration the (still to be determined) operational water quality of the new SDF wells 7-11. For these reasons, we request that the effluent limitation for copper remain at 2.9 µg/L until data for SDF wells 7-11 are available. In the alternative, the Discharger requests inclusion of a reopener provision that would allow for an adjustment in the discharge brine copper effluent limitation based on actual water quality data obtained with the new SDF wells in operation. <u>Requested Revision I.A:</u> *Retain the current 2.9 µg/L AMEL for copper in Tables 4 and 5.*	water quality criteria and the Facility's discharge contains copper. Consistent with section 1.4 of the SIP and the methodology described in section IV.C.4. of the Fact Sheet (Attachment F of the Tentative Order), the effluent limitations for copper were calculated as follows: *Step 1:* The applicable water quality criteria for copper from the CTR is 4.8 µg/L for the Criterion Maximum Concentration (CMC, acute criteria) and 3.1 µg/L for the Criterion Continuous Concentration (CCC, chronic criteria). Because a site-specific translator has not yet been developed to derive total recoverable effluent limitations from aquatic life criteria, the criteria were adjusted using the USEPA conversion factor in accordance with section 1.4.1 of the SIP. For copper, the conversion factor is 0.83 for the saltwater acute criteria and the saltwater chronic criteria. The adjusted criteria for copper are 5.78 µg/L for the CMC and 3.73 µg/L for the CCC. *Step 2:* The most stringent water quality criterion for copper (3.73 µg/L) is less than the maximum receiving water concentration detected for copper (7.3 µg/L on April 14, 2015). Therefore, the effluent concentration allowance (ECA) was set equal to the water quality criterion. *Step 3:* The ECA was adjusted to determine the long-term average (LTA) discharge condition. The multiplier was calculated based on the coefficient of variation (CV) for the monitoring data. For copper, the number of effluent data points is greater than ten and at least 80 percent of the data were reported as detected. Therefore, the CV is equal to the mean of the data values divided by the standard deviation. For copper, the mean of data values is 0.48, and the	

No.	Comment	Response	Action Taken
		standard deviation is 0.59. The CV is 1.23. From Table 1 of the SIP, the multiplier for a CV of 1.2 is 0.174 for acute criteria and 0.321 for chronic criteria. For copper, the LTA acute is 1.00 (calculated by multiplying 5.78 by 0.174). The LTA chronic is 1.19 (calculated by multiplying 3.73 by 0.321). *Step 4:* The LTA for acute criteria, 1.00, is the more stringent of the two criteria and was used to calculate the effluent limitations. *Step 5:* The average monthly effluent limitation (AMEL) and the maximum daily effluent limitation (MDEL) are calculated by multiplying the LTA by a factor from Table 2 of the SIP. For this Facility's discharge, the sample frequency was less than four times per month, so n = 4. From Table 2 of the SIP, the MDEL multiplier is 5.76, the AMEL multiplier is 2.13, and MDEL/AMEL is 2.7. These values calculate an AMEL of 2.13 µg/L and a MDEL of 5.78 µg/L. *Step 6:* For the applicable human health criterion, the AMEL is equal to the ECA, 3.73 µg/L. The MDEL is equal to the ECA multiplied by the MDEL/AMEL multipliers, 10.07 µg/L. *Step 7:* For copper, the AMEL is 2.1 µg/L and MDEL is 5.8 µg/L. These are the effluent limitations for copper in the Tentative Order. The Discharger's claim that the AMEL for copper proposed in the Tentative Order "has negatively impacted the Discharger's ability to operate the Facility as a beneficial use by limiting operational flexibility" is unsupported by effluent data. Out of 54 brine effluent samples taken and analyzed for copper since July 2012, only two daily samples exceeded the AMEL of 2.1 µg/L. On January 6, 2016, the concentration of total recoverable copper was 2.2	

No.	Comment	Response	Action Taken
		µg/L. On February 3, 2016, the concentration of total recoverable copper was 2.8 µg/L. The Tentative Order does contain a reopener in section VI.C.1.g that would allow the permit to be reopened and modified during the permit term in accordance with the provisions set forth in 40 CFR parts 122 and 124. Also, 40 CFR section 122.62(a)(2) allows permits to be reopened and modified based on receiving new information that was unavailable at the time of permit issuance. For all of these reasons, the San Diego Water Board has retained the effluent limitations for copper as proposed in the Tentative Order.	
3	Cyanide (Tentative Order section IV.A, Tables 4 and 5) Tables 4 and 5 in the Tentative Order contain new AMELs and maximum daily effluent limitations (MDELs) at Discharge Point Nos. EFF-001a and EFF-001b for cyanide. In previous monitoring events, cyanide was detected only once, and did not exceed the maximum daily or average monthly performance goals. The Discharger believes that a single detection of cyanide within performance goal standards does not justify conversion of the performance goal into an effluent limitation. For this reason, the Discharger requests that the Tentative Order be revised to remove the cyanide effluent limitations and retain the current performance goals for cyanide. The Discharger also notes that the calculations in the Fact Sheet at F-26 through F-29 are difficult to understand and may not use the actual detected level of cyanide in the single detection event. If the cyanide effluent limitations are not removed, the Discharger requests, as an alternative, that the San Diego Water Board revise the Fact Sheet to use the	Effluent limitations are assigned for parameters that are found to have a reasonable potential to cause or contribute to an exceedance of applicable water quality standards as defined in 40 CFR section 122.44(d) and the SIP. In accordance with section IV.B of the Tentative Order, performance goals are assigned for all other regulated parameters that do not have reasonable potential to cause or contribute to an exceedance of water quality objectives, or for which reasonable potential to cause or contribute to an exceedance of water quality standards cannot be determined. The data that has been collected during the previous permit cycle is used to perform the reasonable potential analysis. The San Diego Water Board properly calculated effluent limitations in the Tentative Order, including the effluent limitations for cyanide, in accordance with the procedures outlined in the SIP. Pursuant to section 1.3 of the SIP, effluent limitations for cyanide are required in the Tentative Order	None necessary.

No.	Comment	Response	Action Taken
	actual detected value for cyanide (0.48 µg/L) in the calculations. Requested Revision I.B: *Delete the cyanide effluent limitations from Tables 4 and 5 and include these entries as performance goals in Table 9.* *Alternatively, revise the Fact Sheet to use the actual detected value for cyanide (0.48 µg/L) in the calculations.*	because the background concentration of cyanide is greater than the water quality standard for cyanide and cyanide has been detected in the effluent from the Facility. Consistent with section 1.4 of the SIP, the San Diego Water Board used the water quality standard for cyanide rather than the maximum effluent concentration for cyanide when calculating the effluent limitations. For all of these reasons, the San Diego Water Board has retained the effluent limitations for cyanide as proposed in the Tentative Order.	
4	SOC Priority Pollutants (Tentative Order section IV.A Tables 4 and 5) The Discharger is concerned about the effluent limitations for the SOC priority pollutants Discharge Point Nos. EFF-001a and EFF-001b. Inclusion of effluent limitations for SOC priority pollutants appears to be based on errant data that should not be considered relevant under a reasonable potential analysis. SOC priority pollutants were detected above their respective performance goals in February 2013 and August 2013 during quarterly priority pollutant monitoring. The low-level detections of the polynuclear aromatic hydrocarbons (PAHs) and phthalates are common for this method and are typically caused by laboratory contamination (i.e. low levels of analytical or extraction process carry over contamination). (See enclosed letter from Weck Labs.) For example, in the initial sample taken on August 7, 2013, several SOC priority pollutants were detected above their respective performance goals. To show that the low levels of the SOC priority pollutants were anomalous and most likely due to laboratory	Based on the information provided by the Discharger, the San Diego Water Board has removed the data in question from the dataset. The conclusion of the new reasonable potential analysis is that the effluent from the Facility does not have a reasonable potential to cause or contribute to an exceedance of water quality standards for the SOC priority pollutants. Therefore, as requested by the Discharger, the San Diego Water Board has replaced the effluent limitations with performance goals in the Tentative Order for the following parameters: benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, bis (2-ethylhexyl) phthalate, chrysene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pytene.	Tables 4, 5, 9, E-2, F-12a, F-15a, and F-17 of the Tentative Order have been modified.

No.	Comment	Response	Action Taken
	contamination, the original sample was re-extracted and none of the SOC priority pollutants that had previously exceeded their performance goals were detected. Because the re-extract of the original sample was past the Method 625 holding time, another SOC priority pollutant sample was taken on August 29, 2013, and again, none of the SOC priority pollutants that had previously exceeded their performance goals were detected. In addition, no SOC priority pollutants were detected in the May and November sampling events. (See attached letter from Weck Laboratories.) During all relevant times, May through November 2016, the Perdue operating configuration was consistent (SDF 1, 2, 6). Because the low-level detections of SOC priority pollutants are most likely caused by laboratory contamination, the Discharger believes this data is inappropriate for the reasonable potential assessment and establishment of an effluent limitation. The Discharger respectfully requests that the Tentative Order be modified to retain the current SOC priority pollutant performance goal. <u>Requested Revision I.C:</u> *Remove the effluent limitations for SOC priority pollutants and retain SOC priority pollutant performance goal.* *Remove the SOC priority pollutants from Tables 4 and 5 and include these entries as performance goals in Table 9.*		
5	Copper and Selenium (Tentative Order section IV.A Tables 6a, 7, and 8) The Tentative Order improperly includes AMELs and MDELs for all SDF well for both copper and selenium for Discharge Point Nos. EFF-002 through EFF-010. These	The San Diego Water Board concurs that discharges already regulated under the Drinking Water Permit should not be separately or additionally regulated under this individual NPDES permit.	The Tentative Order has been modified to remove all discharge and monitoring requirements related to well purges and other intermittent discharges regulated

No.	Comment	Response	Action Taken
	well purges are already permitted under Order No. WQ 2014-0194-DWQ, *Statewide National Pollutant Discharge Elimination System (NPDES) Permit for Drinking Water System Discharges to Waters of the United States* (Drinking Water Permit). The Discharger has been enrolled in the Drinking Water Permit since January 2016. The Drinking Water Permit recognizes these discharges as "low threat," authorizes discharges from well purges, and establishes a monitoring and reporting program. (Drinking Water Permit Attachment E.) It is improper to impose additional effluent limitations and monitoring of these already-permitted discharges. For this reason, and as further discussed below, the Discharger requests that Monitoring and Reporting (MRP) sections III.A.2 through 4, effluent limitations in sections IV.A.3 through 5, Tables 6a through 8, and Tables E-3 through E-5 be removed from the Tentative Order. Further, even if the effluent limitations for copper and selenium for SDF well purges were proper, the Discharger believes it is improper to use effluent data for SDF wells 3 through 5 to conduct the reasonable potential analysis for copper and selenium at the SDF wells 7-11 (EFF-006 – EFF-010), which have not yet been placed into production. Without agreeing that inclusion of effluent limitations for well purges is proper, if the Tentative Order continues to include these effluent limitations, the Discharger requests inclusion of a reopener provision that would allow for an adjustment in the effluent limitations based on actual water quality data obtained with the new SDF wells in operation. <u>Requested Revision I.D:</u>	The statewide NPDES Drinking Water Permit referenced in the comment has broad applicability and requires all water purveyors in California with drinking water system dischargers to waters of the U.S. to be enrolled unless a discharger meets one or more of six exceptions. None of these exceptions apply to the Discharger. The Fact Sheet for the Drinking Water Permit recognizes that similar types of drinking water system discharges have historically been regulated differently or inconsistently throughout the State, and the general permit was issued in part "with the intent to provide consistent and efficient regulatory coverage and requirements for drinking water system discharges statewide that have a low threat to water quality when properly mitigated through implementation of best management practices." (Drinking Water Permit, Fact Sheet F-4.) It is therefore not appropriate to require the Discharger to meet overlapping or duplicative requirements for the discharges that are already regulated through the Discharger's enrollment under the Drinking Water Permit. The duplicative provisions of the Tentative Order have been removed.	separately by the Drinking Water Permit.

No.	Comment	Response	Action Taken
	Delete sections III.A.2 through 4, effluent limitations in sections IV.A.3 through 5, Tables 6a through 8, and Tables E-3 through E-5.		
6	Remove Pollutant Minimization Program (Tentative Order section VI.C.3) The Pollutant Minimization Program (PMP) requirements are very diffuse and difficult to interpret. The compliance requirements and instructions are in very general terms that are difficult, if not impossible at points, to understand. The vague and ambiguous nature of this provision does not provide proper notice to the Discharger of what is required in order to comply with the Tentative Order. There is likewise no indication that the PMP will be cost-effective, as the SIP urges this Board to consider. (SIP section 2.4.5.1.) The Discharger questions the enforceability and feasibility of such vague and ambiguous permit requirements. <u>Requested Revision II:</u> *Remove section VI.C.3 from the Tentative Order or include a cost effectiveness assessment.*	The Tentative Order includes requirements for the Discharger to conduct a PMP consistent with section 2.4.5.1 of the SIP. A PMP is required only in the unique circumstance when there is evidence that a priority pollutant is present in the effluent above an effluent limitation and either: 1. A sample result is reported as detected, but not quantified and the effluent limitation is less than the reporting level; or 2. A sample result is reported as not detected and the effluent limitation is less than the method detection limit. The SIP requires that a PMP, when triggered, includes, but not be limited to, specific actions and submittals by the Discharger to the San Diego Water Board including: 1. An annual review and semi-annual monitoring of potential sources of the reportable priority pollutant(s), which may include fish tissue monitoring and other bio-uptake sampling; 2. Quarterly monitoring for the reportable priority pollutant(s) in the influent to the wastewater treatment system; 3. Submittal of a control strategy designed to proceed toward the goal of maintaining concentrations of the reportable priority	Section VI.C.3.b of the Tentative Order and section VII.D.2 of the Fact Sheet (Attachment F) have been modified.

No.	Comment	Response	Action Taken
		pollutant(s) in the effluent at or below the effluent limitation; 4. Implementation of appropriate cost-effective control measures for the reportable priority pollutant(s), consistent with the control strategy; and 5. An annual status report that shall be sent to the San Diego Water Board. Consideration of cost effectiveness is not a prerequisite to inclusion of the above requirements. If the San Diego Water Board had required additional requirements for the PMP above and beyond those requirements specified in the SIP, then the San Diego Water Board may consider the cost-effectiveness of such additional requirements beyond those required in the SIP. However, the requirements in the Tentative Order are the minimum requirements established by the SIP. In the event that a PMP is triggered, San Diego Water Board staff are available to consult with the Discharger to answer questions on the steps necessary to comply with the requirement. Section VI.C.3.b of the Tentative Order has been modified to include item 2 from SIP section 2.4.5.1: ii. Quarterly monitoring for the reportable priority pollutant(s) in the influent to the wastewater treatment system; Section VII.D.2 of the Fact Sheet (Attachment F) has been added to include the following discussion of the PMP from SIP section 2.4.5.1: The goal of the PMP shall be to reduce all potential sources of a priority pollutant(s) through pollutant minimization (control) strategies,	

No.	Comment	Response	Action Taken
		including pollution prevention measures as appropriate, to maintain the effluent concentration at or below the water quality-based effluent limitation. The San Diego Water Board may consider cost-effectiveness when establishing the requirements of a PMP. The program shall include, but not be limited to, the following actions and submittals acceptable to the San Diego Water Board: a. An annual review and semi-annual monitoring of potential sources of the reportable priority pollutant(s), which may include fish tissue monitoring and other bio-uptake sampling; b. Quarterly monitoring for the reportable priority pollutant(s) in the influent to the wastewater treatment system; c. Submittal of a control strategy designed to proceed toward the goal of maintaining concentrations of the reportable priority pollutant(s) in the effluent at or below the effluent limitation; d. Implementation of appropriate cost-effective control measures for the reportable priority pollutant(s), consistent with the control strategy; and e. An annual status report that shall be sent to the San Diego Water Board including: i. All PMP monitoring results for the previous year; ii. A list of potential sources of the reportable priority pollutant(s);	

No.	Comment	Response	Action Taken
		iii. A summary of all actions undertaken pursuant to the control strategy; and iv. A description of actions to be taken in the following year.	
7	Revise Monitoring Requirements to Avoid Requiring Monitoring Beyond the Discharger's and San Diego Water Board's Jurisdiction Five provisions in the Monitoring and Reporting Program exceed the scope of monitoring authorized pursuant to Water Code sections 13267 and 13383 and should be modified or deleted.	Detailed responses to this comment are provided in the responses to comment nos. 8 through 11.	See responses to comment nos. 8 through 11.
8	Remove Effluent Monitoring for SDF Well Purges at Monitoring Locations EFF-002-EFF-010, Chlorine Contact Tank at Monitoring Location INT-001, Pressure Relief Valve and Plant Feed-Water Dumps at Monitoring Location INT-002 (MRP section III.A.3, Tables E-3, E-4,E-5) The Tentative Order improperly requires the Discharger to monitor more than 100 parameters in discharges from well purges at Monitoring Locations EFF-002 through EFF-010, the Chlorine Contact Tank at INT-001, Pressure Relief Valves and Plant Feed-Water Dumps at Monitoring Location INT-002. Discharges from well purges, the chlorine contact tank, pressure relief valves, and plant feed-water dumps (which consist of blended flows of various SDF well raw water combinations) are already permitted under the Drinking Water Permit. The Drinking Water Permit recognizes these discharges as "low threat," authorizes discharges from well purges, the chlorine contact tank, pressure relief valves, and plant feed-water dumps, and establishes a monitoring and reporting program. (Drinking Water Permit, Attachment E.) It is improper to require additional effluent limitations	See response to comment no. 5.	See response to comment no. 5.

No.	Comment	Response	Action Taken
	and monitoring of these already-permitted discharges. The low threat designation by the State Water Board in the Drinking Water Permit also justifies an exception under the Tentative Order of these discharges as a "low threat" discharge. This approach is also consistent with San Diego Water Board staff correspondences regarding this issue in December 2010. (See attached e-mail from Michelle Mata.) Further, even if these discharges were not already permitted by the Drinking Water Permit, footnote 7 to Table E-3 in section III.A of the MRP improperly requires the Discharger to "monitor one well each semiannual period for priority pollutants." As written, this requirement seems to be beyond the scope of the permit, unless it is limited to require monitoring only during well purges. If the Tentative Order is not revised to remove the effluent limitations and monitoring requirements for these already-permitted discharges, footnote 7 should be revised to require monitoring only during well purge events. <u>Requested Revision III.A:</u> *Delete sections III.A.2, III.A.3, and III.A.4, and Tables E-3, E-4, and E-5 from the MRP and related provisions in the Fact Sheet. Remove effluent limitations in sections IV.A.3, IV.A.4, IV.A.5, and Tables 6a, 6b, 7, and 8.* *Alternatively, modify footnote 7 to Table E-3 in section III.A of the MRP as follows (additional language underlined): The Discharger shall monitor one well each semiannual period <u>during well purge</u> events for priority pollutants.*		
9	Remove 24-Hour Composite Sample Requirements for Monitoring Locations EFF-001a and 001b (MRP section III.A.1, Table E-2)	For the reasons stated in the comment and for consistency with prior permits, the San Diego Water Board has modified Table E-2 to require grab	Table E-2 of the Tentative Order has been modified.

No.	Comment	Response	Action Taken
	The Tentative Order requires the Discharger to conduct 24-hour composite sampling for certain parameters in the discharge brine from Monitoring Location EFF-001b. This sampling is not possible from a logistical perspective, because there is no way to access the discharge brine with an auto-sampler. The pipeline is fully enclosed from the Facility to the terminus at Monitoring Location EFF-001b. <u>Requested Revision II.B:</u> *Delete the requirement to conduct 24-hour composite sampling from Table E-2 in section III.A.1 of the MRP.*	samples rather than 24-hour composites at Monitoring Locations EFF-001a and EFF-001b.	
10	Remove Receiving Water and Sediment Monitoring Requirements (MRP section IV) The Tentative Order's Receiving Water and Sediment Monitoring Program exceeds the scope of monitoring authorized under Water Code sections 13267 and 13383, in part because the requirements are not justified by a cost-benefit analysis and are unreasonable. (MRP section IV.) The Tentative Order requires the Discharger to prepare and submit a Sediment Monitoring Plan to assess compliance with Receiving Water Limitations. The requirements include a Quality Assurance Project Plan, Sampling and Analysis Plan, sediment chemistry, toxicity, and benthic community monitoring, and an aquatic-dependent wildlife and human health screening-level risk assessment. Monitoring must commence within 36 months of the effective date of the Tentative Order. The Fact Sheet states that the receiving water limitations are derived, in part from the *Water Quality Control Plan for the Enclosed Bays and Estuaries – Part 1 Sediment Quality* (Sediment Quality Plan) and, without citation to any factual or analytical support, states that the 303(d) impairments in San Diego Bay "demonstrate that there is reasonable potential to cause or contribute	As provided in the MRP (Attachment E) and Fact Sheet (Attachment F) section VII,B of the Tentative Order, section 308 of the federal Clean Water Act (CWA) and sections 122.41(h), (j)-(l), 122.44(i), and 40 CFR section 122.48 require that all NPDES permits specify monitoring and reporting requirements. Water Code section 13383 also authorized the San Diego Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. Pursuant to this authority, the MRP of the Tentative Order establishes conditions for the Discharger to conduct routine or episodic self-monitoring of the discharges regulated under the Tentative Order at specified influent, effluent, and receiving water monitoring locations. The purpose of the MRP is to determine and ensure compliance with effluent limitations and other requirements established in the Tentative Order, characterize effluents, and characterize the receiving water and the effects of the discharge on the receiving water.	Section V of the Fact Sheet (Attachment F) has been modified.

No.	Comment	Response	Action Taken
	to an exceedance of the sediment quality objectives." (Fact Sheet section V.) Historical biological monitoring of the receiving water benthic community, however, has not identified any environmental impacts caused by the operation of the Reynolds Plant. As described above, the Tentative Order's new testing and monitoring requirements increase the number of tests the Discharger must conduct from 522 in the previous permit to 1901, at a potential cost of $180,000 –an increase of more than $150,000 since 2004. The Fact Sheet contains no evidence of the water quality improvements that will result from this dramatic and expensive increase in monitoring. The San Diego Water Board's failure to conduct and communicate the required cost-benefit analysis of the monitoring requirements in the Tentative Order constitutes an abuse of discretion. (Water Code sections 13267 and 13225(c).) The Tentative Order goes far beyond a requirement that the Discharger "monitor" the effluent from its own discharge. The Tentative Order's Receiving Water and Sediment Monitoring Program requires monitoring of receiving waters above and below discharge points and sampling and analysis of sediment in receiving waters. The main cause of environmental impacts in the receiving waters is storm water runoff, not discharges from the Facility. To the extent the Tentative Order requires the Discharger to compile information beyond its jurisdictional control, those requirements are unauthorized. Although Water Code section 13383(b) permits the San Diego Water Board to request "other information[,]" such requests can only be "reasonably" imposed. (Water Code section 13383(b).) The Tentative Order requires the Discharger to analyze discharges and make assumptions regarding factors well beyond its individual boundaries. This is not reasonable, and is	There are several differences between the receiving water monitoring program in the current Order (Order No. R9-2010-0012) and the Tentative Order. First, the Tentative Order eliminates toxicity monitoring in the receiving water and it instead increases the monitoring of priority pollutants from once per permit cycle to annually. Annual monitoring will give a better understanding of any effects of the discharge on the receiving water. Second, as explained below, the Sediment Quality Plan requirements apply to this discharge. The Tentative Order replaces the requirement to prepare a Benthic Invertebrate Monitoring Plan, a Macroalgae Monitoring Plan, a Wetland Vegetation Monitoring Plan, and a Temperature Compliance Determination Plan with requirements to develop a Quality Assurance Project Plan and a Sampling and Analysis Plan, and to perform sediment chemistry, toxicity, and benthic community monitoring and an aquatic-dependent wildlife and human health screening-level risk assessment, consistent with the requirements of the statewide Sediment Quality Plan. The Sediment Quality Plan applies to enclosed bays including San Diego Bay and the tidal prism of San Diego Bay at the Lower Sweetwater River. The sediment-monitoring program contained in the Tentative Order is mandated under section VII.D of the Sediment Quality Plan. The Sediment Quality Plan states that if a Water Board determines that discharge of a toxic pollutant to bay or estuarine waters has the reasonable potential to cause or contribute to an exceedance of the sediment quality objectives, the Water Board shall apply the objectives as receiving water limits.	

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	therefore not permitted under Water Code sections 13225, 13267, and 13383. Requested Revision III.C: *Delete section IV of the Monitoring and Reporting Program and related provisions in the Fact Sheet.*	The Sediment Quality Plan requires minor discharges[1], like the Discharger's, to monitor sediment not more often than twice per permit cycle or less than once per permit cycle. The Tentative Order requires sediment monitoring only one time during the permit term. The approximate cost to conduct sediment monitoring is $15,000 for one station. Section V of the Fact Sheet (Attachment F) has been modified to clarify that the MRP is issued pursuant to Water Code section 13383 and not 13267 and to read as follows: Section 303(a-c) of the CWA, requires states to adopt water quality standards, including criteria necessary to protect beneficial uses. The San Diego Water Board adopted water quality criteria as water quality objectives in the Basin Plan. The Basin Plan states "water quality objectives must protect the most sensitive of the beneficial uses which have been designated for a water body." The Basin Plan includes numeric and narrative water quality objectives for various beneficial uses and water bodies. Additionally, as discussed in section III.C.3 above, the Sediment Quality Plan supersedes other narrative sediment quality objectives, and establishes new sediment quality objectives and related implementation provisions for specifically defined sediments in most bays and estuaries, including the tidal prism of San Diego Bay at the Lower Sweetwater River. The sediment-monitoring program contained in this Order is mandated under section VII.D of the Sediment Quality Plan. The Sediment Quality Plan states that if a Water Board determines that discharge	

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		of a toxic pollutant to bay or estuarine waters has the reasonable potential to cause or contribute to an exceedance of the sediment quality objectives, the Water Board shall apply the objectives as receiving water limits. The San Diego Water Board has determined that there is reasonable potential to cause or contribute to an exceedance of the sediment quality objectives based on the CWA section 303(d) impairment and on the toxicity data collected to date from the Facility. San Diego Bay is listed as impaired for copper, PCBs, sediment toxicity, and benthic community effects in the area near the Facility. On three occasions in 2011 and two occasions in 2012, the Facility exceeded chronic toxicity effluent limitations at Discharge Point No. 001a. A follow up Toxicity Identification Evaluation determined that calcium and other cationic metals were the likely source of the toxicity. Given the likelihood that metals will accumulate in the sediment near the Facility and the existing 303(d) impairment, the San Diego Water Board has determined that there is reasonable potential to cause or contribute to an exceedance of the sediment quality objectives. Receiving water limitations of this Order are derived from the water quality objectives for Inland Surface Waters established by the Basin Plan and other applicable sediment water quality objectives contained in the State Water Board's Sediment Quality Plan. -----	

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		[1]Discharges are rated as major or minor for purposes of aiding the administration of the National Pollutant Discharge Elimination System using the "NPDES Permit Rating Work Sheet".	
11	Remove Regional Watershed Monitoring. (MRP section V) Section V of the MRP requires the Discharger to participate in Regional Watershed Monitoring as part of the Surface Water Ambient Monitoring Program, to participate with local agencies and other dischargers within the San Diego Region in development, and implementation of a regional watershed monitoring program for the San Diego Bay Watershed as directed by the San Diego Water Board's Executive Officer. Finally, the Tentative Order requires the Discharger to pool resources toward regional monitoring and to reallocate its sampling and analytical efforts toward regional assessments of the condition of the watershed if the regional watershed program partners determine reallocation is desirable. These requirements are vague and ambiguous as to the extent of participation required. They are also vague and ambiguous as to which waters the Discharger may be required to expend ratepayer funds to monitor. It is improper and beyond the San Diego Water Board's jurisdiction to require the Discharger to enter into agreements and coordinate with dischargers outside the Discharger's jurisdiction and to require the Discharger to expend ratepayer funds to monitor waters which the Discharger may not affect. (See Water Code sections 13374 and 13377.) Such requirements are not reasonable regulations, and thus violate State law. (*Communities for a Better Environment v. State Water Resources Control Bd.*, 132 Cal. App. 4th	The San Diego Water Board has revised section V of the MRP (Attachment E) and section VII.C the Fact Sheet (Attachment F) of the Tentative Order to better describe the basis, purpose, and implementation of the provisions related to Discharger participation in regional monitoring. Section V of the MRP in Attachment E of the Tentative Order has been deleted and replaced with the following to provide the requested clarity: The Discharger shall, upon written request from the San Diego Water Board, participate with other regulated entities, other interested parties, and the San Diego Water Board in development, refinement, implementation, and coordination of regional monitoring and assessment programs to: 1. Determine the status and trends of conditions in the San Diego Bay watershed, including downstream San Diego Bay waters, with regard to beneficial uses, e.g. a. Are fish and shellfish safe to eat? b. Is water quality safe for swimming? c. Are ecosystems healthy? 2. Identify the stressors causing or contributing to conditions of concern;	Section V of the MRP (Attachment E) and section VII.C the Fact Sheet (Attachment F) have been modified.

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	1313, 1330 (2005) [regulation pursuant to NPDES program must be reasonable].) Requested Revision III.D: *Delete Tentative Order section V and related provisions in the Fact Sheet.*	3. Identify the sources of the stressors causing or contributing to conditions of concern; *and* 4. Evaluate the effectiveness (i.e., environmental outcomes) of actions taken to address such stressors and sources. During a coordinated watershed sampling effort, the Discharger's sampling and analytical effort may be reallocated to provide a regional assessment of the condition of the watershed. The Discharger may decline to participate in regional watershed monitoring in which case the Discharger's individual sampling and analytical efforts will not be reallocated or otherwise affected. Section VII. C of the Fact Sheet has been revised to read as follows to provide the requested clarity: C. Regional Watershed Monitoring Regional monitoring provides information about the sources, fates, and effects of anthropogenic contaminants in the watershed environment necessary to make assessments over large areas. The large-scale assessments provided by regional monitoring describe and evaluate cumulative effects of all anthropogenic inputs and enable better decision making regarding protection of beneficial uses of surface waters receiving waste discharges. Regional monitoring data assists in the interpretation of core monitoring studies by providing a more accurate and complete characterization of reference conditions and natural variability. Regional monitoring also leads to methods standardization and improved quality control through inter-	

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		calibration exercises with other monitoring entities. The coalitions implementing regional monitoring enable sharing of technical resources, trained personnel, and associated costs. Focusing these resources on regional issues and developing a broader understanding of pollutant effects in receiving waters enables the development of more rapid and effective response strategies. Based on all of these considerations the San Diego Water Board supports regional approaches to monitoring. The Discharger's effluent has the potential to impact the lower Sweetwater River and downstream waters in San Diego Bay. The Discharger is required to participate in regional monitoring activities in the San Diego Bay watershed, including downstream San Diego Bay waters upon written request by the San Diego Water Board. The regional monitoring program shall be developed and implemented so as to answer the following questions: 1. Determine the status and trends of conditions in the San Diego Bay watershed, including downstream San Diego Bay waters, with regard to beneficial uses, e.g. a. Are fish and shellfish safe to eat? b. Is water quality safe for swimming? c. Are ecosystems healthy? 2. Identify the stressors causing or contributing to conditions of concern;	

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		3. Identify the sources of the stressors causing or contributing to conditions of concern; *and* 4. Evaluate the effectiveness (i.e., environmental outcomes) of actions taken to address such stressors and sources. Development and implementation of regional monitoring and assessment programs will be guided by the following: 1. San Diego Water Board Resolution No. R9-2012-0069, *Resolution in Support of A Regional Monitoring Framework*; 2. San Diego Water Board staff report entitled *A Framework for Monitoring and Assessment in the San Diego Region*; and 3. Other guidance materials, as appropriate. During the coordinated sampling efforts, the Discharger's receiving water sampling and analytical effort, as defined in section IV of the MRP (Attachment E), may be reallocated to provide a regional assessment of the impact of the discharge to the San Diego Bay watershed and downstream waters of San Diego Bay. In that event, the San Diego Water Board shall notify the Discharger in writing that the requirement to perform the receiving water sampling and analytical effort defined in section IV of the MRP (Attachment E) is suspended for the duration of the reallocation. Anticipated modifications to the monitoring program will be coordinated so as to provide a more comprehensive picture of the ecological and statistical significance of monitoring results and to determine cumulative impacts of various pollution sources. The level of resources in terms	

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		of sampling and analytical effort redirected from the receiving water monitoring program required under section IV of the MRP (Attachment E) shall equal the level of resources provided to implement the regional monitoring and assessment program, unless the San Diego Water Board and the Discharger agree otherwise. The specific scope and duration of the receiving water monitoring program reallocation and redirection shall be determined and set by the San Diego Water Board in consultation with the Discharger. If the Discharger declines to participate in regional watershed monitoring efforts, its ongoing sampling and analytical requirements will remain unchanged.	
12	Align Toxicity Testing Methods with Federally Promulgated Methods (MRP section III.B) The Tentative Order requires the Discharger to use the Test of Significant Toxicity (TST) to determine compliance with the whole effluent toxicity (WET) effluent limitation at the 100 percent in waste stream concentration (IWC). The TST is scientifically unreliable and has never been promulgated as an approved method for assessing compliance with NPDES permits. As a practical matter, the Discharger is concerned that, even though the brine discharge is instantly diluted upon reaching the Sweetwater River, the San Diego Water Board, by applying the TST using a 100 percent IWC, does not acknowledge the mixing that actually does occur as the brine discharge enters the Lower Sweetwater River. In addition, using the USEPA's TST compliance calculator, the Discharger has performed a compliance comparison of historical chronic toxicity method (Technical Source Document (TSD)) Chronic Toxicity Units (TUc) data with the TST method and has	Both the TST and the NOEC *statistical approaches* are used for evaluating toxicity (i.e. WET) test data obtained from the same standard toxicity *test methods* approved under 40 CFR part 136, or other approved *test methods* that are described in a USEPA guidance manual referenced in the response to comment no. 13. The San Diego Water Board has been establishing acute and chronic toxicity effluent limitations in NPDES permits consistent with the TST approach since 2013. The rationale and legal basis for the Tentative Order requirement to use the TST method for analysis of WET test data is contained in section C.6 of the Fact Sheet in Attachment F of the Tentative Order. As provided in the Fact Sheet the TST is a USEPA recommended *statistical approach* developed to assess WET test data used for NPDES WET reasonable potential and effluent limitation compliance determinations. In fact, USEPA	None necessary.

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	determined that using the TST method would have resulted in a significant increase in false indications of chronic toxicity exceedances. The comparison of test results demonstrates that the TST approach gave a failing grade in approximately 80 percent of the samples, compared with approximately 30 percent for the No Observable Effects Concentration (NOEC)/TUc method. If the Discharger had not conducted tests using the TUc method, failures under the TST approach would have falsely indicated violations of the performance goals of the Tentative Order where no such violation occurred. Enclosed is a summary table of Chronic Toxicity showing the Discharger's comparison. As a legal matter, the San Diego Water Board is required to use promulgated methods for conducting WET tests. (40 CFR part 136.) USEPA has never promulgated regulations for a WET test comprised of a single-concentration of a sample compared to a control (referred to here as a "two-concentration" test), allowing use of the TST (reversed null hypothesis assuming toxicity), or approving the TST evaluation procedure.	developed the TST statistical approach to address concerns associated with traditional hypothesis testing. Drawing heavily from the bioequivalence approach used by the Food and Drug Administration and researchers worldwide, this modified hypothesis approach compares the organism response in the IWC to a percentage of the response in the control. This percentage-based effect threshold, denoted as *b*, is set at differing levels for chronic and acute toxicity tests. Chronic toxicity tests are assigned a *b* value of 0.75 so as to establish an effect consistent with the IC25 endpoint (i.e. 25 percent), and the *b* value for acute toxicity is set at 0.80 in order to provide aquatic biota with added protection from lethal discharges. These values, which are also referred to as regulatory management decisions (RMDs), provide a clear threshold for declaring an unacceptable level of toxicity in a given sample. As noted in section C.6 of the Fact Sheet, USEPA examined the side-by-side comparison of NOEC and TST results using California chronic toxicity test data (including data from publically-owned treatment works (POTWs) for the West Coast Marine Methods and test species required under the Tentative Order. The results of this comparison are shown in Table 1 (method types 1 through 5) on page 1103 in Diamond D, Denton D, Roberts, J, Zheng L. 2013. *Evaluation of the Test of Significant Toxicity for Determining the Toxicity of Effluents and Ambient Water Samples. Environ Toxicol Chem* 32:1101-1108.[1] Valid WET test data from over 25 dischargers were compiled and analyzed in this test drive representing wastewater effluents from a variety of facilities, including small facilities from underprivileged communities. A total of 890 valid, usable tests were	

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		compiled in this test drive representing the majority of WET test methods and endpoints used in California's toxicity programs. Each valid test was analyzed using both the TST approach and the NOEC approach, and a determination was made as to whether the sample was toxic or not using each approach. The sample was declared non-toxic if there was less than or equal to a 10 percent effect at the IWC in acute or chronic tests (referred to as the non-toxic RMD). The TST analysis declared 3.7 percent of all tests as toxic which should have been non-toxic (mean effect at the IWC less than 25 percent), while the NOEC analysis declared 5.5 percent of those tests as toxic. The TST analysis declared 0.1 percent of all tests as toxic which should have been non-toxic (mean effect less than or equal to 10 percent), while the NOEC analysis declared 2.8 percent of those tests as toxic. These results demonstrate that truly non-toxic samples were more often declared non-toxic using the TST approach than using the NOEC approach. Furthermore, the toxicity comparison by the Discharger illustrates that the TST approach surpasses the traditional hypothesis test approach in evaluating toxicity data and identifying truly toxic samples as toxic. For example, the October 2013 mussel development sample exhibited 100 percent effect, but the NOEC approach declared the sample non-toxic while the TST approach identified it as toxic. The January 2014 mussel development sample had similar results with a percent effect of 99.8 percent, and the NOEC approach identified the sample as non-toxic while the TST approach identified it as toxic. When almost all of the animals used in a toxicity test experience a toxic effect, the sample clearly should be identified as toxic.	

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		Additionally, neither the current Order nor the Tentative Order authorize a mixing zone or a dilution credit in the receiving waters. For all of these reasons, the San Diego Water Board has not modified the Tentative Order in response to the Discharger's comment. --- [1] A copy of this reference document can be accessed at: http://onlinelibrary.wiley.com/doi/10.1002/etc.2166/pdf	
13	TST is Scientifically Unreliable Test methods used to determine compliance with NPDES permits must be formally promulgated by the USEPA under the Administrative Procedure Act (APA) (40 CFR section 122.44(i)(1)(iv); 5 U.S.C. section 553(b), (c)). Once promulgated, only the methods codified in USEPA's regulations may be used to measure waste constituents (40 CFR section 136.1(a)). Promulgated WET methods include, in part, multiple-concentration WET tests[1] and four statistical methods for evaluating the tests[2] (40 CFR section 136.3(a); USEPA, *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms*, USEPA-821-R-02-013, (Fourth Ed., Oct. 2002)). The federal regulations permit the use of a "more sensitive" method than promulgated methods where, in part, "[t]he modified method [is] sufficiently sensitive and meet[s] or exceed[s] performance of the approved method(s) for the analyte(s) of interest, as documented by meeting the initial and ongoing quality control requirements in the method" (40 CFR section 136.6(b)(2)). Importantly, USEPA has never promulgated regulations allowing a two-concentration	The reliability of the TST approach is discussed in the response to comment no. 12. The TST approach does not replace, or result in any changes to, USEPA approved toxicity test methods listed in 40 CFR section 136.3 or other USEPA reference documents. In fact, the TST approach can be used to analyze toxicity data from all of the approved toxicity measurement methods listed in 40 CFR section 136.3 and other USEPA reference documents. West Coast Marine Methods section 9.4.1.2 states that the statistical approaches are recommended. These test methods contain the details for conducting the toxicity test on the wastewater with specific organisms. The data generated from these toxicity tests is then evaluated using the statistical calculations in the TST approach to determine if the sample is truly toxic and declared toxic or truly non-toxic and declared non-toxic. USEPA published the *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* in June 2010 for use in	None necessary.

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	test, allowing use of a reversed null hypothesis assuming toxicity, or approving the TST evaluation procedure. (*Ibid.*) The TST does not provide a performance equivalent to the methods promulgated by USEPA in 2002. (40 CFR sections 136.1 and 136.6.) As noted above, the two-concentration TST test does not account for the instant dilution of the Discharger's discharge. Where, as here, the results of a TST procedure erroneously indicate toxicity in violation of NPDES permit requirements, the Permittees have no ability to rebut that evidence and may incur liability based on a flawed test rather than on impaired water quality. (40 CFR section 122.41, subd. (j); *Sierra Club v. Union Oil Co.* (9th Cir. 1988) 853 F.2d 667, 669 [a Permittee cannot "impeach its own reports of permit violations by showing sampling error"].) Similarly, if test results erroneously indicate nontoxicity, a Permittee will miss the opportunity to improve the quality of its discharge water. Not only does the TST lack certainty required of tests used to determine compliance with NPDES permits, it also lacks internal safeguards essential to the legal and scientific validity of WET tests. (*Edison Elec. Inst. v. USEPA* (D.C. Cir. 2004) 391 F.3d 1267, 1271.) The WET testing methods that USEPA promulgated in 2002 were the subject of a legal challenge on multiple grounds, one of which is the tendency of WET testing to result in an unacceptable number of false indications of toxicity and nontoxicity. (*Ibid.*) The Court in Edison recognized that "WET tests are not without their flaws[,]" (*id*. at 1274), particularly because WET test methods do not rely on comparisons with an independent, objective, true value, which means that "their scientific validity must be assessed through other means." (*Id*. at 1270.) Despite the recognized flaws in WET tests, the Court upheld the promulgated tests, because the multiple-	evaluating the data from toxicity tests run pursuant to the accepted toxicity test methods. USEPA standardized the test procedures for conducting the approved acute and chronic WET test methods and promulgated these original toxicity methods in 40 CFR section 136.3. Since first promulgating acute and chronic WET methods in 1995, USEPA has continued to recommend that NPDES permitting authorities implement chronic WET testing in NPDES permits for West Coast facilities based on *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms* (USEPA 1995b; West Coast Marine Methods Manual) and other alternative guidance, as determined by state permitting authorities. This practice corresponds with the 2002 *Final WET Rule* (67 Federal Register 69952, 69955). In the preamble to this rulemaking, USEPA states: "Because test procedures for measuring toxicity to estuarine and marine organisms of the Pacific Ocean are not listed at 40 CFR part 136, permit writers may include (under 40 CFR 122.41(j)(4) and 122.44[d](1)(iv)) requirements for the use of test procedures that are not approved at part 136, such as the *Holmesimysis costata* Acute Test and other West Coast WET methods on a permit-by-permit basis." Indeed, regulations for publicly-owned wastewater treatment plants (POTWs) at 40 CFR section 122.21(j)(5)(viii) clarify that West Coast NPDES permit applicants, including those in Hawaii, are exempted from 40 CFR part 136 chronic methods and must use alternative guidance as directed by the permitting authority.	

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	concentration test design, developed over "years of scientific studies, negotiation, and public notice-and-comment" provided safeguards to protect against an unacceptably high number of false results. The Court described the safeguards as follows: *A single WET test involves exposing multiple batches of organisms to the effluent at various concentrations, as well as to a "control" sample of pure water, and then aggregating the effects on each batch. Statistical analysis then is used to ensure that any observed differences between the organisms exposed to a given effluent concentration and those exposed to the control blanks most likely are not attributable to randomness - - that they are statistically significant. See Final Rule, 67 Fed. Reg. at 69,957-58. This safeguard addresses the petitioners' concerns [regarding false positives]. USEPA, in short, has offered a reasoned and thorough explanation of its decision on this subject. (Id. at 1272-1273.)* A multiple-concentration approach is thus an essential part of WET testing, because it provides an alternative, within-test assessment of the test's scientific reliability. (*Id*.) Multiple-concentration test methods provide assessment of reliability by allowing a toxicologist to determine if the causal relationship described above exists and to ensure that any observed differences between the organisms exposed to effluent concentrations and those exposed in the control most likely are not attributable to mere randomness. (See *id*. at 1274.) Use of the TST, which has not been promulgated and by itself results in higher false positive rates, compounded by the use of a two-concentration	Section III.B.3 of the MRP of the Tentative Order requires the use of *Short-Term Methods for Estimating the* Chronic *Toxicity of Effluent and Receiving Waters to West Coast Marine Estuarine Organisms* which is recommended by the *USEPA Region 9 and 10 Toxicity Training Tool, November 2007*. Additionally, the Discharger incorrectly infers that the rate of false determinations of toxicity increases as test variability increases. The likelihood of the TST resulting in "Fail" does increase with increasing variability, but this does not constitute a false positive. Rather, the TST approach is capable of detecting toxic effects at levels that do not warrant a regulatory response (i.e. percent effects below the RMDs). Variability will not become the determining factor as the TST provides new incentives to reduce within-test variability that are not available for the NOEC approach. It is also incorrect to suggest that the outcome of future toxicity tests will differ based solely on the use of the TST, as the test drive analysis showed similar results between the TST and NOEC approaches. Of note, footnote 2 includes only a partial list of possible approaches for evaluating toxicity data, and it fails to include any point estimate approaches. For all of these reasons, the San Diego Water Board has not modified the Tentative Order in response to the Discharger's comment.	

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	WET test design, eliminates the multiple-concentration safeguards that form the basis of the Court's approval of WET testing in Edison. Because the TST lacks within-test quality controls present in promulgated multiple-concentration dilution WET tests, the TST fails to "meet or exceed performance of the approved method(s)" and is a scientifically unsound method for assessing compliance with the Permit (40 CFR section 136.6). ---------- [1] The promulgated methods require four or more concentrations plus a control with zero percent sample; e.g., NOEC and IC25 for chronic toxicity in fresh water organisms. [2] The four approved statistical methods are the Dunnett's Procedure, T-test with the Bonferroni Adjustment, Steel's Many-One Rank Test, and Wilcoxon Rank Sum Test with the Bonferroni Adjustment.		
14	TST is Contrary to Law Test methods used to determine compliance with NPDES permits must be formally promulgated by the USEPA. (40 CFR section 122.44(i)(1)(iv); 5 U.S.C. section 553(b), (c).) Once promulgated, the codified methods must be used to measure waste constituents. (40 CFR section 136.1(a).) When it promulgated WET test methods and four statistical approaches for evaluating test results, the USEPA did not promulgate the TST or a two-concentration WET test. USEPA's approval of the TST as an alternative test procedure is required because the TST is not otherwise authorized by federal law or regulation. (40 CFR sections 136.1 and 136.5.) As a result, the San Diego Water Board lacks	The rationale and legal basis for the Tentative Order requirement to use the TST approach for analysis of WET test data is contained in section C.6 of the Fact Sheet in Attachment F of the Tentative Order. As provided in the Fact Sheet, TST is a USEPA recommended *statistical approach* developed to assess WET test data used for NPDES permit WET reasonable potential and effluent limitation compliance determinations. As discussed in the response to Comment Nos. 12 and 13, the required use of the TST statistical approach in analyzing WET test data does not require codification in 40 CFR part 136 by USEPA. The TST approach does not replace, or result in any changes to USEPA approved toxicity	None necessary.

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	legal authority to require the TST approach in the Permit. Further, the USEPA's 2010 Guidance, *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (USEPA 833R-10-003, 2010), does not provide the San Diego Water Board with authority to require the TST. A state agency cannot rely on an action by USEPA in a way that indicates USEPA's action is binding unless that action has been subject to the formal rulemaking procedures, including public notice and comment. (*Appalachian Power Co. v. USEPA* (D.C. Cir. 2000) 208 F.3d 1015; see also *Natural Res. Def. Council v. USEPA* (9th Cir. 2015) 779 F.3d 1119; *Natural Res. Def. Council v. USEPA* (D.C. Cir. 2011) 643 F.3d 311.) The APA's rulemaking procedures are designed to "assure fairness and mature consideration of rules of general application." (*Chrysler Corp. v. Brown* (1979) 441 U.S. 281, 303.) Courts have repeatedly chastised state agencies and USEPA for engaging in a pattern and practice of rulemaking contrary to the APA. (See e.g., *Nat'l Envtl. Dev. Ass'ns Clean Air Project v. USEPA* (D.C. Cir. 2014) 752 F.3d 999; *Iowa League of Cities v. USEPA* (8th Cir. 2013) 711 F.3d 844, 862; *Sierra Club v. USEPA* (D.C. Cir. 2012) 699 F.3d 530; *Natural Res. Def. Council*, supra, 643 F.3d at 321; *Appalachian Power Co., supra*, 208 F.3d 1015; *Fairfield County Bd. of Comm'rs v. Nally* (2015) 143 Ohio St. 3d 93, 104.) Of great concern here is that a legally and scientifically flawed method or evaluation procedure will result in an unreasonably high number of false indications of violations or an unreasonably high number of false indications of nontoxicity. Neither of these results will be based on actual water conditions. One will expose the Discharger to administrative, civil, and criminal liability, and the other fails to protect water quality. Without	test methods listed in 40 CFR section 136.3 or other USEPA reference documents. For all of these reasons, the San Diego Water Board has not modified the Tentative Order in response to the Discharger's comment.	

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	providing the public an opportunity to engage these issues in an open and transparent manner, the San Diego Water Board threatens the Discharger's compliance status and undermines the Discharger's ability to protect water quality on the basis of a scientifically defensible method. The San Diego Water Board has no authority to require use of the TST approach to WET testing. Until the TST analytical approach has been formally promulgated, it cannot be required in NPDES permits or be used to determine compliance. (40 CFR section 122.44(i)(1)(iv).)		
15	TRE Process Creates Regulatory Uncertainty (MRP section III.B.8) When placed together with the Tentative Order's TST requirement for WET testing, the requirement to undertake a toxicity reduction evaluation (TRE) and toxicity identification evaluation (TIE) creates a potentially endless cycle of evaluation. MRP section III.B.8 requires the Discharger to immediately initiate a TRE within 15 days of receiving validated result, and submit and implement a TRE Work Plan to the San Diego Water Board. The SIP requires a TRE when repeated tests reveal toxicity as a result of the waste discharge. SIP section 4. It is inconsistent with statewide policy to require a WET test approach that may result in a false indication of toxicity without recourse to internal quality controls and then to require a TRE each time toxicity is indicated. <u>Requested Revisions IV:</u> *The Discharger requests revisions to MRP section III.B as follows:* *1. Delete the requirement to utilize the USEPA's TST approach from the MRP section III.B and allow toxicity*	In order to clarify that a TRE is only required if one of the accelerated monitoring toxicity tests results in "Fail", the San Diego Water Board has modified section III.B.8.a of the MRP in the Tentative Order as follows: > The Discharger shall immediately initiate a TRE using, USEPA manual *Generalized Methodology for Conducting Industrial Toxicity Reduction Evaluations (TREs) (USEPA/600/2-88/070, April 1989*) and, within 15 days of receiving validated results <u>during accelerated monitoring</u>, submit to the San Diego Water Board a detailed TRE Work Plan. Once a sample has exceeded the MDEL for toxicity, the Discharger is required to initiate accelerated monitoring. The accelerated monitoring schedule consists of four toxicity tests (including the discharge IWC), conducted at approximately two week intervals over an eight week period. If one of the accelerated toxicity tests results in "Fail," the Discharger is required to implement the TRE Process.	Section III.B.8.a of the MRP (Attachment E) has been modified.

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	testing be conducted utilizing federally promulgated methods. *2. Replace the WET chronic toxicity and TRE/TIE provisions in Tentative Order, MRP, section III.B with the provisions in the current MRP, section V (R9-2010-0012).* *3. Revise chronic toxicity units in Table 4 of sections IV.A.1 and 2 to "TUc".*	The Tentative Order does not create an endless cycle of toxicity evaluation. According to section III.B.8.d of the MRP, once a Discharger moves beyond accelerated monitoring into the TRE process, the Discharger returns to routine monitoring. Additional accelerated monitoring and TRE Work Plans are not required once a TRE has begun. See the response to comment nos. 13, 14, and 15 for additional discussion regarding the use of TST approach for evaluating WET data. The USEPA is recommending the use of the TST approach over the traditional hypothesis test approach for toxicity test evaluation.	
16	Include a Reopener Provision (section VI.C.1) The Discharger requests that an additional reopener provision be included in the Tentative Order to allow the Discharger to pursue an SIP section 5.3 Case-by-Case Exception for specific parameters, in collaboration with the San Diego Water Board. The operation of the Facility represents a unique situation where brackish water is converted to drinking water as a beneficial use. The Discharger believes the water conservation resulting from this drought proof source of drinking water would justify the inclusion of a reopener provision, should the Discharger decide to pursue this approach to preserving an important beneficial use, while at the same time going through a California Environmental Quality Act (CEQA) process to protect the receiving water environment in the Lower Sweetwater River. <u>Requested Revision V:</u> *Modify Tentative Order to add a new section VI.C.1.d, and renumber the remaining subsections, as follows: This Order may be reopened for modification to include*	Section 5.3 of the SIP provides that the San Diego Water Board may, after compliance with the California Environmental Quality Act (CEQA), allow short-term or seasonal exceptions from meeting the priority pollutant criteria/objectives if determined to be necessary to implement control measures either: 1. For resource or pest management …; or 2. Regarding drinking water conducted to fulfill statutory requirements under the federal Safe Drinking Water Act or the California Health and Safety Code. Such categorical exceptions may also be granted for draining water supply reservoirs, canals, and pipelines for maintenance, for draining municipal storm water conveyances for cleaning or maintenance, or for draining water treatment facilities for cleaning or maintenance. Because the Facility meets neither of these criteria, the San Diego Water Board has not modified the	None necessary.

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	an exception to meeting a priority pollutant criterion/objective or any other provision of this Order where the case-by-case exceptions in section 5.3 of the Statewide Implementation Policy are met.	Tentative Order to include a reopener pursuant to section 5.3 of the SIP.	
17	Change Effective Date to January 1, 2018 (Table 3) The Discharger requests the effective date of the Tentative Order be changed from August 1, 2017 to January 1, 2018, to better align the implementation of the Tentative Order with the calendar year monitoring and reporting program requirements. The proposed implementation of the Tentative Order on August 1, 2017, which is in the middle of the Quarter 3 of 2017, is problematic and does not make sense from a logistical or regulatory compliance perspective. A much cleaner approach would be to complete the calendar year 2017 monitoring under the current Order and then initiate monitoring under the Tentative Order on January 1, 2018. <u>Requested Revision VI:</u> *Modify Table 3 to specify an effective date of January 1, 2018.*	Based on a Memorandum of Agreement and subsequent conversations between USEPA and the State Water Board, the effective dates of NPDES permits shall be the first of the second month following the Board's adoption of the Tentative Order. USEPA has allowed an extension of this date in the past only in instances where the Discharger has shown hardship, rather than inconvenience, associated with the effective date. The San Diego Water Board has not modified the effective date of the Tentative Order.	None necessary.
18	Page 1, Table 2 and MRP Page E-4, Table E-1 (Discharge Point No. 002): Please note that Plant feed-water dumps and pressure relief valves listed under Discharge Point No. EFF-002 will actually discharge through the same pipeline as Discharge Point No. EFF-001b. <u>Requested Revision VII.A:</u> *On Table 2, delete "plant feed-water dumps" and "pressure relief valves" from the "Effluent Description" column associated with Discharge Point 002 and add*	The San Diego Water Board has modified the Tentative Order as requested. The San Diego Water Board has also made the same modification to Tables 2 and E-1 regarding the discharge at Discharge Point No. 001a.	Tables 2 and E-1 of the Tentative Order have been modified.

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	this language to the "Effluent Description" column associated with Discharge Point 001b. *On Table E-1, delete "plant feed-water dumps" and "pressure relief valves" from the "Monitoring Location Description" column associated with Discharge Point 002 and add this language to the "Monitoring Location Description" column associated with Discharge Point 001b.*		
19	MRP Page E-4, Table E-1 (Discharge Point Nos. 006-010): The SDF wells 7-11 are incorrectly assigned to their corresponding monitoring location names. The correct assignments are as follows: EFF-006 = SDF 7 EFF-007 = SDF 8 EFF-008 = SDF 9 EFF-009 = SDF 10 EFF-010 = SDF 11 <u>Requested Revision VII.B:</u> *Revise text in Table E-1, "Monitoring Location Description" column as follows:* *Discharge from SDF Well No. ~~6~~7* *Discharge from SDF Well No. ~~7~~8* *Discharge from SDF Well No. ~~8~~9* *Discharge from SDF Well No. ~~9~~10* *Discharge from SDF Well No. ~~10~~11*	The San Diego Water Board has modified the Tentative Order as requested.	See response to comment no. 5.