

December 11, 2019
Item No. 12
Supporting Document No. 5

California Regional Water Quality Control Board
San Diego Region

Response to Comments Report

Tentative Order R9-2019-0169

NPDES No. CA0108031

Waste Discharge Requirements for the Fallbrook Public Utility District,
Fallbrook Water Reclamation Plant and
Santa Margarita Groundwater Treatment Plant
Discharge to the Pacific Ocean through the Oceanside Ocean Outfall

December 11, 2019



**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION**

2375 Northside Drive, Suite 100
San Diego, California 92108
Telephone: (619) 516-1990

Documents are available at: <http://www.waterboards.ca.gov/sandiego>

STATE OF CALIFORNIA
GAVIN NEWSOM, Governor
JARED BLUMENFELD, Agency Secretary, California Environmental Protection
Agency



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Vincent Vu, Staff Counsel, Office of Chief Counsel

This report was prepared
by
Joann Lim, *Water Resource Control Engineer*
Keith Yaeger, *Environmental Scientist*

under the direction of
David Barker, P.E., *Supervising Water Resource Control Engineer*
Ben Neill, P.E., *Water Resource Control Engineer*

INTRODUCTION

This report contains California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) responses to written comments received on Tentative Order No. R9 2019-0169, NPDES No. CA0108031, *Waste Discharge Requirements for the Fallbrook Public Utility District, Fallbrook Water Reclamation Plant and Santa Margarita Groundwater Treatment Plant Discharge to the Pacific Ocean through the Oceanside Ocean Outfall* (Tentative Order). The San Diego Water Board provided public notice of the release of the Tentative Order on September 27, 2019 and provided a period of 30 days for public review and comment on the Tentative Order. The public comment period ended on October 28, 2019.

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Comments and Responses

The summarized written comments and San Diego Water Board responses are set forth below. The responses include a description of any actions taken to revise the Tentative Order in response to the comment. Proposed revisions to the Tentative Order are in red-underline for added text and ~~red-strikeout~~ for deleted text.

COMMENTS AND RESPONSES

Two commenters, Fallbrook Public Utility District and Southern California Alliance of Publicly Owned Treatment Works, provided the San Diego Water Board with comments on the Tentative Order. The comments and responses are organized by each commenter. The San Diego Water Board responses are labeled and follow each comment.

1. Fallbrook Public Utility District (District)

1.1 Comment – Admin Draft Comments

District incorporates by reference all written comments associated with the draft tentative NPDES permit submitted by the District to the Regional Board dated September 2, 2019.

Response

The working draft/proposal was emailed to the District on August 6, 2019, with the following message:

“Please note that the attached document is a working proposal that neither constitutes a "draft permit" nor "proposed permit" as defined in [title 40 of the Code of Federal Regulation] 40 CFR sections 122.2 or 124.6. Further, distribution of the attached working proposal for review and discussion does not constitute a public comment period pursuant to 40 CFR sections 124.10 or 124.17. Please provide your comments and/or suggested redline revisions as soon as possible and no later than August 23, 2019. While we may agree to make changes in the working draft, we do not intend to formally respond to the comments and/or suggested redline revisions on the attached working proposal. If you would like to meet to discuss this draft, please contact me as soon as possible.”

The District requested additional time and the deadline was subsequently extended to September 3, 2019 to allow the District more time to provide comments on the working draft.

Given the language provided with the working draft/proposal, no formal response is required for comments provided on the working draft/proposal.

Action Taken

None.

1.2 Comment – Cost of Monitoring Requirements

The District is not large and does not have unlimited resources to pay for extraordinary levels of monitoring not directly related to compliance as requested in the Tentative Order. Monitoring requirements should be designed to determine compliance with the requirements of the permit, not to

answer every question about the environmental health of the Pacific Ocean, many of which may be unrelated to the District's discharge. Additionally, the monitoring requirements must meet the California Water Code's requirements to be reasonable and have benefits rationally related to the costs. (Water Code sections 13000 and 13267.) The current requirements met neither of these criteria.

All of the additional monitoring listed in the Tentative Order will cost the District at least an increased \$100,000 per year and this is not accounting for inflation, the changes to BIGHT studies, or all of the new receiving water monitoring.

Increased costs breakdown:

- 1) Plume Tracking \$83,000/year. Scripps has provided a quote for almost \$1M over three year for three agencies.
- 2) Chronic toxicity – quarterly monitoring costs may increase up to \$11,200/year due to potential change in species from the new method, plus more if there are any exceedances of the new objectionable Pass/Fail limitation.
- 3) New semi-annual sampling (previously all annual sampling, now semi-annual) = an increased cost of \$2,715/year quote from BSK Laboratories.
- 4) Monthly monitoring of heptachlor, heptachlor epoxide, TCDD equivalents = \$9,420/year quote from BSK Laboratories.
- 5) Cost of quarterly monitoring for Fecal and Enterococci = \$2,100/year.

Total cost is approximately \$100,000 or more, which does not include costs of Human Marker monitoring that has not been costed out yet. This also does not include the cost of a new composite sampler that would be required for M-003 costing \$11,000. The District recommends grab samples at M-003, as they will allow for more practical sample collection and be more cost-effective. This also does not include cost of establishing the Climate Action Plan, Pollution Minimization Program, State of the Ocean Report, or Initial Investigation of Toxicity. The District only has one laboratory staff person and is a small district without the same resources as larger agencies.

No analysis as required under Water Code sections 13267(b)/13225(c) was performed for each of these burdensome monitoring requirements. Because many of these monitoring requirements are beyond the scope of the NPDES permit requirements, these requirements must be reasonable as required by Water Code section 13000 and the burden, including cost, must be demonstrated with evidence to provide a greater benefit as required under Water Code sections 13267(b) and 13225(c).

Where possible, these monitoring requirements should be regional programs with the costs spread over all dischargers to the ocean, including industry and stormwater to reduce costs to each permittee.

Requested Tentative Order Revision: Reconsider scope and high cost of monitoring required to make consistent with the District's size and potential impact.

Response

The San Diego Water Board acknowledges that in some areas monitoring costs have increased. However, the Tentative Order monitoring program incorporates significant cost savings that will help offset the costs of additional monitoring requirements not otherwise required by the Water Quality Control Plan Ocean Waters of California (Ocean Plan).

Order No. R9-2012-0004 (Current Order) requires monitoring for total and fecal coliforms and enterococci (collectively, fecal indicator bacteria or FIB) once per month at the nearshore and offshore monitoring locations. The Tentative Order reduced this requirement from monthly to quarterly, saving the District from having to monitor 40 events over the five-year permit term. The main costs associated with these monitoring events are the personnel costs and the cost of using a boat to obtain the samples, not the laboratory analysis. For example, California Department of Fish and Wildlife would charge the San Diego Water Board \$20,000 to spend one day collecting fish for bioaccumulation monitoring, this cost only includes personnel and boat use and does not include sample analysis.

The Current Order requires sediment chemistry monitoring once to twice per permit term depending on the analyte to be measured, and sediment infauna monitoring twice during the permit term. The Tentative Order reduces the frequency of sediment chemistry and infauna monitoring to once per permit term to help offset the additional monitoring costs. Furthermore, Appendix III section 6.1 of the Ocean Plan requires annual sediment chemistry monitoring for discharges greater than 10 million gallons per day (MGD) (the total permitted flow to the OOO is 41.5 MGD). In order to further offset costs to monitoring requirements not required by the Ocean Plan (i.e., HF-183 and plume tracking monitoring requirements), the San Diego Water Board chose not to implement this Ocean Plan guidance on the frequency, saving the District a minimum of four sediment sampling events and associated monitoring costs.

The basis for the plume tracking cost estimate of \$1 million provided by the District is unclear, and the San Diego Water Board respectfully requests a copy of the quote provided to the District by Scripps Institute of Oceanography (SIO) for evaluation. While multiple methods exist for plume tracking, agencies from other ocean outfalls in the San Diego region that have plume tracking requirements are tentatively proposing to use autonomous underwater vehicles (AUVs). At the San Diego Water Board's recent plume tracking workshop held on October 22, 2019, which the District attended, a presentation included an initial cost estimate from SIO of approximately

\$100,000 per AUV deployment. This initial cost estimate includes preliminary set-up and calibration, supplemental conductivity, temperature, and depth (CTD) monitoring, AUV deployments, data analysis, report writing, and result presentation. The other agencies are proposing two AUV deployments, with a possibility of a third deployment depending on the results of the first two deployments. Assuming three AUV deployments, the total cost is around \$300,000 over the permit term. If the District does not agree with these costs, the Tentative Order allows the District to propose alternative plume tracking methods through a feasibility analysis. The District is not required to choose the plume tracking methods proposed by other agencies who are also conducting a plume tracking monitoring program.

Both the quarterly chronic toxicity monitoring requirement and biennial species sensitivity screening were retained from the Current Order without an increase in frequency. If the increased cost for chronic toxicity monitoring is associated with a change in test species that is more expensive, a more frequent species sensitivity screening would benefit the District as there are more chances for the most sensitive species to change. If the species sensitivity screening was conducted once per permit term and if the most sensitive species was determined to be the most expensive species to conduct chronic toxicity monitoring on, then the District would be required to use the most expensive species until a new Order is adopted. Lastly, the costs associated with exceeding the chronic toxicity limitation would be the same in the Tentative Order as it would be in the Current Order.

The San Diego Water Board acknowledges that the monitoring frequency for TCDD equivalents, heptachlor, and heptachlor epoxide have increased. However, the monitoring frequency for TCDD equivalents has increased from twice per year to quarterly, not to monthly as the District asserts. The increase in frequency is consistent with other parameters that have reasonable potential and have been detected in the District's effluent.

To further reduce costs, the San Diego Water Board has modified the Tentative Order to remove the requirement to monitor for fecal coliform, *Enterococci*, total nitrogen, and total phosphorous at mid-depth at the nearshore monitoring locations; remove the requirement to monitor for the Human Marker HF-183 at the nearshore monitoring locations; and reduce the monitoring frequency of total coliform at surf zone monitoring locations from five times per month to three times per month.

The San Diego Water Board has modified the Tentative Order as follows:

Attachment E section IV.A, Table E-6

Parameter	Units	Sample Type	Minimum Sampling Frequency
Total Coliform	CFU/100 ml	Grab	5 3/Month (note 2)

Attachment E section IV.A, Table E-6, Note 3

~~The Discharger shall sample five times per month with s~~Sampling shall be spaced equally throughout the month to the extent possible.

Attachment E, section IV.B.1, Table E-7, Footnote 3

At the surface for nearshore monitoring locations N1 through N7 and surface and mid-depth for offshore monitoring locations A1 through A5, B1, and B2.

Attachment E section IV.B.1, Table E-7, Footnote 5

Samples shall be collected at the offshore monitoring locations A1-A5, B1 and B2 and analyzed in accordance with section IV.B.2 of this MRP.

Attachment E section IV.B.2.a

Sample Collection. The Discharger shall collect samples for the Human Marker HF-183 concurrently with samples collected for fecal coliform at the offshore monitoring locations A1 through A5, B1, and B2, and in accordance with EPA method 1696, or an alternative method proposed by the Discharger with comparable accuracy, unless the alternative method is not accepted by the San Diego Water Board. Samples shall be filtered through a membrane filter as soon as possible, but no later than 6 hours after sample collection. Following filtration, the membrane filter shall be stored at -80 °C for later analysis.

Attachment F, section VII.B.1

Surf zone water quality monitoring is required to determine if the effluent is causing or contributing to exceedances of the water quality standards in the surf zone, the area where the ocean surface waves come closer to shore and break. For monitoring locations S1 through S5, monitoring for enterococcus bacteria has been changed to monitoring for enterococci bacteria; ~~and~~ weekly monitoring for ~~total coliform~~, fecal coliform, and enterococcus has been increased to five times per month; and weekly monitoring for total coliform has been decreased to three times per month.

Attachment F, section VII.B.2.d

d. This Order requires the Discharger to collect samples for the Human Marker HF-183 concurrently with samples collected for fecal coliform at the nearshore and offshore monitoring locations. The Human Marker HF-183, derived from the 16S rRNA gene of *Bacteroides*, has been widely used to identify sewage pollution in coastal waters. For this Order, monitoring for the Human Marker HF-183 is used to confirm the presence of human fecal material when the single sample maximum receiving water limitation for fecal coliform is exceeded. Analysis of the Human Marker HF-183 is only required if the sample for fecal coliform exceeds the single sample maximum receiving water limitation. Results for the Human Marker HF-183 is used for informational purposes only, there is no receiving water limitation for the Human Marker HF-183. This requirement was included ~~because of~~ due to the ~~large number of 65~~ exceedances of bacteria receiving water limitations at the offshore monitoring locations located near the OOO (i.e., monitoring locations A1-A5).

Action Taken

Modified Attachment E section IV.A, Table E-6; Attachment E section IV.A, Table E-6, Note 3; Attachment E section IV.B.1, Table E-7, Footnotes 3 and 5; Attachment E section IV.B.2.a; Attachment F, section VII.B.1; Attachment F, section VII.B.2.d.

1.3 Comment – State Law Only Requirements

Many of the Tentative Order's provisions are duplicative or are not necessary. Inclusion of such provisions puts the District at risk of being in violation, and being civilly and even criminally liable for provisions not required by federal law. Where provisions are based on State law only requirements, those should be included in a state only permit (WDR), or should be clearly specified as required under State law and then must comply with all State law requirements.

Page 3, section II.C., State Law Only Provisions – This section is supposed to identify all State law provisions incorporated into the NPDES permit instead of placing these in a state-only permit. This section cites “sections IV.B., IV.C. and V.B.,” but there is nothing in these sections, so this does not actually specify which provisions are required by State law. Besides the other sections listed, many state-law-only provisions are not properly identified. Other examples of State law requirements that should be identified in this paragraph include:

- Section III, Discharge Prohibitions (not required by federal law, and thus are State law requirements);
- Section IV.A.2, Performance goals (State law only);

- Section V.A., Receiving Water Limitations (Under federal law, if a discharge has reasonable potential then it gets an effluent limitation, but general receiving water limitations are not required by federal law.);
- Section VI.A.2.a, San Diego Water Board Standard Provisions;
- Section VI.C.1.b, Reopener Provisions (This Order may be reopened for modification of the monitoring and reporting requirements and/or special studies requirements, at the discretion of the San Diego Water Board. Such modification(s) may include, but is (are) not limited to, revision(s) (i) to implement recommendations from the Southern California Coastal Water Research Project (SCCWRP); (ii) to develop, refine, implement, and/or coordinate a regional monitoring program; (iii) to develop and implement improved monitoring and assessment programs in keeping with San Diego Water Board Resolution No. R9-2012-0069, Resolution in Support of a Regional Monitoring Framework; and/or (iv) to add provisions to require the Discharger to evaluate and provide information on cost and values of the MRP (Attachment E).);
- Section VI.C.2, Special Studies, Technical Reports and Additional Monitoring Requirements;
- Section VI.C.3, Best Management Practices and Pollution Prevention;
- Section VI.C.4, Construction, Operation and Maintenance Specification;
- Section VI.C.5.a, Ensuring Adequate Treatment Plant Capacity;
- Section VI.C.5.c, Sludge (Biosolids) Disposal Requirements (Biosolids requirements are also not required to be in NPDES permits as these are not requirements for discharge in federal permits and should be part of a state Waste Discharge Requirement (WDR) for biosolids application to land, or the Regional Board should allow the District to alternatively be covered by the State Water Boards Biosolids General Order (Water Quality Order No. 2004-12-DWQ). By including in an NPDES permit, these provisions become federally enforceable unnecessarily. The Biosolids General Order covers these requirements and stands as a preferred alternative to including these requirements in the Tentative Order.);
- VI.5.e, Resource Recovery from Anaerobically Digestible Material; and
- Table E-11, Other Reports, identify that all the monitoring requirements being imposed are based on state, not federal, law and must be justified under state law.

This exercise is important since State law only provisions should not be enforceable in federal courts through third party litigation. If these provisions are not identified properly, then the District will be subjected to unnecessary federal litigation over these State only requirements, which was not the intent of the CWA citizen suit provisions to enforce federal law.

These concerns are real as the District recently received a threatened citizen suit over requirements contained in the permit and effluent limitations not required to be included in the permit. If the permit did not contain unnecessary prohibitions or effluent limitations, then a challenge to the District's permit compliance would not be as viable.

Requested Tentative Order Revision: Identify all provisions not specifically required by federal law in this section.

Response

Neither federal nor State law requires NPDES permits to identify State law only requirements. The broad statement in section II.C of the Tentative Order is appropriate. The purpose of section II.C of the Tentative Order is to identify the general legal authorities for the Tentative Order. Based on the District's comments, the San Diego Water Board further reviewed the listed provisions in section II.C of the Tentative Order. Several provisions listed in section II.C of the Tentative Order are imposed to implement federal law, do not implement State law only, and thus these references were removed. The District also identified several other provisions of the Tentative Order which it alleges implement State law only. The San Diego Water Board disagrees with the District. The provisions identified by the District do implement existing federal law. These provisions may restate federal law to provide specificity and clarity as contemplated by federal law.

Action Taken

Section II.C of the Tentative Order was revised as follows:

The provisions/requirements in subsections IV.B, IV.C, and V.B, ~~VI.A.2.a, VI.C.1.b, VI.C.1.c, and VI.C.4.a-d~~ are included to implement State law only. These provisions/requirements are not required or authorized under the federal CWA; consequently, violations of these provisions/requirements are not subject to the enforcement remedies that are available for NPDES violations.

1.4 Comment – Discharger vs. Permittee

The Tentative Order defines the District as a “Discharger.” Because this term has a negative connotation, the District requested that this term be modified to be “Permittee” throughout. This change was not made by staff. Since the Tentative Order's Fact Sheet states these are equivalent terms, the District would prefer use of “Permittee” since its discharges of high-quality effluent

and recycled water are permitted, and this is the term used in federal regulations. See accord 40 CFR Part 122. Alternatively, the word “District” would be preferred over “Discharger.” This change can be easily made using the “replace” function throughout the document.

Requested Tentative Order Revision: Change “Discharger” to “Permittee” throughout.

Response

The term “Discharger” is the standard NPDES permit language used throughout the State and throughout the San Diego Region for ocean discharges. The term is appropriate as the District is “discharging” flow in the Pacific Ocean.

Action Taken

None.

1.5 Comment – Enforcement of Previous Order

Section II states “that [the Tentative Order] will supersede “Order No. R9-2012-0004 except for enforcement purposes”. This reservation of enforcement authority is not without temporal limitation as applicable statutes of limitation/laches would apply to prevent enforcement beyond a reasonable timeframe.

The Code of Civil Procedure (C.C.P.) at section 338(i) sets forth a three-year statute of limitations for commencing an action under the Porter Cologne Water Quality Control Act (Division 7, commencing with section 13000) of the Water Code. Under this statutory provision, a cause of action shall not be deemed to have accrued until the discovery by the Regional Board of the facts constituting grounds for commencing actions under its jurisdiction. Since the State law authorizing administrative enforcement is contained in Division 7 of the Water Code, in section 13385, the three-year statute of limitations would apply to any proposed enforcement action.

Similarly, under the federal Clean Water Act, for USEPA and citizen enforcement, a five-year statute of limitations applies, so no enforcement could occur for any violations that occurred more than five years before the effective date of the new permit. Therefore, the Tentative Order should be amended to reference applicable statutes of limitation.

28 U.S.C. section 2462, which states, “Except as otherwise provided by Act of Congress, an action, suit or proceeding for the enforcement of any civil fine, penalty, or forfeiture, pecuniary or otherwise, shall not be entertained unless commenced within five years from the date when the claim first accrued.. .”

Requested Tentative Order Revisions: Revise language on page 4 to state that the previous permit is rescinded “except for enforcement purposes as allowed under applicable statutes of limitation/laches.”

Response

The District identifies various affirmative defenses it could raise in response to a potential enforcement or citizen suit action. These defenses are available to the District regardless of whether they are explicitly stated in the Tentative Order. The San Diego Water Board judiciously prosecutes enforcement actions. If the District seeks to raise an affirmative defense in response to any enforcement or citizen suit action, it may do so.

Action Taken

None.

1.6 Comment – Tentative Order Subject to Stay of Enforcement

Section II states, “If any part of [the Tentative Order] is subject to a temporary stay of enforcement, unless otherwise specified in the order granting stay, the Discharger shall comply with the analogous portions of Order No. R9-2012-0004.”

In addition, this section seems to imply that parts of the rescinded and superseded 2012 permit [Order No. R9-2012-0004] could come back to life if a stay of a new provision was granted. No legal authority authorizes resuscitation of previous permit provisions as that would constitute a permit revision without compliance with notice and comment requirements and would render the stay provisions irrelevant. If a permit provision is stayed, only the remaining (not stayed) provisions apply. Under USEPA issued permits, permit provisions are automatically stayed if a permit is appealed. 40 CFR section 124.60. An old permit’s provisions do not take the place of the stayed provisions.

Water Boards have previously argued that title 23 of the California Code of Regulations, section 2235.4 provides authority for this legal resurrection of a superseded permit. This section, however, does not specifically authorize the resurrection of a superseded permit. Section 2235.4 states, “The terms and conditions of an expired permit are automatically continued pending issuance of a new permit if all requirements of the federal NPDES regulations on continuation of expired permits are complied with.” No legal provision or precedent applying section 2235.4 or any other authority has been presented in the Tentative Order to demonstrate that the expired 2012 permit self-revives if provisions of the new NPDES permit are stayed. Therefore, this legally unsupported statement must be removed from the proposed permit

Requested Tentative Order Revisions: Delete the text “If any part of [the Tentative Order] is subject to a temporary stay of enforcement, unless otherwise specified in the order granting stay, the Discharger shall comply with the analogous portions of Order No. R9-2012-0004.”

Response

The following text was removed from section II of the Tentative Order: “If any part of this Order is subject to a temporary stay of enforcement, unless otherwise specified in the order granting stay, the Discharger shall comply with the analogous portions of Order No. R9-2012 0004.”

Action Taken

The requested text was removed. from section II of the Tentative Order as follows:

THEREFORE, IT IS HEREBY ORDERED, that this Order supersedes Order No. R9-2012 0004 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. The Discharger is hereby authorized to discharge subject to WDRs in this Order at the discharge location described in Table 2 to the Pacific Ocean off the coast of San Diego County. ~~If any part of this Order is subject to a temporary stay of enforcement, unless otherwise specified in the order granting stay, the Discharger shall comply with the analogous portions of Order No. R9-2012-0004.~~ This action in no way prevents the San Diego Water Board from taking enforcement action for past violations of Order No. R9-2012 0004

1.7 Comment - Types of Discharges Prohibited

Sections III.A and III.B, Discharge Prohibitions – No prohibitions against discharges not in compliance with the permit, Basin Plan, or Ocean Plan are required in NPDES permits because what is not specifically authorized would be prohibited as an unpermitted discharge unless it falls within the gambit of the permit shield. 33 U.S.C. section 1342(k). The District provided comments asking that the federal regulatory exceptions of upset and bypass be explicitly incorporated into the first two discharge prohibitions. Instead of doing what was requested, staff added yet another prohibition on bypasses without justification since those provisions duplicate provisions included in Standard Provisions. In fact, this provision actually includes a citation to Attachment D: section I.E “The bypassing of untreated wastes is prohibited, except as allowed by federal Standard Provisions I.G or I.H of this Order. (Attachment D).” Since Attachment D is already a part of the permit, this new section is not necessary and must be removed.

Requested Tentative Order Revisions: Add “Except in the case of upset or authorized bypass” at beginning of Sections III. A and B, and remove new section III.E.

Response

In commenting on an administrative draft of the Tentative Order, the District requested a similar revision. In response to that request, section III.E was added to the Tentative Order to specifically address the District's concern and clarify that unauthorized discharges as a result of upset and bypass may be allowed in accordance with applicable law and as provided in Attachment D of the Tentative Order. No further revisions are necessary in response to the District's request.

Action Taken

None.

1.8 Comment - Basin Plan and Ocean Plan Prohibitions

Sections III.C and III.D, Discharge Prohibitions – The provisions requiring compliance with the Basin Plan and Ocean Plan are unnecessary as Attachment G includes those prohibitions already, making these provisions duplicative. Therefore, section III.C. and D. are unnecessary and should be removed.

Requested Tentative Order Revisions: Remove Sections III.C and D as unnecessary.

Response

The Discharge Prohibitions in section III.C and III.D of the Tentative Order require the Discharger to comply with applicable provisions of the Ocean Plan and Water Quality Control Plan for the San Diego Basin (Basin Plan). Attachment G provides a summary of relevant provisions of the Ocean Plan and Basin Plan. The Discharge Prohibitions in section III.C and III.D of the Tentative Order do not conflict with Attachment G, nor are they overly duplicative of each other. The Discharge Prohibitions in section III.C and III.D of the Tentative Order are necessary to ensure compliance with the applicable provisions of the Ocean Plan and Basin Plan.

Action Taken

None.

1.9 Comment – Concentration/Mass/Percent Removal Limitations

The Tentative Order includes both concentration- and mass-based limitations, making the District potentially liable for multiple violations for the same constituent based on a single effluent sample. Mass-based limitations not required if concentration-based limitations are included, and vice versa. 40 CFR sections 133.102; 122.45(f)(1)(ii). Thus, because including both types of limitations is discretionary (section 122.45(f)(2) (“may be limited...”), including both is more stringent than required by federal law and additional analysis is

required. See *City of Burbank v. SWRCB*, 35 Cal. 4th 613 (2005). If mass-based limitations are included, then percent removal requirements are not required under federal regulations. 40 CFR section 133.103(d). If being imposed under the Ocean Plan, then the TSS limitation should be 60 mg/L as a monthly average with a 75% removal rate and must “evaluate effects on existing and potential water reclamation projects.” 2019 Ocean Plan at page 14.

In addition, if mass-based limitations are maintained over previous objections, then these limitations should be based on design flows, and specifically not apply during wet weather as done in other regions since wet weather could make this problematic by artificially limiting capacity below design. See accord 40 CFR section 122.45(b) (“In the case of Publicly Owned Treatment Works (POTWs), permit effluent limitations, standards, or prohibitions shall be calculated based on design flow.”) (emphasis added).

Requested Tentative Order Revisions:

- 1) Remove either mass-based limitations or concentration-based limitations instead of requiring both.
- 2) If mass-based limitations are maintained, base limitation on design capacity of 3.6 MGD, eliminate 85% removal requirements, and add exemption during wet weather as done in other regions (e.g., “These mass emission limitations do not apply during wet weather events.”)

Response

Concentration- and Mass-Based Effluent Limitations. Tables 4 and 5 of the Tentative Order include effluent limitations expressed in terms of both concentration (i.e., milligrams per liter and microgram per liter) and mass (i.e., pounds per day). Section 122.45(f)(2) of 40 CFR authorizes the San Diego Water Board to express NPDES permit effluent limitations, for the same pollutant, in terms of both concentration and mass. When effluent limitations for a pollutant are expressed as both concentration- and mass-based, the federal regulations provide that the “permit shall require the permittee to comply with both limitations.” (40 CFR section 122.45(f)(2).)

The inclusion of mass-based limitations is necessary to ensure that the discharge of pollutants will not exceed the level that has been deemed necessary. Since compliance with mass-based limitations can be achieved by reducing flow while increasing the concentration of a pollutant, limiting concentrations is necessary to prevent toxic effects from occurring. Conversely, mass-based limitations prevent dischargers from meeting concentration-based limitations by diluting effluent. USEPA recommends both mass- and concentration-based limitations be specified for effluents discharging into waters with less than 100-fold dilution, such as the Oceanside Ocean Outfall (OOO), to ensure attainment of water quality

standards. (See USEPA, Technical Support Document for Water Quality-based Toxics Control, EPA/505/2-90-001, March 1991.)

Further, mass-based limitations are federally required to meet water quality standards. Section 301 (b)(1)(C) of the CWA requires "any more stringent limitation, including those necessary to meet water quality standards, treatment standards, or schedules of compliance, established pursuant to any State law or regulations." The Ocean Plan contains water quality standards and implementation provisions for those standards that were adopted by the State Water Resource Control Board (State Water Board) and approved by the U.S. Environmental Protection Agency (USEPA). Tables 4 and 5 of the Tentative Order contain concentration- and mass-based effluent limitations required to meet water quality standards and implement section III.C.4.j. of the Ocean Plan. Therefore, the concentration- and mass-based effluent limitations contained in Tables 4 and 5 of the Tentative Order are imposed to implement federal law.

Mass-based limitations also provide an assessment of conformance with the federal anti-backsliding policy. For example, mass-based limitations were specified in Order No. R9-2006-0002, which preceded current Order No. R9-2012-0004. The mass-based limitations prescribed in Order Nos. R9-2006-0002 and R9-2012-0004 were based upon a flow rate of 2.7 MGD (the Fallbrook Water Reclamation Plant's facility design flow) during the entire year. The Tentative Order is based on the same design flow rate of 2.7 MGD to maintain consistency with the anti-backsliding policy.

Percent Removal Requirements. Technology-based effluent limitations imposed on POTWs include the secondary treatment standards contained in 40 CFR Part 133. Specifically, 40 CFR section 133.102(a)(4)(iii) requires that the "30-day average percent removal shall not be less than 85 percent." The 85 percent removal requirement (for a 30-day average) in secondary treatment standards was originally established to achieve two basic objectives: (1) to encourage municipalities to remove high quantities of infiltration and inflow from its sanitary sewer systems and (2) to prevent intentional dilution of influent wastewater.

The regulation at 40 CFR section 133.103(d) provides the San Diego Water Board with discretion to set less stringent limitations for percent removal under specific circumstances. To qualify for the less stringent limitations, the District must demonstrate that: (1) the treatment works is consistently meeting, or will consistently meet, effluent concentration-based limitations but percent removal requirements cannot be met due to less concentrated influent wastewater; (2) to meet the percent removal requirements, the treatment works would have to achieve significantly more stringent limitations than would otherwise be required by the concentration-based standards; and (3) the less concentrated influent wastewater is not the result of excessive infiltration and inflow. Based on the information received by and available to

the San Diego Water Board, the District does not qualify for a reduced percent removal pursuant to 40 CFR section 133.103(d). Thus, the percent removal requirements are imposed pursuant to the secondary treatment standards in 40 CFR section 133.102.

Wet-Weather Flows and Exemption. In its Report of Waste Discharge (ROWD), the District reported that the design flow rate for the Fallbrook Water Reclamation Plant is 2.7 MGD. Pursuant to 40 CFR section 122.45(b), the mass-based effluent limitations were calculated based on the facility's design capacity of 2.7 MGD. While the Tentative Order permits an increased average monthly flow limitation for the months of November to April, the District did not request a wet-weather exemption for mass-based effluent limitations as part of its ROWD. Further, the District provided no authority for, and the San Diego Water Board was unable to identify any authority in support of, the requested wet-weather exemption for mass-based effluent limitations.

Action Taken

None.

1.10 Comment – Reasonable Potential (RP) for Conventional Pollutants

Reasonable potential analysis (RPA) for Oil and Grease (O&G) and Turbidity demonstrate Endpoint 2. As required by 40 CFR section 122.44(d)(1), no effluent limitations are required without RP and should be removed from Table 4 of the Tentative Order for lack of RP.

The monitoring frequencies for O&G and Turbidity should be decreased to quarterly and monthly, respectively, since neither of these constituents have RP and are unlikely to cause any water quality impacts. More frequent sampling is unnecessary and adds unneeded costs.

Requested Tentative Order Revision:

- 1) Remove effluent limitations for O&G and Turbidity with no RP.
- 2) Revise sampling frequency for O&G and Turbidity to quarterly and monthly, respectively.

Response

Section 301(b) of the CWA and implementing USEPA permit regulations at 40 CFR section 122.44 require that permits include conditions meeting applicable technology-based requirements at a minimum. Section 122.44(d)(5) states that NPDES permits shall include conditions meeting any requirements in addition to or more stringent than standards under section 301(b) of the CWA necessary to incorporate any more stringent treatment standards established under federal or State law or regulations in accordance with section 301(b)(1)(C) of the CWA. Thus, the applicable technology-based requirements include the federal technology-based requirements based on Secondary Treatment Standards at 40 CFR Part 133 and the State effluent

limitations from Table 4 of the Ocean Plan (formerly Table 2 (2012/2015 Ocean Plan) and Table A (2009 Ocean Plan)), which are “the minimum level of treatment acceptable under [the Ocean Plan], and shall define reasonable treatment and waste control technology.” Table 4 of the Ocean Plan includes oil and grease and turbidity.

Section 122.44(d)(1) of 40 CFR applies to water quality standards, not to effluent limitations based on treatment standards. As such, the Ocean Plan contains procedures to conduct an RPA for determining which Ocean Plan Table 3 water quality standards require effluent limitations but does not contain any RPA procedures for Table 4 of the Ocean Plan (e.g., oil and grease and turbidity effluent limitations). Section III.B.1 of the Ocean Plan states that the Table 4 effluent limitations apply to publicly owned treatment works. Section III.B.2 of the Ocean Plan states that compliance with Table 4 effluent limitations shall be the minimum level of treatment acceptable under the Ocean Plan, and shall define reasonable treatment and waste control technology.

Action Taken

None.

1.11 Comment –Chronic Toxicity RPA, TST/Pass/Fail, Daily Limitation Part 1

The Tentative Order contradicts the terms of other permits in California where RP for chronic toxicity was not found for publicly owned treatment works that receive dilution credit and have not exceeded the previous limitation or performance goal.

The final effluent does not have RP or a statistical basis for chronic toxicity limitations. However, chronic toxicity limitations were added citing best professional judgment (BPJ). There is no clear explanation of why and how BPJ was used in determining that chronic toxicity limitations were necessary, but the Fact Sheet’s discussion is misplaced. There is no RP for chronic toxicity as the highest value seen was approximately one quarter of the maximum value allowed so there is no RP or reason for an effluent limitation. Federal regulations, precedential State Water Board orders, and the Ocean Plan specify that no effluent limitations are required where there is no RP. 40 CFR section 122.44(d)(1); Ocean Plan at page 15 (“If the Regional Water Board determines, using the procedures in Appendix VI, that a pollutant is discharged into ocean* waters at levels which will cause, have the RP to cause, or contribute to an excursion above a Table 3 water quality objective [which includes chronic toxicity], the Regional Water Board shall incorporate a water quality-based effluent limitation in the Waste Discharge Requirement for the discharge of that pollutant.”). Ignoring the data and determining RP based on BPJ is unreasonable and an abuse of discretion where the District has no industrial dischargers to its sewer system. In addition, this determination of BPJ would negate the need for RP for all POTWs, which is

clearly not the rule. All discharges must go through an RPA and be based on actual facts. The facts show that the District's discharge has not caused and is unlikely to cause or contribute to an exceedance of the currently applicable water quality objective for chronic toxicity in the ocean, so no RP exists. See State Board Order No. WQO 2003-0009 at page 9 (allowing effluent limitations to be removed where recent monitoring data shows no RP with no backsliding concerns). Recently proposed permits in the San Francisco Bay area found "no reasonable potential for chronic toxicity in the receiving water and no WQBEL is required." See e.g., Benicia Permit, NPDES No. CA0038091. Similar discharges must be treated similarly. In the Benicia permit, the proposed language states "The Discharger conducted chronic toxicity tests twice per year during the previous order term. The maximum single-sample chronic toxicity result was 15.4 TUc. Applying the dilution credit of 29:1 to 15.4 TUc, the resulting toxicity is .053 TUc, which is less than the translated chronic toxicity objective (1.0 TUc)." Id. For the District, the result should be the same since the District's typical TUc result is 25 TUc, which would result in 0.29 TUc, far below the Ocean Plan objective for chronic toxicity.

Requested Tentative Order Revision: Remove effluent limitation for Chronic Toxicity with no RP.

Response

The San Diego Water Board determined that the effluent limitation for chronic toxicity is not warranted at this time. The District's discharge flowrate is under the 5 MGD threshold used by USEPA to define larger POTWs where influent flows have higher risk of toxicity that can affect plant operations and effluent quality. The District's monitoring data from the previous Order shows no exceedances of the chronic toxicity performance goal. The District's service collection area is primarily residential sources with no known industrial sources and the District does not have an industrial pretreatment program. The San Diego Water Board has modified the Tentative Order to replace the chronic toxicity effluent limitation with a chronic toxicity performance goal.

The San Diego Water Board has modified the following sections of the Tentative Order:

Section IV.A.1.b, Table 5 and Notes 1 and 2 of Table 5

Parameter	Unit	Six-Month Median	Average Monthly	Maximum Daily	Instantaneous Maximum
Chronic Toxicity (Test of Significant Toxicity) (Notes 1 and 2)	"Pass"/ "Fail"	--	--	"Pass"	--

~~Note 1 for Table 5: As specified in section VII.L of this Order and section III.C of the MRP (Attachment E).~~

~~Note 2 for Table 5: The chronic toxicity effluent limitation is protective of both the numeric acute and chronic toxicity Ocean Plan water quality objectives. The effluent limitation will be implemented using Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms (EPA/600/R-95/136, 1995); current USEPA guidance in the National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document (EPA 833-R-10-003, June 2010) (https://www3.epa.gov/npdes/pubs/wet_final_tst_implementation2010.pdf); and USEPA Regions 8, 9, and 10, Toxicity Training Tool (January 2010)~~

Section IV.A.2, Table 8 and Notes 3 and 4 of Table 8

Parameter	Units	Six-Month Median	Average Monthly	Maximum Daily	Instantaneous Maximum
<u>Chronic Toxicity (Test of Significant Toxicity) (Notes 3 and 4)</u>	<u>"Pass"/ "Fail"</u>	<u>==</u>	<u>==</u>	<u>"Pass"</u>	<u>==</u>

~~Note 3 for Table 8: As specified in section VII.L of this Order and section III.C of the MRP (Attachment E).~~

~~Note 4 for Table 8: The chronic toxicity effluent limitation is protective of both the numeric acute and chronic toxicity Ocean Plan water quality objectives. The effluent limitation will be implemented using Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms (EPA/600/R-95/136, 1995); current USEPA guidance in the National Pollutant Discharge Elimination System Test~~

of Significant Toxicity Implementation Document (EPA 833-R-10-003, June 2010)
(https://www3.epa.gov/npdes/pubs/wet_final_tst_implementation2010.pdf);
and USEPA Regions 8, 9, and 10, Toxicity Training Tool (January 2010).

Section VII.L

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

The MDEL performance goal for chronic toxicity is set at the IWC for the discharge (1.15% effluent¹) and expressed in units of the TST statistical approach (“Pass” or “Fail”). All monitoring for the MDEL performance goal for chronic toxicity shall be reported using the IWC effluent concentration and negative control, expressed in units of the TST. The TST hypothesis (see above) is statistically analyzed using the IWC and a negative control.

Attachment E, section III.C, Questions 1, 2 and 3

Monitoring to assess the overall toxicity of the effluent is required to answer the following questions:

- (1) Does the effluent comply with performance goals effluent limitations for toxicity thereby ensuring that water quality standards are achieved in the receiving water?
- (2) If the effluent does not comply with performance goals effluent limitations for toxicity, are unmeasured pollutants causing risk to aquatic life?
- (3) If the effluent does not comply with performance goals effluent limitations for toxicity, are pollutants in combinations causing risk to aquatic life?

Attachment E, section III.C.4

...During the calendar month, toxicity tests used to determine the most sensitive test species shall be reported as effluent compliance monitoring results for the chronic toxicity performance goals maximum daily effluent limitation (MDEL).

Attachment E, section III.C.8

During accelerated monitoring schedules, TST results (“Pass” or “Fail”) for chronic toxicity tests shall be used to determine effluent compliance for the chronic toxicity performance goals MDEL.

¹ IWC = 1/minimum initial dilution factor (Dm) = 1/87 = 0.0115 = 1.15%

Attachment F, section IV.C.3, Table F-8 and Note 11 of Table F-8

Parameter	Units	N ²	MEC ^{3,4}	Most Stringent Criteria	Background	RPA Endpoint ⁵
Chronic Toxicity	TUc	29	25	18	0	<u>24</u> ¹¹

~~11. This Order retains chronic toxicity effluent limitations based on best professional judgement (BPJ, Step 13 of the Ocean Plan RPA). Because discharges into wastewater facilities are ever changing, the effluent from wastewater facilities is inconsistent and may have a mixture of known and unknown pollutants that could have synergistic or additive toxic effects on receiving waters. The mixture of known and unknown pollutants may come from nonresidential and residential sources in the Discharger's service areas. Even though the toxicity monitoring data for the past several years have not exceeded the chronic toxicity effluent limitation, increased and/or unknown pollutants could be introduced into the Discharger's wastewater facilities from nonresidential and/or residential sources in the future that have synergistic or additive toxic effects. Additionally, if a toxic effect is discovered in the receiving water, the results of the whole effluent testing (WET) may be useful for identifying the source of the toxicity~~

Attachment F, section IV.C.5.b

For chronic toxicity, Order No. R9-2012-0004 established a performance goal of 88 TUc and quarterly monitoring. During the term of Order No. R9-2012-0004, the reported effluent chronic toxicity was 25 TUc. ~~However, as stated in section IV.C.3 of this Fact Sheet, this Order adds an effluent limitation for chronic toxicity based on BPJ, Step 13 of the RPA procedures from the Ocean Plan. Thus, this Order adds effluent limitations for chronic toxicity. This Order maintains a performance goal and quarterly monitoring for chronic toxicity.~~

For this Order, chronic toxicity in the discharge is evaluated using USEPA's 2010 Test of Significant Toxicity (TST) hypothesis testing approach at the discharge "in-stream" waste concentration (IWC), as described in section VII.L of this Order and section III.C of the MRP (Attachment E). The TST statistical approach is described in the National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document (EPA 833-R-10-003, 2010), Appendix A, Figure A-1 and Table A-1. The TST null hypothesis shall be "mean discharge IWC response $\leq 0.75 \times$ mean control response." A test that rejects this null hypothesis shall be reported as "Pass." A test that does not reject this null hypothesis shall be reported as "Fail." The chronic toxicity ~~effluent limitation~~ performance goal is expressed as

“Pass” for each maximum daily individual result. The Discharger shall also report the “Percent Effect” as part of chronic toxicity result.

This Order contains a reopener to require the San Diego Water Board to modify the ~~effluent limitations performance goal~~ for toxicity, if necessary, to make it consistent with any new policy, law, or regulation.

Attachment F, section IV.C.5.c

...To ensure the aggregated impacts of pollutants present within the Discharger’s effluent does not result in the presence of toxicity within the receiving water, this Order maintains ~~the performance goal effluent limitations~~ for chronic toxicity. This Order removes acute toxicity performance goals. Removal of numeric acute toxicity performance goals does not constitute backsliding because chronic toxicity is a more stringent requirement than acute toxicity.

Attachment F, section IV.C.5.d, second paragraph

... The MDEL is the highest allowable value for the discharge measured during a calendar day or 24-hour period representing a calendar day. Thus, this Order includes maximum daily performance goals rather than average monthly or average weekly performance goal.

Attachment F, section VII.D.2

...This Order adds WQBELs for ~~chronic toxicity~~, heptachlor, and heptachlor epoxide due to reasonable potential being demonstrated for these constituents.

Attachment F, section VII.A.3

This Order contains ~~a~~ chronic toxicity ~~performance goal effluent limitations~~ as described in section IV.C.5 of this Fact Sheet.

Consistent with the requirements of the Ocean Plan, section III.C.6 of the MRP (Attachment E) requires the Discharger to develop an Initial Investigation Toxicity Reduction Evaluation (TRE) Work Plan and submit the Initial Investigation TRE Work Plan within one year of the effective date of this Order. The Initial Investigation TRE Work Plan must describe steps the Discharger intends to follow if the ~~performance goal effluent limitation~~ for chronic toxicity is exceeded.

Section III.C.10 of the Ocean Plan requires a TRE if a discharge consistently exceeds ~~the performance goal an effluent limitation~~ based on a toxicity objective in Table 1 of the Ocean Plan. To determine if the discharge consistently exceeds the toxicity ~~performance goal effluent limitation~~, this Order requires the Discharger to notify the San Diego Water Board and to accelerate toxicity testing if the effluent limitation for chronic toxicity is exceeded in any one test... The Discharger must also implement a Toxicity Identification Evaluation (TIE), as necessary, based upon the magnitude and

persistence of toxicity performance goal effluent limitation exceedances. Once the source of toxicity is identified, the Discharger must take all reasonable steps to reduce the toxicity to meet the chronic toxicity performance goal effluent limitation identified in section IV.A of this Order.

... Within 30 days of completion of the TRE, the Discharger must submit the results of the TRE, including a summary of the findings, data generated, a list of corrective actions taken or planned to achieve consistent compliance with the toxicity performance goal effluent limitation of this Order and prevent recurrence of exceedances of those performance goal effluent limitation, and a time schedule for implementation of any planned corrective actions....

Action Taken

Modified Section IV.A.1.b, Table 5 and Notes 1 and 2 of Table 5; Section IV.A.2, Table 8 and Note 3 and 4 of Table 8; Section VII.L; Attachment E, section III.C, questions 1, 2 and 3; Attachment E, section III.C.4; Attachment E, section III.C.7; Attachment F, section IV.C.3, Table F-8 and Note 11 of Table F-8; Attachment F, section IV.C.5.b; Attachment F, section IV.C.5.c; Attachment F, section VII.D.2; and Attachment F, section VII.A.3

1.12 Comment –Chronic Toxicity RPA, TST/Pass/Fail, Daily Limitation Part 2

Assuming for the sake of argument that RP does exist, then the chronic toxicity limitations must follow the requirements prescribed in State Water Board Order Nos. WQO 2003-0012 or 2003-0013 – namely by including a narrative effluent limitation and a numeric trigger for accelerated monitoring.

In addition, no daily maximum limitation should be included because federal law authorizes only monthly and weekly average effluent limitations for POTWs without a demonstration that these effluent limitations are “impracticable.” See 40 CFR section 122.45(d)(2) (“For continuous discharges all permit effluent limitations, standards and prohibitions, including those necessary to achieve water quality standards, shall unless impracticable be stated as: (2) Average weekly and average monthly limitations for POTWs”). This is recognized [in Attachment F, section IV.B.2.a] of the Tentative Order – “Section 122.45(d) of 40 CFR require that all permit limitations be expressed, unless impracticable, as average monthly effluent limitations (AMELs) and average weekly effluent limitations (AWELs) for wastewater facilities.” Yet, there is no impracticability analysis for any of the daily maximum limitations proposed, including chronic toxicity.

The term “impracticable” is not defined in federal law, but should be deemed equivalent to “infeasible” as included in the SIP at Appendix 1-3, which is defined as “not capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.” This term is generally defined by the Merriam Webster Dictionary as “not practicable: incapable of being performed or accomplished by the means employed or at command.” Similarly, the

Oxford Press Dictionary defines “impracticable” as “impossible in practice to do or carry out.”

Instead, [Attachment F, section IV.C.5.d] of the Tentative Order attempts to rely upon a guidance document to overrule the requirements contained in federal rules. However, as discussed below, this is not allowed and an impracticability analysis must be incorporated, or the limitation needs to be modified to be an AWEL and AMEL.

This same comment applies to all daily maximum limitations proposed in the Tentative Order.

Moreover, even in the proposed new Toxicity Provisions being proposed by the State Water Board (and not yet adopted), the daily limitation is based only upon the survival endpoint with a 50% effect and not simply a “fail” at the reproduction or growth endpoints and is, therefore, more acceptable to the regulated community. As described above, the Tentative Order proposes including a Maximum Daily Effluent Limitation (“MDEL”) for chronic toxicity, which is more stringent than required by federal law and has not been adequately justified. Therefore, this limitation is contrary to law.

California courts have already held that daily limitations are not allowed for POTWs unless demonstrated with adequate supporting evidence that longer term average limitations are impracticable. These decisions are binding on the Water Boards since not appealed. (See *City of Burbank v. State Water Resources Control Board*, 35 Cal. 4th 613, 623, n.6 (2005) (The Supreme Court held: “Unchallenged on appeal and thus not affected by our decision are the trial court’s rulings that... (2) the administrative record failed to support the specific effluent limitations; (3) the permits improperly imposed daily maximum limits rather than weekly or monthly averages;...”)(emphasis added).)

Courts have upheld the need for regional boards to follow the regulations, holding that the guidance cannot be used to overrule the express terms of the regulations. See *California Sportfishing Protection Alliance (CSPA) v. Cal. Regional Water Quality Control Board, Central Valley Region*, Sacramento Superior Court, Case No. 34-2013-80001358-CU-WM-GDS, Ruling on Submitted Matter: Petition for Peremptory Writ of Mandate (Aug. 18, 2014). In that case, the court held: “To the extent that the applicable law does not represent a reasonable approach to establishing effluent limitations, the law may need to be changed. Until it is changed, however, ...Respondent [Regional] Board was obligated to do what the law required...” Thus, reliance on USEPA’s Technical Support Document guidance, as is being done in this Tentative Order, was overturned, and the permit was remanded and revised accordingly.

The State Water Board has already determined that numeric limitations are not practicable, feasible, or appropriate in the context of chronic toxicity (e.g., are impracticable) and, therefore, numeric weekly and monthly (or even daily)

limitations are not required. This remains the rule until a new Toxicity Policy/Toxicity Provisions determines otherwise in a precedential order or formal rulemaking. See WQO 2003-0013, WQO 2003-0012, WQO 2008-0008 and WQO 2012-0001. The State Board requires a narrative effluent limitation to be imposed instead, stating that “there shall be no chronic toxicity in the effluent discharge.” Thus, this is the limitation that should be included in the Tentative Order, if a limitation is required at all.

In addition, a daily maximum limitation for chronic toxicity is unnecessary to protect aquatic life because chronic toxicity, by definition, is not “short-term.” “Chronic toxicity is the measure of sub-lethal effects of a discharge....” Tentative Order at page A-6. Chronic toxicity testing is meant to assess long-term impacts to biological communities of organisms in the ambient receiving waters, not the impact of a single day’s discharge, or the maximum on a given day. See Tentative Order at page F-26 (“chronic toxicity test is conducted over a short or longer period of time and may measure mortality, reproduction, and growth.”) (emphasis added). Use of a daily maximum chronic toxicity limitation to protect against a short duration event capable of exceeding the Ocean Plan’s water quality objective for Toxicity makes no sense when a single chronic test itself typically consists of three (3) or more discrete samples collected over an exposure period of four (4) to eight (8) days, depending on the test organism. See e.g., 67 Fed. Reg. 69953 (2002 Final WET Rule)(“short term methods for estimating chronic toxicity use longer durations of exposure(up to nine days) to ascertain the adverse effects of an effluent or receiving water on survival, growth and/or reproduction of the organisms.”) (emphasis added). Therefore, the use of a short term average or daily maximum limitation for chronic WET is itself impracticable and a chronic toxicity limitation (as is recognized for other long-term chronic objectives) should be expressed only in narrative form of “There shall be no chronic toxicity in the effluent discharge,” interpreted as a monthly average, or a median monthly if the monthly average is demonstrated to be impracticable. See accord In the Matter of the Own Motion Review of City of Woodland, Order WQO 2004-0010, 2004 WL 1444973, *10 (June 17, 2004) (“Implementing the limits as instantaneous maxima appears to be incorrect because the criteria guidance value, as previously stated, is intended to protect against chronic effects.” The limitations were to be applied as monthly averages instead); WQO 2003-0012; and USEPA Letter to Regional Board on Long Beach/Los Coyotes WRP Permit at page 4 (May 31, 2007)(“At minimum, the permits need to specify the WQBEL: ‘There shall be no chronic toxicity in the effluent discharge.’”.)

The Regional Board relied upon several guidance documents for its determination that an MDEL was appropriate, including the “EPA Regions 8, 9, and 10 Toxicity Training Tool” and the Technical Support Document. As discussed in detail herein, guidance documents cannot overrule regulations.

Chronic toxicity can be compared to other chronic water quality criteria, such as the Criteria Continuous Concentration (“CCC”) under the California Toxics Rule and National Toxics Rule, which is defined as “the highest concentration of a pollutant to which aquatic life can be exposed for an extended period of time (4 days) without deleterious effects.” 40 CFR. Section 131.38(b)(1), noted; 40 CFR section 131.36(b)(1), note d. These criteria are not imposed as daily maximum limitations in NPDES permits.

Contrary to USEPA regulations and State Board orders (which prescribe a narrative toxicity limitation), the Tentative Order proposes an MDEL for chronic toxicity that would result in a corresponding permit violation as a result of a single sample exceedance. Single sample violations for chronic toxicity analyses are inappropriate due to the variability and uncertainty inherent in testing biological organisms for non-lethal endpoints.

“Single measurements on effluent involve some uncertainties about the true concentration or toxicity related to the representativeness of the sample... Like all analytical measurements, WET measurements (No Observed Effect Concentration (NOEC), EC25, LC50) are inexact.” USEPA, Understanding and Accounting for Method Variability in Whole Effluent Toxicity Applications under the NPDES System, EPA 833-R-00-003 at page 6-2 (June 2000). Reliance upon a single test is also highly problematic and impracticable given that toxicity tests often inaccurately identify non-toxic samples as toxic. In fact, a recent study by SCCWRP found that false indications of toxicity could be as much as 50%, which is unacceptable in a statutory program that has criminal and substantial civil penalties. Further, the results from a single effluent test provide no indication of actual chronic aquatic toxicity in the ambient receiving waters outside a mixing zone.

The preamble to the 2002 WET Rule says “EPA policy states that ‘EPA does not recommend that the initial response to a single exceedance of a WET limit, causing no known harm, be a formal enforcement action with a civil penalty.’” 67 Fed. Reg. 69968 citing EPA memo entitled National Policy Regarding Whole Effluent Toxicity Enforcement (1995a) (emphasis added). The appropriate response to a chronic toxicity test indicating the presence of toxicity is not to declare a violation, but to investigate the cause, starting with follow-up testing to confirm the initial result. See accord 67 Fed. Reg. 69,968 (USEPA policy suggests additional testing is an appropriate initial response to a single WET exceedance). The precedential State Board Order Nos. WQO 2003-0012 or 2003-0013 appropriately included this investigation process. Contrarily, the Tentative Order includes a limitation with the potential for an enforcement action based on a single sample, which may not even be an accurate assessment of toxicity.

The permit should be modified to return to the Performance Goal required in the last permit, or at least to a prescribed narrative limitation with numeric triggers. The daily maximum effluent limitation for chronic toxicity should be

removed because this limitation is unlawful and inappropriate. Alternatively, the State Board could transform the daily limitations for chronic toxicity into a weekly average limitation in order to comply with 40 CFR section 122.45(d)(2) and the recent ruling in the 2014 CSPA case discussed above. However, that limitation is also impracticable for the reasons herein so the reinsertion of the Performance Goal or a narrative effluent limitation is preferred.

Requested Tentative Order Revisions: Remove daily maximum effluent limitation for Chronic Toxicity that lacks RP and is not adequately justified.

Response

See comment 1.11. The San Diego Water Board has modified the Tentative Order to replaced the chronic toxicity effluent limitation with a chronic toxicity performance goal. The District states that this comment applies to all daily maximum limitations proposed in the Tentative Order. The Tentative Order proposes maximum daily effluent limitations based on Table 4 of the Ocean Plan for the new proposed brine waste (including instantaneous minimum and maximum effluent limitations for pH and instantaneous maximum effluent limitations for oil and grease, settleable solids, and turbidity). All other effluent limitations in the Tentative Order have been carried over from the Current Order. The effluent limitations based on Table 4 of the Ocean Plan are “the minimum level of treatment acceptable under [the Ocean Plan], and shall define reasonable treatment and waste control technology” for POTWs and industrial discharges for which Effluent Limitations Guidelines have not been established pursuant to sections 301, 302, 304, or 306 of the Federal Clean Water Act. Section 301 (b)(1)(C) of the CWA requires “any more stringent limitation, including those necessary to meet water quality standards, treatment standards, or schedules of compliance, established pursuant to any State law or regulations.”

Action Taken

None.

1.13 Comment –Chronic Toxicity RPA, TST/Pass/Fail, Daily Limitation Part 3

The Ocean Plan provides requirements related to toxicity. The TST statistical procedure and pass/fail endpoints are not contained in or even referenced in the current Ocean Plan, but are only set forth in a nine year old 2010 USEPA guidance document that has never been formally promulgated and has not been incorporated into the adopted text of the Ocean Plan. Although proposed in recent tentative amendments to the Ocean Plan, these provisions are not applicable for use in permits until adopted, approved by the Office of Administrative Law, and approved by U.S.EPA. Litigation is currently pending in the Ninth Circuit Court of Appeals over U.S. EPA’s use and encouragement of use of the TST without promulgating the TST as a federal rule and any

attempt to incorporate the TST into the Ocean Plan will also likely be challenged.

Instead, the Ocean Plan defines the applicable water quality objective using chronic toxicity units (Tuc), based on the No Observed Effect Level (NOEL). According to this regulation, chronic toxicity is defined as follows:
CHRONIC TOXICITY: This parameter shall be used to measure the acceptability of waters for supporting a healthy marine biota until improved methods are developed to evaluate biological response.

a. Chronic Toxicity (Tuc): Expressed as Toxic Units Chronic (Tuc)

b. No Observed Effect Level (NOEL): The NOEL is expressed as the maximum percent effluent or receiving water* that causes no observable effect on a test organism, as determined by the result of a critical life stage toxicity test listed in Appendix III, Table III-1.

This definition was included in the earlier version of the draft permit, but was modified based on the District's comments that the permit's provisions were contrary to this definition and the Tentative Order no longer includes this language from the Ocean Plan.

Requirements for chronic toxicity should be consistent with those in the current, not a potential future, version of the Ocean Plan. By being inconsistent with the Ocean Plan, the requirements are also inconsistent with Monitoring requirements at section I.H on page E-4.

Response

Use of the TST approach provides greater confidence in the accuracy of the toxicity monitoring results as the TST approach minimizes both the occurrence of false negatives (i.e., declaring an effluent safe when it is actually toxic), and the occurrence of false positives (i.e., declaring an effluent toxic when it is actually not toxic). See section IV.C.5 of the Fact Sheet. Due to this greater confidence in accuracy, the chronic toxicity performance goal using the TST approach is necessary to accurately identify toxicity in the effluent and to protect the designated beneficial uses of ocean waters from potential toxic effects from the discharge. Using the TST approach, the San Diego Water Board and the District will have more confidence when making reasonable potential and permit compliance determinations as to whether the District's effluent discharge is toxic or non-toxic.

The TST statistical approach has been shown to perform as well or better than the No Observed Effect Concentration – Lowest Observed Effect Concentration (NOEC-LOEC) statistical analysis of multi-concentration data. The results from TST statistical analysis was compared to analysis using the NOEC-LOEC approach in a "Test Drive Analysis" conducted in California. The results of the test drive are provided in a report dated December, 2011 and published in Environmental Toxicology and Chemistry (Diamond et al.

2013) The findings of the peer-reviewed journal article by Diamond et al, 2013, found that the TST statistical analysis improves understanding of the discharge condition by correctly identifying toxic and non-toxic samples more often than when using the NOEC-LOEC statistical approach.

Action Taken

None.

1.14 Comment –Chronic Toxicity RPA, TST/Pass/Fail, Daily Limitation Part 4

The Test of Significant Toxicity (TST) is not part of a properly promulgated Part 136 Method.

The Ocean Plan at page 91 (emphasis added) requires “Procedures, calibration techniques, and instrument/reagent specifications shall conform to the requirements of 40 CFR Part 136. Compliance monitoring shall be determined using an US EPA approved protocol as provided in 40 CFR Part 136. All methods shall be specified in the monitoring requirement section of waste* discharge requirements.” The permit also makes it very clear that, for parameters where such methods exist, the monitoring must use only approved 40 CFR Part 136 methods, properly promulgated by USEPA. See e.g., Tentative Order at page D-4 (“Monitoring must be conducted according to test procedures approved under 40 CFR Part 136...”); MRP section I.C, page E-3 (“Monitoring must be conducted according to U.S. Environmental Protection Agency (USEPA) test procedures approved at 40 CFR Part 136 ...”); page E-4, section II.I; page E-6, n. 1; page E-7, n.5; page E-9 at n.2; page E-10, n.5; page E-11, section 3.a. (Prescribing Table IA, 40 CFR Part 136).

USEPA’s Table IA in 40 CFR Part 136 only includes NOEC and point estimates, and the promulgated methods include four (4) specified statistical methods to be used with hypothesis tests: 1) Dunnett’s Procedure; 2) T-test with the Bonferroni Adjustment; 3) Steel’s Many-One Rank Test; and 4) Wilcoxon Rank Sum Test with the Bonferroni Adjustment. See accord USEPA, Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms (Oct. 2002) (“2002 Methods”) at pages 40-41. Each of these statistical methods is used for hypothesis tests resulting in the endpoint estimates of NOEC or LOEC (Lowest Observable Effect Concentration). Id. At page 45 (Figure 2 – Flowchart for statistical analysis of test data). The promulgated preferred alternative to the NOEC/LOEC is the point estimate approach. In addition, the Ocean Plan at page 92 states: “The Regional Water Board shall require the use of critical life stage toxicity tests specified in this Appendix to measure Tuc.”

USEPA has stated: “For the NPDES Permit Program, the point estimation techniques are the preferred statistical methods in calculating end points for effluent toxicity tests.” 2002 Methods at page 44 (emphasis in original).

The TST's "Pass/Fail" are not approved endpoints and the TST is not an approved statistical method. While the 2002 Methods and the Tentative Order Fact Sheet at page F-28 recognize that "[t]he statistical methods recommended in this manual are not the only possible methods of statistical analysis," the Tentative Order ignores other language stating that "[m]any other methods have been proposed and considered." USEPA chose the specific statistical methods and hypothesis tests in that manual, which were incorporated by reference into 40 CFR Part 136, "because they are (1) applicable to most of the different toxicity test data sets for which they are recommended, (2) powerful statistical tests, (3) hopefully 'easily' understood by nonstatisticians, and (4) amenable to use without a computer, if necessary. 2002 Methods at page 43, section 9.4.1.2. Table 1A, "List of Approved Biological Methods for Wastewater and Sewage Sludge," in 40 CFR Part 136 lists the approved methods for freshwater chronic toxicity. The parameters specifically promulgated for whole effluent chronic toxicity and contained in Table 1A are clearly stated as the NOEC and IC25 in units of percent effluent. (The exact wording is, "Toxicity, chronic, freshwater organisms, NOEC or IC25, percent effluent."). Use of a "Pass/Fail" endpoint obtained through any statistical analysis is not included in 40 CFR section 136.3(a), Table 1A, and the TST statistical approach is not listed in Table 1A.

The Tentative Order at page F-28 takes this one statement out of context and ignores the remaining explanatory statements.

40 CFR section 136.3(a), Table IA, footnote 27. See 67 Fed. Reg. 69955 (2002) ("these methods, including the modifications in today's rule, are applicable for use in NPDES permits.").

Although USEPA Region IX, some Regional Water Boards, and even some dischargers may prefer the TST, the TST is not an approved Part 136 test method, endpoint, or statistical procedure. In fact, although USEPA recently proposed amendments to the Part 136 methods, including specific changes to the promulgated 2002 Methods, the TST was not included. See Federal Register Notice, <http://www.govinfo.gov/content/pkg/FR-2019-10-22/pdf/2019-223437.pdf> (October 22, 2019). Numerous amendments to 40 CFR Part 136 have occurred since 2010, and none have included the TST. If USEPA truly believes that the TST represents a superior method, the TST would have been included in one of these rulemaking processes for adopting revised methods. Yet, it was not, and the TST is not a valid Part 136 method. As such, the TST cannot be used in NPDES permits based solely on USEPA guidance documents that have never been adopted as rules. To do otherwise would constitute an underground rulemaking, violating the Administrative Procedures Act and public participation requirements.

The 2010 USEPA guidance document, National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document, EPA 833-R-10-003, 2010 ("TST Guidance Document"), cited in the Tentative

Order at page F-28 introduced the TST protocol as an additional, not replacement, tool for analysis of chronic toxicity testing data. This guidance document made clear in numerous places that the intent of the guidance was to introduce a new approach to analyzing data collected during a valid WET analysis, including a multiple concentration test design. Examples are provided below (emphasis added):

“The TST approach does not result in changes to EPA’s WET test methods promulgated at Title 40 of the Code of Federal Regulations Part 136.” (page ii on the Disclaimer)

“Once the WET test has been conducted (using multiple effluent concentrations and other requirements as specified in the WET test methods), the TST approach can be used to analyze valid WET test results to assess whether the effluent discharge is toxic.” [Emphasis added] (page xi)

“This document presents TST as a useful alternative data analysis approach for valid WET test data that may be used in addition to the approaches currently recommended in EPA’s Technical Support Document (USEPA 1991) and EPA’s WET test method manuals.” (page 7)

“The TST approach is an alternative statistical approach for analyzing and interpreting valid WET data; it is not an alternative approach to developing NPDES permit WET limitations. Using the TST approach does not result in any changes to EPA’s WET test methods.” (page 60)

“Step 1: Conduct WET test following procedures in the appropriate EPA WET test method manual. This includes following all test requirements specified in the method (USEPA 1995 for chronic West Coast marine methods, USEPA 2002a for chronic freshwater WET methods, USEPA 2002b for chronic East Coast marine WET methods, and USEPA 2002c for acute freshwater and marine methods).” (Appendix B, page B-3)

This language makes clear that the TST was never meant to replace, only to supplement, WET testing done under the promulgated methods. The Tentative Order at page F-27 (citing to TST guidance, the Fact Sheet recognizes that EPA recommended “Permitting authorities should consider adding the TST approach...,” not replacing the 2002 Methods).

In addition, USEPA has never incorporated an option for a five-concentration test design using the TST that limits application of a concentration-response evaluation and precludes application of PMSD criteria. If use of this alternative approach was USEPA’s intent in 2010 when the TST Guidance Document was released, such a change could have been included initially or should have been made in 2012, 2015, or just this month when the methods were updated by USEPA. See *id.*; see also *U.S. v. Riverside Bayview Homes*, 474 U.S. 121, 137 (U.S.S.C. 1985) (An action not to include modifications of which the entity was aware can be read as a presumption that the

modifications were not intended to be included). Alternatively, USEPA could have proposed the limited use of concentration response and non-application of PMSD review in conjunction with the TST in its recent proposed rulemaking. USEPA failed to do so. Thus, the Regional Board has no authority to go beyond the requirements of the Part 136 methods to limit the evaluation of concentration-response relationship or ignore PMSDs, which are part of the approved 2002 Methods.¹⁷ Such will need to be promulgated in 40 CFR Part 136 or in an approved Alternative Test Procedure (“ATP”) as recognized by State Board staff in recent discussions related to the proposed Toxicity Provisions.

Although the Fact Sheet states that the concentration-response patterns “reduc[e] the number of misclassified test results” and “decreased discrepancies in data interpretation,” the Tentative Order incorrectly states that:

“Appropriate interpretation of the measurement result from USEPA’s TST statistical approach (pass/fail) for effluent and receiving water samples is, by design, independent from the concentration-response patterns of the toxicity tests for those samples.” Fact Sheet at page F-28.

Response

The TST approach is not a toxicity test method and does not alter the USEPA approved toxicity test methods. Rather, the TST approach is a statistical approach to analyze the data generated by the existing USEPA approved toxicity test methods. The TST approach analyzes data from a single concentration toxicity test compared to a control toxicity test when such toxicity tests are conducted using the required method under 40 CFR Part 136. Using the TST approach to interpret and analyze the resulting data from a 40 CFR Part 136 whole effluent toxicity (WET) test method does not result in changes to the WET test methods or USEPA method manuals. The TST approach does not alter any specified procedures in the test methods (e.g. organism age, food, temperature, exposure length), nor does it alter the number of concentrations required to be used in producing data. Therefore, the TST approach does not need to be approved at 40 CFR Part 136 since it is only a statistical analysis of the data and not a test method.

The San Diego Water Board has the discretion to select the statistical approach for analyzing WET test data that is most appropriate for use in a particular permit. (See section 9.4.1.2 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 which states “[T]he statistical methods recommended in the manual are not the only possible methods of statistical analysis.”). This language uses the term “recommended”. A recommendation is not a requirement. The San Diego Water Board has selected the TST statistical approach for use in this Order and in other

NPDES permits. The San Diego Water Board disagrees that the statement “[m]any other methods have been proposed and considered” in section 9.4.1.2 of *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms* limits the use of other statistical approaches that are not defined in the method. The preceding sentence in the same USEPA guidance states that “the statistical methods recommended in this manual are not the only possible methods of statistical analysis.”

The utility of the concentration response curve relationship depends on the question that is being answered. The TST approach is designed to address the question “is the effluent toxic?” This requires a yes or no answer, which is determined via hypothesis testing such as in the TST approach. The concentration-response data can be helpful in determining the magnitude of toxicity in an effluent sample, which is useful for conducting Toxicity Identification Evaluations (TIE). However, for the purposes of determining compliance with the chronic toxicity effluent limitation and the protection of beneficial uses, the San Diego Water Board only needs to know the answer to “is the effluent toxic”, and not “how toxic is the effluent”.

Action Taken

None

1.15 Comment –Chronic Toxicity RPA, TST/Pass/Fail, Daily Limitation Part 5

On March 17, 2014, USEPA issued an ATP letter approving statewide use of a two-concentration TST test approach without consideration of concentration-response relationships.

See Letter from Eugenia McNaughton, US EPA Region 9 Quality Assurance Office Manager to Renee Spears, State Board Quality Assurance Officer, untitled, dated March 17, 2014 (“ATP Approval Letter”). In its ATP Approval Letter, USEPA Region IX ostensibly granted the State Board a “Limited Use Alternative Test Procedure” under Part 136 (40 CFR section 136.5(a)). However, it was not clear that the State could be a valid requestor since rules contemplate that the request must first be sent to the State. (*Id.* At subd. (b).) For this and other reasons, the validity of the ATP approval was challenged in federal court (see *SCAP and CVCWA v. USEPA*, Case No. 2:14-cv-01513 MCE-DAD, U.S. District Court, Eastern District). Prior to a final decision by the District Court judge, USEPA withdrew its ATP approval on February 11, 2015. Thus, even if there were an argument that the ATP allowed statistical analysis using the Instream Waste Concentration (“IWC”) and a negative control in compliance determinations as has been proposed in the Tentative Order, or allowed the use of the TST, that potential authorization ended on February 11, 2015. Thus, the Tentative Order cannot be based on either a two-concentration compliance model or the TST.

The legality of the ATP approval was questionable as this ATP was not submitted by a discharger or a laboratory, but rather by the State Board, after receiving the two-concentration TST approach idea from USEPA. This act of self-dealing to avoid a full-blown public regulatory process thwarts the law and notions of good public policy. The ATP process was designed to “encourage organizations external to EPA to develop and submit for approval new analytical methods.” See Guide to Method Flexibility and Approval of EPA Water Methods, USEPA Office of Water (Dec. 1996) at page 77 (emphasis added).

Furthermore, USEPA acknowledged that no approved protocols exist for reviewing or approving a WET ATP. *Id.* At 93 (“EPA is developing a protocol for approval of new and modified (alternate) WET methods.”); USEPA website related to WET at:

<http://water.epa.gov/scitech/methods/cwa/atp/questions.cfm> (last accessed 12/8/2014) (“Note: The EPA does not have a protocol for toxicity testing under EPA’s Whole Effluent Toxicity (WET) program.”); USEPA’s Answer at Docket No. 17, ¶¶28 in SCAP and CVCWA v. USEPA, Case No. 2:14-cv-01513 MCE-DAD, U.S. District Court, Eastern District (“EPA admits that it has issued protocols regarding the information needed to evaluate ATP applications for potential approval and does not currently have a protocol for approving ATPs for WET testing.”).

Finally, authorizing an ATP for WET was contrary to federal regulations. “Method Modifications” are explicitly prohibited for “Method-Defined Analytes” by 40 CFR section 136.6(b)(3), which states (with emphasis added): “(3) Restrictions. An analyst may not modify an approved Clean Water Act analytical method for a method-defined analyte.” USEPA has previously declared that WET is a Method-Defined Analyte. See 67 Fed. Reg. 69965 (“toxicity is inherently defined by the measurement system (a ‘method-defined analyte’) and toxicity cannot be independently measured apart from a toxicity test.”); see also Brief of Respondents USEPA, et al., in Edison Electric Institute, et al., v. USEPA, Case No. No. 96-1062 (D.C.Cir. 2004) at 44-45 and 78 citing Response to Comments at 219-20, J.A. XX; 67 Fed. Reg. 69,965. (“Because toxicity is defined and measured by its effect on living organisms, whole effluent toxicity is considered a method-defined analyte (i.e., it cannot be measured independently from a toxicity test). Thus, WET test results cannot be independently confirmed by comparing the results to a known concentration of toxicity.”). Thus, an ATP could not lawfully allow an analyst to use modified methods for WET.

The Tentative Order at pages 27-28 states that the statistical analysis used compares “two sets of replicate observations—in the case of WET, only two test concentrations (i.e., a control and IWC). The purpose of this statistical test is to determine if the means of the two sets of observations are different (i.e., if the IWC or receiving water concentration differs from the control (the

test result is “Pass” or “Fail”).” (Emphasis added). Thus, if performed, the other concentrations and the concentration response are virtually ignored with this mandated t-test.

Response

See response to comment no. 1.14. As noted in section VII.L of the Tentative Order, the San Diego Water Board’s review of reported toxicity test results will include review of concentration-response patterns as appropriate. Review of the concentration-response pattern should be conducted as a component of a broader quality assurance, data review, and reporting process.

Action Taken

None

1.16 Comment –Chronic Toxicity RPA, TST/Pass/Fail, Daily Limitation Part 6

It is not clear how the District or any other Permittee can be required to use non-promulgated toxicity tests over the promulgated Part 136 methods that have been through extensive notice and comment rulemaking, and even subsequent litigation before those methods were upheld. Neither the Regional Board nor the USEPA has the authority to impose a less stringent (because not promulgated) test method; until either a Permittee, like the District, requests to use that method as an ATP, or until that method has been formally promulgated by USEPA as an approved method under 40 CFR Part 136.

Analytical results obtained by using a non-promulgated method cannot be used for NPDES compliance determination purposes until that method has been incorporated into 40 CFR Part 136. Similarly, the particular number of dilutions in a dilution series (e.g., two concentrations) cannot be mandated. 67 Fed. Reg. 69956 (“no one particular dilution series is required.”). Thus, defining the concentrations that will be considered for compliance purposes under TST test design should not have to be prescribed in the Tentative Order.

The Tentative Order also contradicts a June 18, 2010 USEPA Headquarters memo accompanying the TST Implementation Document, from James Hanlon, the Director of the USEPA Office of Wastewater Management, which stated: “The TST approach does not preclude the use of existing recommendations for assessing WET data provided in EPA’s 1991 Water Quality-based Technical Support Document (TSD) which remain valid for use by EPA Regions and the States.” Thus, review of only two concentrations (the IWC and control) using TST t-test approach should be used only for additional information, not for compliance determination purposes. Chronic toxicity data under the TST approach reviewing just two concentrations (and not allowing adequate consideration of the concentration response or PMSD) cannot legally be used for compliance determination purposes.

USEPA has also clarified its position, and expressly stated that its previous ATP letter did not constitute a mandate. In its opposition brief filed in the litigation challenging the ATP letter, the USEPA argued that “EPA’s March 2014 Letter was not a mandate and the State’s decision not to use the alternate test would not be a basis for objection, much less a ‘veto,’ by EPA.” In addition, USEPA’s brief stated that:

“EPA’s approval of a limited use alternate test does not impose any obligation on the California Water Boards that issue NPDES permits, or on permit holders. By approving the limited use of this alternate test, the EPA did not ‘mandate’ the exclusive use of the two-concentration test, and it cannot require the California Water Boards to include this alternate test in NPDES permits issued by the State. The EPA simply approved the use in California of the two-concentration test as an alternate test to the five-concentration test.... After the EPA’s March 2014 letter, the California Water Boards could still issue permits that require permit holders to use the five-concentration test, or that provide permit holders with a choice of which test to use.”

See USEPA’s Opposition to Plaintiffs’ Ex Parte Application for Temporary Restraining Order and Order to Show Cause Re: Motion for Preliminary Injunction in case of SCAP and CVCWA v. United States EPA, Federal District Court for the Eastern District of California, Case No. 2:14-cv-01513 MCE-DAD (filed June 30, 2014)(citations excluded).

Since USEPA has stated that use of the TST approach, relying on Pass/Fail from just two concentrations (the IWC and a control) is not required, and that permit holders can be provided with a choice of which test to use, the District requests that the Tentative Order be amended to make it clear that use of the TST approach for compliance determinations is optional. Instead, if an effluent limitation is maintained in the Tentative Order, the Tentative Order should allow use of the NOEC set forth in the Ocean Plan, or the recommended Point Estimate (IC25) method set forth in the promulgated 2002 Methods in 40 CFR Part 136.

Response

See response to comment no. 1.14. The TST approach is a statistical analysis and does not modify the USEPA approved toxicity methods at 40 CFR Part 136. The San Diego Water Board has the discretion to select the statistical approach for analyzing the WET test data collected by a test method promulgated in 40 CFR Part 136 that is most appropriate to use for a particular permit.

The District notes that USEPA’s 2010 publication regarding the TST statistical analysis is guidance and not regulation. Similarly, USEPA’s published materials on the point-estimate technique and NOEC-LOEC hypothesis testing methods are guidance and not required statistical approaches. The San Diego Water Board has the discretion in this circumstance to select the

means of statistical analysis that is most appropriate for the particular permit and that is required for compliance and reporting purposes. (See 40 CFR sections 122.44(d) and 122.43.)

Action Taken

None

1.17 Comment –Chronic Toxicity RPA, TST/Pass/Fail, Daily Limitation Part 7

The Tentative Order at page F-23, footnote 5; pages F-27 and F-28; and pages 5-6, footnote 5, reference the two USEPA guidance documents to attempt to justify the inclusion of pass/fail effluent limitations and implementation provisions for toxicity based on the TST approach:

- National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document (EPA 833-R-10-003, June 2010) [TST Guidance Document], and
- EPA Regions 8, 9 and 10 Toxicity Training Tool (January 2010) (“Training Tool”), <http://www2.epa.gov/region8/epa-regions-8-9-and-10-toxicity-training-tooljanuary-2010>.

These documents cannot be used to justify the Tentative Order’s requirements because these guidance documents do not mandate use of the TST, or require the inclusion of any effluent limitation for toxicity. Appendix D of the TST Guidance Document includes example permit language for either a trigger (as was prescribed by the State Board in the precedential Order Nos. WQO 2003-0012 or 2003-0013, 2008-08, and 2012-0001) or an effluent limitation. The Training Tool also discusses both permit triggers and effluent limitations for toxicity. In the Training Tool, as in the federal regulations, effluent limitations are only needed in cases where there is reasonable potential and even if there is reasonable potential, effluent limitations for toxicity are not needed if chemical specific effluent limitations are included for the pollutants identified as causing the toxicity (section 2.5, page 31).

In addition, EPA guidance acknowledges the use of triggers for additional monitoring to confirm the presence of toxicity. “EPA recommends that regulatory authorities evaluate the merits of a step-wise approach to address toxicity. This approach can determine the magnitude and frequency of toxicity and appropriate follow-up actions for test results that indicate exceedances of a monitoring trigger or permit limit.” USEPA, *Understanding and Accounting for Method Variability in Whole Effluent Toxicity Applications under the NPDES System*, EPA 833-R-00-003 at page 7-4 (June 2000); 65 Fed. Reg. 44528-9 (July 18, 2000) (“EPA recommends that NPDES permitting authorities implement the statistical approach as described in the TSD to evaluate effluent and to derived WET limits or monitoring triggers.”)

If State water quality standards contain only narrative water quality criteria for WET and the permit (or fact sheet) documents that chemical specific water

quality-based effluent limitations (“WQBELs”) are sufficient to attain and maintain the narrative water quality criteria, then WQBELs for WET are not necessary. 40 CFR section 122.44(d)(1)(v).

As a result, the Regional Board can point to nothing in either of the guidance documents cited that mandates the use of pass/fail effluent limitations for toxicity. Additionally, the TST Guidance Document is merely guidance that may be changed at any time as policies and directions change. Importantly, the Disclaimer in that guidance document specifically notes that the document is not “a permit or a regulation itself.” The TST Guidance Document also clearly states that:

“The document does not and cannot impose any legally binding requirements on EPA, states, NPDES permittees, or laboratories conducting or using WET testing for permittees (or for states in evaluating ambient water quality). EPA could revise this document without public notice to reflect changes in EPA policy and guidance.” USEPA, *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document*. EPA 833-R-10-004, June 2010.

The other document cited is merely part of a training tool that is not even published guidance.

Although USEPA often tries to regulate by guidance, federal courts have frowned upon this practice as aptly described in *Appalachian Power Co. v. EPA*, 208 F.3d 1015, 1020 (D.C. Cir. 2000). The district court in the *Appalachian Power* case found fault in USEPA’s regulating by setting aside the guidance in its entirety. (Id. At page 1028.) “If an agency acts as if a document issued at headquarters is controlling in the field, if it treats the document in the same manner as it treats a legislative rule, if it bases enforcement actions on the policies or interpretations formulated in the document, if it leads private parties or State permitting authorities to believe that it will declare permits invalid unless they comply with the terms of the document, then the agency’s document is for all practical purposes ‘binding.’” (Id. At page 1021 [citations omitted].)

More recent cases have reached the same conclusion in other instances when USEPA tried to impose its will through interpretive rules, such as the TST Guidance Document. See *NRDC v. U.S. EPA*, 643 F.3d 311 (D.C. Cir. 2011) (invalidating USEPA guidance setting forth air quality attainment alternatives). A key case related to “requirements” contained in USEPA letters related to water quality permitting prohibitions related to blending and mixing zones. In this case, the court found that USEPA not only lacked the statutory authority to impose the guidance regulations on blending, but also violated the APA, 5 U.S.C. section 500 et seq., by implementing the guidance on both issues without first proceeding through the notice and comment procedures for agency rulemaking. *Iowa League of Cities v. U.S. EPA*, 711 F.3d 844, 878

(8th Cir. 2013). The case law is clear that USEPA, and delegated States under the NPDES permit program, must regulate through rules and not through informal guidance. The Regional Board cannot legally regulate by guidance, particularly where that guidance is contrary to the plain terms of the currently applicable Ocean Plan and statewide precedential orders (e.g., State Board WQO 2003-0013 and 2003-0012).

Response

See response to comment nos. 1.14 and 1.16. The District notes that USEPA's 2010 publication regarding the TST statistical analysis is guidance and not regulation. Similarly, USEPA's published materials on the point-estimate technique and NOEC-LOEC hypothesis testing methods are guidance and not required statistical approaches. The San Diego Water Board has the discretion in this circumstance to select the means of statistical analysis that is most appropriate for the particular permit to be required for compliance and reporting purposes. (See 40 CFR sections 122.44(d) and 122.43.)

Action Taken

None

- 1.18 Comment – Chronic Toxicity RPA, TST/Pass/Fail, Daily Limitation, Part 8
Not Allowing Full Concentration-Response Evaluation Reduces the Reliability of WET Tests.

WET tests measure how certain organisms respond to a particular water sample. As such, the measurements may be impacted by a number of extraneous factors including organism health, ionic changes in water chemistry, presence/absence of trace elements in the water, seasonality, light levels, temperature, analyst handling, and many others. While variability in WET tests cannot be eliminated entirely, the 40 CFR Part 136 promulgated methods and various implementing USEPA guidance document procedures were intentionally developed and expressly incorporated into the Part 136 rule to address this variability and to quantify data and result reliability, as well as to settle several lawsuits over the challenged reliability and usefulness of these tests.

USEPA's first WET test methods were promulgated in 1995. 60 Fed. Reg. 53,529 (Oct. 16, 1995). As a result of a legal challenge, these WET tests were modified pursuant to a settlement that required USEPA to re-promulgate chronic WET test methods for use in monitoring compliance with NPDES permit limitations after a formal national rulemaking process, in accordance with 40 CFR Part 136. See 67 Fed. Reg. 69,952 (Nov. 19, 2002) ("Promulgated Methods"). The Promulgated Methods specifically included two test methods, a hypothesis test based on the NOEC and a point estimate test based on the 25% Inhibition Concentration ("IC25"). These Methods and

Table IA constitute USEPA's formally promulgated 40 CFR Part 136 WET methods.

In a legal challenge to the 2002 freshwater methods, the court found that “[t]he ratified WET tests are not without their flaws” and cautioned that “[e]ven by EPA’s calculations, WET tests will be wrong some of the time, *Edison Electric v. EPA*, 391 F.3d 1267, 1272-1274 (D.C. Cir. 2004). However, the court upheld those methods because USEPA had provided adequate safeguards within those methods to protect against the concerns raised by the plaintiffs. One of these safeguards was the requirement to use a multiple-concentration test that includes a concentration-response evaluation. “EPA also offered an additional safeguard by designing the tests to give permittees the benefit of the doubt, limiting false positive rates to at most 5%, while allowing false negative rates up to 20%.” *Edison Electric*, 391 F. 3d at 1272. These safeguards have been removed from the Regional Board’s approach used in the Tentative Order that authorizes determining Pass/Fail endpoints from just two concentrations, comparing an effluent sample at the IWC. USEPA’s own guidance, which addresses concentration-response evaluations, states that an “evaluation of the concentration-response relationship generated for each sample is an important part of the data review process that should not be overlooked.”

Edison Electric, 391 F. 3d at 1273 citing 67 Fed. Reg. at 69,957-58 (holding that “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” followed by a statistical analysis “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” will be a “safeguard [that] addresses petitioners’ concerns.”) The importance of the five-concentration test to meet test acceptability criteria was also recognized in an October 22, 2013 Memo from Robert Wood, USEPA Headquarters, to Alexis Strauss, USEPA Region IX (“as stated in the promulgated CWA WET methods and re-iterated in the ‘EPA’s National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document,’ these methods require a control plus five effluent concentrations under the methods’ test acceptability criteria. As such, the promulgated methods do not allow for only two concentrations for use in NPDES permits.”)(Emphasis added).USEPA, *Method Guidance and Recommendations for Whole Effluent Toxicity (WET) Testing* (40 CFR Part 136), EPA 821-B-00-004 (July 2000) at page 4-3.

The same reference further concludes that “reviewing concentration-response relationships should be viewed as a component of a broader quality assurance and data review and reporting process.” *Id.* This process includes data review, evaluation of test acceptability, evaluation of reference toxicant

testing results, organism health evaluations, and test variability evaluation. The importance and need to conduct multiple concentration tests, including conducting a concentration-response evaluation for chronic toxicity tests, even when using the TST statistical approach, was confirmed by USEPA Region IX in one of its recently own NPDES permits. See General Permit No. CAG280000, Authorization to Discharge under the National Pollutant Discharge Elimination System for Oil and Gas Exploration, Development, and Production Facilities (December 20, 2013), available at the following website: <http://www.epa.gov/region9/water/npdes/pdf/ca/offshore/general-permit.pdf>.

This USEPA-issued general permit for oil and gas exploration required the use of the TST statistical method to analyze multi-concentration WET test results. *Id.* At page 15, section II.B.2.d.2 (“This permit is subject to a determination of Pass or Fail from a multiple-effluent concentration chronic toxicity test at the IWC...”). Unlike the District’s Tentative Order, that general permit did not improperly limit the concentration response review. USEPA specifically required the use of a multi-concentration test design with consideration of the concentration-response. *Id.* Section II.B.2.d.6 on page 15 of this general permit stated the following:

“6) Following Paragraph 10.2.6.2 of the freshwater EPA WET test methods manual, all chronic toxicity test results from the multi-concentration tests required by this permit shall be reviewed and reported according to EPA guidance on the evaluation of concentration-response relationships in Method Guidance and Recommendations for Whole Effluent Toxicity (WET) Testing (40 CFR Part 136) (EPA/821/B-00-004, 2000).” (Emphasis added)”

The Tentative Order seems to ignore these other guidance, and states that Regional Board review of concentration response will only be included “as appropriate” and that PMSD are “not used to interpret TST results.” Tentative Order at page 28. Compliance seems to solely be judged on the TST statistical approach, defined as the determination of “the means of two sets of observations are different (i.e., if the IWC or receiving water concentration differs from the control (the test result is “Pass” or “Fail”). *Id.* This is contrary to law and regulation and cannot be required without an ATP. Although the Tentative Order at page F-27 seems to argue that Ocean Plan III.F allows the Regional Board to exercise its discretion to use the TST for this discharge, nothing in section III.F. provides that discretion.

Requested Tentative Order Revisions:

- 1) Remove chronic toxicity limitations from the Tentative Order.
- 2) Move toxicity limitations from the “Effluent Limitations” column to the “Performance Goals” column of each respective table.
- 3) Keep Performance Goal from last permit that is consistent with the Ocean Plan and not based on unpromulgated guidance lacking a valid ATP.
- 4) Replace the word “limitation” with “performance goal” whenever used in relation to toxicity testing throughout the Order, MRP, and Fact Sheet.

- 5) Remove chronic toxicity from the list of constituents with Reasonable Potential discussed in the Fact Sheet.
- 6) Delete section VII.L or modify this section to be consistent with the currently applicable Ocean Plan.
- 7) Delete the following sentence from section VII.L: “The San Diego Water Board will make a determination as to whether a toxicity test result is valid, and may consult with the Discharger, USEPA, the State Water Board’s Quality Assurance (QA) Officer, or the State Water Board, Division of Drinking Water Environmental Laboratory Accreditation Program (ELAP), as needed.” [This sentence] unlawfully makes the Regional Board become the arbiter or what is a valid toxicity test, instead of the lab and the permittee as is established by the Clean Water Act.
- 8) Make Chronic Toxicity Definition [in Attachment A] consistent with the currently applicable Ocean Plan.
- 9) Revise toxicity monitoring to be consistent with 40 CFR Part 136. The Chronic Toxicity note within Table E-4 (“For compliance determination, chronic toxicity results shall be reported as “Pass” or “Fail”. For monitoring purpose only, chronic toxicity results shall also include “Percent Effect”) requires indicating percent effect, but just for “monitoring purpose only.” The percent effect is an important part of the equation as to whether the test is valid or not for compliance. Table IA or 40 CFR Part 136 requires percent effect be taken into consideration. This is an additional indication that the TST-based approach and monitoring are inconsistent with 40 CFR Part 136.
- 10) Modify Attachment E, section III.C to be modified to reflect the requirements of 40 CFR Part 136 and the current Ocean Plan requirements.

Response

The current statistical approaches using NOEC/LOEC have a five percent false positive rate of identifying toxicity in a sample when the sample is non-toxic. The TST approach has the same false positive rate of five percent. Therefore, the uncertainty in the outcome of toxicity samples will not increase with the use of the TST approach.

The TST statistical approach has been shown to perform as well or better than the NOEC-LOEC statistical analysis of multi-concentration data. The results of a TST statistical analysis were compared to an analysis using the NOEC-LOEC approach in a “Test Drive Analysis” conducted in California. The results of the test drive are provided in a report dated December, 2011 and published in Environmental Toxicology and Chemistry (Diamond et al. 2013) The findings of the peer-reviewed journal article by Diamond et al, 2013, found that the TST statistical analysis improves understanding of the discharge condition by correctly identifying toxic and non-toxic samples more often than when using the NOEC-LOEC statistical approach. Using the TST approach, the San Diego Water Board and the District will have more confidence when making reasonable potential and permit compliance

determinations as to whether the District's effluent discharge is toxic or non-toxic.

Review of the concentration-response pattern should be conducted as a component of a broader quality assurance and data review, and reporting process. The San Diego Water Board will review the concentration-response pattern as appropriate.

The District objects to the San Diego Water Board determining if a toxicity test result is "valid". Due to the confusion over the term "valid", the San Diego Water Board has modified section VII.L to state "The San Diego Water Board will make a determination as to whether a toxicity test result is valid compliant."

Action Taken

The San Diego Water Board has modified section VII.L, last sentence as follows:

The San Diego Water Board will make a determination as to whether a toxicity test result is valid compliant, and may consult with the Discharger, USEPA, the State Water Board's Quality Assurance (QA) Officer, or the State Water Board, Division of Drinking Water Environmental Laboratory Accreditation Program (ELAP), as needed.

1.19 Comment – Chronic Toxicity Sensitivity Screening

Sensitivity screening is required too often. Some regions (e.g., San Francisco) no longer require this screening and instead allow the funds that would be used for this purpose to be used for more pressing water quality investigations. Even the draft Toxicity Provisions had suggested every 10 years as a reasonable option.

Requested Tentative Order Revision: Revise Tentative Order to not require species sensitivity screening as follows: "Species sensitivity rescreening is required every 24 months no less than once per permit term (unless modified by State regulation and then will be consistent with those requirements)."

Response

The San Diego Water Board does not agree with reducing the frequency of species sensitivity screening to only once per permit term (i.e., five years). This requirement was retained from the Current Order. During the Current Order term, the most sensitive species changed once out of three species sensitivity screenings. The District is also adding a new facility, the Santa Margarita Groundwater Treatment Plant, with unknown effluent quality. Biennial species sensitivity screening is required to ensure the most sensitive species is identified for routine monitoring.

The draft toxicity provisions state the species sensitivity screening should be conducted at minimum every 10 years. However, the draft toxicity provisions

require four sets of species sensitivity screenings conducted over the course of a year, with one set of species sensitivity screening conducted in each quarter of the year. Rather than requiring four sets of species sensitivity screenings over the course of a year every ten years, the Tentative Order only requires one set of species sensitivity screening every two years. If the sensitivity species screening demonstrates that a different species is more sensitive or if there is ambiguity, then the Tentative Order requires the Discharger to conduct additional sets of screenings.

Action Taken

None.

1.20 Comment – Chronic Toxicity, Toxicity Reduction Evaluation (TRE) Work Plan

The Tentative Order currently requires “The Discharger shall prepare and submit a copy of the Discharger’s Initial Investigation TRE Work Plan to the San Diego Water Board for approval within 90 days of the effective date of this Order.” The District commented stating that the first six months after this order goes into effect will be a very busy time for compliance and reporting since the District has just one compliance staff member. The District requested more time (one year) to adequately provide the regional board with this plan. This requested change was not made.

Requested Tentative Order Revision: Revise 90 day period to provide a TRE Workplan to 1 year.

Response

The Initial Investigation TRE Work Plan is not an extensive document and should not take more than three months to develop. The Initial Investigation TRE Work Plan is needed to ensure the District is prepared to respond to a toxicity event in a timely manner. While 90 days from the effective date of the Order provides adequate time to develop the Initial Investigation TRE Work Plan, the San Diego Water Board acknowledges the District may be busy during the first six months after the Order goes into effect and extends the due date to one year after the effective date of the Order.

The San Diego Water Board has modified the following sections of the Tentative Order:

Attachment E section III.C.6

The Discharger shall prepare and submit a copy of the Discharger’s Initial Investigation TRE Work Plan to the San Diego Water Board for approval within ~~90 days~~ one year of the effective date of this Order....

Attachment E section VII.D, Table E-11

Report	Location of requirement	Due Date
Initial Investigation TRE Work Plan	Section III.C.6 of this MRP	Within 90 days <u>one year</u> of the effective date of this Order

Attachment F section VII.A.3

...Consistent with the requirements of the Ocean Plan, section III.C.6 of the MRP (Attachment E) requires the Discharger to develop an Initial Investigation Toxicity Reduction Evaluation (TRE) Work Plan and submit the Initial Investigation TRE Work Plan within ~~90 days~~ one year of the effective date of this Order....

Action Taken

Modified Attachment E section III.C.6, Attachment E section VII.D, Table E-11, and Attachment F section VII.A.3.

1.21 Comment – Chronic Toxicity, Accelerated Monitoring

Attachment E, section III.C.8.d: Requiring compliance monitoring during any periods of accelerated monitoring is duplicative and unreasonable. The main point of toxicity testing is to determine the source of toxicity and solve the problem, not to impose violations and penalties for not conducting additional routine monitoring samples. These TREs are very expensive, so these costs must be taken into account on top of routine monitoring.

Requested Tentative Order Revision: Remove requirement to continue routine monitoring during any period of accelerated monitoring. Accelerated monitoring should be triggered by exceeding 88 Tuc as required by State Water Board Order Nos. WQO 2003-0012 or 2003-0013, which remain binding precedential orders.

Response

The Tentative Order does not require routine monitoring (quarterly) in addition to/during accelerated monitoring (four toxicity tests conducted at approximately two-week intervals). Rather Attachment E, section III.C.8.d requires routine monitoring while the TRE and/or Toxicity Identification Evaluation (TIE) process is taking place. The TRE and/or TIE process only takes place after any one of the four accelerated monitoring results in “fail”.

The purpose of the accelerated monitoring is to determine if the discharge consistently exceeds the toxicity limitation, not to determine the source of

toxicity. The point of TRE and/or TIE is to determine the source of toxicity and reduce the toxicity.

The District continues to discharge during the accelerated monitoring phase and during the TRE and/or TIE process. Thus, all the effluent monitoring results for chronic toxicity should be used for compliance. If the accelerated monitoring or the routine monitoring conducted during the TRE and/or TIE process results in a “fail”, the discharge is not in compliance with the chronic toxicity effluent limitation and is in violation of the Order. Samples taken for TRE or TIE purposes may be samples of internal process units at the treatment plant and not necessarily of the final effluent. Table 5 of the Tentative Order specifies that the chronic toxicity effluent limitation is at Monitoring Location M-002 and all samples, routine and accelerated, at that location will be evaluated for compliance with the chronic toxicity effluent limitation. Compliance with the effluent limitation for chronic toxicity is not suspended during accelerated monitoring or during the TRE and/or TIE process, as that would allow a discharge of toxic effluent. Additionally, the public has a right to know if the effluent that is being discharged continues to be toxic.

The San Diego Water Board does not agree that the accelerated monitoring trigger should be 88 Tuc as the units for chronic toxicity are “Pass/Fail” when the data is analyzed using the TST method. See response to comments nos. 1.11 through 1.18 regarding the TST method.

Action Taken

None.

1.22 Comment – Chronic Toxicity, Valid Results

Attachment E, section III.C.9.a: The Tentative Order requires reporting of “valid” toxicity test results in section 9.a. However, there is no way to determine if a test is valid since there is at least a 5-14% error rate, and up to 50% for TST in some studies.

Requested Tentative Order Revision: Remove the word “valid” from Attachment E, section III.C.9.a.

Response

Error is inherent in all laboratory analyses, not just toxicity tests. A “valid” toxicity test result is determined by the laboratory. Generally, a valid toxicity test is a toxicity test that follows proper sample collection and analysis protocols, and meets all test acceptability criteria. The term valid is widely used in the laboratory community and laboratory manuals, and is appropriate to use in the Tentative Order.

Action Taken

None.

1.23 Comment – Flow Limitation

Effluent limitations for flow are not required by federal law because flow is not a pollutant, so this should be identified as a performance goal or a State law only provision, or should be deleted as unnecessary. Having a flow limitation and mass are duplicative as mass is just a calculation of concentration times flow. Thus, an inherent flow limitation is included in any mass-based limitation. In addition, including flow as an “effluent limitation” arguably subjects the District to mandatory minimum penalties for exceeding flow cap, which has no water quality impact and should not be penalized. A treatment plant is ultimately constrained by design flows so no flow limitation is needed.

Requested Tentative Order Revision: Delete Table 6 and remove limitation for flow.

Response

The effluent flow limitation is a component of the NPDES permit to ensure the proper operation and maintenance of facilities and systems of treatment and control (including the land outfall). Proper operation includes ensuring wastewater flows stay within the design capacity of the process treatment units, which is prescribed under 40 CFR section 122.41€.

Action Taken

None.

1.24 Comment – Radioactivity

The District requests clarification on specific radioactivity parameters to be monitored and reported (i.e., alpha, beta, gamma, etc).

Requested Tentative Order Revision: Clarify radioactivity requirements.

Response

The radioactivity parameters are alpha and beta particles.

The San Diego Water Board has modified the following section of the Tentative Order:

Section IV.A.2, Table 8

Parameter	Units	Six-Month Median	Average Monthly	Maximum Daily	Instantaneous Maximum
Radioactivity <u>(alpha and beta particles)</u>	Picocuries per Liter (pCi/L)	(note 2)			

Attachment E section III.B.2, Table E-4

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Radioactivity <u>(alpha and beta particles)</u>	picocuries per liter (pCi/L)	24-hr Composite	2/Year ^{4,5}	2

Action Taken

Modified section IV.A.2, Table 8 and Attachment E section III.B.2, Table E-4

1.25 Comment – Biosolids Requirements

Unless being discharged into waters of the United States, these provisions are not required in an NPDES permit and should be covered by the SWRCB’s Biosolids General Order or be in separate WDRs.

All that is needed is what is included in the Fact Sheet [section III.C.7]:
 “Sewage Sludge and Biosolids. This Order does not authorize any act that results in violation of requirements administered by USEPA to implement 40 CFR Part 503, Standards for the Use or Disposal of Sewage Sludge. These standards regulate the final use or disposal of sewage sludge that is generated during the treatment of domestic sewage in a municipal wastewater treatment facility. The Discharger is responsible for meeting all applicable requirements of 40 CFR Part 503 that are under USEPA’s enforcement authority.”

Requested Tentative Order Revision: Remove Biosolids requirements from the permit.

Response

USEPA is required to place biosolids requirements in all NPDES permits which USEPA issues to POTWs. Also, USEPA believes these requirements should be placed in all NPDES permits issued to POTWs to clarify the requirements in 40 CFR Part 503 and impose additional requirements as necessary. Since the District contracts with Denali Solid Solutions for transporting Class B biosolids for land application in Yuma, Arizona and thus are not subject to California’s General Order, USEPA is the enforcement authority for these provisions. USEPA, as the enforcement authority, has requested that the Biosolids requirements remain in the Tentative Order.

Action Taken

None.

1.26 Comment – Biosolids, Adequate Screening

[The Tentative Order, section VI.C.5.c.i.(i), Sludge (Biosolids) Disposal Requirements] proposes the following requirement:

“There shall be adequate screening at the Fallbrook WRP headworks and/or at the biosolids treatment units to ensure that all pieces of metal, plastic, glass, and other inert objects with a diameter greater than $\frac{3}{4}$ inches are removed.”

This section of the Tentative Order improperly prescribes the size of the treatment plants’ bar screens. Such in-plant requirements are not authorized by State law. Water Code section 13360(a) prohibits the Regional Board from specifying the particular manner of compliance and allows dischargers to comply in any lawful manner. Water Code section 13360(a) (no order of a Regional Board shall specify the design, location, type of construction, or particular manner in which compliance may be had with that order); see also *American Iron and Steel Institute v. EPA*, 115 F.3d 979, 996 (D.C. Cir. 1997) (specifically determined that a permitting authority may not go beyond the imposition of effluent limitations to regulating the internal processes of a plant –“the statute does not permit this sort of meddling inside a facility.”). For these reasons, the bar screen specifications must be removed from the Tentative Order.

Requested Tentative Order Revision: Remove screening size requirements as not consistent with State and federal law.

Response

Section 503.5 of 40 CFR allows the permitting authority to impose additional or more stringent standards when necessary to protect public health or the environment. There have been several instances where POTWs did not have adequate screening, resulting in agricultural fields being loaded with pieces of glass, plastic, rags, and aluminum. However, the specifications of an actual diameter may be deleted. This requirement would apply to biosolids that are land applied, and not to those landfilled.

Action Taken

The Tentative Order, section VI.C.5.c.i.(i) has been modified as follows:

If the biosolids are land applied, there ~~There~~ shall be adequate screening at the Fallbrook WRP headworks and/or at the biosolids treatment units to ensure that all pieces of metal, plastic, glass, and other inert objects ~~with a diameter greater than $\frac{3}{4}$ inches~~ are removed.

1.27 Comment – Approved Monitoring Methods

The language in section VII.J.3. of the Tentative Order and Sections I.C. and I.D. of Attachment E of the Tentative Order is contrary to law and would authorize use of underground rules without compliance with federal law or the

Administrative Procedure Act (APA). Any alterations to 40 CFR Part 136 require a federal rulemaking or an approved Alternative Test Procedure under 40 CFR Part 136. The Regional Board has no ability to unilaterally modify 40 CFR Part 136 methods, which have undergone notice and comment rulemaking as required by the federal APA. Thus, this language must be modified to reflect legal options.

Modify section VII.J.3 of the Tentative Order as follows: Sample dilutions for fecal coliform bacterial analyses should be performed so the range of values extends from 2 to 16,000 CFU. Sample dilutions for enterococci bacterial analyses shall range from 1 to 10,000 CFU per 100 mL. The detection methods used for each analysis shall be reported with the results of the analysis. Detection methods used for fecal coliform shall be those listed in 40 CFR Part 136 or any ~~improved method determined by the San Diego Water Board (and an Alternative Test Procedure (ATP) approved by USEPA) to be appropriate.~~ Detection methods used for enterococci shall be those presented in USEPA publication USEPA 600/4-85/076, *Test Methods for Escherichia coli and Enterococci in Water by Membrane Filter Procedure*, listed under 40 CFR Part 136, and any other method approved by the San Diego Water Board.

Modify section I.C. of Attachment E as follows: Monitoring must be conducted according to U.S. Environmental Protection Agency (USEPA) test procedures approved at 40 CFR Part 136, *Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the CWA* as amended, or unless other test procedures are specified in ~~an Alternative Test Procedure (ATP) this Order and attachments thereof or otherwise~~ approved by USEPA and authorized by the San Diego Water Board.

Modify section I.D. of Attachment E as follows: Data produced, and reports submitted pursuant to this Order shall be generated by a laboratory accredited by the State of California Environmental Laboratory Accreditation Program (ELAP). The laboratory must hold a valid certificate of accreditation for the analytical test method specified in 40 CFR Part 136 or equivalent analytical test methods validated for intended use and approved by ~~the San Diego Water Board~~ an ATP. The laboratory must include quality assurance/quality control data in all data reports required by this Order and submit electronic data as required by the San Diego Water Board. Data generated using field tests is exempt pursuant to Water Code section 13176. Additional information on ELAP can be accessed at: http://www.waterboards.ca.gov/drinking_water/certlic/labs/index.shtml.

Response

The San Diego Water Board does not have the authority to approve methods for parameters that have a method defined at 40 CFR Part 136. However, the

San Diego Water Board has the authority to prescribe methods for parameters that do not have a method defined at 40 CFR Part 136.

Based on these considerations, the San Diego Water Board has modified the following sections of the Tentative Order:

Section VII.J.3

Sample dilutions for fecal coliform bacterial analyses should be performed so the range of values extends from 2 to 16,000 CFU. Sample dilutions for enterococci bacterial analyses shall range from 1 to 10,000 CFU per 100 mL. The detection methods used for each analysis shall be reported with the results of the analysis. Detection methods used for fecal coliform shall be those listed in 40 CFR part 136 or ~~any improved method determined by the San Diego Water Board (and an Alternative Test Procedure approved by USEPA) to be appropriate.~~ Detection methods used for enterococci shall be those presented in USEPA publication USEPA 600/4-85/076, *Test Methods for Escherichia coli and Enterococci in Water by Membrane Filter Procedure*, listed under 40 CFR part 136, and any other method approved by the San Diego Water Board.

Attachment E section I.C

Monitoring must be conducted according to U.S. Environmental Protection Agency (USEPA) test procedures approved at 40 CFR part 136, *Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the CWA* as amended, or an alternative test procedure (ATP) approved by USEPA, or by the San Diego Water Board when there are no methods specified for a pollutant at 40 CFR part 136 unless other test procedures are specified in this Order and attachments thereof or otherwise approved by USEPA and authorized by the by the San Diego Water Board.

Attachment E section I.D

Data produced and reports submitted pursuant to this Order shall be generated by a laboratory accredited by the State of California Environmental Laboratory Accreditation Program (ELAP). The laboratory must hold a valid certificate of accreditation for the analytical test method specified in 40 CFR Part 136, an ATP approved by USEPA, or by the San Diego Water Board when there are no methods specified for a pollutant at 40 CFR part 136 or equivalent analytical test methods validated for intended use and approved by the San Diego Water Board....

Action Taken

Modified section VII.J.3, Attachment E sections I.C and I.D

1.28 Comment – Definition for Composite Samples, Attachment A

The current definition requires flow proportional composites. The District commented on the draft permit that a time proportional composite sample or grab sample should be acceptable if a flow proportional sample is not available, but this change was not made. Instead, the phrase “Unless otherwise authorized by the San Diego Water Board,” was inserted. Because the District is not certain that the Regional Board will authorize these other options, the District prefers that the Tentative Order be modified to expressly authorize these alternatives.

The cost of a new composite sampler that would be required for the new discharge from the Santa Margarita Groundwater Treatment Plant would cost \$11,000.

Requested Tentative Order Revision: Specifically allow time proportional composite sample or grab sample if flow proportional samples are not available.

Response

The San Diego Water Board does not agree with specifying grab or time proportional composite sample within the definition of Flow Proportional Composite in the Tentative Order. The comment does not explain the reasons why flow proportional sampling would not be available and does not explain the benefit to water quality from conducting time proportional or grab samples instead. Flow proportional composite samples are more representative of the discharge than either grab or time-proportional composite samples because a flow proportional composite sample will capture the inherent variability in the flowrate and concentration of pollutants that are expected in a wastewater treatment plant’s daily wastewater discharge. The San Diego Water Board typically only allows grab samples for parameters with short holding times. The San Diego Water Board included “Unless otherwise authorized by the San Diego Water Board” to allow appropriate flexibility if the San Diego Water Board determines that flow proportional composite samples are not feasible.

Action Taken

None.

1.29 Comment – Definition for Discharge, Attachment A

The definition of “Discharge” used in the Tentative Order is inconsistent with the federal definition and should be identified as inconsistent or as a State definition.

Requested Tentative Order Revision: Make Discharge definition consistent with the Clean Water Act.

Response

The definition of Discharge has been modified to be consistent with the definition in 40 CFR section 122.2.

The definition will be modified as follows:

Discharge of a Pollutant

Discharge of a pollutant means: (a) Any addition of any “pollutant” or combination of pollutants to “waters of the United States” from any “point source,” or (b) Any addition of any pollutant or combination of pollutants to the waters of the “contiguous zone” or the ocean from any point source other than a vessel or other floating craft which is being used as a means of transportation. This definition includes additions of pollutants into waters of the United States from: surface runoff which is collected or channeled by man; discharges through pipes, sewers, or other conveyances owned by a State, municipality, or other person which do not lead to a treatment works; and discharges through pipes, sewers, or other conveyances, leading into privately owned treatment works. This term does not include an addition of pollutants by any “indirect discharger.” “Discharge” when used without qualification means the “discharge of a pollutant.” (40 CFR section 122.2)

Action Taken

The definition of Discharge has been modified.

1.30 Comment – Compliance Schedule

Although [Attachment D, section V.D] discusses requirements for compliance schedules for new effluent limitations, the Tentative Order failed to include any compliance schedules for any new limitations.

Requested Tentative Order Revision: Add compliance schedules for new effluent limitations.

Response

Attachment D contains standard provisions common to all NPDES permits and commonly restates existing federal regulations. If the District is concerned about meeting the new effluent limitations for chronic toxicity, heptachlor, heptachlor epoxide, or the effluent limitations based on reasonable treatment and waste control technology for the proposed Santa Margarita Groundwater Treatment Plant, the District has the option to formally propose a compliance schedule. The San Diego Water Board will review the proposed compliance schedule and, if appropriate, include the schedule in section VI.C.7 of the Tentative Order or in a separate Time Schedule Order.

Action Taken

None.

1.31 Comment – Sample Type, Table E-5

Changing from 24-hour composite to grab samples [for the Santa Margarita Groundwater Treatment Plant] will help the District to save costs by not needing to purchase and maintain another composite sampler; the average cost of a new composite sampler is \$11,000. In addition, the District only has one laboratory staff member and with the four monitoring locations, this change will alleviate the sampling burden by having two sample types at this location be grab. Since there is no RP for either of the constituents for which composite samples are required, there should be no water quality reason for this requirement.

Requested Tentative Order Revision: Revise 24-hour composite sample requirements in Table E-5 to grab samples.

Response

The San Diego Water Board does not agree with specifying grab or time proportional composite sample for total suspended solids or turbidity. Flow proportional composite samples are more representative of the discharge than either grab or time proportional composite samples. The San Diego Water Board typically only allows grab samples for parameters with short holding times. However, footnote no. 2 to Table E-5 allows for a grab if a 24-hour composite is not possible (e.g., a 24-hr composite would not yield sufficient volume to perform analytical testing). See response to comment no. 1.28

Action Taken

None.

1.32 Comment – Omitting Sample from a Monitoring Station(S)

The draft permit contained the following paragraph on which the District provided comments:

“Sample Station Omission Due to ~~Storm~~ Unsafe Conditions. In the event of stormy weather or high surf, which makes sampling hazardous at certain shoreline stations, collection of samples at such stations may be omitted, provided that such omissions do not occur more than five days in any calendar year or occur at consecutive sampling times, or provided that a written request from the Discharger is approved by the San Diego Water Board in writing. The visual observations listed in footnote no. 2 to Table E-6 above shall still be recorded and reported in the monthly SMR to the San Diego Water Board for these stations at the time of the sample collection. If practicable, an effort should be made to return to the sampling station that was omitted and collect the sample during calmer conditions within the same reporting period.”

Instead of making the requested changes, this paragraph was removed from the permit, requiring people to be sent out to monitor in unsafe conditions and potentially in violation of CAL-OSHA requirements. This section should be reinserted.

Requested Tentative Order Revision: Reinsert paragraph 2 into section A with the District's requested edits.

Response

The deleted language is duplicative of the following language, which is contained in the Tentative Order, Attachment E, section IV, and covers a broader range of reasons to omit a monitoring event:

“In the event that the Discharger is unable to obtain a sample from a monitoring station(s) due to safety, legal, or other reasons, collection of samples at such station(s) can be omitted. The visual observations listed in footnote no. 1 to Table E-6 below shall still be recorded and reported in the monthly SMR to the San Diego Water Board for these stations at the time of the sample collection. If practicable, an effort should be made to return to the sampling station that was omitted and collect the sample during safer conditions within the same reporting period. In the event that a monitoring location is omitted, the Discharger shall submit a statement to the San Diego Water Board containing, at a minimum, the following information:

- The monitoring station(s) that was omitted;
- The date the monitoring station was omitted; and
- A description of the circumstances for omitting the collection of data at the monitoring station.”

Action Taken

None.

1.33 Comment – Human Marker HF-183 Monitoring Requirements

This section was not included in the draft permit, so the District did not provide any comments. The stated reason for this new monitoring requirement is: “Human Marker HF-183 monitoring is required to confirm the presence of human fecal material when the single sample maximum receiving water limitation for fecal coliform is exceeded.” However, the likelihood of the District's effluent being a cause of an exceedance of any receiving water limitation for fecal coliform is little to none since the District's effluent is disinfected with chlorine to reduce bacteriological concentrations. The more likely causes of any exceedance in the ocean would be from stormwater, boats, or recreational uses. Testing domestic wastewater for human marker is unnecessary as human fecal matter was known to be part of the effluent even without testing. Plus, this monitoring fails to identify any source of the fecal coliform exceedance, which may not have been caused by humans.

Additionally, this monitoring is not based on any promulgated method and cannot be guaranteed to be valid or accurate. Since this testing is likely expensive, provides no new information, and because of the challenges and problems with using Human Markers, the burden of this monitoring, including costs, are unreasonable and do not bear a reasonable relationship to the need for or benefits obtained from this additional data. Water Code section 13267(b), section 13225(c), and section 13000.

Requested Tentative Order Revision: Remove Human Marker monitoring from the Tentative Order.

Response

Monitoring for HF-183 when a fecal coliform exceedance occurs will provide a valuable line of evidence for determining the potential sources of receiving water bacteria exceedances. While testing for the human marker will not solely identify the source of the exceedance, it can rule out the OOO as a source if the human marker HF-183 is not detected. If the human marker is consistently detected when there are fecal coliform exceedances, it suggests that the source of the exceedances may be due to the OOO as there are limited sources of the human marker in the vicinity of the OOO, and warrants further investigation into the causes of receiving water bacteria exceedances.

Exceedances of the receiving water limitation for fecal indicator bacteria (FIB) occur more frequently at monitoring locations near the OOO than at the reference monitoring locations located one mile north and south of the OOO, with 65 exceedances occurring near the outfall and only 6 exceedances occurring at the reference monitoring locations. If the exceedances were due to boats or recreational use, the reference station should be expected to experience the same proportion of FIB receiving water limitation exceedances. The San Diego Water Board does not agree that these exceedances are due to storm water since the surf zone FIB results seldomly exceeded the receiving water limitations when the offshore monitoring locations exceeded the FIB receiving water limitations. Furthermore, the nearshore monitoring locations have never exceeded FIB receiving water limitations. If the exceedances at the offshore stations were due to storm water, the nearshore monitoring locations would be expected to also exceed receiving water limitations for FIB.

The District asserts that: "Testing domestic wastewater for human marker is unnecessary as human fecal matter was known to be part of the effluent even without testing." However, the Tentative Order does not require human marker HF-138 to be monitored in the effluent, only the receiving water offshore monitoring locations.

For the reasons noted above, the San Diego Water Board believes the cost of HF-163 monitoring is reasonable. The information obtained will provide a line of evidence for identifying potential sources of FIB receiving water limitation

exceedances that occur more frequently around the OOO than at the offshore reference stations. However, to reduce monitoring costs further, the San Diego Water Board agrees to remove the requirement to monitor for HF-183 at the nearshore monitoring locations as there have been no FIB exceedances at the nearshore monitoring locations during the Current Order term. See comment 1.2 for applicable changes to the Tentative Order.

The San Diego Water Board has also added additional clarifying language to the Fact Sheet and has modified the following section of the Tentative Order:

Attachment F section VII.B.2.d

Results for the Human Marker HF-183 is used for informational purposes only, there is no receiving water limitation for the Human Marker HF-183. This requirement was included ~~because of due to~~ the ~~65 large number of~~ exceedances of bacteria receiving water limitations ~~at the offshore monitoring locations located near the OOO (i.e., monitoring locations A1-A5).~~

Action Taken

Modified Attachment E section IV.B.1, Table E-7, Footnote 5 (see comment 1.2); Attachment E section IV.B.2.a (see comment 1.2); and Attachment F section VII.B.2.d.

1.34 Comment – Regional Monitoring Requirements

The Tentative Order requires the District to “as directed by the San Diego Water Board, participate with other regulated entities, other interested parties, and the San Diego Water Board in development and implementation of new and improved monitoring and assessment programs for ocean waters in the San Diego Region and discharges to those waters.” The District commented that a maximum budget must be specified as this could consume all the District’s funds if not limited and would leave no funding for capital projects or operation and maintenance (O&M). Mandating a blank check is not reasonable or feasible. Much of what is required has no nexus to the discharges and the possible impacts. The Tentative Order must be revised to limit the annual contribution for monitoring.

Requested Tentative Order Revision: Revise Regional Monitoring Requirements to specify a limit on the amount of funding required to be compliant after considering the District’s size and budget.

Response

The San Diego Water Board does not agree with setting a maximum budget for participating in a regional monitoring program. The San Diego Water Board does not dictate the District’s level of participation in regional monitoring programs. As stated in Attachment E section V.B of the Tentative Order, a portion of the District’s receiving water sampling and analytical effort

may be reallocated to provide a regional assessment of the impacts of the discharge to the Southern California Bight. The District determines the level of participation in regional monitoring programs and can request reductions to the District's receiving water monitoring requirements to reallocate funds for the regional monitoring program.

Action Taken

None.

1.35 Comment – Climate Change Action Plan

No authority has been provided for this new requirement that does not belong in an NPDES permit and would be more logical to be included in a 13267 order. If maintained over objection, the permit must provide the authority for this provision as well as a 13267 analysis.

Requested Tentative Order Revision: Remove Climate Change Action Plan requirements.

Response

The California Public Resources Code (Public Resources Code) recognizes that anthropogenic greenhouse gas emissions responsible for climate change are also driving major shifts in the chemical properties of the world's oceans (Public Resources Code section 35630©). Furthermore, Governor Newsom's Executive Order N-10-1920 directs state agencies to prepare a water resiliency portfolio that meets the needs of California's communities, economy, and environment. The State Water Board's Resolution No. 2017-0012, Comprehensive Response to Climate Change, and the San Diego Water Board's Resolution No. R9-2018-0051, Addressing Threats to Beneficial Uses from Climate Change, also require a proactive approach to climate change in all state and regional actions.

Action Taken

The Tentative Order Fact Sheet has been modified in Attachment F, section VII.D.1, Climate Action to include the response above as follows:

..... The changes to the water temperature and pH may affect how the receiving waters reacts to the discharges.

The California Public Resources Code (Public Resources Code) recognizes that anthropogenic greenhouse gas emissions responsible for climate change are also driving major shifts in the chemical properties of the world's oceans (Public Resources Code section 35630©). Furthermore, Governor Newsom's Executive Order N-10-1920 directs state agencies to prepare a water resiliency portfolio that meets the needs of California's communities, economy, and environment. The State Water Board's Resolution No. 2017-0012, Comprehensive Response to Climate Change, and the San Diego Water Board's Resolution No. R9-2018-0051, Addressing Threats to

Beneficial Uses from Climate Change, also require a proactive approach to climate change in all state and regional actions.

Based on all of these considerations, this This Order requires the Discharger to prepare and submit a Climate Change Action Plan (CCAP) within three years of the effective date of this Order.

1.36 Comment – Plume Tracking Monitoring Program

The District received a quote from SCRIPPS to carry out the plume monitoring for three years for the three agencies using autonomous vehicles. The quote was for almost \$1 million, which breaks down to \$83,000/year per discharger if split evenly.

It is not exactly clear how plume monitoring will be protective of the environment. The trend is that water agencies are discharging less and less into the Pacific Ocean as reuse applications are becoming more prominent, thus impacts are reduced over historic levels and treatment levels have increased. All treated wastewater discharges to the Pacific Ocean are treated to accepted and tested EPA Secondary and Tertiary standards. It is also clearly understood by most in the region that stormwater and recreational uses of the beaches and ocean (swimming, boating) are the major concern when it comes to ocean pollution.

This is a very difficult imposition for local dischargers, especially smaller special districts, without as many resources or the economy of scale to continue adding monitoring requirements without any real consideration of the burden, including cost, as required by the Water Code.

Requested Tentative Order Revision: Remove Plume Tracking Monitoring Program requirements.

Response

The San Diego Water Board does not agree with removing the plume tracking monitoring requirements.

As noted in the response to comment no. 1.2, The San Diego Water Board is unclear where the District's plume tracking costs are derived. The quote provided by Scripps Institute of Oceanography (SIO), University of California, San Diego was around \$100,000 per AUV deployment. Agencies from other ocean outfalls in the San Diego Region are tentatively proposing two AUV deployments, with a possibility of a third deployment depending on the results of the first two deployments. Assuming three AUV deployments, the total cost would be around \$300,000, significantly less than the cost stated by the District.

Plume tracking will assist in developing monitoring locations that are data driven and effective for evaluating impacts of the discharge. The monitoring grids in the Current Order were laid out decades ago without scientific

backing and may be too sparse and not designed to sufficiently describe the extent of the plume. The San Diego Water Board needs to know the extent as well as magnitude of impact from the plume to potentially revise the monitoring grid, determine rates of improvement (or degradation) in ocean waters, determine potential cumulative impacts from multiple sources that commingle, and establish cause/effect mechanisms for identifying sources of problems. Plume tracking will help the San Diego Water Board in accomplishing these assessments.

The OOO is designed to quickly mix and diffuse the wastewater discharge with the ocean receiving waters. The District conducts receiving water quality monitoring in part to assess if the plume has been sufficiently mixed to maintain protection of the ecosystem in receiving waters. One of the primary water quality management questions is to assess if the Ocean Plan's water quality objectives are being met outside of the zone of initial dilution and that the ecosystem is being protected. Plume location and extent is an important consideration in locating monitoring stations to determine compliance with Ocean Plan water quality objectives.

Plume direction and mixing also have an effect on sediment loading, as the direction of the plume affects where particles will settle and accumulate. Years of accumulations may affect sediments in locations where the plume direction is most consistent. These considerations should factor into developing monitoring locations for sediment monitoring. Plume tracking will assist with this assessment.

The movement of the plume under certain oceanographic conditions towards shorelines with water contact recreational activities is a public health protection consideration. The public expects the San Diego Water Board to answer questions about where the plume goes which is difficult to answer with the current receiving water monitoring program. Furthermore, the current assumption is that the plume is trapped below the thermocline and would not reach the ocean surface. However, FIB receiving water exceedances at the surface at offshore monitoring locations suggests the plume from the OOO may extend to the ocean surface, rather than being trapped below the thermocline. If the wastewater plume can surface, the plume would be transported by stronger surface currents, which are driven by wind and could cause the plume to move towards the shore during certain conditions. Plume tracking will help the San Diego Water Board determine the trajectory of the plume thereby ensuring the protection of public health.

Lastly, the plume tracking requirement is consistent with recommendations from the *Model Monitoring for Small Publicly-owned Treatment Works in the San Diego Region, Southern California Coastal Water Research Project, Technical Report 518 – February 2007*, which suggests promoting the use of new technologies, including the use of AUVs, to improve monitoring of plume location. Plume tracking is also consistent with the direction of the San Diego

Water Board to use modern monitoring techniques and develop waterbody-oriented monitoring programs.

Action Taken

None.

1.37 Comment – Stringency of Requirements for Individual Pollutants

Attachment F, section IV.D.3 “Stringency of Requirements for Individual Pollutants” alleges that “This Order’s restrictions on individual pollutants are not more stringent than required to implement the requirements of the CWA.”

The District disagrees with the findings in this section because a number of the Tentative Order’s requirements are more stringent than CWA technology-based and water quality-based requirements. For example, the Tentative Order contains numeric effluent limitations, daily limitations, and mass-based limitations, which are not required by federal law. The permit contains mass emission effluent limitations based on a permitted average dry weather flow of 2.7 MGD, instead of the current design flow of 3.6 MGD (maximum wet weather flow), contrary to federal rules. The Tentative Order also contains technology-based effluent limitations more stringent than federal requirements. The effluent limitations are based on Table 4 in the Ocean Plan, which includes limitations for oil and grease, settleable solids, and turbidity. Limitations for these three parameters are not included in the federal secondary treatment standards, and thus are more stringent than required by federal law.

See e.g., 40 CFR section 122.44(d) and (k)(3) and sections 122.45(d)(2) and (f)(I); see also *Communities for a Better Environment v. State Water Resources Control Board* (2003) 109 Cal.App.4th 1089, reh’g. Den., 2003 Cal.App. LEXIS 1082 (1st. Dist. June 27, 2003), cert. den., 2003 Cal. LEXIS 7251 (Sept. 24, 2003).

40 CFR section 133.102. These regulations describe the minimum level of effluent quality attainable by secondary treatment in terms of the parameters—biological oxygen demand, suspended solids, and pH.

In April 2005, the California Supreme Court made an important ruling with regard to whether a regional board is required to take the reasonableness factors contained in Water Code section 13241 into account when issuing effluent limitations. The Court ruled that, when a regional board proposes pollutant restrictions in a wastewater discharge permit more stringent than federal law requires, California law requires the regional board to take into account the factors set forth in Water Code section 13263, including the incorporated factors in section 13241 and economic factors (i.e., the wastewater discharger’s cost of compliance). See *City of Burbank v. State Water Resources Control Board*, 35 Cal.4th 613, 628 (April 4, 2005).

Consequently, since the Tentative Order contains effluent limitations that are more stringent than federal law, the Regional Board is required to conduct an analysis of these limitations under Water Code section 13263, including the factors contained in section 13241. In addition, the Regional Board must revise the Tentative Order's Findings and Fact Sheet to reflect that the permit contains restrictions that are more stringent than required by the federal CWA, and to include the results of the Regional Board's analysis related to Water Code Sections 13263 and 13241.

Requested Tentative Order Revisions:

- 1) Conduct an analysis of effluent limitations that are more stringent than required by federal law, per Water Code section 13263, including the factors contained in section 13241.
- 2) Revise permit to reflect that the permit contains restrictions that are more stringent than required by the federal CWA, and to include the Water Code Sections 13263 and 13241 analysis.

Response

Please see responses to comment nos. 1.9 and 1.12. Effluent limitations are imposed pursuant to federal law and therefore do not require a Water Code section 13241 analysis which is required for water quality objectives and not effluent limitations. Technology-based effluent limitations are imposed on POTWs in accordance with 40 CFR section 133.102 and to protect water quality standards as required by federal law. To the extent approved by USEPA, the Ocean Plan and Basin Plan are consistent with the requirements of section 303© of the Clean Water Act and 40 CFR Part 131 and not more stringent than required by federal law. The effluent limitations found in Table 4 of the Ocean Plan are thus not more stringent than required by federal law.

Action Taken

None.

1.38 Comment – General

The Regional Board Imposed Unreasonable Requirements in Violation of Water Code section 13000.

The California Legislature has found and declared that activities affecting water quality "shall be regulated to attain the highest water quality which is reasonable, considering all demands being made and to be made on those waters and the total values involved, beneficial and detrimental, economic and social, tangible and intangible." See Water Code section 13000. This section sets State policy and imposes an overriding requirement on the Regional Boards that all effluent limitations be reasonable considering all circumstances. For reasons set forth above, the requirements contained in the permit as discussed above are not reasonable, considering all of the related circumstances. Therefore, the chronic toxicity limitations and related

implementation provisions contained in the permit violate Water Code section 13000.

The Regional Board imposed numerous requirements that the District objects to as being unreasonable, yet were not modified, including, but not limited to, excessive and expensive monitoring. For example, there is kelp monitoring required when the permit at page F-18 says “There are no kelp beds within the zone of initial dilution of the OOO.” To assess the reasonableness of these requirements, the Tentative Order must include a 13267(b) analysis of the cost and reasonableness of the monitoring being requested. This Tentative Order includes more monitoring more than other ocean dischargers are required to do, which raises issues of unequal regulation and fundamental fairness.

Requested Tentative Order Revision: Remove unreasonable and unnecessary requirements from the Tentative Order.

Response

See response to comment 1.2. The San Diego Water Board is unclear what the District means by “13267(b) analysis.” Water Code section 13267(b) makes no mention of an “analysis,” and only requires the San Diego Water Board to provide a written explanation regarding the need for the reports. The Fact Sheet provides the required explanation regarding the need for the reports and support for the monitoring requirements.

Action Taken

None.

1.39 Comment – Location of brine waste discharge

The exact RO concentrate discharge location has not yet been determined and is currently being re-evaluated as a result of the information in the draft permit. The District will discharge the RO concentrate downstream of the Chlorine Contact Tank. The final location will likely be at the Effluent Junction Box or further downstream.

Response

Comment Noted.

Action Taken

None.

2. Southern California Alliance of Publicly Owned Treatment Works (SCAP)

2.1 Comment – The District’s comments

SCAP supports the comments provided by the Fallbrook Public Utilities District and wishes to incorporate Fallbrook Public Utilities District’s comments by reference.

Response

Please see the responses included in section 1 of this document.

Action Taken

Please see the actions taken included in section 1 of this document.

2.2 Comment – Chronic Toxicity RPA and TST/Pass/Fail

The Tentative Order contradicts the clear terms of the Ocean Plan and Federal regulations related to chronic toxicity testing and limitations and places inappropriate restrictions on the ability of the District to conduct scientifically defensible concentration-response relationship evaluations as mandated by the promulgated methods. See USEPA, Regulations, 67 Fed. Reg. 69955 (2002)(“these methods, including the modifications in today’s rule, are applicable for use in NPDES permits.”).

The Tentative Order contradicts the terms of other permits in California where reasonable potential for chronic toxicity was not found for publicly owned treatment works that receive dilution credit and have not exceeded the previous limitation or performance goal.

Response

Please see the Response to Comment Nos. 1.11 through 1.18 above.

Action Taken

Please see the Action Taken to Comment Nos. 1.11 through 1.18 above.

2.3 Comment – Cost of Monitoring Requirements

Public agencies, especially smaller special districts, do not have unlimited resources to pay for extraordinary levels of monitoring not directly related to compliance as requested in the Tentative Order. Monitoring requirements should be designed to determine compliance with the requirements of the permit, not to answer every question about the environmental health of the Pacific Ocean, many of which may be unrelated to the District’s discharge. Additionally, the monitoring requirements must meet the Water Code’s requirements to be reasonable, and have benefits rationally related to the costs. Water Code sections 13000, 13267. The current requirements met neither of these criteria.

Response

Please see the Response to Comment 1.2 above.

Action Taken

Please see the Action Taken to Comment 1.2 above.

2.4 Comment - State-only Requirements

Many of the Tentative Order's provisions are duplicative or are not necessary. Inclusion of such provisions puts public agencies at risk of being in violation, and being civilly and even criminally liable for provisions not required by federal law. Where provisions are based on state law only requirements, those should be included in a state only permit (WDR), or should be clearly specified as required under State law and then must comply with all state law requirements.

These concerns are real as public agencies receive threats or actual citizen suits over requirements contained in permits and effluent limitations not required to be included in the permits. If the permit did not contain unnecessary prohibitions or effluent limitations, then a challenge to an agency's permit compliance would not be as viable.

Response

Please see the Response to Comment 1.3 above.

Action Taken

Please see the Action Taken to Comment 1.3 above.