STATE OF CALIFORNIA

STATE WATER RESOURCES CONTROL BOARD

ORDER WQ 2021-0005

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In the Matter of the Petitions of

**THE CITY OF OCEANSIDE, FALLBROOK PUBLIC UTILITIES DISTRICT AND THE SOUTHERN CALIFORNIA ALLIANCE OF PUBLICLY OWNED TREATMENT WORKS**

For Review of
Waste Discharge Requirements Order Nos. R9-2019-0166 [NPDES No. CA0107433] and R9-2019-0169 [NPDES No. CA0108031]

Issued by the
California Regional Water Quality Control Board, San Diego Region

**SWRCB/OCC FILES A-2688 & A-2689**

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BY THE BOARD:

In this order, the State Water Resources Control Board (State Water Board) reviews Waste Discharge Requirements that serve as National Pollutant Discharge Elimination System (NPDES) permits issued by the California Regional Water Quality Control, San Diego Region (San Diego Water Board) to the City of Oceanside (Oceanside) and the Fallbrook Public Utility District (Fallbrook). Both permits authorize treated wastewater discharges to the Pacific Ocean from publicly owned treatment works (POTWs) through a common outfall. Oceanside and Fallbrook sought State Water Board review of several of the provisions of the permits. For the reasons discussed below, we uphold some of the challenged permit provisions and remand both permits to the San Diego Water Board for reconsideration and revision consistent with this order.

## I. BACKGROUND

On February 12, 2020, the San Diego Water Board adopted Order No. R9-2019-0166 (NPDES Permit No. CA0107433), Waste Discharge Requirements for the City of Oceanside[1] and Order No. R9-2019-0169 (NPDES Permit No. CA0108031), Waste Discharge Requirements for the Fallbrook Public Utility District[2] (collectively, Permits). Both reissued Permits authorize discharge of secondary- and tertiary-treated effluent to the Pacific Ocean via the Oceanside Ocean Outfall, which is owned and operated by Oceanside. Facilities discharging treated effluent to the Oceanside Ocean Outfall in addition to Oceanside and Fallbrook include the Marine Corps Base - Camp Pendleton, and Genentech, Inc.[3] Oceanside, Fallbrook and the Southern California Alliance of Publicly Owned Treatment Works (SCAP)[4] (collectively, Petitioners) filed timely petitions with the State Water Board seeking review of several provisions in the Permits, including effluent limitations and monitoring for chronic toxicity and special studies and sampling requirements for bacteria, as well as other monitoring and reporting and work plan

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[1] Order No. R9-2019-0166, NPDES No. CA0107433, Waste Discharge Requirements for the City of Oceanside San Luis Rey Water Reclamation Facility, La Salina Wastewater Treatment Plant, and Mission Basin Groundwater Purification Facility Discharge to the Pacific Ocean through the Oceanside Ocean Outfall.

[2] 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 Plant Discharge to the Pacific Ocean through the Oceanside Ocean Outfall.

[3] The San Diego Water Board indicates that Oceanside has separate contracts for the discharge of treated wastewater through Oceanside Ocean Outfall with Fallbrook, the Marine Corps Base and Genentech, Inc. Discharges from each facility are regulated by separate individual NPDES permits. The Marine Corps Base permit authorizes discharge from a wastewater treatment plant, while Genentech discharges only brine waste.

[4] SCAP joined with Fallbrook in seeking review of Order No. R9-2019-0169. Therefore, all references to contentions raised by Fallbrook include those raised by SCAP.

requirements.[5] Because the petitions are legally and factually related, they have been consolidated for review.[6]

## II. ISSUES AND FINDINGS

The Petitioners raise a number of objections to provisions set forth in the Permits. This order addresses the most significant contentions. To the extent that Petitioners raised issues that are not discussed in this order, such issues are dismissed as not raising substantial issues appropriate for State Water Board review.[7]

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[5] Oceanside and Fallbrook each requested a stay of the contested Permit provisions pursuant to Water Code section 13321 and Cal. Code Regs., tit. 23, section 2053. The State Water Board denied these requests by letter of Hearing Officer Tam Doduc, State Water Board Member, on June 5, 2020. (Letter from Tam Doduc to Lori Rigby, City of Oceanside, June 5, 2020; Letter from Tam Doduc to Owni Toma, Fallbrook Public Utility District, and Stephen Jepsen, SCAP, June 5, 2020.) Following expiration of a tolling agreement, the Petitioners submitted an ex parte application for stay pursuant to Code of Civil Procedure section 1094.5 and Water Code section 13321 on September 23, 2020. The Superior Court of the State of California, County of San Diego, issued an order dated October 5, 2020, staying specified Permit provisions pending final resolution of the consolidated petitions for review currently before the State Water Board. (Order Granting *Ex Parte* Application for Stay, Case No. 37-2020-00033562-CU-WM-CTL, October 5, 2020.) The record for these petitions on the merits does not include the evidence that the Petitioners submitted to the State Water Board or the Superior Court in support of the requested stays.

[6] Cal. Code Regs., tit. 23, § 2054. The Marine Corps Base - Camp Pendleton and Genentech, Inc. also filed petitions for State Water Board review of their NPDES permits. Their petitions were dismissed by operation of law in accordance with California Code of Regulations, title 23, section 2050.5, subdivision (e). Due to the similarity of issues and joint obligations shared by the four permittees, we hereby review the NPDES permits issued by the San Diego Water Board to the Marine Corps Base – Camp Pendleton and Genentech, Inc. on our own motion in accordance with Water Code section 13320, subdivision (a), and direct the San Diego Water Board to reconsider these NPDES permits and make any appropriate revisions consistent with this order.

[7] *People v. Barry* (1987) 194 Cal.App.3d 158, 175-177; *Johnson v. State Water Resources Control Bd.* (2004) 123 Cal.App.4th 1107, 1114; Cal. Code Regs., tit. 23, § 2052, subd. (a)(1).

A. **Chronic Toxicity**

The San Diego Water Board adopted the two reissued Permits with new requirements for addressing potential chronic aquatic toxicity impacts from the discharges. Oceanside's Permit contains a new effluent limitation for chronic toxicity, where the prior permit had included only an unenforceable performance goal. Fallbrook's Permit includes a performance goal for chronic toxicity. For both Permits, the San Diego Water Board, for the first time, directed that the Petitioners use the Test of Significant Toxicity (TST) statistical approach described in the United States Environmental Protection Agency (U.S. EPA) guidance document titled National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document (EPA 833-R-10-003, 2010) in order to determine compliance with chronic toxicity provisions. Petitioners object to the use of the TST in the Permits as being contrary to requirements of the Water Quality Control Plan for Ocean Waters of California (Ocean Plan) and otherwise improper.

**1. Use of the TST**

Aquatic toxicity occurs when the effects of pollutants in surface water negatively impact aquatic life beneficial uses. When the effects originate from the cumulation of toxicity in treated wastewater effluent discharge and are not directly linked to one or more specified toxic pollutants, these effects are typically referred to as "whole effluent toxicity" (WET). Toxicity tests of the effluent are used to estimate the effects of effluent discharges to surface waters on the aquatic species in the receiving water. The toxicity tests are conducted in a laboratory following prescribed test methods that expose test species to effluent samples and to non-toxic control water, and evaluate the effluent's effects on the test species as compared to the control water's effects on the test species. The effects are evaluated by analyzing the biological endpoints of the test species prescribed by the test methods. Common biological endpoints in aquatic toxicity tests are

test species' survival, reproduction, and growth. Specific test species have different biological endpoints depending on the aquatic toxicity test method used.[8]

The TST is a statistical approach that can be used to determine if there is a statistically significant adverse effect on the test species' biological endpoints from the effluent as compared to the control water. The TST is not, as Petitioners assert, part of the aquatic toxicity test method itself.[9] The TST statistical approach identifies significant instances of toxicity with greater confidence than other statistical approaches.[10]

We recently determined in a rulemaking that the TST statistical approach should be used to determine compliance with chronic toxicity water quality objectives and effluent limitations in non-stormwater NPDES permits for discharges to inland surface waters and enclosed bays and estuaries. That December 1, 2020 rulemaking, once approved by the Office of Administrative law pursuant to Government Code section 11353, will establish the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California (ISWEBE Plan). The rulemaking includes new detailed Toxicity Provisions to protect aquatic life beneficial uses in all inland surface waters, enclosed bays, estuaries, and coastal lagoons of the state from the effects of toxicity. The Toxicity Provisions identify the TST as the appropriate statistical approach for analyzing chronic toxicity.[11]

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[8] Final Staff Report, Including Substitute Environmental Documentation for the Proposed Establishment of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California; and Toxicity Provisions (Toxicity Provisions Staff Report), December 1, 2020, p. 15.

[9] Aquatic toxicity test methods are laboratory procedures that measure biological effects on aquatic organisms exposed to environmental samples. Aquatic toxicity test methods identify, among other things, what test species and life stage to test, what food to feed the test species, and what biological endpoint (survival, growth, etc.) to measure. In contrast to test methods which identify how data is generated, a statistical approach identifies how to analyze the data generated from the test. (Toxicity Provisions Staff Report, p. 16.)

[10] Toxicity Provisions Staff Report, pp. 2 and x.

[11] ISWEBE Plan, Chapter IV.B.1.c.

The Ocean Plan establishes water quality objectives for protection of marine aquatic life in Table 3, including an objective for chronic toxicity that is currently expressed in terms of toxicity units based on the no-observed-effect-level (NOEL) statistical approach.[12] The San Diego Water Board included requirements in the Permits for chronic toxicity measured using the newer TST statistical approach rather than the NOEL statistical approach. The San Diego Water Board explained that it was authorized to depart from the NOEL statistical approach set forth in the Ocean Plan by noting that the Ocean Plan expressly allows the regional water quality control boards (regional water boards) to "establish more restrictive objectives and effluent limitations than set forth in this Plan as necessary for the protection of beneficial uses of ocean waters."[13]

Petitioners contend that the Permits inappropriately and illegally require use of a non-promulgated test method for evaluating chronic toxicity and related arguments. These arguments have been thoroughly evaluated and answered as part of the State Water Board's consideration of the Toxicity Provisions, an extensive proceeding in which stakeholders, including SCAP, advanced the same and similar contentions objecting to required use of the TST.[14] Oceanside and Fallbrook are listed as members of SCAP and thus were represented in the proceeding. While the Toxicity Provisions are not yet in effect, we see no need to revisit the Petitioners' arguments here.

The ISWEBE Plan and its Toxicity Provisions do not apply to permits issued to ocean dischargers, whose activities are regulated through the Ocean Plan. The State

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[12] Ocean Plan, Section Chapter II, Table 3 (formerly Table B); Appendix I, Definition of Terms: Chronic Toxicity.

[13] Ocean Plan, Chapter III, section F.1.

[14] See, e.g., Summary of Comments and Responses on the October 19, 2018 Draft Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California; and Toxicity Provisions and the October 19, 2018 Draft Staff Report, Including Substitute Environmental Documentation for the Proposed Establishment of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California; and Toxicity Provisions, July 22, 2020, Category 25, Test of Significant Toxicity, SR25.001 – SR25.041; Category 35, Oral Comments, SR35.005 and Comments 42.001-42.19. See also Toxicity Provisions Staff Report, pp. 16 – 18.

Water Board identified potential consideration of a proposal to update the Ocean Plan to include similar toxicity provisions as a high priority project in the most recent Ocean Plan Triennial Review.[15] Thus, the State Water Board may consider whether to direct the use of the TST for ocean dischargers as part of a future rulemaking proceeding.

The San Diego Water Board, in directing the use of the TST in the Permits to evaluate chronic toxicity in receiving waters, relied upon the Ocean Plan provision authorizing regional water board discretion to require more restrictive objectives and limitations for the protection of beneficial uses of ocean waters.[16] However, the San Diego Water Board offered no additional support for why the TST approach is necessary to protect beneficial uses in the vicinity of the discharge beyond the statement that the TST yields greater confidence in the test results when making determinations about whether or not a discharge is toxic. Given the specificity in the Ocean Plan provisions governing chronic toxicity, that rationale is not, by itself, sufficient.

Unless a water quality control plan expressly states otherwise, the regional water boards must implement the applicable regulatory provisions of the water quality control plan when making permitting decisions.[17] Any permit requirement that departs from an applicable water quality control plan requirement must clearly explain the basis for doing so. Here, where the San Diego Water Board had discretion to impose a more restrictive requirement than that required by the Ocean Plan in accordance with Chapter III, section F.1 of the Ocean Plan, the San Diego Water Board must explain why this was necessary to protect beneficial uses of the receiving waters. Simply identifying a different approach as superior and therefore necessary to protect beneficial uses effectively bypasses the Ocean Plan's water quality planning process, whereby regulatory requirements are developed as part of a rulemaking action.

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[15] Final Staff Report and Work Plan for 2019 Review of the Water Quality Control Plan for Ocean Waters of California, approved December 3, 2019.

[16] The higher level of confidence in toxicity testing due to the use of the TST statistical approach instead of the NOEL statistical approach can result in more certain protection of beneficial uses. This is equivalent to a more "restrictive" requirement within the meaning of Chapter III, section F.1 of the Ocean Plan.

[17] Wat. Code §§ 13170, 13247, and 13263.

In short, we expect that regional water boards will implement the regulatory portions of the Ocean Plan or provide a site-specific analysis to support any departure from those regulatory portions. Thus, the San Diego Water Board's imposition of more restrictive objectives or limitations must be supported with a site-specific analysis to illustrate the necessity for those objectives or limitations. Factors that may be appropriate to consider in such an analysis may include, as examples, the presence of sensitive species or habitats in the vicinity of the outfall, evidence of adverse impact to the specified beneficial uses that is consistent with chronic toxicity, a history of compliance problems or other anomalous water quality conditions, or an analysis of the toxicity tests conducted to date that concludes that the NOEL statistical approach may have failed to detect toxicity due to high variability in the test data. Because there is no such site-specific analysis, we remand the Permits' use of the TST to the San Diego Water Board. On remand, the San Diego Water Board must evaluate site-specific factors and provide detailed findings based on those factors to demonstrate that use of the TST statistical approach is necessary for the protection of beneficial uses of ocean waters.

**2. Basis for Requiring Effluent Limitation**

Oceanside contends that the San Diego Water Board inappropriately included an effluent limitation for chronic toxicity in its Permit based upon a finding that the discharge has the reasonable potential to cause or contribute to an excursion above the Ocean Plan objectives set forth in Table 3 such that the Oceanside Permit must include a water quality-based effluent limitation for chronic toxicity.[18] The San Diego Water Board evaluated reasonable potential based upon Appendix VI of the Ocean Plan, which provides a 13-step procedure for conducting a reasonable potential analyses for Table 3 objectives. Under the first 12 steps, facility-specific effluent monitoring data are used to generate one of several endpoints based upon statistical analysis. However, even if the results of the first 12 steps do not indicate the need for an effluent limitation, Step 13

[18] *See* 40 C.F.R. §122.44(d)(1)(i).

allows for a reasonable potential analysis based upon best professional judgment.[19] Step 13 allows the regional water boards to use a wide range of information about the facility and discharge, compliance history, potential for toxic impact, beneficial uses, and other factors.

Although recent years of monitoring data for the Oceanside discharge showed no exceedances of the previous permit's performance goal of 88 chronic toxicity units (TUc), the San Diego Water Board added a new effluent limitation for chronic toxicity to the reissued Oceanside Permit based upon best professional judgment, because discharges into POTWs have "a mixture of known and unknown pollutants that could have synergistic or additive toxic effects on receiving waters."[20] By contrast, the Fallbrook Permit includes only a chronic toxicity performance goal, despite the San Diego Water Board noting the possibility that "toxic constituents could be present in the Fallbrook WRP effluent or could have synergistic or additive effects."[21]

The Permits do not explain why an effluent limitation for chronic toxicity was appropriate for the Oceanside discharge but not the Fallbrook discharge. Nor does the record indicate any site-specific reason for differentiating the two facilities, other than a general statement that the Oceanside facilities receive influent from industrial discharges.

The primary difference between the two facilities is size of the discharge: the San Diego Water Board response to the petitions notes that the total design flow for the Oceanside facility is greater than five (5) million gallons per day (MGD),[22] while the

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[19] Steps 2 and 3 of the analysis also direct the permit writer to Step 13 where information about the discharge or receiving water body support an assessment without characterizing facility-specific effluent monitoring data, or where such data are unavailable.

[20] Order No. R9-2019-0166, Table F-10, note 14, p. F-30.

[21] Order No. R9-2019-0169, p. F-29.

[22] San Diego Water Board Responses to Petitions A-2688 and A-2689, June 19, 2020, p. 12. Order No. R9-2019-0166 lists a combined permitted flow of 21 MGD for the facilities regulated by the Oceanside permit, or up to 22.9 with written authorization from the San Diego Water Board. (R9-2019-0166, p. F-4.)

Fallbrook design flow is less than 5 MGD.[23] The Toxicity Provisions contained in the ISWEBE Plan include a new provision that any POTW discharging greater than 5 MGD and required to have a pretreatment program must have a chronic aquatic toxicity effluent limitation, without any need to conduct a reasonable potential analysis. As with the TST directive, this requirement will, upon approval by the Office of Administrative Law, apply only to non-stormwater NPDES discharges to inland surface waters and enclosed bays and estuaries and is not applicable to ocean dischargers. Therefore, this new general requirement cannot be used by itself to justify the San Diego Water Board's approach to assigning reasonable potential for ocean discharges.

The Ocean Plan allows a regional water board to base the need for an effluent limitation on factors other than the facility-specific monitoring data, but the San Diego Water Board has identified only generalized assumptions to support assigning an effluent limitation. A rulemaking action may appropriately consider this kind of information as part of assessing regulatory requirements for specific types of discharges. However, given the availability of facility-specific monitoring data and the lack of prior exceedances, any effluent limitation in Oceanside's Permit based on best professional judgment must be justified by a site-specific analysis unless and until the Ocean Plan is amended to include provisions similar to those in the ISWEBE Plan. On remand, the San Diego Water Board shall conduct a site-specific reasonable potential analysis for Oceanside before relying on Step 13 to impose a chronic toxicity effluent limitation. We note that the same type of site-specific information that the San Diego Water Board may develop and use to support the use of the TST statistical approach may potentially also be used to help support a finding that Oceanside's discharge has the reasonable potential to cause or contribute to chronic aquatic toxicity in the ocean.

B. **New Monitoring and Reporting Requirements**

The San Diego Water Board imposed several new monitoring and reporting requirements in the Permits, including increased frequency of sampling for chronic toxicity

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[23] Order No R9-2019-0169 provides that Fallbrook's permitted flow is 2.7 MGD (dry weather flow) and 3.6 MGD (wet weather flow). (R9-2019-0169, p. F-4.)

and bacteria, special studies intended to aid in determining the source of bacteria exceedances in the vicinity of the Oceanside Ocean Outfall and to track the trajectory of the plume from the outfall, and other work plans and reports. Oceanside claims that the new monitoring and reporting requirements would result in increased costs of $1.3 million over the five-year permit term as compared to the prior permit, and that special studies and work plans would impose a cost increase of over $393,000.[24] Petitioners object to the special study provisions and contend that the San Diego Water Board failed to appropriately consider whether the burden, including costs, of increased monitoring bears a reasonable relationship to the need for the monitoring and the benefits to be obtained from the monitoring, as required by Water Code section 13267.

**1. Basis for Monitoring and Reporting Requirements**

The Porter-Cologne Water Quality Control Act[25] includes several sections authorizing the regional water boards to require dischargers to submit monitoring reports and other reports related to their waste discharges. Water Code section 13267 establishes that a regional water board may require any person or entity who has discharged, discharges, or proposes to discharge waste that could affect waters of the state within its region to furnish technical or monitoring reports as required by the regional water board.[26] The statute provides that

> [t]he burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports,

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[24] Fallbrook's petition includes less detail regarding costs of the monitoring. The San Diego Water Board's Supplemental Response to Comments Report for Tentative Order No. R9-2019-0169, February 12, 2020 (Fallbrook Supplemental Response to Comments) indicated that Fallbrook relied on some of Oceanside's cost estimates.

[25] Wat. Code § 13000, et seq.

[26] Wat. Code § 13267, subd. (b)(1).

and shall identify the evidence that supports requiring that person to provide the reports.[27]

Petitioners argue that the San Diego Water Board failed to comply with section 13267 when it included various monitoring and reporting requirements in the Permits.[28] However, Water Code section 13383 more specifically provides that a regional water board may "establish monitoring, inspection, entry, reporting and recordkeeping requirements, as authorized by Section 13160, 13376, or 13377 or by subdivisions (b) and (c) of this section, for any person who discharges, or proposes to discharge, to navigable waters . . . ."[29] Subdivision (b) of section 13383 authorizes regional water boards to require any person subject to section 13383 to "sample effluent as prescribed, and provide other information as may be reasonably required."[30] Section 13383, which authorizes the San Diego Water Board to impose the monitoring and reporting requirements challenged by the Petitioners, does not require analysis of the burden of monitoring requirements relative to the benefits. Because section 13383 provides independent authority that is tailored specifically for regulating NPDES dischargers, section 13267 does not apply.[31] As illustrated below, however, the San Diego Water

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[27] *Id.*

[28] Petitioners also argue that Water Code section 13325, subdivision (c), which contains a provision that is almost identical to the quoted provision in section 13267, subdivision (b)(1), applies to these monitoring and reporting requirements. Water Code section 13225, subdivision (c), which broadly authorizes the regional water boards to require any state or local agency to provide water quality information, applies to state and local agencies that are not discharging waste. In light of the more specific authorities contained in sections 13267 and 13383 for waste dischargers, we conclude that section 13225, subdivision (c) does not apply to monitoring and reporting requirements that are established for a person who is discharging waste.

[29] Wat. Code § 13383, subd. (a). Section 13383 appears within Chapter 5.5 of Porter-Cologne, which establishes authority for the State Water Board to implement the NPDES permit program within the State of California.

[30] Wat. Code § 13383, subd. (b).

[31] In its comments on a draft version of this order, Petitioners argue that Water Code section 13383 does not apply to any monitoring that is not "required by the federal Clean

Board did consider the costs of the monitoring and reporting requirements and generally provided explanations to support the need to impose the requirements. In fact, the San Diego Water Board made several modifications to the monitoring and reporting requirements to reduce the Petitioners' costs. Moreover, the requirements are generally comparable to those required of other NPDES ocean dischargers within the San Diego Region. Although some of the special studies in the Permits are unique to the San Diego Region, many of the other requirements are largely comparable to ocean dischargers of similar size in other regions.

Regardless of the lack of an explicit legal requirement in Water Code section 13383 to consider the cost and need for monitoring and reporting, we are concerned about the reasonableness of costs incurred by all regulated entities who are subject to monitoring and reporting requirements, including NPDES dischargers. We seek to ensure that the costs incurred to comply with monitoring and reporting requirements result in appropriate data needed to evaluate water quality and other impacts of the discharges and ensure that beneficial uses are protected. The regional water boards should regularly assess the need for monitoring and reporting, consider reducing the

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Water Act." This argument is not consistent with the provisions of section 13383 cited in the text of this order, which authorize the establishment of monitoring and reporting requirements for any person discharging to navigable waters. The argument also assumes a level of specificity of monitoring and reporting requirements under the federal Clean Water Act that does not exist. In furtherance of their argument, Petitioners cite *City of Burbank v. State Water Resources Control Bd.* (2005) 35 Cal.4th 613 and *Department of Finance v. Commission on State Mandates* (2016) 1 Cal.5th 749, 755, as modified on denial of reh'g (Nov. 16, 2016). The Court in *Burbank* analyzed the interplay between Water Code sections 13241, 13263, 13374, and 13377 in concluding that regional water boards must take into account the factors set out in section 13241 when issuing waste discharge requirements under section 13263, except where doing so would be inconsistent with the permitting requirements of the federal Clean Water Act. The Court in *Department of Finance* examined whether federal law compelled a regional water board to impose certain provisions in a municipal stormwater permit in the context of the permittees' claim that those provisions were state mandates subject to subvention. Neither case mentions Water Code section 13383. Because we conclude that the terms of section 13383 by themselves provide all of the authority necessary for the regional water board to establish monitoring and reporting requirements for these discharges to the Pacific Ocean, these cases are inapposite.

frequency of sampling where long-term compliance has been established, and eliminate unnecessary reports or overlapping requirements. We also encourage the regional water boards to consider a reasonable range of estimates of the potential costs and whether the necessary monitoring and reporting may be accomplished with less expense.

While the San Diego Water Board was not required to conduct the section 13267 analysis of benefits and burdens in assigning monitoring requirements in the Permits, the San Diego Water Board nonetheless conducted an extensive inquiry into the costs of the studies and reports at issue. During a hearing held on December 11, 2019, the San Diego Water Board heard staff testimony regarding costs of the receiving water monitoring and the studies and reports required, as well as cost concerns raised by the Petitioners. As a result of significant disagreements and inconsistencies in cost estimates provided by its staff and by Petitioners, and how those costs would apply to the multiple dischargers to the Oceanside Ocean Outfall, the San Diego Water Board continued the matter until a subsequent board meeting. Board members asked staff to meet with representatives from Oceanside and Fallbrook to work through these disagreements, encouraging further development of the record to afford a more complete consideration of the costs of the monitoring and reporting program.

Following further submissions and at least one staff-level meeting to better understand the bases for Petitioners' cost estimates, the San Diego Water Board continued the public hearing to February 12, 2020. San Diego Water Board staff issued Supplemental Response to Comments Reports addressing monitoring and reporting cost estimates in detail, comparing Oceanside's and Fallbrook's cost estimates and attempting to reconcile and explain differences.[32] These reports also included staff's proposed reductions in sampling requirements and options for Petitioners to propose alternative methods in order to potentially save costs. Thus, while the Petitioners' contentions focus on alleged lack of justification for the monitoring and reporting program, we note that the

[32] San Diego Water Board Supplemental Response to Comments, Tentative Order No. R9-2019-0166, February 12, 2020 (Oceanside Supplemental Response to Comments); Fallbrook Supplemental Response to Comments.

San Diego Water Board did extensively and carefully consider the bases of these costs as part of approving the Permits.

### 2. Discussion of New Monitoring and Reporting Requirements

Specific requirements identified by Petitioners as being unduly burdensome or otherwise unsupported are discussed below. Note that the Permit requirements apply to the three entities operating POTWs discharging to the Oceanside Ocean Outfall. As a result, the costs of studies and requirements may be shared among the responsible agencies.

#### a. Increased Sampling Frequencies

##### 1. Chronic Toxicity

The San Diego Water Board increased Oceanside's sampling frequency for determining compliance with the maximum daily effluent limitation for chronic toxicity for Oceanside's portion of the discharge from semiannually to monthly, with the potential for a reduction to quarterly after one year if there are no violations of the chronic toxicity effluent limitation. Oceanside objects to the increase, estimating a cost increase of $44,100 over the 5-year permit term. Moreover, Oceanside contends that without any history of noncompliance, the increase is unwarranted.

Given our direction to reassess the effluent limitation for chronic toxicity, this requirement requires additional evaluation on remand. If site-specific conditions or specific characteristics of the discharge warrant a finding of reasonable potential for chronic toxicity, an increase in monitoring frequency would be appropriate to ensure that the quality of the effluent is monitored on a regular and frequent basis. However, as with the reasonable potential analysis, the San Diego Water Board must provide an explanation linking the reason for the increase in frequency to specific information about the discharge.

##### 2. Surf Zone Receiving Water Monitoring

The San Diego Water Board increased sampling frequencies for bacteria in the surf zone from weekly to five times per month for both fecal coliform and enterococci. The Petitioners claim this frequency to be unnecessary and unjustified, stating that it

impacts staffing resources, sample analysis coordination and sample handling. The San Diego Water Board estimated that the new surf zone bacteria monitoring could result in an increase of $9,000 to $22,500 per permit term, costs that could be shared among the agencies.[33]

In 2018, we revised the Ocean Plan bacteria objectives based upon recommendations from U.S. EPA designed to protect the public from exposure to harmful levels of pathogens while participating in water contact recreational activities.[34] The fecal coliform objective is expressed as a 30-day geometric mean, calculated based on the five most recent samples from each site, while the objective for enterococci comprises a six-week rolling geometric mean, calculated weekly.[35] The objectives reflect our determination of an acceptable level of protection against the risk of gastrointestinal illnesses that can result from potential ingestion of water during recreational water activities involving body contact.

The sampling frequency to which Petitioners object was increased to be consistent with the Ocean Plan bacteria provisions. While Petitioners argue that offshore exceedances do not necessarily cause exceedances in the surf zone and that rain events may affect coliform data results, the potential public health impacts of the discharge support the need for effective data gathering at a frequency that ensures data from waters surrounding the outfall can be compared to the objectives. To reduce costs, the San Diego Water Board reduced the frequency of total coliform sampling in the surf zone from once per week to three times per month.[36] The new sampling frequencies

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[33] Oceanside Supplemental Response to Comments, p. 18; Fallbrook Supplemental Response to Comments, at p. 23. The estimates of the Petitioners do not appear to have been submitted separately for surf zone bacteria monitoring.

[34] https://www.epa.gov/sites/production/files/2015-10/documents/rwqc2012.pdf.

[35] Ocean Plan, Chapter II.B.1.a.(1). The updated bacteria provisions were approved on August 7, 2018 and became effective February 4, 2019.

[36] The Ocean Plan total coliform objective applies at all areas where shellfish may be harvested for human consumption and does not include a specific sampling frequency.

implement and are consistent with the new Ocean Plan provisions for bacteria and are appropriate.

**b. Human Marker HF183 and Bacteria Monitoring**

The San Diego Water Board added new bacteria monitoring requirements to the Permits to provide important new information because of a history of bacteria violations. Between 2011 and 2019, there were approximately 73 exceedances[37] of bacteria receiving water limitations near the Oceanside ocean outfall. This period coincided with only 6 exceedances at reference stations selected to be free from influence by the outfall's effluent. In addition to monitoring for total and fecal coliform and enterococcus (collectively, fecal indicator bacteria,) the San Diego Water Board added a new requirement for concurrent sampling for Human Marker HF183 (HF 183) at offshore monitoring stations to evaluate whether the bacteria exceedances resulted from human sources. Such an evaluation can help to determine whether the bacteria exceedances are resulting from the effluent discharged at the Oceanside Ocean Outfall. HF183, derived from the 16S rRNA gene of Bacteroides bacteria, can be used to identify sewage pollution in coastal waters.[38]

The monitoring requirements specify that Petitioners would not need to analyze the HF183 samples unless there is an exceedance of the corresponding fecal coliform receiving water limitation. Petitioners object to the costs of the sampling, as well as the cost of a refrigeration unit necessary to adequately store samples, and the cost of any

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[37] The Permits list the relevant number of exceedances as "approximately 79." Order No. R9-2019-1066, p. F-42, and Order No. R9-2019-00169, p. F-34. However, the San Diego Water Board Response to Petitions stated that there were 73 such exceedances. San Diego Water Board Response, p. 25.

[38] United States Environmental Protection Agency. (2019), Method 1696: Characterization of Human Fecal Pollution in Water by HF183/BacR287 TaqMan® Quantitative Polymerase Chain Reaction (qPCR) Assay. https://www.epa.gov/sites/production/files/2019-03/documents/method_1696_draft_2019.pdf.

required analyses.[39] The record contains inconsistencies and some unsupported assertions from Petitioners about the potential costs associated with this requirement.

Oceanside offered cost estimates of $142,790 to $957,000 over the five-year permit term for the new HF183 requirement.[40] The wide range for this estimate reflects differing assumptions about how many samples will require analysis, as well as a high cost estimate from an out-of-state laboratory. San Diego Water Board staff, after considering information submitted by Petitioners, estimated that the HF183 requirement would cost somewhere between $34,290 and $586,460 per permit term.[41] The San Diego Water Board also included an option for Petitioners to propose alternative methods for measuring HF183 in the receiving water, if a more cost-effective method is available.

Petitioners claim that the San Diego Water Board failed to explain the specific questions the HF183 monitoring was intended to address or identify how the information would be used. However, the Permits are clear that the monitoring will be used to determine whether the discharge is causing the approximately 73 bacteria exceedances in the vicinity of the outfall, given that delineating the bacteria as human in origin would eliminate other potential sources such as birds or marine life. The San Diego Water Board's petition response confirms that testing for HF183 can rule out the POTW discharges as causing the exceedances, noting that limited sources of the human marker would otherwise exist near the outfall. San Diego Water Board staff explained at the board meeting that HF183 monitoring would be part of investigating the sources of bacteria exceedances and that including the requirement in the Permits' monitoring requirements represented an alternative to issuance of an investigative order.

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[39] Purchase of a -80° freezer to store samples is estimated to cost $6,200. Oceanside Supplemental Response to Comments, p. 7.

[40] City of Oceanside, Comments - Tentative Order No. R9-2019-0166, October 28, 2019, p. 4. See also, Oceanside Supplemental Response to Comments, p. 10

[41] Petitioners' estimates assumed a worst-case scenario in which every sample at every offshore monitoring location exceeds the receiving water limitation for fecal coliform and therefore requires analysis. San Diego Water Board staff stated that the record of actual exceedances does not support this assumption, with exceedances from 2011 to 2019 occurring on average approximately once per quarter. On this basis, the likely costs to analyze samples would be on the lower end of the range.

Petitioners note that the receiving water is designated as having a REC-1 beneficial use, including water contact recreation. Petitioners assert that there are other potential sources of HF183 near the outfall, including swimmers and boaters, as well as storm water discharges. However, staff indicated that the Oceanside Ocean Outfall has experienced the largest number of nearby receiving water bacteria exceedances as compared to similar outfalls in the San Diego region. Staff also noted that exceedances did not occur near reference stations, as would be expected if caused by swimmers or boaters.

We find it reasonable to conclude that a continuous discharge of effluent from a POTW represents a significant potential source of bacteria and is a substantial potential cause of the exceedances when compared to other, more transient sources. The San Diego Water Board has a duty and the authority to investigate sources of bacteria exceedances that may affect public health through contact recreation. Confirming or eliminating human sources will allow the San Diego Water Board to gather important evidence to identify an appropriate course of action to reduce or eliminate these continuing exceedances. The costs of requiring HF 183 collection and analysis are reasonable expenditures to investigate these continuing exceedances.

**c. Plume Tracking Monitoring Program**

The Permits require a Plume Tracking Monitoring Program to assess dispersion and fate of the wastewater plume discharged from the Oceanside Ocean Outfall, thereby helping to determine whether the discharged effluent is moving toward the shore or surface where it may affect water recreation. The fact sheets supporting the Permits explain that the plume tracking is needed to supplement sampling, in order to capture atypical oceanographic conditions. The Plume Tracking Monitoring Program is a region-wide effort to assess discharge plume locations and the extent of plume impact to

determine compliance with Ocean Plan water quality objectives.[42] The results of this additional monitoring will be used to identify future receiving water monitoring locations.

The San Diego Water Board noted that the plume tracking could be conducted in collaboration with other agencies discharging through the Oceanside Ocean Outfall, thereby reducing the costs to each agency. San Diego Water Board staff also suggested at the December 2019 hearing that Oceanside Ocean Outfall dischargers could also work with other agencies discharging to ocean outfalls in the region that are collaborating on plume tracking efforts. Regardless, Petitioners contend that their estimated total cost of over $316,000 during the permit term, including development of a work plan for the plume tracking program,[43] is an unreasonable burden not justified by the stated bases in the Permits.[44] Petitioners take the position that the San Diego Water Board failed to explain how the study will protect the environment, given a trend of decreasing discharges to the Pacific Ocean as water reuse applications increase and arguing that storm water and recreational use of beaches are the major concerns related to ocean pollution.

While the costs of plume tracking are substantial, the record indicates that the program will provide useful information for developing and revising future monitoring locations, evaluating compliance with receiving water limitations, and helping to ensure public safety for beaches and water contact recreation in the Pacific Ocean. Determining the conditions under which the plume travels toward the shore allows for more effective action to protect public health associated with beach use. Additionally, the San Diego

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[42] The monitoring requirements are consistent with requirements in NPDES permits for other ocean discharger wastewater treatment plants in the Region. These include the San Elijo Water Reclamation Facility (Order No. R9-2018-003) and the Encina Wastewater Authority Encina Water Pollution Control Facility and Satellite Wastewater Treatment Plants (Order No. R9-2018-0059).

[43] Fallbrook estimated the cost of an Autonomous Underwater Vehicle deployment at $100,000, with a minimum of three deployments occurring over the permit term. Fallbrook Supplemental Response to Comments, p. 5.

[44] The Petitioners estimated the Plume Tracking Work Plan to cost $31,647 to $50,000. Fallbrook Supplemental Response to Comments, p. 25; Oceanside Supplemental Response to Comments, p. 20. The San Diego Water Board noted that a similar work plan under development for other ocean outfalls in the region is projected to cost $25,000.

Water Board's petition response notes that monitoring stations in previous permits were informed by decades-old information and lacked a scientific basis, necessitating a more data-based approach to useful monitoring of the discharge. The information may also help to determine whether there are cumulative impacts from multiple sources and thereby help to identify other sources of water quality problems.

Our concerns with cost of effective regulation include ensuring that monitoring efforts provide data that accurately reflects the impacts of waste discharges on water quality. While the costs of the plume tracking program are a significant investment, they will help to ensure that future receiving water monitoring accomplishes its purpose and is tailored to the waters impacted by the discharges.

**d. Fish and Macroinvertebrate Monitoring**

The Permits include updated monitoring requirements designed to assess contaminant levels in marine organisms. The fish and macroinvertebrate monitoring program is included to determine whether bioaccumulation of pollutants in fish, shellfish, or other marine organisms affect human health through fish consumption and whether marine communities are being degraded. The new Permits replaced diver surveys with a requirement to conduct benthic trawls at three trawling locations once per permit term.[45]

Petitioners contend that the new requirements would cost at least an additional $11,000 per permit term and that the San Diego Water Board has not provided sufficient evidence to support the need for the revised method. The Permits do explain the advantage of using benthic trawls, noting that they are not restricted by depth, allowing evaluation of the benthic community at the same depth contour as the outfall and greater data comparability with other ocean outfalls in the area and within the Southern California Bight. The San Diego Water Board's petition response also states that community trawls are the standard method for evaluating impacts to demersal fish and invertebrate

[45] R9-2019-0166, p. E-31; R9-2019-0169, p. E-27.

communities around ocean outfalls and are consistent with methods employed by regional monitoring programs.

The San Diego Water Board acknowledged that the new requirement could cost an additional $25,000 per permit term, shared among the entities discharging to the Oceanside Ocean Outfall.[46] However, the Permits also allow Oceanside and Fallbrook to comply with the fish and macroinvertebrate monitoring by participating in a regional monitoring program. The San Diego Water Board indicates that Oceanside and Fallbrook did participate in the Southern California Bight Regional Monitoring Program during the prior permit term, thus fulfilling the applicable requirements. Should Oceanside and Fallbrook choose to conduct their own fish and macroinvertebrate monitoring to comply with the new Permits, the increased costs of the new methods are not unreasonable because they will ensure useful, comparable data.

**e. Additional Reports Required**

Petitioners object generally to Permit provisions that require Oceanside and Fallbrook to submit various work plans and reports. Petitioners contend that the San Diego Water Board did not explain the need for the work plans and reports, and that they are overly burdensome. These work plans and reports include an initial investigation toxicity reduction evaluation (TRE) work plan, a pollutant minimization program, a benthic monitoring work plan, and a State of the Ocean Report. The Petitioners also challenge the requirement to develop a Climate Change Action Plan as unsupported, contending that the San Diego Water Board failed to explain the legal authority for the requirement. Collectively, Oceanside claims the additional reports will cost an estimated $387,000, while Fallbrook states the reports will cost $100,000. These estimates also include the cost for a work plan associated with the plume tracking program, which is discussed above.

1. **Initial Investigation TRE Work Plan**

The Permits required preparation of an Initial Investigation TRE Work Plan that describes the steps that Oceanside and Fallbrook intend to follow if toxicity is detected.

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[46] Oceanside Supplemental Response to Comments, p. 8.

Specifically, the Permits require that the TRE Work Plan describe the investigation and evaluation techniques that will be used to identify potential causes and sources of toxicity, effluent variability, and treatment system efficiency; describe methods of maximizing in-house treatment efficiency and good housekeeping practices; and list all chemicals used in operation of the facilities.[47] The TRE Work Plan is required within 90 days of the Permit effective date.

Oceanside and Fallbrook estimated that the Initial Investigation TRE Work Plan could be developed by a consultant at a cost of $10,000. San Diego Water Board staff agreed with that estimate, but also contended that the Work Plan could be developed by Oceanside's and Fallbrook's salaried staff at no additional cost.[48] San Diego Water Board staff explain that this requirement would add some detail to the existing TRE Work Plan that was prepared as required by prior permits, thus necessitating only an update to a previously submitted report.

The Initial Investigation TRE Work Plan is intended to ensure that the permittee is prepared to respond to eliminate toxicity in a timely manner. Delays in responding can exacerbate harm to beneficial uses, affecting the ecosystem and public health. Ensuring the ability to respond promptly to any toxicity exceedance is an important tool for protection of water quality, and the cost of preparing the report is appropriate in light of the benefits of preparing it.

### 2. **Pollutant Minimization Program**

The Ocean Plan requires dischargers to develop and conduct a pollutant minimization program under specified circumstances, including where a calculated effluent limit is lower than certain reporting levels and there is evidence showing that the pollutant is present in the effluent above the calculated effluent limitation.[49] The Permits include this requirement exactly as mandated by the Ocean Plan.

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[47] Order No. R9-2019-0166, p. E-19; Order No. R9-2019-0169, p. E-14.

[48] Oceanside Supplemental Response to Comments, p. 20; Fallbrook Supplemental Response to Comments, p. 25.

[49] Ocean Plan, Chapter III.C.9.

Petitioners contend that the San Diego Water Board did not explain the need for the pollutant minimization program requirement or offer evidence to support the requirement. While the Permits do not include a specific rationale for the program beyond noting that it is based upon the requirements of Ocean Plan, the Ocean Plan itself clearly explains that the goal of the program is to reduce potential sources of pollutants by using source control measures if the specified circumstances occur. The Petitioners and the San Diego Water Board agreed that a pollutant minimization program could cost $15,000 to $20,000 if the San Diego Water Board determines in the future that there is sufficient evidence to require Oceanside or Fallbrook to develop and conduct a pollutant minimization program. The San Diego Water Board argues that this is a reasonable cost based upon the need to maintain effluent concentrations at or below the calculated effluent limitations to protect beneficial uses. We conclude that these Permit requirements are mandated by the Ocean Plan; in any case, the potential cost is reasonable to protect beneficial uses.

### 3. **Benthic Monitoring Work Plan**

Petitioners generally object to the requirement to submit a Benthic Monitoring Work Plan, a report implementing a sediment monitoring program and setting forth protocols for sampling, quality assurance, methods for analyzing data and a schedule for submitting results.[50] The work plan is not required if the permittee chooses to comply with sediment monitoring requirements through participation in a regional monitoring program. The San Diego Water Board, in its petition response, notes that Oceanside and Fallbrook previously fulfilled sediment monitoring requirements by participating in the Southern California Bight Regional Monitoring Program.

Petitioners have estimated that the work plan could cost up to $200,000.[51] The San Diego Water Board argues that this number is inflated because the report involves

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[50] Order No. R9-2019-0166, p. E-30; Order No. R9-2019-0169, p. E-25.

[51] Email dated January 6, 2020 from Lori Rigby, City of Oceanside, to San Diego Water Board staff.

neither new nor novel approaches to benthic monitoring, and existing guidance documents are available for use in developing the report. These include work published by the Southern California Coastal Water Resource Project.[52] Petitioners do not indicate whether they intend to pursue individual benthic monitoring for the new permit term. Should the permittees choose to conduct their own sediment monitoring, the required work plan will provide an effective approach to developing that program. The permittees are welcome to contact the San Diego Water Board staff for assistance in reducing their costs by using the existing guidance to develop the work plan. In any case, effective benthic monitoring in the vicinity of ocean outfalls is justified as an important component of ensuring that benthic organisms and other species are protected from the long-term deposition of pollutants.

4. **State of the Ocean Report**

The Permits newly require that the dischargers to the Oceanside Ocean Outfall, either individually or collectively, prepare and present an oral "State of the Ocean Report" to the San Diego Water Board, summarizing the conclusions of the receiving water monitoring reports submitted during the permit term.[53] The report is due to be given once no later than 180 days prior to the expiration of the permit term, but may be submitted as a written report if the matter is unable to be scheduled for a San Diego Water Board meeting.

Petitioners generally object to the requirement, estimating a cost of $7,000.[54] San Diego Water Board staff agree that the report could cost that much, but notes that it does not involve new information or analysis and is likely to require only staff time to prepare and present it. Required elements of the report include a summary of the conclusions of

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[52] The Southern California Coastal Water Resource Project (SCCWRP) is a joint powers authority composed of member agencies with responsibility for wastewater treatment, storm water management and water quality regulation. SCCWRP develops and applies science to improve management of aquatic systems in Southern California.

[53] Order No. R9-2019-0166, p. E-36; Order No. R9-2019-0169, p. E-32.

[54] Oceanside Supplemental Response to Comments, p. 20.

receiving water reports submitted annually, a description of monitoring efforts completed, the status and trends of receiving water conditions and plans for future monitoring efforts.

The Permit fact sheets do not include a rationale for requiring this report, although the San Diego Water Board's petition response states that the report will help to educate the public about potential water quality impacts resulting from the discharges in a concise and approachable manner. Specifically, the San Diego Water Board points to the results of the Plume Tracking Monitoring Program, expected to be included in the report, which should provide information on whether and how the discharge affects water recreation. While this explanation should have been included in the permit documentation, we agree that a summary report is better suited to educate interested persons who may not have expertise in reading and interpreting discharger monitoring reports. To that end, the cost is not unduly burdensome to accomplish this legitimate purpose.

5. **Climate Change Action Plan**

The Permits direct the permittees prepare and submit a Climate Change Action Plan that assesses how the effects of changing climate conditions will affect the functioning of their wastewater treatment plants, including flows and process design parameters.[55] The Climate Change Action Plan is individually required for each of the dischargers within three years, but existing plans related to climate change may be used in the development. The report must identify projected regional impacts on facilities and operations if current trends in increasing carbon dioxide (CO2) emissions continue, including changes to local weather patterns that can affect water temperature and ocean water chemistry. The report must identify steps taken or planned to address a range of issues associated with climate change, including greenhouse gas emissions attributable to wastewater treatment plants, challenges in accommodating high and low wastewater flows, and other impacts on treatment plant operations and quality.

Petitioners claim that the San Diego Water Board has not stated the necessity for the plan or explained the legal authority for requiring it. To the contrary, the permit includes a relatively thorough explanation of how the results of increasing CO2 emissions

[55] Order No. R9-2019-0166, p. E-38; Order No. R9-2019-0169, p. E-35.

may affect POTWs and their functioning. Moreover, the San Diego Water Board's petition response points to state law recognizing the relationship between carbon dioxide emissions and ocean acidification,[56] as well as the State Water Board's Comprehensive Response to Climate Change,[57] which directs a range of actions that include modifying permits to reduce vulnerability of wastewater infrastructure to flooding, storm surge, and sea level rise. The effective functioning of wastewater treatment plants directly relates to water quality impacts and is thus appropriately within the purview of NPDES permit-related reporting pursuant to Water Code section 13383.

Oceanside reported an expected cost of $150,000 to prepare its Climate Change Action Plan, while Fallbrook estimated $100,000.[58] The San Diego Water Board considers these estimates to be high, noting that the City of San Diego stated a cost of $50,000 for a similar plan, a figure that included staff time and a consultant. While $50,000 is still a significant expenditure, we believe that the costs of ensuring resilient infrastructure to protect water quality against the effects of climate change is warranted.

6. **Summary**

The monitoring and reporting requirements included in the Permits are tailored to yield useful data and information to inform protection of beneficial uses of the Pacific Ocean and effective regulation. While some new provisions do involve significant expenditures, the San Diego Water Board did not impose these costs without careful consideration and did look for multiple ways to allow for reduced costs and frequencies where possible and where warranted. In some instances, the San Diego Water Board's petition response expanded on their explanations for these requirements in meaningful ways. On remand, the San Diego Water Board should ensure that the Permit findings or fact sheet explain why the estimated cost of the required studies, monitoring, and reporting is warranted.

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[56] California Public Resources Code § 35630, subd. (c).

[57] State Water Board Resolution 2017-0012, March 7, 2017.

[58] Oceanside Supplemental Response to Comments, p. 19; Fallbrook Supplemental Response to Comments, p. 25.

C. **Effluent Limitation for Flow**

Petitioners contend that the San Diego Water Board acted inappropriately in converting a prohibition on total flow in the prior permit to an effluent limitation in the new Permits. Petitioners argue that flow is not a pollutant and, because no water quality standard exists for flow, a reasonable potential analysis is not possible and an effluent limitation is therefore not supported.

The prior permits included discharge prohibitions on flows in excess of the wastewater treatment plants' design capacities. In the new Permits, these restrictions are expressed as effluent limitations. The flow limitations are included in order to ensure proper operation and maintenance of facilities and systems of treatment and control and complement other permit provisions designed to ensure adequate treatment capacity and protective water quality-based limits. The limitations on flow are not functionally different than a prohibition on flows in excess of the design criteria.

The State Water Board has previously discussed inclusion of flow limitations as allowable in waste discharge requirements, including NPDES permits.[59] Design flow is used to calculate both reasonable potential and water quality-based effluent limitations. Flows to a treatment plant that exceed the treatment plant's capacity can result in inadequate treatment of the wastewater, which can harm beneficial uses. It is therefore appropriate to include a mechanism ensuring that discharge flows do not exceed that maximum level. A flow limitation is within a regional water board's authority to establish conditions and limitations that ensure protection of water quality.[60] Petitioners have not shown why a flow limitation is inappropriate to implement the same restriction previously set forth as a prohibition.

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[59] State Water Board Order No. WQ 76-11 (*In the Matter of the Petition of Las Virgenes Municipal Water District for Review of Order No. 76-27 (NPDES Permit No. CA005601), California Regional Water Quality Control Board, Los Angeles Region*) at p. 16.

[60] Clean Water Act, § 301, subd. (b)(1)(C) and § 402, subd. (a)(2); 40 C.F.R. § 122.44.

## III. ORDER

IT IS HEREBY ORDERED THAT, for the reasons discussed above, Order No. R9-2019-1066 and Order No. R9-2019-0169 are remanded to the San Diego Water Board for reconsideration and revision, consistent with the conclusions of this order. We also direct the San Diego Water Board to reconsider the NPDES permits issued to the Marine Corps Base – Camp Pendleton and Genentech, Inc., and make appropriate conforming changes. Pending the San Diego Water Board's reconsideration, Oceanside, Fallbrook, Marine Corps Base – Camp Pendleton, and Genentech, Inc. shall be fully subject to their previous permits' aquatic toxicity provisions, rather than their new Permits' aquatic toxicity provisions.

## CERTIFICATION

The undersigned, Clerk to the State Water Board, does hereby certify that the foregoing is a full, true, and correct copy of an order duly and regularly adopted at a meeting of the State Water Resources Control Board held on February 16, 2021.

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| AYE: | Chair E. Joaquin Esquivel<br>Vice Chair Dorene D'Adamo<br>Board Member Tam M. Doduc<br>Board Member Sean Maguire<br>Board Member Laurel Firestone |
| NAY: | None |
| ABSENT: | None |
| ABSTAIN: | None |

Jeanine Townsend
Clerk to the Board