

**STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION**

STAFF REPORT FOR REGULAR MEETING OF AUGUST 22-23, 2024

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ITEM NUMBER: 9

SUBJECT: National Pollutant Discharge Elimination System (NPDES) Program Update

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KEY INFORMATION: This item provides an overview and updates on the National Pollutant Discharge Elimination System (NPDES) program

ACTION: Information/Discussion

SUMMARY

This staff report provides an update on the Central Coast Regional Water Quality Control Board's (Central Coast Water Board) National Pollutant Discharge Elimination System (NPDES) program.

DISCUSSION

Background

The NPDES program is a federal program that was established in 1972 as an amendment to the federal Clean Water Act. Authority to implement the NPDES program in California has been delegated by the United States Environmental Protection Agency (USEPA) to the State Water Resources Control Board (State Water Board) and the nine regional water quality control boards (Regional Water Boards, collectively Water Boards). The program is designed to protect waters of the United States from point source discharges of waste. The Clean Water Act defines a point source discharge as any discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged. The term does not include agricultural stormwater discharges and return flows from irrigated agriculture.

Title 40 of the Code of Federal Regulations (CFR) describes the administration and enforcement of the NPDES program, including state program requirements, procedures for decision making, criteria and standards, pretreatment and sludge regulations, and several other aspects of the permitting and enforcement process.

In 2000, USEPA published *Water Quality Standards; Establishment of Numeric Objectives for Priority Toxic Pollutants for the State of California* (referred to as the California Toxics Rule or CTR). The CTR established numeric water quality standards for 126 priority toxic pollutants. The State Water Board's 2005 *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (referred to as the State Implementation Policy or SIP) describes the processes that Water Boards are required to follow to implement the CTR, including establishing effluent limitations when needed.

In addition to the CTR and the SIP, in creating NPDES permits, the Central Coast Water Board implements the *Inland Surface Waters, Enclosed Bays, and Estuaries Plan* (ISWEBE), the *Water Quality Control Plan for Ocean Waters of California* (Ocean Plan), and the *Water Quality Control Plan for the Central Coastal Basin* (Central Coast Basin Plan). These and other plans and policies provide the basis for developing NPDES permits that are protective of water quality and compliant with state and federal policy.

The Central Coast Water Board NPDES program current has three full-time technical positions (one of which is vacant) and one program manager. NPDES program staff prioritizes permit development and reissuance based on threat to water quality, opportunities to encourage and facilitate recycled water projects, climate change adaptation needs, and impacts to underrepresented and disadvantaged communities. Staff conducts enforcement activities, including assisting with mandatory minimum penalties (MMPs), when dischargers exceed their effluent limitations, responding to spills and sanitary sewer overflows, responding to complaints, developing time schedule orders (TSOs), and coordinating with enforcement program staff on additional enforcement actions when needed. Additionally, staff inspects facilities, reviews technical reports, provides compliance assistance to dischargers with various questions related to their permits, and provides outreach related to funding opportunities.

NPDES Facilities and Permits

Permittees in the Central Coast Region include 33 individual facilities (20 major¹ facilities and 13 minor² facilities), over 30 dischargers enrolled in two regional general permits, over 80 dischargers enrolled in various statewide general permits, and several dozen sanitary sewer systems that discharge to NPDES facilities. Individual NPDES permits provide coverage to a variety of facility and discharge types, including domestic

¹ Major municipal dischargers include all facilities with design flows greater than one million gallons per day and facilities with approved industrial pretreatment programs. Major industrial facilities are determined based on specific ratings criteria developed by USEPA and the State Water Board.

² A minor facility is a discharge with design flow of less than one million gallons per day that has not been determined to have an actual or potential adverse environmental impact classifying the discharger as major.

waste from publicly owned treatment works (POTWs) and privately owned facilities; industrial waste from power plants, refineries, quarries and mining operations, and manufacturing and food processing facilities; and discharges associated with desalination and recycled water projects. The table in Attachment 1 summarizes the Central Coast Water Board's individual and general NPDES permits. The map in Attachment 2 shows the locations of the facilities with individual permits.

Pursuant to federal regulations, NPDES permits expire after five years. Staff works to schedule hearings on expired permits as soon as possible after the expiration date. If a discharger submits a complete application prior to the expiration date, the permit is considered to be administratively extended until the revised permit is adopted.

Program Activities

Permit Writing

A core function of the NPDES program is to write NPDES permits (both new and revised) that comply with all relevant laws, plans, and policies and are protective of water quality. The process for writing a permit begins with reviewing the discharger's permit application, which provides information about the facility, its inputs, its treatment train, and its discharge location and characteristics. Staff then performs what is referred to as a reasonable potential analysis (RPA), where staff analyzes water quality data from the discharge and receiving water and compares that to water quality standards from various sources including the CTR, ISWEBE, Ocean Plan, Central Coast Basin Plan, and maximum contaminant levels for drinking water protection established in Title 22 of the California Code of Regulations, accounting for the designated beneficial uses of the receiving water. The procedures for the RPA are described in the Ocean Plan for discharges to the ocean and in the SIP and ISWEBE for discharges to inland surface waters, enclosed bays, and estuaries. If the analysis determines that there is reasonable potential for the discharge to cause or contribute to an excursion from a water quality standard for a specific pollutant, then an effluent limit is established for that pollutant in the permit.

The permit writing process also includes coordination with other programs at the Central Coast Water Board, state and local agencies, USEPA, and interested persons. Additionally, staff performs outreach to tribal contacts and environmental justice representatives. Once the permit has been drafted, an administrative draft is shared with the discharger, USEPA, and other agencies based on existing memorandums of understanding (MOAs). After the administrative draft review period, the draft permit is posted for a 30-day public comment period. Staff reviews all public comments that are received, makes changes or clarifications to the draft permit where appropriate, and provides responses to comments describing why changes were or were not made. Staff then presents the proposed order to the board for consideration.

Sections of an NPDES Permit

NPDES permits are composed of the following sections: facility information, findings describing how the permit complies with the plans and policies that govern NPDES

permits, discharge prohibitions, effluent limitations, receiving water limitations, provisions, and a description of compliance determination. Many of the findings and provisions in the permits are standard template language used statewide.

NPDES permits also include the following attachments: definitions, maps, a flow schematic, standard provisions, a monitoring and reporting program, and the fact sheet. The monitoring and reporting program is a key permit component that includes a list of pollutants the discharger must monitor for at specified frequencies in the influent, effluent, and receiving water. The monitoring and reporting program requires the discharger to submit monitoring reports, and it includes a schedule and description of other monitoring and reporting requirements that vary between facilities, such as pretreatment, biosolids, recycled water, climate change adaptation planning, etc.

Report Review

Dischargers are required to submit electronic self-monitoring reports (eSMRs) to the State Water Board's online database, called the California Integrated Water Quality System (CIWQS). Staff reviews the eSMRs for completeness and to determine whether exceedances of effluent limitations or receiving water limitations have occurred. The frequency of submittals varies from facility to facility, but in general facilities submit eSMRs monthly, quarterly, and annually.

Staff also reviews and provides feedback on more detailed and nuanced reports, such as those developed as part of the facility's climate change adaptation program. For example, some facilities are required to submit a hazards monitoring plan, a facility and equipment life expectancy analysis, and a climate change adaptation plan. Ensuring that all NPDES facilities are adequately planning for the risks and challenges associated with a changing climate is important and complex. Recently, USEPA launched a program called Creating Resilient Water Utilities (CRWU)³ where USEPA provides free climate change planning consultation to facilities that apply and are selected for the assistance.

Inspections

Staff regularly inspects permitted facilities to assess potential areas of noncompliance with permit requirements, investigate how the facility is run and any challenges that facility staff are facing, and ensure that facility staff fully understand what their permit requires. Annual inspection targets are discussed in the sections on program targets below.

General Permits

The Central Coast Water Board has two general NPDES permits: Order R3-2023-0013 *General Permit for Discharges from Aquaculture Facilities and Aquariums* with eight enrollees and Order R3-2022-0035 *General Permit for Discharges with Limited Threat to Water Quality* with over 20 enrollees. Staff receives and processes applications,

³ CRWU can be found online at <https://www.epa.gov/crwu>

monitoring reports, and terminations for these facilities. Additionally, there are several statewide general NPDES permits⁴ that cover aquatic pesticides, discharges from utility vaults and underground structures, and discharges from drinking water systems. Central Coast Water Board staff receives reports associated with these facilities but State Water Board staff manage enrollments and terminations.

Pretreatment

POTWs are designed to treat sewage from primarily domestic sources. However, they may also receive waste from industrial operations that discharge to their collection systems. Depending on the industrial users and what they are discharging, there is the potential for passthrough and interference. Passthrough is when a pollutant enters a POTW and exits the POTW in an amount that causes a violation of an effluent limit or receiving water limit because the POTW was not able to sufficiently remove the pollutant through its treatment processes. Interference is a discharge to the POTW that inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes. Examples of industrial users include dentist offices that can discharge mercury; aquatic centers that can discharge elevated levels of total dissolved solids, sodium, and chloride; and manufacturing facilities that can discharge various toxic organics.

POTWs with design flows greater than 5 million gallons per day (MGD) and POTWs that accept wastewater from industrial users that could affect the treatment facility or its processes are required to establish a pretreatment program. In the Central Coast Region, 10 NPDES permitted facilities have established pretreatment programs. The POTW is required to establish local limits, which quantify the amount of various pollutants that can be discharged to the POTW without causing passthrough or interference, and to enforce their local limits. The Central Coast Water Board does not have direct authority over industrial users that discharge to POTWs, but failure to implement an approved pretreatment program would constitute a violation of an NPDES permit. Central Coast Water Board staff is involved in the review and approval of new pretreatment programs and is involved in local limit reviews when needed or when the discharger is proposing to relax their local limits. State Water Board and USEPA pretreatment staff provide significant support in the review and approval processes.

Sanitary Sewer Systems and Spills

Waste is conveyed from residences, commercial establishments, and industrial users to wastewater treatment plants through sanitary sewer systems, also referred to as collection systems. Sewage is untreated or partially treated domestic, municipal, and/or industrial waste conveyed in a sanitary sewer system. A spill is a discharge of sewage from any portion of a sanitary sewer system due to a leak, blockage, operational failure, and/or infrastructure failure. Sewage spills from a sanitary sewer system may threaten public health, beneficial uses of waters of the state, and the environment. To provide a

⁴ The statewide general NPDES permits can be found online here:
https://www.waterboards.ca.gov/centralcoast/board_decisions/adopted_orders/#go_npdes_statewide

consistent statewide regulatory approach to address sanitary sewer spills, the State Water Board adopted Water Quality Order 2022-0103-DWQ, *Statewide General Waste Discharge Requirements for Sanitary Sewer Systems* (Sanitary Sewer Systems General Order).⁵

When a sewage spill occurs, the spill may be required to be reported to the California Office of Emergency Services (CalOES), depending on the volume and location of the spill. The Sanitary Sewer Systems General Order requires different timing and details to be reported depending on the volume and location of the spill and requires all spill reports to be submitted to CIWQS.

When Central Coast Water Board staff becomes aware of a spill, either through CalOES or a spill report in CIWQS, staff reviews the information provided in the report and determines what level of follow-up is needed. Smaller spills (less than 1,000 gallons) that do not reach surface waters are lower priority spills, but they are tracked to help with assessing how effectively the collection system is managed. Larger spills that reach surface water require detailed reports that include the cause of the spill, the enrollee's response to the spill, water quality monitoring, and an evaluation of the impacts of the spill, including short-term and long-term impacts to beneficial uses of the surface water. NPDES program staff coordinates with enforcement program staff to determine when and what type of enforcement action is appropriate for each spill.

Enforcement

NPDES program staff coordinates closely with the enforcement coordinator and staff on various enforcement methods and strategies. Staff ensures that NPDES permittees understand and comply with the requirements in their permits, including prohibitions, effluent limitations, monitoring, and reporting.

Mandatory Minimum Penalties

A core aspect of the NPDES program is mandatory minimum penalties (MMPs) associated with exceedances of effluent limitations. Pursuant to California Water Code section 13385, certain violations subject permittees to mandatory civil liability of at least \$3,000. An MMP is required to be assessed for each serious violation, which is any waste discharge that exceeds the effluent limitation for a Group I pollutant by 40 percent or more or a Group II pollutant by 20 percent or more (40 CFR 123.45 describes what pollutants fall into Group I and Group II) or a failure to file certain discharge monitoring reports for a complete period of 30 days. Additionally, an MMP must be assessed for each non-serious, or chronic, violation, not counting the first three. A chronic violation occurs if the discharger violates an effluent limitation or certain toxicity effluent limitations four or more times in any 180-day period.

NPDES program staff reviews eSMRs for compliance with effluent limitations. When exceedances are identified that are subject to MMPs, staff coordinates with

⁵ More information on the Sanitary Sewer System General Order and its implementation can be found online at https://www.waterboards.ca.gov/water_issues/programs/ssol/

enforcement program staff to issue MMPs. The quarterly enforcement report summarizes the status of MMP enforcement.

Time Schedule Orders

Time schedule orders (TSOs) are an enforcement tool used by the NPDES program to achieve compliance with NPDES permit requirements over time. When a new NPDES permit is issued that includes new or more-stringent effluent limitations that the discharger cannot immediately comply with, the discharger can request a TSO. The TSO describes the actions the discharger will take to upgrade the facility or perform studies that will ultimately result in compliance with the NPDES permit effluent limitations. The TSO establishes performance-based interim effluent limitations and provides the discharger with relief from MMPs, as long as it complies with the interim effluent limitations and the schedule.

In the Central Coast Region, there are three active or soon-to-be active TSOs for NPDES permittees.

- TSO R3-2022-0005-A1 requires the city of Lompoc to perform an intake credit study for the Lompoc Regional Wastewater Reclamation Plant to come into compliance with its NPDES permit's final effluent limitations for boron, sulfate, and chromium (VI) and to upgrade the facility to come into compliance with its temperature receiving water limits by April 2027.
- TSO R3-2022-0046 requires the Heritage Ranch Community Services District to upgrade its facility and come into compliance with effluent limitations for copper, nitrate, and un-ionized ammonia by October 2027.
- TSO R3-2024-0021 will require the city of San Luis Obispo to implement changes to its pretreatment program for the Water Resource Recovery Facility to come into compliance with final effluent limitations for total dissolved solids, chloride, sodium, sulfate, and molybdenum by August 2029.

TSOs typically require a significant amount of NPDES program staff time to develop and oversee and are an important tool for allowing reasonable amounts of time for dischargers to make significant upgrades that ultimately benefit water quality.

Program Targets and Focus Areas for Fiscal Year 23-24

The State Water Board requires Regional Water Board NPDES programs to set permit adoption and inspection targets for each state fiscal year (July 1 to June 30). The minimum target numbers are based on Clean Water Act section 106 workplan commitments between the State Water Board and USEPA and can be increased based on resource capacity and priorities.

In general, USEPA expects Regional Water Boards to renew or terminate 20 percent of their universe of permits each year, to inspect major facilities at least once every two years, and to inspect minor facilities at least once every five years. Facilities with compliance issues or facilities whose permits are being renewed are expected to be

prioritized for inspections. The program's targets for fiscal year 23-24 and a description of the status of achieving the targets are included below.

Central Coast Water Board Program Performance Targets for Fiscal Year 23-24:

1. Renew or terminate four major facility permits, one minor facility permit, and one general permit.
 - a. Target partially met: two major facility permits and one general permit were renewed.
 - i. City of Santa Cruz Wastewater Treatment Facility, Order R3-2023-0001
 - ii. City of San Luis Obispo Water Resource Recovery Facility, Order R3-2024-0001
 - iii. General NPDES permit for discharges from aquaculture facilities and aquariums, Order R3-2023-0013
2. Inspect 13 major facilities.
 - a. Target met: 17 major facilities were inspected.
3. Inspect six individual minor facilities.
 - a. Target met: six minor facilities were inspected.
 - b. Additionally, three minor general permit facilities were inspected.

Program Targets and Focus Areas for Fiscal Year 24-25

Central Coast Water Board Program Performance Targets for Fiscal Year 24-25:

1. Renew or terminate five major facility permits and three minor facility permits.
2. Inspect 10 major facilities.
3. Inspect three individual minor facilities.

In addition to the above targets for fiscal year 24-25, staff will be prioritizing several important enforcement cases and the permitting processes for recycled water and desalination projects, and staff will be providing assistance to facilities that are at various stages of climate change adaptation planning.

Human Right to Water

California Water Code section 106.3, subdivision (a) states that it is the policy of the State of California "that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitation purposes." On January 26, 2017, the Central Coast Water Board adopted Resolution R3-2017-0004, which affirms the realization of the human right to water and the protection of human health as the Central Coast Water Board's top priorities.

NPDES permits that regulate discharges to surface waters with the municipal and domestic supply (MUN) beneficial use include Title 22 MCLs in the reasonable potential analysis and establish effluent limitations where needed to protect the MUN beneficial use. Additionally, NPDES staff works with dischargers to develop permit language that encourages and facilitates the production and use of recycled water. When recycled

water is used for irrigation purposes, less potable water is used for irrigation and is therefore available for human consumption and use.

Environmental Justice

Environmental Justice principles call for the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income in the development, adoption, implementation, and enforcement of all environmental laws, regulations, and policies that affect every community's natural resources and the places people live, work, play, and learn. The Central Coast Water Board implements regulatory activities and water quality projects in a manner that ensures the fair treatment of all people, including Underrepresented Communities. Underrepresented Communities include but are not limited to Disadvantaged Communities (DACs), Severely Disadvantaged Communities (SDACs), Economically Distressed Areas (EDAs), Tribes, Environmentally Disadvantaged Communities (EnvDACs), and members of Fringe Communities.⁶ Furthermore, the Central Coast Water Board is committed to providing all stakeholders the opportunity to participate in the public process and provide meaningful input to decisions that affect their communities.

As part of the permit writing process, NPDES program staff reviews census data to determine whether any block groups in the service area of the facility are identified as DACs or SDACs. The operation of NPDES permitted facilities in compliance with their permits is not expected to pose a significant threat to water quality and is therefore unlikely to impact DACs. However, if impacts to surface water result from the discharge regulated by NPDES permits, Central Coast Water Board staff will help facilitate outreach and education to inform affected parties and connect them with available resources and will update the permit as necessary to protect water quality.

Climate Change

The Central Coast faces the threat and the effects of climate change for the foreseeable and distant future. To proactively prepare and respond, the Central Coast Water Board

⁶ Disadvantaged Community: a community with an annual median household income that is less than 80% of the statewide annual median household income (Public Resources Code section 80002(e)); Severely Disadvantaged Community: a community with a median household income of less than 60% of the statewide average. (Public Resources Code section 80002(n)); Economically Distressed Area: a municipality with a population of 20,000 persons or less, a rural county, or a reasonably isolated and divisible segment of a larger municipality where the segment of the population is 20,000 persons or less with an annual median household income that is less than 85% of the statewide median household income and with one or more of the following conditions as determined by the department: (1) financial hardship, (2) unemployment rate at least 2% higher than the statewide average, or (3) low population density. (Water Code section 79702(k)); Tribes: federally recognized Indian Tribes and California State Indian Tribes listed on the Native American Heritage Commission's California Tribal Consultation List; EnvDACs: CalEPA designates the top 25 percent scoring census tracts as DACs. Census tracts that score the highest five percent of pollution burden scores but do not have an overall CalEnviroScreen score because of unreliable socioeconomic or health data are also designated as DACs (refer to the CalEnviroScreen 3.0 Mapping Tool or Results Excel Sheet); Fringe Community: communities that do not meet the established DAC, SDAC, and EDA definitions but can show that they score in the top 25 percent of either the Pollution Burden or Population Characteristics score using the CalEnviroScreen 3.0.

has launched the Central Coast Water Board's Climate Action Initiative, which identifies how the Central Coast Water Board's work relates to climate change and prioritizes actions that improve water supply resiliency through water conservation and wastewater reuse and recycling; mitigate for and adapt to sea level rise and increased flooding; improve energy efficiency; and reduce greenhouse gas production. The Climate Action Initiative is consistent with the Governor's Executive Order B-30-15 and the State Water Board's Climate Change Resolution 2017-0012.

All updated NPDES permits require dischargers to implement and report on some level of climate change adaptation planning. Some dischargers have already developed significant climate change adaptation programs. In those cases, the NPDES permit describes what the discharger has accomplished so far and requires the discharger to submit progress reports. Other facilities have not yet begun significant climate change adaptation planning or assessment and may currently lack the resources or expertise to develop effective plans and programs. In those situations, the NPDES permit specifies additional deliverables over the course of the permit to guide the discharger and ensure they are considering all hazards and adaptation strategies and are aware of technical assistance, such as USEPA's CRWU program, and funding opportunities.

CONCLUSION

The NPDES program performs a variety of tasks related to compliance assistance, permit writing, review of reports, and coordination with the enforcement program. Staff prioritizes permits and enforcement actions based on threat to water quality, history of noncompliance, opportunities to facilitate recycled water production and use, and the need for climate change adaptation planning to protect critical infrastructure.

ATTACHMENTS

1. Table of Central Coast Water Board NPDES permits
2. Map of individual NPDES permitted facilities

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