

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

STAFF REPORT FOR REGULAR MEETING OF JULY 16-17, 2020

Prepared on June 12, 2020

ITEM NUMBER: 8

SUBJECT: Issuance of Waste Discharge Requirements, National Pollutant Discharge Elimination System Permit No. CA3000001, Order No. R3-2020-0004 for Cayucos Sanitary District Water Resource Recovery Facility, San Luis Obispo County

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KEY INFORMATION

Location: Toro Creek Road, unincorporated San Luis Obispo County
Type of Discharge: Treated domestic wastewater
Design Capacity: 0.34 million gallons per day (MGD)
Treatment: Disinfected tertiary through membrane bioreactor filtration and ultraviolet disinfection
Disposal: Discharge through ocean outfall previously used by the Chevron Estero Marine Shore Terminal, located approximately 3,000 feet from shore at a depth of approximately 50 feet
Reclamation: Production of disinfected tertiary water, reuse onsite, and assessing options for reuse offsite, which would be covered by separate permits
Existing Orders: Not applicable, new facility (currently discharging to existing Morro Bay/Cayucos Wastewater Treatment Plant under Order No. R3-2017-0050, National Pollutant Discharge Elimination System (NPDES) Permit No. CA0047881)

ACTION: Adopt Proposed Order No. R3-2020-0004

SUMMARY

This staff report provides an overview of proposed Order No. R3-2020-0004 for the new Cayucos Sanitary District (Discharger) Water Resource Recovery Facility (Facility), which will discharge treated effluent to a new location in the Pacific Ocean. Central Coast Water Board staff worked collaboratively with the Discharger to draft the proposed order. The proposed order regulates discharges of treated effluent to the Pacific Ocean to ensure the Discharger will achieve water quality standards. The

proposed order also regulates the production of recycled water and requires continued planning for the beneficial reuse of the recycled water.

This staff report summarizes the Facility background, proposed order considerations, proposed order alignment with Central Coast Water Board initiatives, and comments and responses. The fact sheet section of the proposed order contains detailed explanations of permit information; facility description; applicable plans, policies, and regulations; and rationales for effluent limitations and discharge specifications, receiving water limitations, provisions, and monitoring requirements. Central Coast Water Board staff recommends adoption of the proposed order (see Attachment 3).

DISCUSSION

Background

The Discharger services the community of Cayucos and currently sends its untreated wastewater to the existing Morro Bay/Cayucos Wastewater Treatment Plant (WWTP). The Central Coast Water Board issued a time schedule order to the Discharger and the City of Morro Bay specifying actions these entities must take to correct violations of final effluent limitations for conventional pollutants biological oxygen demand and total suspended solids. The compliance schedule requires actions to plan for and construct wastewater treatment facility improvements to achieve full compliance with final effluent limitations in the NPDES permit for the shared facility by February 28, 2023. In response to the compliance schedule required by the time schedule order, the Cayucos Sanitary District is constructing its own facility, separate from the City of Morro Bay. When the Facility is operational, wastewater from the Cayucos Sanitary District that is currently treated and discharged at the Morro Bay/Cayucos WWTP will be treated at and discharged from the Facility.

The Facility is located at a site in the Toro Creek valley approximately 0.75 miles inland from State Route 1 north of Morro Bay. The Facility has an average annual daily design flow of 0.34 MGD and a maximum daily design flow of 1.2 MGD. The treatment processes include headworks screening and grit removal facilities, a membrane bioreactor, and ultraviolet disinfection. The Discharger will dewater wastewater solids in a screw press and haul the solids for offsite disposal. The Discharger plans to reuse a portion of the treated wastewater for onsite uses and discharge the remaining treated effluent through the ocean outfall. The Facility is designed to treat wastewater to disinfected tertiary recycled water standards, as defined by title 22 section 60301.230.

The Discharger is assessing options for providing recycled water for offsite use. The Central Coast Water Board will cover any distribution and offsite use of the recycled water under a separate permit. The Discharger conducted preliminary planning for beneficially reusing recycled water produced at the Facility and identified the following as the most favorable projects: 1) non-potable reuse for agricultural irrigation and 2) surface water augmentation using Whale Rock Reservoir through indirect potable reuse or direct potable reuse. The Discharger has indicated it will continue to evaluate opportunities for groundwater recharge.

Proposed Order Considerations

The Central Coast Water Board has not approved a new ocean discharge location for treated domestic wastewater in decades. Despite this, Central Coast Water Board staff recommends adoption of the proposed order because the Facility proposes to produce higher quality effluent relative to the existing Morro Bay/Cayucos WWTP, which will be more protective of receiving water quality.

Because this is a new plant, the proposed order includes a comprehensive monitoring program to collect ongoing water quality data to ensure the Facility performs effectively. The proposed order also includes triggers for follow-up actions if monitoring data falls outside of normal ranges. This is critical because the proposed order does not include water quality-based effluent limitations. Central Coast Water Board staff did not conduct a reasonable potential analysis for the proposed order, which is necessary to support water quality based effluent limitations, for the following reasons: 1) there is limited Discharger-specific influent water quality data available from the Morro Bay/Cayucos WWTP and 2) there is no applicable effluent water quality data because the Morro Bay/Cayucos WWTP treats a comingled waste stream and uses less effective treatment processes relative to those proposed at the Facility. Monitoring data collected during the permit term will be used to conduct a reasonable potential analysis and develop water quality-based effluent limitations when the permit is renewed in approximately five years.

Despite the Discharger's proposing to produce higher quality effluent relative to the current shared facility, the proposed order requires the Discharger to plan for beneficial reuse of recycled water produced at the Facility, to work towards minimizing discharges from the new discharge location. The State Water Resource Control Board (State Water Board) Recycled Water Policy includes goals to increase the use of recycled water and to reuse all dry weather direct discharges of treated wastewater to ocean waters that can be viably put to beneficial use. To align the proposed order with the State Water Board Recycled Water Policy and move the Central Coast closer to meeting these statewide goals, the proposed order requires the Discharger to identify and assess beneficial reuse alternatives for the recycled water produced at the Facility. Recycled water planning requirements are further supported by other state policies that recognize the value of water recycling, the Discharger's stated commitment to maximize beneficial reuse of the recycled water produced at the Facility, and a special condition in the California Coastal Commission's coastal development permit for the Facility that requires the development of a recycled water management plan. Section VI.B.6 of the Fact Sheet in the proposed order provides further justification for the recycled water management planning requirements.

Central Coast Water Board staff coordinated extensively with the Discharger while preparing the proposed order. To seek feedback and inform modifications, Central Coast Water Board staff transmitted the draft proposed order to the Discharger prior to the public comment period. Staff has also specifically discussed multiple iterations of the recycled water management requirements with the Discharger.

Human Right to Water

California Water Code section 106.3, subdivision (a) states that it is a 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 No. 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.

The proposed order is consistent with Resolution No. R3-2017-0004 by requiring the Discharger to plan for beneficial reuse of recycled water produced at the Facility, which may include augmenting local community drinking water supplies to improve water supply resiliency in response to climate change.

Disadvantaged Communities

The Central Coast Water Board implements regulatory activities and water quality projects in a manner that ensures the fair treatment of people of all ethnicities, cultures, backgrounds and income levels, including disadvantaged communities (DACs). Additionally, 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.

The proposed order regulates the production of recycled water and discharge of treated domestic wastewater to the ocean. Based on 2016 census data, one DAC census block group is in the community of Cayucos, representing approximately one quarter of the population. Central Coast Water Board staff has determined that the regulation of this publicly owned treatment works, in compliance with the proposed order, will not pose a significant threat to water quality and is therefore unlikely to impact DACs. If impacts to surface water results from the discharges regulated by the proposed order, Central Coast Water Board staff will help facilitate outreach and education to inform affected parties and connect them with available resources.

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 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 promote adaptation and mitigation to improve resilience and protect beneficial uses. The Climate Action Initiative is consistent with the Governor's Executive Order B-30-15 and the State Water Board's Climate Change Resolution No. 2017-0012.

The proposed order aligns with the Climate Action Initiative's objectives. To take steps towards building climate change resiliency on the Central Coast, the proposed order requires the Discharger to identify and assess the viability of beneficially reusing the Facility's treated effluent to achieve the following recycled water benefits identified in the State Water Board Recycled Water Policy: provide safe alternatives to fresh water or

potable water for approved uses; support sustainable groundwater and surface water uses with the intent of substituting use of treated effluent for use of fresh water or potable water; and diversify community water supplies and mitigate the impacts of climate change. Proactively adapting to climate change, the Discharger sited the Facility away from coastal hazards and vulnerabilities. The existing Morro Bay/Cayucos WWTP is in an area subject to coastal hazards and vulnerabilities. Additionally, to proactively plan for the future, the proposed order requires the Discharger to continue to identify and plan for hazards and vulnerabilities at the Facility related to flooding, temperature, and influent flow and loading fluctuations exacerbated by climate change.

COMMENTS

The following stakeholders submitted comments on the February 7, 2020 draft order: the Discharger; State Water Board's Division of Drinking Water; Goleta Sanitary District; Montecito Sanitary District; Central Coast Chapter of Surfrider Foundation; WateReuse California and California Association of Sanitation Agencies, jointly; and Julie Tacker, a private citizen.

Most issues raised by the Discharger and the other commenters related to the draft requirement to beneficially reuse the recycled water produced at the Facility by a specified date. Central Coast Water Board staff accounted for reasonableness and practicality in the February 7, 2020 draft order recycled water management requirements by aligning the requirements with actions the Discharger had already proposed and by providing infeasibility offramps such as providing additional time for implementation and allowing exceptions to full beneficial reuse. However, in response to comments, primarily related to issues raised about the viability and practicality of implementing reuse by a date certain, Central Coast Water Board staff revised the requirements to no longer require the Discharger to plan for and reuse its treated effluent by a specified date. Instead, the revised proposed order requires the Discharger to plan for maximizing the amount of treated effluent used for beneficial reuse with the goal of achieving maximum beneficial reuse. The revisions reflect Central Coast Water Board staff's acknowledgement of the unknowns related to establishing agreements with potential customers since the Discharger is not a water purveyor; uncertainties in the timing and content of the State Water Board's pending direct potable reuse regulations; and other unforeseen challenges with implementing recycled water projects.

Contrary to the above comments, some commenters argue the requirements to plan for and implement beneficial reuse of recycled water produced at the Facility are insufficient. These commenters do not support the Central Coast Water Board's approving disposal of treated wastewater at a new ocean outfall location, arguing that the originally proposed timeframe of ten years for beneficial reuse is too long, that the proposed order will institutionalize the Discharger's ocean outfall through the dependence it creates, and that allowing use of this outfall will allow and facilitate brine discharges. Although Central Coast Water Board staff acknowledges the advantages associated with prompt beneficial reuse of treated wastewater, staff also notes that taking time to develop a reuse strategy can result in a project that provides higher benefits compared to a more readily available reuse option. In addition, allowing the use of the new discharge location will ultimately result in

higher quality effluent discharges relative to continued use of the existing Morro Bay/Cayucos WWTP. Furthermore, while the Discharger is not currently proposing a program to accept brine wastes, Central Coast Water Board staff sees benefits in the Facility potentially providing for brine disposal to support potential water supply resiliency projects (e.g., advanced water treatment facilities) and discourage long-distance transport of brine to reduce greenhouse gas emissions. Lastly, to proactively remove barriers to water recycling, the proposed order specifies brine discharges from recycled water treatment processes would be exempt from future expectations related to minimizing ocean discharges.

Additionally, the Discharger raised a variety of issues associated with other aspects of the proposed order, primarily related to requirement stringency, state versus federal requirements, effluent limitations, and monitoring and reporting requirements. Many of the requirements that the Discharger raised issues about are contained in many other NPDES discharge permits for publicly owned treatment works across California. Central Coast Water Board staff worked collaboratively with the Discharger to revise the proposed order or explain why revisions were not possible to ensure protection of water quality and beneficial uses. The Discharger has indicated it is agreeable to staff's proposed responses, except for staff's proposed response to the Discharger's comment regarding fecal coliform bacteria effluent monitoring frequency.

The Discharger requested the Central Coast Water Board reduce fecal coliform bacteria effluent monitoring from five times per week to once per year. The Discharger explained that it can use total coliform bacteria effluent monitoring results as a proxy for fecal coliform bacteria levels. Because the proposed order does not require ongoing scheduled receiving water monitoring, fecal coliform bacteria effluent monitoring is necessary to help inform if the Facility could be causing elevated bacteria levels in receiving waters and potentially posing a threat to public health at nearby beaches. In response to the Discharger's rationale about using total coliform bacteria as a proxy, Central Coast Water Board staff revised the proposed order to reduce fecal coliform bacteria effluent monitoring to twice per week and increase total coliform bacteria effluent monitoring from five times per week to daily. The proposed order includes conditions that trigger increased fecal coliform bacteria effluent monitoring if the Facility has operational issues or other issues that could indicate elevated bacteria concentrations (see staff response to comment Cayucos Sanitary District – 10 in Attachment 1 for additional details).

See Attachment 1 for complete comments and Central Coast Water Board staff responses. See Attachment 2 (i.e., hyperlinks to track changes documents) for changes Central Coast Water Board staff made to the February 7, 2020 Draft Order based on comments received.

CONCLUSION

Central Coast Water Board staff drafted and prepared proposed Order No. R3-2020-0004 in compliance with state and federal guidance and regulations. The proposed order is protective of water quality, requires a monitoring and reporting program

sufficient to demonstrate compliance with the proposed order's requirements and to evaluate Facility performance, and requires planning to maximize beneficial reuse of recycled water produced at the Facility.

RECOMMENDATION

Adopt Proposed Order No. R3-2020-0004

ATTACHMENTS

1. Comments and Staff Responses
2. Changes to February 2020 Draft Order No. R3-2020-0004 in Response to Public Comments (note: Draft Order track changes documents provided via hyperlink only)
3. Proposed Order No. R3-2020-0004

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