

**Regional Water Quality Control Board
North Coast Region
Executive Officer's Summary Report
February 3, 2022**

ITEM: 4

SUBJECT: Public Hearing on Order No. R1-2022-0002 to consider adoption of proposed Waste Discharge Requirements for Humboldt County Resort Improvement District No. 1, Shelter Cove Wastewater Treatment Facility, WDID No. 1B84086OHUM, NPDES No. CA0023027 (Matthew Herman)

BOARD ACTION: The Board will consider adoption of Waste Discharge Requirements Order No. R1-2022-0002. The Order will serve as a National Pollutant Discharge Elimination System (NPDES) permit for a period of five years.

BACKGROUND: The Humboldt County Resort Improvement District No. 1 (Permittee) owns and operates the Shelter Cove Wastewater Treatment Facility (Facility), a domestic wastewater treatment plant that serves a population of approximately 700 people in Shelter Cove, California.

The Facility has an average dry weather design treatment capacity of 0.17 million gallons per day (mgd), an average wet weather treatment capacity of 0.27 mgd, and a peak daily wet weather treatment capacity of 0.77 mgd. The wastewater treatment plant is an extended aeration, activated sludge system comprised of two oxidation ditches, two clarifiers, chlorine contact chamber and sulfur dioxide dechlorination. The Facility also includes a filtration system to provide tertiary treatment for the production of recycled water for irrigation of the Shelter Cove Golf Course.

During the winter period, all of the secondary treated effluent is discharged into the surf zone of the Pacific Ocean (Discharge Point 001) within the King Range National Conservation Area. Historically, during the spring, summer, and fall, some or all of the treated effluent has been discharged to a storage pond (Discharge Point 002) that supplies a spray irrigation system on the Shelter Cove Golf Course, a nine-hole golf course. As further discussed in the Discussion section (first paragraph and Item 1) below, recycled water use requirements are not included in Order No. R1-2022-0002.

DISCUSSION: Order No. R1-2022-0002 (Proposed Permit), replaces Order No. R1-2015-0017 (Previous Permit). The Proposed Permit continues to prescribe technology-based effluent limitations for biochemical oxygen demand (BOD) and total suspended solids (TSS), and effluent limitations for total coliform bacteria, oil and grease, settleable solids, turbidity, pH, and total residual chlorine based on the California Ocean Plan for discharges to the Pacific Ocean. The Proposed Permit also retains requirements for the production of recycled water, but does not retain the requirements for the use of recycled water because the Permittee must address several issues in order to demonstrate compliance with Title 22 recycled water requirements, including the requirements to complete a tracer study on its tertiary chlorine disinfection system,

identify a means to meet Title 22 requirements for daily coliform sampling, and complete a Title 22 Recycled Water Engineering Report for review and acceptance by State Water Board Division of Drinking Water staff. The Permittee is working with Regional Water Board and Division of Drinking Water (DDW) staff to address these Title 22 issues but, the Permittee does not anticipate completing the work for several years.

The Proposed Permit further retains the special provisions which require studies and reports to ensure compliance with the operations, recycled water, toxicity, source control, and biosolids disposal requirements. Additionally, a special study requirement for the preparation and submittal of a Disaster Preparedness Assessment Report and Action Plan has been included in the Proposed permit. Other noteworthy changes to the Proposed Permit include the following:

- 1. Recycled Water Requirements.** As explained above, recycled water use requirements are not included in the Proposed Permit because the Permittee has experienced delays in completing the Title 22 Recycled Water Engineering Report that is required in order for the Permittee to continue to provide recycled water for irrigation of the golf course. The Permittee is working to address DDW requirements and conditions, which includes the need for the District to complete a tracer study to demonstrate that the chlorine disinfection system meets Title 22 requirements and to establish the allowable flow conditions through the tertiary disinfection system. The Permittee has informed Regional Water Board staff that it may take several years for this work to be completed. The Proposed Permit includes most of the recycled water requirements that apply to the production of recycled water. Once the Permittee completes the work required by DDW, the Permittee may enroll the Shelter Cove Golf Course recycled water use (and any other uses that the District addresses in a DDW-accepted Title 22 Engineering Report) under Order No. WQ 2016-0068-DDW, *Water Reclamation Requirements for Recycled Water Use* or the NPDES permit, Order No. R1-2022-0002, may be modified at a future date to allow the use of recycled water. All treated wastewater will be discharged as secondary treated effluent through Discharge Point 001 into the surf zone of the Pacific Ocean until recycled water production and use is reestablished. (Order Table Note 1 of Table 1 and Fact Sheet section 4.7)
- 2. Water Quality-Based Effluent Limitations.** Sample results during the Previous Permit's term indicate that no reasonable potential for copper or TCDD-equivalents is present, thus the water quality-based effluent limitations for these constituents that were in the Previous Permit are not included in the Proposed Permit.
- 3. Disinfection Process Requirements.** The requirement from the Previous Permit that a minimum chlorine residual of 1.5 mg/L be maintained at the end of the chlorine contact basin (before dechlorination) is not included in the Proposed Permit. This requirement has been replaced with a requirement that total residual chlorine concentration be maintained at a concentration that ensures the discharge meets the total coliform effluent limitation. This minor modification provides the Permittee the flexibility to add the appropriate amount of disinfectant chemicals to the effluent

while still achieving the objective of ensuring adequate disinfection to meet effluent limitations. (Order section 4.4.2.1)

4. **Bacteria Provisions.** New receiving water limitations for enterococci and fecal coliform bacteria are included in the Proposed Permit to implement provisions of the new bacteria provisions that were adopted by the State Water Board on August 7, 2018 and amended into the California Ocean Plan. (Order Section 5.1.20)
5. **Effluent Discharge Evaluation.** A new Special Study Provision is included in the Proposed Permit requiring an evaluation of the effluent discharge to either confirm the current dilution ratio or to propose an alternative dilution ratio. (Order section 6.3.2.3 and Fact Sheet section 6.2.2.3)
6. **Compliance Determination Language.** New language for determining compliance with enterococci and fecal coliform bacteria receiving water limitations as well as six month median and single sample maximum effluent limitations are included in the Proposed Permit. (Order Sections 7.8.2, 7.8.3, 7.8.4, 7.8.5, 7.12, and 7.13)
7. **Monitoring and Reporting Requirements.** Noteworthy changes to the monitoring and reporting program (MRP) include the following:
 - a. The MRP includes modified language for chronic toxicity test species (MRP section 5.1.4.1). The revised language requires the use of topsmelt, *Atherinops affinis* as the required species when it is available and allows for the use of inland silverside, *Menidia beryllina* when topsmelt is not available. The goal is to have all ocean dischargers test for the preferred species (topsmelt) whenever it is available.
 - b. The MRP has new biosolids monitoring requirements as requested by U.S. EPA staff, including a requirement for the Permittee to run a paint filter test on sludge prior to hauling to demonstrate that the sludge has been adequately dried prior to hauling, as well as new requirements regarding records maintenance. (MRP section 9.4)
 - c. The MRP includes a new annual volumetric reporting requirement to implement the requirements of the State Water Board Recycled Water Policy (MRP section 10.4.3).
 - d. The MRP does not include the requirement for the District to conduct a photographic survey of the flora and fauna in the vicinity of Discharge Point 001. Regional Water Board staff determined that the photographic surveys to date have demonstrated that the discharge has little to no impact on the flora and fauna and because effluent quality has remained consistent over the years that this Facility has been permitted, the photographic survey requirement is being reduced to a once every other permit term requirement (once every ten years). The photographic survey will be included in the next permit renewal. (Fact Sheet section 2.2.4)

A copy of the Draft Permit was posted on the Regional Water Board website and was available for public comment from November 3 through December 6, 2021 for the 30-day comment period. A timely comment letter with a single comment regarding a biosolids monitoring requirement was received from the Permittee. No other comments were received. The attached Response to Comments document includes a full explanation of the Permittee's comment and Staff's response to the Permittee's comment; a minor clarifying modification was made to the Proposed Permit in response to the Permittee's comment. The Response to Comments document also summarizes several staff-initiated changes.

Staff notified the Permittee of the proposed changes to the Proposed Permit. The Permittee's December 8, 2021 email reply to Staff indicated that Staff's response to the Permittee's comments and changes to the Proposed Permit are acceptable to the Permittee. Staff anticipates that the Proposed Permit will be uncontested.

RECOMMENDATION: Adopt Order No. R1-2022-0002, as proposed.

SUPPORTING DOCUMENTS:

1. Proposed Order R1-2022-0002
2. Notice of Public Hearing
3. Response to Comments
4. Email copies of the Response to Comments (Shelter Cove Comment letter (dated December 6, 2021) and U.S. EPA email clarifying biosolids language (dated December 7, 2021), are available upon request by emailing Matthew.Herman@Waterboards.ca.gov