

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

**STAFF REPORT FOR REGULAR MEETING OF SEPTEMBER 21, 2017**  
Prepared on August 4, 2017

**ITEM NUMBER: 14**

**SUBJECT: Revision of Waste Discharge Requirements, Reissuance of National Pollutant Discharge Elimination System (NPDES) Permit No. CA0047364 for the Carpinteria Sanitary District Wastewater Treatment Plant, Santa Barbara County, Order No. R3-2017-0032**

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**KEY INFORMATION**

Location: 5351 Sixth Street, Carpinteria, California  
Place ID: 213332  
Type of Discharge: Secondary-treated municipal wastewater and stormwater  
Permitted Flow: Average annual flow 1.5 million gallons per day (MGD); 2.5 MGD dry weather flow design capacity  
Type of Treatment: Secondary sedimentation, chlorination, and dechlorination. Plans to produce tertiary disinfected recycled water for indirect potable reuse project.  
Disposal Method: Discharge to Pacific Ocean  
Solid Wastes: Biosolids are composted and sold for agricultural/landscape purposes  
Existing Orders: Waste Discharge Requirements Order No. R3-2011-0003 and Statewide General WDR for Sanitary Sewer Systems (State Water Board Order No. 2006-0003-DWQ).

**This Action: Adopt Order No. R3-2017-0032**

**SUMMARY**

This agenda item proposes reissuance of an existing NPDES permit (Attachment 1). The Fact Sheet, Attachment F of the proposed Order, includes the legal requirements and technical rationale that serve as the basis for the requirements of the permit. Water Board staff recommends adoption of the proposed Order.

**DISCUSSION**

The Carpinteria Sanitary District (hereinafter Discharger) is the owner and operator of a municipal wastewater treatment plant (hereinafter Facility), a wastewater collection, treatment, and disposal system which provides sewerage service for the City of Carpinteria and portions of Santa Barbara and Ventura County.

The treatment at the Facility consists of mechanical screening and grit removal, primary sedimentation, aerated activated sludge tanks, secondary sedimentation, and chlorination followed by effluent discharge. Secondary treated wastewater is discharged to the Pacific Ocean through a 1,000 foot outfall/diffuser system which terminates in the Santa Barbara Channel in approximately 25 feet of water. The minimum initial dilution ratio of the outfall/diffuser system is 93:1 (seawater:effluent).

In 2016, the Discharger completed a recycled water facilities planning study. The study recommends groundwater recharge with full advanced water treatment as a way to reduce their dependence on surface water. The Discharger plans to pursue an indirect potable reuse water project that will include a multiple barrier advanced water treatment plant, groundwater injection wells, and related infrastructure. The advanced water treatment will include reverse osmosis (RO) and advanced oxidation (AO). Because the exact design details of the project are not known, this Order will be reopened (pursuant to Reopener Provisions in the Order) prior to production of the indirect potable reuse water.

### **Changes from the Existing Order**

The proposed Order is structured in accordance with the statewide NPDES permit template. The proposed Order is consistent with the previous Order with the exception of the following changes/modifications:

#### Substantive changes

- Discharge Point 002 for recycled water was added to the permit and the monitoring requirements.
- The California Ocean Plan (Ocean Plan) reasonable potential analysis (RPA) concluded no “reasonable potential” (i.e., Endpoint 2) to exceed Ocean Plan water quality objectives for acute toxicity, ammonia, antimony, arsenic, cadmium, chlorodibromomethane, chloroform, chromium (VI), copper, halomethanes, lead, mercury, nickel, selenium, silver, and zinc. Therefore, effluent limitations for those pollutants were removed from the permit. This is discussed in the Fact Sheet section IV.C (page F-17) and reflected in Tables 5, 6, and 7 of the proposed permit.
- Effluent limitations for cyanide, chlorinated and non-chlorinated phenolics, and dichlorobromomethane were added based on an inconclusive reasonable potential analysis (i.e., Endpoint 3). The previous permit did not contain effluent limits for these pollutants.
- Bacterial monitoring of receiving water was clarified to be required after a continuous loss of disinfection of 12 hours or longer.

Based on Discharger comments, additional modification to the proposed Order have been made. Please review the Comments section below for further information and details.

### **Compliance History**

The Carpinteria Sanitary District's facility is generally well run and is in compliance. The Discharger had eight violations during the permit term. Two of these violations were minor and

therefore dismissed, after the discharger failed to monitor for toxicity and chromium due to laboratory errors.

The remaining six violations were subject to enforcement action. The Facility had a discharge of undisinfectated secondarily treated effluent through its ocean outfall in violation of its NPDES permit, and had five other effluent violations (total chlorine residual and settleable solids exceedances) subject to mandatory minimum penalties. The Water Board issued Administrative Civil Liability Complaint No. R3-2015-0011 to the Discharger and the Discharger paid the penalty.

## COMMENTS

The Water Board notified the Discharger and interested agencies and persons of its intent to prescribe WDRs for the discharge and provided an opportunity to submit written comments and recommendations. Notification was provided through publication in the Coastal View News on June 29, 2017, posting on the Discharger's website, Water Board's website, and posting at the facility and City Hall. The written comments were due at the Water Board office by 5:00 p.m. on July 23, 2017. Central Coast Water Board staff received two comment letters (Attachments 2 and 3) during the public comment period, which closed on July 23, 2017.

Comment Letter Number	Name	Affiliation
1	Hillary Hauser, Executive Director	Heal the Ocean
2	Craig Murray, P.E., General Manager	Carpinteria Sanitary District

Below are substantive comments and staff responses. The comment number corresponds to the comment letter in the above table.

**Comment 1a** – Commenter requests that the NPDES permit include language allowing for, and facilitating, the Indirect Potable Reuse (IPR) project. Commenter requests that the Board insert language now, to cover the planned improvements/changes at the treatment plant and a "reopener provision" that would allow modification of the permit when the time comes, for the Carpinteria Sanitary District to move forward with its treatment plant facilities upgrade for IPR. The Title 22 section of the NPDES Permit should have provisions - now - that allow for and facilitate the upgrade to the treatment plant.

**Response 1a** – New language was added to the permit to allow the production of recycled water that meets Title 22 criteria. Many of the details of the final IPR project at the treatment plant are not available for the Water Board's September 2017 permit reissuance agenda item; therefore, a reopener clause is included in the proposed permit and the Water Board will evaluate the project at that time. Before full implementation of the final IRP project, the Discharger must also obtain an individual waste discharge requirements permit for aquifer replenishment/extraction activities and enroll in the State Water Resources Control Board's statewide Recycled Water General Permit (2014-0090-DWQ).

**Comment 2a** – Draft Order No. R3-2017-0032 includes Recycling Specifications, a newly defined point of discharge, and various other provisions and references to a future recycled water project. However, the provisions and references are to a conventional Title 22 project

geared towards surface irrigation. Much of the newly incorporated language in the order and attachments is inapplicable to the project actually being developed.

**Response 2a** – Water Board staff is aware that the standard Title 22 provisions in the draft permit may not be applicable to the future indirect potable reuse project. A reopener clause is included in the permit, and the Water Board will evaluate the actual project and establish appropriate requirements at that time.

**Comment 2b** – Effluent limits for Phenolic Compounds and Chlorinated Phenolics were removed in 2011 based on the reasonable potential analysis (RPA). It is unclear why they were added back as monitoring did not show any measurable concentrations.

**Response 2b** – Water Board staff followed the Ocean Plan Appendix VI RPA procedures. The RPA for both Phenolic and Chlorinated Phenolics is inconclusive (Endpoint 3) because the sample sizes are small and contain 100% nondetected values. Using March 2011 to October 2015 data, the RPA showed five conclusive non-exceedances of the Ocean Plan water quality objective for Non-Chlorinated Phenolics and five conclusive non-exceedances of the Ocean Plan water quality objective for Chlorinated Phenolics. Under the Ocean Plan RPA procedure, an effluent limitation is not required (Endpoint 2) when 16 or more conclusive non-exceedances of the objective are observed in the data.

The previous 2011 permit conclusion of Endpoint 2 for Chlorinated and Non-chlorinated phenolics was based on larger sample sizes (N = 15 and 16, respectively) with not more than 46% non-detected values.

**Comment 2c** – Phenolic and Chlorinated Phenolic compounds should be defined in the order or the MRP.

**Response 2c** – Definitions for these compounds were obtained from the State Water Board's Division of Water Quality and inserted into the proposed permit as footnotes to Table 5.

**Comment 2d** – The specificity in newly added standard provisions (VIII.B.11 and VIII.B.12) are inappropriate and beyond the jurisdictional scope of the Central Coast Water Board. These provision should be modified or deleted.

**Response 2d** – These provisions require that facilities conduct proper maintenance of mechanical and electrical equipment and be in compliance with industry-accepted standards for plumbing, electrical, and mechanical codes. These standard provision items are part of the 2012 Updated Standard Provisions for NDPES Permits as requested by the Board during the December 2012 board meeting:

([http://www.waterboards.ca.gov/centralcoast/board\\_info/agendas/2012/december/Item\\_15/index.shtml](http://www.waterboards.ca.gov/centralcoast/board_info/agendas/2012/december/Item_15/index.shtml)). No change to the permit was made in regard to this comment.

**Comment 2e** – The basis for the following requirement in section VI.C.5.d of the draft permit is unclear: "Additional Connections. The Central Coast Water Board must approve any additional connections outside the Sanitary District sewer service area to the effluent sewer main." Does this include extension of service through out-of-agency service agreements authorized by The Local Agency Formation Commission (LAFCO)?

**Response 2e** – The basis for the requirement in permit section VI.C.5.d is Standard Provision V.F.3. (see page D-8). This type of requirement is necessary to assure the Discharger will not

increase capacity in a manner that will result in violations of the permit. Yes, this includes extension of service authorized by LAFCO. Water Board staff agree that LAFCO would need to authorize such expansion. This requirement to notify the board is already included in the Central Coast Water Board's Standard Provisions and is incorporated by reference. Consequently, Water Board staff deleted the requirement in permit section V1.C.5.d.

## **RECOMMENDATION**

Adopt Order No. R3-2017-0032, as proposed.

## **ATTACHMENTS**

1. Proposed Order No. R3-2011-0003, including the following attachments:
  - Attachment A – Definitions
  - Attachment B – Map
  - Attachment C – Flow Schematic
  - Attachment D – Standard Provisions
  - Attachment E – Monitoring and Reporting Program (MRP)
  - Attachment F – Fact Sheet
2. Heal the Ocean letter dated July 21, 2017.
3. Carpinteria Sanitary District letter dated July 20, 2017.

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