

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

STAFF REPORT FOR REGULAR MEETING OF MAY 11-12, 2017

Prepared on April 17, 2017

ITEM NUMBER: 6

SUBJECT: Draft Waste Discharge Requirements and Water Reclamation Requirements (Producer) for the Pasatiempo Golf Club Tertiary Recycled Water System (No. 4490004), Santa Cruz, Santa Cruz County

STAFF CONTACT: Jessica Duffey (805)549-4787 Jessica.Duffey@waterboards.ca.gov
Wastewater Permitting Engineering/Architectural Student Intern

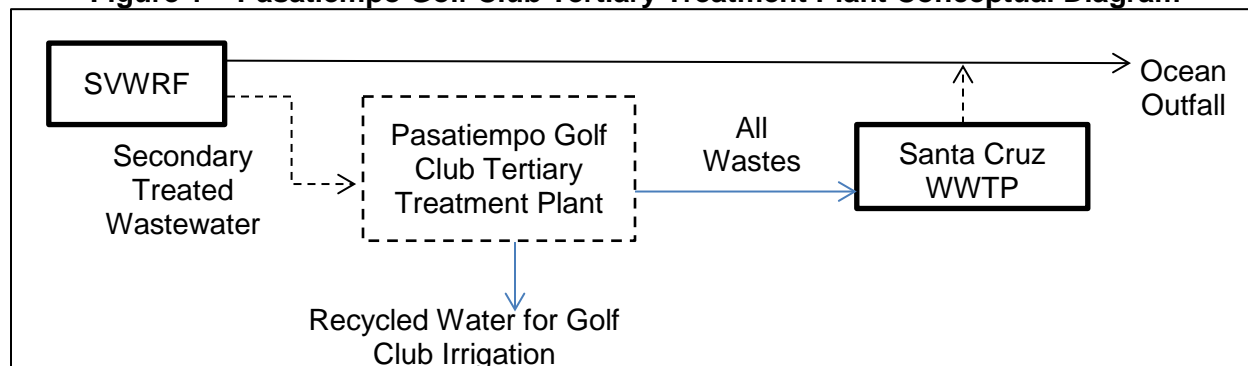
KEY INFORMATION

Facility Name: Pasatiempo Golf Club Tertiary Recycled Water System
Facility Owner: Pasatiempo, Inc.
Location: 20 Clubhouse Road, Santa Cruz, CA 95060
Discharge Type: Tertiary Recycled Water
Design Flow: 600,000 gallons per day (gpd)
Current Flow: None
Treatment Type: Tertiary
Recycling: Golf course irrigation (up to 300,000 gpd during dry season)
Existing Orders: Order 2014-0057-DWQ (Statewide General Permit for Storm Water Discharges Associated with Industrial Activities)
Order WQ 2016-0068-DDW (Statewide Water Reclamation Requirements for Recycled Water Use)

This Action: Adopt Order No. R3-2017-0001

SUMMARY

Pasatiempo Golf Club proposes to treat secondary wastewater effluent from the Scotts Valley Wastewater Reclamation Facility (SVWRF) to a tertiary level to irrigate its golf course. Figure 1 shows a conceptual depiction of the proposed tertiary treatment plant waste streams.

Figure 1 – Pasatiempo Golf Club Tertiary Treatment Plant Conceptual Diagram

Pasatiempo Golf Club's proposed recycled water distribution and use will be enrolled under existing general waste discharge requirements (WDRs) for recycled water use. However, Pasatiempo Golf Club's proposed recycled water production is not covered by the existing WDRs and also must be regulated under WDRs. The proposed order would regulate Pasatiempo Golf Club's proposed recycled water production.

DISCUSSION

Background

Pasatiempo Golf Club plans to treat secondary wastewater effluent from the Scotts Valley Wastewater Reclamation facility to a tertiary level and use it to irrigate its golf course and landscaping.

Facility Description: Pasatiempo Golf Club proposes to achieve disinfected tertiary recycled water via screening, filtration, and chlorination, followed by storage in a 500,000-gallon storage tank. Treatment plant backwash and treated/recycled water overflow will be discharged to the Santa Cruz County Sanitation District's sewer collection system that leads into the city of Santa Cruz's wastewater treatment plant for treatment. Raw sewage from Pasatiempo Golf Club restrooms will also be discharged to the sanitary district's collection system. Secondary wastewater effluent from Scotts Valley and Santa Cruz is co-mingled and discharged to the Monterey Bay National Marine Sanctuary and Pacific Ocean via an outfall under NPDES permits issued by the Central Coast Water Board.

Compliance History: This is a proposed, new facility. It has no compliance history.

The State Water Board has adopted a general statewide order regulating the use of recycled water for irrigation. Pasatiempo's use of recycled water will be enrolled under and regulated by that order. However, the general order does not regulate the production of recycled water. The proposed order regulates Pasatiempo's production of recycled water by specifying treatment standards and by prohibiting any discharges of waste other than the use of recycled water for irrigation.

Proposed Order

The order implements regulations related to recycled water found in Title 22 of the California Code of Regulations, referred to as "Title 22 Water Recycling Criteria."

Total Coliform

The proposed order uses Title 22's total coliform criteria as effluent limits.

Chlorine Residual

The proposed order uses Title 22's chlorine residual criteria as effluent limits.

Turbidity

The proposed turbidity limits implement the Water Recycling Criteria section 60320.5 definition of "filtered wastewater." The discharger proposes to use an "alternate approved method" using two 20-micron Amiad Automatic Microfiber (AMF) cartridge filters. The filters are expected to require six backwashes per day or up to 16,000 gpd. According to the Title 22 Water Recycling Criteria and approval for Amiad AMF filters¹, the turbidity² limits for this filter are as follows:

Sampling Location	Units	Daily Average	Maximum per Time Period	Instantaneous Maximum
Influent Turbidity	NTU ³	N/A	5 NTU for greater than 15 minutes	10
Effluent Turbidity	NTU	2 NTU	5 NTU for greater than 72 minutes in 24 hours	10

¹ All filter design and operational requirements are detailed in Order No. R3-2017-0001.

² In the event that Title 22 is revised to more stringent limitations, those limitations shall govern.

³ Nephelometric Turbidity Units

pH

Title 22 Water Recycling Criteria do not establish pH limitations. Although no pH limits are proposed, grasses cannot tolerate a highly acidic or basic environment. Because the discharger will primarily recycle the water for golf course grass irrigation, the discharger has incentive to keep the irrigation water's pH relatively neutral. Also, soils typically provide a buffering capacity that would naturally insulate groundwater from pH changes. Considering that, imposing a neutral pH requirement on the discharger's effluent (prior to storage, distribution, and use) would impose costs but provide no water quality benefit. Because specifying effluent pH is not a reliable control for protecting groundwater pH, staff proposes no pH limits.

Salts

The proposed order is intended to regulate the production of recycled water. The distribution and use of recycled water is regulated under a separate order. The order that regulates the distribution and use of recycled water is the order that controls the water at the point of discharge. It is at the point of discharge where salts need to be regulated; therefore, this proposed order does not include salts limitations.

Recycled Water Policy

Recycling water helps to fulfill the intent of the California Recycled Water Policy. One component of the California Recycled Water Policy is the development of salt and nutrient management plans to protect groundwater basins' water quality. As mentioned above, the proposed order is intended to regulate the production recycled water. The distribution and use of recycled water is regulated under a separate order. The order that regulates the distribution and use of recycled water is the order that controls the water at the point of discharge. It is at the point of discharge where salts and nutrients need to be regulated. To avoid redundant and conflicting requirements, staff proposes that any California Recycled Water Policy salt and nutrient management plan requirements be contained solely in the order that regulates the

distribution and use of recycled water. The proposed order for the production of recycled water does not include any salt and nutrient management plan requirements.

Recycled Water Order

Central Coast Water Board staff proposes to enroll Pasatiempo Golf Club in the State Water Resources Control Board's General Waste Discharge Requirements for Recycled Water Use (Order WQ 2016-0068-DDW).

ENVIRONMENTAL SUMMARY

Santa Cruz County Environmental Health Department is the lead agency in making a California Environmental Quality Act (CEQA) determination for this facility. On March 11, 2015, Environmental Health performed an Initial Study in accordance with CEQA for the Pasatiempo Water Storage Tank project, Application No. 141215. Environmental Health subsequently issued a Negative Declaration stating that the proposed project will not have a significant impact on the environment. Santa Cruz County required the Discharger to also obtain a commercial development permit (Building Permit No. 161108) and preliminary grading approval in addition to the environmental review. Santa Cruz County issued a Master Permit No. ATP-15020 to the Discharger.

The Central Coast Water Board, as a responsible agency under CEQA, has jurisdiction over impacts to waters of the State, including groundwater, and beneficial uses. The Water Board finds that all environmental effects have been identified for project activities that it is required to approve and that the project will not have significant adverse impacts on the environment, provided that the Discharger operates the facilities as conditioned by this Order. In adopting the terms required in this Order, the Water Board has avoided effects on water quality and therefore approves the operation of the recycled water system. The only potential impact to waters of the State is in the event there is a discharge of secondary treated water (system backwash) or tertiary treated water (excess recycled water) to the existing Scotts Valley and Santa Cruz deep water outfall, and that NPDES discharge is contemplated by NPDES Permit No. CA0048828 (Order No. R3-2013-001) and NPDES Permit No. CA0048194 (Order No. R3-2010-0043) and both permits are exempt from CEQA pursuant to California Water Code section 13389.

CONCLUSION

The Central Coast Water Board encourages water recycling. The project proposes to recycle water to offset potable water and groundwater currently used to irrigate Pasatiempo Golf Club's golf courses. Central Coast Water Board staff has reviewed the project and found no compelling, water quality-related reasons to oppose the project. Therefore, Central Coast Water Board staff is proposing waste discharge requirements that implement responsible recycled water production criteria. The proposed order does not allow a wastewater discharge, except to the city of Santa Cruz's wastewater treatment plant.

PUBLIC COMMENTS

On March 30, 2017, Central Coast Water Board and Division of Drinking Water (DDW) staff received two comments from Pasatiempo Golf Club's consultant, Water Works Engineers, that clarified the filtration capacity of the Amiad AMF filters and requested that modifications and additions to the filtration system be allowed. The Amiad AMF filter is an "other method of treatment" and was conditionally approved for use in a Department of Public Health (now DDW)

letter dated June 8, 2009, where it was specified that loading rate shall not exceed 2.1 gpm/ft². Therefore, Water Board staff added a notation to the draft order that modifications to the filtration system are permitted on the conditions that neither the specified DDW maximum loading rate nor the maximum turbidity limit is exceeded and that any and all changes are reported to the Central Coast Water Board and DDW.

ATTACHMENTS

Proposed Order No. R3-2017-0001, which includes Monitoring and Reporting Program No. R3-2017-0001 and the Waste Discharge Requirements Standard Provisions and Reporting Requirements revised December 5, 2013.

RECOMMENDATION

Adopt proposed Order No. R3-2017-0001.

R:\RB3\Shared\WDR\WDR Facilities\Santa Cruz Co\Pasatiempo Golf Club\05-11-2017_Item_6_PGC_Staff_rpt.docx