

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

**STAFF REPORT FOR REGULAR MEETING OF JULY 11, 2013**  
Prepared on March 22, 2013

**ITEM NUMBER:** xx

**SUBJECT:** RESCISSION OF WASTE DISCHARGE REQUIREMENTS ORDER NO. 89-23 AND ADOPTION OF MASTER RECLAMATION REQUIREMENTS ORDER NO. R3-2013-0010, COSTANOA LODGE AND CAMP RECLAMATION FACILITY, SAN MATEO COUNTY, WDID 3 3411001001

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**KEY INFORMATION**

Discharger: Reynolds Resorts, Costanoa - LLC  
Facility Name: Costanoa Lodge and Camp Reclamation Facility  
Facility Address: 2001 Rossi Road, Pescadero, California, CA 94060  
San Mateo County  
Type of Waste: Domestic and Industrial wastewater  
Treatment: Domestic wastewater is treated to California Title 22 tertiary disinfected water with a sequencing batch reactor plant and chlorine contact chamber technology.  
Reuse and Disposal: Reclaimed water is used to irrigate several areas around the lodge and camp ground facility. Off-specification reclaimed water is disposed at a 5-acre field open space area that has limited access to the public.  
Capacity: 15-acre-feet total capacity in storage pond.  
Permitted Flow: Peak Flow of 25,000 gallons per day (gpd). Average Dry Weather Flow of 18,000 gpd.  
Existing Order: Waste Discharge Requirements Order No. 89-23

**This Action:** Adopt Master Reclamation Requirements Order No. R3-2013-0010

**SUMMARY**

Staff's review of existing Waste Discharge Requirements (WDR) Order No. 89-23 and available data indicated deficiencies in the wastewater treatment facility's treatment performance and potential for groundwater quality impacts. This order revises waste discharge requirements to require improved reclaimed water and groundwater monitoring at the site. The order also significantly revises monitoring and reporting requirements to reflect the need for additional data required to adequately evaluate the facility.

## DISCUSSION

### Facility Description

All domestic wastewater from the campground and lodge facilities flow by gravity to a pumping station and is pumped to the treatment plant. Filter backwash water (industrial) from the water supply treatment system does not flow through the reclamation facility and is disposed of directly into the reclaimed water storage pond. The pumped domestic wastewater passes a screen that removes particles larger than 0.25-inch. The screened domestic wastewater enters the two sequencing batch reactor (SBR) basins, where the wastewater is treated (oxidized) to a secondary effluent quality.

The SBR effluent discharges onto a filter that is designed to produce high quality filtered effluent, which flows by gravity to a chlorine disinfection chamber. The chlorine contact chamber produces an effluent with a fecal coliform quantity at or less than 2.2 most probable number per 100 milliliters (MPN/ml). The treated effluent is pumped to the storage pond that provides storage for treated effluent when no reclaimed wastewater irrigation is performed.

The Facility is designed and permitted to have a daily flow of 18,000 gallons averaged over each month (30-day average). The historical average 30-day wastewater flow (2010 through 2012) is approximately 8,400 gpd.

### Compliance History

Monitoring report review and inspections performed by Water Board staff of the Facility revealed off-specification reclaimed water being mixed with tertiary disinfected water in the storage pond, violations in effluent turbidity and biological oxygen demand, missing groundwater monitoring data, and inadequate maintenance of the storage pond.

### Changes Within Proposed WDR Order No. R3-2013-0010

Changes in proposed Master Reclamation Requirements Order No. R3-2013-0010 (MRR Order) from the existing WDR are summarized below. Typographical errors and minor changes that do not alter the intent of the MRR Order are not discussed below.

The MRR Order includes several new prohibitions with regard to the proper handling and use of reclaimed water. The new prohibitions state application of reclaimed water will not occur during rain events, near water supply wells, will not have any cross connections with potable water, will not be used for human consumption or for processing food, and flow volumes will not surpass the capacity of the chlorine contact basin.

Water Board staff added new operational requirements and effluent limitations in Section B, Specifications, to ensure the tertiary treatment process operates as designed and for the protection of groundwater resources.

The MRR Order includes new sections, Section C – Supplier and Distributor Requirements and Section D – User Requirements. Section C guides the Supplier and Distributor (i.e., Discharger) in ensuring facility staff are informed about reclaimed water distribution and usage, alarm set-points and staff notifications, power-supply requirements, operating personnel qualifications, equipment maintenance and calibration, operations recording and reporting, and solid waste handling. Section D guides the User (i.e., Discharger) in the use of reclaimed water at the facility pursuant to Title 22, Division 4, Chapter 3, of the California Code of Regulations and describes the data required for nutrient management planning and the salinity management program.

General Provisions in Section E. General Provisions requires the Discharger to provide Water Board staff with an Off-Specification Contingency Plan by November 11, 2013, an Operations and Maintenance Manual by November 11, 2013, and a written report stating whether there are changes in the continuity, character, location, or volume of discharge by January 31, 2018.

### Changes Within Proposed Monitoring and Reporting Program No. R3-2013-0010

Monitoring modifications in the proposed Monitoring and Reporting Program (MRP) No. R3-2013-0010 are incorporated into this new MRP. The new MRP will assist the Water Board in gauging how well the reclaimed system is functioning and if there are any potential impacts to water resources. This requires measuring parameters from the water supply, influent, effluent, and groundwater.

#### Added Water Supply Monitoring Requirements

Parameter/Constituent <sup>[1][2][3]</sup>	Units	Sample Type	Minimum Sampling and Analyzing Frequency
Nitrate (as N)	mg/L	Grab	Monthly
Sodium	mg/L	Grab	Monthly
Chloride	mg/L	Grab	Monthly
Total Dissolved Solids	mg/L	Grab	Monthly
General Minerals <sup>[4]</sup>	mg/L	Grab	Annually (September)

Notes:

- <sup>[1]</sup> Sampling results for the California Department of Public Health (DPH) may be submitted to satisfy these requirements.
- <sup>[2]</sup> Data shall be reported as individual concentrations and calculated as flow weighted averages to represent as delivered water supply quality.
- <sup>[3]</sup> Sampling for specific analytes may be reduced or discontinued upon Discharger request and Executive Officer approval for parameters/constituents for which additional data provides no benefit.
- <sup>[4]</sup> General Mineral analysis shall include the following constituents: Calcium, Magnesium, Sodium, Sulfate, Carbonate, Bi-Carbonate, Chloride, Total Hardness, Total Alkalinity, Total Dissolved Solids, pH, Electrical Conductivity, Boron, Iron, and Nitrate (as N).

#### Added Reclaimed Water Effluent Monitoring

Constituent/Parameter <sup>[1]</sup>	Units	Sample Type <sup>[2]</sup>	Sampling Frequency
Total Nitrogen (as N)	mg/L	Grab	Monthly <sup>[6]</sup>
Ammonia (as N)	mg/L	Grab	Monthly <sup>[6]</sup>
Total Dissolved Solids	mg/L	Grab	Monthly <sup>[6]</sup>
Chloride	mg/L	Grab	Monthly <sup>[6]</sup>
Sulfate	mg/L	Grab	Monthly <sup>[6]</sup>
Boron	mg/L	Grab	Monthly <sup>[6]</sup>
Formaldehyde	mg/L	Grab	Monthly <sup>[6]</sup>
1,4-Dichlorobenzene	mg/L	Grab	Monthly <sup>[6]</sup>
Methanol	mg/L	Grab	Monthly <sup>[6]</sup>

Notes:

- <sup>[1]</sup> Sampling for specific analytes may be reduced or discontinued after one year upon Discharger request and Executive Officer approval for parameters/constituents for which additional data provides no benefit.
- <sup>[2]</sup> Sampling shall occur immediately following the final treatment process (i.e., disinfection or dechlorination as applicable) unless noted otherwise.
- <sup>[6]</sup> Monthly sampling events shall be separated by at least 16 days and no greater than 45 days.

**Added Groundwater Monitoring**

Constituent/Parameter <sup>a</sup>	Units	Sample Type	Sampling Frequency <sup>c</sup>
Depth to Water	Ft.-BGS and Ft.-Above MSL <sup>b</sup>	Measured	Quarterly
Manganese	mg/L	Grab	Quarterly
Iron	mg/L	Grab	Quarterly
Boron	mg/L	Grab	Quarterly
Perchlorate	mg/L	Grab	Quarterly
Total Trihalomethanes <sup>d</sup>	mg/L	Grab	Quarterly

Notes:

- a) Sampling for specific analytes or from specific monitoring wells may be reduced or discontinued after one year upon Discharger request and Executive Officer approval for parameters/constituents for which additional data provides no benefit.
- b) Ft.-BGS = Feet Below Grade Surface, Ft.-Above MSL = Feet Above Mean Sea Level
- c) Quarterly monitoring shall be conducted in January, April, July, and October
- d) Includes the following: chloroform, bromodichloromethane, dibromochloromethane, and bromoform.

**COMMENTS**

None.

**RECOMMENDATION**

Adopt Order R3-2013-0010 as proposed.

**ATTACHMENTS**

1. Waste Discharge Requirements Order No. R3-2013-0010
2. Public Comment Correspondence
3. Copy of Original Comment Letters

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