

STATE OF CALIFORNIA  
REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL COAST REGION

STAFF REPORT FOR REGULAR MEETING OF MAY 22-23, 2014

Prepared on April 28, 2014

ITEM NUMBER: 12

SUBJECT: Rescission of Waste Discharge Requirements for Meridian Vineyards, Treasury Wine Estates (Order No. 98-56) with the intent to enroll the discharge in the *General Waste Discharge Requirements for Discharges of Winery Waste* (Order No. R3-2008-0018 or General Winery Order)

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KEY INFORMATION

Discharger: Treasury Wine Estates/Cellar 360/Meridian Vineyards  
Location: 7000 Highway 46 East, Paso Robles, San Luis Obispo County  
Discharge Type: Winery  
Treatment: Settling and aeration in ponds  
Disposal: Irrigation/dust/frost control in vineyards, solids composted for vineyard use  
Existing Order: Individual WDR Order No. 98-56

**This Action:** Rescind Individual Order No. 98-56

SUMMARY

The Central Coast Water Board adopted individual waste discharge requirements for the facility on July 8, 1977. Over the last three decades, the waste discharge requirements have been reviewed and amended to fit the needs of the changing ownership, operations, and winery production. Currently, Treasury Wine Estates (also known as Cellar 360 or Meridian Vineyards) is regulated by individual Waste Discharge Requirements Order No. 98-56, which was adopted on September 11, 1998. The Central Coast Water Board adopted its general waste discharge requirements for wineries (General Winery Order) in 2002. More recently, the General Winery Order was reviewed and reissued in 2008. However, Treasury Wine Estates never shifted from individual waste discharge requirements to the General Winery Order. In an effort to streamline winery regulation and maintain regional consistency, staff is proposing that the Treasury Wine Estates discharge be regulated by the General Winery Order concurrent with rescission of individual waste discharge requirements Order No. 98-56.

DISCUSSION

The Treasury Wine Estates is located at 7000 Highway 46 East, Paso Robles, San Luis Obispo County. The Discharger processes approximately 66,000 tons of grapes annually and generates a peak daily flow of 550,000 process winery wastewater during the crush season. Process winery wastewater is initially filtered using static floor trench drain screens located throughout the winery's processing areas. Solids (or pomace) that accumulate in the trench drain screens are collected and hauled off-site to a designated disposal location. Once screened, the winery process wastewater continues via gravity to an energy dissipator box

structure located northeast of the processing facility. Because of the steep slope of the gravity pipe, the energy dissipator structure is used to slow velocity and allow static flow to enter the rotary screen. The rotary screen further removes solids from the process winery wastewater and discharges the screenings into bins. The process winery wastewater passes through a flow meter to record daily flows discharging to the pond system. Wastewater can be diverted to Pond No. 1 (lined pond with a maximum operating volume of 2.4 million gallons), Pond No. 2 (lined pond with a maximum operating volume of 2.7 million gallons) or both through the use of the influent diversion weir structure. However, wastewater typically travels to Pond No. 1 first. Both ponds are equipped with brush-type aerators that are operated based on dissolved oxygen levels in the ponds. The Discharger also installed an interceptor drain to the north, east, and south sides of the ponds. The purpose of the interceptor drain is to collect any potential water leaching from the lined ponds. The interceptor drain terminates at an adjacent observation well. Prior to 2010, the facility used an aqueous ammonia feed system as a primary pH control method. The Discharger installed a recycled water pump for the primary purpose of controlling pH. The aqueous ammonia system is used only as a secondary measure. Once treated, the water is pumped to Reservoir No. 2 (10.75 million gallon capacity) where treated process winery water is blended with supplemental water from a well. The comingled water is then reused on the adjacent 814-acre vineyard for the purpose of vineyard irrigation, dust abatement, fire protection, and frost protection.

The Central Coast Water Board adopted individual Waste Discharge Requirements Order No. 98-56 for Treasury Wine Estates on September 11, 1998. In November 2008, the Water Board adopted Order No. R3-2008-0018, establishing the General Winery Order. It is the Water Board's intent to eventually regulate all wineries under the General Winery Order. New wineries are to be enrolled under the General Winery Order. Existing winery WDRs, once they reached maturity and require review, are to be rescinded in favor of General Winery Order enrollment. The Treasury Wine Estates WDRs are one of the few remaining individual winery WDRs.

Staff reviewed the Discharger's file and determined that the Treasury Wine Estate's winery process wastewater discharge meets the conditions for enrollment under General Winery Order. Rather than revise the existing order, staff recommends the Discharger be regulated by General Winery Order.

The General Winery Order implements applicable Water Board prohibitions, discharge specifications, management practices, and provisions to protect water quality. When the discharge is regulated by the General Winery Order, the individual waste discharge requirements will not be necessary, and, therefore, Water Board staff recommends that the Water Board rescind Order No. 98-56 (attached) with the intent of enrolling the discharge under the General WDRs for wineries.

### **COMPLIANCE HISTORY**

Upon review of the Discharger's self-monitoring reports and California Integrated Water Quality System (CIWQS) records, staff identified violations specific to total dissolved solids (TDS) and pH. The treatment pond system is designed mainly to remove and stabilize biochemical oxygen demand and other organic matter. TDS and/or salts are typically not removed using a facultative pond treatment process. In addition, the evaporative properties of the ponds have the potential to increase salts concentrations depending on detention times and weather. The Discharger explains that the level of TDS in the supply well typically ranges from 410 to 440 milligrams per liter. In addition, winery operations including tank washing, general winery sanitation, and refrigeration (evaporative condenser blow down water) contribute to the elevated TDS. In late 2010 and early 2011 the Discharger implemented system improvements, which included operational best management practices to reduce TDS in the influent as well as continue to blend agricultural well water with the effluent.

The Discharger explained that pH values at the irrigation reservoir are greatly influenced by the well water being pumped into the reservoir for supplemental water for vineyard irrigation and frost protection. Previous sampling and analysis indicate that the water used to fill Reservoir 2 from the agricultural well and reservoir system has a high pH (over 9.0). Operational pH monitoring at the surface of treatment pond 1 indicate the pH of the water in the treatment system ranges from 7.0 to 8.0.

Ultimately, TDS and pH concentrations decrease as a result of blending with supplemental water and pose little threat to water quality mainly because the water is used for vineyard irrigation on 814 acres. In addition, groundwater is approximately 300 feet below ground surface.

### **OTHER CONSIDERATIONS**

#### Nitrogen

Although there have been no violations related to nitrogen, it is important to note that winery wastewater typically has very low nitrogen concentrations. Further, reuse of the process water to the adjacent vineyard allows nutrient uptake through vineyard irrigation.

#### Pathogens

Unlike sanitary or domestic wastewater, winery wastewater does not pose a significant public health threat.

### **ENVIRONMENTAL SUMMARY**

Waste discharge requirements for existing facilities are exempt from provisions of the California Environmental Quality Act (Public Resource Code, Section 21100 et seq.) in accordance with Section 15301, Chapter 3, Title 14 of the California Administrative Code.

### **COMMENTS**

Water Board staff notified the Discharger and known interested parties of its recommendation to rescind Waste Discharge Requirements Order No. 98-56 with the intent to enroll the Discharger under the General Winery Order.

Treasury Wine Estates provided comments on April 11, 2014. Comments were mainly editorial and minor corrections to the existing treatment process. Editorial changes were considered and changes were incorporated into the staff report and the attached monitoring and reporting program. Water Board staff did not receive any other public comments

### **RECOMMENDATION**

Rescind Waste Discharge Requirements Order No. 98-56.

### **ATTACHMENTS**

1. Existing Order No. 98-56
2. Revised Monitoring and Reporting Program