

ITEM: 16

SUBJECT: Delano Growers Grape Products, Waste Discharge Requirements and Time Schedule Order, Grape Juice Processing Plant, Kern County

BOARD ACTION: *Consideration of Waste Discharge Requirements and Time Schedule Order*

BACKGROUND: The Delano Growers Grape Products grape juice processing plant (the plant) operates under Waste Discharge Requirements (WDRs) Order No. 86-068 that allows a daily average discharge of 0.105 million gallons per day (mgd) for wash water and distilled water and a daily average discharge of 0.100 mgd for stillage waste to 20-acres of fallow land. Over the years, the plant has ceased distillery operations and expanded its grape juice processing to produce approximately 174 million gallons of wastewater annually. As a result of the expansion, the Discharger has completed the following upgrades to the plant: expansion of the land application area to 176 acres of winter wheat and sudan grass, construction of a wastewater treatment plant (WWTP) to reduce the biochemical oxygen demand (BOD) and nitrogen of high strength waste streams, installation of a new lined storage pond, and installation of three deeper groundwater monitoring wells.

There are two separate waste streams at the plant. Waste Stream 01 consists of condensed water that is separated from the grape juice concentrate and retentate from a reverse osmosis unit. Waste Stream 02 consists of all other wastewater from plant processes and wash water from cleaning the processing equipment.

Waste Stream 01 is discharged into two unlined ponds. Waste Stream 02 is processed through an on-site WWTP, and then mixed with Waste Stream 01 prior to discharge to the lined pond. The electrical conductivity (EC) of the combined waste streams is 2,400 umhos/cm. Discharge is mixed with Friant-Kern canal water and used to irrigate 176 acres of winter wheat and sudan grass.

The proposed WDRs limit the discharge to 174 million gallons annually, limit the monthly average effluent EC to 1,100 umhos/cm (regardless of whether or not wastewater is blended with surface water), set BOD loading limits, and require nutrient loading to be at agronomic rates. The proposed WDRs also include provisions requiring the submittal of a Nutrient and Wastewater Management Plan and a Solids Management Plan.

The Discharger will not be able to immediately comply with the proposed effluent EC limitation or groundwater limitations for EC,

total dissolved solids, nitrate as nitrogen, and sulfate. Therefore, the WDRs are accompanied by a Time Schedule Order that puts the Discharger on a compliance schedule to implement necessary improvements to comply with the limitations of the WDRs.

ISSUES:

Comments were received from Ms. Jo Anne Kipps (private citizen). Revisions were made to the tentative WDRs to address some of these comments. Full responses to the comments are included in the Response to Comments in the agenda package. A short summary of the issues and staff's responses follow:

1. Ms. Kipps indicates the discharge does not qualify for the exception to the Basin Plan's effluent EC limitation of source water plus 500 umhos/cm. Staff believe the discharge meets the exception since the remaining BOD in the waste stream following treatment demonstrates there are, "unavoidable concentrations of organic dissolved solids from the raw food product" and the Discharger controls inorganic dissolved solids by removing solids from the waste stream, using electro dialysis units in lieu of ion exchange beds for processing reconstituted grape juice, replacing water softeners with a reverse osmosis system to supply mineral free water to the boiler, and switching from sodium hydroxide to calcium hydroxide for pH control. The effluent EC limitation of 1,100 umhos/cm in the WDRs is based on the average background (or upgradient) groundwater concentration.
2. Ms. Kipps indicates the Basin Plan does not identify waste dilution as a designated beneficial use of valley floor waters and requests the point of compliance for effluent limitations be prior to blending wastewater with surface water. The Basin Plan allows blending of wastewater with surface or groundwater to promote beneficial reuse of wastewater in water short areas. The Delano area is a water short area; therefore, the point of compliance for the EC effluent limitation after the plant discharge is blended with surface water is acceptable. The Central Valley Water Board has previously adopted WDRs that establish fixed dissolved solids effluent limitations after wastewater has been blended with storm water and/or irrigation water.

RECOMMENDATION: Staff recommend the Board adopt the Waste Discharge Requirements and Time Schedule Order.

Mgmt. Review _____

Legal Review PEP

5/6 June 2014

11020 Sun Center Dr. #200
Rancho Cordova, CA 95670