

INFORMATION SHEET

WASTE DISCHARGE REQUIREMENTS ORDER R5-2014-XXXX
STEVE GIKAS
CALIFORNIA NUGGETS, INC. AND
GOLDEN GATE NUT COMPANY
SAN JOAQUIN COUNTY

Background

California Nuggets, Inc. and Golden Gate Nut Company are located at 23073 South Fredrick Road in Ripon, as shown on Attachment A. California Nuggets, Inc. processes approximately 1,700 tons of corn nuts and Golden Gate Nut Company processes between 750 and 1,500 tons of almonds per year. Steve Gikas (hereafter "Discharger") owns and operates the facilities that generate the waste and the land discharge areas and is responsible for compliance with these Waste Discharge Requirements (WDRs).

The facilities are in operation and have been discharging wastewater to land without regulation under WDRs since approximately 2002. The Discharger submitted a Report of Waste Discharge (RWD) on 27 July 2005. However, the July 2005 RWD did not contain enough information to develop WDRs. Cleanup and Abatement Order (CAO) R5-2007-0715 was issued by the Executive Officer on 14 June 2007 to compel the Discharger to make improvements to the wastewater management system to better protect groundwater quality and provide sufficient information to complete the RWD. The CAO required installation of flow monitoring equipment, submittal of an interim cropping plan by August 2007, submittal of additional waste characterization information by September 2008, and submittal of a RWD Addendum by December 2008. The CAO included a Monitoring and Reporting Program.

The cropping plan, wastewater characterization report and RWD Addendum were not submitted until after Central Valley Water Board staff issued a Notice of Violation in August 2012. The wastewater characterization report was received on 19 November 2012 and the cropping plan was received on 1 March 2013.

The Discharger submitted a RWD Addendum on 7 March 2013, but the RWD was still incomplete. On 19 August 2013, the Executive Officer issued an Order for Technical Reports pursuant to Water Code section 13267 Order (the 13267 Order). On 16 September 2013, the Discharger submitted a partial response to the 13267 Order and requested a 30-day extension of time to submit the information that was not provided. A revised 13267 Order was issued on 26 September 2013. The Discharger submitted another RWD addendum on 16 October 2013 to comply with the revised 13267 Order, but did not provide all of the required information.

Existing Facility and Discharge

An on-site water supply well provides process water to the facility. The water is softened using ion-exchange treatment prior to use. The ion exchange brine is separated from the wastewater stream and transported off-site for disposal.

Wastewater is generated in food processing activities. The major processes include the following:

- a. Corn processing occurs year round. Dried corn kernels are soaked in a lime solution to remove skins, steeped in a citric acid solution and then rinsed before being fried in canola or safflower oil and seasoned.
- b. Almonds are processed seasonally during harvest. The almonds are blanched in hot water to remove their skins. The almonds are then cooked and/or seasoned.
- c. Caustic and acid rinses of the processing equipment are performed approximately every two weeks for sanitation purposes. The waste acid and base solutions are discharged to the wastewater system.

The Discharger also owns HP Commodities, Inc. which recycles used cooking oil from various sources. In 2012 and the first half of 2013, an unknown portion of the wastewater separated from used oil in the refining process was discharged to the treatment and disposal system. The rest was reportedly taken off-site for disposal.

Nut processing rinse water, spent lime solution, blanching water, brine, boiler blowdown, and wastewater from equipment sanitation are collected in floor drains. The wastewater is screened and passed through a solids separator and an oil/water separator before being directed into a lined wastewater storage pond. Rudimentary standpipe aerators are used to circulate and aerate the wastewater. Effluent from the storage pond is filtered prior to being discharged to a 5.2-acre land application area by spray irrigation.

The wastewater typically has high concentrations of biochemical oxygen demand (BOD), nitrogen, and salinity. The RWD states that the pH of wastewater generally varies between 4.5 and 5.5 standard units. Based on the water balance in the RWD, the agronomic water demand for alfalfa is 10.8 MG per year, which is much less than the annual wastewater volumes of 21.1, 27.7 and 16.2 MG in the years of 2010, 2011, and 2012, respectively. The recent years' water application rates greatly exceed the water needs of any row, pasture, or fodder crops grown in the Central Valley. Over application of wastewater has also caused gross nitrogen overloading; prolonged soil saturation with high-BOD wastewater (anaerobic conditions); and forced percolation of the excess nitrogen, salts, dissolved organic matter, and metals to shallow groundwater

The discharge has caused TDS, dissolved manganese and iron in shallow groundwater to exceed the water quality objectives. Background shallow groundwater is polluted with nitrate due to irrigated agriculture. Although nitrate pollution is not evident in the downgradient wells today, ammonia nitrogen concentrations in some downgradient wells greatly exceed the taste and odor threshold of 1.5 mg/L and may contribute to the local nitrate pollution farther downgradient of the site.

This Order establishes both effluent and groundwater limitations for the facility that will ultimately ensure that the discharge will not affect beneficial uses and will not result in water quality less than that prescribed in state and regional policies, including water quality objectives set forth in the Basin Plan. For TDS, manganese, and iron, current groundwater monitoring data indicate that the discharge has caused (or contributed to) exceedance of water quality objectives. For nitrate, it is likely that pollution would occur if the reducing conditions that have caused pollution with iron and manganese were to be rectified. The Discharger has not implemented best practicable treatment or control and cannot immediately comply with:

- a. The Basin Plan Water Quality Objectives;
- b. Nitrogen and BOD loading rates that would stop the pollution; and
- c. Wastewater application rates that would prevent excessive percolation of waste constituents to groundwater.

It is therefore appropriate for the Board to issue a companion Cease and Desist Order that will set forth an enforceable schedule to complete the proposed improvements and any other work needed to ensure that the discharge will not impact the beneficial uses of groundwater.

Changes in the Facility and Discharge

Based on the 16 October 2013 RWD Addendum and a 24 October 2013 site inspection, the Discharger has implemented the following actions to reduce the threat to water quality:

- a. The Discharger ceased the discharge of high strength oil recycling wastewater to the LAA. This wastewater is now hauled off-site for disposal.
- b. In October 2013, the Discharger planted Sudan grass on the LAA.
- c. The Discharger has installed fountain-type sprinkler nozzles on the LAA in order to enhance evaporation.

Based on the 16 October 2013 RWD Addendum, the Discharger proposes to complete the following to bring the discharge into compliance with the Basin Plan:

- a. Alfalfa will be planted in the LAA to maximize nutrient and water uptake.
- b. The Discharger will plant salt cedar trees around the LAA perimeter to improve water and salt uptake.
- c. The Discharger will line the existing storm water pond for use as additional wastewater storage. Based on the Discharger's comments on the tentative WDRs, this pond will only be lined if it will be used to treat or store wastewater.

- d. The Discharger will evaluate the condition of the existing wastewater pond liner and will repair or replace the liner system. Based on the Discharger's comments on the tentative WDRs, this pond will only be lined if it will be used to treat or store wastewater.
- e. The Discharger will evaluate and implement treatment and/or control alternatives for the facility.

Based on an RWD Addendum submitted on 19 February 2014, the following additional changes have occurred since the Discharger submitted its 16 October 2013 RWD Addendum:

- a. The Discharger planted 36 salt cedar trees around the parameter of the LAA in November 2013.
- b. Beginning in January 2014, some of the corn processing wastewater is sent to an above-ground tank. The corn slurry that settles in the tank is hauled off-site for use as livestock food. Some of the remaining corn processing wastewater is hauled off-site for disposal. However, the Discharger has not provided flow or wastewater analytical data that reflect the current discharge to the pond.
- c. The Discharger has implemented improvements that allow it to recycle one-third of the corn processing wastewater internally within the facility.

Discharge Prohibitions, Specifications and Provisions

Effectively immediately, wastewater flows from the storage ponds to the LAA shall not exceed the following limits:

<u>Flow Measurement</u>	<u>Flow Limit</u>
Maximum Monthly Flow ¹	2.0 MG
Total Annual Flow ²	16 MG

¹ As determined by the total flow for the calendar month.

² As determined by the total flow for the calendar year.

This Order includes effluent limitations for FDS and mass loading limitations for BOD, and total nitrogen. This Order also prescribes groundwater limitations that implement water quality objectives for groundwater from the Basin Plan.

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This Order requires the Discharger submit either a Notice of Non-Applicability, an application for a No Exposure Certification, or a Notice of Intent to comply with State Board Water Quality Order No. 97-03-DWQ for discharges of storm water from the facility.

The Provisions require submittal of the following technical reports: *Background Groundwater Quality Study Report* and *Groundwater Limitations Compliance Assessment Plan*.

The Monitoring and Reporting Program is designed to verify compliance with effluent limitations, groundwater limitations, and operational requirements of the WDRs.

LF: 2/21/14