

**Regional Water Quality Control Board
Central Valley Region**

Board Meeting – 02, 03 February 2012

**Response to Written Comments on
Tentative Waste Discharge Requirements
for
Lucero Olive Oil, LLC and Crane Mills Inc.
Lucero Olive Oil
Tehama County**

11 January 2012

At a public hearing scheduled for 02/03 February 2012, the Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board) will consider adoption of tentative Waste Discharge Requirements for the Lucero Olive Oil, LLC and Crane Mills, Inc. This document contains responses to comments received from an interested party in response to the Tentative Orders. Written comments from interested parties were required to be received by the Central Valley Water Board by 24 December 2011 in order to receive full consideration. Comments were received from:

1. Jo Anne Kipps, P.E., Private Citizen

Written comments from the above interested party are summarized below, followed by the response of Central Valley Water Board staff.

JO ANNE KIPPS COMMENTS

KIPPS – COMMENT #1: Wastewater Disposal Prior to 2005 and in Excess of 100,000 Gallons in 2009 and 2010.

Ms. Kipps commented that the Lucero Olive Oil website states that olive processing began in 2005, not in 2008 as stated in Finding 3 of the tentative Waste Discharge Requirements (WDRs). Lucero Olive Oil, LLC and Crane Mills, Inc. (hereafter collectively referred to as Discharger) obtained coverage under the Waiver of Waste Discharge Requirements for Small Food Processors, Including Wineries (Resolution R5-2003-0106) (Waiver) in 2008; Ms. Kipps requested that Finding 3 be revised to include how wastewater was disposed of prior to 2008.

Ms. Kipps also commented that Finding 3 of the tentative WDRs states that in 2009 wastewater flows exceeded the flow criteria of 100,000 gallons annually for coverage under the Waiver; she requested that the Finding be revised to describe the manner in which wastewater in excess of 100,000 gallons was disposed of in 2009 and 2010.

RESPONSE: Central Valley Water Board staff contacted the Discharger regarding olive processing that occurred prior to 2008; the Discharger stated that olives were milled

off-site at various facilities regulated by the Central Valley Water Board from 2005 through 2007.

In 2009, the Discharger produced 112,900 gallons of wastewater; 100,000 gallons was discharged to the land application area in 2009 and the remainder was held on site in storage tanks for discharge in 2010. In 2010, the Discharger generated 96,375 gallons of wastewater; 99,975 gallons of wastewater was discharged to the land application area and the remainder was held on site in storage tanks for discharge in 2011.

The Discharger submitted a Report of Waste Discharge (RWD) to obtain individual WDRs on 5 January 2010; the RWD was deemed complete by Central Valley Water Board staff on 20 April 2010. Therefore, the Discharger was able to discharge wastewater in excess of 100,000 gallons on 6 September 2010 since 140 days had passed since the submission of a complete RWD. However, the Discharger discharged 100,000 gallons or less in 2009 and 2010. In 2011, the Discharger generated 211,525 gallons of wastewater and discharged 220,825 gallons of wastewater.

Finding 3 has been revised to include the above information as follows:

From 2005 through 2007, the Discharger milled olives off-site at various local olive oil facilities regulated by the Central Valley Water Board. In 2008, the Discharger obtained coverage under the Waiver of Waste Discharge Requirements for Small Food Processors, Including Wineries (Resolution No. R5-2003-0106) (Waiver) for discharge of wastewater less than 100,000 gallons annually to land. In 2009, the Discharger exceeded the flow criteria for coverage under the Waiver. Therefore, the Discharger submitted a RWD for individual WDRs; the RWD was deemed complete on 20 April 2010. The following wastewater volumes were generated, discharged, and stored from 2009 through 2011.

Year	Wastewater Generated (gallons)	Wastewater Discharged (gallons)	Wastewater Volume Stored (gallons)
2009	112,900	100,000	12,900
2010	96,375	99,975	9,300
2011	211,525	220,825	0

KIPPS – COMMENT #2: Prevention of Nuisance Conditions (Offensive Odors)

Ms. Kipps commented that the Findings in the tentative WDRs do not describe how the Discharger will prevent the creation of offensive odors when high strength biological oxygen demand (BOD) wastewater is stored, transferred, and discharged to the land application area; she requested that the WDRs include a Finding to describe what measures the Discharger will implement to preclude the development of nuisance conditions (offensive odors).

RESPONSE: There have been no odor complaints against the Facility or land application area the past three years. Wastewater is stored at the Facility and land

application area in fully enclosed tanks, precluding odor issues. Wastewater is blended with irrigation water through micro-sprinklers at the land application area below the BOD nuisance loading rate of 100 pounds per acre per day, precluding odor issues. Central Valley Water Board staff has revised Finding 7 as follows:

Wastewater is stored at the Facility in fully enclosed aboveground storage tanks until a sufficient quantity is generated for transfer to the 180-acre almond orchard land application area. Wastewater is transported from the Facility to the land application area in a water truck. Wastewater is stored within poly tanks at the land application area and metered into irrigation water depending upon soil and weather conditions; an injection pump injects wastewater into the pressurized micro-sprinkler irrigation system at a maximum of 1 part wastewater to 133 parts irrigation water (at current Facility capacity) and at a maximum of 1 part wastewater to 39 parts irrigation water (at future Facility capacity).

KIPPS – COMMENT #3: Method for Land Applying Wastewater

Ms. Kipps commented that Finding 7 of the tentative WDRs states that wastewater is land applied via a nurse trailer; she commented that the low application rates identified in Finding 9 of the tentative WDRs cannot be achieved with a nurse trailer. Ms. Kipps requested that Finding 7 be revised to clarify how wastewater will be land applied and that Finding 9 identify daily application rates more representative of the land application method utilized by the Discharger.

RESPONSE: Finding 7 in the tentative WDRs incorrectly identifies the method of wastewater application at the land application area. During Facility startup, a nurse trailer was utilized for application of wastewater; currently, the Discharger meters wastewater into the pressurized micro-sprinkler irrigation system. Therefore, Finding 7 has been revised (see response to Comment #2) and Finding 9 requires no revisions.

KIPPS – COMMENT #4: Removal of References in the Tentative WDRs to the CFLP Manual

Ms. Kipps commented that all references in the tentative WDRs to the Manual of Good Practice for Land Application of Food Processing/Rinse Water (Manual), published by the California League of Food Processors (CLFP) should be removed because the Manual has not been subject to scientific peer review and has not been approved by the Central Valley Regional Water Quality Control Board for use as a technical guidance document. Alternatively, Ms. Kipps commented that the findings and Information Sheet should be revised to state that the Manual has not been subject to scientific peer review and has not been approved by the Central Valley Regional Water Quality Control Board for use as a technical guidance document.

RESPONSE: Central Valley Water Board staff concurs with the second recommendation; staff has revised the Findings and Information Sheet to include a statement that the Manual has not been subject to peer review.

KIPPS – COMMENT #5: BOD Loading

Ms. Kipps commented that Finding 14 in the tentative WDRs should be revised to include additional information on how the BOD hydraulic loading rate of 128 gallons per acre per day was calculated and also include an instantaneous BOD loading rate.

RESPONSE: The BOD hydraulic loading rate of 128 gallons per acre per day was based on land application of the wastewater with a nurse trailer, which is no longer used for wastewater application. Currently, a maximum of 9,000 gallons per day of wastewater is applied over the entire land application area, which equates to a hydraulic loading of 50 gallons per acre per day (9,000 gallons/180 acres). Therefore, BOD loading was recalculated based on the new hydraulic loading rate; the current instantaneous BOD loading is 2.7 lbs/acre. At Facility buildout, a maximum of 30,000 gallons per day of wastewater would be applied over the entire land application area, which equates to a hydraulic loading of 167 gallons per acre per day (30,000 gallons/180 acres). Instantaneous BOD loading at Facility buildout would be 9.1 lbs/acre. Typically, the Discharger applies wastewater every three days, therefore the cycle average is 0.9 lbs/acre/day (current capacity) and 3.0 lbs/acre/day (Facility build out). Finding 14 has been revised as follows:

At current capacity, the hydraulic loading rate is 50 gallons per acre per day; based on a maximum of 9,000 gallons of wastewater applied over the 180 acre land application area each day. Currently, the instantaneous BOD load does not exceed 2.7 pounds per acre per day. At Facility buildout, the hydraulic loading rate would be 167 gallons per acre per day; based on a maximum of 30,000 gallons of wastewater applied over the 180 acre land application area each day. The instantaneous BOD load at buildout would not exceed 9.1 pound per acre per day. For a Risk Category 1, the loading rate for BOD must not exceed 50 pounds per acre per day. In addition, USEPA recommends a BOD loading rate not to exceed 100 lbs per acre per day in order to avoid nuisance conditions, according to publication No. 625/3-77-007C, Pollution Abatement in the Fruit and Vegetable Industry. The BOD loading rate from the discharge is significantly below the USEPA nuisance level and the threshold for a Risk Category 1.

KIPPS – COMMENT #6: Depth to First-Encountered Groundwater

Ms. Kipps commented that Finding 20 of the tentative WDRs should be revised to include the depth at which first-encountered groundwater occurs at the land application area, along with any information regarding seasonality of groundwater depth.

RESPONSE: Central Valley Water Board staff concurs. Finding 20 of the tentative WDRs has been revised to include the depth at which first-encountered groundwater occurs at the land application area; depth to first-encountered groundwater was obtained from well logs from the installation of the agricultural wells at the land application area. There is no information regarding seasonality of groundwater. Central Valley Water Board staff has revised Finding 20 as follows:

The RWD stated that groundwater at the land application area is flowing northeast at an approximate gradient of 0.00126 ft/ft. Depth to first encountered groundwater at the land application area ranges from 13 to 19 feet below ground surface.

KIPPS – COMMENT #7: Removal of Reference to State Water Board Resolution No. 77-1

Ms. Kipps commented that Finding 37 of the tentative WDRs which references State Water Board Resolution No. 77-1, Policy with Respect to Water Recycling in California should be removed because the wastewater is not treated prior to discharge.

RESPONSE: Central Valley Water Board staff concurs; Finding 37 has been removed.

KIPPS – COMMENT #8: Threat to Water Quality and Complexity

Ms. Kipps commented that the tentative WDRs should include a Finding that identifies the discharge's threat to water quality and complexity. Ms. Kipps recommended that the discharge be classified as a Category 2 Threat to Water Quality and Category C Complexity since the storage of high-strength food processing waste has the potential to cause a nuisance (odors). She requested that the new Finding contain technical justification if a lower Threat to Water Quality rating is applied.

RESPONSE: Central Valley Water Board staff concurs that a Finding should be added that identifies the discharge's threat to water quality and complexity. Staff does not concur that the Facility should be rated 2C; staff rated the Facility 3C since the Facility and land application will not create a nuisance (as detailed in the response to Comment #2). The following Finding has been added to the tentative WDRs:

Based on the threat and complexity of the discharge, the Facility is determined to be classified 3-C as defined below:

- a. *Category 3 threat to water quality, defined as, "Those discharges of waste that could degrade water quality without violating water quality objectives, or could cause a minor impairment of designated beneficial uses as compared with Category 1 and Category 2." The Discharger's handling, storage, transfer, and land discharge of food processing wastewater will not cause a nuisance, which would require that the Facility be rated a Category 2. Wastewater is stored at the Facility and land application area in fully enclosed tanks, precluding nuisance conditions (odors). Wastewater is blended with irrigation water through micro-sprinklers at the land application area below the BOD nuisance loading rate of 100 pounds per acre per day, precluding nuisance conditions.*
- b. *Category C complexity, defined as, "Any discharger for which waste discharge requirements have been prescribed pursuant to Section 13263 of the Water Code not included in Category A or Category B as described above. Included are dischargers having no waste treatment systems or that*

must comply with best management practices, dischargers having passive treatment and disposal systems, or dischargers having waste storage systems with land disposal.”

KIPPS – COMMENT #9: Removal of the Word “Treated” Wastewater

Ms. Kipps commented that the word “treated” should be removed from Discharge Prohibition A.5. since wastewater is not treated.

RESPONSE: Central Valley Water Board staff concurs; the word “treated” has been removed from Discharge Prohibition A.5.

KIPPS – COMMENT #10: Information on the Irrigation Delivery System

Ms. Kipps commented that Finding 7 of the tentative WDRs should be revised to include additional information on the Discharger’s irrigation delivery system to ensure that the Discharger is capable of uniformly applying wastewater at the projected hydraulic and BOD loading rates.

RESPONSE: Central Valley Water Board staff concurs. Finding 7 has been revised to include additional information on the Discharger’s irrigation delivery system; wastewater is uniformly applied over the entire land application area through the pressurized irrigation system. Finding 7 has been revised as follows:

Wastewater is stored at the Facility in fully enclosed aboveground storage tanks until a sufficient quantity is generated for transfer to the 180-acre almond orchard land application area. Wastewater is transported from the Facility to the land application area in a water truck. Wastewater is stored within poly tanks at the land application area and metered into irrigation water depending upon soil and weather conditions; an injection pump injects wastewater into the pressurized micro-sprinkler irrigation system at a maximum of 1 part wastewater to 133 parts irrigation water (at current Facility capacity) and at a maximum of 1 part wastewater to 39 parts irrigation water (at future Facility capacity).

KIPPS – COMMENT #11: Change BOD Effluent Limitation to a Land Application Area Specification

The tentative WDRs contain Effluent Limitation D.1. that specifies the average BOD loading that can be applied at the land application area both long term and over the course of any discharge cycle. Ms. Kipps commented that the average BOD loading identified in the WDRs as an Effluent Limitation should in fact be a Land Application Area Specification since it pertains to the loading of waste at the land application area.

RESPONSE: Central Valley Water Board staff concurs; the BOD loading limitation for the land application area has been moved under the “Land Application Specification” section of the WDRs.

KIPPS – COMMENT #12: Tentative Monitoring and Reporting Program

Ms. Kipps commented that the tentative Monitoring and Reporting Program (MRP) should change “Effluent Monitoring” to “Discharge Monitoring” since wastewater is not receiving treatment; she also commented that the MRP for “Discharge Monitoring” should include a footnote clarifying that the twice monthly wastewater monitoring that is required in the tentative MRP should occur in non-consecutive weeks. Ms. Kipps commented that the wastewater should be sampled twice monthly for two years for fecal coliform to ensure that there is no cross connection between the Facility’s process wastewater and domestic wastewater since process wastewater is used to irrigate a harvestable crop (almonds).

RESPONSE: Central Valley Water Board staff has changed “Effluent Monitoring” to “Wastewater Monitoring” in the MRP.

Central Valley Water Board staff has included a footnote for the “Wastewater Monitoring” that specifies that the twice monthly monitoring is to occur in non-consecutive weeks *when feasible*. During the processing season, the Facility does not operate continually; therefore, the Discharger may only have a discharge for two consecutive weeks during the month and no discharge for the remainder of the month.

Central Valley Water Board staff does not concur that the Discharger should sample the wastewater twice monthly for at least two years for fecal coliform. The domestic wastewater system is located on the opposite end of the Facility from the process wastewater system; the domestic system was permitted and inspected by the county prior to its use; therefore, the additional cost to sample the wastewater is not warranted at this time.

KIPPS – COMMENT #13: Tentative Monitoring and Reporting Program

Ms. Kipps commented that the tentative MRP should include a footnote under the “Land Application Area Monitoring” section that describes how BOD loading should be calculated. She also commented that the Discharger should only be required to submit a *summary* of monthly land application area monitoring observations, not monthly as required in the tentative MRP.

RESPONSE: Central Valley Water Board staff concurs that a footnote should be included under the “Land Application Area Monitoring” section that describes how BOD loading should be calculated. The footnote is as follows:

Loading rate to be calculated using the applied volume of wastewater, applied acreage, and average of the two most recent concentrations for BOD. The BOD loading rates shall be divided by the number of days between applications to determine cycle average.

Central Valley Water Board staff does not concur that the Discharger should only be required to submit a summary of monthly land application area monitoring observations.

The majority of permitted food processors with WDRs are required to submit a daily log of land application area monitoring on a monthly basis; staff will provide the Discharger with an example log that is concise and straightforward.

KIPPS – COMMENT #14: Tentative Monitoring and Reporting Program

Ms. Kipps commented that once the Discharger has shown compliance with the tentative MRP for a few discharge seasons, the reporting requirement should be reduced from monthly reports to an annual report since the processing season is short (approximately 90 days).

RESPONSE: Central Valley Water Board staff does not concur. Requiring the submittal of monthly monitoring reports keeps the Discharger accountable and gives staff the opportunity to review reports in a timely manner; in addition, requiring monthly monitoring reports is consistent with other food processing WDRs. The tentative WDRs will retain the monthly monitoring report requirement.
