

**Regional Water Quality Control Board
Central Valley Region Board Meeting
15/16 February 2024**

**Response to Written Comments for the
City of Lemoore and Leprino Foods Company
River Ranch Recycled Water Project
Kings County
Tentative Waste Discharge Requirements**

At a public hearing scheduled for 15/16 February 2024, the Regional Water Quality Control Board, Central Valley Region, (Central Valley Water Board) will consider adoption of revised Waste Discharge Requirements (WDRs) for the City of Lemoore and Leprino Foods Company (Leprino) discharge of combined effluent to the River Ranch Property (Formerly Stone Ranch Property) in Kings County.

This document contains responses to written comments received from interested persons regarding the tentative WDRs (TWDRs) circulated on 15 November 2023. Written comments were required by public notice to be received by the Central Valley Water Board by 15 December 2023 to receive full consideration. On 15 December 2023 Central Valley Water Board staff received written comments on the TWDRs from Leprino and Jo Anne Kipps, an interested party.

Written comments are summarized below, followed by responses from Central Valley Water Board staff specific changes are shown in ~~strikeout~~ and **bolded** text. In addition, staff has made a few minor changes to the TWDRs to improve clarity and fix typographical errors.

LEPRINO COMMENTS

LEPRINO COMMENT #1: Leprino requests that discharge prohibitions be modified to better reflect the circumstances for the direct discharge of combined effluent from the irrigation canals to the evaporation basin. Specifically, Leprino requests the highlighted language in bold be added to Discharge Prohibition B.6:

- B.6 Discharge of toxic substances into the evaporation basin at River Ranch is prohibited. **Discharge of combined effluent from the irrigation canals into the evaporation basin is not prohibited where necessary (a) due to wet weather conditions (see Finding 32), (b) to maintain the required 2-foot minimum depth (see Discharge Specification F.14), (c) to comply with the Migratory Bird Treaty Act (see Provision K.17), or (d) to prevent runoff or tailwater from entering any surface water drainage course or storm water drainage system the leaves the River Ranch property (see Land Application Area Specification H.4).**

RESPONSE: The evaporation basin is not an effluent storage pond and is not expected to retain water except as needed to maintain the subsurface drainage system. As such the TWDRs do not recognize the direct discharge of combined effluent to the evaporation basin except in extreme wet weather events as noted in Finding 32. The

direct discharge of combined effluent to the evaporation basin is expected to be infrequent and minimized to the extent feasible. Adding the other three exemptions proposed by Leprino to Prohibition B.6 is not appropriate since compliance with these conditions are expected to be achieved through other means and were not discussed in the Discharger's 2022 Report of Waste Discharge (RWD) or supplemental information. Therefore, Discharge Specification B.6 in the TWDRs has been modified as follows:

B.6 Discharge of toxic substances into the evaporation basin at River Ranch is prohibited. **Direct discharge of combined effluent from the irrigation canal to the evaporation basin is not prohibited when necessary due to extreme wet weather conditions as described in Finding 32.**

Furthermore, the TWDRs have also been modified to include Provision K.7 to require a Wastewater Operations and Management Plan to codify management of the land application area and ensure proper management of the irrigation system, subsurface drainage system, and evaporation basin. Provision K.7 states:

K.7 **By <90 days following adoption of this Order> Leprino shall submit a Wastewater Operations and Management Plan (Plan) for Executive Officer Approval. The Plan shall provide a comprehensive analysis of management and irrigation practices for the Land Application Area at River Ranch including operation of the subsurface drainage collection system and evaporation basin to ensure compliance with these WDRs. The Plan shall include details on the direct discharge of the combined effluent from the irrigation canals to the evaporation basin during wet weather events including how, when, and where such discharges will occur. In addition, the Plan shall provide a list of procedures and modifications to be implemented by the City and Leprino as well as adjustments to normal farming practices at River Ranch in anticipation of wet weather events to minimize the need for direct discharges to the evaporation basin.**

Central Valley Water Board staff has also modified the MRP as follows to include monitoring the direct discharge of combined effluent from the irrigation canal to the evaporation basin:

D. EVAPORATION BASIN DISCHARGE

Leprino shall monitor the Evaporation Basin at River Ranch for the parameters specified below. The results of the Evaporation Basin monitoring shall be tabulated and submitted as an Annual Monitoring Report to both the Central Valley Water Board and California Department of Fish and Wildlife (CDFW).

~~Drainage Collection Sump~~ Evaporation Basin Discharge Monitoring

There are seven drainage collection sumps (#3N, #3-10, #11, #27, #34, #35, and #2E [new Nederend sump]) at River Ranch, which discharge collected groundwater and percolate from the tile drains, tail water and interceptor ditches to the Evaporation Basin. **In addition, an irrigation pump (IRG-E) can**

discharge combined effluent and irrigation water from the irrigation canals directly to the evaporation basin during wet weather events (as described in Finding 32 of Order R5-2024-XXXX). At a minimum, **water discharged to the evaporation basin** ~~collected in the drainage collection sumps~~ shall be monitored as specified in Table 18 below:

Table 18. Drainage Sump Flow and ~~Water Quality~~ Discharge to the Evaporation Basin

Constituent/ Parameter	Units	Sample Type	Monitoring Frequency
Flow	gpd	Meter (see 1 below)	1/Day
EC	µmhos/cm	Grab	1/Year
TDS	mg/L	Grab	1/Year
Total Organic Carbon	mg/L	Grab	1/Year
Selenium	µg/L	Grab	1/Year
Arsenic and Molybdenum	µg/L	Grab	1/Year
General Minerals (see 2 below)	mg/L	Grab	1/Year

1. For continuous analyzers, Leprino shall report documented routine meter maintenance activities including date, time of day, and duration, in which the analyzer(s) is not in operation.
2. For list of General Minerals see Glossary. Samples for metals shall be filtered prior to preservation, digestion, and analysis using a 1.5-micron filter.

KIPPS COMMENTS

KIPPS COMMENT #1: The existing order (WDR R5-2019-0008) prescribes effluent limitations for BOD and TSS of 40 mg/L monthly average and 80 mg/L daily maximum on the combined discharge to the land application area (LAA). Ms. Kipps contends that without a BOD effluent limit for Leprino’s discharge or a continuation of the current Order’s BOD limit of 40/80 for the combined (City and Leprino) discharge to the LAA, there is no incentive for Leprino to ensure that its effluent will not cause BOD of the combined discharge to exceed the estimated concentration of 220 mg/L as defined in Finding 79.

Ms. Kipps further contends that the TWDRs does not provide sufficient technical and regulatory justification for the overly generous BOD loading limit of 100 lbs/acre/day given the capability of Leprino’s treatment system and requested that the TWDRs include a BOD loading limit not to exceed 20 lbs/acre/day (consistent with Leprino’s best efforts as cited in Finding 78).

RESPONSE: The existing WDRs include a BOD/TSS limit of 40 mg/L (average) and 80 mg/L (maximum) on the combined discharge for the City of Lemoore WWTF and Leprino. This is consistent with secondary treatment standards for municipal wastewater treatment systems from the Tulare Lake Basin Plan. The Tulare Lake Basin Plan (specifically Section 4.1.11.5) specifies various BOD and TSS limits for specific types of domestic wastewater treatment facilities. For most secondary treatment systems (with flows greater than 1 mgd) that adequately preclude public access, the Tulare Lake Basin Plan specifies removal of 80 percent or reduction to 40 mg/L (average), whichever is more restrictive, of both 5-day BOD and TSS I

The Basin Plan generally requires industrial dischargers to comply with these limits. However, applying these limits to food processors, given their higher organic load, is not often practicable nor commonly done in WDRs issued by the Central Valley Water Board to food processors. Under the existing WDRs, this was not an issue since Leprino's treatment system has been over-performing, removing about 98% of the organic load on average.

The proposed TWDRs will allow an increase in flows primarily from Leprino. As discussed in Finding 23, the proposed increase will be primarily wash water flows and stormwater. There are no plans to increase production capacity or the mass organic load entering the facility. However, as discussed and evaluated in the Discharger's 2022 RWD, the increased hydraulic load will likely decrease the effectiveness of the treatment system making it difficult for Leprino to maintain compliance with existing BOD and TSS limits as specified. Based on the site-specific conditions and manner the combined wastewater is discharged (e.g., the significant size of land application area available, disinfection of the City's wastewater before combining with Leprino's discharge, and the fact that organic loading is not a limiting factor for application), staff contends the proposed increase of organics in Leprino's effluent will not pose a threat to water quality. The Dischargers will still be able to comply with existing and proposed land application specifications, which sets a cycle average BOD loading limit of less than 100 lbs/ac/day on the discharge.

Ms. Kipps contention that there is no incentive for Leprino to ensure its treatment process is consistent with that proposed in the TWDRs without a BOD effluent limit on Leprino's discharge and a more restrictive BOD loading limit, is incorrect. The TWDRs include the following:

Discharge Specification F.3, which states:

"The Dischargers shall operate all treatment systems and equipment to optimize the quality of the discharge.

and Provision K.6, which states in part.

"The Dischargers shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the Dischargers to achieve compliance with the conditions of this Order..."

These conditions require both Leprino and the City to operate their treatment systems as effectively as possible to ensure compliance with the TWDRs. Therefore, proper operation of the Leprino's wastewater treatment system is required by the Order and is necessary to remove sufficient BOD and provide some nitrogen removal to ensure nitrogen loading to the land application area is at agronomic rates (a more limiting factor than organic loading).

With regard to setting a stricter BOD loading limit as evidence of "best practices," the existing BOD loading limit of 100 lbs/ac/day is considered a recommended standard to prevent odor and nuisance conditions (US EPA Pollution Abatement in the Fruit and Vegetable Industry). Given that the River Ranch is in a rural area and no potential odor issues have been identified, staff contends there isn't sufficient justification to set a more stringent BOD loading limit than currently required by the existing WDRs. While not directly applicable to groundwater protection, generally facilities that properly maintain their land application areas and can meet a BOD loading rate of less than 100 lbs/ac/day have not seen groundwater issues due to organic loading (i.e., elevated arsenic, iron, and manganese concentrations). Furthermore, shallow groundwater beneath the site is not of good quality for many constituents, including arsenic, iron, and manganese as shown in Table 1 below (relevant information from Table 1 has been included in the TWDRs). There are several clay layers, including the Corcoran Clay, to prevent vertical migration of constituents between shallow groundwater and any water supply wells.

Therefore, a BOD loading limit of 100 lbs/ac/day is sufficient to demonstrate that Leprino is implementing best practices, and no change was made to the BOD loading limit in the TWDRs. However, staff has added two findings to the TWDRs with references supporting the BOD loading limit of less than 100 lbs/ac/day. In addition, to ensure proper management of the land application area given the increased flows, Central Valley Water Board staff has added the following requirement to the MRP reporting requirement:

III.A.5 Include a table with the times and locations where the application exceeds a cycle average BOD loading rate of 50 lbs/ac/day (if applicable) and provide a plan with detailed measures taken or to be taken to resolve the issue.

Table 1. Historical Groundwater Quality (prior to initial discharge)

Constituent	Monitoring Well MW-1 (Ave. 1993-2017)	March 2018 (Range for Piezometers)	Water Quality Objective (see 1 below)
EC (µmhos/cm)	42,500	932 – 82,500	900 – 1,600
TDS (mg/L)	50,200	3,810 – 58,600	500 – 1,000
Sodium (mg/L)	13,600	292-18,300	--
Chloride (mg/L)	3,400	150-2,800	250
Sulfate (mg/L)	31,600	2,040-27,600	250
Nitrate as N (mg/L)	--	1.7-23	10
Iron (mg/L)	7.8	7.5 – 67.3	0.3
Manganese (mg/L)	1.3	0.14 – 4.2	0.05
Selenium (µg/L)	16	<2 – 43	50
Arsenic (µg/L)	17	10 – 46	10

1. Water Quality Objectives: Recommended and maximum Secondary Maximum Contaminant Level (MCLs) for EC and TDS; Secondary MCLs for chloride, sulfate, iron, and manganese; Primary MCLs for arsenic, selenium, and nitrate as N.