

**Regional Water Quality Control Board
Central Valley Region Board Meeting
21 June 2024**

**Response to Written Comments for the
Zamora Pistachio, LLC
Zamora Pistachio Facility
Yolo County
Tentative Waste Discharge Requirements**

At a public hearing scheduled for 21 June 2024, the Regional Water Quality Control Board, Central Valley Region, (Central Valley Water Board) will consider adoption of waste discharge requirements for Zamora Pistachio, LLC (Discharger), for the Zamora Pistachio Facility (Facility) in Yolo County. This document contains responses to written comments received from an interested person regarding the tentative waste discharge requirements (WDRs) circulated on 16 April 2024. Written comments were required by public notice to be received by the Central Valley Water Board by 16 May 2024 to receive full consideration. Comments were received prior to the deadline from:

1. Zamora Pistachio, LLC (Discharger)
2. Jo Anne Kipps

Written comments are summarized below, followed by responses from Central Valley Water Board staff. In addition, staff have made changes to the tentative WDRs and MRP in response to the comments.

ZAMORA (DISCHARGER) COMMENTS

COMMENT 1: Finding 7 of the WDRs should state “440 (not 40) acres have been planted with pistachios.”

RESPONSE: Revised per comment.

COMMENT 2: The last sentence of Finding 46 of the WDRs indicates that the WDRs authorizes an already-existing discharge. The Facility is new and has not begun discharging pistachio process wastewater.

RESPONSE: The last sentence of Finding 46 was deleted.

COMMENT 3: Regarding Provision J.2, compliance schedule for Nitrate Control Plan Implementation, Task b appears to be as needed. Task c should also be as needed as both tasks seem to be dependent on Task a.

RESPONSE: Revised per comment. In addition, due dates for each task were increased to within 90 days, 6 months, and 18 months, respectively.

COMMENT 4: The following typographical errors were found:

- Finding 47, 7th line – replace “contain” with “contains”.
- Provision J.2, Task Description c, 6th line - replace “(s)” with “(2)”.
- Provision J.2, Task Description c, 11th line - replace “goas” with “goals”.

RESPONSE: Revised per comment.

COMMENT 5: A new domestic supply well was installed and developed in November 2023. In April 2024, the Discharger submitted water quality data from this well, which was sampled in March 2024.

RESPONSE: Finding 26 and Table 5 of the WDRs was revised to include water quality data from the newly installed supply well.

COMMENT 6: Discharger conducted soil sampling within the proposed land application areas (LAAs) in March 2024 to provide baseline soil characterization prior to waste discharger activities. In May 2024, analytical data was provided at five locations with the LAAs.

RESPONSE: Finding 24 of the WDRs was revised to include information regarding baseline soil characterization. The Information Sheet includes a table summarizing soil data. Previously, Provision Section J.1.a. required submittal of a Baseline Soil Characterization Report, which is now no longer required. However, Provision Section J.1.d. submittal of soil sample data was added to address soil sampling should discharge activities cease and prior to rescission of the WDRs as part of wastewater treatment, storage, and conveyance closure requirements.

JO ANNE KIPPS COMMENTS

COMMENT 1: Disclose maximum anticipated daily wastewater flow and confirm that this flow will not hydraulically overwhelm its sumps and filter systems. Indicate whether the Facility will be operated during the non-harvest season and if so, disclose the nature of the Facility operation with respect to wastewater generation.

RESPONSE: Finding 9 was revised to state that during the non-harvest season, operations include storage and fumigation and roasting and pasteurization. Wastewater generated during these operations are discussed in Finding 9.b. and 9.d. Finding 10 was revised to include a maximum anticipated daily wastewater flow of 3.0 MGD to accommodate routine hulling, processing, and operational needs.

COMMENT 2: Include in the Provisions of the WDRs a Post Construction Report that certifies the wastewater pond's liner's hydraulic conductivity meets the standard of 1×10^{-6} cm/s.

RESPONSE: Provision J.1.a was revised to require submittal of a Post Construction Report within 45 days after adoption of WDRs. Discharges to the wastewater pond shall commence upon issuance of a concurrence letter from Water Board staff.

COMMENT 3: Revised WDRs to add potassium to the suite of constituents presented in Table 2 and if possible, explain why hulling wastewater contains elevated concentrations of ammonia.

RESPONSE: Table 2 was revised to include potassium data as provided in the RWD. Ammonia data as shown in Table 2 is based on data from the Terra Bella Pistachio Plant, Tulare County. Ammonia is commonly used in the processing of pistachios associated with dehulling and roasting. However, the Discharger has stated that this Facility will not use ammonia during hulling and roasting operations. No changes proposed regarding elevated concentrations of ammonia comment.

COMMENT 4: Revise Finding 15 to disclose whether the storm water pond will be equipped with a liner.

RESPONSE: Finding 15 was revised to state that the storm water pond will be lined with crushed rock and filter fabric.

COMMENT 5: Table 6 presents construction details for the Discharger's groundwater monitoring well network, along with average groundwater depth based on two sampling events. It concludes, "based on this data, groundwater flow is to the northwest." Include a column in Table 6 for average groundwater elevation as feet above mean sea level: MW-1 (32.07), MW-2 (31.72), MW-3 (32.47). This means groundwater elevation in MW-2 is lower than in MW-1 and MW-3, suggesting groundwater flow is east, not northwest. Regional groundwater flow direction in the Zamora area can also be confirmed by accessing SGMA Data Viewer.

RESPONSE: "Northwest" was a typographic error and Finding 27 was revised to state flow to the northeast. Since data is based on two sampling events, additional groundwater monitoring may indicate variations in flow direction. The MRP requires reporting the depth to groundwater, groundwater elevation, and gradient direction. No changes made to add an additional column.

COMMENT 6: Finding 46, last sentence states: "Furthermore, this Order authorizes an already-existing discharge that, based on past monitoring data, has had limited impact on beneficial uses or sensitive receptors." The Facility has not been constructed, clarify this statement.

RESPONSE: The Facility is being constructed with plans to operate by mid-August 2024. The last sentence in Finding 46 has been deleted.

COMMENT 7: Finding 51 identifies constituents/parameters in the discharge that have the potential to degrade groundwater including TDS and FDS, but not potassium. Include potassium in Table 8, as potassium loading to pistachio trees may exceed plant requirements.

RESPONSE: Potassium is a form of salt and represented by TDS and FDS. Table 8 was revised to include potassium data. Finding 52 was revised to include potassium as a constituent of concern. The MRP requires potassium to be monitored in the effluent and groundwater and to report potassium loading within the land application areas.

COMMENT 8: Finding 53, revise reference to nitrate to include "as N". What other available data were evaluated beyond the two sampling events? Does staff have information indicating that deeper groundwater is similarly impacted by nitrate. Staff should restrict its conclusion of nitrate degradation in excess of WQO to first-encountered groundwater passing through the monitoring wells.

RESPONSE: Revised per comment to include "as N" to nitrate. No other data were evaluated beyond the two sampling events. Finding 53 was revised to restrict conclusion of degradation to first-encountered groundwater.

COMMENT 9: Regarding Finding 54, aerating wastewater in the 6.5-MG pond will decrease effluent BOD₅ concentrations and reduce (but not minimize) organic loading. For organic loading to be truly minimized, the tentative order would need to prescribe an effluent limitation for BOD₅ reflecting secondary treatment (e.g., 30 mg/L monthly average). Baseline groundwater monitoring show exceedances of the iron WOQ in two wells and states an unnecessary MRP instruction, "Groundwater samples for metals shall be filtered prior to analysis." Reconsider the need to insert an MRP instruction into this finding. Include arsenic along with iron and manganese as soil metals that be mobilized by organic overloading and released to groundwater.

RESPONSE: Finding 54 was revised to: (1) replace "minimize" with "reduce" and (2) revise last sentence to state "Groundwater samples for dissolved metals shall be filtered prior to analysis." The MRP was revised to include monitoring of dissolved arsenic in groundwater.

COMMENT 10: Requirements section, first paragraph, correct discharger name to Zamora Pistachio, LLC (no plural on Pistachio) and consider replacing "their" with "its" as the discharger is a business entity and not a group of people.

RESPONSE: Revised per comment.

COMMENT 11: Mass Loading Limitation E.1 requires nitrogen loading to not exceed crop demand. The LAAs crops have already been identified. Include a finding identifying reference values for nitrogen demand for pistachios, cover crops, etc. Disclose the anticipated potassium loading to LAA crops and confirm that these loadings are not excessive.

RESPONSE: Finding 12 was revised to include reference values for nitrogen and potassium demand for pistachios and cover crops based on information included in the RWD. Anticipated potassium loading was not included as a Finding. Therefore, the WDRs requires the reporting of potassium loading.

COMMENT 12: Discharge Specification F.1 identifies the wastewater pond, LAAs, and "authorized waste and/or containment structures." Revise specification to include the storm water pond mentioned in Finding 15.

RESPONSE: Revised per comment.

COMMENT 13: The Monitoring and Reporting Program (MRP) provides a footnote definition for Standard Minerals in Source Water monitoring and for General Minerals in Effluent and Groundwater monitoring. To improve consistency, consider defining General Minerals in the Glossary.

RESPONSE: Revised per comment.

COMMENT 14: Wastewater Pond Monitoring, states "Dissolved Oxygen (DO) shall be collected at a depth..." As appropriate, revise to use "measured" or "determined" instead of "collected" as DO monitoring is typically done by probe.

RESPONSE: Revised per comment.

COMMENT 15: Effluent BOD monitoring frequency of 2/Month does not appear to be sufficient to characterize the organic loading of this high-strength wastewater to land. Has staff verified by evaluating data from other pistachio processing facilities that this frequency is adequate for this short-term discharge?

RESPONSE: Effluent BOD monitoring frequency was revised from 2/Month to 1/Week. Discharger may request a reduction in monitoring frequency after a minimum of two years of sampling.

COMMENT 16: The pistachio processing season is so short that if monitoring frequency is inadequate, the processing season may come and go without the Discharger collection enough data to adequately characterize the wastewater discharged to land. Increase effluent BOD monitoring to weekly during the processing season. Alternatively, provide a brief analysis of effluent BOD₅ data from other similar facilities showing 2/month BOD monitoring is adequate.

RESPONSE: See response to Comment 15.

COMMENT 17: Groundwater Monitoring does not include Total Organic Carbon (TOC) and limits the frequency of general mineral to once annually. Include quarterly monitoring for indicators of organic loading, namely: TOC, hardness, and bicarbonate alkalinity. Also require quarterly monitoring for chloride and for indicators of organic overloading: dissolved forms of iron, manganese, and arsenic.

RESPONSE: Revised per comment. Discharger may request a reduction in monitoring frequency after a minimum of two years of sampling.

COMMENT 18: Finding 2 states, the Discharger submitted a Report of Waste Discharge dated February 2023, a revised RWD dated March 2023, and a Baseline Groundwater Assessment Report dated 7 November 2023. Either specify the submittal dates in February and March for the RWD documents or replace “dated” with “in”.

RESPONSE: Revised per comment.

COMMENT 19: Finding 14 includes a ‘for example’ list. Typically, e.g. is followed by comma (e.g., ...) And what are “hand toiles”? In Finding 53, why nitrates plural?

RESPONSE: Finding 14 was revised per comment. Hand toiles are hand towels. Finding 53 was revised to show nitrate singular.

COMMENT 20: Discharge Specification F.5 incorrectly cites Discharge Specification E.4; it should be F.4.

RESPONSE: Revised per comment.

COMMENT 21: Discharge Specification F.9 incorrectly cites Discharge Specification E.7 and E.8; they should be F.7 and F.8.

RESPONSE: Revised per comment.