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**TENTATIVE WASTE DISCHARGE REQUIREMENTS ORDER FOR WAWONA
PACKING CO., LLC, CUTLER FRUIT PACKING PLANT, TULARE COUNTY**

This letter transmits my comments on the subject Tentative Order, which was prepared by Central Valley Water Board staff in the Fresno Office. I am a resident of Fresno County and a California registered civil engineer with expertise in evaluating the effects to soil and groundwater from discharges of food processing and winery wastewater to land for treatment and disposal. I gained this expertise during the 11 years that I worked as a Senior Water Resources Control Engineer in the Fresno Office of the Central Valley Water Board. In addition to reviewing the Tentative Order, I also reviewed the Central Valley Water Board's case file for this discharge.

The technical report included in the Report of Waste Discharge (RWD) submitted by Wawona Packing Co., LLC. (Wawona) indicates that Wawona purchased the Cutler Fruit Packing Plant in February 2000 and that the Plant was previously owned by five different businesses, four of which are (or were) fruit packing companies. Finding 39 of the Tentative Order states that the Plant has been in operation since 1999. It is unlikely that the Plant could have undergone five ownership changes from 1999 to February 2000. **Recommendation 1: Confirm the year in which the Plant first started operating and discharging fruit packing wastewater to land and, as necessary, update Finding 39 accordingly.**

The Form 200 included in the Report of Waste Discharge (RWD) submitted by Wawona identifies the Central Valley Water Board as the lead agency under the California Environmental Quality Act (CEQA) for the proposed discharge. Finding 39 of the Tentative Order for Wawona states, "The Plant has been in operation since 1999, and the structures associated with the Plant, including the ponds and the Use Area, have been installed and/or have been operational since December 2011. These features have been deemed to be consistent with Tulare County's land use policies, and Wawona has not been required to obtain a discretionary permit prior to installing and operating the current Plant features." This finding indicates that a CEQA evaluation has yet to be completed of the Plant and its operation (including its wastewater discharge to land). It also suggests that Wawona was not required to obtain a permit from the Central Valley Water Board prior to installing and operating the features (pond, Use Area) that would allow it to initiate a discharge waste to land.

The case file contains information indicating that Wawona recently expanded the Plant, backfilled a previously-used wastewater storage reservoir (West Pond), constructed two new wastewater storage ponds on a newly-acquired parcel immediately east of the Plant, relocated the

Plant's domestic wastewater leachfield to an area within the proposed wastewater application area ("Use Area"), and expanded the Use Area.

Wawona's discharge situation appears comparable that of Prima Bella Produce, Inc. and Mark Bacchetti, Prima Bella Food Processing Facility in San Joaquin County. Central Valley Water Board staff with the Sacramento Office recently circulated for public comment a tentative waste discharge requirements order for this discharger along with an Initial Study and Negative Declaration for Board adoption. Finding 53 of this tentative order states, "Construction of the wastewater treatment pond, expansion of the existing land application area; and the land application of waste thereto constitutes an expansion of the discharge that triggers the CEQA environmental review process. The Central Valley Water Board, as lead agency, developed an Initial Study and Negative Declaration based on information provided by the Discharger in the RWD and a draft Initial Study. The Board determined that the project would not cause any significant environmental impacts if operated in compliance with this Order and adopted a Negative Declaration for the pond and LAA expansion on ___."

The Sacramento Office staff was correct in determining that the Central Valley Water Board is lead agency under CEQA for the Prima Bella discharge, while the Fresno Office staff erred when it determined Wawona's discharge exempt from a CEQA evaluation. The Central Valley Water Board staff in all three of its offices are supposed to be assisted by legal counsel who review tentative orders for consistency with applicable laws, regulations, and Board plans and policies. How is it possible for legal counsel to advise Sacramento Office staff that the Board must assume lead agency status and perform a CEQA evaluation in one discharge situation and advise Fresno Office staff that such an evaluation is not necessary for a comparable discharge situation?

Recommendation 2: Withdraw the tentative Order, perform a CEQA evaluation of Wawona's discharge (e.g., prepare an Initial Study and Negative Declaration), and update the Tentative Order accordingly and re-circulate for public review.

Finding 18 states, "Federal Emergency Management Agency (FEMA) map number 06107C0345E for Tulare County (effective 16 June 2009) shows the Plant is in an area subject to flooding by a 100-year flood (the 1% annual chance flood). The anticipated flood depth is up to 3 feet." Discharge Prohibition A.1 prohibits the discharge of waste to surface waters, except as authorized under the General Low Threat NPDES Permit (Order R5-2008-0081). Discharge Specification B.4 requires the discharge to remain at all times within the permitted waste treatment/containment structures and land application areas. And, Discharge Specification B.6 requires all conveyance, treatment, storage, and disposal units to be designed, constructed, operated, and maintained "to prevent inundation or washout due to floods with a 100-year return frequency." The Tentative Order does not describe what flood protection measures Wawona has implemented to ensure wastewater impounded in its ponds will not commingle with floodwaters and discharge to nearby Sand Creek or to areas beyond Wawona's property. Without such flood protection measures, Wawona will be in violation of Discharge Specification B.6 immediately upon order adoption. **Recommendation 3: Include a finding that states Wawona is required to implement corrective measures to comply with Discharge Specification B.6, and include a provision requiring Wawona to submit within two months of Order adoption a technical report describing the flood protection measures Wawona will implement to achieve compliance with Discharge Specification B.6, and to submit within six months of Order**

adoption certification by a California registered civil engineer that Wawona has completed the implementation of proposed flood protection measures.

The RWD's technical report includes a water balance based, in part, on a wastewater storage reservoir (the West Pond) that no longer exists. Finding 5 states, "In December 2011, Wawona informed staff that it purchased adjacent properties, on which it had begun discharging to newly-constructed replacement storage ponds and proposed to expand its Use Area from 4.2 acres to 7.6 acres." The West Pond had a storage capacity of 3.36 million gallons (MG), whereas the two new ponds have a combined capacity of 1.95 MG. While Wawona increased the acreage of its Use Area (from 4.2 to 7.6 acres), the case file does not include a revised water balance reflecting the current discharge. **Recommendation 4: Include a finding in the Tentative Order indicating that the water balance contained in the RWD does not reflect the currently proposed discharge operation, and include a provision requiring Wawona to submit a revised water balance, prepared by a California-registered civil engineer, reflecting the currently proposed wastewater storage and disposal operation.**

The Tentative Order indicates that fruit processing wastewater is discharged to two unlined wastewater ponds on the west side of the Plant (Finding 2). I viewed the Plant with Google Maps and determined that the two new ponds are on the east side of the Plant.

Finding 6 states the two new ponds were "constructed entirely below grade to a depth of nine feet and adjacent to Sand Creek to the south." Finding 12 states, "The wastewater ponds are unlined. Soil at depth beneath the ponds has not been characterized nor has hydraulic conductivity been measured. Wawona reportedly encountered a hard, clayey soil at a depth of approximately 20 feet during construction of its old wastewater pond, which is now out of service. Wawona used an estimated seepage of about 0.2 inches per day for the water balance in the Report of Waste Discharge."

A complete characterization of the discharge should have included the results of field tests to determine the rate at which wastewater impounded in the two ponds will infiltrate into the soil. This information is necessary to develop an accurate water balance, which should identify the rate at which wastewater will infiltrate through the soil profile to underlying groundwater.

Recommendation 5: Require Wawona to perform field tests to determine the hydraulic conductivity of soils underlying the two new ponds and use the updated seepage rate data in a water balance that reflects the current proposed discharge operation.

The RWD does not contain a complete characterization of the proposed discharge. For example, the RWD does not characterize citrus processing wastewater for disinfection byproducts. Finding 11 recognizes the potential for this wastewater to contain elevated concentrations of disinfection byproducts such as trihalomethanes. Even though the discharge has the potential to release trihalomethanes to groundwater, staff did not require Wawona to submit data characterizing its discharge for these waste constituents as part of its RWD. The RWD also does not contain an analysis of the discharge for consistency with State Water Quality Control Board Resolution 68-16 (Antidegradation Policy). For reasons explained below, Wawona's discharge is not consistent with this policy.

Finding 35 states, “The treatment and control measures described above in Finding 34 represent a higher level of water quality protection measures than those employed by comparable food processing facilities in the Central Valley, and the Board finds that these treatment and control measures represent [best practicable treatment or control] for the Plant.” The discharge of fruit processing wastewater to ponds that are not designed, constructed, and operated to prevent inundation or washout due to floods with a 100-year return frequency does not reflect best practicable treatment or control (BPTC).

Finding 19 states, “groundwater surface elevation fluctuates significantly with time from depths up to 40 feet [below ground surface (bgs)] to less than 5 feet bgs.” The wastewater ponds are constructed below grade to a depth of nine feet and are unlined. Therefore, during high groundwater conditions, waste constituents in the discharge to the ponds (and in the sludge layer on the pond bottoms) may be released directly to groundwater in concentrations exceeding applicable water quality objectives. Accordingly, staff’s analysis of the discharge to the ponds should have considered the potential for waste constituents in the discharge to be released directly to groundwater during periods of high groundwater elevations.

Staff should have determined that Wawona’s discharge to unlined ponds during periods of shallow groundwater conditions has the potential for causing groundwater to contain trihalomethanes in concentrations exceeding applicable water quality objectives. Therefore, to be consistent with the Antidegradation Policy, Wawona should implement a BPTC measure to minimize this degradation beyond just monitoring the discharge for this constituent. Also, wastewater discharged to the ponds does not undergo any treatment such as primary clarification to remove settleable solids. Therefore, sustained discharge to the ponds will cause an organic-rich sludge to accumulate on the pond bottoms. This sludge layer represents a concentrated source of waste constituents (e.g., nitrogen compounds) that may adversely impact groundwater, especially during high groundwater conditions. Wawona should implement a BPTC measure to minimize this degradation (e.g., by providing primary clarification treatment prior to discharging wastewater to the pond or by storing untreated wastewater in above ground tanks or lined wastewater storage ponds designed, constructed, and maintained to withstand a 100-year flood event). **Recommendation 6: Revise the Tentative Order to require Wawona to implement BPTC to minimize the degradation caused by its discharge of waste constituents to unlined ponds. For example, if Wawona continues to discharge to the new ponds, require Wawona to determine the seepage rate of pond bottom soils and, if necessary, require Wawona to compact the soils or otherwise reduce the pond seepage rate to levels that will minimize the rate at which waste constituents are released to soil, especially during periods of high groundwater levels. Also, require Wawona to install a network of at least three shallow groundwater wells (piezometers) nearby the ponds to monitor groundwater elevation and to prohibit use of the ponds for wastewater storage when groundwater elevations encroach that of pond invert elevation.**

Finding 13 states, “Domestic wastewater from the Plant is discharged separately to a leachfield system, regulated by the Environmental Health Division of the Tulare County Health and Human Services Agency.” The RWD identified the leachfield system as protruding into the Use Area, and proposed to establish a 10-foot-wide buffer zone between the leachfield and Use Area. The case file contains a 17 January 2012 email from Wawona that enclosed an updated drawing of

the Plant, leachfield, wastewater ponds, and Use Area. This drawing indicates that the relocated leachfield is still within the Use Area; it shows no buffer between leachfield and wastewater application area. **Recommendation 7: Include a discharge specification that establishes a 10-foot-wide buffer zone between the Plant's leachfield area and wastewater application area.**

Also, because the highest anticipated groundwater elevation in the area appears to be five feet bgs, the Tentative Order should include a finding indicating that the Central Valley Water Board has evaluated the Facility's domestic waste discharge system and finds it consistent with the Board's minimum requirements for such systems (as prescribed in the Basin Plan).

Recommendation 8: Revise Finding 13 to include information regarding the compliance of the Facility's domestic waste septic system with minimum Basin Plan requirements, particularly the requirement for a minimum five feet of vertical separation between the bottom of leachfield trenches and highest anticipated groundwater. If the Facility's domestic waste disposal system does not comply with minimum Basin Plan requirements, revise the Tentative Order to include a time schedule for achieving and maintaining compliance with these minimum requirements.

I offer these recommendations in the hope that staff will revise the Tentative Order accordingly, or provide justification why staff believes the recommended changes are not warranted.



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