

ITEM: 15

SUBJECT: Baker Commodities, Inc., Waste Discharge Requirements and Time Schedule Order, Kerman Rendering Plant, Fresno County

BOARD ACTION: *Consideration of Waste Discharge Requirements and Time Schedule Order*

BACKGROUND: Baker Commodities, Inc. (Baker), renders farm animal carcasses, restaurant grease, and butcher shop waste for production of protein and bone meals, tallow, and feeding fats. Baker's Kerman Rendering Plant (Plant) is reportedly one of only four rendering plants in California that handle animal mortalities, which is the only lawful disposal option under most circumstances.

The Plant produces wastewater that is high in salinity, nitrogen, and biochemical oxygen demand (BOD). The source of these waste constituents is almost exclusively the fluids and paunch manure from the Plant feedstock (carcasses), though the waste is concentrated by evaporation in Baker's large pond system. Baker treats the wastewater by passing it through grease skimmers followed and cavitation air flotation before discharge into a series of three lined ponds. A contract farmer applies pond effluent, blended with irrigation well water, to about 537 acres of land application areas (LAAs) planted in cotton and alfalfa.

WDRs Order 95-245 currently regulates the discharge, limiting wastewater discharge flow to no more than 0.032 mgd and prohibiting any degradation of groundwater quality. Anticipated wastewater quality was overestimated while wastewater flow rates were underestimated, resulting in waste constituent loading to the ponds and land application areas far exceeding the description in the findings of the WDRs. Baker submitted an updated RWD for wastewater flows up to 0.192 mgd in 2012. The current WDRs are out of date and need to be updated.

In a Notice of Violation (NOV) issued in 2006, staff notified Baker that it had exceeded its effluent flow limit and effluent limits for inorganic dissolved solids and caused groundwater EC and total dissolved solids (TDS) to exceed upper secondary MCLs, and caused groundwater pollution with nitrate.

Quarterly monitoring of onsite groundwater monitoring wells shows degradation of groundwater with sodium, chloride, bicarbonate, nitrate, TDS and EC. Degradation is most pronounced in samples from the groundwater monitoring well nearest the unlined ponds. Though the ponds have been out of service since the end of 2010, Baker has not properly closed them and elevated concentrations of waste constituents in groundwater persist.

The proposed WDRs include a provision requiring Baker to properly close the ponds. The WDRs implement effluent limits for salinity from the Tulare Lake Basin Plan of no more than 175 mg/L chloride and no more than 500 umhos/cm over source water EC. The WDRs also require Baker to prepare a Nutrient Management Plan and Salinity Control Plan. Because the new ponds have only a single liner with no leachate collection and recovery system, the proposed WDRs require a

leak location survey every five years and installation of additional groundwater monitoring wells to verify percolation from the ponds is sufficiently limited.

The lateral extent of degradation due to Baker's historic discharges has not been fully defined, but it appears to extend offsite to the west and south. The Time Schedule Order includes a task requiring Baker to assess the horizontal and vertical extent of elevated EC and TDS, sodium, chloride, and nitrate concentrations in groundwater beneath and down-gradient of the unlined ponds and/or LAAs.

ISSUES:

Written comments were received from Conestoga-Rovers & Associates, Inc., on behalf of Baker. Revisions were made to the TWDRs to address some of the comments. Full responses to the comments are included in the Response to Comments in the agenda package. A short summary of the issues and staff's responses follow:

1. Baker comments that the requirement for Baker to prepare a plan to install additional monitoring wells to assess groundwater conditions upgradient and downgradient of the lined wastewater ponds was already met with installation of monitoring wells in April 2012. Baker installed two monitoring wells downgradient of the lined pond system, but there are no monitoring wells upgradient of the ponds.
2. Baker comments that meeting the effluent EC limit of no more than 500 umhos/cm over source water EC is not economically feasible or practical. Baker requests that the proposed limit be replaced by a limit of no more than 500 mhos/cm over the EC of first-encountered groundwater. The proposed revision to the limit is inconsistent with the Basin Plan. Staff recognizes the potential for significant process changes and/or cost to comply with this effluent limit. For this reason, the draft Time Schedule Order allows Baker more than 10 years to comply (3 February 2025) with the limit. Baker will have the opportunity in the interim either to develop a plan to bring the discharge into compliance with the limit or demonstrate to the Central Valley Water Board that it is eligible for an exception to the Basin Plan limit and request an amendment to the WDRs.
3. Baker requests reduced monitoring frequencies for pond influent/effluent and groundwater monitoring, and a single sampling event for soil monitoring rather than annual sampling. Baker has performed limited monitoring to characterize the discharge and groundwater since it made changes to the discharge volume and character. The monitoring frequencies are appropriate to characterize the effects of the discharge on groundwater and soils.

RECOMMENDATION:

Adopt the WDRs and Time Schedule Order.

Mgmt. Review _____

Legal Review PEP

5/6 June 2014

11020 Sun Center Dr. #200

Rancho Cordova, CA 95670