

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

**Response to Written Comments for Valley Waste Disposal Company
and Cawelo Water District, Kern Front No. 2 Treatment Facility – Cawelo Reservoir B
18 April 2007 Tentative Waste Discharge Requirements**

Regional Water Quality Control Board, Central Valley Region (Regional Water Board) staff circulated on 18 April 2007 Tentative Waste Discharge Requirements (NPDES Permit No. CA0081311) (TWDRs) for Valley Waste Disposal Company (VWDC) and Cawelo Water District (CWD), Kern Front No. 2 Treatment Facility (Facility) in the Kern Front Oil Field. This document contains responses to written comments on the TWDRs received from Cawelo Water District (CWD) on 15 May 2007 (dated 7 May), from Valley Waste Disposal Company (VWDC) on 16 May 2007 (dated 14 May 2007), and from Vintage Production California LLC (Vintage) on 18 May 2007, and a verbal comment from CWD made on 18 May 2007.

Written comments from the CWD, VWDC and Vintage are summarized below and where applicable to the new TWDRs, followed by the responses of the Regional Water Board staff. The comments received from Vintage address the same issues as the comments from VWDC and are addressed jointly.

CAWELO WATER DISTRICT (CWD) COMMENTS

CWD – COMMENT NO. 1. Information Sheet, page 12, states:

“The Study concludes that the CWD will need to continue to import about 65,000 acre-feet of surface water and discharge approximately 10,000 acre-feet to Poso Creek for groundwater recharge to ensure the annual incremental increase in groundwater EC remains less than 6 umhos/cm”

CWD indicates the statement is true only when all of the oilfield producers are discharging the maximum annual permitted quantities based on the maximum daily discharge.

RESPONSE. The section has been clarified.

CWD – COMMENT NOS. 2 and 6. CWD takes exception to descriptions in Finding No. 33 and Information Sheet page 13 regarding the CWD’s methodology to characterize the quality of groundwater throughout the District. Both sections generally state that the large number of monitoring wells, the variability of well construction specifications and screening intervals, the discontinuities in the wells sampled each year, and the 400-foot vadose zone bring into question the reliability of the results reported by the CWD.

RESPONSE. The sections remain as stated as that is current. The CWD is presently reevaluating groundwater monitoring results with data from wells used throughout the period. When the reevaluation is complete the situation may change.

CWD – COMMENT NO. 3 CWD states that the reach of Poso Creek through CWD is not regulated by the federal government as the U. S. Army Corps of Engineers (Corps) disclaimed

jurisdiction over Poso Creek in a letter dated 26 April 2004.

RESPONSE. The TWDRs remain as stated. The Corps letter states in part that Poso Creek, west of Highway 65 and within the Tulare Lake Basin, is an intrastate, non-navigable, and isolated water currently not regulated under Section 404 of the federal Clean Water Act (CWA). The Order is implementing Section 402 of the CWA. The U.S. Environmental Protection Agency administers Section 402 of the CWA and it has not disclaimed federal jurisdiction over the subject reach of Poso Creek.

CWD – COMMENT NO. 4. CWD quotes the following section from Finding 15:

“To retain as much water within the CWD as possible; CWD attempts to discharge to Poso Creek (Discharge 003) only when there is no surface water flow or insufficient surface water in Poso Creek to extend past the downstream boundary of the CWD.”

CWD states it discharges to Poso Creek only during those times that the volume of the blended oilfield produced water in the CWD distribution system exceeds the irrigation demands within the CWD service area and the storage reservoirs of CWD are full, generally only during the winter months of November through February.

RESPONSE. Staff is aware of this, but the finding is for other purposes and the TWDRs remain unchanged. The Finding description was provided by the CWD General Manager and indicates how the CWD “attempts” to manage water to its benefit. For purposes of the Order, it illustrates the efforts made to maximize groundwater supplies and maintain or enhance assimilative capacity for salt. The Finding does not restrict the CWD from discharging to Poso Creek when there is sufficient flow to carry the discharge beyond the CWD boundaries.

CWD – COMMENT NO. 5. CWD states with regard to Finding Nos. 29 and 31 that it is updating its Ground Water Management Plan in conformance with SB 1938.

RESPONSE. Finding 31 now indicates the CWD is updating its Ground Water Management Plan.

CWD – COMMENT NO. 7: The CWD comments that arsenic limits should not be included in the TWDRs as the beneficial uses of Poso Creek do not include MUN and have no direct connection to a municipal water supply.

RESPONSE: The arsenic limit remains as is. The designated beneficial uses of Poso Creek include groundwater recharge and groundwater has the designated beneficial use of MUN. The CWD intentionally impounds water it discharges to Poso Creek, when natural flows are low to nonexistent, to recharge groundwater. Soils underlying Poso Creek in the CWD are sands and gravels with high percolation rates. VWDC has reported effluent arsenic concentrations as high as 50.4 µg/L. Chevron has reported arsenic

concentrations as high as 19 µg/L. VWDC has reported Pump Station B (i.e., CWD surface water) arsenic concentrations of 6 µg/L. Regional Water Board staff calculations indicate that at the permitted discharge flows, the blend of the three waters described above could exceed the water quality objective for MUN of 10 µg/L at Discharge 003. The potential attenuation of arsenic in water discharged to the Poso Creek bed as it percolates to groundwater is undocumented, and such information is essential to justify a greater limit or no need for a limit. Thus, the new TWDRs contain a daily maximum effluent limitation of 10 µg/L for arsenic. The new TWDRs also include a provision that allows the Regional Water Board to reconsider the need for an arsenic effluent limit if the CWD provides new information that indicates that there is no reasonable potential for arsenic in the effluent to cause an exceedence of a water quality objective.

CWD – COMMENT NO. 8: CWD quotes the following from the reopener Provision No. 14:

“(The critical Study results were based on flows of 7.4 and 33.5 mgd and average ECs of 1030 umhos/cm and 940 umhos/cm from VWDC and Chevron, respectively, as well as a minimum of 65,000 acre-feet of imported fresh water. Should these assumed values change it could require reevaluation of the Study results and may necessitate reductions in flow or EC limits.)”

CWD states the minimum “fresh water” is a requirement only with discharge at the maximum annual volumes by all the oilfield producers, but that historically oilfield operations discharge substantially less and under this circumstance less “fresh water” would be required to sustain compliance with the Basin Plan.

RESPONSE: The Provision is correct as it expressly applies to “critical” Study results. Permit conditions typically consider the worst case scenario.

CWD COMMENT NO. 9. CWD requests clarification of what will be required in the Salinity Evaluation and Minimization Plan (Plan) required of VWDC by Provision No. F.8 of the TWDRs.

RESPONSE: The Provision remains as originally circulated. The Provision provides general guidance to VWDC to allow it to develop a Plan that will suit its unique situation. As suggested by the CWD comment, the standard mineral analyses required by the MRP may be useful during formation and implementation of the Plan.

CWD COMMENT NO. 10. CWD requests that the frequency of Groundwater EC Reports required by the MRP be reduced from quarterly to semiannually.

RESPONSE. As described in the transmittal letter, the sections of the TWDRs that would have allowed exceptions to the annual average EC limit for the discharge from VWDC to CWD Reservoir B were deleted and, thus, the related requirement to submit Groundwater EC Reports was deleted.

CWD COMMENT NO. 11 In a phone conversation from CWD Engineer on 18 May 2007, CWD requested that the Groundwater Limitations prohibiting the annual increase in groundwater EC from exceeding 6 umhos/cm per year be changed to 30 umhos/cm over a five year period.

RESPONSE. The Groundwater Limitations remain as circulated. The annual incremental change in EC will be evaluated over the term of the permit.

**VALLEY WASTE DISPOSAL COMPANY (VWDC) AND VINTAGE PRODUCTION
CALIFORNIA (VINTAGE) COMMENTS**

VWDC & VINTAGE COMMENT NO. 1 VWDC and Vintage request they be allowed to substitute daily grab sampling for continuous EC monitoring if operational problems with EC monitoring equipment arise.

RESPONSE. A footnote was added to allow substitution of a grab sample in case of equipment malfunction.

VWDC & VINTAGE COMMENT NO. 2 VWDC and Vintage request that frequency of acute toxicity testing be reduced.

RESPONSE. The frequency of testing is appropriate as is.

VWDC & VINTAGE COMMENT NO. 3 VWDC and Vintage request that frequency of priority pollutant monitoring be reduced.

RESPONSE. The frequency of monitoring is appropriate as is.