CAWELO WATER DISTRICT
17207 INDUSTRIAL FARM ROAD
BAKERSFIELD, CALIFORNIA 93308-9519
Administration: (661) 393-6072 • Fax: (661) 393-6073

David R. Ansolabehere
General Manager

May 7, 2007

California Regional Water Quality Control Board
Central Valley Region
1685 "E" Street
Fresno, CA 93706

Attn: Loren J. Harlow, Assistant Executive Officer

Re: Waste Discharge Requirements for Valley Waste Disposal Company and Cawelo Water District, NPDES Permit No. CA 0081311

Dear Mr. Harlow:

On behalf of the Cawelo Water District, we extend our appreciation to you and your staff for the open relationship and assistance in the preparation of the Technical Study used as the basis for the Waste Discharge Requirements (WDR) for the Valley Waste Disposal Company (VWDC) and Cawelo Water District (CWD). Your guidance and participation in the meetings provided the criteria for development of the model used in the Technical Study and the WDR.

The Background and Information Sheets provided an excellent summary of the history and operations of VWDC and CWD, along with detailed coverage of the Technical Study. We do, however, have a few comments for clarification.

1. Information Sheet, page 12, the statement:

   > "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"

   The statement is true only when all of the oilfield producers are discharging the maximum annual permitted quantities based on the maximum daily discharge, i.e., VWDC 7.4 mgd (8,304 acre-feet/acre), Chevron 33.5 mgd (37,593 acre-feet/acre) and Schaeffer Oil Company 2.15 mgd (2,424 acre-feet/acre).

2. Information Sheet, page 13, the statement:

> "However, due to the large number of monitoring wells, the variability of well construction specifications and screening intervals, the depth to groundwater, and discontinuous wells sampled each year, the monitoring is not a reliable indicator at this point of the effect reclamation of produced water has had or will have on the quality of groundwater underlying the CWD."

The CWD groundwater quality monitoring program has been in operation for eleven years; and although each well of the 58 groundwater wells of the monitoring program could not be sampled each year, as the landowner did not have the well and pumping plant operational, the wells sampled provided sufficient areal coverage of the District. In addition, the method used for computing the District average by developing lines of equal electrical conductivity (EC), interpolating the EC for the northeast corner of each section and computing the average from 86 section corner points can not be characterized as "not a reliable indicator", as the quality of the groundwater continues to improve. We believe the continued importation of high quality surface water, the underground inflow of good quality water, and the extraction of poor quality groundwater are causing an improvement in the quality of the groundwater of the basin, irrespective of the use of oilfield produced water.

3. Background, page 4, item 12, the statement:

> "Through use of its Distribution Canal, CWD discharges blended water to Poso Creek, a water of the United States, for recharge of the groundwater basin in the winter months when irrigation demand is low."

The U. S. Army Corps of Engineers made a determination by letter dated 26 April 2004 that the reach of Poso Creek through CWD is not regulated by the United States, see copy of letter attached, which stated:

> "Following coordination with our Headquarters, we have determined that Poso Creek, West of Highway 65, and located within the Tulare Lake Basin, is an intrastate, non-navigable, and isolated water currently not regulated under Section 404 of the Clean Water Act."

4. Background, page 5, item 15, the statement:

> "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 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.

5. Background, page 8, Items 29 & 31, Groundwater Management AB 3030. The Cawelo Water District adopted a Groundwater Management Plan in conformance with AB 3030 in July 1994 and CWD is currently updating the Plan in conformance with SB 1938.

6. Background, page 9, Item 33., the statement:

> "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-feet vadose zone make it difficult to determine what actual effect recent increases in volume and salinity of produced water have had on the quality of groundwater throughout the CWD."

The quality of the groundwater of CWD has been monitored for eleven (11) years, and although not all of the same wells were measured each year, due to landowner inoperation, the 20 or more wells monitored each year provided adequate areal coverage of the District for determination of the effects of the delivered oilfield produced water. We believe the CRWQCB should place more confidence in the annual MRP conducted by CWD, as required by Order No. 95-003, NPDES No. 0082295, for the Groundwater Monitoring Program.

7. Background, page 12, item 48, Arsenic.

It is our opinion the CRWQCB has extended the order beyond reasonableness, using the Basin Plan that states "waters shall not contain chemical constituents in concentrations that adversely affect beneficial uses" for arsenic monitoring, since groundwater of the Kern County Basin has a designated beneficial use of municipal supply. Arsenic is not identified in the Basin Plan narrative objectives for chemical constituents of irrigation water, see pages III-1 and III-7 of the Basin Plan. The surface water beneficial uses of Poso creek do not include municipal and domestic supply (MUN), Industrial Service Supply (IND) nor Industrial Process Supply (PRO). The arsenic limit set forth is a drinking water standard requirement and not appropriate for groundwater recharge and should be removed from the WDR.

8. Order, page 21, item 14, the statement:

> "(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.)"

The minimum of 65,000 acre-feet of imported "fresh water" is a requirement only with the discharge of the maximum annual volumes of all the oilfield producers. As evidenced by historical operations the oilfield producers typically only discharge about 75 percent of the maximum annual volume, based upon the maximum daily limit, and therefor substantially less "fresh water" would be required for compliance with the incremental annual increase of the EC in the groundwater mass of 6 umhos/cm.

9. Order, page 20, item 8, the statement:

> "Salinity Evaluation and Minimization Plan. The Discharger shall prepare a salinity evaluation and minimization plan to address sources of salinity from the VWDC. The plan shall be completed and submitted to the Regional Water Board within nine months of the effective date of this order for approval of the Executive Officer.

The proposed Salinity Evaluation and Minimization Plan is a new Provision of the WDR. We presume the plan would identify the salts in the Oilfield Produced Water (OPW) as discharged from each oil well, the salts in the OPW after each procedure occurs in processing the OPW, and the salts in the OPW discharged to Reservoir "B". Perhaps a detailed definition of salinity as envisioned by the CRWQCB would be helpful. Are the standard minerals identified in the effluent monitoring of the MRP the tests for salinity anticipated by the CRWQCB?

10. Order Page 20, item 9. Monitoring and Reporting Program, Page 2, Discharge 001

> "The CWD shall submit quarterly reports that, using data available from the most recent calendar quarter, and data from any other quarters in the calendar year, provide at least the following:
>
> a. A quarterly prediction from the current calendar year of the annual average incremental increase in groundwater EC.

b. CWD shall identify any exception to the average annual average EC limit in Discharge Specification No. B.1 and demonstrate that the exception will not cause greater than an average annual increase in groundwater EC of 6 umhos/cm.

c. If a. predicts the average annual increase in groundwater EC of 6 umhos/cm will be exceeded during the calendar year unless contingency measures are taken, the CWD shall identify the contingency measures it will take to ensure the salinity added to the CWD for the year does not cause or contribute to an exceedance of Groundwater Limitations E.

Predictions made for this provision shall be made using the model and methodology presented in the Study and shall be signed and stamped in accordance with Provision F.5. Copies of applicable calculations shall be provided with the quarterly reports."

Your consideration of a semi-annual prediction of the current calendar year average annual incremental increase in groundwater EC, instead of a quarterly prediction, is requested. The District does not have complete knowledge of the hydrologic conditions of the Kern River or the final prediction of the State Water Project supply until late May or the first of June, which would result in a hypothetical report in April, and an October report would provide little or no change as the surface water supply has already been established.

Again, we acknowledge the positive relationship extended by the staff in promulgating the WDR, and appreciate the opportunity of commenting on the WDR.

Very truly yours,

R. L. Schafer

RLS/mep

cc: Valley Waste Disposal Company
Chevron
Cawelo Water District
David Ansolabehere
Robert Hartsock

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, SACRAMENTO
CORPS OF ENGINEERS
1325 J STREET
SACRAMENTO, CALIFORNIA 95814-2922

REPLY TO
ATTENTION OF

April 26, 2004

Regulatory Branch (200300265)

Mr. John Jones
Cawelo Water District
17207 Industrial Farm Road
Bakersfield, California 93308

Dear Mr. Jones:

This is in reply to a letter dated August 11, 2003, from your attorney, Mr. James Worth, in which he requested we reconsider a jurisdictional determination for Poso Creek, west of Highway 65, Kern county, California.

Following coordination with our Headquarters, we have determined that Poso Creek, west of Highway 65, and located within the Tulare Lake Basin, is an intrastate, non-navigable, and isolated water currently not regulated under Section 404 of the Clean Water Act.

This jurisdictional determination is a case-specific determination. It sets no policy or precedent with respect to any other situation, or with respect to the validity of the regulations at 33 CFR 328.3(a)(3). The finding presented herein does not speak on the segment of Poso Creek east of Highway 65. Furthermore, this disclaimer of jurisdiction is only for Section 404 of the Federal Clean Water Act. Other Federal, State, and local laws may apply to your activities. In particular, you may need authorization from the California State Water Resources Control Board and/or the U.S. Fish and Wildlife Service.

This verification is valid for five years from the date of this letter, unless new information warrants revision of the determination before the expiration date. **Please note that a significant effort is currently underway which will address the issue of jurisdiction over many waters in the Tulare lake Basin. Based on the results of this effort, the jurisdictional status of Poso Creek, west of Highway 65, may change.**

A *Notification of Administrative Appeal Options and Process and Request for Appeal* form is enclosed. If you wish to appeal this approved jurisdictional determination, please follow the procedures on the form. You should provide a copy of this letter and notice to all other affected parties, including any individual who has an identifiable and substantial legal interest in the property.

RECEIVED
APR 29 2004
R.L. SCHAF

Please refer to identification number 200300265 in any correspondence concerning this project. If you have any questions, please contact Nancy Haley at our San Joaquin Valley Office, 1325 J Street, Room 1480, Sacramento, California 95814-2922, email *Nancy.A.Haley@usace.army.mil*, or telephone 916-557-7772.

Sincerely,

ORIGINAL SIGNED

Michael S. Jewell
Chief, Central California/Nevada
Section

Copy furnished:

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Dale Harvey, California Regional Water Quality Control Board, 1685 E Street, Fresno, California 93706-2020
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Tim Vendlinski, U.S. Environmental Protection Agency, Region IV, Wetlands Section (WTR-8), Water Management Division, 75 Hawthorne Street, San Francisco, California 94105