

**Regional Water Quality Control Board
Central Valley Region
Board Meeting – 30/31 May 2013**

**Response to Written Comments for
Cutler-Orosi Joint Powers Wastewater Authority
Wastewater Treatment Facility
Tulare County
Tentative Waste Discharge Requirements/NPDES Permit
and
Time Schedule Order**

At a public hearing scheduled for 30/31 May 2013, the Regional Water Quality Control Board, Central Valley Region, (Central Valley Water Board) will consider adoption of Waste Discharge Requirements (WDRs) (NPDES No. CA0081485) and a Time Schedule Order for the Cutler-Orosi Joint Powers Wastewater Authority (Authority), wastewater treatment facility. This document contains responses to written comments received from interested parties regarding the tentative WDRs/NPDES permit and Time Schedule Order circulated on 22 March 2013. Written comments from interested parties were required by public notice to be received by the Central Valley Water Board by 5:00 pm on 29 April 2013 to receive full consideration. Comments were received from:

- Keller-Wegley Consulting Engineers, and
- Central Valley Clean Water Association

Written comments from the above interested parties are summarized below, followed by the responses of Central Valley Water Board staff. Based on the comments, Central Valley Water Board staff did make some changes to the tentative WDRs/NPDES permit. Central Valley Water Board staff also made some changes to the tentative WDRs/NPDES permit to correct typographical errors and to improve clarity.

KELLER-WEGLEY CONSULTING ENGINEERS

On 29 April 2013, Keller-Wegley Consulting Engineers (Keller-Wegley) submitted the following comments via email on behalf of the Authority.

Keller-Wegley Comment No. 1: Copper Effluent Limitations

The Authority previously responded to the preliminary establishment of a copper effluent limitation by the Central Valley Water Board in a letter dated 2 January 2013. The Authority prepared an additional letter dated 12 February 2013, that further outlined a proposed schedule to conduct a Water Effects Ratio Study specific to the copper limitation. Keller-Wegley indicates that the Authority reserves the right to request a revision to the initial limitation on copper based upon the outcome of the Water Effects Ratio Study. Keller-Wegley notes that the copper level in each of the water supply sources for each of the discharges to the Authority's facilities exceeds the proposed limitation and also notes that the recent General Order NPDES permit issued for Wawona Foods, located immediately upstream of the Authority's discharge to Sand Creek, does not contain a limitation on copper in their discharge.

Response: Provision VI.C.1.e of the tentative WDRs/NPDES permit states that the proposed permit may be reopened to modify the copper effluent limits based on the conclusions of the Water Effects Ratio Study. No changes have been made to the tentative WDRs/NPDES permit or the Time Schedule Order.

Keller-Wegley Comment No. 2: Recycled Water Specifications

Keller-Wegley comments that the proposed recycled water specifications are a significant change to the recycling specifications contained in the Authority's 1997 WDRs/NPDES permit (Order 97-106). Keller-Wegley requests staff consideration of keeping the 1997 permit recycling specifications. Specific comments regarding the recycled water specifications are as follows:

Keller-Wegley Comment No. 2a: California Code of Regulations, Title 22 requirements are silent regarding "when" to apply recycled water. The recycled prohibition on irrigating in the reclaimed Use Area 24 hours before precipitation occurs is not practical. It is very difficult to predict accurately when rainfall is to occur and, in addition, this provision does not take into account whether or not the Use Area's soil is saturated. Keller-Wegley asks staff to note that the Authority's 1997 permit prohibited applying reclaimed water in the Use Area during rainfall when the soils are saturated. A one (1) inch rainfall, significant for this area, does not satisfy an irrigation cycle during which time six (6) to ten (10) inches of water are applied.

Response: Recycled Water Specification C.17 has been revised as follows:

The Discharger may not discharge recycled water to the Use Area ~~24 hours before precipitation, during periods of precipitation, and for at least 24 hours after cessation of precipitation,~~ or when soils are saturated.

Keller-Wegley Comment No. 2b: California Code of Regulations, Title 22 does not call for a buffer between a water course and the Use Area. Keller-Wegley states that Field "A" of the Use Area will be significantly reduced if a 50-foot buffer between the Use Area and any water course (irrigation ditch or Sand Creek) is required by the tentative WDRs/NPDES permit.

Response: The Authority's Title 22 Engineering Report (*Recycled Water Engineering Report*, dated 30 July 2009) indicated the following minimum setbacks from areas irrigated with treated effluent would be maintained:

- Property lines – 25 feet
- Public roads – 30 feet
- Drainage courses – 50 feet
- Domestic wells – 150 feet
- Irrigation wells – 100 feet

As such, no change to the tentative WDRs/NPDES permit has been made with respect to the buffer zone between any watercourse and the wetted area of the Use Area. After adoption of the tentative WDRs/NPDES permit, if a reduced buffer zone has been approved by the California Department of Public Health, the WDRs/NPDES permit may be reopened.

Keller-Wegley Comment No. 2c: Title 22 of the California Code of Regulations does not have any buffer requirements for irrigation wells. Keller-Wegley states that Fields B, C, and D of the Use Areas will be significantly reduced if a 150-foot buffer between the Use Areas and irrigation wells is required by the tentative WDRs/NPDES permit.

Response: In accordance with the Authority's Title 22 Engineering report, Recycled Water Specification C.19 has been revised as follows:

A 150-foot buffer zone shall be maintained between any spring *or* domestic well ~~or irrigation well~~ **and a 100-foot buffer zone shall be maintained between any irrigation well** and the wetted area produced during irrigations with recycled water. After adoption of the tentative WDRs/NPDES permit, if a reduced buffer zone has been approved by the California Department of Public Health, the WDRs/NPDES permit may be reopened.

Keller-Wegley Comment No. 2d: Title 22 of the California Code of Regulations does not have a buffer requirement for irrigation wells and recycled water impoundments. Title 22 does require a buffer between a domestic supply well and recycled water impoundments. Keller Wegley indicates that if the Authority's non-potable water well, which is approximately 75 feet from the wastewater ponds, is considered by the Central Valley Water Board to be subject to the 150-foot buffer, then either the non-potable water well will need to be abandoned and a new well drilled or the pond embankment will need to be reshaped to satisfy the proposed new 150-foot buffer requirement of the tentative Order.

Response: The Authority's non-potable water well is used to supply water to on-site restrooms and to wash down equipment at the WWTF. Non-potable water signs are posted on all faucets and hose spigots that are connected to the well. The non-potable water well is not subject to the 150-foot buffer requirements and no changes have been made to the tentative WDR/NPDES permit in response to this comment.

Keller-Wegley Comment No. 2e: Title 22 of the California Code of Regulations does not have a buffer requirement between the Use Area and property lines. Keller-Wegley states that Fields A and D have irrigation valves within 10 feet of property lines, which would be required to be relocated under the requirements of the tentative WDRs/NPDES permit. Keller-Wegley further indicates that Fields D and E are adjacent to a property line and their Use Area would need to be reduced to meet the buffer requirement of the tentative WDRs/NPDES permit.

Response: In accordance with the Authority's Title 22 Engineering report, no change to the tentative WDRs/NPDES permit has been made with respect to the buffer zone between the Use Area and all property boundaries. After adoption of the tentative WDRs/NPDES permit, if a reduced buffer zone has been approved by the California Department of Public Health, the WDRs/NPDES permit may be reopened.

Keller-Wegley Comment No. 2f: Title 22 of the California Code of Regulations does not have a buffer requirement between the Use Area and public roads. Keller-Wegley comments that Fields B, C, and E are adjacent to public roads and the Authority's Use Area would need to be reduced to meet the buffer requirement of the tentative WDRs/NPDES permit.

Response: In accordance with the Authority's Title 22 Engineering report, no change to the tentative WDRs/NPDES permit has been made with respect to the buffer zone between the Use Area and all public roads. After adoption of the tentative WDRs/NPDES permit, if a reduced buffer zone has been approved by the California Department of Public Health, the WDRs/NPDES permit may be reopened.

Keller-Wegley Comment No. 3: Existing and Proposed Background Monitoring Well(s)

Before the installation of additional background monitoring wells, the Authority requests from the Central Valley Water Board a regional solution to monitor the groundwater upstream of the Authority's facilities with participation by other dischargers in this effort.

Response: In response to Provision I.9 of Order No. R5-2006-0092, requiring the Authority to conduct a Groundwater Limitation Study, the Authority submitted a groundwater monitoring well installation work plan in July 2007, and revised work plans in November 2009 and August 2011. The work plans were submitted because the Authority indicated the existing monitoring well network was insufficient to collect data to complete the Groundwater Limitation Study. Each of the work plans were approved by Central Valley Water Board staff with the expectation that approved monitoring well network would be installed in a timely matter and the Groundwater Limitation Study would be completed. An October 2012 letter from the Authority indicated the monitoring wells would be installed and an installation report submitted by 29 February 2013. As such, the tentative WDRs/NPDES permit requires the Authority to complete the Groundwater Limitation Study within 18 months following the installation of the additional groundwater monitoring wells. To date, the monitoring wells have not been installed and the Authority's current comment requests modification to the approved monitoring well installation work plan. Determining the appropriate location of proposed monitoring wells is beyond the scope of the tentative WDRs/NPDES permit. However, section VI.C.2.b of the tentative Order has been revised to require an approved monitoring well network to be installed by **1 January 2014**.

Keller-Wegley Comment No. 4: Frequency of Groundwater Quality Testing

The Authority requests that the Central Valley Water Board consider reducing the sampling frequency of certain groundwater monitoring parameters in keeping with the State Water Resources Control Board's 5 December 2011, Agenda Item No. 7, "Third Annual Update on Efforts to Assist Small and/or Disadvantaged Communities in Meeting their Wastewater Needs."

Response: The Authority does not provide specific items it wishes to reduce or eliminate from the groundwater monitoring portion of the tentative Order at this time. However, Table E-8c of the Monitoring and Reporting Program (Attachment E) has been revised to allow the Authority to provide a written technical justification to reduce or eliminate groundwater monitoring for certain parameters, following completion of the Groundwater Evaluation Study required by Provision VI.C.2.b and subject to Executive Officer approval.

Keller-Wegley Comment No. 5: Permitted Flow Rate

The tentative WDRs/NPDES permit states the permitted flow has been reduced to 1.5 million gallons per day (mgd) because of limitations to the existing recycled water application acreage and the prohibition to discharge into Sand Creek after May 1st and before November 1st. Keller-Wegley states that no documentation has been provided to the Authority to support this limitation, nor has a request been made of the Authority to establish a discharge limitation.

Response: As stated in section VI.C.6 of the tentative WDRs/NPDES permit, the design flow rate for treatment at the WWTF is 2.0 mgd. However, a hydraulic and nitrogen balance included in a 30 July 2009 *Recycled Water Engineering Report*, submitted by the Authority in response to Provision I.24 of Order No. R5-2006-0092, indicated that at a flow rate of 2.0 mgd the Authority does not have a sufficient amount of cropland and would need to discharge to Sand Creek in October and May, which is outside of the allowable time period for discharge to Sand Creek of 1 November through 30 April. The hydraulic and nitrogen balance indicated the Authority is capable of discharging up to 1.5 mgd without discharging to Sand Creek outside of the permitted time period of 1 November through 30 April. As such, the permitted flow rate in the tentative Order was set at 1.5 mgd until the Authority can demonstrate it has either acquired a sufficient amount of additional cropland and/or increased the capacity of the wastewater ponds to handle the increased flow.

For clarity, the information in section VI.C.6 regarding the Authority's submittal of the *Recycled Water Engineering Report* was added to the Fact Sheet, section VII.B.6. No other changes to the tentative Order were made in response to this comment.

CENTRAL VALLEY CLEAN WATER ASSOCIATION COMMENTS

On 29 April 2013, Central Valley Clean Water Association (CVCWA) submitted the following comments via email.

CVCWA Comment No. 1: Discharge Prohibition III.F

CVCWA indicates that including Discharge Prohibition III. F, which prohibits the discharge of a “designated” waste is inappropriate as it nullifies the reasonable potential analysis process that is otherwise applied, and establishes a more stringent permit requirement that is otherwise established by the receiving water limitations. CVCWA recommends that Discharge Specification III.F be revised to eliminate the reference to designated waste.

Response: The requested change has been made.

CVCWA Comment No. 2: Maximum Daily Final Effluent Limitations for Boron and Chloride

CVCWA indicates interpreting the language in the Basin Plan for effluent limitations for boron and chloride as maximum daily limitations is inappropriate. Although the Basin Plan states, “Discharges shall not exceed an EC of 1,000 micromhos per centimeter, a chloride content of 175 mg/L, or a boron content of 1.0 mg/L,” nothing in the Basin Plan indicates such limits are required to be expressed as maximum daily limitations. Further, considering that the constituents in question are essentially forms of salinity, expressing such limitations as maximum daily limitations is inappropriate. Impacts from salinity are generally considered to be chronic, or long-term impacts, not acute impacts. Because salinity impacts are not acute, it is improper to include these limitations as maximum daily limitations.

CVCWA recognizes that the discharger is likely able to comply with these limitations as maximum daily limitations, CVCWA is concerned with the precedent that this establishes for other permittees. Accordingly, CVCWA recommends that these limitations be revised to be expressed as long-term averages. Furthermore, CVCWA recommends that these specific effluent limitations as contained in the Basin Plan be reviewed and considered as part of the CV-SALTS process that is underway.

Response: The recommended change to the tentative WDRs/NPDES permit has not been made; however, language in the Fact Sheet has been revised. The Authority’s current Order R5-2006-0092 contains effluent limitations for chloride (175 mg/L) and boron (1.0 mg/L) expressed as maximum daily effluent limitations. The effluent limitations are included in Order R5-2006-0092 and the tentative WDRs/NPDES permit to implement the requirements in the Water Quality Control Plan for the Tulare Lake Basin, Second Edition, revised January 2004 (Basin Plan). While the Basin Plan does not specify an averaging

period, the Basin Plan limits were commonly expressed as maximum daily limits in the past as was done in the Authority's current Order R5-2006-0092.

The Clean Water Act specifies that a revised permit may not include effluent limitations that are less stringent than the previous permit unless a less stringent limitation is justified based on exceptions to the anti-backsliding provisions contained in Clean Water Act sections 402(o) or 303(d)(4). The tentative WDRs/NPDES permit retains the chloride and boron effluent limitations expressed as maximum daily limitations because there is no reason to backslide or any basis for backsliding at this time. Chloride and boron concentrations in the Authority's discharge are well below the effluent limitations proposed in the tentative WDRs/NPDES permit. Expression of the chloride and boron limitations as maximum daily limits in the tentative WDRs/NPDES permit is not intended to set a precedent for how the Basin Plan limits should be expressed in all permits. Effluent limitations are considered case-by-case. If circumstances of the Authority's discharge change and it is demonstrated that those changes are consistent with the State Water Resources Control Board Resolution No. 68-16 (Antidegradation Policy) and the Clean Water Act anti-backsliding provisions, longer averaging periods for the chloride and boron effluent limitations may be considered.

Regarding the comment that the electrical conductivity, chloride, and boron limits established in the Basin Plan should be reviewed and considered as part of the CV-SALTS process, Central Valley Water Board staff agrees.

CVCWA Comment No. 3: Recycled Water Specifications for Chloride and Boron

Similar to the final effluent limitations for discharges to Sand Creek, the tentative WDRs/NPDES permit also includes recycled water specifications for discharges to cropland for chloride and boron that are expressed as maximum daily limitations. CVCWA again indicates it is inappropriate to set these limitations as daily maximums and the language of the Basin Plan does not require that they be established as such. Accordingly, CVCWA recommends that these limitations be revised to be expressed as long-term averages. Furthermore, CVCWA recommends that these specific effluent limitations as contained in the Basin Plan be reviewed and considered as part of the CV-SALTS process that is underway

Response: The recommended change to the tentative WDRs/NPDES permit has not been made for reasons similar to those described in the previous comment. While the Clean Water Act anti-backsliding provisions do not apply to discharges of waste to land, the Authority's discharge consistently meets the chloride and boron maximum daily effluent limitations included in the current Order R5-2006-0092 and the tentative WDRs/NPDES permit. There has been no demonstrated need to relax the averaging period for the Authority's discharge to land or a demonstration that such a change is consistent with the State Water Resources Control Board Resolution No. 68-16 (Antidegradation Policy). In addition, it is appropriate to keep the land discharge chloride and boron effluent limitation

averaging period consistent with the averaging period for the surface water discharge. The Authority does not know very far in advance when it will need to discharge to Sand Creek and chloride and boron discharge concentrations cannot be changed quickly, so establishing a relaxed land discharge averaging period may present compliance issues if and when surface water discharge is necessary.

CVCWA Comment No. 4: “Other” Receiving Water Limitation

CVCWA notes the Tentative Order includes an “other” receiving water limitation that is inconsistent with the Basin Plan. The receiving water limitation titled “other” states, “[t]he discharge shall not cause the following in Sand Creek:...[v]iolation of any applicable water quality standard for receiving waters adopted by the Central Valley Water Board or the State Water Board pursuant to the CWA and regulations adopted thereunder.” CVCWA indicates there is no “other” catch-all water quality objective contained in the Basin Plan. CVCWA further contends this provision duplicates and creates additional liability for permit provisions that are otherwise addressed through the adoption of water quality based effluent limitations, and the other 18 receiving water limitations. Accordingly, CVCWA concludes the “other” receiving water limitation is in appropriate and needs to be deleted from the tentative Order/NPDES permit.

Response: Central Valley Water Board staff agrees with this comment and Receiving Water Limitation A.19 has been removed from the tentative Order/NPDES permit.