

**Regional Water Quality Control Board
Central Valley Region
Board Meeting –10/11 December 2015**

**RESPONSE TO WRITTEN COMMENTS ON
TENTATIVE WASTE DISCHARGE REQUIREMENTS FOR
TULARE LAKE DRAINAGE DISTRICT
MID EVAPORATION BASIN
KINGS COUNTY**

At a public hearing scheduled for 10/11 December 2015, the Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board) will consider adoption of Waste Discharge Requirements (WDRs), which were circulated as tentative on 5 October 2015, for the construction and operation of an evaporation basin, the proposed Mid Evaporation Basin in Kings County. This document contains the response to written comments received from the Tulare Lake Irrigation District (TLDD). Written comments from interested parties were required to be received by the Regional Water Board by 5:00 p.m. on 6 November 2015 in order to receive full consideration. Comments were received from the TLDD and TLDD personnel discussed the proposed WDRs via phone call on 6 November 2015.

Staff has made some minor changes to the proposed WDRs, Information Sheet, and the Monitoring and Reporting Program (MRP) based on the comments. Staff has also made changes to the proposed WDRs to increase clarity and fix typographical errors. Where specific changes are presented below, additions are in bold text and deletions are in strike-out.

TULARE LAKE DRAINAGE DISTRICT

Below are the TLDDs salient comments followed by staff's responses.

TLDD –COMMENT 1: TWDRS - page 22. TLDD staff comments that Provision D.23 requires the TLDD to provide information such as the “acreage of the crops grown” and the “amount of water used on each crop.” TLDD points out that it does not have direct access to this information and requests that Provision D.23 be modified.

RESPONSE 1: Provision D.23 was modified as follows:

23. The Discharger shall develop and submit annually a drainage operation plan (Drainage Plan) to minimize drainage for the calendar year. The Discharger shall also submit annually a summary of the previous calendar year's actual water use and produced drainage water. ~~and evaluate it relative to the Drainage Plan prepared for that year and to goals set by San Joaquin Valley Drainage Program. The Drainage Plan and summary, at a minimum, shall include acreage of each crop type, amount of water to be applied per crop type, and the amount of drainage per acre of irrigated land.~~

TLDD –COMMENT 2: TWDRs - page 23. TLDD staff states that Time Schedule for Compliance G.1 is incorrect and in conflict with finding 59 of the TWDRs. TLDD requests Time Schedule for Compliance section G.1 be deleted.

RESPONSE 2: Time Schedule for Compliance section G.1 has been deleted.

TLDD –COMMENT 3: MRP – page 1. TLDD staff requests the last sentence of the third paragraph of page one of the MRP be deleted.

RESPONSE 3: The third paragraph of page one of the MRP was not deleted, but was modified as shown below:

The Discharger shall not implement any changes to this MRP unless and until the Central Valley Water Board adopts or the Executive Officer issues a revised MRP. Changes to sample location shall be established with concurrence of Central Valley Water Board staff, and a description of the revised stations shall be submitted for approval by the Executive Officer. All samples should be representative of the volume and nature of the discharge or matrix of material sampled. The time, date, and location of each sample shall be recorded on the sample chain-of-custody form. The results of analyses performed in accordance with specified test procedures, taken more frequently than required at the locations specified in this MRP **and used in determining compliance with the Monitoring Requirements of this MRP**, shall be reported to the Central Valley Water Board.

The intent of this change is to ensure that all sampling conducted to comply with the various limits of these WDRs be reported. It is not intended to require the Discharger submit all of its sampling it conducts for operational purposes. The requirement to report all sampling performed to comply with any limits contained in these WDRs remains, but the Discharger does not have to report additional sampling done for operational purposes.

TLDD –COMMENT 4: MRP – page 4. TLDD staff note that the current frequency for the monitoring of the influent flow at its other Evaporation Basins is weekly and the EC monitoring of the influent is monthly. TLDD does not agree with the weekly request for pH and temperature monitoring and questions why specific constituents such as boron, molybdenum, uranium, cadmium, and pesticides are being included in the monitoring suite on a monthly frequency. TLDD states that monitoring for the specific constituents listed, if done at all, should be performed on an annual basis.

RESPONSE 4: Central Valley Water Board staff do not concur that the monitoring of the influent for temperature and pH is unwarranted, but have modified the requested frequencies of select constituents. Central Valley Water Board staff also added a footnote that allows the Discharger to request a reduction from the proposed Quarterly monitoring after two years of data (eight quarterly monitoring events) have been completed. Table 1 of the MRP was modified as follows:

<u>Parameter</u>	<u>Unit</u>	<u>Detection Limit or Volume</u>	<u>Type of Sample or Method of Collection</u>	<u>Frequency of Sampling or Recording</u>
In Flow	Acre feet	Acre feet or cubic feet	Flow meter	Weekly
Electrical Conductivity	Micromhos per Centimeter (umhos/cm)		Grab	Monthly Weekly
pH	Standard pH units		Grab	Monthly Weekly
Temperature	Degrees Centigrade (° C)		Grab	Monthly Weekly
Total Recoverable	Micrograms per liter (ug/L)	1.0	Grab	Quarterly ¹ Monthly

<u>Parameter</u>	<u>Unit</u>	<u>Detection Limit or Volume</u>	<u>Type of Sample or Method of Collection</u>	<u>Frequency of Sampling or Recording</u>
Selenium				
Arsenic	ug/L	5.0	Grab	Quarterly ¹ Monthly
Boron	Milligrams per liter (mg/L)	1.0	Grab	Quarterly ¹ Monthly
Molybdenum	ug/L	1.0	Grab	Quarterly ¹ Monthly
Nitrate	mg/L	1.0	Grab	Quarterly ¹ Monthly
Uranium	ug/L	1.0	Grab	Quarterly ¹ Monthly
Cadmium	ug/L	1.0	Grab	Quarterly ¹ Monthly
General Minerals ²	mg/L		Grab	Quarterly ¹
6800(a) pesticides ³	ug/L	0.5	Grab	Quarterly ¹

¹ **Quarterly monitoring for the constituents listed shall be conducted for two years (eight quarterly monitoring events), at which time the frequency can be reduced to annually for those constituents, provided the Discharger submits a request to the Executive Officer in writing, and receives approval from the Executive Officer in writing before changing the frequency.**

² General Minerals to include: Major cations and anions sufficient for an ion balance and at least: bicarbonate, calcium, carbonate, chloride, magnesium, potassium, sodium, sulfate, total dissolved solids (TDS), and pH.

³ 6800(a) pesticides are described in Title 3, section 6800(a) of the California Code of Regulations. As of the effective date of this MRP, the 6800(a) list includes atrazine, bentazon, bromacil, diuron, norflurazon, prometon, and simazine

TLDD –COMMENT 5: MRP – page 5. Similar to the concerns raised in Comment 4, TLDD staff does not agree with the inclusion of pH, temperature, boron, molybdenum, uranium, cadmium, and pesticides into the bi-annual monitoring suite for Pond Monitoring. TLDD requests these constituents be removed from the Pond Monitoring analytical suite or the frequency be changed to annually.

RESPONSE 5: The proposed analyte list was not changed, but the frequency was changed to Annual as shown in Table 2 below.

<u>Parameter</u>	<u>Unit</u>	<u>Detection Limit</u>	<u>Type of Sample</u>	<u>Frequency</u>
Electrical Conductivity	Micromhos per Centimeter (umhos/cm)		Grab	Annually Biannually
pH	pH units		Grab	Annually Biannually
Temperature	Degrees Centigrade (° C)		In-Situ	Annually Biannually
Total Recoverable Selenium	Micrograms per liter (ug/L)	1.0	Grab	Annually Biannually
Arsenic	ug/L	5.0	Grab	Annually Biannually

<u>Parameter</u>	<u>Unit</u>	<u>Detection Limit</u>	<u>Type of Sample</u>	<u>Frequency</u>
Boron	Milligrams per liter (mg/L)	1.0	Grab	Annually Biannually
Molybdenum	ug/L	1.0	Grab	Annually Biannually
Uranium	ug/L	1.0	Grab	Annually Biannually
Cadmium	ug/L	1.0	Grab	Annually Biannually
General Minerals ¹	mg/L		Grab	Annually Biannually

1. General Minerals to include: Major cations and anions sufficient for an ion balance and at least: bicarbonate, calcium, carbonate, chloride, magnesium, potassium, sodium, sulfate, total dissolved solids (TDS), and pH.

TLDD –COMMENT 6: MRP – page 7. TLDD staff does not believe that pH and temperature should be required in the groundwater monitoring list of analytes and also request the monitoring for selenium be on an annual basis, if at all.

RESPONSE 6: The proposed analyte list and frequency of sample collection was not changed, but a footnote was added to Table 4 to clarify when the Discharger may request a reduction in the sampling frequency. Table 4 of the MRP was modified as shown as follows:

<u>Parameter</u>	<u>Unit</u>	<u>Detection Limit</u>	<u>Type of Sample</u>	<u>Frequency</u>
Water level Elevation	Feet	0.01	Measured	Quarterly ¹
Electrical Conductivity	Micromhos per Centimeter (umhos/cm)		Grab	Quarterly ¹
pH	pH units		Grab	Quarterly ¹
Temperature	Degrees Centigrade (° C)			Quarterly ¹
Total Recoverable Selenium	Micrograms per liter (ug/L)	2.0	Grab	Quarterly ¹
Arsenic	ug/L	2.0	Grab	Quarterly ¹
Boron	Milligrams per liter (mg/L)	1.0	Grab	Quarterly ¹
Molybdenum	ug/L	1.0	Grab	Quarterly ¹
Uranium	ug/L	1.0	Grab	Quarterly ¹
General Minerals ^{1,2}	mg/L		Grab	Annually

1. Monitoring shall be conducted quarterly for two years (eight quarterly monitoring events), at which time the frequency can be reduced to annually, provided the Discharger submits a request to the Executive Officer in writing, and receives approval from the Executive Officer in writing before changing the frequency.

2. General Minerals to include: major cations and anions sufficient for an ion balance and at least: bicarbonate, calcium, carbonate, chloride, fluoride, magnesium, potassium, nitrate, sodium, sulfate, TDS, and pH.

TLDD –COMMENT 7: MRP – page 11. TLDD staff does not agree with the requirement that all groundwater monitoring reports be signed by a Registered Engineer or Geologist.

RESPONSE 7: No changes were made to the MRP, but Central Valley Water Board staff had a discussion with TLDD staff pointing out that the reports do not have to be signed by a Registered Engineer or Geologist if the report is just providing the requested results. However, if the report/reports are providing an Engineering judgment and/or a Geologic interpretation, then the report must be signed by the appropriate licensed professional.

TLDD –COMMENT 8: MRP – page 14. TLDD requests that the wildlife reports required by 2.d. Wildlife Monitoring/Reporting on page 14 be modified so that all four reports can be submitted together.

RESPONSE 8: The Table for Wildlife Reporting on page 14 was modified as shown below:

<u>Reporting Period</u>	<u>Due Date</u>
Bird Counts (Dec. to June)	20 February 30 April & 31 July
Nest Surveys (April to June)	20 February 31 July
Burrowing Owl Surveys (Feb. to Sept)	20 February 30 June & 30 Oct.
Kit Fox Surveys (May to Nov.)	20 February 31 Aug & 30 Dec.

TLDD –COMMENT 9: Information Sheet, page 25. TLDD staff request a sentence be added to the second paragraph on page 25 of the Information Sheet for clarity.

RESPONSE 9

Assessment of the site data (Tables 1 and 2) and historic groundwater quality data (Table 3) with the upper limits for COC's for tolerant livestock usage reveals that: monitoring well 24-1A meets the water quality requirements for livestock watering; monitoring wells 24-1B and 25-1A meet all requirements, except for arsenic (range of detections is slightly above the 0.2 mg/L value). Based upon this analysis, the groundwater at the Middle Basin is suitable for livestock watering and as such is subject to the Anti-degradation Policy with respect to the livestock watering AGR beneficial use. **After the District purged the sumps where the initial data was collected, the ECs exceeded the MUN and AGR Beneficial use requirements.**