

**Regional Water Quality Control Board  
Central Valley Region  
Board Meeting –16/17 April 2015**

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**RESPONSE TO WRITTEN COMMENTS ON  
TENTATIVE WASTE DISCHARGE REQUIREMENTS FOR  
DELHI COUNTY WATER DISTRICT  
WASTEWATER TREATMENT FACILITY  
MERCED COUNTY**

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At a public hearing scheduled for 16/17 April 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 30 December 2014, for discharges from the Delhi County Water District (District) wastewater treatment facility (WWTF) to percolation/evaporation ponds owned by the District. This document contains the response to written comments received from the District and from the Central Valley Clean Water Association (CVCWA). Written comments from interested parties were required to be received by the Regional Water Board by 5:00 p.m. on 2 February 2015 in order to receive full consideration. Comments were received from the District and CVCWA, and personnel from the District met with Central Valley Water Board staff on 23 January 2015 to discuss the proposed WDRs.

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.

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**DELHI COUNTY WATER DISTRICT**

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

**DISTRICT –COMMENT 1:** Finding 1, page 1. Finding 1 indicates the District serves about 10,755 residents based on 2010 census data. The District points out that it actually has about 2,300 connections that serve about 7,500 residents.

**RESPONSE 1:** Central Valley Water Board staff modified Finding 1 to include the connection and service information.

**DISTRICT –COMMENT 2:** Findings 5 and 6, pages 1 and 2. The District notes that Findings 5 and 6 contained some inaccuracies in the description of the WWTF.

**RESPONSE 2:** Central Valley Water Board staff modified Findings 5 and 6 as shown below:

5. The WWTF consists of an Advanced Integrated Wastewater Pond System™ and evaporation/percolation ponds. The WWTF consists of a headworks, ~~four fermentation pits,~~ two advanced facultative ponds, two high rate ponds, two algal settling ponds, a maturation pond, and four evaporation/percolation ponds totaling 11.5 acres, as shown on Attachment B, which is attached hereto and made part of this Order by reference...
6. To consistently meet biochemical oxygen demand (BOD) and total suspended solids (TSS) limits in Order 97-013, the District installed chemical coagulation equipment and ~~parallel plate~~ **upflow tube** settlers in the outlet structures of the algal settling ponds ~~and The District also installed floating baffles in the maturation pond so it could be divided~~ **the maturation pond** into three separate cells with tube settlers in the outlet structures...

**DISTRICT - COMMENT - 3:** Finding 7, Table 1, Page 2. The District notes that Finding 7, Table 1 contains WWTF flow data for 2012, but indicates that the data for 2012 is not accurate because of issues the District was having with the influent flow meters. The District replaced the flow meter in October 2012 and found the previous recorded flows were not accurate. The District recommended adding a footnote to Table 1 indicating the problems with the flow meter and using only data from 2013 and 2014 to compute the average.

**RESPONSE 3:** Central Valley Water Board staff modified the table in Finding 7 by removing the data for 2012, including only data from 2013 through June 2014, and updating monthly and daily flow averages.

**DISTRICT - COMMENT - 4:** Findings 10 and 13, page 3. Finding 10 indicates that leachate from the existing algal drying beds is routed to one of the high rate ponds. The District indicates it is exploring discharging the leachate into the southern advanced facultative pond.

Finding 13 indicates leachate from the proposed algal drying and storage pad will be routed back to one of the high rate ponds. The District indicates the leachate will be routed into the southern advanced facultative pond.

**RESPONSE 4:** Central Valley Water Board staff modified Findings 10 and 13 to note that leachate from the algal drying and storage units may be discharged to the advanced facultative ponds.

**DISTRICT - COMMENT - 5:** Finding 34, page 7. The District questions the characterization of MW-2 as upgradient of the existing evaporation percolation ponds and whether it can provide upgradient groundwater quality results for the WWTF. The District states that groundwater elevations in MW-6 are consistently higher than those recorded from MW-2, and the result is that MW-6 is upgradient of MW-2.

**RESPONSE 5:** No changes were made to the proposed WDRs. MW-6 is not an upgradient well with respect to groundwater quality observed at the WWTF. MW-6 was installed in the middle of the four existing evaporation percolation ponds and represents the quality of groundwater directly after the application of wastewater. It does not represent groundwater quality upgradient (north/northwest) and without influence of the WWTF.

The groundwater elevations recorded in MW-6 are due to the mounding of wastewater beneath to the evaporation/percolation ponds created from the discharge of wastewater to the ponds. While mounding can temporarily influence the direction of groundwater flow, the regional direction of groundwater flow is to the south/southeast as noted in previous investigations conducted by the District (Installation of MW-5 and MW-6) and as noted in Findings 32 and 33 of these proposed WDRs. The elevation of groundwater in MW-6 does not represent the regional depth to groundwater upgradient of the WWTF.

**DISTRICT - COMMENT - 6:** Sludge and Solids Specifications, pages 17 and 18. The District informed Central Valley Water Board staff during our 23 January 2015 meeting that it has been selling its dried algal solids to ALGIX, a Mississippi based firm that produces biodegradable plastic products. The District provided 2013 correspondence with Ms. Lauren Fondahl of the United States Environmental Protection Agency (EPA) regarding obtaining EPA approval to transport the algal solids to ALGIX. The EPA concurred with the transport of the algal solids from the District to ALGIX in a 15 March 2013 e-mail to the District.

**RESPONSE 6:** Central Valley Water Board staff added the following sentence to Finding 10 to document how the District is disposing of the algal solids produced by the WWTF.

**The District sells its algal solids to ALGIX, a Mississippi based company that produces bio-based feedstock for the renewable plastics industry (biodegradable plastic products). The District received approval for the transport and sale of the algal solids from the United States Environmental Protection Agency (EPA) in an e-mail dated 15 May 2013.**

**DISTRICT - COMMENT - 7:** Provision G.6, page 18. The District indicates that if improvements to the WWTF are required to meet the Effluent Limitation C.2 (total nitrogen of 10 mg/L), that additional time would be required to coordinate and complete the project. The District requests that Provision G.6, Task a, be increased to 2 years; Task b to 4 years; and Task C to 5 years.

**RESPONSE 7:** Central Valley Water Board staff modified Provision G.6 to read as follows:

6. The Discharger shall comply with Effluent Limitation C.2 and Discharge Specification D.2 in accordance with the following compliance schedule:

<b>Task</b>	<b>Task Description</b>	<b>Due date</b>
a.	Submit a plan and implementation schedule to conduct an effluent nitrogen evaluation. The evaluation shall be designed to determine the effluent nitrogen level to ensure compliance with Groundwater Limitations of this Order and provide appropriate supporting technical evidence. The plan and implementation schedule shall be subject to the approval of the Executive Officer.	<b>(9 months</b> from the adoption of this Order)
b.	Implement the approved plan and time schedule required by Task a.	In accordance with the approved schedule, but by no later than <b>(18 months</b> from the adoption of this Order)
c.	Submit the results of the effluent nitrogen evaluation with either: <ol style="list-style-type: none"> <li>i. Appropriate technical information supporting a demonstration that discharge at existing total nitrogen concentrations will not cause or continue to contribute to violations of the Groundwater Limitations of this Order. Upon Executive Officer written concurrence with the demonstration, this provision shall be considered satisfied and the Order will be reopened to consider, as appropriate, modification or removal of Effluent Limitation C.2,</li> </ol> <p style="text-align: center;"><b>Or</b></p>	In accordance with the approved schedule, but by no later than <b>(2 years</b> from the adoption of this Order)

	<p>ii. A proposed total nitrogen effluent limit and appropriate technical information supporting a demonstration that discharge at the proposed limit will not cause or continue to contribute to violations of the Groundwater Limitations of this Order. The proposed limit and technical information shall also be accompanied by a Report of Waste Discharge (RWD) including a work plan and time schedule describing measures the District will implement to comply with the proposed limit. Upon Executive Officer written concurrence with the results and RWD, the Order will be reopened for consideration of the proposed limit,</p> <p style="text-align: center;"><b>Or</b></p> <p>iii. A RWD with work plan and time schedule describing the measures the District will implement to meet a total nitrogen effluent limit of 10 mg/L. The work plan and time schedule are subject to Executive Officer approval.</p>	
<p>d.</p>	<p>The District shall begin implementation of the work plan and time schedule required by Task Item c.ii. or c.iii, as appropriate.</p>	<p>In accordance with the approved schedule, but by no later than <b>(2.5 years from the adoption of this Order)</b></p>
<p>e.</p>	<p>The District shall complete implementation of the work plan and submit an engineering certification that the measures proposed in Task c have been completed and implemented as designed.</p>	<p>In accordance with the approved schedule, but by no later than <b>(5 years from adoption of this Order)</b></p>

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**CENTRAL VALLEY CLEAN WATER ASSOCIATION (CVCWA)**

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On 2 February 2015, CVCWA, submitted comments via email regarding the TWDRs for the Delhi County Water District.

**CVCWA COMMENT NO. 1:** Groundwater Objectives - CVCWA comments that the Tentative Order is not clear as to which salinity related water quality objectives apply due to groundwater exceeding the recommended MCLs for total dissolved solids (TDS) and electrical conductivity (EC) in certain District groundwater monitoring wells. CVCWA recommends the Groundwater Limits for TDS and EC be set at the Upper MCLs of 1,000 milligrams per liter (mg/L) and 1,600 micromhos/cm (umhos/cm), respectively.

**RESPONSE 1:** No changes were made to the proposed WDRs based on this comment. EC results exceed the recommended MCL of 900 umhos/cm in one well (MW-5), and TDS results

exceed the recommended MCL of 500 mg/L in MW-3, MW-4, and MW-5. However, groundwater results for EC and TDS are generally decreasing in concentration and effluent EC and TDS values are less than the values reported from the downgradient monitoring wells. As stated in Finding 36, EC and TDS results likely represent past discharge practices and the operation of the former WWTF that was present on the site. Though Central Valley Water Board staff does not intend to prioritize enforcement of minor violations of either the recommended MCLs for TDS or EC in groundwater, neither does Central Valley Water Board staff recommend restricting the ability of the Central Valley Water Board to enforce these requirements, should the quality of the discharge from the WWTF change in the future.

**CVCWA COMMENT NO. 2:** CVCWA indicates the language of the proposed Order with regards to Provision G.6, does not clearly indicate that the District is not immediately required to comply with Effluent Limitation C.2 and Discharge Specification D.2 and requests the following language be added to Effluent Limitation C.2 and Discharge Specification D.2 for clarity.

“If the effluent does not meet this limitation, the Water District is considered to be in compliance with this Order provided that the Water District is in compliance with Provision G.6 of this Order.”

CVCWA recommends Groundwater Limitation E.1(i), be modified to include:

“If the release of waste constituents from any treatment, reclamation or storage component associated with the discharge causes or contributes to groundwater exceeding this limit, the Water District is considered to be in compliance with this Order provided that the Water District is in compliance with Provision G.6 of this Order.”

Further, CVCWA recommends Provision G.6 be modified to read as follows:

“To allow the Discharger sufficient time to achieve compliance with Effluent Limitation C.2, Discharge Specification D.2 and Groundwater Limitation E.1(i), the Discharger shall comply With the following compliance schedule.”

**RESPONSE 2:** Provision G.6 was modified as described under Response 7 above, but was not modified to include the suggested language of CVCWA’s comments. Central Valley Water Board staff does not recommend adopting CVCWA’s recommended language for Provision G.6, because this language could be interpreted to provide the District with protection from potential liability, should the District choose to modify its WWTF, but is unable to meet the total nitrogen limit of 10 mg/L. The intent of the provision was to mandate a timeline under which the District must evaluate and remedy (if necessary) either the deficiencies in the existing WWTF, or to demonstrate a higher total nitrogen limit is protective of the underlying groundwater. It was not to excuse compliance with the provision in the interim. Though Central Valley Water Board staff does not intend to prioritize enforcement of minor violations of Effluent Limitation C.2, D.2 or Groundwater Limitation E.1(i), neither does Board staff recommend restricting the ability of the Board to enforce these requirements, should the quality of the discharge from the WWTF change in the future.