

**Central Valley Regional Water Quality Control Board  
Board Meeting – 3/4 October 2013**

**Response to Written Comments for  
City of Lodi  
White Slough Water Pollution Control Facility  
Tentative NPDES Permit Renewal (CA0079243)  
and  
Order Amending Waste Discharge Requirements  
Order R5-2007-0113**

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At a public hearing scheduled for 3/4 October 2013, the Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board) will consider adoption of renewed Waste Discharge Requirements for NPDES Permit CA0079243 and an amendment to Order R5-2007-0113 for the City of Lodi White Slough Water Pollution Control Facility. Tentative Orders were issued for public review on 19 July 2013. Due to the complexities of the discharges to land for this Facility, separate permits are proposed for the surface water and land discharges. An order amending Order R5-2007-0113 is proposed to remove all NPDES permitting requirements so it will act as separate waste discharge requirements to land until separate waste discharge requirements can be evaluated and developed in the near future by the Central Valley Water Board's Non-15 Permitting Unit, which develops permits for waste discharges to land. This document contains Central Valley Water Board staff responses to written comments received from interested persons for both Orders.

Written comments on the proposed Orders were required to be received by the Central Valley Water Board by 19 August 2013 in order to receive full consideration. Timely comments were received from the City of Lodi (City) and the Central Valley Clean Water Association (CVWCA).

Written comments are summarized below, followed by Central Valley Water Board staff responses. Comments on the renewed NPDES Permit CA0079243 for the surface water discharge are presented first followed by comments on the Order amending Waste Discharge Requirements Order R5-2007-0113 for the land discharge.

## **NPDES Permit Renewal**

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### **City of Lodi (City)**

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**City Comment #1.** The City contends that an effluent limitation for temperature is not appropriate and the 86°F effluent limitation for temperature and supporting information should be removed from the Tentative Order. The Thermal Plan requires maximum temperature of thermal waste discharges shall not exceed 86°F. The City's discharge is not a thermal waste and thus the 86°F maximum temperature is not applicable.

**Response.** Central Valley Water Board staff concurs. The effluent limitation for temperature has been removed.

**City Comment #2. Effluent and Characterization Study.** The City requests several changes related to the Effluent and Receiving Water Characterization Study requirements.

- a. The City requests that Section VI.C.2.c, the Effluent and Receiving Water Characterization Study be removed from the tentative Order and all requirements related to priority pollutant monitoring be included in Attachment I. Also, allow the results of the study be submitted with the Report of Waste Discharge (ROWD) instead of 6 months following completion of the final monthly monitoring.

**Response.** Central Valley Water Board staff concurs with the removal of the study requirement since Attachment I describes the monitoring locations, frequency, constituents and reporting levels. Therefore, the study requirement contained in Section VI.C.2.c of the Limitations and Discharge Requirements has been removed. The monitoring is required under the Monitoring and Reporting Program, and as such, the results are required to be submitted electronically to the State Water Resources Control Board's CIWQS Program website. Therefore, submittal of the monitoring results with the ROWD is not acceptable. Section II.A of Attachment I has been modified as follows.

- A. **Monthly Monitoring.** During the 3rd or 4th year of the permit term, samples shall be collected from the effluent and upstream receiving water (EFF-001 and RSW-005, respectively) and analyzed for the constituents listed in Table I-1. Sampling shall be conducted monthly during periods of surface water discharge from Sept-April for 1 year (typically from September through April). Samples that are non-detect after the first two sampling events do not need to be sampled for the remaining permit term and the reason sampling was not conducted should be noted in the self-monitoring report. Results of the monthly monitoring shall be submitted to the Central Valley Water Board within six months of the last monthly sampling event with the electronic self-monitoring reports that are submitted to the State Water Board's CIWQS Program website in accordance with Attachment E, Section X.B.1. Each individual monitoring event shall provide representative sample results for the effluent and upstream receiving water.
- b. The City requests that the description of the Effluent and Receiving Water Characterization Study requirements specifically exclude monitoring for any constituent where data is being collected as part of the routine monitoring program. At a minimum, the requirements in Attachment I should clarify that the City is not required to collect duplicate samples if monitoring is being conducted in accordance with the Monitoring and Reporting Program.

**Response.** Central Valley Water Board staff concurs. In Attachment I the following will be added to read as follows:

- E. Duplicate Monitoring. If routine monitoring completed in accordance with Attachment E, Tables E-3 and E-5 includes a constituent listed in Table I-1, duplicate monitoring is not required.
- c. The City requests that clarification regarding the dioxin and furan monitoring frequency be provided in Attachment I. The City also requests additional details be provided regarding the specific dioxin and furan monitoring and reporting requirements.

**Response.** Sampling is only required for 2,3,7,8-TCDD (Dioxin). Monitoring is not required for the dioxin and furan congeners. This has been clarified by the removal of the Effluent and Receiving Water Characterization Study requirement from the Limitations and Discharge Requirements (see response the City Comment #2a).

- d. The City requests Attachment I and elsewhere throughout the permit, be modified to indicate that monitoring is required only during periods of surface water discharge and not for the entire September through April period if there is no discharge.

**Response.** Central Valley Water Board staff concurs. The proposed permit has been modified accordingly.

- e. The City requests clarifying language to footnote 5 in Table E-5 regarding specifications for the Effluent and Receiving Water Characterization monitoring.

**Response.** Central Valley Water Board staff concurs. However, rather than the City's proposed language, the footnote has been modified to simply refer to Attachment I, which achieves the same result.

- f. The City requests the several changes be made to Attachment I, Effluent and Receiving Water Characterization consistent with the comments discussed in a – e, above, regarding dioxin and furan sampling, sampling only when a surface water discharge occurs, when to submit monitoring results, and duplicate monitoring. The only new comment was in regard to the addition of the following language to Part II of Attachment I:

E. Analytical Methods. Within 2 years 6 months of permit adoption, the Discharger shall submit for approval a report outlining reporting levels (RLs), method detection limits, and analytical methods for all constituents to be monitored as part of the Effluent and Receiving Water Characterization Study.

**Response.** See responses provided for a – e, above. With regard to the proposed new language for analytical methods, Central Valley Water Board staff does not agree that this requirement is necessary. The proposed Order already includes a requirement to submit a report outlining analytical methods within 60 days of adoption of the Order. Therefore, this requirement is duplicative.

**City Comment #3.** The proposed Order requires an analytical method for chlorpyrifos and diazinon that is not included in Code of Federal Regulations (40 CFR 136). The City requests the flexibility to use any method that meets 40 CFR 136 as long as the method can provide a reporting level (RL) that is less than the applicable criterion for diazinon and chlorpyrifos.

**Response.** Central Valley Water Board staff concurs. Page F-67, Rationale for Monitoring and Reporting Requirements (VI) Chlorpyrifos and Diazinon has been modified as shown in underline/strikeout format below:

- 6. Chlorpyrifos and Diazinon.** This Order requires that pollutants be analyzed using the analytical methods described in 40 CFR Part 136 or an EPA approved Alternate

Testing Procedure. However, where no methods are specified for a given pollutant that meets a specific reporting limit or method performance standard, an alternate method can be approved by the Central Valley Water Board. This Order requires either EPA 8141A or EPA 625M for chlorpyrifos and diazinon, or other methods approved under 40 CFR 136 that have RLs below the chlorpyrifos and diazinon water quality objectives. These alternate analytical methods are necessary to determine compliance with the effluent limits for these constituents. Basin Plan water quality objectives for chlorpyrifos and diazinon are 0.015 µg/L and 0.1 µg/L, respectively (as a 4-day average. See Attachment F, Section IV.C.3.b.i.(a) for more information). Therefore, chlorpyrifos and diazinon must be analyzed using analytical methods that have a lower MDL than the Basin Plan water quality objectives.

**City Comment #4.** The City identified numerous items that needed editorial corrections or clarifications.

**Response.** Central Valley Water Board staff concurs. The editorial changes throughout the permit have been made.

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## Central Valley Clean Water Association (CVWCA)

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**CVWCA Comment #1.** The maximum temperature effluent limit of 86°F is not applicable to publically owned treatment works (POTW) as described in the Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California (Thermal Plan).

**Response.** Central Valley Water Board staff concurs. See response to City Comment #1.

**CVWCA Comment #2.** CVWCA is concerned in general that the Central Valley Water Board is continuing to depart from the “normal” reasonable potential analysis procedures to determine if water quality-based effluent limitations (WQBELs) are necessary. Rather than evaluating the concentration of a pollutant in the effluent and comparing it to an applicable water quality objective the Central Valley Water Board continues to use “best professional judgment” to impose WQBELs where no reasonable potential exists. In the Tentative Order the Central Valley Water Board proposes this approach to impose WQBELs for temperature, ammonia, nitrate + nitrite, biochemical oxygen demand (BOD), total suspended solids (TSS), and pathogens where no reasonable potential exists.

**Response:** Central Valley Water Board staff does not concur. The discharge has reasonable potential to cause or contribute to an exceedance of the applicable water quality objectives for ammonia, BOD, TSS, nitrate+nitrite, and pathogens in the receiving water. Therefore, water quality-based effluent limitations (WQBELs) are required in accordance with 40 CFR 122.44. With regard to temperature, Central Valley Water Board staff agrees that WQBELs are not necessary. See response to City Comment #1.

Based on effluent data for ammonia, nitrate+nitrite, BOD, TSS, and pathogens, the Facility does not exceed the applicable water quality objectives. However, information other than effluent data may be used to conduct the reasonable potential analysis. USEPA's September 2010 NPDES Permit Writer's Manual, page 6-30, states, "State implementation procedures might allow, or even require, a permit writer to determine reasonable potential through a qualitative assessment process without using available facility-specific effluent monitoring data or when such data are not available...A permitting authority might also determine that WQBELs are required for specific pollutants for all facilities that exhibit certain operational or discharge characteristics (e.g., WQBELs for pathogens in all permits for POTWs discharging to contact recreational waters)." Per Section 1.3, Step 7, of the SIP<sup>1</sup>, the facility type may be used as information to aid in determining if a WQBEL is required. The Facility is a POTW that treats domestic wastewater. Treated domestic wastewater, unless properly controlled can exceed the applicable water quality objectives for ammonia, nitrate+nitrite, and pathogens. Therefore, the discharge has reasonable potential and WQBELs are required in the proposed Order.

The beneficial uses of the receiving water include municipal and domestic supply, water contact recreation, and agricultural irrigation supply, and there is, at times, less than 20:1 dilution. To protect these beneficial uses, the Central Valley Water Board finds that the wastewater must be disinfected and adequately treated to prevent disease. Consequently, based on a recommendation by the California Department of Public Health, the proposed Order requires equivalent to Title 22 tertiary treatment<sup>2</sup>. Final WQBELs for BOD and TSS are based on the technical capability of the tertiary process, which is necessary to protect the beneficial uses of the receiving water. BOD is a measure of the amount of oxygen used in the biochemical oxidation of organic matter. The tertiary treatment standards for BOD and TSS are indicators of the effectiveness of the tertiary treatment process. The principal design parameter for wastewater treatment plants is the daily BOD and TSS loading rates and the corresponding removal rate of the system. The application of tertiary treatment processes results in the ability to achieve lower levels for BOD and TSS than the secondary standards required in federal regulations. Therefore, the proposed Order requires average monthly effluent limits for BOD and TSS of 10 mg/L, which is technically based on the capability of a tertiary system.

**CVWCA Comment #3.** CVCWA states the turbidity operational specification is incorrectly identified as an effluent limitation in the Fact Sheet.

**Response.** Central Valley Water Board staff concurs and has modified the proposed permit accordingly.

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<sup>1</sup> *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP), 24 February 2005

<sup>2</sup> California Code of Regulations, Division 4, Chapter 3 (Title 22), for the reuse of wastewater.

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## Amendment to R5-2007-0013 (Waste Discharge Requirements)

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### City of Lodi (City)

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**City Comment #1. Revise Discussion and Requirements for Title 27 Exemption.** The findings and conclusions presented in the Tentative Order with respect to applicable WPCF Title 27 exemptions do not fully incorporate the findings and conclusions presented in State Water Resources Control Board Order WQ 2009-0005, as amended by Order WQ 2012-0001 (Order WQ 2012-0001). In addition, the Tentative Order does not fully consider the technical information that the City has provided with respect to existing operations and their ability to ensure that discharges from the WPCF comply with the Basin Plan groundwater objectives. The City's concerns with and requests for revisions to the Title 27 discussion are numerous and involved.

- a. Application of the Conditional Exemption to Effluent Storage Ponds and Agricultural Fields.** The Tentative Order states that the City's Effluent Storage Ponds and reuse on the Agricultural Fields are not exempt from Title 27. However, such a statement is not correct. Rather, the Effluent Storage Ponds and reuse on the Agricultural Fields are not "*unconditionally*" exempt from Title 27, but must satisfy the conditions of Title 27, section 20090(b) to be exempt. (See Order WQ 2012-0001, p. 9.) Pursuant to Title 27, Section 20090(b), "wastewater" is exempt from Title 27 so long as the activity meets, and continues to meet all preconditions. The City requests that the Order be modified to clearly state that Title 27 exemption may be achieved if compliance with the Basin Plan is demonstrated.

**Response.** Central Valley Water Board staff concurs. The finding for Title 27 has been modified as shown in underline/strikeout below:

- G. Title 27.** Title 27 of the California Code of Regulations (hereafter Title 27) contains regulatory requirements for the treatment, storage, processing, and disposal of solid waste. Discharges of wastewater to land, including but not limited to evaporation ponds or percolation ponds, are exempt from the requirements of Title 27, CCR, based on section 20090 et seq. The Facility includes the Effluent Storage Ponds, application of wastewater and dewatered biosolids on the Agricultural Fields Areas and the sludge lagoons. The sludge lagoons and application of dewatered biosolids on the Discharger's Agricultural Fields are unconditionally exempt from Title 27. However, the Facility's Effluent sStorage pPonds and reuse application of wastewater on the Agricultural Fields are not unconditionally exempt from Title 27, because untreated industrial wastewater is applied. The Discharger believes based on evidence provided in its January 2011 study<sup>1</sup> that the Effluent Storage Ponds meet the preconditions for exemption from Title 27 because the study indicates that background groundwater quality is not exceeded as a result of this activity. The Discharger's 2011 study also concludes that the discharge of wastewater to the Agricultural Fields is threatening to cause or has caused groundwater to contain waste constituents in concentrations statistically greater than background water quality. However, the Discharger has made a number of recent improvements with respect to discharge of wastewater to the Agricultural Fields, and additional monitoring and evaluation is needed to determine if the preconditions for the

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wastewater exemption under Title 27 are satisfied. The Central Valley Water Board has not fully evaluated the evidence and has therefore not made any conclusions on the exemptions of Title 27 for the Effluent Storage Ponds and wastewater discharge to the Agricultural Fields. This Order requires either demonstration of the preconditions for the wastewater exemption under Title 27 for the Effluent Storage Ponds and the Agricultural Fields or compliance with the regulatory requirements of Title 27. Additional details on Title 27 exemptions are in the Fact Sheet, Section IV. F.C.1.

<sup>1</sup> City of Lodi White Slough Water Pollution Control Facility, Background Groundwater Quality Characterization Report, January 2011

- b. Misapplication of Title 27 to Effluent Storage Ponds.** It is incorrect to state that Title 27 exemptions do not apply just because Effluent Storage Ponds are unlined. In fact, the City has expended considerable effort to install a biosolids dewatering system that has eliminated significant high strength discharges to the Effluent Storage Ponds. Accordingly, the City requests that the Tentative Order be modified to remove any statements that indicate lining the Effluent Storage Ponds is the only option for satisfying the Title 27 conditions for obtaining an exemption under Section 20090(b).

**Response.** Central Valley Water Board staff concurs. Language regarding the unlined Effluent Storage Ponds in the Fact Sheet has been clarified.

- c. Discharges from Effluent Storage Ponds Comply with the Basin Plan.** Given evidence that the City has provided to the Central Valley Water Board in both the Background Groundwater Report and in the Effluent Storage Pond Technical Memorandum (TM) with respect to releases and information associated with the Effluent Storage Ponds, the City contends that the potential source of groundwater degradation at the WPCF site is land application on the Agricultural Fields. Further, based on the information summarized above, the Effluent Storage Ponds are in compliance with the Basin Plan and its groundwater objectives; and therefore, meet the conditions of section 20090(b) for exemption from Title 27. The City requests that the Tentative Order be modified accordingly.

**Response.** Central Valley Water Board staff does not concur. The Discharger provided a January 2011 groundwater study<sup>3</sup> that concludes groundwater monitoring results obtained downstream of the Effluent Storage Ponds indicate that all constituents comply with the applicable water quality control plan and therefore, the exemption pursuant to Title 27, section 20090(b) applies because the quality of the wastewater discharged to the ponds ensures that waste releases comply with Basin Plan groundwater objectives. The City also recently submitted additional information (Effluent Storage Technical Memorandum, 19 August 2013) on the groundwater beneath the Effluent Storage Ponds. Central Valley Water Board staff has not completed its evaluation of the evidence provided by the Discharger. Consequently, the Central Valley Water Board has not made any conclusion on the exemptions to Title 27 for the Effluent Storage Ponds in this Order. Central Valley Water Board staff will evaluate the evidence provided by the Discharger and update this Order to include specific findings regarding

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<sup>3</sup> City of Lodi White Slough Water Pollution Control Facility, Background Groundwater Quality Characterization Report, January 2011

compliance with Title 27 for the Effluent Storage Ponds in separate waste discharge requirements.

- d. Application of Title 27 to the Agricultural Fields.** The Fact Sheet to the Tentative Order improperly implies that Title section 20090(h) of Title 27 is the exemption that would otherwise apply to wastewater applications on the Agricultural Fields. (Tentative Order, p. F-8.) Order No. 2012-0001 specifically states that the applicable Title 27 exemption for wastewater applied to the Agricultural Fields is 20090(b). (The City recognizes that this may be a typographical error.) Thus, the Fact Sheet must be corrected.

**Response.** Central Valley Water Board staff concurs and has modified the proposed permit accordingly.

- e. Application of Title 27 to Land Application of Dewatered Biosolids.** The Title 27 exemption associated with the land application of dewatered biosolids to the Agricultural Fields is not properly addressed in the Tentative Order. Specifically, in the discussion of Title 27 in the Fact Sheet, the application of dewatered biosolids is treated the same as wastewater applications on the Agricultural Fields. However, the City contends that their newly implemented practice of applying dewatered biosolids to the Agricultural Fields should not be classified as a “wastewater” under the Title 27 exemptions. The City recommends that Tentative Order and the Fact Sheet be revised to clarify that land application of dewatered biosolids as a separate practice from the irrigation activities is not appropriately classified as “wastewater” under the Title 27 exemption outlined in Section 20090(b), and should fall under the “soil amendment” exemption outlined in Title 27 Section 20090(f) or the “reuse” exemption outlined in Title 27 Section 20090(h).

**Response.** Central Valley Water Board staff concurs. The following additional language has been added to the Title 27 findings in the Fact Sheet, Section IV.C.1:

**Biosolids Applied to the Agricultural Fields.** The Discharger land applies dewatered Class B biosolids to selected agricultural fields between cropping cycles as a soil amendment. The use and disposal of biosolids comply with existing Federal and State laws and regulations, including permitting requirements and technical standards in Code of Federal Regulations (CFR) Part 503. Previous disposal practices included mixing biosolids subnatant with irrigation water as well as applying liquid slurry of biosolids directly to the Agricultural Fields. The Facility improvements completed in 2012, include an additional lined sludge lagoon, fan press dewatering and lined covered sludge storage area. All subnatant and supernatant are discharged to the headworks for treatment and no longer applied to the Agricultural Fields. Additionally, the biosolids are no longer applied to the Agricultural Fields. Only dewatered biosolids are applied to the Agricultural Fields. The land application of biosolids on the Agricultural Fields as a soil amendment is exempt from Title 27 pursuant to Section 20090(f).

- f. Application of Title 27 to Sludge Lagoons.** The Tentative Order improperly suggests that the Sludge Lagoons are exempt from Title 27 under 20090(b) because they are concrete lined. For the purposes of Title 27, the Sludge Lagoons should be characterized and classified as “treatment or storage facilities associated with municipal wastewater treatment plants.” In that the Sludge Lagoons are treatment or storage facilities associated with a

wastewater treatment plant, they are unconditionally exempt from Title 27. Therefore, the Sludge Lagoons are part of the treatment facilities and are unconditionally exempt from Title 27 in accordance with Section 20090(a).

**Response.** Central Valley Water Board staff concurs. The findings regarding the applicability of Title 27 for the sludge lagoons (Fact Sheet, Section IV.C.1) has been modified as shown in underline/strikeout below:

**Sludge Lagoons.** ~~The Discharger land applies dewatered Class B biosolids to selected agricultural fields. The use and disposal of biosolids comply with existing Federal and State laws and regulations, including permitting requirements and technical standards in Code of Federal Regulation (CFR) Part 503. Previous disposal practices included mixing biosolids subnatant and supernatant with the irrigation water as well as applying liquid slurry of biosolids directly to the agricultural fields. The Facility improvements completed in 2009, include an additional lined sludge lagoon, rotary dewatering and lined covered sludge storage area. All subnatant and supernatant are discharged to the headworks for treatment and no longer applied to the agricultural fields. Additionally, the biosolids slurry is no longer applied to the agricultural fields. Only dewatered stabilized biosolids are applied to the agricultural fields. The Discharger operates two concrete-lined sludge lagoons as part of the solids handling operations. Liquid, digested biosolids are held in the lagoons prior to dewatering. Supernatant from the lagoons is discharged to the headworks of the treatment plant. Because the sludge lagoons are lined a necessary part of the Facility's wastewater treatment system, the sludge lagoons are exempt from Title 27 pursuant to Section 20090(a).~~

- g. Compliance Schedule Associated with Title 27.** The Tentative Order includes a compliance schedule associated with Title 27 requirements. However, the City is concerned that the five year compliance schedule for meeting the preconditions of Title 27 (or to come into compliance with Title 27) may not be adequate given the uncertainties associated with the exceedences of the manganese secondary MCL in some of onsite monitoring wells. The cause of elevated levels of manganese in the groundwater wells is unknown. Additionally, CV Salts is investigating locations of compliance for salts and evaluating whether to eliminate the secondary MCLs from the Basin Plan's groundwater quality objective. All these reasons support extending the compliance schedule. Therefore, City respectfully requests that the Title 27 compliance schedule be extended to 2023 to allow time identify and correct the cause of elevated manganese concentrations.

**Response.** Central Valley Water Board staff concurs that the compliance schedule should be extended. However, Central Valley Water Board staff believes these issues can be resolved sooner and have extended the compliance schedule to 2020. The waste discharge requirements will be updated in the next couple years. At that time, the length of the compliance schedule can be re-evaluated.

**City Comment #2. Revise Discussion and Requirements for BPTCs.** The findings and conclusions presented in the Tentative Order with respect to BPTC should also be modified. Specifically, because the Effluent Storage Ponds are not a source of groundwater degradation at the WPCF site, this facility does not need to be evaluated through a BPTC assessment.

The City contends because the discharge of wastewater from the Effluent Storage Ponds is not causing groundwater degradation with respect to the applicable objectives (i.e., background concentrations), the City contends a BPTC evaluation for the Effluent Storage Pond is not required.

**Response.** Central Valley Water Board staff concurs. At this time Central Valley Water Board staff has not fully reviewed all information provided by the City. Therefore, the City's claims regarding the Effluent Storage Ponds have not been verified. Staff from the Central Valley Water Board's Non-15 Permitting Unit will be reviewing all pertinent information and developing updated waste discharge requirements for the City in the near future and will address this issue. In the meantime, the proposed Order requires the City to continue implementation of BPTC for discharges of wastewater to the Agricultural Fields, because the City's study indicates the discharge is causing degradation.

**City Comment #3.** The Tentative Order includes a specific list of constituents for the Groundwater Limitations. (See Tentative Order, p. 8.) The inclusion of the specific list is improper for several reasons. First, many of the values identified are based on agricultural goals (e.g., chloride and boron), which the State Board has indicated need to be determined on a site specific basis considering a number of site conditions. Second, it is not necessary for the order to specifically identify each identified constituent. In fact, most similar permits in the Central Valley include a narrative statement that incorporates the Basin Plan objectives without specifically identifying the constituents. Accordingly, the City recommends that Provision V.A.1.c simply state as follows:

Shall not cause the groundwater within influence of the Facility and the Agricultural Fields to contain waste constituents in excess of the concentrations specified below or natural background quality, whichever is greater:

- (i) Nitrate as nitrogen of 10 mg/L.
- (ii) Total Coliform Organisms of 2.2 MPN/100 mL over any 7-day period.
- (iii) For constituents identified in Title 22, the MCLs quantified therein.

**Response.** Central Valley Water Board staff does not concur. Any changes to the groundwater limits will be determined after Central Valley Water Board staff complete the groundwater degradation evaluations and will be included in the updated separate waste discharge requirements.

**City Comment #4.** The Pond Operating Requirement to maintain dissolved oxygen (DO) content in the upper zone (1 foot) of wastewater in the Effluent Storage Ponds (VI.C.2.a.iii) is not appropriate. As indicated in the Tentative Order, this requirement is meant to ensure compliance with Pond Operating Requirement VI.C.2.a.ii for objectionable odors and to prevent "nuisance" conditions. However, the WPCF does not have a history of objectionable odors for the Effluent Storage Ponds. In addition, the Effluent Storage Ponds are not (City left out not) used for wastewater treatment (which could require DO level maintenance to help ensure adequate treatment is being provided). Accordingly, the Effluent Storage Ponds are not equipped with the facilities needed to maintain DO levels above 1 mg/L. For these reasons, requirements to maintain specific DO levels in the City's Effluent Storage Ponds are not appropriate, and the City thus requests removal of these requirements in Provision VI.C.2.a.iii.

**Response.** Central Valley Water Board staff does not concur that the specifications should be removed, because the specifications are needed to ensure the Effluent Storage Ponds are not producing odors that would cause a nuisance. However, the Pond Operating Requirements have been modified to be consistent with other recently adopted waste discharge requirements as shown in underline/strikeout format below:

- ii. As a means of discerning compliance with Pond Operating Requirements a.ii., the dissolved oxygen (DO) content in the upper zone (1 foot) of wastewater in the ponds shall not be less than 1.0 mg/L for three consecutive weekly sampling events. If the DO in any single pond is below 1.0 mg/L for three consecutive weekly sampling events, the Discharger shall report the findings to the Central Valley Water Board in writing within 10 days and shall include a specific plan to resolve the low DO results within 30 days.

**City Comment #5.** The Agricultural Field soils will be very dry during the irrigation season between irrigation events, and a rainfall event that occurs during this period may not result in any appreciable runoff or cause saturated ground conditions. Moreover, even if a small amount of runoff were generated due to rainfall, it would be captured in the City's extensive tail water collection system. Therefore, this specification is overly prescriptive. The City requests that Agricultural Fields Area Specification VI.C.3.c.iv be revised to eliminate restrictions associated with rainfall events.

**Response.** Central Valley Water Board staff concurs. The language has been changed as shown in underline/strikeout format below:

- iv. Irrigation using recycled water shall not be performed ~~within 24 hours of forecasted rain, during rainfall, within 24 hours after any measurable rainfall event,~~ or when the ground is saturated.

**City Comment #6.** Monitoring of the wastewater discharged to the Agricultural Fields for Total Suspended Solids (TSS) is an unnecessary use of the City's resources. While other parameters that will be monitored correspond to Land Discharge Specifications, there is no such specification or limitation for TSS. Monitoring and reporting TSS data would thus serve no useful purpose. The City therefore requests that the TSS monitoring requirement be removed from Table E-4.

**Response.** Central Valley Water Board staff concurs. TSS monitoring requirement for wastewater discharged to the Agricultural Fields has been removed.

**City Comment #7.** The City finds that the groundwater monitoring locations and their functions need to be clarified in the Tentative Order to ensure proper implementation of groundwater monitoring requirements. While the City has several existing monitoring wells on or near the WPCF site, not all of these wells are appropriate for background or compliance monitoring of the City's activities. As discussed in the City's January 2011 *Background Groundwater Quality Characterization Report*, the following three wells were identified as appropriate background wells: WSM-16, WSM-17, and WSM-18. In addition, consistent with the current WDRs, the following wells have not been monitored during the current permit term for water quality but only

for groundwater elevation (to determine gradient): WSM-10, WSM-11, WSM-13, RMW-1, RMW-2, and RMW-3.

**Response.** Central Valley Water Board staff partially concurs with the request. Groundwater wells that should only be monitored for groundwater elevation have been identified in the Monitoring and Reporting Program. Identification of background and compliance wells will be included in the updated separate waste discharge requirements. The City indicated the existing well classifications may change with future studies. Regardless, compliance with the groundwater limits does not begin until 2020 and therefore, should not pose any compliance problems for the City.

**City Comment #8.** The biosolids monitoring requirements should be revised to require monitoring that is consistent with the Land Discharge Specifications and with EPA 503 monitoring requirements for land application of Class B biosolids.

**Response.** Central Valley Water Board staff concurs. The biosolids monitoring requirements have been changed to read as follows:

**1. Monitoring Location BIO-001**

~~A composite s~~ Samples of sludge biosolids shall be collected annually at Monitoring Location BIO-001 and analyzed as indicated in Table E-9 and in accordance with EPA's POTW Sludge Sampling and Analysis Guidance Document, August 1989. Sampling records shall be retained for a minimum of 5 years. and tested for priority pollutants listed in 40 CFR Part 122, Appendix D, Tables II and III (excluding total phenols).

Table E-9. Biosolids Monitoring Requirements

<u>Parameter</u>	<u>Units</u>	<u>Sample Type</u>	<u>Minimum Sampling Frequency</u>
<u>Quantity</u>	<u>dry tons</u>	--	<u>1/application</u>
<u>Solids Content</u>	<u>percentage</u>	--	<u>1/application</u>
<u>Disposal Location</u>	--	--	<u>1/application</u>
<u>Arsenic</u>	<u>mg/kg</u>	<u>Composite<sup>1,5</sup></u>	<u>1/quarter</u>
<u>Cadmium</u>	<u>mg/kg</u>	<u>Composite<sup>1,5</sup></u>	<u>1/quarter</u>
<u>Copper</u>	<u>mg/kg</u>	<u>Composite<sup>1,5</sup></u>	<u>1/quarter</u>
<u>Lead</u>	<u>mg/kg</u>	<u>Composite<sup>1,5</sup></u>	<u>1/quarter</u>
<u>Mercury</u>	<u>mg/kg</u>	<u>Composite<sup>1,5</sup></u>	<u>1/quarter</u>
<u>Molybdenum</u>	<u>mg/kg</u>	<u>Composite<sup>1,5</sup></u>	<u>1/quarter</u>
<u>Nickel</u>	<u>mg/kg</u>	<u>Composite<sup>1,5</sup></u>	<u>1/quarter</u>
<u>Selenium</u>	<u>mg/kg</u>	<u>Composite<sup>1,5</sup></u>	<u>1/quarter</u>
<u>Zinc</u>	<u>mg/kg</u>	<u>Composite<sup>1,5</sup></u>	<u>1/quarter</u>
<u>Organic Nitrogen</u>	<u>mg/kg (dry)</u>	<u>Composite<sup>2,5</sup></u>	<u>1/quarter<sup>3</sup></u>
<u>Ammonia Nitrogen</u>	<u>mg/kg (dry)</u>	<u>Composite<sup>2,5</sup></u>	<u>1/quarter<sup>3</sup></u>
<u>Nitrate Nitrogen</u>	<u>mg/kg (dry)</u>	<u>Composite<sup>2,5</sup></u>	<u>1/quarter<sup>3</sup></u>
<u>Plant Available Nitrogen (PAN)</u>	<u>lbs N/acre</u>	<u>Composite<sup>2,4</sup></u>	<u>1/quarter<sup>3</sup></u>

<u>Parameter</u>	<u>Units</u>	<u>Sample Type</u>	<u>Minimum Sampling Frequency</u>
Total Phosphorus	mg/kg (dry)	Composite <sup>2,5</sup>	1/quarter <sup>3</sup>
Total Potassium	mg/kg (dry)	Composite <sup>2,5</sup>	1/quarter <sup>3</sup>

1. Samples may be collected from either the biosolids storage lagoon or the stockpiled biosolids.
2. Samples to be collected from stockpiled biosolids.
3. If a biosolids application event is scheduled to occur during a given quarter, monitoring should be completed prior to application event.
4. Calculate PAN using the procedure, volatilization factors, and mineralization rates described in USEPA's Guide for [Biosolids] Land Appliers (EPA/831-B-03-002b).
5. Composite samples mean several grab samples combined.

~~a. A composite sample of sludge shall be collected annually at Monitoring Location BIO-001 in accordance with USEPA's *POTW Sludge Sampling and Analysis Guidance Document*, August 1989, and tested for the metals listed in Title 22.~~

~~Sampling records shall be retained for a minimum of 5 years. A log shall be maintained of sludge quantities generated and of handling and disposal activities. The frequency of entries is discretionary; however, the log must be complete enough to serve as a basis for part of the annual report.~~

**City Comment #9.** The Tentative Order does not include any monitoring requirements for supplemental irrigation supply; however, Attachment E of the Tentative Order includes reporting requirements for the supplemental irrigation supply (Section VIII.B.5.a, pg. E-9 and Section VIII.E.1.b, pg. E-12). Therefore, the City requests that the relevant monitoring requirements for the supplemental irrigation supply be specified to ensure City staff will collect the samples needed to satisfy the reporting requirements.

**Response.** Central Valley Water Board staff concurs. Language has been added to read as follows:

**A. Land Discharge to Agricultural Fields – Monitoring Location IRR-001**

1. The Discharger shall monitor the Supplemental Irrigation Supply when discharged to the Agricultural Fields for flow (continuous metered) and total dissolved solids (annual grab).

**City Comment #10.** The City identified numerous items that needed editorial corrections or clarifications.

**Response.** Central Valley Water Board staff concurs. The editorial changes throughout the permit have been made.

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## **Central Valley Clean Water Association (CVWCA)**

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**CVWCA Comment #1. Antidegradation Findings.** Finding F (“Antidegradation Policy”) of the Tentative Order states, “Resolution No. 68-16 requires that existing quality of waters be maintained unless degradation is justified based on specific findings.” This statement is not completely accurate in that Resolution No. 68-16 applies to high quality waters. Thus, the statement must be revised to state that existing “high” quality waters must be maintained.

**Response.** Central Valley Water Board staff concurs and has modified the proposed permit accordingly.

**CVWCA Comment #2. Application of Title 27 to Land Application Areas.** The comments provided by CVCWA regarding the Title 27 findings in the proposed permit are similar to the comments by the City.

**Response.** See Central Valley Water Board staff response to City Comment #1.

**CVWCA Comment #3. Groundwater Limitations.** The comments provided by CVCWA regarding the groundwater limitations in the proposed permit are similar to the comments by the City.

**Response.** See Central Valley Water Board staff response to City Comment #3.