

**Regional Water Quality Control Board
Central Valley Region
Board Meeting – 24/25 April 2008**

**Response to Written Comments for
The City of Modesto Water Quality Control Facility
Tentative Waste Discharge Requirements**

At a public hearing scheduled for 24/25 April 2008, the Regional Water Quality Control Board, Central Valley Region (Regional Water Board) will consider adoption of a renewed National Pollutant Discharge Elimination System (NPDES) permit for the City of Modesto Water Quality Control Facility. A tentative NPDES permit was issued on 15 January 2008. However, based on comments received, a revised tentative NPDES permit was issued on 21 February 2008 due to changes that required a 30-day public review period. This document contains Regional Water Board staff responses to written comments received from interested persons in response to both tentative Orders. Written comments from interested persons were required to be received by the Regional Water Board by 19 February 2008 for the first tentative permit in order to be included in the record. Comments were received by the deadline from the City of Modesto (Discharger) and the United States Environmental Protection Agency (USEPA) Region 9. Written comments from interested persons were required to be received by the Regional Water Board by 25 March 2008 for the revised tentative permit in order to be included in the record. Comments were received by the deadline from the Discharger.

Written comments are summarized below, followed by Regional Water Board staff responses.

DISCHARGER'S COMMENTS ON 15 JANUARY 2008 TENTATIVE ORDERS

DISCHARGER COMMENT # 1: Order Effective Date - If the TO is adopted at the March 13-14, 2008 Regional Board hearing, the effective date for the permit would be the 50th day following adoption. This is relevant because the City is prohibited from (secondary) river discharge after May 31st. The City traditionally has not discharged after May 1st. The Regional Board has discretion to set this effective date, especially in cases where there is significant public comment on the permit. The TO for the Modesto WQCF will likely receive significant public comment, including these comments submitted by the City. Therefore, the effective date of the City's NPDES Permit should be 50 days after the TO is formally adopted by the Regional Board. The City requests that the RWQCB amend several sections in the TO (Sections IV.A.1, IV.A.3.a., IV.A.3.c., and IV.A.3.d.) to revise the effective date accordingly.

RESPONSE: The effective date of the permit will be set at least 50 days after adoption of the permit by the Regional Water Board to allow USEPA time to review the permit. The effective date will be indicated on the cover page in Table 3. The requested changes to Sections IV.A.1, IV.A.3.a., IV.A.3.c., and IV.A.3.d. are unnecessary, because when it is stated in the permit that a requirement is

“effective immediately” it means effective on the effective date of the permit. The existing (prior) permit remains in effect until the effective date of the new permit.

DISCHARGER COMMENT # 2: Tertiary and Secondary Blending - The City requests an operational provision or clarification regarding regulation of combined or separate secondary and tertiary discharge when 20:1 dilution is available between October 1st and May 31st. For example, there may be some cases during the upcoming permit period when the secondary discharge quality is of “lower” quality due to algae or ammonia concentrations, however, when blended with tertiary filtered discharge, the resulting water quality is of sufficient quality to discharge with 20:1 dilution available at discharge point “001”. It is unclear whether the permit allows such operational flexibility.

RESPONSE: This operational flexibility is not prohibited by the proposed Order. The tentative Order contains compliance locations EFF-001A and EFF-001B, for the secondary and tertiary effluent, respectively. A third compliance location, EFF-001C, has been added for monitoring effluent that is a blend of secondary and tertiary effluents. This will allow a compliance location in the event the Discharger would like to operate the Facility as described in its comment.

DISCHARGER COMMENT # 3: Ammonia - The City faces a significant challenge to comply with both the final and interim ammonia effluent limitations in the existing secondary discharge. The City is actively working to improve secondary discharge quality with the current installation of dissolved air flotation (DAF) units. A specific reopener should be added to allow consideration of a water effects ratio (WER), a revised mixing zone study that considers a diffuser, and a dynamic model for effluent limitation calculation. The City requests that the following reopener provision be added to section VI.C.1.:

“h. **Ammonia Site Specific Objective and Dilution.** Without specific nitrification processes in the secondary treatment train, the City will be unable to comply with the final effluent limitations when the interim effluent limitations expire. If the discharger performs a site-specific WER study, and/or the results of the mixing zone study provide dilution credit, a site specific objective can be used to revise final effluent limitation calculations. Additionally, the SIP allows for the use of dynamic modeling for effluent limitation calculation. This order may be reopened to modify final effluent limitations to consider this new information.”

The interim effluent limitation in Table 9 is a “floating” value based on the observed effluent pH. This interim effluent limitation is consistent with the final effluent limitations in the previous permit. Because of State Board rulings on previously petitioned permits, this “floating” effluent limitation approach is no longer considered appropriate for effluent limitations, and the Regional Board has used a WQBEL calculation methodology for the other interim and final effluent limitations in this permit. For consistency with the State Board ruling and other Regional Board practice, the interim effluent limitation should be

a specific value and based on previous performance, specifically the arithmetic mean plus 3.3 standard deviations. On this basis, an interim performance-based limitation of 24 mg/L should be added to Table 8, and Table 9 should be omitted.

RESPONSE: A new reopener provision has been added to the proposed Order. With regard to the interim effluent limitations for ammonia, we understand that the State Water Board has ruled that “floating” effluent limits are not appropriate. Hence the fixed final effluent limitations for ammonia. The interim effluent limits included in the proposed Order were established in accordance with the SIP, which states in Section 2.2.1., that, “*Numeric interim limitations for the pollutant must be based on current treatment plant performance or on existing permit limitations, whichever is more stringent.*” The existing “floating” effluent limitations are more stringent than performance-based effluent limitations. It is necessary to maintain the more-stringent “floating” limitations as the interim effluent limitations for ammonia.

DISCHARGER COMMENT # 4: Nitrate and Nitrite - Final nitrate and nitrite effluent limitations do not consider assimilative capacity nor dilution. Neither constituent has been detected above the water quality objective upstream of the WQCF discharge. Therefore, a dilution credit should be allowed. The modeling and field observations have shown that complete mixing is assured for the nearest possible potable water intake point, which is 2.5 miles downstream of the City’s discharge. No justification for the denial of assimilative capacity and dilution credit in effluent limitation calculation are provided in the TO.

If for some reason a dilution credit is not granted, the City requests interim performance-based limitations for nitrite and nitrate. Performance-based interim limits should be included in Table 8 for both nitrite (4.1 mg/L) and nitrate (14.3 mg/L) based on effluent data between November 2001 and January 2007.

There is no justification for including year-round tertiary effluent limitations for nitrate and nitrite. The proposed process includes nitrification/denitrification and is designed to remove these constituents below the water quality criteria. The nitrite and nitrate final effluent limitations in Table 7 should be omitted.

RESPONSE: Regional Water Board staff agree that a dilution credit should be allowed for calculating the WQBELs for the Seasonal discharge due to the 20:1 (River: Effluent) dilution requirement, and the fact that modeling and field observations have shown that complete mixing is assured prior to the nearest possible downstream drinking water intake. WQBELs for nitrate and nitrite using a 20:1 dilution credit result in AMELs for nitrate and nitrite of 102 mg/L and 13.6 mg/L, respectively. However, allocating the full assimilative capacity for these constituents is not consistent with the Antidegradation Policy (Resolution 68-16 and 40 CFR 131.12), and based on Facility performance, the Discharger

can meet more stringent performance-based effluent limitations. Due to the requirement to remove ammonia (i.e. nitrify the wastewater) the current nitrate and nitrite levels are not representative of future levels after nitrification is required. The measure of Total Kjeldahl Nitrogen (TKN) provides the potential maximum concentrations of nitrate plus nitrite. Therefore, based on a MEC for TKN of 42 mg/L, the proposed Order has been revised to include an effluent limitation for nitrate plus nitrite of 42 mg/L.

With regard to the year-round tertiary discharge, no change will be made to the effluent limitations for nitrate and nitrite. Untreated domestic wastewater contains ammonia. Nitrification is a biological process that converts ammonia to nitrite and nitrite to nitrate. Denitrification is a process that converts nitrate to nitrite or nitric oxide and then to nitrous oxide or nitrogen gas, which is then released to the atmosphere. The proposed Facility upgrades include nitrification/denitrification processes, which should reduce nitrate and nitrite below the applicable water quality objectives. However, inadequate or incomplete denitrification may result in the discharge of elevated levels of nitrate and nitrite to the receiving water. Furthermore, the Discharger conducted an antidegradation analysis for the expanded discharge assuming a projected median nitrate concentration of 7.2 mg/L as N and projected median nitrite concentration of 0.8 mg/L a N. Therefore, it is necessary to include effluent limitations for the year-round tertiary discharge to ensure protection of the beneficial uses of the receiving water and for compliance with the antidegradation policy (State Water Board Resolution 68-16 and 40 CFR 131.12).

DISCHARGER COMMENT # 5: Carbon Tetrachloride - There is no justification for including a year-round tertiary effluent limitation for carbon tetrachloride. This is acknowledged as a disinfection byproduct and the proposed expansion includes ultraviolet disinfection. For this same reason, there was no finding of reasonable potential for chlorodibromomethane or dichlorobromomethane in the year-round discharge. These constituents are chlorination by-products and there is no expectation that they will be present.

Ambient data reported after the ROWD submittal demonstrates that there is assimilative capacity in the river for carbon tetrachloride. Data collected upstream from the discharge since 2005 were reported as "non-detect" at method detection limits of 0.04 µg/L and 0.06 µg/L. Tables 6 in the TO should be revised to include a dilution credit of 20:1. If final effluent limitations are not omitted from Table 7 for carbon tetrachloride, the limitation should be revised to consider dilution.

RESPONSE: The new data provided by the Discharger demonstrates there is assimilative capacity for carbon tetrachloride in the San Joaquin River. Therefore, for the Seasonal discharge, the WQBELs for carbon tetrachloride can

be re-calculated with a 20:1 dilution credit. The proposed Order has been revised to include an AMEL and MDEL for carbon tetrachloride of 4.5 µg/L and 8.9 µg/L, respectively. Based on past Facility performance, the Discharger can immediately comply with the revised effluent limitations. Therefore, the compliance schedule for carbon tetrachloride has been removed from the proposed Order.

With regard to the year-round tertiary discharge, since carbon tetrachloride has not been measured in the influent and it is known to be formed during the chlorination process, Regional Water Board staff agrees that it is not necessary to include a final effluent limitation for carbon tetrachloride for the year-round tertiary discharge, due to the use of UV disinfection. The proposed Order has been revised accordingly.

DISCHARGER COMMENT # 6: Aluminum - Multiple WER studies have demonstrated that the USEPA aluminum water quality criteria (87 µg/L) is overprotective for site specific conditions in the Central Valley. Initial WER calculations performed for the City confirm the results of the complete WER study performed in Manteca. These studies indicate a minimum WER greater than 19.4. Based on these studies, the City requests that the next lowest water quality criteria be applied (Secondary MCL, 200 µg/L) as the basis for the final effluent limitations in Tables 6 and 7.

RESPONSE: Based on the WER study for the City of Manteca and the Phase I WER study for the Modesto WQCF discharge, Regional Water Board staff agrees that using the chronic criterion recommended in the USEPA National Recommended Ambient Water Quality Criteria (NAWQC) (87 µg/L), is not appropriate for the receiving water. Therefore, the effluent limitations for aluminum in the proposed Order have been revised. WQBELs based on the acute criterion recommended in USEPA's NAWQC for the protection of freshwater aquatic life have been calculated, resulting in an AMEL and MDEL for aluminum of 373 µg/L and 750 µg/L, respectively. The proposed Order has also been revised to include an annual average effluent limitation of 200 µg/L, based on the Secondary MCL, for protection of the MUN beneficial uses.

DISCHARGER COMMENT # 7: Salinity – On February 14, 2008, the City received your e-mail notification that final effluent limitations for salinity would be added to the permit based on comments received from EPA Region 9, dated February 13, 2008. This new permit addition is contrary to the intent of the TMDL Basin Plan amendment that allows a compliance period of sixteen to twenty years. Region-wide compliance with the TMDL will be achieved through a massive cooperative effort, and every additional constraint such as this final effluent limitation could hinder the type of creative solution that is necessary to solve the Central Valley salinity problem. If the final effluent limitation is added to Tables 6 and 7 of the permit, the City requests that the following

footnote be added:

“Final effluent limitations for EC are based on the salinity TMDL and Basin Plan Amendment which also includes a compliance schedule of sixteen to twenty years, and is not enforceable until that time. The TMDL recognizes that compliance with the final effluent limitation will require efforts beyond traditional treatment and control, including pollutant trading and supply water allocations. Therefore, this effluent limitation may be modified to consider new information.”

RESPONSE: The final effluent limits for EC have been added to the proposed Order in accordance with USEPA’s comments. We agree that the final effluent limitations may change, therefore, we have included the suggested language in a reopener provision that has been added to the proposed Order. We will also provide a footnote to the final EC limitations indicating that they are effective in accordance with the TMDL.

DISCHARGER COMMENT # 8: Findings I. – Table 4, Facility Information should list the facility contact as “Gary DeJesus, Deputy Director, Public Works, (209.577.6300)”.

RESPONSE: Table 4 has been updated with the correct information.

DISCHARGER COMMENT # 9: Findings II.A. Background. – The Background Information states that the Discharger submitted an Amendment requesting a year-round discharge of up to 10 mgd for tertiary treated wastewater. However, the permit includes up to 4.8 mgd; the discrepancy between the two may cause confusion, or imply that the request was denied. The City requested the 4.8 mgd discharge following meetings with Regional Board staff as noted in the November 8, 2006 letter from the City to Mr. James Marshall. The antidegradation analysis (June 2007) is also a basis for the ROWD amendment. The Background Information should be amended to reflect revised City request (see November 8, 2006 letter from the City to Jim Marshall).

RESPONSE: Findings II.A. has been modified as suggested in the Discharger’s comments.

DISCHARGER COMMENT # 10: Findings II.K. – Finding K includes a sentence that states, “[t]he Regional Water Board, however, is not required to include a schedule of compliance, but may issue a Time Schedule Order pursuant to Water Code section 13300 or a Cease and Desist Order pursuant to Water Code section 13301 where it finds that the discharger is violating or threatening to violate the permit.” This sentence is inconsistent with the purpose of a schedule of compliance, which is intended to allow a permittee time to meet water quality based effluent limits for new water quality standards or new interpretations of narrative water quality standards. In addition, this

sentence is not necessary to describe the Regional Board's authority with regards to compliance schedules in permits. Because it creates confusion and is not necessary, we recommend that this sentence be removed from finding K.

RESPONSE: Finding K includes an accurate description of the process for determining whether a compliance schedule is appropriate, including the alternative of issuing a TSO or CDO rather than a compliance schedule. This language is consistent with the language in other permits, and does not suggest the Discharger will violate the permit terms if a compliance schedule is approved.

DISCHARGER COMMENT # 11: Findings II.M. – Finding M appropriately identifies that the Order includes effluent limitations that are more stringent than federal law for BOD, TSS, turbidity and pathogens. The City supports this portion of the finding. However, the following paragraph includes permit template language that does not apply in this case. More specifically, the last sentence of the standard template language concludes that the “[o]rder’s restrictions on individual pollutants are no more stringent than required to implement the technology-based requirements of the CWA and the applicable water quality standards of for the purposes of the CWA.” This sentence directly conflicts with the preceding paragraph that recognizes that the Order does contain some limits that are more restrictive than federal law. Thus, finding M must be amended to reflect the specific requirements contained in this order.

RESPONSE: Staff has modified the finding in the proposed Order that stated tertiary treatment is more stringent than the Clean Water Act requires. Tertiary treatment is necessary to protect the designated uses of contact and non-contact recreation and agricultural water supply, which are designated uses and part of the water quality standard. Permit requirements to protect those uses are therefore required by the Clean Water Act. “A water quality standard (WQS) defines the water quality goals of a water body, or portion thereof, *by designating the use or uses to be made of the water* and by setting criteria necessary to protect the uses. States and EPA adopt WQS to protect public health or welfare, enhance the quality of water and serve the purposes of the Clean Water Act (CWA). Serve the purposes of Act (as defined in sections 101(a)(2) and 303(c) of the Act) means that WQS should, wherever attainable, provide water quality for the protection and propagation of fish, shellfish and wildlife and for recreation in and on the water and take into consideration their use and value for public water supplies, propagation of fish, shellfish, wildlife, *recreation in and on the water, and agricultural*, industrial and other purposes including navigation. Such standards serve the dual purposes of establishing the water quality goals for a specific water body *and serving as the regulatory basis for establishment of water quality-based treatment controls and strategies beyond the technology-based level of treatment required by sections 301(b) and 306 of the Act. ...*” (40 CFR § 130.3, emphasis added.)

The proposed Order requires a Title 22 tertiary level of treatment, or equivalent, which is necessary to protect the beneficial uses of the receiving water. The limitations based on tertiary treatment are therefore required by the Clean Water Act even though they are more stringent than the technology-based secondary treatment standard. In addition, the Discharger already has tertiary treatment facilities and has been operating them for some time. Even assuming the Regional Water Board was required to consider the Section 13241 factors when it first required tertiary treatment or equivalent, it need not reconsider those factors now.

The first paragraph of Finding II.G. has been modified as follows:

G. Water Quality-based Effluent Limitations. Section 301(b) of the CWA and section 122.44(d) require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards. This Order contains requirements, expressed as a technology equivalence requirement. These requirements are more stringent than secondary treatment requirements that are necessary to meet applicable water quality technology-based standards, but are necessary to protect beneficial uses and therefore required by the Clean Water Act. ~~The~~ Nevertheless, the Regional Water Board has considered the factors listed in CWC Section 13241 in establishing these requirements. The rationale for these requirements, which consist of tertiary treatment or equivalent requirements, is discussed in the Fact Sheet (Attachment F).”

The first paragraph of Finding II.M. has been modified as follows:

M. Stringency of Requirements for Individual Pollutants. This Order contains both technology-based and water quality-based effluent limitations for individual pollutants. The technology-based effluent limitations consist of restrictions on BOD5 and TSS. The water quality-based effluent limitations consist of restrictions on aluminum, ammonia, chloride, carbon tetrachloride, chlorodibromomethane, dichlorobromomethane, iron, manganese, molybdenum, nitrate, nitrite, selenium, turbidity, pH, and pathogens. This Order’s technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements. In addition, this Order contains effluent limitations more stringent than the minimum, federal technology-based requirements for secondary treatment that are necessary to meet technology-based water quality standards. ~~These~~ However, these limitations are not more stringent than required by the CWA because they are necessary to protect the designated uses, which are part of the water quality standards. Specifically, this Order includes effluent limitations for BOD, TSS, turbidity and pathogens that are more stringent than applicable federal technology-based standards, but that are nonetheless necessary to

meet numeric objectives or protect beneficial uses. The rationale for including these limitations is explained in the Fact Sheet (Attachment F). In addition, the Regional Water Board has considered the factors in Water Code section 13241 in establishing these requirements.”

DISCHARGER COMMENT # 12: Section IV.A.1 – The City requests an operational provision or clarification regarding regulation of combined or separate secondary and tertiary discharge when 20:1 dilution is available between October 1 and May 31.

RESPONSE: See response to DISCHARGER COMMENT # 2.

DISCHARGER COMMENT # 13: Table 6. Effluent Limitations – Seasonal Discharge – The following modifications are requested to the final effluent limitation table; justification for these changes is provided in the corresponding Fact Sheet discussion:

- Aluminum (Total) – The effluent limitation should be calculated based on the Secondary MCL, applied as an annual average in the same manner as iron and manganese. Preliminary WER testing confirms that this is the most stringent water quality criteria.

RESPONSE: See response to DISCHARGER COMMENT # 6.

- Chloride – A chloride effluent limitation is not necessary as the Salinity and Boron TMDL is intended as the means to regulate all salinity-related constituents. The average monthly effluent limitation should be 216 mg/L as shown in Table F-5, not 262 mg/L.

RESPONSE: See response to DISCHARGER COMMENT # 37.

- Molybdenum, nitrate, and nitrite effluent limitations should all include 20:1 dilution in the effluent limitation calculation.

RESPONSE: See response to DISCHARGER COMMENT # 4, regarding nitrate and nitrite, and the response to DISCHARGER COMMENT # 43, for molybdenum.

- Carbon tetrachloride – The effluent limitation should be recalculated to consider dilution. Ambient data collected since the ROWD are below a method detection limit that is less than the CTR water quality criteria (0.25 µg/L).

RESPONSE: See response to DISCHARGER COMMENT # 5.

DISCHARGER COMMENT # 14: Table 7. Effluent Limitations – Year-Round Discharge – The following modifications are requested to the final effluent limitation table; justification for these changes is provided in the corresponding Fact Sheet discussion:

- Aluminum (Total) – The effluent limitation should be calculated based on the Secondary MCL, applied as an annual average in the same manner as iron and manganese. Preliminary WER testing confirms that this is the most stringent water quality criteria.

RESPONSE: See response to DISCHARGER COMMENT # 6.

- Chloride – A chloride effluent limitation is not necessary as the Salinity and Boron TMDL is intended as the means to regulate all salinity-related constituents. The average monthly effluent limitation should be 216 mg/L as shown in Table F-5, not 262 mg/L.

RESPONSE: See response to DISCHARGER COMMENT # 37.

- Molybdenum – Effluent limitation calculations should consider 38:1 upstream dilution.

RESPONSE: See response to DISCHARGER COMMENT # 43.

- Nitrate and nitrite – There is no reasonable potential to cause or contribute to an in-stream water quality criteria exceedance as the proposed year-round discharge includes denitrification. The City requests that the effluent limitations be removed.

RESPONSE: See response to DISCHARGER COMMENT # 4.

- Carbon tetrachloride – There is no reasonable potential to cause or contribute to an in-stream water quality criteria exceedance as the proposed year-round discharge includes ultraviolet disinfection. Carbon tetrachloride has not been detected in the WQCF influent, and can be generated by chlorination.

RESPONSE: See response to DISCHARGER COMMENT # 5.

DISCHARGER COMMENT # 15: Table 8. Interim Effluent Limitations – The following modification is requested to the interim effluent limitation table:

- Aluminum – The interim limitation is not necessary if the secondary MCL is applied as an annual average.

RESPONSE: See response to DISCHARGER COMMENT # 6.

- Ammonia – A performance based interim limitation should be added to the table to replace the “floating” value in Table 9 (see discussion below justifying omission of the “floating” effluent limitation). The Fact Sheet calculated maximum daily limitation (24 mg/L) is appropriate for this table.

RESPONSE: See response to DISCHARGER COMMENT # 3.

- Nitrate and Nitrite – If the available assimilative capacity is not applied in the final limitations as is currently proposed in the TO, compliance with the final TO nitrate and nitrite limitations is not immediately feasible as discussed in the attached Infeasibility Analyses (Attachment B).. Table 8 should be modified to include interim effluent limitations for nitrite (4.1 mg/L) and nitrate (14.3 mg/L), based on effluent data since November 2001. If WQCF operations are modified to enhance ammonia removal (nitrification), additional nitrate and nitrite may be formed.

RESPONSE: See response to DISCHARGER COMMENT # 4.

DISCHARGER COMMENT # 16: Table 9. Interim Effluent Limitations – Ammonia – The “floating” interim limitation in Table 9 should be omitted, and performance-based interim limitations should be added to Table 8.

RESPONSE: See response to DISCHARGER COMMENT # 3.

DISCHARGER COMMENT # 17: Special Provisions C.1.c. – The TO contains a re-opener provision for Mercury that requires the Regional Board to reopen the permit after the TMDL program is adopted. However, until the TMDL program is adopted, the Regional Board cannot be certain if the permit will need to be changed to reflect requirements from the TMDL. Instead of requiring that the permit be reopened, we recommend that the first sentence be modified to read as follows: “If a TMDL program is adopted, this Order ~~shall~~may be reopened to modify ~~and~~ the interim mass effluent limitation ~~modified~~ (higher or lower) or impose an effluent concentration limitation ~~imposed~~ if necessary to implement the provisions of the TMDL program as adopted by the Regional Board and approved by the State Water Resources Control Board, Office of Administrative Law and U.S. EPA.”

RESPONSE: The requested modifications have been made to the proposed Order.

DISCHARGER COMMENT # 18: Special Provision C.1. – The City requests that the TO be amended to include a specific re-opener provision for ammonia.

RESPONSE: See response to DISCHARGER COMMENT # 3.

DISCHARGER COMMENT # 19: Special Provision C.1. – The Carbon Tetrachloride Low Detection Limit Study is not necessary based on data already collected by the City in the river that is reported as “not detected” below the CTR water quality criteria. These results are provided in the fact sheet comments. If the final effluent limitations are modified to consider dilution, this reopener provisions would not be necessary.

RESPONSE: See response to DISCHARGER COMMENT # 5.

DISCHARGER COMMENT # 20: Special Provision C.3.a. – The City is not opposed to providing annual reports to the Regional Board that are intended to document the City’s efforts to reduce salinity in its discharge to the San Joaquin River. However, the City does not support the inclusion of an intermediate goal based on water supply EC + 500 that automatically assumes it is achievable. The Fact Sheet contains no information or evidence that indicates that this is an achievable interim goal. The quality of source water is highly variable, especially in dry years. The City uses a mixture of low EC river water and higher EC ground water. To comply with this goal is difficult because of the widespread use of water softeners.

RESPONSE: The water supply EC plus an increment of 500 $\mu\text{mhos/cm}$ is a typical increment in municipal wastewater. This increment is a reasonable goal and will be used as a basis for evaluating whether the Discharger has made reasonable progress in the reduction of salinity in the discharge. It is not an effluent limitation, it is only a goal. No change will be made to the proposed Order.

DISCHARGER COMMENT # 21: Special Provision C.6.a. – Although the City intends to utilize tertiary treatment for the year round discharge in order to meet the effluent limits proposed for the year round discharge, the City cannot support a special provision in the TO that includes a specific manner of compliance. California Water Code section 13360 prohibits the Regional Board from mandating the manner of compliance that the City must use to meet effluent limits or other provisions within the order. Thus, provision 6 is an illegal provision and the City requests that it be removed from the TO.

RESPONSE: Special Provision VI.C.6.a. requires that the year-round tertiary discharge be treated to meet the Title 22 CCR reclamation standards, **or equivalent**. The provision is in compliance with the Water Code, because it does not prescribe any particular treatment method or technology. Rather, it requires that the discharge comply with the prescribed effluent limits, according to a time schedule, and that the effluent receive tertiary treatment, “or equivalent” that meets the effluent limits (See, City of Woodland, State Water Board Order 2004-0010, p. 10.) This provision includes the phrase “or equivalent”, which allows the Discharger flexibility in the specific manner of compliance.

DISCHARGER COMMENT # 22: Special Provisions C.7.a.ii. and C.7.b.ii. – As drafted, this compliance schedule provisions call into question the impact that this permit has on the authorization to discharge tertiary treated wastewater year round. In its present form, the provision implies that the Regional Board has not authorized a year round discharge with the adoption of this permit, which is contrary to the Regional Board and the City's intent. In order to ensure that the permit does authorize the year round discharge and clarify the type of information that the Regional Board intends to request with this provision, the City requests that provision C.7.a.ii. be amended as follows.

"The Discharger shall ~~submit to the~~ notify the Regional Water Board's Executive Officer of its compliance with items i. above. The 2.3 mgd year round discharge shall not ~~be effective~~ commence until the Executive Officer verifies compliance with Special Provisions VI.C.7.a. ~~and approves the Discharger's request."~~

Accordingly, the City requests that provision C.7.b.ii. be amended as follows:

"The Discharger shall ~~submit to the~~ notify the Regional Water Board's Executive Officer of its compliance with items i. above. The 4.8 mgd year round discharge shall not ~~be effective~~ commence until the Executive Officer verifies compliance with Special Provisions VI.C.7.b. ~~and approves the Discharger's request."~~

RESPONSE: The proposed expansion is to be approved upon adoption of the proposed Order. The intent of Special Provisions C.7.a. and C.7.b. is to ensure that the facility upgrades have been constructed and the plant design engineer has certified that the plant is operating properly. Regional Water Board staff agree that the proposed changes better communicate the intent of the compliance schedules and have modified the proposed Order accordingly.

DISCHARGER COMMENT # 23: Special Provision C.7.c.iii – As drafted, pollution prevention plans are required for carbon tetrachloride, chlorodibromomethane, and dichlorobromomethane. All three of these constituents are known to be generated during the WQCF chlorination process and have not been detected in the City's influent. Pollution prevention plans are not necessary, and the requirement should be removed. Previous source control studies for the THMS performed by the City concluded that the constituents were generated at the WQCF.

Section 13263.3 of the California Water Code includes language regarding when a pollution prevention plan can be required. It states that a pollution prevention plan can be required if it is determined "that pollution prevention could assist in achieving compliance" or determined that "pollution prevention is necessary to achieve a water quality objective." (Water Code §13263.3.) The intent of this section of the Water Code is to provide a mechanism for requiring a pollution prevention plan in the situation where

there is the potential for pollution prevention to assist in achieving compliance. Pollution prevention will only assist in achieving compliance when there are controllable influent sources. For these constituents, pollution prevention will not assist in achieving compliance and therefore pollution prevention plan requirements are not justified. The City requests that these three constituents be deleted from section.

RESPONSE: Based on influent data provided by the Discharger, it is evident that chlorodibromomethane and dichlorobromomethane are not present in the influent. These constituents are chlorinated byproducts and are likely formed in the chlorination process. Therefore, Regional Water Board staff agrees with the Discharger that pollution prevention plans are not necessary and have removed the requirements in the proposed Order. With regard to carbon tetrachloride, this limitation has been modified, based on additional data provided by the Discharger resulting in the removal of the compliance schedule and the associated pollution prevention plan requirement.

DISCHARGER COMMENT # 24: VII.C. Total Mercury Mass Loading Effluent Limitations – This provision would require the City to use all monitoring data including pretreatment program data to calculate total mercury mass loads to determine compliance with the proposed effluent limitation. However, not all of the City's pretreatment monitoring data is applicable to the mercury effluent limit contained in this permit, which is to protect the San Joaquin River beneficial uses. Much of the City's industrial waste is segregated to a waste line that allows for cannery wastes to be land applied. Thus, much of the pretreatment program data are irrelevant to wastewater that is not discharged to the San Joaquin River. The compliance determination language should be amended to reflect the City's unique discharge programs as follows:

“1. The total pollutant mass load for each year (January 1st – December 31st) shall be determined using an average of all concentration data collected during the year and the corresponding total annual discharge flow. All effluent river discharge monitoring data collected under the monitoring and reporting program, pretreatment program, and any special studies shall be used for these calculations.”

RESPONSE: The intent of the compliance determination language is to require the discharger to use all effluent data in the calculation of the mercury loading. Therefore, the proposed change has been made to the Order.

DISCHARGER COMMENT # 25: Item II. Monitoring Locations, Table E-1. The City requests that the monitoring location names be modified so that location numbers increases sequentially from upstream to downstream.

RESPONSE: The requested changes have been made to the proposed Order.

DISCHARGER COMMENT # 26: Item V.B.1. Chronic Toxicity Testing, Monitoring Frequency – The City request that chronic toxicity testing be required quarterly as in the current permit. The WQCF has historically discharged “as-needed” and often only discharges a few days in certain months. The addition of the chronic testing to the already required weekly acute toxicity is not necessary, especially in these months of partial and intermittent discharge.

RESPONSE: Due to critical aquatic habitat in the San Joaquin River, the monitoring frequency for chronic whole effluent toxicity (WET) testing will remain as monthly. However, since the monitoring trigger is > 1 TUc (i.e. no significant toxic effects in 100% effluent), the proposed Order has been modified to allow regular WET tests to be performed using only 100% effluent, which should provide a reduction in lab costs. Accelerated and TRE testing will require testing using the full dilution series, so the toxicity of the effluent can be calculated.

DISCHARGER COMMENT # 27: Item IX.A.1, Other Monitoring Requirements – The requirement states that the water supply samples should be taken at the same time as the effluent samples. This is not necessary due to the long treatment detention time. The sampling timing should be de-coupled. The City requests the following modification:

“The Discharger shall monitor the Municipal Water Supply at SPL-001 as follows. A sampling station shall be established where a representative sample of the municipal water supply can be obtained. (see Table E-6 regarding weighted average of multiple locations and sources). ~~Municipal water supply samples shall be collected at approximately the same time as effluent samples.~~”

RESPONSE: The requested changes will be made to the proposed Order.

DISCHARGER COMMENT # 28: Item X.D.1. Other Reports, Progress Reports, Table E-8 – The City requests that the progress reporting dates for the compliance schedules and salinity source control program be moved later in the calendar year so that data collected from the seasonal discharge season can be incorporated, and that a reasonably complete report can be prepared in the first year.

RESPONSE: The requested changes have been made to the proposed Order.

DISCHARGER COMMENT # 29: Item X.D.3 – Sanitary sewer overflow reporting – The reporting requirement in this section is redundant with the State General WDR for collection systems under which the City is covered. The City requests that this section be removed.

RESPONSE: Regardless of the coverage obtained under Order 2006-0003, the Discharger's collection system is part of the treatment system that is subject to this Order. As such, pursuant to federal regulations, the Discharger must properly operate and maintain its collection system [40 CFR section 122.41(e)], report any non-compliance [40 CFR section 122.41(l)(6) and (7)], and mitigate any discharge from the collection system in violation of this Order [40 CFR section 122.41(d)].

DISCHARGER COMMENT # 30: Table F-1. Facility Information – The table should list the facility contact and authorized person to sign and submit reports as "Gary Dejesus, Deputy Director, Public Works, (209.577.6300)".

RESPONSE: The requested changes have been made to the proposed Order.

DISCHARGER COMMENT # 31: Item I.c. - The Background Information states that the Discharger submitted an Amendment requesting a year-round discharge of up to 10 mgd for tertiary treated wastewater. However, the permit includes up to 4.8 mgd; the discrepancy between the two may cause confusion, or imply that the request was denied. The City requested the 4.8 mgd discharge following meetings with Regional Board staff as noted in the November 8, 2006 letter from the City to Mr. James Marshall. The antidegradation analysis (June 2007) is also a basis for the ROWD amendment. The Background Information should be amended to reflect revised City request (see November 8, 2006 letter from the City to Jim Marshall).

RESPONSE: The requested changes have been made to the proposed Order.

DISCHARGER COMMENT # 32: Item 2.b. Dilution Credits/Mixing Zone – The Discharger provided information regarding its dilution study and discusses possible

improvements that may be provided in the future. The Discharger states that it would consider a diffuser outfall in the river channel as outlined in the Study to achieve acute and chronic mixing credits. However, without the possibility of dilution credits for aquatic life, the diffuser would serve no purpose and would not be considered by the Discharger.

RESPONSE: Comment noted.

DISCHARGER COMMENT # 33: Item 2.c. Hardness – In reference to the concave upward criteria, the Fact Sheet (F-25, Equation 2) correctly states the highest or lowest receiving water hardness, whichever leads to the development of more restrictive water quality criteria is the appropriate H_{rw} . However, in the following paragraph it is stated that either the minimum recorded effluent hardness or a maximum allowable receiving water hardness of 400 mg/L as $CaCO_3$ would be selected for use in Equation 2. As stated in Equation 2, the minimum or maximum recorded hardness should be evaluated and the most restrictive criteria of the two should be selected for effluent limitation calculation. Furthermore, the whole discussion involving the criteria shape being concave up or down is based on providing the intended level of protection to aquatic life in all mixes of effluent and receiving water from whole effluent to an infinite dilution with the receiving water. What is the basis for determining that the effluent will raise the hardness in the receiving water but not the alkalinity? In addition, changes to hardness without changes in alkalinity and/or pH may have no difference in aquatic life response than changes to hardness with alkalinity and/or pH. The guidelines for toxicity testing allow relatively variable composition of “lab water” including utilizing “Perrier water”. There does not seem to be evidence included in the Fact Sheet to necessitate the use of lowest upstream hardness in place of Equation 2.

RESPONSE: Regional Water Board staff agrees with the Discharger’s comment. The last paragraph of Section IV.C.2.c. of Attachment F has been deleted. During the development of the proposed Order, the total recoverable CTR criteria were calculated using Equation 1 for concave downward CTR criteria (i.e. acute and chronic copper, chromium III, nickel, and zinc, and chronic cadmium) and Equation 2 was used for concave upward CTR criteria (i.e. acute cadmium, acute and chronic lead, and acute silver). Equations 1 and 2 are described in Section IV.C.2.c. of Attachment F.

DISCHARGER COMMENT # 34: Item 3.e., Aluminum – The TO included final effluent limitations for aluminum based on *National Recommended Water Quality Criteria for Aluminum - 2002*¹ as it has in other similar permits in the Central Valley (see NPDES permits for the Cities of Davis and Yuba City). As part of the November 2005 ROWD,

¹ USEPA 2002. *National Recommended Water Quality Criteria: 2002*. Office of Water, Office of Science and Technology. EPA-822-R-02-047. November 2002.

the City submitted a preliminary report on aluminum water effects ratio (WER) study results. As you know, the WER is used to adjust national ambient water quality criteria that are based on toxicity tests in “laboratory water” to account for site specific water quality conditions.

Based on the WER from these three Central Valley studies, the USEPA aquatic life criteria does not appear scientifically defensible on a site-specific basis. The WER-adjusted water quality criteria is significantly greater than the maximum observed effluent concentration. Although the TO includes a reopener to consider a WER for aluminum, the additional effort does not seem necessary given the weight-of-evidence. The City requests that the effluent limitation calculations be revised to consider the WER studies conducted by the City and others. The Secondary MCL of 200 µg/L would then be applied in the same manner as the iron and manganese Secondary MCL’s (i.e., annual average).

RESPONSE: See response to DISCHARGER COMMENT # 6.

DISCHARGER COMMENT # 35: Item 3.e., Ammonia –The final daily maximum effluent limitations for ammonia are calculated based on worst case conditions (maximum effluent pH of 8.5) rather than the 1/10th percentile downstream river pH used in other recent Central Valley river-discharging permits (e.g., Atwater, Lodi). Use of the maximum allowable effluent pH is highly conservative because the WQCF effluent pH rarely exceeds 8.0. The City requests that a specific reopener be included to allow for an ammonia WER, dynamic modeling, and dilution modeling (see previous comments in Special Provisions section).

RESPONSE: A reopener has been added to the proposed Order as requested by the Discharger.

DISCHARGER COMMENT # 36: Item 3.i., Carbon Tetrachloride – The City acknowledges that there is reasonable potential for occasional exceedances of the carbon tetrachloride water quality criteria in the secondary discharge (i.e., MEC exceeds 0.25 µg/L), however, there is no reasonable potential or basis for including final limitations for carbon tetrachloride in the planned tertiary discharge, which includes UV disinfection. The likely occasional source of carbon tetrachloride in the secondary discharge is the existing chlorine-based disinfection system.

The order requires the City to prepare a pollution prevention plan, however, the source of carbon tetrachloride are known to be related to chlorination processes at the WQCF. The City requests that this requirement be removed.

The secondary, seasonal effluent limitation should be recalculated to consider dilution. Ambient data collected since the ROWD are below a method detection limit that is less

than the CTR water quality criteria (0.25 µg/L). These data are reported in the table below.

RESPONSE: See response to DISCHARGER COMMENT # 5.

DISCHARGER COMMENT # 37: 3.j., Chloride – The basis for the TO chloride final effluent limitation is the USEPA National Recommended Ambient Water Quality Criteria for the protection of freshwater aquatic life (1988). However, chloride is a primary component of salinity. The recently adopted Lower San Joaquin River Salinity and Boron TMDL includes the City’s NPDES point source discharge with a concentration-based waste load allocation (WLA). The sources of chloride in WQCF influent and effluent are the same as will be investigated as part of compliance with the Salinity and Boron TMDL. The narrative-based Basin Plan toxicity incorporation of the USEPA aquatic life objective is less stringent than the agricultural-based TMDL WLA. Application of the aquatic life water quality objective is then unnecessary as current chloride loading from the discharge is essentially capped with use of the interim limitation for electrical conductivity (the TMDL selected salinity indicator). Consequently, the City requests that the WQBELs for chloride be removed for tertiary and secondary effluent. The correct AMEL calculation in Table F-5 (216 mg/L) is not consistent with the Fact Sheet Tables 6 and 7 average monthly effluent limitation (262 mg/L).

RESPONSE: The WQBELs for chloride, based on USEPA’s National Ambient Water Quality Criteria, are included in the proposed Order in accordance with the Basin Plan’s narrative toxicity objective. The narrative-based Basin Plan toxicity incorporation of the USEPA aquatic life objective is less stringent than the agricultural-based TMDL waste load allocation (WLA). However, the TMDL allows the Discharger up to 20 years to come into compliance with the WLAs. In the interim, the proposed WQBELs for chloride are necessary to protect the aquatic life beneficial uses of the San Joaquin River. Based on past Facility performance, the Discharger is capable of immediately complying the proposed WQBELs for chloride.

DISCHARGER COMMENT # 38: Item 3.I., Copper – Although the WQCF no longer has reasonable potential for exceedance of copper CTR water quality criterion, the translator study was updated 6/19/07 to include twenty total events and the City’s study report recommended a chronic translator between of 0.5 and 0.52. For future reference, the Fact Sheet should acknowledge the submittal of the supplemental study report and summarize the resulting available translator for possible future use. The following addition are suggested for the first paragraph of this section:

“The study report was updated in June 2007 to consider twenty sampling events. Based on EPA and SIP guidance, that report recommends a chronic translator of 0.5 and an acute translator of 0.70. “

RESPONSE: The recommended changes have been made to the proposed Order.

DISCHARGER COMMENT # 39: Item 3.m., Chlorodibromomethane – The order requires the City to prepare a pollution prevention plan, however, the source of chlorodibromomethane are known to be related to chlorination processes at the WQCF. The City requests that this requirement be removed. See the discussion regarding Special Provision C.7.c.iii.

RESPONSE: See response to DISCHARGER COMMENT # 23.

DISCHARGER COMMENT # 40: Item 3.n., Dichlorobromomethane – The order requires the City to prepare a pollution prevention plan, however, the source of dichlorobromomethane are known to be related to chlorination processes at the WQCF. The City requests that this requirement be removed. See the discussion regarding Special Provision C.7.c.iii.

RESPONSE: See response to DISCHARGER COMMENT # 23.

DISCHARGER COMMENT # 41: Item 3.p., Iron – The finding of reasonable potential and subsequent effluent limitation calculations are based on the drinking water Secondary MCL (300 µg/L) *applied as a total recoverable concentration*. This water quality criteria is incorporated into the Basin Plan for receiving waters with existing or potential municipal drinking water beneficial uses (MUN). However, the Department of Health Services regulates drinking water supplies using the *filtered* fraction and has recently confirmed that such a practice for wastewater discharge compliance would be protective of drinking water supplies. The City appreciates the Regional Boards use of compliance based on an annual average, and requests that compliance be permitted using filtered samples.

RESPONSE: Federal regulations at 40 CFR 122.45(c) require that, “*All permit effluent limitations, standards, or prohibitions for metal shall be expressed in terms of ‘total recoverable metal’...*” There are three exceptions to the requirement, however, iron and manganese do not fall under the exceptions. Consequently, the effluent limitations for iron and manganese must be in terms of total recoverable metal. Filtering the sample would not be an acceptable method of determining compliance with total recoverable metal effluent limits.

DISCHARGER COMMENT # 42: Item 3.q., Manganese – The finding of reasonable potential and subsequent effluent limitation calculations are based on the drinking water

Secondary MCL (50 µg/L) *applied as a total recoverable concentration*. This water quality criteria is incorporated into the Basin Plan for receiving waters with existing or potential municipal drinking water beneficial uses (MUN). However, the Department of Health Services regulates drinking water supplies using the *filtered* fraction and has recently⁴ confirmed that such a practice for wastewater discharge compliance would be protective of drinking water supplies. The City appreciates the Regional Boards use of compliance based on an annual average, and requests that compliance be permitted using filtered samples.

RESPONSE: See response to DISCHARGER COMMENT # 41.

DISCHARGER COMMENT # 43: Item 3.s., Molybdenum – The City appreciates the Regional Board’s consideration of assimilative capacity in the San Joaquin River, however, the use of performance based final effluent limitations is not consistent with the SIP. The Regional Board WQBEL calculation for the secondary discharge (AMEL = 52 µg/L and MDEL = 81 µg/L) and tertiary discharge (AMEL = 90 µg/L and MDEL = 142 µg/L) uses dilution credits of 20:1 and 38:1, respectively. The TO then determines: “However, the Regional Water Board finds that granting of these dilution credits could allocate an unnecessarily large portion of the receiving water’s assimilative capacity for molybdenum and could violate the Antidegradation Policy.”

This conclusion conflicts with the WQBEL methodology in the SIP. The molybdenum water quality criteria is based on an agricultural goal for foraging livestock, but includes an acute (15 µg/L) and chronic (10 µg/L) goal for the reach of the San Joaquin River from the Merced River to Vernalis. The City requests that the WQBEL-based calculation be used to consider dilution as this methodology is intended to be protective; arbitrary allocation of available assimilative capacity as was done in the TO may not be in the best interests of the people of the State.

RESPONSE: A dilution credit has been allowed for calculating the WQBELs for molybdenum. However, based on past Facility performance, the Discharger is capable of meeting a more stringent performance-based effluent limitation. Therefore, the proposed Order requires the Discharger to maintain current performance as to not allocate an unnecessarily large portion of the receiving water’s assimilative capacity for molybdenum, which would be in violation of the Antidegradation Policy (State Water Board Resolution 68-16 and 40 CFR 131.12).

DISCHARGER COMMENT # 44: Item 3.t., Nitrate and Nitrite – The lowest applicable water quality criterion for nitrate and nitrite are based on the primary MCLs for drinking water supply. These water quality criteria are used directly as effluent limitations for both the secondary seasonal and year-round tertiary discharges. Information is not presented in the effluent limitation tables or fact sheets with regard to the effluent

limitation calculation per SIP WQBEL process. Moreover, the upstream concentration indicates that assimilative capacity is available, however, no dilution is provided. The City requests that clarification be provided on the effluent limitation calculation methodology, and that the calculation include available dilution.

With regard to the planned year-round tertiary discharge, the City will include nitrification and denitrification designed for compliance with water quality criteria. Thus, there can be no finding of reasonable potential to cause or contribute to exceedances in the San Joaquin River. The City requests that the year-round tertiary effluent limits be removed from the permit.

RESPONSE: See response to DISCHARGER COMMENT # 4.

DISCHARGER COMMENT # 45: Item 3.u., Organophosphorus Pesticides – The Fact Sheet discusses issues related to analytical methods and specifies EPA 8141A as an available method to comply with monitoring requirements, however, Table E-3 (page E-4) requires the City to use “Method 625M, or later”. For consistency, the City recommends modifying the fact sheet to include reference to “EPA Method 8141, EPA Method 625M or equivalent GC/MS method” and to add a footnote to Tale E-3 which allows any analytical method with minimum levels equal to or less than the water quality criteria.

RESPONSE: The recommended changes have been made to the proposed Order.

DISCHARGER COMMENT # 46: Item 3.v., Salinity – The City does not support the inclusion of an intermediate salinity goal based on water supply EC + 500 that automatically assumes it is achievable. The Fact Sheet contains no information or evidence that indicates that this is an achievable interim goal. The quality of source water is highly variable, especially in dry years. The City uses a mixture of low EC river water and higher EC ground water. To comply with this goal is difficult because of the widespread use of water softeners. Thus, the City suggests the following edits to the last sentence of this section:

~~This Order contains interim performance based effluent limitations for EC, and an EC goal based on the weighted average of the Discharger’s water supply plus an increment of 500 μ S/cm.~~

RESPONSE: See response to DISCHARGER COMMENT # 7.

USEPA REGION 9 COMMENTS ON 15 JANUARY 2008 TENTATIVE ORDERS

USEPA REGION 9 COMMENT # 1: USEPA's comments pertain to the compliance schedule provision for electrical conductivity limitations implementing the TMDL for Salt and Boron in the lower San Joaquin River. USEPA comments that the even though the compliance schedule for meeting the final waste load allocations in the TMDL extends beyond the expiration date of the permit, final effluent limitations consistent with the final concentration-based waste load allocations must be included in the permit. In addition, the permitting authority must make a reasonable finding, adequately supported by the permit fact sheet, that the compliance schedule: will lead to compliance with the effluent limitation to meet water quality standards; is appropriate; and demonstrates that compliance with the final WQBEL is required as soon as possible.

RESPONSE: The permit and Fact Sheet have been modified in response to USEPA's comments.

DISCHARGER'S COMMENTS ON 21 FEBRUARY 2008 REVISED TENTATIVE ORDERS

DISCHARGER COMMENT # 1: Compliance Schedule for Ammonia – The Discharger comments that it faces a dilemma with the timing of permit final ammonia effluent limitation reopener, short-term process improvements for ammonia removal (nitrification), and the long-term master plan (Phase 2, after 2016), which includes complete nitrification and denitrification for all river discharge. The Discharger is concerned that the five year compliance period does not allow enough time to complete receiving water studies to calculate a revised final effluent limitation to reopen the permit and then complete construction of any short-term nitrification facilities. A longer compliance period would provide time to complete the receiving water studies to determine the ammonia effluent limitation necessary to protect aquatic life, reopen the permit, and then optimize staging of necessary improvements. Nitrification beyond the level necessary to protect aquatic life may also impact disinfection, as fewer chloramines would be present during disinfection requiring higher dosages of chlorine, and possibly resulting in increased levels of trihalomethanes. All proposed expansion and improvements in Phases 1A, 1B, and 2 include ultraviolet (UV) disinfection. Therefore, the Discharger requests a longer ammonia compliance schedule. Specifically, the Discharger requests that the ammonia compliance period be extended from five to ten years to allow for the completion of effluent limitation studies, and further progression of Master Plan Phase 1A and 1B improvements to determine if these efforts will ensure compliance with final ammonia effluent limitations.

If it is not possible to modify the proposed Order to allow a ten year compliance schedule for ammonia, the Discharger requests modifications to the permit to indicate

that based on the results of studies submitted by the Discharger, the permit may be reopened to extend the compliance schedule for ammonia.

RESPONSE: A memorandum from James Hanlon, Director of EPA's Office of Wastewater Management, to Alexis Straus, Direction of Water Division, EPA Region 9, dated 10 May 2007, provides guidance for allowing compliance schedules in NPDES permits. USEPA Region IX, in its comments on the 15 January 2008 tentative order, stated that, in accordance with this memorandum, "*the permitting authority must make a reasonable finding, adequately supported by the permit fact sheet, that the compliance schedule: will lead to compliance with the effluent limitation to meet water quality standards; is appropriate; and demonstrates that compliance with the final WQBEL is required as soon as possible.*" The Discharger has not adequately demonstrated that a ten year compliance schedule is as short as practicable. If the Discharger, after completing studies, can adequately demonstrate that a longer compliance schedule is required, the permit may be reopened to modify the compliance schedule for ammonia. The proposed permit has been modified to indicate that it may be necessary to modify the compliance schedule for ammonia after completion of the studies.