

Central Valley Regional Water Quality Control Board
27/28/29 January 2010 Board Meeting

Response to Comments
for the
United Auburn Indian Community
Thunder Valley Casino Wastewater Treatment Plant
Tentative Waste Discharge Requirements

The following are Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board) staff responses to comments submitted by interested parties regarding the tentative Waste Discharge Requirements (National Pollutant Discharge Elimination System or NPDES Permit renewal) and Time Schedule Order (TSO) for the United Auburn Indian Community (hereinafter Discharger), Thunder Valley Casino Wastewater Treatment Plant (hereinafter Facility). Public comments regarding the proposed NPDES Permit were required to be submitted to the Central Valley Water Board by 10 December 2009 in order to receive full consideration.

The Central Valley Water Board received comments regarding the proposed NPDES Permit renewal by the due date from the following interested parties:

- Discharger;
- California Sportfishing Protection Alliance (CSPA);
- Envy, LLC;
- Dry Creek Conservancy;
- Sierra Club Placer Group;
- Horseshoe Bar Fish and Game Preserve;
- Ophir Property Owners Association and Auburn Ravine Preservation Committee;
- Save Auburn Ravine Salmon and Steelhead (SARSAS);
- Granite Bay Flycasters; and
- California Salmon and Steelhead Association.

The submitted comments were accepted into the record, and are summarized below, followed by Central Valley Water Board staff responses.

UNITED AUBURN INDIAN COMMUNITY (DISCHARGER) COMMENTS

Discharger Comment No. 1. Facility Information

The Discharger comments that the proposed NPDES Permit should be updated to reflect the current facility contact information and design flows associated with a phased expansion. The Discharger also comments that the Facility is not a publicly owned treatment works (POTW), but rather a private facility owned solely by the Discharger.

RESPONSE: The proposed NPDES Permit has been revised to reflect the updated information. However, Central Valley Water Board staff does not concur that the Facility is not a POTW. A POTW, as defined in Title 40 of the Code of Federal Regulations section 403.3 (40 CFR 403.3), is a treatment works which is owned by a State or municipality (as defined in Clean Water Act (CWA) section 502(4)). CWA

section 502(4) defines municipality, in part, as an Indian tribe or an authorized Indian tribal organization. The Facility is owned by the Discharger, an authorized Indian tribal organization. Therefore, the Facility is a POTW.

Discharger Comment No. 2. Facility Description

The Discharger clarifies that they intend to expand the casino and Facility in phases. The first phase currently under construction would expand the Facility to a discharge capacity of 0.7 million gallons per day (MGD) and the flow of 0.85 MGD would constitute the second phase of build out. The Discharger requests that all references to the flow limitation be revised to permit an incremental flow increase corresponding to the degree of Facility expansion completed.

The Discharger requests that the Facility description be revised to reflect that only one belt filter press will be installed in the first phase of the Facility expansion and provides an additional flow schematic associated with the first phase of the expansion to be included in Attachment C of the proposed NPDES Permit.

RESPONSE: The proposed NPDES Permit has been revised to reflect a phased expansion, including effluent limitations and certification requirements for the expansions to 0.7 MGD initially and then 0.85 MGD.

Discharger Comment No. 3. Department of Public Health (DPH) Jurisdiction

The Discharger comments that DPH does not have jurisdiction and would not be involved in granting any approvals because the Facility and areas proposed for the application of recycled water are located on land that is held in trust by the federal government for the Discharger. The Discharger comments that the U.S. Environmental Protection Agency (USEPA) has this oversight and requests that references to DPH be changed to USEPA throughout the proposed NPDES Permit.

RESPONSE: Central Valley Water Board staff concurs that DPH does not have jurisdiction where recycled water used for landscape irrigation does not leave the Discharger's property. In the case of land irrigation on Indian land, USEPA has jurisdiction. The proposed NPDES Permit has been revised to allow the Discharger to obtain the proper approvals for recycled water for the use of landscape irrigation from DPH or USEPA.

Where Title 22 or equivalent requirements are included in the proposed NPDES Permit for discharges to surface water that leave Indian land, DPH has jurisdiction. Therefore, references to DPH regarding the surface water discharge have not been revised.

Discharger Comment No. 4. Receiving Water Limitations for Fecal Coliform Organisms

The Discharger indicates that background concentrations of fecal coliform organisms in Orchard Creek typically exceed the receiving water limitations, potentially due to the large number of livestock that graze adjacent to the creek upstream and downstream of the point of discharge. The Discharger requests clarification on compliance determination given the high background concentrations and potential upstream sources.

RESPONSE: The receiving water limitations implement the *Water Quality Control Plan, Fourth Edition (Revised September 2009)*, for the Sacramento and San Joaquin River Basins (hereinafter Basin Plan) water quality objectives for bacteria. The proposed NPDES Permit at section V.A. states the following, “*Receiving water limitations are based on water quality objectives contained in the Basin Plan and are a required part of this Order. The discharge shall not cause the following in Orchard Creek:*” (emphasis added) For there to be a violation of a receiving water limitation, the Central Valley Water Board would have to identify that the discharge caused or contributed to the exceedance of the water quality objective. Regarding bacteria, the effluent discharge would have to contain bacteria at levels such that it could be shown to have caused the receiving water to exceed the receiving water limitation.

Discharger Comment No. 5. Ultraviolet (UV) Disinfection System Operation Specifications

The proposed NPDES Permit contains a UV disinfection operating specification requiring operation of the UV disinfection system to provide a minimum UV dose per bank of 100 millijoules per square centimeter (mJ/cm²) at peak daily flow and maintenance of an adequate dose for disinfection while discharging to Orchard Creek. The Discharger believes this requirement implies that the UV disinfection system is intended to disinfect effluent to meet Title 22 disinfected tertiary recycled water standards; however, the UV system is designed to meet disinfection requirements for the discharge to Orchard Creek. The recycled water storage tank serves as a chlorine contact basin and is baffled with upstream sodium hypochlorite injection to provide a minimum modal contact time of 450 mg*min/L in accordance with disinfected tertiary recycled water requirements. Therefore, the Discharger requests that the specification be revised.

RESPONSE: Central Valley Water Board staff does not concur with the Discharger’s proposed revision. The UV operating specifications at section VI.C.4.b of the proposed NPDES Permit apply only to the treatment of wastewater to be discharged to surface water. They are not operating specifications for recycled water to be used for landscape irrigation. Title 22 or equivalent disinfection requirements, including UV operating specifications, are necessary to protect beneficial uses in Orchard Creek. Because UV disinfection is used to disinfect wastewater for discharges to

surface water that leave Indian land, the application of the UV operating specifications from Title 22 contained in the proposed NPDES Permit is appropriate.

Discharger Comment No. 6. Special Provisions for Municipal Facilities (POTWs)

As discussed in Discharger Comment No. 1, the Discharger does not believe that the Facility is a POTW and requests that the section of special provisions for municipal facilities (POTWs) be deleted in its entirety.

RESPONSE: As discussed in response to Discharger Comment No. 1, the Facility is considered a POTW. Therefore, the special provisions applicable to municipal facilities (POTWs) are applicable to the Facility.

CALIFORNIA SPORTFISHING PROTECTION ALLIANCE (CSPA) COMMENTS

CSPA Comment No. 1. Expanded Wastewater Discharge

CSPA comments that the proposed NPDES Permit is incorrect in allowing for an expansion of the wastewater treatment system as a new or expanded wastewater discharge may not be allowed into an impaired waterway unless all existing discharges have been identified and are subject to compliance schedules.

RESPONSE: Central Valley Water Board staff does not concur. The cited provision only applies if a total maximum daily load (TMDL) has been adopted for the impaired waterbody. CSPA does not cite the complete regulatory provision, which only applies to a “new source or new discharger,” and only applies when “*the State or interstate agency has performed a pollutants load allocation for the pollutant to be discharged*”, i.e., when a TMDL is in place. The State Water Resources Control Board (State Water Board), Central Valley Water Board, and USEPA have not yet adopted a mercury or toxicity TMDL for the Sacramento River from Knights Landing to the Delta, to which Orchard Creek is a tributary via Auburn Ravine, East Side Canal, and Cross Canal. Even if a TMDL had been adopted, the provision applies only to “new sources” and “new dischargers.” The discharge from the Facility is neither, despite the increased flow. (See 40 CFR 122.2.) *Friends of Pinto Creek v. EPA* (9th Cir. 2007) 504 F.3d 1007 involved a new discharger, not an existing discharger with an increase in flow.

CSPA Comment No. 2. Sufficient Treatment

CSPA comments that the proposed NPDES Permit fails to require sufficient treatment to eliminate toxicity in accordance with the Basin Plan.

RESPONSE: Central Valley Water Board staff does not concur. CSPA comments that additional treatment should be imposed based on the Basin Plan requirement for dischargers to water quality limited segments. Orchard Creek is not listed as a water quality limited segment on the CWA section 303(d) list and TMDLs have not

been adopted for Orchard Creek or the Sacramento River for mercury or toxicity. Although the Central Valley Water Board cannot dictate the method of treatment necessary, the Central Valley Water Board can establish effluent limitations at levels necessary to protect water quality. The proposed NPDES Permit establishes (1) a mass loading limitation based on the current permitted flow of 0.35 MGD to maintain the mercury loading at the current level until a TMDL can be established, (2) an effluent limitation for chronic toxicity that is consistent with the State Water Board's permitting approach for chronic toxicity and is protective of the Basin Plan's narrative toxicity objective, and (3) effluent limitations for individual pollutants, including metals and pesticides, that demonstrate reasonable potential to cause or contribute to an exceedance of water quality objectives. Compliance with these effluent limitations will ensure protection of applicable beneficial uses. For pollutants with effluent limitations with which the Discharger cannot immediately comply, a compliance schedule has been included in the proposed TSO in accordance with California Water Code (CWC) section 13300.

CSPA Comment No. 3. Best Practicable Treatment or Control (BPTC)

CSPA comments that the Discharger should be required to provide BPTC of the discharge to assure pollution will not occur and that the highest water quality consistent with the maximum benefit to the people of the State will be maintained in accordance with the Antidegradation Policy (Resolution 68-16).

RESPONSE: Central Valley Water Board staff does not concur. Resolution No. 68-16 states, "*Any activity which produces or may produce a waste or increased volume or concentration of waste and which discharges or proposes to discharge to existing high quality waters will be required to meet waste discharge requirements which will result in the best practicable treatment or control of the discharge necessary to assure that (a) a pollution or nuisance will not occur and (b) the highest water quality consistent with maximum benefit to the people of the State will be maintained.*" To determine if the proposed NPDES Permit allows a lowering of water quality, the reduction of assimilative capacity as a result of the increased discharge was determined. Pollutants that significantly increase concentration or mass downstream require an alternatives analysis to determine whether implementation of alternatives to the proposed action would be in the best socioeconomic interest of the people of the region, and be to the maximum benefit of the people of the State. In this case, zinc was the only pollutant that demonstrates potential to cause a significant increase in concentration as a result of the proposed action. As discussed in the permit Fact Sheet (Attachment F), the "Thunder Valley WWTP Expansion Water/Wastewater Feasibility Study" (Hydroscience Engineers, 2007), and further in supplemental information submitted to the Central Valley Water Board on 26 October 2009, implementation of alternatives to further control increased concentrations of zinc were determined to be infeasible. The Discharger's planned wastewater treatment facility will produce Title 22 tertiary treated effluent that will result in minimal water quality degradation. The Discharger's planned wastewater treatment process will meet or exceed the highest statutory and regulatory

requirements which meets or exceeds BPTC. BPTC is further considered in response to CSPA Comment No. 8.

CSPA Comment No. 4. Additive Toxicity

CSPA comments that the proposed NPDES Permit fails to implement the requirements of the Basin Plan for additive toxicity that may contribute to the toxic discharge and the designated unknown toxicity in downstream waters.

RESPONSE: The Central Valley Water Board staff acknowledges the potential impact to aquatic life and human health as a result of additive toxicity. This impact would particularly be expected when discharges of the pollutants of concern (e.g., all carcinogens) are discharged at the same time and at levels that exceed applicable water quality objectives during critical low flow times. An accurate evaluation of additivity would therefore require extensive data collection and analysis. Alternatively, the Central Valley Water Board uses several mechanisms within an Order to protect against toxic and carcinogenic effects. For this Discharger, the Central Valley Water Board establishes water quality-based effluent limitations (WQBELs) using conservative assumptions (e.g., use of critical low flows) designed to be protective of receiving water quality (based on applicable water quality objectives established to protect against acute and chronic toxicity and human health carcinogenicity). In addition, the Central Valley Water Board requires whole effluent toxicity (WET) testing designed specifically to determine whether the combination of pollutants contained in a discharge result in toxic effects.

CSPA Comment No. 5. Effluent Limitations for Chronic Toxicity

CSPA comments that the proposed NPDES Permit does not contain enforceable effluent limitations for chronic toxicity and therefore does not comply with the Basin Plan, 40 CFR 122.44 (d)(1)(i), or the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP).

RESPONSE: The chronic toxicity issue was addressed in State Water Board Order WQ 2008-0008 (City of Davis) adopted on 2 September 2008, and WQ 2003-0012 (Los Coyotes). With regard to the need for a numeric chronic toxicity effluent limit, WQO 2008-0008 states, "*We have already addressed this issue in a prior order and, once again, we conclude that a numeric effluent limitation for chronic toxicity is not appropriate at this time.*" However, the proposed NPDES Permit requires an appropriate narrative effluent limitation for chronic toxicity. Based on this recent Water Quality Order, the proposed NPDES Permit includes a narrative chronic toxicity effluent limitation in section IV.A.1.e. Consistent with the SIP and the Los Coyotes order, the proposed NPDES Permit includes compliance determination language to implement the narrative limitation. This language states, "*Compliance with the accelerated monitoring and TRE/TIE provisions of Provision VI.C.2.a shall*

constitute compliance with effluent limitations IV.A.1.e for chronic whole effluent toxicity.” (Provision VII.H.)

The Los Coyotes and City of Davis orders require narrative effluent limitations for chronic toxicity. The suggested language in the orders is, “*There shall be no chronic toxicity in the effluent discharge.*” The orders, however, do not explain how to determine compliance with this limitation. Under the most literal interpretation, a result of even 1.1 chronic toxicity units (TUc) would be a violation of the narrative limitation. Reading the narrative limitation to mean that any excursion above 1 TUc violates the narrative limitation has the same practical effect as a numeric limitation of 1 TUc. This is not appropriate, because the State Water Board rejected the numeric approach in the Los Coyotes order. This literal reading also ignores dilution, making the limitation overly stringent. Disallowing dilution is inconsistent with effluent limitations for specific priority pollutants, which can include a dilution factor. Further, WET testing is imprecise by nature, and one sample is not necessarily indicative of chronic toxicity. For this reason, the SIP and the Los Coyotes order rely on toxicity reduction evaluation/toxicity identification evaluation (TRE/TIE) requirements to ensure a discharge does not cause or contribute to chronic toxicity.

Where WET testing indicates potential chronic toxicity, the SIP (and the proposed NPDES Permit) requires additional accelerated monitoring. The lack of precision in WET testing could be addressed, in part, by using all the accelerated monitoring data to demonstrate compliance with the limitation. In that case, any time the monitoring demonstrated a need for a TRE/TIE, the Discharger would be in violation of the narrative effluent limitation. This would be the case even if the Discharger commenced a TRE/TIE and complied with all applicable requirements of the SIP and the proposed NPDES Permit for addressing chronic toxicity. Again, however, this is indistinguishable from a numeric limit of 1 TUc. It is also inconsistent with the State Water Board’s focus on the TRE/TIE as the way to determine appropriate limits and prevent chronic toxicity.

In order to assure consistency with the SIP and Los Coyotes orders, the accelerated testing and TRE/TIE requirements should be viewed as an integral part of the effluent limitation. In the Los Coyotes order, the State Water Board noted that best management practices (BMPs) may substitute for numeric effluent limitations when developing numeric limitations is infeasible. The State Water Board then concluded that numeric toxicity limitations are infeasible.¹ The TRE/TIE is the key to addressing chronic toxicity under the Los Coyotes approach. Relying on accelerated testing and the TRE/TIE to satisfy the narrative effluent limitation is a BMP-based approach and therefore consistent with the reasoning in the Los Coyotes order.

The State Water Board required the narrative effluent limitation in addition to BMPs because “*NPDES permits must contain effluent limitations that will achieve*

¹ Order No. WQ 2003-0012, pp. 9-10.

compliance with water quality standards that have reasonable potential”¹

The intent of the effluent limitation was to “*ensure that the requirements to perform a TRE/TIE and to eliminate toxicity are clear and enforceable.*”² The compliance determination language is consistent with the State Water Board’s purpose for requiring the effluent limitation.

During the TRE/TIE process, the Discharger is subject to the acute toxicity effluent limitation and a chronic toxicity receiving water limitation. (Permit, § V.A.16.) Taken together, these provisions allow the Discharger time to address a newly-discovered chronic toxicity problem without violating the permit, consistent with the State Water Board’s permitting approach for chronic toxicity.

CSPA Comment No. 6. Data for Reasonable Potential Analysis (RPA)

CSPA comments that the proposed NPDES Permit fails to utilize valid, reliable, and representative effluent data in conducting a reasonable potential and limits derivation calculations contrary to USEPA’s interpretation of 40 CFR 122.44(d), and should not be adopted in accordance with 40 CFR 122.4 (a), (d) and (g) and CWC section 13377.

RESPONSE: CSPA comments that the Central Valley Water Board has failed to use valid, reliable and representative data in developing limitations by utilizing only 3 years of data in assessing reasonable potential. Central Valley Water Board staff does not concur and believes that using the most recent 3 years of monitoring data is representative of the current treatment facility and discharge conditions. Generally, the use of more recent monitoring data is preferred as it is more representative of current discharge conditions and because data quality assurance/quality control (QA/QC) improves with time. On 16 May 2005, the Alameda County Superior Court issued a ruling on the appeal of the NPDES Permit for the City of Woodland directing that only 3 years of data be used in the RPA. Legally, the ruling does not set a precedent applicable to all NPDES permits, but is a significant Court opinion that must be considered. In part based on this ruling, the State Water Board has advised against the use of data representing periods of time greater than 4.5 years, and generally recommends the use of the most recent 3 years of data to perform a RPA. The data used for the RPA for the proposed NPDES Permit was considered the most valid, reliable, and representative effluent data and instream background data available.

CSPA Comment No. 7. Antibacksliding

CSPA comments that the proposed NPDES Permit contains effluent limitations less stringent than the existing permit contrary to the antibacksliding requirements of the CWA and 40 CFR 122.44 (l)(1).

¹ *Id.*, p. 9.
² *Id.*, p. 10.

RESPONSE: CSPA comments that the average monthly effluent limitation for ammonia in the proposed NPDES Permit is less stringent than the average monthly effluent limitation included in Order No. R5-2005-0032 and is not protective of the aquatic life beneficial uses of Orchard Creek. Central Valley Water Board staff does not concur. The fixed effluent limitations established in Order No. R5-2005-0032 were based on the worst-case observed pH and temperature. This approach is not consistent with the water quality criteria, as described in the 1999 Ammonia Update, which states the following:

“Because the ammonia criterion is a function of pH and temperature, calculation of the appropriate weighted average temperature or pH is complicated. For some purposes, calculation of an average pH and temperature can be avoided. For example, if samples are obtained from a receiving water over a period of time during which pH and/or temperature is not constant, the pH, temperature, and the concentration of total ammonia in each sample should be determined. For each sample, the criterion should be determined at the pH and temperature of the sample, and then the concentration of total ammonia nitrogen in the sample should be divided by the criterion to determine a quotient. The criterion is attained if the mean of the quotients is less than 1 over the duration of the averaging period.”

In the proposed NPDES Permit, the 30-day criteria continuous concentration (CCC) was calculated for each day when temperature and pH were measured using updated effluent data collected between January 2006 and December 2008. The resulting criteria are consistent with the water quality criteria and, therefore, are protective of aquatic life. Site-specific information that was not available at the time that Order No. R5-2005-0032 was issued, including recent monitoring data for pH and temperature, and consistency with the water quality criteria for ammonia results in less stringent effluent limitations for ammonia. Therefore, relaxation of effluent limitations is allowed under CWA section 402(o)(2)(B)(i). CWA section 303(d)(4) allows for less stringent limitations in waters attaining water quality standards if the relaxation is consistent with antidegradation requirements. Analysis of the monitoring data indicates that the discharge can consistently achieve the effluent limitations and all beneficial uses will be maintained. Relaxation of effluent limitations for ammonia is consistent with the antidegradation provisions of 40 CFR 131.12 and State Water Board Resolution 68-16. Any impact on existing water quality will be insignificant. Therefore, relaxation of effluent limitations is allowed under CWA section 303(d)(4).

CSPA comments that monitoring data is insufficient to allow the discontinuation of effluent limitations for arsenic, atrazine, boron, bromoform, chlorodibromomethane, copper, dichlorobromomethane, fluoride, methylene blue active substances, nitrate, persistent chlorinated hydrocarbon pesticides, settleable solids, sulfate, and total trihalomethanes. Central Valley Water Board staff does not concur. As discussed in response to CSPA Comment No. 6, Central Valley Water Board staff believes that using the most recent 3 years of monitoring data is representative of the current

discharge conditions. Order No. R5-2005-0032 required monthly monitoring for arsenic, atrazine, boron, bromoform, chlorodibromomethane, copper, dichlorobromomethane, fluoride, methylene blue active substances, nitrate, persistent chlorinated hydrocarbon pesticides, sulfate, and total trihalomethanes and monitoring for settleable solids three times per week. There are at least 36 sample points for each of these constituents, based on data collected between January 2006 and December 2008. Based on updated monitoring data that was not available at the time Order No. R5-2005-0032 was issued, these parameters do not exhibit reasonable potential to cause or contribute to an exceedance of water quality objectives in the receiving water. Therefore, relaxation of effluent limitations is allowed under CWA section 402(o)(2)(B)(i). CWA section 303(d)(4) allows for less stringent limitations in waters attaining water quality standards if the relaxation is consistent with antidegradation requirements. The discharge does not have the reasonable potential to cause or contribute to an exceedance of water quality standards for these parameters in the receiving water and all beneficial uses will be maintained. Discontinuing effluent limitations for these parameters is consistent with the antidegradation provisions of 40 CFR 131.12 and State Water Board Resolution 68-16. Any impact on existing water quality will be insignificant. Therefore, relaxation of effluent limitations is allowed under CWA section 303(d)(4).

CSPA comments that movement of effluent limitations for turbidity from Order No. R5-2005-0032 to Construction, Operation, and Maintenance specifications constitutes backsliding. Central Valley Water Board staff does not concur. As stated in the permit Fact Sheet (Attachment F), turbidity testing is a quick way to monitor the effectiveness of treatment filter performance, and to signal the Discharger to implement operational procedures to correct deficiencies in filter performance. Higher effluent turbidity measurements do not necessarily indicate that the effluent discharge exceeds the water quality criteria/objectives for pathogens (i.e., bacteria, parasites, and viruses), which are the principal infectious agents that may be present in raw sewage. Therefore, turbidity is not a valid indicator parameter for pathogens. Furthermore, the former turbidity limitations were not imposed to protect the receiving water from excess turbidity, and were not even related to turbidity in the receiving water. Thus, the former turbidity limitations were not technology-based effluent limitations or WQBELs for either pathogens or turbidity.

On the other hand, total coliform organisms are an indicator of the level of pathogens in the effluent. Therefore, effluent limitations for total coliform organisms are necessary to control the discharge of pathogens, and have been included in the proposed NPDES Permit.

WQBELs for turbidity are not required because the effluent does not have a reasonable potential to cause or contribute to an exceedance of the applicable water quality objectives for turbidity. Therefore, operational requirements for turbidity are appropriately included as a provision in the proposed NPDES Permit rather than effluent limitations. Order No. R5-2005-0032 included effluent limitations for turbidity. The operational turbidity requirements in proposed NPDES Permit are an equivalent

permit condition that is not less stringent than the turbidity limitations in Order No. R5-2005-0032. Therefore, the removal of the turbidity effluent limitations does not constitute backsliding.

CSPA comments that mass-based effluent limitations are necessary for aluminum and chlorine residual. Central Valley Water Board staff does not concur. As described further in response to CSPA Comment No. 11, mass limitations are not required when applicable standards are expressed in terms of other units of measurement. The numerical effluent limitations for aluminum and chlorine residual in the proposed NPDES Permit are based on water quality standards and objectives that are expressed in terms of concentration. Pursuant to 40 CFR 122.25(f)(1)(ii), expressing the effluent limitations in terms of concentration is in accordance with federal regulations.

CSPA Comment No. 8. Antidegradation Analysis

CSPA comments that the proposed NPDES Permit contains an inadequate antidegradation analysis that does not comply with the requirements of CWA section 101(a), 40 CFR 131.12, the Antidegradation Policy (Resolution No. 68-16) and CWC sections 13146 and 13247.

RESPONSE: Central Valley Water Board staff does not concur that the proposed NPDES Permit contains an inadequate antidegradation analysis.

Administrative Procedures Update (APU) 90-004 states, "If baseline water quality is better than the water quality as defined by the water quality objective, the baseline water quality shall be maintained unless poorer water quality is necessary to accommodate important economic or social development and is considered to be of maximum benefit to the people of the State." Resolution No. 68-16 states, "Any activity which produces or may produce a waste or increased volume or concentration of waste and which discharges or proposes to discharge to existing high quality waters will be required to meet waste discharge requirements which will result in the best practicable treatment or control of the discharge necessary to assure that (a) a pollution or nuisance will not occur and (b) the highest water quality consistent with maximum benefit to the people of the State will be maintained."

The antidegradation analysis in the Permit evaluated each pollutant detected in the effluent and receiving water to determine if the proposed increase in discharge from 0.35 MGD to 0.875 MGD authorized by this Order potentially allows significant increase of the amount of pollutants present in the upstream and downstream receiving water influenced by the proposed discharge. Existing water quality for zinc was demonstrated to be higher than the water quality objective and the increase in discharge was determined to lead to potential degradation of the water quality for zinc. As discussed in further detail below, however, the antidegradation analysis in the Permit demonstrated that any degradation in water quality associated with the increased concentration of zinc is necessary to accommodate important economic or

social development and is consistent with maximum benefit to the people of the State. The discharge of zinc was also demonstrated to result in BPTC necessary to assure the highest water quality consistent with the maximum benefit to the people of the State. Effluent limitations have been established in the proposed NPDES Permit for zinc (as well as all other pollutants with reasonable potential to cause or contribute to an exceedance of water quality objectives) which will ensure protection of beneficial uses.

Central Valley Water Board staff does not concur with CSPA's assertion of insufficiency of the socioeconomic analysis in the proposed NPDES Permit demonstrating important economic or social development and maximum benefit to the people. Although the proposed NPDES Permit does not identify project costs for each alternative, the socioeconomic analysis does identify long-term and short-term socioeconomic impacts. According to the analysis, the economic impacts incurred in maintaining existing water quality would include greater challenges to the Tribe in the development of a sustainable, long-term economic base; no increase in tourism; no increase in local tax revenues; no increase in State revenue from Incremental Device fees; loss of potential long-term jobs; loss of additional vendor sales; no expansion of the local fire station; loss of additional contributions to the Placer County Sheriff's Department; no additional intersection and roadway improvement projects; and no increase in land value in the surrounding area.

Central Valley Water Board staff also does not concur that the BPTC analysis in the proposed NPDES Permit is inadequate.

As discussed in the permit Fact Sheet (Attachment F) and consistent with APU-94-004, the Antidegradation Analysis considered several alternatives to the increased discharge, including regionalization and additional treatment using reverse osmosis to remove zinc. The detailed analysis concluded that neither regionalization nor advanced treatment are feasible at this time.

The Discharger signed a Memorandum of Understanding (MOU) with the City of Lincoln on 15 July 2008. In the MOU, the City of Lincoln agrees to install a gravity sewer line that will enable the City of Lincoln to provide sewer service to the Discharger from the City of Lincoln Wastewater Treatment and Reclamation Facility. The Discharger agreed to connect to the gravity sewer line when it becomes available. To finance the cost of the gravity sewer line, it was anticipated in the MOU that an assessment district would be formed in which the Discharger, as well as other proposed users, would participate. However, a special assessment district has not been formed due to the lack of funding from other industrial and property owners. Additionally, the City of Lincoln has not yet secured required easements and permits to construct the new gravity sewer line. Therefore, regionalization with the City of Lincoln Wastewater Treatment and Reclamation Facility via a gravity sewer line is not feasible at this time.

The Discharger evaluated two alternatives which could be pursued until connection to the gravity sewer line is possible, including construction of a temporary force main connecting to the City of Lincoln Wastewater Treatment and Reclamation Facility and expanding the existing wastewater treatment plant to treat the additional flows. The MOU states that, until the gravity sewer connection is built, the City of Lincoln agrees to accept on an *interim* basis sewer flows from the Facility through a temporary force main. According to a 29 December 2009 letter from Placer County, the Discharger submitted preliminary design for construction of the force main on 23 May 2008. The plans were returned to the Discharger for minor revisions and signature on 14 October 2008. However, in weighing the costs and environmental impacts of the two interim alternatives, the Discharger determined that a temporary connection to the City of Lincoln Wastewater Treatment and Reclamation Facility via a force main is not a feasible alternative due to the high cost relative to expansion of the treatment plant; failure of the temporary facility to meet the Discharger's long term needs; lack of benefits to surrounding properties; high potential for odor due to excessive hydraulic retention time in the force main system; high power usage from pumping the wastewater a long distance; and the potential for spills if a force main break occurs, particularly in the vicinity of Orchard Creek.

In lieu of the temporary force main, the Discharger chose to expand the Facility to provide treatment for the additional flows until connection to the gravity sewer line becomes available. The Discharger prepared a Draft Tribal Environmental Impact Report in February 2008 for public review. The Discharger responded to comments received on the draft and then issued the Final Tribal Environmental Impact Report in June 2008. In accordance with the Final Tribal Environmental Impact Report, the Discharger recently completed construction for the expansion of the Facility.

It should be noted that, while regionalization is beneficial in many ways, regionalization would not decrease the discharge from the Facility to downstream receiving waters, but would simply move the discharge location directly to Auburn Ravine. The current NPDES Permit for the City of Lincoln Wastewater Treatment and Reclamation Facility (NPDES No. CA0084476, Order No. R5-2008-0156) does not include effluent limitations for zinc. Based on the effluent zinc data presented in Attachment G of the current NPDES Permit for the City of Lincoln Wastewater Treatment and Reclamation Facility (Order No. R5-2008-0156), effluent levels of zinc are as high as 60 µg/L, compared to the maximum effluent concentration (MEC) of 89 µg/L at the Facility. Though the effluent levels of zinc at both facilities are comparable, stringent effluent limitations were established in the proposed NPDES Permit (10 µg/L and 20 µg/L as an average monthly effluent limitation and maximum daily effluent limitation, respectively) based on the extremely low hardness of the effluent (12 mg/L).

Lastly, the Discharger evaluated treatment of the effluent to remove zinc using reverse osmosis. This alternative is not preferred due not only to the high capital costs of installing the treatment system, but also because of the high operation and maintenance costs and environmental concerns from high rates of power

consumption, generation of greenhouse gases, and disposal of the highly concentrated brine. Similarly, installation of an ultrafiltration or nanofiltration treatment system, as proposed by CSPA, is not practical in light of the current treatment processes. Additional information has been added to the Antidegradation Analysis finding in the Fact Sheet (Attachment F) to provide clarification of the alternative control measures evaluated.

The proposed TSO contains a compliance schedule to achieve compliance with the proposed effluent limitations for zinc within 5 years. The Discharger's 26 October 2009 Infeasibility Statement for Thunder Valley Casino documents the Discharger's proposed method of achieving compliance with effluent limitations for zinc, which include pollution prevention and source control. The Facility is unique in that, unlike normal POTWs, the source of pollutants is confined only to the casino facilities, simplifying source identification. When weighing the socioeconomic costs of the increased discharge of zinc to Orchard Creek, Central Valley Water Board staff believes that the current treatment system utilizing a state-of-the-art membrane bioreactor treatment process combined with planned pollution prevention and source control practices represents BPTC necessary to assure that (a) a pollution or nuisance will not occur and (b) the highest water quality consistent with maximum benefit to the people of the State will be maintained.

Central Valley Water Board staff does not concur that the proposed NPDES Permit does not contain an analysis that ensures beneficial uses are protected. The Antidegradation Analysis analyzed each pollutant detected in the effluent and receiving water to determine if the proposed increase in discharge from 0.35 MGD to 0.875 MGD authorized by this Order potentially allows a significant increase of the amount of pollutants present in the upstream and downstream receiving water influenced by the proposed discharge. Based on the analysis, significant impacts to beneficial uses from the proposed discharge are not expected. Furthermore, the proposed NPDES Permit contains effluent limitations for all pollutants with reasonable potential to cause or contribute to an exceedance of water quality objectives. Compliance with these effluent limitations will ensure protection of beneficial uses.

CSPA comments that the Tier 2 analysis incorrectly concludes that parameters will use less than 10 percent of assimilative capacity because no assimilative capacity is available due to the ephemeral nature of the stream. Section IV.C.2.f of the Fact Sheet (Attachment F) specifies that Orchard Creek is an ephemeral stream, which results in compliance with effluent limitations being required at the end-of-pipe with no credit for dilution to protect beneficial uses. However, as described further in the Discharger's April 2006 Thermal Impact Report, Orchard Creek now has the characteristics of a perennial stream as it is fed by a number of other upstream ephemeral streams, overflow drainages, a large natural vernal pool complex, and water delivered to the watershed by the Placer County Water Agency (PCWA). A stream flow measurement project conducted by the Discharger indicated a minimum flow of 600 gallons per minute (gpm) and a harmonic mean flow of 1,300 gpm.

Assuming the receiving water is ephemeral would be less conservative than the flow assumptions made in the Antidegradation Analysis where background concentrations were accounted for. Central Valley Water Board staff believes that the Tier 2 analysis in the Antidegradation Analysis is conservative and appropriate.

CSPA comments that the proposed NPDES Permit does not adequately address antidegradation as a result of increased mercury or selenium loading. Central Valley Water Board staff does not concur. The mass-based assimilative capacity analysis estimated that the proposed project would use 0.4 percent of available assimilative capacity for mercury in Orchard Creek, less than the 10 percent threshold recommended by USEPA. Despite the negligible usage of assimilative capacity, the proposed NPDES Permit contains a mass loading limitation for mercury based on the current flow of 0.35 MGD to maintain mercury loading at the current level until a TMDL can be established and/or until USEPA develops mercury standards that are protective of human health. No additional allowances are provided in the proposed NPDES Permit. For selenium, monitoring data does not indicate concentrations above either the reporting level or the water quality objective of 5 µg/L. Additionally, there are no known sources of selenium in the Facility influent. Therefore, Central Valley Water Board staff does not believe that the proposed project will result in the use of available assimilative capacity or cause or contribute to an exceedance of the water quality objective for selenium.

CSPA comments that the antidegradation analysis does not address chronic toxicity and impacts to aquatic life beneficial uses and does not discuss the additive impacts of metals. Central Valley Water Board staff does not concur. The Antidegradation Analysis evaluated the impacts of the project on a pollutant-by-pollutant basis. The pollutant-by-pollutant analysis accounted for the increase in constituents with the potential to impact aquatic life. As discussed above, zinc was the only parameter projected to use more than 10 percent of available assimilative capacity, and degradation of water quality with respect to zinc resulting from the proposed project was determined to be consistent with maximum benefit to the people of the State. Nevertheless, the proposed NPDES Permit contains effluent limitations for individual pollutants with reasonable potential to cause or contribute to an exceedance of water quality objectives for the protection of aquatic life, including ammonia, chlorine, and metals. As discussed in response to CSPA Comment No. 4, the proposed NPDES Permit establishes WQBELs using conservative assumptions designed to be protective of receiving water quality and requires WET testing and limitations designed specifically to determine whether the combination of pollutants contained in a discharge result in toxic effects.

CSPA comments that the antidegradation analysis does not discuss that the proposed NPDES Permit relaxes effluent limitations for several constituents. As discussed above, the Antidegradation Analysis evaluated the impacts of the project on a pollutant-by-pollutant basis. Constituents with relaxed effluent limitations in the proposed NPDES Permit were not projected to use more than 10 percent of assimilative capacity and did not show reasonable potential to cause or contribute to

an exceedance of water quality objectives. As described in the Fact Sheet (Attachment F) and in response to CSPA Comment No. 7, relaxation of effluent limitations for these constituents is consistent with the antidegradation provisions of 40 CFR 131.12 and State Water Board Resolution 68-16. Any impact on existing water quality will be insignificant. Therefore, relaxation of effluent limitations is allowed under CWA section 303(d)(4).

CSPA comments that the antidegradation analysis incorrectly bases assessments of ammonia on the absence of salmonids. Central Valley Water Board staff does not concur. Although the Discharger, at page 61 of the Antidegradation Analysis, suggests revising the effluent limitations for ammonia in the proposed NPDES Permit based on the absence of salmonids, the evaluation by the Discharger is based on water quality criteria assuming the presence of salmonids in Orchard Creek. Additionally, effluent limitations for ammonia established in the proposed NPDES Permit are based on the presence of salmonids.

CSPA Comment No. 9. Copper Water Effects Ratio (WER)

CSPA comments that the proposed NPDES Permit improperly removes an effluent limitation for copper based on an inadequate WER contrary to 40 CFR 122.44.

RESPONSE: Central Valley Water Board staff does not concur. The Discharger conducted a site-specific WER study for copper in accordance with USEPA's 2001 *Streamlined Water-Effect Ratio Procedure for Discharges of Copper* (EPA 822-R-01-005). The WER study determined that a discharger-specific WER of 24.5 can be used to calculate site-specific aquatic life criteria for copper. Using a discharger-specific WER is allowed by the SIP (section 1.2). The copper WQBELs in the proposed NPDES Permit are appropriate and fully protective of aquatic life.

CSPA Comment No. 10. Annual Average Effluent Limitations

CSPA comments that effluent limitations for iron and manganese are improperly regulated as an annual average contrary to 40 CFR 122.45 (d)(2) and common sense.

RESPONSE: Central Valley Water Board staff does not concur. The effluent limitations for iron and manganese are based on Secondary Maximum Contaminant Levels (MCLs) which address aesthetics such as taste and odor. Secondary MCLs are drinking water standards contained in Title 22 of the California Code of Regulations (CCR). For Secondary MCLs, Title 22 requires compliance with these standards on an annual average basis, when sampling at least quarterly. Since water that meets these requirements on an annual average basis is suitable for drinking, it is impracticable to calculate average weekly and average monthly effluent limitations because such limits would be more stringent than necessary to protect the MUN use. Central Valley Water Board staff has determined that an averaging period similar to what is used by DPH for those parameters regulated by Secondary

MCLs is appropriate, and that using shorter averaging periods is impracticable because it sets more stringent limits than necessary.

CSPA Comment No. 11. Mass-Based Effluent Limitations

CSPA comments that the proposed NPDES Permit fails to contain mass-based effluent limits for cadmium, delta-BHC, endrin aldehyde, lead, zinc and aluminum as required by 40 CFR 122.45(b).

RESPONSE: Central Valley Water Board staff does not concur. 40 CFR 122.25(f) states the following:

“Mass limitations. (1) All pollutants limited in permits shall have limitations, standards or prohibitions expressed in terms of mass except:

(i) For pH, temperature, radiation, or other pollutants which cannot appropriately be expressed by mass;

(ii) When applicable standards and limitations are expressed in terms of other units of measurement; or

(iii) If in establishing permit limitations on a case-by-case basis under §125.3, limitations expressed in terms of mass are infeasible because the mass of the pollutant discharged cannot be related to a measure of operation (for example, discharges of TSS from certain mining operations), and permit conditions ensure that dilution will not be used as a substitute for treatment.

(2) Pollutants limited in terms of mass additionally may be limited in terms of other units of measurement, and the permit shall require the permittee to comply with both limitations.”

40 CFR section 122.25(f)(1)(ii) states that mass limitations are not required when applicable standards are expressed in terms of other units of measurement. The numerical effluent limitations for cadmium, delta-BHC, endrin aldehyde, lead, zinc, and aluminum in the proposed NPDES Permit are based on water quality standards and objectives. These are expressed in terms of concentration. Pursuant to 40 CFR 122.25(f)(1)(ii), expressing the effluent limitations in terms of concentration is in accordance with federal regulations.

Mass limitations for oxygen demanding substances, bioaccumulative substances, and constituents with an associated 303(d) listing are included in the proposed NPDES Permit. The proposed NPDES Permit specifically includes mass limitations for 1) 5-day biochemical oxygen demand (BOD₅), total suspended solids (TSS), and ammonia since they are oxygen demanding substances, and 2) mercury since it is a bioaccumulative constituent and a TMDL is pending. For those pollutant parameters for which effluent limitations are based on water quality objectives and criteria that

are concentration-based (i.e., cadmium, delta-BHC, endrin aldehyde, lead, zinc, and aluminum), mass-based effluent limitations are not included in the proposed NPDES Permit.

CSPA Comment No. 12. MECs for RPA

CSPA comments that the RPA presented in the proposed NPDES Permit (Attachment G) fails to use the MEC for numerous constituents which results in inaccurate calculations.

RESPONSE: The summary of the RPA presented in Attachment G provides the MEC and maximum background concentration for all constituents detected in the effluent or receiving water. However, as described in response to CSPA Comment No. 10, Central Valley Water Board staff has determined that an averaging period similar to what is used by DPH for those non-CTR parameters regulated by Secondary MCLs is appropriate. Therefore, for constituents in which the most stringent applicable criterion is the Secondary MCL (i.e., iron, manganese, methylene blue active substances, and sulfate), the Secondary MCL was compared to the maximum observed annual average effluent and receiving water concentrations to determine reasonable potential for these parameters. A footnote denoting the use of the annual average to determine reasonable potential for these parameters was inadvertently omitted and has been included in the proposed NPDES Permit.

For aluminum, CSPA comments that historical data (see Table F-2 of the Fact Sheet (Attachment F)) shows higher effluent concentrations than the concentrations provided in Attachment G. The difference in aluminum concentrations provided in Table F-2 compared to Attachment G is due to the use of a different range of data. The purpose of Table F-2 is to provide a summary of data over the entire permit term (i.e., April 2005 through December 2008) for comparison with historical effluent limitations. For the RPA, as summarized in Attachment G, 3 years of monitoring data (i.e., January 2006 through December 2008) was used. As discussed in response to CSPA Comment No. 6, Central Valley Water Board staff believes that using the most recent 3 years of monitoring data is representative of the current discharge conditions. Therefore, it is not necessary to re-evaluate the RPA for any constituents in the proposed NPDES Permit.

ENVY, LLC COMMENTS

Envy, LLC Comment No. 1. Dismissal of Potential Connection to the City of Lincoln Wastewater Treatment and Reclamation Facility

Envy, LLC is the owner of a 14+ acre parcel located northeast of the Facility. Envy, LLC comments that, despite pre-tribal Environmental Impact Report (EIR) representations, the Discharger has abandoned attempts to connect to the City of Lincoln Wastewater Treatment and Reclamation Facility. Envy, LLC comments that this will result in a

remarkable increase of proposed treated wastewater being discharged into a historically seasonal stream which may harden their ability to discharge wastewater, limit their land use, and diminish their potential ability to treat and discharge wastewater.

RESPONSE: As discussed in response to CSPA Comment No. 8 and the Fact Sheet (Attachment F) of the proposed permit, connection to the City of Lincoln Wastewater Treatment and Reclamation Facility via a permanent gravity sewer line was determined infeasible at this time because a special assessment district has not been formed due to the lack of funding from other industrial and property owners and the City of Lincoln has not yet secured required easements and permits to construct the new gravity sewer line. However, pursuant to the MOU with the City of Lincoln, the Discharger has agreed to connect to the City of Lincoln Wastewater Treatment and Reclamation Facility upon construction of the permanent gravity sewer line.

The Discharger evaluated an interim connection to the City of Lincoln Wastewater Treatment and Reclamation Facility via a temporary force main until connection via the gravity sewer line is possible. However, the Discharger determined that this temporary alternative is not feasible due to the high cost in relation to expansion of the treatment plant; failure of the temporary facility to meet the Discharger's long-term needs; lack of benefits to surrounding properties; high potential for odor due to excessive hydraulic retention time in the force main system; high power usage from pumping the wastewater a long distance; and the potential for spills if a force main break occurs, particularly in the vicinity of Orchard Creek.

In lieu of the temporary force main, the Discharger chose to expand the Facility to provide treatment for the additional flows until connection to the gravity sewer line becomes available.

DRY CREEK CONSERVANCY COMMENTS

Dry Creek Conservancy Comment No. 1. Impact on Resources

Dry Creek Conservancy comments that the Discharger should be required to demonstrate that the increased discharge will not have a negative impact on the resources of Orchard Creek and downstream tributaries.

RESPONSE: As discussed in response to CSPA Comment No. 8 and in the Fact Sheet (Attachment F) of the proposed permit, the Antidegradation Analysis included a full Tier 2 pollutant-by-pollutant analysis to determine the effects of the proposed project on beneficial uses. The proposed NPDES Permit contains effluent limitations for all pollutants with reasonable potential to cause or contribute to an exceedance of water quality objectives. Compliance with these effluent limitations will ensure protection of beneficial uses of Orchard Creek.

Dry Creek Conservancy Comment No. 2. Alternatives Analysis

Dry Creek Conservancy comments that the Discharger should be required to explore alternatives that will maintain the discharge within currently allowed limits.

RESPONSE: As discussed in response to CSPA Comment No. 8 and in the Fact Sheet (Attachment F), the Antidegradation Analysis considered alternatives to the proposed project to maintain existing water quality, including regionalization, land disposal, and advanced treatment for the removal of zinc. Although connection with the City of Lincoln Wastewater Treatment and Reclamation Facility may be feasible in the future upon construction of a gravity sewer line, none of the alternatives are deemed feasible at this time. When weighing the socioeconomic costs of the increased discharge of zinc to Orchard Creek, Central Valley Water Board staff believes that the current treatment system utilizing a state-of-the-art membrane bioreactor treatment process combined with planned pollution prevention and source control practices represents BPTC necessary to assure that (a) a pollution or nuisance will not occur and (b) the highest water quality consistent with maximum benefit to the people of the State will be maintained.

SIERRA CLUB PLACER GROUP COMMENTS

Sierra Club Placer Group Comment No. 1. Insufficient Socioeconomic Evaluation

Sierra Club Placer Group comments that the proposed NPDES Permit should not be adopted or that a Cease and Desist Order (CDO) should be adopted with a timeline to discontinue the discharge to Orchard Creek. Sierra Club Placer Group comments that meeting State and federal antidegradation policies should be considered the minimum of standards and that requirements should improve water quality rather than “maintain unless degradation is justified.” Sierra Club Placer Group comments that the data used in the socioeconomic evaluation is erroneous and misleading and that the alternatives analysis incorrectly dismisses the only acceptable alternatives (i.e., regionalization). Sierra Club Placer Group comments that allowing the increased discharge will have negative economic impacts, as monitoring will have to be increased, clean-up and regulatory actions will increase, and occurrences of noncompliance will result in health and safety impacts to individuals and natural resources.

RESPONSE: As discussed in the Fact Sheet (Attachment F), the rationale used in the antidegradation analysis is based on 40 CFR 131.12, a USEPA memorandum Regarding Tier 2 Antidegradation Reviews and Significance Thresholds (USEPA 2005), USEPA Region 9 Guidance on Implementing the Antidegradation Provisions of 40 CFR 131.12 (USEPA 1987), State Water Board Resolution No. 68-16, a State Water Board 1987 policy memorandum to the Regional Water Boards, and APU 90-004 issued by the State Water Board to the Regional Water Boards. Sierra Club Placer Group does not provide any evidence that the data used in the socioeconomic evaluation is erroneous or misleading.

As discussed in the Fact Sheet (Attachment F), in response to CSPA Comment No. 8, and in response to Envy, LLC Comment No. 1, connection to the City of Lincoln Wastewater Treatment and Reclamation Facility via a gravity sewer line is infeasible at this time because a special assessment district has not been formed due to the lack of funding from other industrial and property owners and the City of Lincoln has not yet secured required easements and permits to construct the new gravity sewer line. Pursuant to the MOU with the City of Lincoln, the Discharger has agreed to connect to the City of Lincoln Wastewater Treatment and Reclamation Facility upon construction of the gravity sewer line. An interim connection to the City of Lincoln Wastewater Treatment and Reclamation Facility via a temporary force main is not a feasible alternative due to the high cost in relation to expansion of the treatment plant; failure of the temporary facility to meet the Discharger's long-term needs; lack of benefits to surrounding properties; high potential for odor due to excessive hydraulic retention time in the force main system; high power usage from pumping the wastewater a long distance; and the potential for spills if a force main break occurs, particularly in the vicinity of Orchard Creek.

Central Valley Water Board staff does not concur that allowing the increased discharge will result in the need for increased monitoring, clean-up and regulatory actions, and occurrences of noncompliance. The proposed NPDES Permit establishes effluent limitations for all constituents with reasonable potential to cause or contribute to an exceedance of water quality objectives. Compliance with these limitations will ensure protection of the beneficial uses in Orchard Creek. Monitoring data indicates that the Discharger can achieve immediate compliance with the effluent limitations in the proposed NPDES Permit, with the exception of effluent limitations for cadmium, lead, and zinc. For cadmium, lead, and zinc, the proposed TSO includes a compliance schedule to achieve compliance with the final effluent limitations and requires implementation of pollution prevention and source control measures. The proposed NPDES Permit establishes significant effluent and receiving water monitoring for parameters with effluent limitations and other pollutants of concern that will allow the Central Valley Water Board to assess the impact of the increased discharge to Orchard Creek. If monitoring data indicates concentrations of pollutants that exceed applicable effluent limitations or threaten to cause or contribute to an exceedance of water quality objectives, the Discharger will be subject to enforcement action by the Central Valley Water Board, and the Central Valley Water Board may reopen the permit to include new and/or more stringent effluent limitations.

Sierra Club Placer Group Comment No. 2. Effects on Beneficial Uses

Sierra Club Placer Group does not concur with the finding that the discharge will "...not unreasonably affect beneficial uses." Sierra Club Placer Group comments that degradation to water quality should not be allowed, whether or not it is deemed "reasonable" or "unreasonable."

RESPONSE: In balancing the reduction of water quality against the public interest, APU 90-004 requires that an activity resulting in a reduction of water quality not be permitted unless certain conditions are met, including that *“the reduction in water quality will not unreasonably affect actual or potential beneficial uses.”* As described in response to Sierra Club Placer Group Comment No. 1, the proposed NPDES Permit contains effluent limitations necessary to ensure protection of beneficial uses. For cadmium, lead, and zinc, the proposed TSO includes a compliance schedule to achieve compliance with the final effluent limitations and requires pollution prevention and source control measures. See also response to CSPA Comment No. 8.

Sierra Club Placer Group Comment No. 3. Water Quality Objectives

Sierra Club Placer Group does not concur with the finding that the discharge will “...not cause water quality to be less than water quality objectives.” Sierra Club Placer Group comments that simply meeting water quality objectives will not satisfy the best interests of the people of the State.

RESPONSE: In balancing the reduction of water quality against the public interest, APU 90-004 requires that an activity resulting in a reduction of water quality not be permitted unless certain conditions are met, including that *“water quality will not fall below water quality objectives prescribed in the Basin Plan.”* As shown in Tables 6-5 and 6-6 of the Antidegradation Analysis included in the Discharger’s January 2008 Report of Waste Discharge, the proposed project will not cause downstream water quality to fall below water quality objectives in the Basin Plan. Furthermore, the proposed NPDES Permit contains effluent limitations necessary to ensure protection of beneficial uses for pollutants in the effluent with reasonable potential to cause or contribute to an exceedance of water quality objectives.

Sierra Club Placer Group Comment No. 4. Existing Water Quality

Sierra Club Placer Group comments that protecting existing water quality or existing in-stream uses, when existing water quality is unsatisfactory, supports the degradation of water quality.

RESPONSE: APU 90-004 specifies, *“If baseline water quality is equal to or less than the quality as defined by the water quality objective, water quality shall be maintained or improved to a level that achieves the objectives.”* Furthermore, 40 CFR 131.12 defines a Tier 1 designations in the receiving water body as *“existing instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected.”* Orchard Creek was designated as a Tier 1 receiving water for aluminum, iron, manganese, and beta-BHC because these constituents were detected in the receiving water above water quality criteria. Effluent limitations for aluminum, iron and manganese have been established in the proposed NPDES Permit in order to protect the existing beneficial uses in Orchard Creek. In fact, water quality is expected to improve as a result of the proposed

project with respect to these parameters. Beta-BHC was not detected in the effluent, and therefore, the proposed project is not expected to contribute to further degradation of Orchard Creek.

Sierra Club Placer Group Comment No. 5. Zinc

Sierra Club Placer Group comments that it is unacceptable to lower water quality with respect to zinc. Zinc is problematic, especially with cumulative runoffs or diffuse water pollution from other points of entry, resulting in damaging collective impacts. Sierra Club Placer Group comments that polluted wastewater containing zinc should not be allowed to be discharged from the Facility for any reason.

RESPONSE: See responses to CSPA Comment No. 8 and Dry Creek Conservancy Comment No. 2.

Sierra Club Placer Group Comment No. 6. Negative Impact to Future Wastewater System Hookups

By adopting the proposed NPDES Permit and allowing the increased discharge, Sierra Club Placer Group comments that the Discharger may decide to back out of participation in the City of Lincoln Wastewater Treatment and Reclamation Facility regionalization project, which could permanently prevent formation of a Special Assessment District to fund the project. Sierra Club Placer Group comments that the Central Valley Water Board should deny the request to increase the discharge, urge the Discharger to either construct an appropriate sewage line to the City of Lincoln Wastewater Treatment and Reclamation Facility, and/or adopt a CDO for the current discharge. For the expansion plan to be completed, Sierra Club Placer Group comments that a requirement be imposed for the Discharger to form a Special Assessment District and construct a suitable trunk line.

RESPONSE: See responses to CSPA Comment No. 8 and Envy, LLC Comment No. 1.

HORSESHOE BAR FISH AND GAME PRESERVE COMMENTS

Horseshoe Bar Fish and Game Preserve Comment No. 1. Chronic Toxicity

Horseshoe Bar Fish and Game Preserve comments that the proposed NPDES Permit shows chronic toxicity testing results demonstrating the discharge has a likely potential to exceed water quality objectives for toxicity.

RESPONSE: See response to CSPA Comment No. 5.

Horseshoe Bar Fish and Game Preserve Comment No. 2. Backsliding

Horseshoe Bar Fish and Game Preserve comments that the proposed NPDES Permit relaxes limitations for ammonia, arsenic, atrazine, boron, bromoform, chlorodibromomethane, copper, dichlorobromomethane, fluoride, methylene blue active substances, nitrate, persistent chlorinated hydrocarbon pesticides (except delta-BHC and endrin aldehyde) settleable solids, sulfate, total trihalomethanes, and turbidity.

RESPONSE: See response to CSPA Comment No. 7.

Horseshoe Bar Fish and Game Preserve Comment No. 3. Compliance Schedule in TSO

Horseshoe Bar Fish and Game Preserve comments that compliance with the limitations for cadmium, lead, and zinc is not required in the TSO until 1 January 2015 and that allowing the compliance schedule will cause death of fish.

RESPONSE: Central Valley Water Board staff believes that the compliance schedules in the proposed TSO for cadmium, lead, and zinc are appropriate and are in accordance with CWC section 13300. Immediate compliance with the new effluent limitations for cadmium, lead, and zinc at Discharge Point No. 001 is not possible or practicable. The CWA and CWC authorize time schedules for achieving compliance. The proposed TSO provides a time schedule for the Discharger to develop, submit, and implement methods of compliance, including developing and implementing pollution prevention activities or constructing necessary treatment facilities to meet these new effluent limitations. Interim limitations are established in the proposed TSO. Central Valley Water Board staff acknowledges that discharge of constituents in concentrations in excess of the final effluent limitations, but in compliance with the interim effluent limitations, can degrade water quality and adversely affect the beneficial uses of the receiving stream. The interim limitation, however, establishes an enforceable ceiling concentration until compliance with the effluent limitations can be achieved.

Horseshoe Bar Fish and Game Preserve Comment No. 4. Compliance History

Horseshoe Bar Fish and Game Preserve comments that lenience was given to the Discharger by reducing the penalty proposed in Administrative Civil Liability (ACL) Complaint No. R5-2006-0502 from \$435,000 to \$150,000 and work on a supplemental environmental project.

RESPONSE: The basis for the reduced penalty is discussed in the 31 January 2007 Settlement Agreement and Mutual Release. It should be noted that the violations cited in ACL Complaint No. R5-2006-0502 were violations of effluent limitations in previous Order No. 5-01-068, and the last cited violation was on 5 January 2005. Regardless, the proposed NPDES Permit and TSO include effluent limitations and other requirements necessary to protect beneficial uses. Violations of the proposed

NDPES Permit and TSO are subject to enforcement action by the Central Valley Water Board.

Horseshoe Bar Fish and Game Preserve Comment No. 5. Upgraded Treatment System

Horseshoe Bar Fish and Game Preserve comments that the Discharger should be required to upgrade the treatment system to comply with permit limitations. Instead, Horseshoe Bar Fish and Game Preserve comments that the Central Valley Water Board is granting dispensation from regulations until January 2015 while polluting Orchard Creek and Auburn Ravine.

RESPONSE: As discussed in response to CSPA Comment No. 8, the Discharger examined several alternatives to the increased discharge, including regionalization and additional treatment using reverse osmosis to remove zinc. Treatment of the effluent to remove zinc using reverse osmosis is not preferred due not only to the high capital costs of installing the treatment system, but also because of the high operation and maintenance costs and environmental concerns from high rates of power consumption, generation of greenhouse gases, and disposal of the highly concentrated brine. Similarly, installation of an ultrafiltration or nanofiltration treatment system, as proposed by CSPA, is not practical in light of the current treatment processes. The proposed TSO contains a compliance schedule to achieve compliance with the proposed effluent limitations for zinc within 5 years. The Discharger's 26 October 2009 Infeasibility Statement for Thunder Valley Casino documents the Discharger's proposed method of achieving compliance with effluent limitations for zinc, which include pollution prevention and source control. The Facility is unique in that, unlike normal POTWs, the source of pollutants is confined only to the casino facilities, simplifying source identification. When weighing the socioeconomic costs of the increased discharge of zinc to Orchard Creek, Central Valley Water Board staff believes that the current treatment system utilizing a state-of-the-art membrane bioreactor treatment process combined with planned pollution prevention and source control practices represents BPTC necessary to assure that (a) a pollution or nuisance will not occur and (b) the highest water quality consistent with maximum benefit to the people of the State will be maintained.

Horseshoe Bar Fish and Game Preserve Comment No. 6. Connection to the City of Lincoln Wastewater Treatment and Reclamation Facility

Horseshoe Bar Fish and Game Preserve comments that the Central Valley Water Board should require the Discharger to connect to the City of Lincoln Wastewater Treatment and Reclamation Facility.

RESPONSE: See response to CSPA Comment No. 8 and Envy, LLC Comment No. 1.

**OPHIR PROPERTY OWNERS ASSOC. AND AUBURN RAVINE PRESERVATION COMMITTEE,
SAVE AUBURN RAVINE SALMON AND STEELHEAD (SARSAS),
GRANITE BAY FLYCASTERS, AND
THE CALIFORNIA SALMON AND STEELHEAD ASSOCIATION COMMENTS**

Comment No. 1. Endangered Species Act

Commenters provided evidence that Auburn Ravine and the Sacramento River are known to support protected steelhead trout and are designated as Critical Habitat for Central Valley steelhead. Commenters stated that, although consistency with the Endangered Species Act is noted in the proposed NPDES Permit, documentation of appropriate consultation and thorough analysis by the National Marine Fisheries Service (NMFS) and the Department of Fish and Game (DFG) for this process was not provided. Evidence of analysis by these agencies related to current operations and the proposed expansion of the discharges was not provided, with consideration of relaxed limitations, extension of compliance deadlines, impacts to fishery resources, compliance with Endangered Species Act requirements, and proposed recovery goals. Commenters question whether appropriate consultations with NMFS and DFG have occurred and, if so, what specific comments were offered.

RESPONSE: NMFS in Santa Rosa and the Regional Manager of DFG Region II in Rancho Cordova were notified of the proposed NPDES Permit renewal. Comments were not received by either NMFS or DFG.

Comment No. 2. Connection to the City of Lincoln Wastewater Treatment and Reclamation Facility

Commenters comment that the Discharger should be required to connect to the City of Lincoln Wastewater Treatment and Reclamation Facility, given the demonstrated inability to meet current permit requirements and in light of the Central Valley Water Board's strong commitment to regionalization of wastewater treatment systems.

RESPONSE: See response to CSPA Comment No. 8 and Envy, LLC Comment No. 1.

Comment No. 3. Expanded Treatment System

Commenters comment that the Central Valley Water Board should require construction of an expanded treatment system that can comply with permit limitations if the Discharger is not required to promptly connect to the City of Lincoln Wastewater Treatment and Reclamation Facility.

RESPONSE: See responses to CSPA Comment No. 8 and Horseshoe Bar Fish and Game Preserve Comment No. 5.

Comment No. 4. Backsliding and Compliance Schedules

Commenters stated that relaxation of permit limitations and granting a compliance schedule is not in the best interests of the public and protected resources which may be affected by operation of an expanded treatment system and discharge. Commenters state that this will publicly reward failure to comply with existing requirements

RESPONSE: In regards to the relaxation of effluent limitations, see response to CSPA Comment No. 7. In regards to granting a compliance schedule, see response to Horseshoe Bar Fish and Game Preserve Comment No. 3.

SAVE AUBURN RAVINE SALMON AND STEELHEAD (SARSAS) COMMENTS

SARSAS Comment No. 1. Discharges Allowed to Exceed Water Quality Standards

SARSAS comments that, in spite of obvious financial resources, the Discharger should not be allowed to discharge wastewater that will likely exceed water quality objectives for toxicity under a new permit that is less stringent than the previous permit.

RESPONSE: In regards to the regulation of toxicity, see response to CSPA Comment No. 5. In regards to the relaxation of effluent limitations, see response to CSPA Comment No. 7.

SARSAS Comment No. 2. Compliance Schedule

SARSAS comments that the Discharger should not be allowed a grace period for compliance with effluent limitations.

RESPONSE: See response to Horseshoe Bar Fish and Game Preserve Comment No. 3.

SARSAS Comment No. 3. Compliance History

SARSAS comments that the Discharger has a documented history of failure to comply with terms of its permit.

RESPONSE: See response to Horseshoe Bar Fish and Game Preserve Comment No. 4.

SARSAS Comment No. 4. Alternatives

SARSAS comments that the only reasonable alternatives are to tie into the City of Lincoln Wastewater Treatment and Reclamation Facility or build a treatment facility that is in compliance with permit requirements.

RESPONSE: See response to CSPA Comment No. 8 and Envy, LLC Comment No. 1.