

LATE REVISIONS
SACRAMENTO REGIONAL COUNTY SANITATION DISTRICT
SACRAMENTO REGIONAL WASTEWATER TREATMENT PLANT
SACRAMENTO COUNTY
NPDES Permit Amendment (NPDES NO. CA0077682)
Regional Water Quality Control Board, Central Valley Region
Board Meeting – 30/31 July 2015
ITEM #21

A) Late revisions to Attachment 1 of the Amending Order

1) Attachment F, Section III.C.1.c.(1) Thermal Plan Exceptions – modify subsection d) 2015 Delta Smelt Addendum, second bullet and subsequent paragraph, as shown in underline/strikeout format:

- The USFWS reviewed the addendum and found that the addendum addresses its concerns and the temperature study is complete for the evaluation of Thermal Plan exceptions. The Central Valley Water Board consulted with USFWS. However, under the time constraints of the Court mandated permit amendment USFWS could not provide further recommendations. USFWS plans to review the Temperature Study in more detail and may provide additional recommendations during the upcoming permit renewal scheduled for early 2016.

The federal regulations do not require approval of the Thermal Plan exceptions by the fishery agencies. In this case however, the Central Valley Water Board consulted with the fishery agencies. After consideration of the Discharger's studies and consultation with the fishery agencies, the Central Valley Water Board finds the Discharger's studies adequately demonstrate the following:

2) Attachment F, Section IV.C.2.c Hardness-Dependent CTR Metals Criteria – modify paragraph 2 as shown in underline/strikeout format:

2. The Water Code mandates that the Central Valley Water Board establish permit terms that will ensure the reasonable protection of beneficial uses. In this case, using the lowest measured ambient hardness to calculate effluent limitations is not reasonable, because it would result in overly conservative limits that will impart substantial costs to the Discharger and ratepayers without providing any additional protection of beneficial uses. In compliance with applicable state and federal regulatory requirements, Board staff has instead used ~~an~~ the ambient hardness values shown in Table F-6 to calculate the proposed effluent limitations for hardness-dependent metals. The proposed effluent limitations will still be fully protective of all beneficial uses under all flow conditions.

3) Attachment F, Section IV.C.2.c Hardness-Dependent CTR Metals Criteria – modify second paragraph of section titled “Results of iterative analysis” as shown in underline/strikeout format:

The results of the above analysis, summarized in the tables below, show that the ambient hardness values selected using the three-step iterative process results in protective effluent limitations that achieve CTR criteria under all flow conditions. Tables F-7 and F-8 below, summarize the critical flow conditions. However, the analysis evaluated all flow conditions to ensure compliance with the CTR criteria at all times.

4) Attachment F, Section IV.C.3.c Constituents with No Reasonable Potential – Modify subsection iv.(b) for lead, v.(b) for silver, and vi.(b) for zinc as shown in underline/strikeout format:

iv. Lead.

(b) RPA Results. ~~For the effluent, the~~The applicable lead chronic criterion (maximum 4-day average concentration) is 2.3 µg/L and the applicable acute criterion (maximum (1-hour concentration) is 60 µg/L, as total recoverable, (see Table F- 6, above). Based on data collected between January 2012 and December 2014, the MEC for total lead was 0.5 µg/L. ~~For the receiving water,~~u~~Upstream~~ total lead concentration varied from 0.067 µg/L to 1.3 µg/L. Using paired hardness and lead data, the maximum ambient receiving water concentration did not exceed the applicable CTR criteria for lead. Based on this information, lead in the discharge does not exhibit reasonable potential to cause or contribute to an in-stream excursion above the CTR criterion for the protection of freshwater aquatic life.

v. Silver.

(b) RPA Results. ~~For the effluent, the~~The applicable silver acute criterion (maximum (1-hour concentration) is 2.3 µg/L, as total recoverable, (see Table F- 6, above). The MEC for total silver was 0.046 µg/L, based on data collected between January 2012 and December 2014. ~~For the receiving water, a~~All upstream total silver concentrations were non detect, based on data from 2012-2014. Using paired hardness and silver data, the maximum ambient receiving water concentration did not exceed the applicable CTR criteria for silver. Based on this information, silver in the discharge does not exhibit reasonable potential to cause or contribute to an in-stream excursion above the CTR criterion for the protection of freshwater aquatic life.

vi. Zinc.

(b) RPA Results. ~~For the effluent, the~~The applicable zinc chronic criterion (maximum 4-day average concentration) is 103 µg/L and the applicable acute criterion (maximum (1-hour concentration) is 103 µg/L, as total recoverable, (see Table F- 6, above). The MEC for total zinc was 41 µg/L, based on data collected between January 2012 and December 2014. ~~For the receiving water, u~~Upstream total zinc concentrations varied from ~~0.99~~ µg/L to 9.7 µg/L, based on data from 2012-2014. Using paired hardness and zinc data, the maximum ambient receiving water concentration did not exceed the applicable CTR criteria for zinc. Based on this information, zinc in the discharge does not exhibit reasonable potential to cause or contribute to an in-stream excursion above the CTR criterion for the protection of freshwater aquatic life.

5) Attachment F, Section IV.C.3.d Constituents with Reasonable Potential – Modify subsection xi.(b) for copper as shown in underline/strikeout format below:

xi. Copper

(b) RPA Results. ~~For the effluent, the~~The applicable copper chronic criterion (maximum 4-day average concentration) is 8.0 µg/L and the applicable acute criterion (maximum (1-hour concentration) is 12 µg/L, as total recoverable, (see Table F-9, above). The MEC for total copper was 10 µg/L, based on data collected between January 2012 and December 2014. ~~For the receiving water, u~~Upstream total copper concentration varied from 0.89 µg/L to 5.8 µg/L. Using paired hardness and copper data, the maximum ambient receiving water concentration did not exceed the applicable CTR criteria for copper. Based on this information, copper in the discharge has a reasonable potential to cause or contribute to an in-stream excursion above the CTR criterion for the protection of freshwater aquatic life upstream total copper concentration varied from 0.89 µg/L to 5.8 µg/L. Based on paired hardness and copper data, the maximum ambient receiving water concentration did not exceed the applicable CTR criteria for copper.

B) Late revisions to the Response to Comments – Modify as shown in underline/strikeout format:

1) Discharger Comment 5: Antibacksliding and Antidegradation

The Discharger does not agree with the assumption of antibacksliding requirements and antidegradation policies are applicable to the effluent limitations for copper. The copper effluent limitations in Order R5-2010-0114 (2010 permit) were the subject of administrative challenge and court litigation and they were in that sense never "final." The court found that the limitations were not lawfully adopted, and required that the limitations be vacated. Therefore, the limitations from the 2010 Order are not the correct "baseline" for antibacksliding or antidegradation purposes.

RESPONSE: The Central Valley Water Board must determine if the permit complies with state and federal antidegradation requirements and federal antibacksliding requirements if a discharge will lower water quality or a permit contains limits less stringent than the prior permit. ~~The Board determined that antidegradation and antibacksliding requirements were satisfied when it adopted Order 2010-0114.~~ The effluent limits for copper in this Order R5-2010-0114-04 are not less stringent than the limits contained in previous Order 5-00-188 (2000 permit), which is the baseline for backsliding because the CSPA Court Decision vacated the limits in the 2010 permit. That determination is final. Because this Order would allow a minor increase in the amount of copper discharged compared to Order R5-2010-0114, a backsliding and antidegradation evaluation was conducted. The baseline for backsliding should be the 2000 Permit which included no effluent limits for copper. However, if backsliding must be considered CWA section 402(o)(2) provides several exceptions to the anti-backsliding regulations. CWA 402(o)(2)(B)(i) allows a renewed, reissued, or modified permit to contain a less stringent effluent limitation for a pollutant if information is available which was not available at the time of permit issuance

(other than revised regulations, guidance, or test methods) and which would have justified the application of a less stringent effluent limitation at the time of permit issuance. The proposed permit amendment includes revised effluent limitations for copper that are less stringent than the effluent limitations adopted in Order R5-2010-0114. The revised effluent limitations are based on updated receiving water hardness data since adoption of Order R5-2010-0114. The new receiving water hardness data submitted by the Discharger is considered new information by the Central Valley Water Board. Furthermore, CWA section 402(o)(1) provides an exception to the anti-backsliding regulations if the change is in compliance with Section 303(d)(4). For attainment waters, CWA section 303(d)(4)(B) specifies that a limitation based on a water quality standard may be relaxed where the action is consistent with the antidegradation policy. The Sacramento River is considered an attainment water for copper, and relaxation of the effluent limits complies with federal and state antidegradation requirements. Thus, relaxation of the effluent limitations for copper from Order R5-2010-0114 meets the exception in CWA section 303(d)(4)(B).

We agree with the Discharger's comment that "if antibacksliding principles apply, there is an applicable exception, and if antidegradation applies, the policy is satisfied." Based on a review of the Discharger's antidegradation analysis prepared in support of the 2010 permit, staff finds that the antidegradation analysis that was relied upon for the antidegradation findings for the 2010 permit renewal is applicable for the proposed permit amendment. Relaxation of the effluent limitations for copper from the 2010 permit meets state and federal antidegradation requirements and a federal antibacksliding exception.

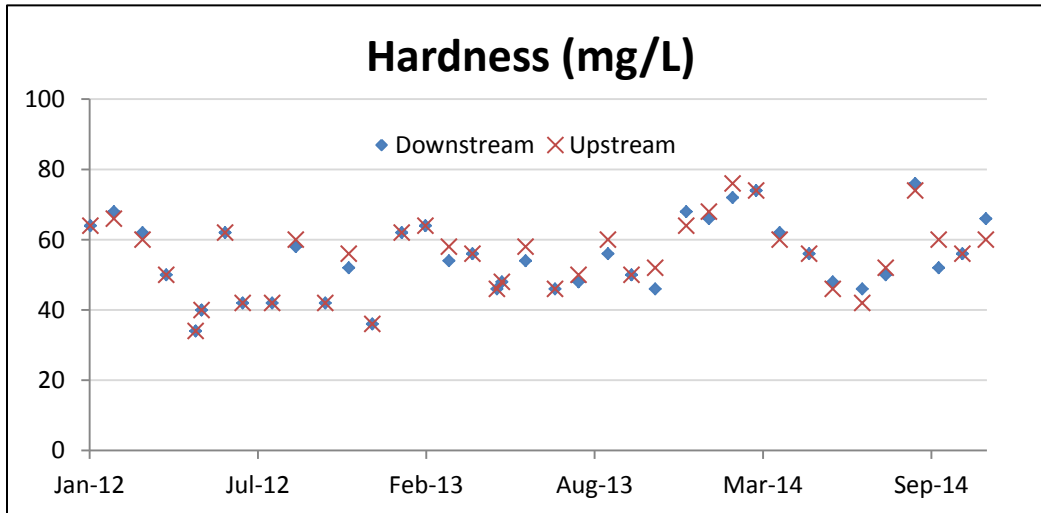
2) USEPA Comment 1: Hardness for Copper

USEPA supports that the tentative order establishes water quality criteria and effluent limits based on the hardness of the receiving water, consistent with the California Toxics Rule (CTR) and *the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP). USEPA is concerned, however, with the hardness value (84 mg/L) used to compute the effluent limitations for copper as it is outside the ambient hardness values in downstream waters (34 to 76 mg/L). Therefore, USEPA requested further clarification regarding how Central Valley Water Board staff's approach for selecting hardness value and corresponding metal effluent limitations are sufficiently protective to meet CTR criteria in downstream waters to ensure that water quality criteria are not exceeded more than once in a three year period on average.

RESPONSE: The SIP and the CTR require the use of "receiving water" or "actual ambient" hardness, respectively, to determine effluent limitations for the CTR hardness-dependent metals (SIP, § 1.2; 40 CFR § 131.38(c)(4)). The CTR does not define whether the term "ambient," as applied in the regulations, necessarily requires the consideration of upstream or downstream hardness conditions. ~~The receiving water hardness has a large range (e.g., ranging from 34 mg/L to 100 mg/L). More upstream hardness data is available than downstream data, so all data were used to ensure an adequate dataset was considered in the evaluation.~~ USEPA states that the upstream hardness value (84 mg/L) used to compute the effluent limitations for copper is outside the actual measured ambient hardness values in downstream waters (34 to 76 mg/L) and requested clarification for how the criteria are adequately protective. Board staff considered the entire range of measured ambient hardness values upstream and downstream of the discharge (34 mg/L to 100 mg/L), because the dataset is representative of the actual ambient hardness of the receiving water for purposes of calculating the CTR criteria. As

illustrated by Figure 1 below, when sampled on the same day upstream and downstream hardness is essentially the same (i.e., downstream hardness is at times slightly higher or slightly lower, but is relatively the same as upstream hardness). When the upstream hardness value of 84 mg/L was sampled a corresponding downstream hardness sample was not collected. However, it is expected that downstream hardness would have been similar to upstream hardness.

Figure 1, Comparison of Upstream and Downstream Hardness



The CTR requires that the receiving water hardness used in the equations is consistent with design low flow conditions. When the hardness data is graphed as a function of river flow there is no relationship between flow and hardness. Therefore, no single hardness value describes the ambient receiving water for the design low flow conditions, or for any flow condition, high or low. In compliance with the CTR, the sampled hardness value of 84 mg/L is the actual ambient hardness measured in the receiving water. The Fact Sheet (Table F-7) verifies compliance with the CTR under reasonable worst-case conditions (i.e., including an assumption the receiving water hardness is at the lowest observed hardness of 34 mg/L, which was measured both upstream and downstream of the discharge on 8 May 2012). The verification step demonstrates that copper effluent limitations based on actual ambient hardness value of 84 mg/L will ensure protection of water quality and beneficial uses under all flow conditions.

Central Valley Water Board staff used an iterative approach to select the appropriate actual measured ambient hardness to calculate the CTR criteria. As described in the Fact Sheet of the permit (page F-33); because there are numerous ambient hardness values, the approach involved:

1) Limit calculation step- selection of an ambient hardness value and calculate effluent limits,

2) Verification step – verify that the effluent limits are protective under reasonable worst-case ambient conditions, and

3) Select or adjust step – If effluent limits are protective under step 2, select the ambient hardness value and calculated effluent limitations. If effluent limits are not protective

under step 2 select a lower ambient hardness and re-calculate (i.e., return to step 1) until an ambient hardness value is found that is fully protective of CTR criteria.

Because there are numerous ambient hardness values that may be used, staff initiated the above procedure using the maximum ambient receiving water hardness (100 mg/L).

Verification step discussion (step 2 above)

To determine whether a selected ambient hardness value results in fair and reasonable effluent limitations that are fully protective, staff have conducted an analysis considering varying ambient hardness and flow conditions under reasonable-worst case ambient conditions. These conditions represent the receiving water conditions under which derived effluent limitations would ensure protection of beneficial uses under all ambient flow and hardness conditions.

The reasonable worst-case ambient conditions consist of the following:

- “Low receiving water flow.” CTR design discharge conditions (1Q10 and 7Q10) have been selected to represent reasonable worst case receiving water flow conditions.
- “High receiving water flow (maximum receiving water flow).” This additional flow condition has been selected consistent with the Davis Order, which required that the hardness selected be protective of water quality criteria under all flow conditions.
- “Low receiving water hardness.” The minimum receiving water hardness condition of 34 mg/L was selected to represent the reasonable worst case receiving water hardness (measured both upstream and downstream on 8 May 2012).
- “Upstream ambient metal concentration at criteria.” This condition assumes that the metal concentration in the upstream receiving water is equal to CTR criteria (upstream of the facility’s discharge).

Under these reasonable worst-case ambient conditions USEPA’s simple mass balance equation is used to model the impacts of the discharge in the receiving water and estimates the hardness and metals concentration at ambient conditions.

Using USEPA’s simple mass balance equation, maximum discharge in compliance with the effluent limitations is assumed. The worst case ambient receiving water metal concentration is then compared with the calculated CTR criteria under the reasonable worst-case ambient conditions. Table F-7 of the proposed permit amendment (see below), summarizes ~~the~~ this evaluation for copper. The table shows that when an ambient hardness of 84 mg/L is used to calculate the CTR criteria for the copper effluent limits, the discharge does not result in an exceedance of the CTR criteria in the ~~downstream~~ receiving water. This is shown by the ambient copper concentrations not exceeding the CTR criteria. Using an ambient hardness value higher than 84 mg/L to calculate effluent limitations results in an exceedance of the CTR criteria in the receiving water. Using ambient hardness values of 84 mg/L and lower to calculate effluent limitations, results in full compliance with the CTR criteria in the receiving water. Therefore, Board staff found that a hardness value of 84 mg/L was appropriate to calculate a copper effluent limit that is protective under all ambient conditions.

Table F-7. Verification of CTR Compliance for Copper

Receiving water hardness used to compute effluent limitations				84 mg/L
Effluent Concentration Allowance for Copper				8.0 µg/L
Effluent Limitations for Copper				7.4/10² µg/L
	Downstream Ambient Concentrations Under Worst-Case Ambient Receiving Water Conditions			Complies with CTR Criteria?
	Hardness	CTR Criteria (µg/L)	Ambient Copper Concentration¹ (µg/L)	
1Q10	36.7	4.0	3.9	Yes
7Q10	36.4	3.9	3.9	Yes
Max receiving water flow	34.2	3.7	3.7	Yes

1. This concentration is derived using worst-case ambient conditions. These conservative assumptions will ensure that the receiving water always complies with CTR criteria.
2. Average monthly effluent limit of 7.4 µg/L and maximum daily effluent limit of 10 µg/L were calculated based on the effluent concentration allowance in accordance with section 1.4 of the SIP.

3) CSPA Comment 1-4: CTR Hardness Dependent Metals

CSPA comments that the proposed Permit 1) fails to identify the proper 1Q10 and 7Q10; 2) selects a technically unjustified high hardness value to represent a worst-case scenario; 3) fails to identify and use the lowest sampled hardness data contrary to state and federal regulations requiring the use of all valid, relevant and representative data; and 4) makes unsupported conclusory statements regarding hardness and the need to use discretion in selecting worst-case protective hardness values.

RESPONSE:

Fails to identify the proper 1Q10 and 7Q10

The CTR contains water quality criteria for seven metals that vary as a function of hardness. The lower the hardness the lower the water quality criteria. The metals with hardness-dependent criteria include cadmium, copper, chromium III, lead, nickel, silver, and zinc. The proposed Order has established the criteria for hardness-dependent metals based on the hardness of the receiving water (actual ambient hardness) as required by the SIP and the CTR.

The CTR requires that the hardness values used shall be consistent with the design discharge conditions for design flows and mixing zones. Where design flows for aquatic life criteria include the lowest one-day flow with an average reoccurrence frequency of once in ten years (1Q10) and the lowest average seven consecutive day flow with an average reoccurrence frequency of once in ten years (7Q10). This section of the CTR also indicates that the design conditions should be established such that the appropriate criteria are not exceeded more than once in a three year period on average.

CSPA comments that, "Apparently, Regional Board staff didn't examine flows from the United States Geological Survey (USGS) gage at Freeport, immediately upstream of the wastewater treatment plant. The average daily tidally filtered flow at Freeport on 8 May 2014 was 4,464 cfs. The seven-day average flow between 3 May and 10 May 2014 was

4,960 cfs. Consequently, the 1Q10 is actually 596 cfs less than the Regional Board claims and the 7Q10 is 889 cfs less. The proposed Permit overestimated the 1Q10 and 7Q10 by 12% and 15%, respectively.”¹ CSPA’s contention that the Regional Board incorrectly calculated the 1Q10 and 7Q10 receiving water flows because the flows were lower in May 2014 is not correct. The 1Q10 and 7Q10 low flows are determined statistically and represent the lowest flows with a statistical return frequency of once every 10 years. It is not appropriate to evaluate only one period in time when determining these flows. The calculations in the proposed Order are based on the historical Sacramento River flows at Freeport from 1970 to 2009 and have been calculated appropriately. This 30 year period includes critically dry, dry, normal, above normal, and wet periods and thus correctly establishes the lowest flows with a statistical return frequency of once every 10 years.

Regardless, the iterative approach for selecting the appropriate ambient hardness considered all flow conditions, including Sacramento River flow conditions as CSPA contends are the appropriate 1Q10 and 7Q10 flows. The verification step evaluates all possible flow conditions and ensures compliance with the CTR. As an example for copper, Table 1, below, shows that at the Sacramento River flows suggested by CSPA for the 1Q10 and 7Q10 flows, compliance with the CTR criteria is assured under worst-case ambient conditions.

Table 1. CTR Compliance Verification for Copper

<u>Receiving water hardness used to compute effluent limitations</u>		<u>84 mg/L</u>		
<u>Effluent Concentration Allowance for Copper</u>		<u>8.0 µg/L</u>		
<u>Sacramento River Flow</u>	<u>Downstream Ambient Concentrations Under Worst-Case Ambient Receiving Water Conditions</u>			<u>Complies with CTR Criteria?</u>
	<u>Hardness</u>	<u>CTR Criteria (µg/L)</u>	<u>Ambient Copper Concentration¹ (µg/L)</u>	
<u>CSPA 1Q10 (4464 cfs)</u>	<u>37.6</u>	<u>4.0</u>	<u>4.0</u>	<u>Yes</u>
<u>CSPA 7Q10 (4960 cfs)</u>	<u>37.3</u>	<u>4.0</u>	<u>4.0</u>	<u>Yes</u>

4) CSPA Comment 10: Temperature Limits and the Thermal Plan

RESPONSE: Central Valley Water Board staff does not concur. The findings regarding the proposed Thermal Plan exceptions in the permit amendment includes a detailed history of the consultations with the fishery agencies. The proposed permit amendment continues the Thermal Plan exceptions that were allowed in the 2000 permit (Order 5-00-188). During the 2010 permit renewal process, Central Valley Water Board staff consulted with the fishery agencies regarding the proposed Thermal Plan exceptions.

¹ Letter from California Sportfishing Protection Alliance to Central Valley Water Board, 19 June 2015 (CSPA Comment Letter), pg. 9

Historic information from 2010 permit renewal. Staff issued a public scoping document regarding aquatic life and wildlife preservation related issues and provided the scoping document for public review and comment. NMFS² stated, "...listed species have sufficient swimming abilities to readily avoid the thermal component of this stressor." However, NMFS expressed concerns that the area of thermal mixing at the outfall diffuser had a potential to attract non-native predators of the listed species under the Endangered Species Act (ESA)³ and recommended a predation study be performed. USFWS⁴ recommended the exception from Order 5-00-188 be retained and no further exception be permitted, and also recommended a predation study be performed and to evaluate the thermal impacts to delta smelt. CDFW supported the inclusion of a temperature study to evaluate the protection of delta smelt and the Sacramento River biota.

New developments since 2010 permit renewal. After adoption of the 2010 Order, the Discharger contracted with Robertson-Bryan, Inc. to begin development of a work plan for conducting the temperature study. The fishery agencies participated in the development of the study work plan, and in March 2013, the Discharger submitted the required temperature study, "Temperature Study to Assess the Thermal Impacts on the Sacramento Regional Wastewater Treatment Plant Discharge on Aquatic Life of the Lower Sacramento River" (RBI 2013), to address the concerns of the fishery agencies. NMFS⁵ reviewed the study in June 2014 and found that the Thermal Plan exceptions would not cause thermal exposures that impact aquatic species. USFWS⁶ reviewed the study and recommended that the Discharger modify the current study or provide additional analyses on delta smelt.

In May 2015, the Discharger submitted an addendum developed by Robertson-Bryan, Inc, "Temperature Study to Assess the Thermal Impacts on the Sacramento Regional Wastewater Treatment Plant Discharge on Aquatic Life of the Lower Sacramento River: Delta Smelt Addendum" (RBI 2015). This addendum assessed the potential direct and indirect effects of the thermal discharge on all delta smelt life stages such as adults, larvae, and post-spawn adults, and on delta smelt critical habitat. The Central Valley Water Board consulted with USFWS. The USFWS reviewed the addendum and found that the addendum responds to its concerns and the temperature study is complete for the evaluation of Thermal Plan exceptions. However, under the time constraints of the Court mandated permit amendment USFWS could not provide further recommendations. USFWS plans to review the Temperature Study in more detail and may provide additional recommendations during the upcoming permit renewal scheduled for early 2016.

The federal regulations do not require approval of the Thermal Plan exceptions by the fishery agencies. In this case however, Regional Board staff have consulted Based on the consultations with the fishery agencies as discussed above and in more detail in the Fact Sheet, and the Central Valley Water Board has made the appropriate findings for allowance of the Thermal Plan exceptions. The Discharger has demonstrated that Effluent and Receiving Water Limitations based on the Thermal Plan are more stringent than necessary to assure the protection and propagation of a balanced, indigenous

² Letter from NMFS to the Central Valley Water Board dated 12 September 2010 (NMFS 2010).

³ Specifically, Sacramento River winter-run Chinook Salmon (*Oncorhynchus tshawytscha*), Central Valley spring-run Chinook salmon (*O. tshawytscha*), California Central Valley steelhead (*O. mykiss*), and the Southern distinct population segment of North American green sturgeon (*Acipenser medirostris*).

⁴ Letter from USFWS to Central Valley Water Board dated 18 August 2010 (USFWS 2010).

⁵ Letter from NFMS to Central Valley Water Board dated 2 June 2014 (NMFS 2014).

⁶ Letter from USFWS to Central Valley Water Board dated 18 December 2013 (USFWS 2013).

community of shellfish, fish, and wildlife in and on the body of water into which the discharge is made. This demonstration has shown the Effluent and Receiving Water Limitations for temperature in the proposed permit amendment are sufficient, considering the cumulative impact of the thermal discharge together with all other significant impacts on the species affected, to assure the protection and propagation of a balanced, indigenous community of shellfish, fish and wildlife in and on the body of water into which the discharge is made. The permit includes a reopening provision that allows the permit to be reopened and modified if additional information/recommendations are provided by the fishery agencies regarding the exceptions. Furthermore, changing conditions associated with climate change and the recent drought has highlighted the need to re-evaluate permit conditions periodically. All permit conditions, including the Thermal Plan exceptions are evaluated every 5-years as part of permit renewals. This includes consultation with resource agencies.

C) Late revisions to the Buff Sheet as shown below in underline/strikeout format.

Antibacksliding and Antidegradation. The Discharger does not agree with the assumption of antibacksliding requirements and antidegradation policies are applicable to the effluent limitations for copper. The copper effluent limitations in Order R5-2010-0114 were the subject of administrative challenge and court litigation and they were in that sense never "final." Therefore, the limitations from the 2010 permit are not the correct "baseline" for antibacksliding or antidegradation purposes. CSPA comments that the proposed Permit does not contain an adequate antidegradation analysis and does not comply with federal antibacksliding regulations.

Response: ~~The copper effluent limits established in the 2010 permit were in effect upon the effective date of the permit in early 2011. The Court ordered the Board to vacate and recalculate effluent limits in its October 2014 Order. Because the Court ordered the Board to vacate and recalculate effluent limits for hardness dependent metals, the baseline for compliance with antibacksliding rules should be the 2000 Permit which included no effluent limits for copper. Therefore, the effluent limits for copper in this Order R5-2010-0114-04 are not less stringent than the limits contained in previous Order 5-00-188. However, even if backsliding must be considered, CWA section 402(o)(1) and CWA section 402(o)(2)(B)(i) provide several exceptions to the anti-backsliding regulations. The limits established in the 2010 permit are in effect until vacated and recalculated. A backsliding and antidegradation analysis evaluation must be conducted because in this Order we are relaxing effluent limits and allowing additional degradation from the prior "final" permit.~~

The Clean Water Act allows a renewed, reissued, or modified permit to contain a less stringent effluent limitation for a pollutant if information is available which was not available at the time of permit issuance which would have justified the application of a less stringent effluent limitation at the time of permit issuance. The revised effluent limitations are based on updated receiving water hardness data since adoption of Order R5-2010-0114. The new receiving water hardness data submitted by the Discharger is considered new information and satisfies the antibacksliding exception.

Furthermore, the Clean Water Act provides an exception if the relaxation is in compliance with antidegradation requirements. The proposed effluent limits for copper are essentially equivalent to the effluent limits adopted in the 2010 permit. The average monthly limit is increased by only 0.1 µg/L. Consequently, based on a review of the Discharger's antidegradation analysis prepared in support of the 2010 permit, staff finds that the

antidegradation analysis that was relied upon for the antidegradation findings for the 2010 permit renewal is applicable for the proposed permit amendment. Thus, relaxation of the effluent limitations for copper from the 2010 permit meets state and federal antidegradation requirements and a federal antibacksliding exception.