

**Response to Written Comments
and
Staff Initiated Changes**

**Draft Waste Discharge Requirements Order No. R1-2017-0007
National Pollutant Discharge Elimination System (NPDES)
for the City of Rio Dell Wastewater Treatment Plant**

**Regional Water Quality Control Board, North Coast Region
August 17, 2017**

Comment Letter Received

The deadline for submittal of public comments regarding draft Waste Discharge Requirements for Order No. R1-2017-0007, National Pollutant Discharge Elimination System Permit (Draft Permit) for the City of Rio Dell Wastewater Treatment Facility was December 18, 2016. The City of Rio Dell (Permittee) provided timely comments.

To facilitate and better organize responses to the comments received, Regional Water Board staff (Staff) grouped several of the Permittee's comments by topic and other comments are responded to individually. Each topically grouped or individual comment is assigned an item number (1, 2, 6.a, etc.) that is not to be confused with the Permittee's Comment numbers. Topically grouped items indicate which comments are being addressed and responded to by including the Permittee's comment number in parentheses following the bold type statement identifying the topic or permit section addressed by the comment.

Each topical or individual comment is followed by the Staff response. When the Permittee's comment is quoted exactly, the text is included in italics. Where appropriate, text to be added in response to the Permittee's comments is described by section number. Where added text is included word for word, text to be added is identified by underline, and text to be deleted is identified by strike through in this Response to Comments document.

Use of the term "Draft Permit" refers to the public review draft. Use of the term "Proposed Permit" refers to the post-public review version of the permit that will be presented to the North Coast Regional Water Quality Control Board (Regional Water Board) for consideration of adoption.

A. Topical Comments and Responses

1. Request for De-Designation of the Municipal (MUN) Beneficial Use (Cover letter, 13, 45, 72-73)

The municipal drinking water (MUN) beneficial use is not appropriately designated below our effluent outfall to the Eel River and we would like to discuss how to de-designate that use in accordance with the Vacaville order by the State Water Resources Control Board in 2002. ... Forcing the City to meet stringent human health-based criteria from the California Toxics Rule (CTR) and Title 22 Maximum Contaminant Levels (MCLs) is not

appropriate to protect a non-existent use. The City's comment letter includes documents that summarize their research into water rights downstream of the City's discharge.

Response: Beneficial uses identified in the *Water Quality Control Plan for the North Coast Region* (Basin Plan) apply to existing and potential, as well as past, present and future uses. The Basin Plan establishes the MUN beneficial use for all North Coast Region waterbodies that are suitable, or potentially suitable for municipal and domestic water supply, unless the water body does not meet the conditions established in the State Water Board Resolution 88-63, *Sources of Drinking Water Policy* (Policy). The Policy identifies the following conditions that exempt a water body as a source of drinking water: the total dissolved solids (TDS) exceed 3,000 mg/L (5,000 uS/cm, electrical conductivity) and it is not reasonably expected by regional water boards to supply a public water system; there is contamination, either by natural processes or by human activity (unrelated to the specific pollution incident), that cannot reasonably be treated for domestic use using either Best Management Practices or best economically achievable treatment practices; or the water source does not provide sufficient water to supply a single well capable of producing an average, sustained yield of 200 gallons per day.

The specific circumstances in the State Water Board Vacaville decision cited by commenter do not apply here. In that decision, the State Water Board acknowledged that evidence in the Central Valley Water Board's record suggested that de-designation of MUN use in Old Alamo Creek was likely supported. The evidence suggested that the entire natural flow of the Creek had been diverted, the Creek's flow was only effluent from a treatment plant, it had never been a source of municipal water, and likely would never be a municipal source because of the limited flow and existing water quality. Those factors are not present in the Lower Eel River.

Furthermore, the Basin Plan uses the federal definitions of existing and potential to identify beneficial uses for waterbodies. Existing uses are those uses that were attained in a waterbody on or after November 28, 1975 (the date of the first Water Quality Standards Regulation published by U.S. EPA in 40 CFR part 131.3(e)). Potential uses are established for any of the following reasons: (1) the use existed prior to November 28, 1975; (2) plans already exist to put the water to that use; (3) conditions make such future use likely; (4) the water has been identified as a potential source of drinking water based on the quality and quantity available per the Policy; (5) existing water quality does not support these uses, but remedial measures may lead to attainment in the future; or (6) there is insufficient information to support the use as existing, however, the potential for the use exists and upon future review, the potential designation may be re-designated as existing.

The Basin Plan correctly identifies the drinking water (MUN) beneficial use for the Lower Eel River based on the Policy and federal definitions. In addition, although the City of Rio Dell's water supply intakes are upstream of its treated wastewater discharge, this fact further demonstrates that the Lower Eel River has an existing MUN use. Downstream of Rio Dell, the City of Fortuna's, and Palmer Creek CSD's water supply

intakes are from wells adjacent to the Eel River and the groundwater could be influenced by flows from the Eel River. Domestic water supply by individual property owners utilizing relatively shallow groundwater wells adjacent to the Eel River are also likely to occur.

Once a use has been designated for a particular waterbody or segment, that use may not be removed from the water quality standards except under specific conditions. To remove a designated use, the state must demonstrate that attaining that use is not feasible because of any one of six factors listed in 40 C.F.R. section 131.10(g) that prevent the attainment of the use, including the presence of naturally occurring pollutant concentrations; natural, ephemeral, intermittent or low flow conditions or water levels; human caused conditions or sources of pollution that cannot be remediated; dams, diversions or other types of hydrologic modifications; physical conditions related to the natural features of the water body that are unrelated to water quality; and controls more stringent than those required by the federal regulations would result in substantial and widespread economic and social impact.

No changes were made to the Proposed Permit in response to this comment.

2. Request for Dilution Credits/Mixing Zone (Cover letter, 13, 45, 74, 92, 93)

The Permittee asserts that water quality-based limits should reflect a dilution credit of up to 100:1 dilution because discharges are only allowed when effluent is 1% of the receiving water flow.

Response: The Basin Plan requirement for discharges not to exceed one percent of the receiving stream's flow is a flow limitation, not a dilution credit. The flow limitation requirement ensures protection of the receiving water at the end of pipe. This flow limitation was established in the Basin Plan beginning in the 1970s based on Department of Health Services, Office of Drinking Water (now the State Water Board Division of Drinking Water) view that discharges of wastewater to surface waters used for drinking water should not be allowed to occur if reasonable alternatives are available and that where reasonable alternatives are not available, discharges should be limited to one percent of the receiving water flow to ensure human health protection (*April 21, 1993, DHS letter from Bruce Burton to Theresa Wistrom, North Coast Regional Board staff*). This flow limitation provides protection of all beneficial uses in a receiving stream.

The State Water Board *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP) allows regional water boards, on a discretionary basis, to establish and determine compliance with priority pollutant criteria/objectives or the toxicity objective by granting mixing zones and dilution credits to dischargers in accordance with the provisions of the SIP. A mixing zone is established based on a dilution study to establish the mixing characteristics of the effluent with the receiving water and to demonstrate that allowance of a mixing zone is protective of beneficial uses. When authorized, a

mixing zone must be as small as practicable and cannot adversely impact beneficial uses. The Permittee has not submitted a formal request for a mixing zone. To make a formal request, the Permittee would need to submit a work plan for review and approval by the Executive Officer prior to initiating a mixing zone study. This important step would ensure the SIP is followed by the Staff and the Permittee.

No changes were made to the Proposed Permit in response to this comment.

- 3. Request for Compliance Schedule (45).** Provision VI.C.7, Compliance Schedules. *As previously discussed, if no dilution is granted, then the City should be granted a time schedule that would allow time to come into compliance or de-designate the MUN use driving those limits as prescribed in the State Water Board's Vacaville decision, Order No. WQO 2002-2015 at p. 17 ("where a Regional Water Quality Control Board (Regional Board) has evidence that a designated use does not exist and likely cannot be feasibly attained, it is unreasonable to require a discharger to incur control costs to protect that use. This is true at least in the interim until the Regional Board either successfully amends the basin plan to de-designate the use or determines that the use cannot be legally dedesignated. At a minimum, where a Regional Board has evidence that a use neither exists nor likely can be feasibly attained, the Regional Board must expeditiously initiate appropriate basin plan amendments to consider dedesignating the use.").*

Response: See Responses to Items A.1 and A.2, above. The Permittee may request consideration of a compliance schedule to provide time for the Permittee to comply with water quality-based effluent limitations for chlorine disinfection by-products (dichlorobromomethane, chlorodibromomethane, Total Trihalomethanes, and Haloacetic Acids). During a telephone meeting on May 2, 2017, Staff discussed this option with the Permittee and, on May 3, 2017, sent the Permittee an email with guidance for requesting a compliance schedule. On July 19, 2017, the Permittee submitted a letter that requests a compliance schedule. The SIP only authorized compliance schedules to be established in permits through May 18, 2010, therefore, the compliance schedule will be included in a Time Schedule Order to be issued by the Executive Officer following adoption of the Proposed Permit.

Section VI.C.7 of the Proposed Permit has been modified to acknowledge that a compliance schedule for chlorine disinfection by-products will be established in a Time Schedule Order.

- 4. Requests to Modify Chronic Toxicity Test Procedures and Statistics (Cover letter, 18, 48, 57, 61, 63, 64, 65, 97,98, 99, 100, 101, 102, 103, 104, 105, 106, and unnumbered comments)**
- a. The Permittee asserts that the Regional Water Board doesn't have the authority to use un-promulgated chronic toxicity test procedures and that only test methods and procedures endorsed by the U.S. EPA and included in Part 136 of the Code of Regulations can be required. In addition, the Permittee asserts that the State Water Board's Order No. 2003-0012 is precedential, and the Regional Water Board has no

authority to deviate from the requirements of that Order, which require a narrative limit for chronic toxicity if reasonable potential exists, and a numeric trigger based on chronic toxicity units with credit for dilution. In several unnumbered comments, the Permittee suggests changes to the chronic toxicity language in MRP sections V.B.8, V.B.9, and V.C.2 to remove requirements to use the Test of Significant Toxicity (TST) statistical approach.

- b. In Comments 96 and 106, the Permittee states that it believes that the Draft Permit establishes numeric chronic toxicity effluent limitations even though it states the intent to establish a narrative chronic toxicity effluent limitation.
- c. In Comment 48, the Permittee states that the *compliance determination language for chronic toxicity is inconsistent with the chronic toxicity compliance language proposed in the Draft Permit for Fortuna.*

Response: Staff believes that the TST is an appropriate hypothesis-testing approach for analyzing Whole Effluent Toxicity (WET) data.

- a. Staff do not agree with the Permittee's interpretation of State Water Board Order 2003-0012. That Order does not, as the Permittee claims, require the regional water boards to utilize the same approach in every case. In fact, the State Water Board specifically stated it would not discuss the discharger's claims that the Regional Water Board cannot adopt numeric effluent limitations to implement narrative toxicity water quality objectives in the Basin Plan.

The TST approach is supported by the U.S. EPA in the published guidance document titled, *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, June 2010), in which they recommend that "Permitting authorities should consider adding the TST approach to their implementation procedures for analyzing valid WET data for their current NPDES WET Program." Moreover, the U.S. EPA WET Test Method cited in this NPDES permit, *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms* (EPA-821-R-02-014, October 2002, section 9.4.1.2), recognizes that, "the statistical methods in this manual are not the only possible methods of statistical analysis."

The TST approach was determined by a U.S. EPA peer review to be reasonable and defensible. The State Water Board also initiated an academic peer review focusing on the TST approach for its Draft Toxicity Policy. The peer review concluded that the TST is a "...major advance from the currently compromised No Observed Effect Concentration (NOEC) approach," and "... is statistically sound, reduces burden associated with the assays, and, by structuring the assay around a hypothesis of significant toxicity, provides incentive for precision in assay performance." In addition, the State Water Board published a report titled, *Effluent, Stormwater, and Ambient Toxicity Test Drive Analysis of the Test of Significant Toxicity [TST]*, 2011, that compared the results of over 3,000 completed toxicity tests using both the TST

and traditional NOEC approach, among others. The analysis showed that the results of the NOEC and TST are generally the same, but that the TST correctly identified truly non-toxic samples more often than the NOEC approach.

The TST approach is considered more rigorous than the NOEC hypothesis test because it: (1) provides a definitive value on whether a sample is toxic or not at the concentration of effluent in the receiving water after mixing, referred to as the in-stream waste concentration (IWC), rather than an interpreted value as determined by the NOEC approach, and (2) is simpler to use than traditional hypothesis methods and point estimate techniques. In addition, because the TST approach requires only two sets of observations, the effluent's IWC and the control concentration, instead of the usual five-concentration test, the Permittee may realize cost savings for each chronic toxicity test conducted. The TST language in the Proposed Permit currently requires the five-concentration test because 40 C.F.R. part 136 currently requires use of the five-concentration test design for toxicity testing. Nonetheless, cost savings should be realized in the form of time and effort saved because the statistical analysis only needs to be run on two concentrations (control and 100% effluent) instead of five concentrations.

The Proposed Permit retains the requirement for the Permittee to use the TST approach for analyzing toxicity data. In addition, all reporting requirements identified in MRP section V.B.9 ensure completeness of reporting the data. Until the State Water Board Toxicity Policy is adopted, accelerated monitoring data must be evaluated using the NOEC statistical approach.

- b. Language in the Proposed Permit has been modified to provide clarification that the TST "Pass/Fail" endpoint is a trigger and not a numeric effluent limitation. The proposed changes are as follows:

Effluent Limitation IV.A.1.e has been modified to read as follows: "**Chronic Toxicity.** As measured at Monitoring Location EFF-001, there shall be no chronic toxicity in the effluent when discharging to the Lower Eel River. Compliance with this narrative chronic toxicity effluent limitation shall be determined in accordance with section VII.J of this Order and sections V.B and V.C of the MRP (Attachment E).

The Compliance Determination language in section VII.J of the Proposed Permit has been modified as follows: "Compliance with the accelerated monitoring and TRE provisions specified in the MRP (Attachment E, sections V.B.8 and V.C) shall constitute compliance with the narrative chronic toxicity requirement specified as Effluent Limitation IV.A.1.E. The MRP, section V.B.6.a, further describes how a determination of Pass/Fail shall be made. The narrative chronic toxicity limitation is exceeded when a chronic toxicity test, analyzed using the TST approach, results in "Fail" and the "Percent Effect" is ≥ 0.50 . The relative "Percent (%) Effect" at the discharge Instream Waste Concentration (IWC) is defined and reported as: $((\text{Mean control response} - \text{Mean discharge IWC response}) \div \text{Mean control response}) \times 100$. The chronic toxicity IWC for a chronic toxicity test is 100 percent effluent. In

addition, compliance with the accelerated monitoring and TRE provisions identified in the MRP (Attachment E, section V.B. and V.C.) is further required.

The Accelerated Monitoring Requirements language in MRP section V.B.8 of the Proposed Permit has been modified to read as follows, “~~The trigger for a~~Accelerated monitoring for chronic toxicity is ~~exceeded~~triggered when a chronic toxicity test, analyzed using the TST approach, results in “Fail” and the “Percent Effect” is ≥ 0.50”

The last paragraph of Fact Sheet section IV.C.5.c has been modified as follows, “This Order also includes a narrative chronic toxicity limitation as required by state Water Board Order No. WQO 2003-0012. Chronic WET limitations will be established if future monitoring results demonstrate that discharges from the Facility are causing or contributing to chronic toxicity in the receiving water.”

Until such time that numeric effluent limitations are established for chronic toxicity, the Pass/Fail endpoint is being used strictly as a trigger that requires initiation of accelerated monitoring and potential implementation of a toxicity reduction evaluation (TRE).

- c. TST language in the Rio Dell and Fortuna permits has been reviewed and changes have been made to ensure that the language is consistent between the two permits.

5. Reasonable Potential Analyses for Acute Toxicity, Chronic Toxicity, Haloacetic Acids, and Ammonia and Requests for Removal of Effluent Limitations

The Permittee included comments expressing concerns about the reasonable potential analysis included in the permit as follows:

- a. **Acute Toxicity (16, 62, 71, 90, 94).** The Permittee is concerned that the Draft Permit does not include a discussion of reasonable potential for acute toxicity and believes that data collected during the last five years demonstrates that there is no reasonable potential for acute toxicity. The Permittee requests that effluent limitations for acute toxicity be removed and replaced by an acute toxicity trigger.

Response: Acute toxicity effluent limitations are included in all permits for municipal wastewater treatment plants to ensure compliance with the Basin Plan water quality objective for toxicity which states “... effluent limits based upon acute bioassays of effluents will be prescribed” and at a minimum, “...compliance with this objective shall be evaluated with a 96-hour bioassay.” Based on a review of acute toxicity data submitted by the Permittee during the term of the previous Order, which demonstrated compliance with the acute toxicity effluent limitation, Staff reduced the monitoring frequency for acute toxicity from two times per year to annually. This is the minimum frequency allowed per U.S.EPA Form 2A Toxicity Testing Data requirements that specify annual testing in the four and one-half year

period prior to the application for reissuance of a NPDES permit or quarterly testing for a 12-month period within the past one year prior to the application.

In Comment 62, the Permittee states that “The limit is no acute toxicity” and recommends removal of the word “limitation” to the acute toxicity accelerated monitoring requirements in section V.A.8 of the MRP. The Permittee’s proposed changes appear to interpret the acute toxicity limitation as a trigger. However, Effluent Limitation IV.A.1.d of the Proposed Permit establishes the requirement that “There shall be no acute toxicity in treated wastewater discharged to the Lower Eel River.” as an effluent limitation.

Except for reducing the monitoring frequency, no changes were made to the Proposed Permit in response to these comments.

- b. Chronic Toxicity (18, 64, 87, 95, 106, 113)** The Permittee made the following comments regarding the chronic toxicity reasonable potential analysis:
- i.** the chronic toxicity reasonable potential analysis should be based only on the last three years of data;
 - ii.** there does not appear to be reasonable potential for chronic toxicity, since there was only one issue related to foaming and that was resolved.
 - iii.** the reopener provision in the Draft Permit would allow the permit to be reopened to add chronic toxicity effluent limitations if needed in the future.
 - iv.** the methods and statistics being prescribed in MRP section V.B.4 are not contained in the approved methods document, *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Water to Freshwater Organisms*, U.S. EPA Report No. EPA-821-R-02-013).
 - v.** “*Since the limits for chlorine and ammonia are stated to protect against toxicity, no toxicity limit is required. 40 C.F.R. section 122.44(d)(1)(v). Toxicity monitoring and a narrative effluent limit and trigger are all that should be required per the State Water Board’s precedential order [identified in Item 4.a above]. Limits need not be numeric – can be BMPs or narrative.*”

Response: There are no regulations that limit the use of data for a Reasonable Potential Analysis (RPA) to the last three years. Regional water boards generally have broad discretion in determining appropriate and relevant data set to determine reasonable potential. In fact, the SIP, section 1.2 states, “When implementing the provisions of this Policy, the RWQCB shall use all available, valid, relevant, representative data and information, as determined by the RWQCB. ...” In addition, 40 CFR requires submittal of U.S. EPA Form 2A, and Part E, Toxicity Testing Data of Form 2A states, “At a minimum, these [toxicity testing] results must include quarterly testing for a 12-month period within the past 1 year Or the results from four tests performed at least annually in the four and one-half years prior to the application”.

The Regional Water Board found that there is reasonable potential for chronic toxicity based on the finding that *Ceriodaphnia dubia* chronic toxicity tests resulted

in exceedance of the chronic toxicity trigger of 1 TUc in five of nine sampling events between December 20, 2011 and February 3, 2017, and results in the five samples with exceedances ranging from 1.3 TUc to 8 TUc. The Regional Water Board has properly identified reasonable potential for chronic toxicity in the Proposed Permit, which establishes a narrative effluent limitation for chronic toxicity as established by State Water Board Order No. 2003-0012. The determination of “Pass” or “Fail” utilizing the TST is an appropriate method of determining compliance with the narrative effluent limitation. In addition, if future chronic toxicity tests reveal toxicity, the adopted Permit may be reopened to establish numeric chronic toxicity effluent limitations. In the meantime, it is essential that the Permittee comply with the accelerated monitoring requirements in the Proposed Permit.

The chronic toxicity methods identified in MRP section V.B.4 are contained in the U.S. EPA Methods Manual and recognizes that, “the statistical methods in this manual are not the only possible methods of statistical analysis” and that there are many other statistical methods that have been proposed and considered. Since the time that the Methods Manual was published (1995), the U.S. EPA published the *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, June 2010), in which they recommend that “Permitting authorities should consider adding the TST approach to their implementation procedures for analyzing valid WET data for their current NPDES WET Program.”

The Permittee correctly states that effluent limitations for ammonia and chlorine residual in the Proposed Permit are intended to protect against aquatic toxicity from these two toxic pollutants. However, the whole effluent toxicity (WET) test assesses the total toxic effect of all pollutants, not just ammonia and chlorine. WET testing is the only method for assessing the toxic interaction of all pollutants in a wastewater discharge.

No changes were made to the Proposed Permit in response to this comment.

- c. **Settleable Solids and Other Conventional Pollutants (90). *Fact Sheet section IV.C.3.c. Reasonable Potential Determination.*** The Permittee states that a RPA is required for all pollutants, yet there is no RPA for toxicity, settleable solids, and other conventional pollutants. The Permittee states that non-CTR/NTR pollutants should be determined using the TSD, not the SIP.

Response: A RPA is required to establish the need for water quality-based effluent limitations, but not for technology-based effluent limitations like BOD, TSS, and settleable solids. The Permittee did not identify the specific conventional pollutants referenced, however, as explained in section IV.B of the Fact Sheet of the Proposed Permit effluent limitations for the conventional pollutants BOD, TSS, and pH are established as required by 40 CFR section 133.105.

The settleable solids effluent limits are based on levels of treatment that are attainable from secondary treatment facilities and is further based on the Basin Plan water quality objective prohibiting bottom deposit and the sediment impairment in the Lower Eel River.

Based on past performance, Regional Water Board Staff believe the Permittee should have no problem meeting any of the technology-based effluent limitations established in the Proposed Permit.

Fact Sheet section IV.C.3.iv, Settleable Solids (last sentence) has been modified as follows, "This limitation is based on the levels of treatment that are attainable from secondary treatment facilities, on the water quality objective prohibiting bottom deposits for all surface waters of the North Coast Region established by the Basin Plan, and on the fact that the Lower Eel River is on the 303(d) listed for sediment impairment."

- d. **Haloacetic Acids (89) Fact Sheet Section IV.C.3.a.vii. Determining the Need for WQBELS for Haloacetic Acids.** The Permittee asserts that MCLs for drinking water pollutants such as Haloacetic Acids (HAA) were designed to apply to treated drinking water at the tap and not as end of pipe wastewater effluent limitations, as they never complied with Water Code section 13241 when these were adopted into Title 22 or incorporated into the Basin Plan by reference.

Response: The Basin Plan establishes Title 22 drinking water maximum contaminant levels as water quality objectives that must not be exceeded in the receiving water. These MCLs are applied at end-of-pipe, to ensure protection of the entire receiving water. The Basin Plan only allows mixing zones when appropriate, for priority pollutants in accordance with the SIP, as discussed in the response to Item A.2, above.

HAA consists of five constituents (Monochloroacetic Acid, Monobromoacetic Acid, Dichloroacetic Acid, Trichloroacetic Acid, and Dibromoacetic Acid) with a state and federal Water Quality Objective of 60 ug/l that is based on a primary maximum contaminant level for the protection of drinking water. An average monthly effluent limitation for HAAs has been retained in section IV.A.1.a, Table 4 of the Proposed Permit, however, the maximum daily effluent limitation for HAAs has been removed because the state and federal primary MCL of 60 ug/L is based on long-term exposure represented by an average monthly limit. See Proposed Permit section IV.A.1.a, Table 4 and added language in section IV.C.3 of the Fact Sheet which states, "Effluent limitations that are based on state and federal drinking water MCLs are established as average monthly limits only, because the MCLs are based on long-term exposure."

- e. **Total Trihalomethanes (92). Fact Sheet Section IV.C.3.c, Reasonable Potential Determination for Total Trihalomethanes.** Using the TSD method for determining reasonable potential with dilution credit of 100:1 dilution, there would be no

reasonable potential. In addition, this limit duplicates the chlorodibromomethane and dichlorobromomethane limits already included in the permit.

Response: The federal Clean Water Act section 301(b)(1)(C) requires NPDES permits to establish effluent limitations as necessary to meet water quality standards, but does not specify the method to be used for establishing those effluent limitations. The US EPA *Technical Support Document for Water Quality-Based Toxics Control* (TSD) is a guidance document that describes procedures that were developed specifically to address toxic pollutants, but has been used to address conventional and non-conventional pollutants. The TSD is federal guidance and not regulation. But the TSD is not the only method available for conducting reasonable potential analyses (RPAs) and calculating effluent limitations. The State Implementation Policy is utilized in California for addressing priority pollutants, but it is also standard practice in the state to use the SIP RPA method for conventional and non-conventional non-priority pollutants.

Item A.2, above, in this document, discusses why the 100:1 flow limitation is not a dilution credit.

The Total Trihalomethane (TTHM) effluent limitation is not duplicative of the dichlorobromomethane and chlorodibromomethane effluent limitations. TTHM consists of four constituents (chlorodibromomethane, dichlorobromomethane, chloroform and bromoform) with a state and federal WQO of 80 ug/l that is based on a primary maximum contaminant level for the protection of drinking water. The average monthly effluent limitation for TTHMs has been retained in the Proposed Permit (Order section IV.A.1.a, Table 4), while the maximum daily effluent limitation for TTHMs has been removed, because the state and federal primary MCL of 80 ug/L is based on long-term exposure represented by an average monthly limit.

- f. **Ammonia (88).** *Fact Sheet Section IV.C.3.a.v.(c), Determining the Need for WQBELs for Ammonia.* *Because there is no RP and no dilution was considered in the RPA, which should be based on the TSD, not the SIP, which only applies to CTR/NTR criteria, there should be no limit for ammonia. Otherwise, this punishes the City even though they are performing well.*

Response: Item A.5.e, above, addresses the comment regarding the use of the TSD for conducting the RPAs.

Staff reconsidered its approach to determining whether or not there is reasonable potential for ammonia. The Draft Permit established ammonia effluent limitations primarily based on the Facility being a municipal wastewater treatment facility that treats wastewater that is high in ammonia and the desire to incentivize optimization of treatment capabilities. A careful review of the Permittee's data during the previous permit term shows that once the Permittee got through the initial start-up period for the upgraded Facility, the Permittee has operated the Facility efficiently and effectively for ammonia removal. Ammonia violations only occurred during

Facility startup. Based on these facts, Staff believes it is appropriate to reward the Permittee for investing in a wastewater treatment process that is designed to remove ammonia and significantly reduce total nitrogen and for its commitment to operating the Facility well. The Proposed Permit includes requirements to operate and maintain the Facility as designed (for ammonia removal/nitrogen reduction) and the reopener provision that allows the Regional Water Board to revise the permit in the event that future monitoring data shows reasonable potential for exceedance of ammonia water quality objectives.

In light of this review, Staff has determined that it is appropriate to remove effluent limitations for ammonia. The following sections of the Proposed Permit have been modified to reflect this change:

Section IV.A.1.a, Table 4, has been revised to remove the ammonia effluent limitations.

Section VI.C.2.a of the Draft Permit that required an ammonia study (study to determine the presence or absence of freshwater mussels in the Lower Eel River), has been removed.

MRP section IV.A.1, Table E-3 has been modified to require calculation of unionized ammonia each month that the Permittee discharges and collects total ammonia samples.

MRP Section X.D.1, Table E-10 (formerly Table E-11), Reporting Requirements for Special Provision Reports has been modified to remove the requirements for an ammonia study work plan and final report.

Fact Sheet section IV.C.3.a.v.(c) has been modified to reflect the removal of the ammonia effluent limitation.

Fact Sheet section IV.C.3.c, Table F-7 (formerly Table F-6), Summary of Reasonable Analysis Results has been modified to reflect that the RPA excluded ammonia results during the startup period of February 2013 to April 2014 and Footnote 6 has been added to reflect that nitrate and total nitrogen results were excluded from the RPA for the same period. In addition, Fact Sheet section IV.C.3.a.v. has been modified to revise the narrative description of the ammonia data analysis that leads to the conclusion of no reasonable potential for ammonia.

Fact Sheet section IV.C.4, WQBEL Calculations has been modified to remove the ammonia effluent limitation calculations.

Fact Sheet section IV.D.1 (Anti-backsliding Requirements) has been modified to explain why effluent limitations for ammonia in the Proposed Permit are less stringent than the previous permit.

Fact Sheet section IV.D.3 (Stringency of Requirements for individual Pollutants) has been modified to remove ammonia from the list of pollutants with effluent limitations.

- g. Other (91). Fact Sheet Section IV.C.3.c, Reasonable Potential Determination for Chlorodibromomethane, second paragraph.** *This paragraph does not need to be in here twice. Furthermore, this is unnecessary analysis where RP has already been determined.*

Response: Staff modified the language in the Proposed Permit to remove the redundancy noted by the Permittee. In addition, the discussion of the reasonable potential analysis for chlorodibromomethane and dichlorobromomethane has been modified to utilize the results of four additional samples that were collected between January and April 2017 and confirmed reasonable potential for chlorodibromomethane and dichlorobromomethane.

- h. Attachment F-1, City of Rio Dell RPA Summary (120).** *All constituents, including ammonia, should be included in this table.*

Response: Ammonia has been added to Attachment F-1.

6. Flow Requirements Comments

- a. Design Flow and Capacity (1, 9, 49, 70).** The Permittee raised several issues related to flow, including that the upgraded plant design capacity is 0.50 mgd, not 0.40 mgd. The Permittee also pointed out that the permitted flow in the last permit was 0.9 mgd. The Permittee further requests that the use of the mean annual flow be removed from the Draft Permit.

Response: Staff found that the design flow of 0.9 mgd identified in the report of waste discharge (ROWD) for this permit renewal was erroneously based on the design flow of the old wastewater treatment facility. The design flow of the upgraded facility is 0.4 mgd. The permitted flows established in the Proposed Permit are based on design flow information provided to Staff by the Permittee's design engineer on April 4, 2011. Although the average annual flow of 0.62 mgd was used as a flow limitation in Order No. R1-2011-0054, Staff finds that it is not the most appropriate flow to establish for compliance purposes. It is more appropriate to include the average dry weather, average wet weather and peak wet weather flows as flow limitations, as the Permittee can determine each month whether the Facility is complying with the flow limitations rather than waiting until the end of each calendar year. As such, the Proposed Permit has been modified to remove the average annual flow limit of 0.62 mgd and replace it with the monthly average wet weather flow limit of 1.25 mgd. The Proposed Permit also includes the average dry weather and peak wet weather flow limitations of 0.40 mgd and 2.51 mgd, respectively, for the upgraded facility. See Order Table 1 and Discharge Prohibition III.H and Fact Sheet sections I (Table F-1) and IV.A.8.

- b. Land Discharge Specifications and Requirements IV.B.1.c (22).** The Permittee states that the amount of flow permitted to the land disposal system in the previous Order was 0.62 mgd as a dry weather flow (ADWF) and 1.25 mgd as a peak wet weather. The Permittee further asserts that the City has requested a higher flow for irrigation and wanted a monthly average, not a daily maximum.

Response: Staff is not aware of the Permittee's previous request for a higher permitted irrigation flow or monthly average flow limit rather than a daily flow limit. As stated in section IV.F of the Fact Sheet of the Proposed Permit, the irrigation field on the Mozzetti property was designed for disposal in order to infiltrate the City's projected 2030 flows of 0.392 mgd (ADWF) and 1.505 mgd (peak dry weather flow). The antidegradation analysis for the land disposal system demonstrated that groundwater would not be impacted by the Permittee's discharge based on an ADWF of 0.392 mgd. Staff recognizes that the Draft Permit interpreted the flow limitation presented in the antidegradation analysis more strictly than what is presented in the Permittee's antidegradation analysis. Land Discharge Specification IV.B.1.c has been revised to read as follows: "**Flow.** The maximum daily average dry weather flow to Discharge Point 003, as measured at Monitoring Location EFF-003 shall not exceed 0.40 0.392 mgd and the average daily flow shall not exceed 1.5 mgd. The average dry weather flow shall be calculated as an average of the average daily flows for the duration of the irrigation discharge each year, typically May through October." This definition of how average dry weather flow is to be calculated for compliance determination was taken from the Permittee's antidegradation analysis.

- c. Request to Remove Flow Limits (10, 68, 78) Discharge Prohibition III.H.** *Flow is not required to be regulated under federal law, and in fact case law disallows EPA from regulating flow. Thus, there is no federal law reason for including this requirement. In addition, the reason in the fact sheet for this is to maintain compliance with effluent limits. However, the Water Boards cannot prescribe the manner of compliance under Water Code section 13360(a). Because the flows cannot be controlled, the effluent limits on constituents of concern should control. If effluent limits are violated because of flow, then the City will need to remedy that, but there should not be additional limits and prohibitions that are included to try to prevent effluent limit violations. Design flow is all that is needed. This requirement [to regulate Facility permitted flow] should be removed.*

Response: The establishment of flow limits is not specifying manner of compliance, as asserted by the Permittee. Wastewater treatment facilities are designed to handle flows that are identified through an engineering analysis to ensure that the treatment process can achieve prescribed effluent limitations based on knowledge of the anticipated character of the influent, including organic loadings (BOD) and solids (total suspended solids) and to ensure that the facility can hydraulically handle wet weather flows. In addition, any request to increase flows above what was previously permitted, would require a demonstration that it does not exceed Facility design capacity and an antidegradation analysis to demonstrate

that the increased flow would not adversely impact beneficial uses of the receiving water.

The Facility is designed to handle a range of flows and influent compositions based on historic data, and all effluent limits and flow limits (average dry weather, average wet weather, and peak wet weather) in the Proposed Permit are established based on the design data submitted to the Regional Water Board by the Permittee.

Staff disagrees with the Permittee's characterization that the flow limits are specifying a manner of compliance, and it is unclear which cases the Permittee is referring to that prohibit U.S. EPA from regulating flows. It is also important to note that Federal Clean Water Act requirements are the minimum requirements that must be included in NPDES permits, under state law, and more stringent requirements may apply. (Water Code section 13377.) As outlined above, requirements in the Proposed Permit are based on data and information supplied by the Permittee, and are established to ensure that applicable limits are met. Case law finds that where lack of available alternatives is a constraint imposed by present technology and the laws of nature...there is no violation of [Water Code] section 13360. (*Tahoe-Sierra Preservation Council v. State Water Resources Control Board* (1989) 210 Cal.App. 3d 1421, 1438.)

No changes were made to the Proposed Permit in response to this comment.

7. Chlorine Residual Requirements and Monitoring

- a. **Internal Chlorine Residual Requirements (26, 27, 67, 112). Effluent Limitations and Discharge Specifications IV.D.1.:** *The 1.5 mg/L minimum was removed in favor of this language "the total residual chlorine concentration shall be maintained at a level that ensures the discharge meets the total coliform effluent limitation at the end of the disinfection process for discharges" It's assumed that "meets the effluent limitation" means that we pass our coliform test? If we are complying with the coliform limitation, isn't that proof that we are maintaining a level that ensures compliance. We should not need to install a continuous analyzer to demonstrate what we've already demonstrated by not failing coliform tests. This violates the Water Code prohibition on the Water Board prescribing manner of compliance under section 13360(a). The City can comply with coliform in any legal manner. Further, requiring minimum chlorine residual can adversely impact ability to meet disinfection byproducts. For these reasons, these [internal monitoring] requirements [for chlorine residual] should be removed.*

Response: The internal monitoring requirement for chlorine residual is needed to demonstrate that the disinfection system is being operated properly to ensure reduction of coliform to meet effluent limitations in the Proposed Permit. The Proposed Permit requires the Permittee to monitor coliform once a week. This monitoring frequency has been set as the minimum frequency needed to demonstrate compliance with coliform effluent limitations, but it only provides a

single snapshot each week. The Regional Water Board relies on the Permittee demonstrating that an adequate chlorine residual is being maintained throughout each day, in place of requiring the Permittee to monitor coliform more frequently. Past permits have required the Permittee to maintain a minimum chlorine residual of 1.5 mg/L. Staff recognize that the amount of chlorine residual needed to ensure a proper coliform reduction varies based on the characteristics of the effluent and the design and management of the chlorination system and that requiring a specific minimum level may cause the Permittee to create chlorine disinfection by-products such as dichlorobromomethane, chlorodibromomethane, and Haloacetic Acids as a result of maintaining a higher chlorine residual than necessary to achieve adequate disinfection.

During a recent inspection of the Facility, Staff learned that the Permittee already has a continuous chlorine residual analyzer, thus the requirement for continuous chlorine residual monitoring does not appear to be unreasonable or costly to the Permittee. The requirement to demonstrate continuous chlorine residual has been retained in Order section IV.D.1 of the Proposed Permit.

In response to this comment and Staff's new knowledge that the Permittee already has a continuous chlorine monitoring capabilities, the following changes have been made to the Proposed Permit:

Order sections IV.D.1 and IV.D.2 and MRP section X.D.1, Table E-10 have been modified to remove the requirements to establish continuous monitoring.

- b. Continuous Monitoring Requirement to Demonstrate Compliance with Chlorine Residual Effluent Limitations (28, 118). *Other Requirements IV.D.2.:*** [Requirements for chlorine residual monitoring] *are not necessary because of SO₂ monitoring. The Water Code does not allow the Water Boards to prescribe how to comply and Rio Dell can demonstrate compliance with SO₂ monitoring instead of chlorine residual monitoring.* The Permittee requests that compliance determination language in Compliance Determination section VII.O be modified to allow use of dechlorination chemical residual readings.

Response: It is appropriate, and perhaps preferable, to demonstrate removal of chlorine in the discharge with a meter that continuously analyses the dechlorination chemical residual. The Permittee currently uses sodium bisulfite to remove chlorine from its final effluent and has a bisulfite residual analyzer to demonstrate that chlorine is not present. Order section VII.N, Compliance Determination for Chlorine Residual Effluent Limitations has been modified to be more specific about how compliance with the chlorine residual effluent limitation at EFF-001 will be determined. The modified language provides flexibility to determine compliance based on chlorine residual or dechlorination residual analyzers. In addition, language from Order section IV.D.3 has been moved to Order section VII.N and MRP section I.D has been modified to include a requirement for calibration of continuous analyzers.

B. Permit Comments and Responses

1. **Page 1, Facility Name (no comment number).** Add the word “municipal” to the name of facility to read “City of Rio Dell Municipal Wastewater Treatment Facility”.

Response: The Proposed Permit uses the facility name provided in the ROWD and used historically for this Facility. Section II of the Fact Sheet appropriately identifies the fact that this is a municipal wastewater treatment facility.

No changes were made to the Proposed Permit in response to this comment.

2. **Table 3. Administrative Information (2).** The Order effective date should be April 28, 2017 consistent with the memorandum of understanding (MOU) with U.S. EPA.

Response: The MOU with EPA requires a minimum of 50 days between the permit adoption date and the permit effective date. The permit effective date is greater than 50 days in order to have the new permit requirements begin at the beginning of a month. No changes were made to the Proposed Permit in response to this comment, however, the Proposed Permit has been modified to reflect the new adoption, effective, and ROWD due dates.

3. **Findings II.A and II.C (3, 4, 5).** The Permittee suggested editorial changes to both Findings, stating that Finding II.A contains duplication (by referring to waste discharge requirements in two consecutive sentences) and needs to describe federal and state law in separate sentences and that Finding II.C needs to be modified to identify additional permit sections that implement state law only.

Response: Staff has made minor modifications to Finding II.A so the finding is consistent with the State Water Board approved permit template language. Finding II.A has been modified to read as follows: “This Order serves as WDRs pursuant to article 4, chapter 4, division 7 of the California Water Code (commencing with section 13260). This Order is also issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. Environmental Protection Agency (U.S. EPA) and chapter 5.5, division 7 of the Water Code (commencing with section 13370). It shall serve as a NPDES permit authorizing the Permittee to discharge into waters of the United States at the discharge location described in Table 2 subject to the Waste Discharge Requirements (WDRs) in this Order. ~~This Order also serves as WDRs pursuant to article 4, chapter 4, division 7 of the Water Code (commencing with section 13260).~~”

In addition, Staff have identified additional permit sections that implement state law and have modified Finding II.C accordingly to read as follows: **“Provisions and Requirements Implementing State Law.** The provisions/requirements in subsections III.E, III.F, IV.B - IV.D., V.B, and VI.C.5.a, VI.C.5.d, and VI.C.5.e of this Order and sections

VI, VII, VIII.C, IX.A, and X.E. of the Monitoring and Reporting Program are included to implement state law only.”

- 4. Discharge Prohibition III.A. (6, 77)** The Permittee requests that Discharge Prohibition III.A be modified to apply to planned discharges because *you cannot disclose an unplanned or emergency discharge, and these discharges are covered by other prohibitions.*

Response: The Fact Sheet language in IV.A.1 of the Fact Sheet that explains this discharge prohibition makes it clear that this prohibition is aimed at the disclosure of constituents that may be in the discharge and is not aimed at the nature of the discharge itself (e.g., whether it is planned/unplanned, permitted/unauthorized). The Regional Water Board recognizes that an unplanned or emergency discharge cannot be disclosed in advance, and the Proposed Permit includes language that applies to the reporting of unplanned and emergency discharges if they occur.

No changes were made to the Proposed Permit in response to this comment.

- 5. Discharge Prohibitions III.E and III.G (7, 8, 77).** The Permittee is requesting removal of these two discharge prohibitions stating that Discharge Prohibition III.E duplicates Discharge Prohibitions III.B, and III.D and that Discharge Prohibition III.G duplicates Discharge Prohibition III.A.

Response: Each of the discharge prohibitions noted by the Permittee are included in the Proposed Permit to provide clarity to ensure that permittees understand the limits of what and where they can discharge. Prohibition III.B cites a key section of the California Water Code that explicitly prohibits the creation of pollution, contamination or nuisance. Prohibition III.E prohibits sanitary sewer overflows (SSOs) to waters of the state or land and is necessary because Order No. 2006-0003-DWQ, Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (Sanitary Sewer Order) only prohibits SSOs to waters of the United States. Discharge Prohibition III.E expands upon the Sanitary Sewer Order to prohibit SSOs to waters of the state and to land where such SSO causes conditions of pollution, contamination, or nuisance. Prohibition III.D prohibits the discharge of untreated or partially treated waste, and Prohibition III. G prohibits the discharge of waste at any unauthorized discharge point. Both of these provisions are broader than Prohibition III.E because they apply to any type of untreated, partially treated, and unauthorized discharges, not just sanitary sewer overflows.

No changes were made to the Proposed Permit in response to this comment.

- 6. Discharge Prohibition III.J. (12, 77).** The Permittee requests clarification on how discharges from the Facility can be adjusted daily and requests that the permit be revised to allow flows to be averaged over a month only.

Response: Discharge Prohibition III.J requires that discharges from the Permittee's Facility not exceed one percent of the flow of the Lower Eel River. This Prohibition further describes how Staff assesses compliance with the one percent dilution rate. The Proposed Permit allows the Permittee to comply with the one percent requirement as a monthly average provided that USGS Station Gage 11477000 is read at least once daily, and the daily discharge flow rate is set to be no greater than one percent of the flow of the river at the time of the flow gage reading. In order to adjust daily, the Permittee's operator must go the USGS website (https://waterdata.usgs.gov/nwis/uv?cb_00060=on&cb_00065=on&format=html&site_no=11477000&period=&begin_date=2017-01-09&end_date=2017-01-16) daily to check the reported flow for the gage. The discharge flow rate must be set to be discharging at or below one percent of the gage flow reading. Since the gage data is reported in cubic feet per second (cfs), and the Permittee reports discharge flows in MGD, a calculation must be done to convert cfs to an equivalent MGD value. If the Permittee's staff needs assistance in understanding this description of how to adjust the flow rate daily or the conversion calculation, Staff are available to provide assistance.

It is inappropriate for the Proposed Permit to be revised to allow flows to be averaged over a month only due to the fact that Lower Eel River flows vary greatly, there is no way to know in advance how much flow will be available in the Lower Eel River over the course of the month, and basing the dilution rate on monthly averages only could allow for discharges well in excess of one percent during parts of the month. Staff also reviewed recent discharge flow data submitted by the Permittee, and it appears that during most of the allowable discharge season, the Permittee's flows are quite low relative to the flows in the Lower Eel River, thus making it unlikely that the Permittee would exceed the one percent flow limitation. Nonetheless, it is easy to obtain the daily data to demonstrate that this is the case, and it is the Permittee's responsibility under the Proposed Permit to provide all data necessary to demonstrate compliance.

No changes were made to the Proposed Permit in response to this comment.

7. **Effluent Limitations and Discharge Specifications IV.A.1, Table 4 Effluent Limitations. Request to Remove Mass Effluent Limitations for Biochemical Oxygen Demand and Total Suspended Solids (15, 50, 80, 81, 82, 83, 116).** *Mass limits are not required under 40 C.F.R. section 122.45(f) and should be removed as they were in the Fortuna permit. The City will seek to control I/I as that can also cause sewer spills, which are separately regulated.* The Permittee asserts that reliance on the 10 States Standards for a methodology to assess I/I is irrelevant.

Response: 40 C.F.R. section 122.45(f) does not require the establishment of mass-based effluent limitations, but, as stated in section 122.45(f)(2), allows for the establishment of both mass- and concentration-based effluent limitations. Staff has formerly established mass-based effluent limitations in addition to concentration-based effluent limitations as a means to cause permittees to address infiltration and inflow (I/I) associated with excessive wet-weather flow being discharged to the wastewater treatment plant. This has not proven to be the most expedient way to address the need

for a permittee to address I/I. Staff recently changed the approach to include special study requirements for permittees to perform sewer system evaluations that lead to development and implementation of a plan to address I/I problems.

Mass-based effluent limitations have been removed from Table 4 of the Proposed Permit. In addition, compliance determination language for mass-based effluent limitations has been deleted from section VII.N, Fact Sheet section IV.B.2.c has been modified to reflect the removal of mass-based effluent limitations, and language describing Staff's analysis of I/I has been moved from Fact Sheet section IV.B.2.c to Fact Sheet section IV.D.1 (Anti-Backsliding Requirements). Fact Sheet section IV.D.1 has also been modified to explain why removal of mass-based limits for BOD and TSS does not constitute backsliding.

- 8. Effluent Limitations, Table 4 (13, 14, 86). Request to modify effluent limitations for human health protection:** Limits for POTWs are supposed to be monthly and weekly averages. The Fact Sheet does not explain why weekly averages are impracticable as required by 40 C.F.R. section 122.45(d)(2). Daily limits are unnecessary for long term human health criteria. There is no impracticability analysis to justify daily limits, which are not required for POTWs.

Because discharges are only allowed when effluent is 1% of the flow, the water quality-based limits should reflect dilution credits up to 100:1 dilution. In addition, for the human health criteria, these should only be monthly average limits because there is no acute need for a daily or short-term limit because those criteria are set for 70 years of exposure. Finally, there is no MUN use downstream of this discharge, so there is no need to include effluent limitations to protect MUN.

Response: This response addresses only the underlined portions of this comment. The part of this comment related to dilution credits is addressed in the response to Item A.2, above, and the part of the comment related to the MUN use is addressed in the response to Item A.1, above.

40 C.F.R. section 122.45(d)(2) states that permit limits shall be stated as average weekly and average monthly discharge limitations, unless impracticable, for POTWs. 40 C.F.R. section 103.102 provides detailed specifications for establishing effluent limitations for the technology-based constituents, BOD, TSS, and pH. Effluent limitations for BOD, TSS, and pH in Effluent Limitations IV.A.1.a, Table 4 and IV.A.1.b of the Draft Permit were established as required by 40 C.F.R. section 103.102, and have been retained in the Proposed Permit. These sections of the federal regulations apply to technology-based effluent limitations, not to water quality-based effluent limitations.

For water quality-based effluent limitations for toxic pollutants, Section 5.2.3 of the EPA *Technical Support Document for Water Quality-based Toxic Controls* states "in lieu of an Average Weekly Limit (AWL) for POTWs, EPA recommends establishing a Maximum Daily Limit (MDL) (or a maximum test result for chronic toxicity) for toxic pollutants and pollutant parameters in water quality permitting. This is appropriate for at least

two reasons. First, the basis for the 7-day average for POTWs derives from the secondary treatment requirements. This basis is not related to the need for assuring achievement of water quality standards. Second, a 7-day average, which could comprise up to seven or more daily samples, could average out peak toxic concentrations and therefore the discharge's potential for causing acute toxic effects would be missed. A MDL, which is measured by a grab sample, would be toxicologically protective of potential acute toxicity impacts."

Section 1.4 of the State Implementation Policy (SIP) states that maximum daily effluent limitations shall be used for POTWs in place of average weekly effluent limitations for Water Quality Based Effluent Limitations. The SIP procedure of calculating an AMEL and an MDEL applies to all CTR pollutants, both those that are for protection of aquatic life and those that are for the protection of human health.

Order section IV.A.1.a, Table 4 also establishes effluent limitations for three parameters that are for the protection of human health based on Title 22 Drinking Water MCLs and are not CTR pollutants: Total Trihalomethanes (TTHMs), Haloacetic Acids (HAAs), and Total Nitrogen. The Regional Water Board recognizes that the criteria for these three parameters are based on chronic (long-term) exposure, and thus agree that it is appropriate to establish average monthly effluent limitations only. The Draft Permit included an AMEL only for Total Nitrogen that has been retained in the Proposed Permit. The AMELs for TTHMs and HAAs have been retained in the Proposed permit while the MDELs for TTHMs and HAAs have been removed in the Proposed Permit as described in Items A.5.d and A.5.e, above.

9. Land Discharge Specifications and Requirements IV.B.1. (21). Settleable Solids.

There is no need for a settleable solids limit for land application.

Response: Since the Permittee utilizes wastewater treatment technology that reliably removes solids, Staff agrees that settleable solids discharge specifications are not necessary for land application. The Proposed Permit has been modified to remove the settleable solids limits from Order section IV.B.1.a, Table 5. Fact Sheet section IV.F.3. of the Draft Permit has been deleted to be consistent with this change.

10. Land Discharge Specifications and Requirements IV.B.2 (23). *The land discharge provisions should be in this section [Water Recycling Specifications and Requirements] because disinfected secondary treated water can be considered "recycled water" under the Water Code section 13050(n) and Title 22. If not treated as recycled water, then this activity should be regulated in a separate WDR so it does not have to be reissued every 5 years and is not part of a federal permit.*

Response: As stated in Fact Sheet section IV.F of the Proposed Permit, the irrigation field on the Mozzetti property was designed for disposal in order to infiltrate the City's projected 2030 flows of 0.392 MGD (ADWF) and 1.505 MGD (peak dry weather flow). A September 16, 2010, Winzler and Kelly technical memorandum defines Type II irrigation as "irrigation above the agronomic rate [the rate at which plants can uptake

water], which means some effluent will discharge to groundwater.” If the Permittee believes that the Mozzetti irrigation field is being operated in a water recycling mode, meaning irrigation at or below the agronomic rate of the vegetation on the field, the Permittee may submit a technical analysis to demonstrate this change. Water recycling activities are further subject to recycled water regulations in Title 22 of the California Code of Regulations and would require submittal of a Title 22 Recycled Water Engineering Report.

The Permittee further requests that if the irrigation is not treated as recycled water, that the land discharge be regulated in a separate WDR so that the irrigation discharge does not need to be reviewed every 5 years as part of a federal permit. The Permittee has not formerly requested that the irrigation discharge be subject to a separate WDR. Typically, municipalities that have discharges to surface waters and to land, elect to have all discharge points addressed in the Facility NPDES permit. If the Permittee wishes to request a separate WDR for the irrigation discharge, the Permittee would need to submit a separate Report of Waste Discharge and filing fee for the land discharge. The Proposed Permit must retain the land discharge, consistent with the previous Order, due to the fact that the ROWD submitted on June 1, 2016, addressed both the surface water and land discharges.

No changes were made to the Proposed Permit in response to this comment.

11. Land Discharge Specifications and Requirements IV.B.2.j. (24) The Permittee is requesting removal of the discharge specification that requires tagging and locking of the irrigation meter because the irrigation area is fenced and gated and requiring the irrigation meter to be tagged and locked is micromanagement.

Response: Section IV.B.2.j of the Draft Permit has been removed from the Proposed Permit. Although tagging and locking of the irrigation meter are practices that are designed to prevent violations if an unauthorized person were to tamper with the irrigation system, it is up to the Permittee to determine how to comply with requirements to prevent unauthorized discharges. As noted in Land Discharge Specification IV.B.1, the Permittee must install, operate, and maintain the irrigation system in a manner that ensures compliance with all Order requirements including protection against spills.

12. Other Requirements IV.D. The Permittee requests that this section be changed to “Other Non-Effluent Limit Requirements”, stating that it needs to be clear that these requirements do not constitute effluent limits and are not subject to mandatory minimum penalties (MMPs).

Response: Staff disagrees that the title of this section needs to be changed to clarify that the requirements in Order Provision IV.D are not effluent limits subject to MMPs. Order Finding II.C language has been modified to include Provision IV.D in the list of permit requirements that implement state law only. Requirements that implement state law only are not subject to MMPs.

No changes were made to the Proposed Permit in response to this comment.

13. Receiving Water Limitations V.A, V.A.1, V.A.10, V.A.13, V.A.17, (29, 30, 31, 32, 34).

The Permittee is requesting modifications to the receiving water language based on the Permittee's interpretation of the Basin Plan and requests that the receiving water language closely track the Basin Plan and be consistent throughout the receiving water limitation section. Specifically, the Permittee requested the following changes:

- a. Removal of the words "Discharges from the Facility shall not cause the following in the receiving water:" prior to the enumerated paragraphs in Receiving Water Limitation V.A Surface Water Limitations because each receiving water limitation specifies that it applies to the receiving water. (Comment 29)
- b. Change the 50th percentile dissolved oxygen concentration from 10.0 mg/L to 9.0 mg/L in Receiving Water Limitation V.A.1, based on the Permittee's assertion that the Basin Plan does not provide the authority for 10.0 mg/L. (Comment 30)
- c. Modification of Receiving Water Limitation V.A.10 to read, "The discharge shall not ~~contain substances that result in deposition of material~~~~cause bottom deposits~~ in receiving waters to the extent that such deposits cause nuisance or adversely affect beneficial uses." The Permittee request this change "to closely track the Basin Plan language." (Comment 31)
- d. Modification of Receiving Water Limitation V.A.13 to read, "The discharge shall not cause ~~an increase in a measurable~~ temperature ~~change of more than 5°F in the above~~ natural receiving water temperature at any time." The Permittee requests this change based on language on page 3-4.00 of the Basin Plan "that allows a 5 degree increase in COLD water." (Comment 32)
- e. Modification of Receiving Water Limitation V.A 14 to read, "The discharge shall not cause an individual pesticide or combination of pesticides to be present in the receiving water in concentrations that adversely affect beneficial uses. The discharge shall not cause bioaccumulation of pesticide concentrations in bottom sediments or aquatic life." (no comment number)
- f. Modification of Receiving Water Limitation V.A.15 to read, "The discharge shall not cause receiving waters to contain concentrations of pesticides in excess of Maximum Contaminant Levels (MCLs) established for these pollutants in title 22, division 4, chapter 15, articles 4 and 5.5 of the CCR as an annual average." The Permittee states "MCLs are set as annual averages for drinking water and were not initially intended to be used as water quality objectives (WQOs). If used for WQOs then they need to mirror those requirements as annual averages." (Comment 33)
- g. Modification of Receiving Water Limitation V.A.17 to read, "The discharge shall not cause the receiving water to violate ~~a violation of~~ any applicable water quality

standard for receiving waters adopted by the Regional Water Board or the State Water Board, as required by the federal Clean Water Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to section 303 of the Clean Water Act, or amendments thereto, the Regional Water Board will revise and modify this Order in accordance with such more stringent standards.” The Permittee requests this change to provide clarification that this limitation applies to the receiving water. (Comment 34)

- h.** Modification of Receiving Water Limitation V.A.18 to read, “The discharge shall not cause concentrations of chemical constituents to occur in the receiving water in excess of MCLs established for these pollutants in title 22, division 4, chapter 15, articles 4 and 5.5 of the CCR as an annual average.” The Permittee request these changes to provide clarification that this limitation applies to the receiving water and for the same reason described in item B.13.f, above. (Comment 35)

Response: The receiving water limitations included in the Proposed Permit are consistent with the Basin Plan. The Proposed Permit applies effluent limitations at the end of the discharge pipe in order to protect the receiving water immediately at the end-of-pipe. Thus, receiving water limitations that refer to parameters that have water quality objectives do not apply just to the receiving water, but to the effluent discharge too. As such, it is not appropriate to add the words “receiving water” to Receiving Water Limitations, V.A.14, V.A.17, or V.A.18 per the Permittee’s request, nor is it necessary to remove the words “Discharges from the Facility shall not cause the following in the receiving water:” at the beginning of section V.A.

In response to Comment 30, which applies to Receiving Water Limitation V.A.1 regarding dissolved oxygen, Table 3-1 of the North Coast Basin Plan identifies a 50% lower limit of 10.0 mg/L for dissolved oxygen for the Eel River. Thus, the 50% lower limit has been retained in the Proposed Permit.

In response to Comment 32, which applies to Receiving Water Limitation V.A.13 regarding temperature, the North Coast Basin Plan states: “The natural receiving water temperature of intrastate waters shall not be altered unless it can be demonstrated to the satisfaction of the Regional Water Board that such alteration in temperature does not adversely affect beneficial uses.” The Permittee has not demonstrated to the Regional Water Board that such an alteration in temperature does not adversely affect beneficial uses, particularly the COLD Beneficial Use. Thus, no changes were made to Receiving Water Limitation V.A.13.

A minor modification to the wording of Receiving Water Limitation V.A.10 was made in response to the Permittee’s Comment 31, as follows: “The discharge shall not contain substances in concentrations that result in deposition of material ~~cause bottom deposits~~ in receiving waters to the extent that such deposits cause nuisance or adversely affect beneficial uses.” (Comment 31). This modified language is more consistent with how the Basin Plan narrative objective for settleable material reads.

14. Receiving Water Limitations V.A.18, V.B.2, and V.B.3 (33, 35, 37, 38). *MCLs are set as annual averages for drinking water and were not initially intended to be used as Water Quality Objectives (WQOs). If used for WQOs, then they need to mirror those requirements as annual averages.*

Response: The State Water Board's *A Compilation of Water Quality Goals* (page 11) states, "Drinking water MCLs are directly applicable to water supply systems and at the tap and are enforceable by SWRCB and local health departments. California MCLs, both Primary and Secondary, are directly applicable to groundwater and surface water resources when they are specifically referenced as water quality objectives in the pertinent Water Quality Control Plan (or Basin Plan). Where fully health protective, MCLs may also be used to interpret narrative water quality objectives prohibiting toxicity to humans in water designated as a source of drinking water (municipal and domestic supply) in the Water Quality Control Plan." See also the response to Item A.5.d, above.

No changes were made to the Proposed Permit in response to this comment.

15. Receiving Water Limitation V.B.1 (36). *This is not a Basin Plan or even a true antidegradation requirement. Further, title 27 is not necessarily required for wastewater facilities otherwise in compliance. This section should be removed.*

Response: This groundwater limitation is necessary to ensure that reasonable best management practices are implemented during the collection, treatment, storage, and disposal of wastewater to ensure protection of groundwater. "Title 27" has been replaced with "Basin Plan" because the Basin Plan contains beneficial uses and water quality objectives for groundwater. In addition, the words "a statistically significant" have been removed.

16. Provision VI.C.2.a, Ammonia Study (40). *Can this be allowed to be a joint study with Fortuna so that both cities don't need separate studies?*

Response: The Ammonia Study requirement has been removed from the Proposed Permit due to Staff's re-evaluation of the Permittee's ammonia data which resulted in a determination that the Permittee's discharge does not exhibit reasonable potential for ammonia. If a determination of reasonable potential is made in the future, a joint study could be conducted with Fortuna if the permittees can demonstrate a plan that adequately assesses water quality impacts in the river from both discharges.

No changes were made to the Proposed Permit in response to this comment. As identified in Item A.5.f, above, the ammonia study requirement has been removed.

17. Provision VI.C.3.a.ii. Pollutant Minimization Program (no comment number). The Permittee requests to add the words "If required by the Regional Water Board Executive Officer" to this section.

Response: This change is not necessary because Provision VI.C.3.a states “as required by the Executive Officer” to clarify this fact. No changes were made to the Proposed Permit in response to this comment.

18. Provisions VI.C.5.c.iii, Sludge Disposal and Handling Requirements and VI.C.5.d.i, Biosolids Management and MRP section X.E.2, Sanitary Sewer Overflow Notification and Reporting, Fact Sheet section III.E.1, Sanitary Sewer Systems General Order (no comment numbers). The Permittee requests to add the word “separately” to each of these sections of the Proposed Permit.

Response: Each of the permit sections that the Permittee is referring to in this comment refer to requirements under another permit or other regulations (e.g., biosolids regulations) that are enforceable by another regulatory agency (i.e., U.S. EPA). Therefore, it is appropriate to add the word “separately” to each of these sections.

19. Source Control and Pretreatment Provision VI.C.5.b.i.(a, f). (41, 42, 114, 115)
Requiring implementation of the necessary legal authorities to monitor and enforce source control standards, restrict discharges of toxic materials to the collection system and inspect facilities connected to the system presumes that such authority does not exist. In addition, the Permittee states that the City has no industrial users, thus source control requirements are not needed and expresses concern that it is unclear how the Permittee is to implement the prohibitions listed without adding language stating that it is to be implemented through the Permittee’s sewer use ordinance.

Response: The above referenced source control and pretreatment provisions require the Permittee to either have the necessary legal authorities in place, or develop and adopt those legal authorities. This provision is necessary so that the Permittee understands its responsibilities to control discharges to its collection system to ensure compliance with all other requirements in the Proposed Permit.

The General Prohibitions in Provision VI.C.5.b.i.(e) and the Specific Prohibitions in Provision VI.C.5.b.i.(f) are requirements that are cited from 40 C.F.R. section 403.5. Although a sewer use ordinance is an appropriate and desirable mechanism for sewer entities to control discharges entering the Facility, it is the Permittee’s responsibility to ensure that the pollutants identified in Provisions VI.C.5.b.i.(e) and (f) are not introduced into the Facility. Including these pollutants in a sewer use ordinance is a way to provide clear and enforceable requirements on the Permittee’s users.

The Proposed Permit retains the requirement for the Permittee to provide in its annual report, a summary of compliance and enforcement activities taken during the past year to ensure industrial user compliance. The Permittee indicated a preference to have this language removed from the permit with no explanation to justify its removal. Staff recognizes that the City of Rio Dell is small and has little, if any industry, but there are restaurants, automotive shops, cannabis growers, and other businesses that could discharge pollutants such as fats, oils and grease, metals, and other pollutants that could pass through or interfere with the wastewater treatment facility. Facilities with low

influent flows, must be diligent to make sure that its users understand the importance of discharging only wastes that the treatment system is designed to treat in order to avoid upset conditions.

No changes were made to the Proposed Permit in response to this comment.

20. Storm Water Provision VI.C.6.a. (44). The requirement to include BMPs to control the run-on of storm water is beyond the scope of this wastewater permit. In addition, there is a berm around facility built by Corps of Engineers that prevents run-on. Therefore, this requirement is unnecessary.

Response: Staff concur that the identified language is not necessary due to the presence of an engineered berm around the Facility to prevent run-on. This language has been removed from Order section VI.C.6.a and MRP section X.D.2.h of the Proposed Permit.

21. Compliance Determination sections VII.C and VII.D. (46, 47). *Violations [of effluent limitations] can only be assessed after due process and a review of the evidence to see if there are any defenses or other information to make it not a "violation."*

Response: Permittees must report all exceedances of effluent limitations as violations in electronic Self-Monitoring Reports. Violations of effluent limits are subject to Mandatory Minimum Penalties as described in Sections 13385(h) and 13385(i). Effluent limit violations are only reversed in cases where it can be clearly demonstrated that a sample result is not representative of effluent quality with clear, defensible documentation, such as quality assurance/quality control data that confirms sample contamination.

No changes were made to the Proposed Permit in response to this comment.

22. Compliance Determination section VII.H. (no comment number). The Permittee requests that the compliance determination language for Bacteriological Limitations (Total Coliform), also include language to describe how compliance with a 7-day median will be determined.

Response: Total coliform limits identified in sections IV.A.1.c (Discharge Point 001) and IV.B.1.b (Discharge Point 003) are established as monthly medians not 7-day medians, therefore the language proposed by the Permittee is not appropriate. Section VII.H of the Proposed Permit has been modified to add language to clarify how compliance with the monthly median will be established, as follows: "Compliance with the monthly median will be determined on a monthly basis by calculating the median of the weekly samples collected during the month, as described in VII.H.1, immediately above."

23. Attachment A, Definitions (51, 52, 53, 54). The Permittee is requesting that definitions for Enclosed Bays, Effective Concentration, Inhibition Concentration, and

Test of Significant Toxicity be removed from the permit stating that the Enclosed Bays definition is not relevant and that the other three are unnecessary because they aren't applicable.

Response: Staff carefully reviewed the definitions section of the permit. Each of the words identified by the Permittee was retained because they are used in the permit document. "Enclosed Bays" is used in the definition of Inland Surface Waters and in the MRP and Fact Sheet which references policies that apply to both inland surface waters and enclosed bays and estuaries. The Regional Water Board will retain the requirement to use the TST for evaluating toxicity results, but even so, "effective concentration" and "inhibition concentration" are referred to in the MRP language as "EC" and "IC". These definitions have been retained in the Proposed Permit.

The Proposed Permit, Attachment A, Definitions, has been modified to identify the acronyms "EC" and "IC" for effective concentration and inhibition concentration, respectively.

C. Monitoring and Reporting Program Comments and Responses

- 1. General Monitoring Provision I.E, Minimum Levels (ML) and Reporting Levels (RL), Table E-1. Test Methods and Minimum Levels for Priority Pollutants (58).** *It is unclear why this table is needed as [the MLs] are listed in the SIP and apply to all CTR constituents, not just [the ones listed in Table E-1].*

Response: The Permittee is correct in stating that the SIP includes MLs for all CTR constituents, not just the ones with effluent limitations in the Proposed Permit. Staff includes this summary table identifying the MLs for constituents that the Permittee is required to routinely monitor for to ensure that the proper MLs are used. Recently, State Water Board staff modified standard language related to MLs and RLs requiring Permittee's comply with the federal Sufficiently Sensitive Test Methods Rule that was promulgated in August 2014. General Monitoring Provision I.E of the MRP has been modified to include the revised standard language to clarify the federal requirement for permittees to use sufficiently sensitive EPA-approved analytical methods when quantifying the presence of pollutants in a discharge and for the permitting authority to prescribe that only sufficiently sensitive EPA-approved methods be used for analyses of pollutants or pollutant parameters under a permit. Incorporation of the permit language incorporating the Sufficiently Sensitive Test Methods Rule eliminates the need to include a list of test methods and minimum levels.

Table E-1 of the Draft Permit has been removed from the Proposed Permit because inclusion of the Sufficiently Sensitive Methods language is a more complete way to identify requirements regarding MLs in the Proposed Permit.

- 2. Monitoring Locations, Section II, Table E.2 (20, 60).** *EFF-001 and -003 are taken at the same location so no need for different monitoring locations, even though there are two approved discharge locations.*

Response: Staff finds that it is clearer to assign unique monitoring location names to recognize that there are two approved discharge locations. Even though monitoring samples are taken from the same location, monitoring requirements typically vary for the two monitoring location names. In the Proposed Permit, EFF-001 applies to discharges to surface waters, and EFF-003 applies to discharges to the land disposal site, and there are differences in the monitoring requirements that reflect the differences in regulatory requirements that apply to surface water discharges and land discharges.

No changes were made to the Proposed Permit in response to this comment.

- 3. Monitoring Locations, Section II, Table E.2. (59).** The historic information regarding Discharge Point 002/Monitoring Location EFF-002 is irrelevant and should be removed.

Response: Although there are no longer requirements in the Proposed Permit that apply to Discharge Point 002 due to elimination of the percolation ponds, Staff find it beneficial to retain a reference to this location in Table E-1 (formerly Table E-2) to retain the historical significance of the monitoring location and to ensure that this discharge point number and monitoring location number are not assigned to a new discharge in the future. It is important to retire the identifiers used for the percolation ponds to ensure that data entered into CIWQS for that location does not get confused with data from a uniquely different discharge point in the future.

No changes were made to the Proposed Permit in response to this comment.

- 4. Effluent Monitoring Requirements IV.A.1 (Monitoring Location EFF-001) and VI.A.1 (Monitoring Location EFF-003) (no comment numbers).** The Permittee requests that the Proposed Permit include additional wording to clarify that the monitoring requirements apply only when discharges are occurring at the monitoring location addressed by Tables E-4 and E-5, respectively.

Response: In response to the Permittee's comment, MRP section IV.A.1 has been modified to add the words "During periods of surface water discharge ..." and MRP section VI.A.1 has been modified to add the words, "During periods of discharge to land ...".

- 5. Effluent Monitoring Requirements Table E-4, Table Note 1 (no comment number).** The Permittee requests removal of references to Standard Methods.

Response: Statewide standard permit language refers to 40 CFR Part 136 methods and not to Standard Methods. The Proposed Permit has been modified to remove references to Standard Methods in Table Note 1 in Tables E-2, E-3, E-4, E-5, E-6, E-7, and E-8 has been modified to read as follows: "~~In accordance with the current edition of Standard Methods for Examination of Water and Wastewater (American Public Health~~

~~Administration) or current test procedures specified~~ Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136 or by methods approved by the Regional Water Board or State Water Board.” The requirement to use Standard Methods has been retained for parameters that are not included in Part 136, including temperature, dissolved oxygen, pH, hardness, turbidity, electrical conductivity, and total dissolved solids.

6. **Whole Effluent Toxicity Testing Requirement V.A.6.e, Acute Toxicity Testing (no comment number).** The Permittee requests to add the words “unless authorized by the Executive Officer” to the requirement that acute toxicity monitoring be conducted without modifications to eliminate ammonia toxicity.

Response: Staff reviewed the U.S. EPA documents titled *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms* (test methods manual) and *2010 Toxicity Training Tool*. These documents do not provide any allowances for the regulatory authority to authorize removal of ammonia during an acute toxicity test. The Toxicity Training Tool acknowledges that, where total ammonia concentrations in the effluent are ≥ 5 mg/L, toxicity may be contributed by unionized ammonia and that pH drift during the toxicity test may contribute to artefactual toxicity when ammonia or other pH-dependent toxicants (e.g., metals) are present. The Toxicity Training Tool recommends that this problem can be minimized by conducting toxicity tests in a static-renewal or flow-through mode, as outlined in Paragraph 9.5.9 of the test methods manual. The Proposed Permit requires the use of static renewal tests as recommended by U.S. EPA.

No changes were made to the Proposed Permit in response to this comment.

7. **Whole Effluent Toxicity Testing Requirement V.C.1, Toxicity Reduction Evaluation (TRE) Process (66).** *It is unclear why the TRE Work Plan is needed by this date.*

Response: Staff included the requirement to submit the TRE Work Plan early in the new permit term because it was not submitted as required during the previous permit term. The Permittee submitted its TRE Work Plan on March 30, 2017 because its routine chronic toxicity testing for this discharge season revealed chronic toxicity. Section V.C of the MRP has been modified to recognize this submittal and to add language requiring the Permittee to review the TRE Work Plan once every five years to determine if it needs to be updated.

D. Fact Sheet Comments

1. **Fact Sheet, Section I.B, Permit Information, Need to Explain Delay in Permit Issuance (69).** *Need to explain delay in permit reissuance and that current permit still applicable.*

Response: Delays in permit reissuance may occur due to heavy Staff workloads. Further delays may occur when additional time is needed to respond to extensive

comments and work with a permittee toward addressing those concerns. The federal regulations allow administrative continuance of an existing, expired permit, provided that the Permittee submitted its Report of Waste Discharge by the date required in the existing permit. Since the Permittee submitted its ROWD in a timely manner, the 2011 permit was administratively extended.

Fact Sheet section I.B (second sentence) of the Proposed Permit has been modified to make note of the administrative extension and reads as follows, “The Permittee was previously regulated by Order No. R1-2011-0054 and NPDES Permit No. CA0022748 adopted on September 29, 2011, ~~and expired on June 3, 2016, and administratively continued through the effective date of this Order.~~”

Section I.B of the Fact Sheet was also modified to identify site visits that were conducted so that Staff could observe operations and collect additional data to develop permit limitations and requirements.

- 2. Fact Sheet section II.C, Summary of Existing Requirements and Self-Monitoring (SMR) Data, Tables F-2 and F-3. Historic Effluent Limitations and Monitoring Data for Previous and Upgraded WWTP (no comment number).** The Permittee suggests a minor modification to several table notes related to mass-based values for BOD and TSS.

Response: Table Note 3 in Tables F-2 and Table F-3 have been modified to read as follows: “~~Mass-based effluent limitations loads~~ loads calculated based on the average annual flow of ...”.

- 3. Fact Sheet section III.C.6, Antidegradation Policy (75).** *A 1968 Resolution cannot incorporate a future policy.*

Response: State Water Board Resolution No. 68-16, *Statement of Policy with Respect to Maintaining High Quality Waters in California* is deemed to incorporate federal antidegradation regulations. The antidegradation policy language in the Proposed Permit is standard language in NPDES permits in the state. Staff made minor modifications to section III.C.6 of the Fact Sheet to make this antidegradation policy finding identical to the most current statewide standard language that has been vetted through legal review.

- 4. Fact Sheet section III.E.3, Other Plans, Policies, and Regulations (76).** *This Order should not require coverage under another permit that is a separately enforceable program. This [section III.E.3] needs to be worded like the SSO WDR – that the permittee has coverage under it, but it is separate. We don’t want citizen suits for biosolids issues related to a different permit under this permit.*

Response: The Proposed Permit has been modified in response to the Permittee’s request. Section III.E.3 of the Fact Sheet has been modified to read as follows, “The ~~Order requires the Permittee to~~ must obtain coverage under Order No. 2004-0012-

DWQ prior to any removal of biosolids from the Facility that will be land disposed on property owned or controlled by the Permittee.”

- 5. Fact Sheet section IV.C.2.b, Basin Plan Water Quality Objectives (unnumbered comment).** The Permittee requests the removal of the words “enclosed bays and estuaries” from this finding.

Response: This is standard language that simply describes the Basin Plan water quality objectives that apply to inland surface waters and enclosed bays and estuaries. Removal of the language is unnecessary. No changes were made to the Proposed Permit in response to this comment.

- 6. Fact Sheet section IV.C.3.a.v.(b), Nitrate (unnumbered comment).** The Permittee identified an error in the nitrate section that describes the need for developing water quality based effluent limitations.

Response: Fact Sheet section IV.C.3.a.v.(b) has been modified to remove the last sentence as follows: ~~“In order to protect water quality and ensure proper operation of the Facility, an AMEL of 8.0 mg/L for nitrate has been retained from Order R1-2011-0054.”~~ This modification is necessary because effluent limitations for nitrate were removed in the Draft Permit in favor of retaining total nitrogen effluent limitation, and this Fact Sheet language was erroneously retained from an internal review draft of the permit.

- 7. Fact Sheet sections IV.D.3 and IV.F.1 Consideration of California Water Code Section 13263 and 13241 Factors for Land Discharge Specifications and Requirements (107, 108).** The Permittee requests that the Regional Water Board identify where in the Proposed Permit Water Code section 13263 and 13241 factors have been considered.

Response: For the discharge to surface waters, the Proposed Permit does not establish requirements beyond those required by federal regulations. The Proposed Permit is for the operation of an existing facility that involves minimum change in use beyond that previously existing, therefore, it is not necessary to include an analysis of Water Code section 13263 and 13241 factors. Therefore, the last sentence of Fact Sheet section IV. D that states, “The Regional Water Board has considered the factors in Water Code section 13263, including the provision of Water Code section 13241, in establishing these requirements.” has been removed from the Proposed Permit.

Fact Sheet section IV.F.1, Land Discharge Specifications and Requirements, Scope and Authority has been modified to include additional language analyzing Water Code section 13263 and 13241 factors in regard to land disposal. The added discussion is based on technical information that the Permittee submitted to the Regional Water Board in its July 2010 Antidegradation Analysis.

- 8. Fact Sheet section VII.B.1.h., Effluent Monitoring, Aluminum (117).** *EPA criteria guidance for aluminum has been determined to not be appropriate given soils in California. Further, it is unlikely that Rio Dell has high aluminum – at most, this should be annual monitoring.*

Response: As explained in section VII.B.1.h of the Fact Sheet, monitoring for aluminum is needed to gather sufficient data to determine if the Permittee’s Facility has the potential of discharging effluent containing aluminum at concentrations that exceed applicable water quality objectives for aluminum in light of the facts that the Lower Eel River is listed on the U.S. EPA 303(d) list as impaired for aluminum, and the Permittee uses an aluminum-based polymer at the Facility. The MRP establishes a monthly monitoring frequency for aluminum, but allows for a reduction in monitoring frequency or elimination of the monitoring for aluminum if the data demonstrates that the Permittee does not pose reasonable potential to cause an exceedance of applicable water quality objectives for aluminum or does not contribute to the aluminum impairment in the Lower Eel River.

No changes were made to the Proposed Permit in response to this comment.

- 9. Fact Sheet section VII.B.1.f (formerly VII.B.1.g), Effluent Monitoring, BOD and TSS Percent Removal and Mass Loading (116).** The Permittee states that it is fine to request calculations of BOD and TSS percent removal and mass loading, but that there should be no percent removal or mass loading effluent limitations.

Response: Federal regulations at 40 C.F.R. section 133.102 define secondary treatment in terms of BOD and TSS concentration and percent removal and states that the 30-day average percent removal shall not be less than 85 percent as stated in Order section IV.A.1.b and Fact Sheet section IV.B.2.a of the Proposed Permit. Federal regulations also allow effluent limitations to be established in terms of mass, however, as discussed in response to Item B.7, Staff opted to remove the mass limits for BOD and TSS.

Fact Sheet section VII.B.1.g, has been modified to provide clarifying language as follows: “This Order requires calculation of BOD₅ and TSS percent removal and mass loading in pounds per day, in order to assess compliance with the BOD and TSS percent removal effluent limitations in Effluent Limitation sections IV.A.1.b of the Order.

- 10. Fact Sheet section VIII.B, Public Participation, Written Comments (119).** The Permittee requests that the written comment due date be changed because the original date was on a weekend.

Response: When a report or task due date falls on the weekend, it is accepted practice to allow submittal of comments on the next business day. The Permittee submitted comments in advance of the comment due date. No changes were made to the Proposed Permit in response to this comment.

E. Other Comments.

1. Several of the Permittee's comments (**11, 17, 19, 39, 43, 55, 56, 79, 119**) were not responded to because they were based on a version of the Draft Permit that the Permittee inadvertently changed the formatting on. The comments all noted the need to correct formatting, however, the official version of the Draft Permit that Staff sent to the Permittee is properly formatted.
2. In Comments 109 and 110, the Permittee expressed appreciation Staff for removing the following requirements that were in the 2011 Permit: mass limits, percent removal, and MDELs for BOD and TSS for land disposal.

F. Staff Initiated Changes

1. **Order section IV.A.1, Table E-3 and section VI.A.1, Table 4.** Effluent and land discharge monitoring frequency for Haloacetic Acids has been reduced from monthly to quarterly. Staff made this change because required monitoring for other chlorine disinfection by-products (dichlorobromomethane, chlorodibromomethane, chloroform) is sufficient to demonstrate if the chlorine disinfection system is being run properly on a monthly basis. Monitoring for Haloacetic Acids is expensive, thus quarterly monitoring should be sufficient to demonstrate that this pollutant is being controlled too. If needed, the MRP could be modified in the future to either increase or decrease the monitoring frequency based on the monitoring results.
2. **Fact Sheet sections II.D, Compliance Summary and II.E, Planned Changes.** Staff modified these sections to identify an SSO that occurred in January 2017 and planned changes that the Permittee has proposed to address the SSO and to improve compliance in the Facility aeration basins.
3. **Fact Sheet section III.C.8, Endangered Species Act Requirements.** Staff made a minor modification to make the language in this section consistent with language in the most current version (March 27, 2017) of the statewide permit template. The second to last sentence of this section has been modified to read, "This Order requires compliance with effluent limits, receiving water limits, and other requirements to protect the beneficial uses of waters of the state, including protecting rare, threatened, and endangered species."
4. **Fact Sheet section IV.C, Water Quality-Based Effluent Limitations (WQBELs).** Staff modified the reasonable potential analysis to include monitoring data collected through March 2017 for most pollutants, and through April 2017 for chlorine disinfection by-products. Inclusion of this additional data allowed Staff to base decisions regarding reasonable potential on larger data sets in order to provide a higher level of confidence in effluent limitations established based on the reasonable potential analysis.