

Response to Written Comments

**In Consideration of Waste Discharge Requirements Order No.
R1-2014-0002, Renewal of National Pollutant Discharge
Elimination System (NPDES) Permit for the Russian River
Wastewater Treatment Facility**

**Regional Water Quality Control Board, North Coast Region
March 13, 2014**

Response to Comments
Russian River County Sanitation District and Sonoma County Water Agency
Russian River Wastewater Treatment Facility

Comment Letters Received

Comments were received from the following six parties:

Comment Page No.	Affiliation	Date Received	Author
3	CDPH	12/27/2013	Janice Thomas
4	U.S. Environmental Protection Agency	1/23/2014	Elizabeth Sablad
5	Sonoma County Water Agency on behalf of Russian River County Sanitation District	01/24/2014	Wendy Gjestland
10	Russian River Watershed Protection Committee	1/27/2014	Brenda Adelman
25	AMEC Environment and Infrastructure	1/27/2014	Lester Feldman
25	Castellon and Funderburk, LLP	1/27/2014	Ruben Castellon
28	Additional Changes made by Regional Water Board staff	---	---

This document provides Regional Water Board staff responses to comments submitted by these six parties. Each comment has been summarized in this document for brevity. Please refer to the comment letters for the full text of each comment.

The December 26, 2013 version of Order No. R1-2014-0002 is referred to as “the Draft Permit” in this document. The version of Order No. R1-2014-0002 that has been modified in response to comments and that will be presented to the Regional Water Board at the March 13, 2014 hearing is referred to as “the Proposed Permit”.

Each response indicates whether or not changes were made to the permit in response to the comment.

California Department of Public Health

On December 27, 2013, Janice Thomas of the California Department of Public Health (hereinafter CDPH) submitted four comments on the Draft Permit. All four comments are responded to below.

Comment No. 1: Filtration Rate (section IV.D.1.a). The Draft Order states a filtration rate limit of six (6) gpm/sqft. Title 22, section 60301.320(a)(1) limits media filter flow rates to five (5) gpm/sqft. This should be corrected.

Response: Section IV.D.1.a of the Proposed Permit has been modified to include the correct filtration rate of 5 gpm/sqft per title 22, section 60301.320(a)(1).

Comment No. 2: Disinfection Process Requirements (section IV.D.2.a). The reference to title 22, section 60301.230(a)(2) is incorrect. This should be removed.

Response: The reference to section 60301.230(a)(2) of title 22 has been removed from section IV.D.2.a of the Proposed Permit.

Comment No. 3: Spill Notification Requirements (section X.E.3 of the Monitoring and Reporting Program (MRP)). The spill notification requirements related to recycled water may no longer be valid based on Assembly Bill No. 803 (section 5411.5(d)) signed by the governor in 2013. Confirm, and if concurrence, then remove these recycled water spill notification requirements from the permit.

Response: The recycled water spill notification requirements in section X.E.3 of the MRP come directly from section 13529.2 of the Water Code. Section 5411.5(d) of Assembly Bill No. 803 states "The notification required by this section shall not apply to an unauthorized discharge of effluent or treated sewage defined as recycled water pursuant to section 13050 or 13529.2 of the Water Code." Regional Water Board staff interprets this statement to mean that notice of recycled water spills, pursuant to section 13529.2 of the Water Code, are only required to be made to the Regional Water Board. No changes were made to the Proposed Permit in response to this comment.

Comment No. 4: Coliform and turbidity monitoring (MRP). Monitoring tables for the various discharge points should include total coliform and turbidity sample requirements for tertiary recycled water.

Response: The MRP includes monitoring requirements for total coliform and turbidity. Total coliform requirements are included in Table E-3 of the MRP, which includes monitoring requirements for discharges of disinfected tertiary effluent to the effluent storage pond. Compliance monitoring to demonstrate adequate disinfection is appropriate at this monitoring point because it is immediately following the disinfection system. Turbidity monitoring requirements are included in a narrative format in section IX.A.2 of the MRP. The turbidity monitoring requirements are described narratively rather than in a table to capture all of the details of the language from title 22, section 60301.320. No changes were made to the Proposed Permit in response to this comment.

U.S. Environmental Protection Agency

On January 23, 2014, Elizabeth Sablad of the U.S. Environmental Protection Agency (U.S. EPA) submitted five comments on the Draft Permit. All five comments are responded to below.

Comment No. 1: Reasonable Potential Analysis for Bis (2-Ethylhexyl) Phthalate.

Based on Attachment F-1 of the Draft Permit, it looks as though there is reasonable potential for bis (2-ethylhexyl) phthalate. Table F-4 of the Draft Permit is also missing the applicable water quality objective (WQO) for this pollutant. If there is reasonable potential, effluent limits should be included in the permit.

Response: Regional Water Board staff re-evaluated the data submitted by the Permittee and found reasonable potential for bis (2-ethylhexyl) phthalate. The Proposed Permit has been modified to include effluent limitations and monitoring requirements for bis (2-ethylhexyl) phthalate and to add the WQOs for bis (2-ethylhexyl) phthalate to Table F-4.

Comment No. 2: Reasonable Potential Analysis for Ammonia. Regarding ammonia, the basis for the chosen pH and temperature to derive the water quality criteria is not clear. Also, we recommend that the water quality-based effluent limitations be calculated per the Technical Support Document (TSD) procedure to account for effluent variability and to be consistent with how other Region 1 permits and other regional boards implement EPA criteria for ammonia.

Response: The reasonable potential analysis for ammonia was recalculated using the TSD procedure to account for effluent variability and the 2013 U.S. EPA Ammonia Criteria. The final ammonia effluent limitations in section IV.A.2.c (Table 5) of the Proposed Permit have been modified based on the recalculation. The final ammonia effluent limitations in the Proposed Permit are more stringent than the final ammonia effluent limitations in the Draft Permit. In addition, sections IV.C.3.a.ii.(b) and IV.C.3.b, Table F-4 of the Proposed Permit have been modified to reflect this change.

Comment No. 3: Chronic Toxicity. It is not clear whether the Facility has reasonable potential for chronic toxicity. Based on the data, it looks like there is reasonable potential. Until the State Water Board finalizes its Toxicity Plan, U.S. EPA recommends that the permit include a narrative effluent limit within the effluent limitations section of the permit. It can simply state, "There shall be no chronic toxicity in the discharge." This would be more consistent with how other Regional Water Boards interpret the State Board Order.

Response: Section IV.D.1.d has been added to the Proposed Permit to read, "There shall be no chronic toxicity in the discharge at Discharge Point 002."

Comment No. 4: Reasonable Potential Analysis for Dichlorobromomethane (DCBM) and Chlorodibromomethane (CDBM). For DCBM and CDBM, it is not clear whether data since the conversion to UV disinfection was available and whether or not the data showed reasonable potential.

Response: The Permittee monitors its effluent for DCBM and CDBM monthly during periods of discharge to the Russian River pursuant to the requirements of its existing permit, Order No. R1-2009-0003. The Permittee started using the new ultraviolet (UV) light disinfection system and stopped using the chlorine disinfection system in October 2012. Monitoring results from October 2012 through December 2013 show that DCBM and CDBM are no longer present in the Permittee's discharge, demonstrating that there is no longer reasonable potential for these two pollutants. Fact Sheet section IV.C.3.c of the Proposed Permit has been modified to identify the fact that monitoring data shows that there is no longer reasonable potential for DCBM and CDBM.

Comment No. 5: Antibacksliding Justification. The antibacksliding justification should cite the relevant exceptions to backsliding for each effluent limit removal or relaxation.

Response: Fact Sheet section IV.D.1 of the Proposed Permit has been modified to cite the relevant exceptions to backsliding for each effluent limit removal or relaxation.

Sonoma County Water Agency on behalf of Russian River County Sanitation District

On January 24, 2014, the Sonoma County Water Agency, on behalf of the Russian River County Sanitation District (hereinafter "Permittee") submitted 15 comments on the Draft Permit. Some comments from the Permittee are summarized here by Regional Water Board staff with reference to the comment number included in the Permittee's letter. Please refer to the comment letter for the full text of comments. The following are responses to significant comments from the Permittee:

Comment No. 1: Cease and Desist Order (CDO) No. R1-2010-0006 was adopted on February 28, 2010 to provide time for the District to come into compliance with final effluent limitations for dichlorobromomethane and copper. The District installed a UV disinfection system in October 2012 to eliminate production of disinfection products. As a result, the treated effluent no longer has Reasonable Potential for dichlorobromomethane. The District completed a Copper Water Effect Ratio Study in 2013 that was approved by the Regional Water Board. As a result, the treated effluent no longer has Reasonable Potential for copper. Because the compliance issues have been eliminated, the CDO is not relevant and may be rescinded.

Response: Fact Sheet Section II.D of the Proposed Permit has been modified to add language to clarify that the Permittee has satisfied its obligations under CDO No. R1-2010-0006, as well as an Administrative Civil Liability Order No. WQ 2011-0009 that also included a requirement to complete the UV disinfection system to achieve compliance with DCBM.

Comment No. 2: Finding II.C should be modified to properly identify the permit provisions related to implementation of state law only.

Response: The Proposed Permit has been modified to add a reference to section VI.C.5.e of the Proposed Permit and to remove the duplicative reference to section X.D.3 of the MRP.

Comment No. 3: Discharge Prohibition III.F and section IV.A.6 of the Fact Sheet should be modified to identify the entity covered by the prohibition.

Response: The Proposed Permit has been modified to replace references to “the District” to “Russian River County Sanitation District”, as requested.

Comment No.4: The District’s 2003 and 2009 NPDES permits included dry-weather and wet-weather mass limits for biochemical oxygen demand (BOD) and total suspended solids (TSS). However, the Draft Permit includes only one set of mass limits that apply year-round. The District requests that the dry- and wet-weather mass limits be retained from the 2009 permit.

Response: The dry- and wet-weather mass limits for BOD and TSS that were included in the 2009 permit have been added to Table 4 in section IV.A.1 of the Proposed Permit, as requested.

Comment No. 5: When disposing of final effluent on the Burch Property, the District will have trouble complying with new Land Discharge Specifications for total dissolved solids and sodium (Table 7) and Groundwater Limitations (Receiving Water Limitations V.B.). The District requests a Cease and Desist Order (CDO) that allows time to investigate source control options, treatment process changes, and disposal procedures that will bring the effluent into compliance and ensure groundwater objectives are consistently met. Additional language may be needed in the Fact Sheet to describe the potential compliance issues.

Response: Section IV.D.2.b (Antidegradation) of the Fact Sheet has been modified to identify the violations of land discharge specifications and groundwater limitations. Regional Water Board staff intends to prepare a CDO for Regional Water Board consideration to address the violations of land discharge specifications and groundwater limitations.

Comment No. 6: The current permit allows use of Monitoring Location EFF-001 to determine compliance with bacteria limitations when discharging to the Russian River and to recycled water use sites. Monitoring at this location measures the effectiveness of the District’s disinfection system. The District requests use of this compliance point in the new permit when distributing recycled water.

Response: The proper monitoring location for total coliform bacteria is EFF-001, not REC-001. Section IV.C.2.b of the Proposed Permit has been modified to correctly identify monitoring location EFF-001 as the compliance monitoring location for total coliform bacteria.

Comment No. 7: The chronic toxicity triggers for accelerated monitoring and TRE initiation should be consistently identified in the permit. The Compliance Determination (Section VII.J.), the MRP (Section V.B.9.), and the Fact Sheet (Section IV.C.5.b.) define the triggers as 1.6 TUc (single sample) and 1.0 TUc (monthly median). Provision VI.C.2.a.iv of the Draft Permit should be modified to be consistent with these other sections.

Response: Section VI.C.2.a.iv of the Proposed Permit has been corrected to identify the single sample and monthly median triggers for chronic toxicity.

Comment No. 8: The new biological nutrient removal treatment process will be constructed and implemented in stages. Operation will begin in October 2014 and final effluent limitation compliance will be achieved in December 2014. The construction completion date is unknown at this time. The compliance schedule in section VI.C.7 (Table 9) of the Draft Permit should be modified to reflect these milestones.

Response: The compliance schedule in Table 9 of the Proposed Permit has been modified as requested.

Comment No. 9: The California Code of Regulations (Cal. Code Reg) title 22 (Article 6, Section 60321) requires daily sampling for total coliform when producing disinfected tertiary recycled water. The District collects samples at EFF-001 on a daily basis to monitor efficacy of its disinfection system and to ensure adequately treated recycled water is distributed from the effluent storage pond. The following changes are needed to describe current procedures, comply with Cal. Code Regs title 22 requirements, and correct mistakes in Table E-3 of section IV.A.1 of the Draft Permit.

Table E-3. Effluent Monitoring – Monitoring Location EFF-001 – Discharge to Effluent Storage

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method and (Minimum Level, units), respectively
BOD ₅	mg/L	24-hour composite ²	Weekly	Standard Methods ³
Total Coliform Organisms ⁴	MPN/100mL	Grab	Daily ⁵	Standard Methods ³
<p>Table Notes:</p> <p>2. 24-hour composite samples shall be collected, except for those pollutants that are volatile and/or require grab sampling other reasons (e.g., ultraclean sample collection methods required). The priority pollutant monitoring report shall document the sampling method used for each constituent and justify the use of grab sampling for specific constituents (e.g., volatile, ultraclean method, etc.)</p> <p>3. In accordance with the current edition of Standard Methods for Examination of Water and Wastewater (American Public Health Administration) or current test procedures specified in 40 CFR Part 136. [Footnote 3 should be added to all Standard Methods references, not just BOD₅.]</p> <p>4. Report daily test results, and 7-day medians, and 30-day maximums.</p> <p>5. During the period of October 1 through May 14, samples shall be collected a minimum of three days per week at a point following disinfection and prior to discharge to the effluent storage pond.</p>				

Response: These changes appropriately remove an erroneous footnote (Footnote 2) and reflect the Permittee’s current procedures which are more stringent than what was included in the Draft Permit. Therefore, all of the changes identified in Comment 9 have been incorporated into the Proposed Permit.

Comment No. 10: During the last 10 years, upstream receiving water monitoring demonstrated results for all CTR priority pollutants below the applicable water quality

objectives. Since Russian River quality is very good at this location and monitoring for these constituents is expensive, a once in 5 year monitoring requirement (the same as effluent priority pollutant monitoring) is sufficient to assess receiving water conditions.

Response: Regional Water Board staff agrees that it is appropriate to retain the once per permit term monitoring for CTR priority pollutants in receiving water, just like the prior two permits for this Permittee. Receiving water results over the last 10 years have demonstrated that CTR priority pollutants are below the applicable water quality objectives. The Proposed Permit has been modified accordingly.

Comment No. 11: The Recycling Specifications in the Fact Sheet (Section IV.G.3.a.) allow use of recycled water on District property that does not meet disinfection standards (Provision IV.C.2.b) as long as it meets other relevant requirements in Cal. Code Regs title 22. The District requests permission to divert, re-treat, or land apply effluent to the Burch property that does not meet turbidity standards.

Response: The second sentence of section IV.G.3.a. of the Fact Sheet was erroneously included in the Draft Permit. The language, as written, does not apply to the Permittee's reclamation/land discharge system because the Permittee does not have any appropriate permitted disposal site where effluent not meeting disinfection requirements could be disposed without threatening groundwater. The Permittee's request to be allowed to discharge disinfected, tertiary treated effluent that does not meet turbidity requirements is appropriate because a slight elevation of the stringent turbidity requirements in the Proposed Permit would not pose a threat to groundwater.

The language in Fact Sheet section IV.G.3.a (second sentence) of the Proposed Permit has been modified to read as follows: "Recycled water not meeting the recycling specification in section IV.C.2.b (Disinfection) IV.D.1.b (Turbidity) may be reclaimed on suitable Permittee-owned property discharged at Discharge Point 003 as long as the reclaimed water meets other relevant requirements in title 22 permit requirements."

In addition, new language has been added to the Proposed Permit as section IV.B.2, as follows: "Disinfected tertiary treated effluent not meeting turbidity specifications in section IV.D.1.b of this Order may be discharged at Discharge Point 003 provided that it meets all other relevant permit requirements."

Comment No. 12: All sludge produced at the District's Facility is sent to municipal solid waste landfills for disposal. The District complies with all monitoring requirements specified by the landfills and 40 CFR Part 258. If the method of disposal changes, the District will comply with sampling and reporting requirements associated with the method of disposal, as specified in Permit Provisions VI.C.5.c. and VI.C.5.d., as well as MRP Section X.D.4.g. The biosolids monitoring requirements in the Draft Permit. are unnecessary.

Response: Regional Water Board staff agrees that the language in question was erroneously included in the Draft Permit. The requirement for semi-annual monitoring of sludge has been removed from the Proposed Permit.

Comment No. 13: The District includes information on recycled water operations in its monthly Self-Monitoring Reports as well as its Annual Report. As a result, quarterly

recycled water reporting is repetitive and unnecessary since all of the data is provided in other reports.

Response: The quarterly recycled water monitoring requirement was included in the Draft Permit pursuant to section 13523.1(b)(4) of the Water Code. It is reasonable for the Regional Water Board to grant the Permittee's request for more frequent reporting, since it exceeds the reporting frequency mandated in the regulation. The Proposed Permit has been modified accordingly.

Comment No. 14: Elevated aluminum concentrations (periodically measured above the primary MCL) have been detected in groundwater down-gradient from the Burch property. However, the elevated aluminum levels do not appear to be related to land application of wastewater since the groundwater concentrations are much greater than those measured in the effluent. Natural geologic conditions may be contributing to the elevated aluminum concentrations in groundwater. Additional information is requested in the Fact Sheet to describe this situation.

Response: At this time, the cause of elevated aluminum concentrations in groundwater is not clear. Additional information and data is needed to identify the cause of elevated aluminum in groundwater. As discussed further in the response to Russian River Watershed Protection Committee Comment 5a, Regional Water Board staff will be preparing a CDO to require the Permittee to gather additional information to assess its irrigation and disposal plan and groundwater quality in the vicinity of the land disposal area on the Burch property. The CDO is tentatively scheduled to be brought before the Regional Water Board at its June 19, 2014 Board Meeting.

Comment No. 15 consists of 20 lettered sections identifying typographical errors and requesting minor clarifications in permit language. Staff has incorporated the Permittee's requested changes into the Proposed Permit, except as follows;

Comment No. 15a: The Permittee is requesting that the Draft Permit retain the use of the term "master reclamation permit" instead of "master recycling permit".

Response: The standard statewide NPDES template now uses the term "master recycling permit" instead of "master reclamation permit". We will use the new terminology to be consistent with the statewide permit template. No changes were made to the Proposed Permit in response to this comment.

Russian River Watershed Protection Committee

On January 27, 2014 the Russian River Watershed Protection Committee (RRWPC) submitted comments on the Draft Permit. The comment letter contained numerous and wide-ranging comments on the Draft Permit. Comments from the RRWPC are grouped into topics and summarized here by Regional Water Board staff. Please refer to the comment letter for the full text of comments. The following are staff responses to significant comments from the RRWPC:

Topic 1: Collection and Treatment System Capacity, Weather Dependency, and Potential Regionalization

Comment 1a: Inadequate Capacity. RRWPC is concerned that the Draft Permit does not adequately address issues related to the inadequate capacity of the collection system, treatment facility, storage facilities, and reclamation facilities. RRWPC is particularly concerned about flooding and excessive flows during sustained periods of wet-weather and limitations of the Facility's storage and irrigation capacity. RRWPC requests that the Proposed Permit include a history of these on-going problems to acknowledge how far the system has come and how far it has to go to resolve these problems. What, besides more storage is needed to address wet-weather capacity issues?

Response: The Permittee implements a flood control and flow reduction mitigation plan, including measures to ensure that all cleanouts in low-lying areas are closed and setting lift station pumps to ensure that influent flows to the plant do not exceed 3.5 mgd, to address concerns related to excessive wet-weather flows entering the collection system and overwhelming the treatment plant. Although extreme wet-weather conditions have not been the norm in recent years, there have been some wet-weather months (e.g., December 2012, February 2014) and the Permittee reported that the treatment plant was able to handle the wet-weather flows with no violations of effluent limitations. It appears that the Permittee is effectively handling wet-weather flows to the treatment plant until such time that the Permittee is able to address all wet-weather capacity issues at the treatment plant. As noted in RRWPC's comments, the Permittee has completed an environmental impact report and design of a 3.5 million gallon flow equalization basin. The Permittee also completed an EIR for a reclamation expansion project. The Permittee has stated that funding is not currently available for these two projects, and that the projects will be completed as funding becomes available.

In recent years, the Permittee has invested its time and resources to address shortcomings of the Facility. In 2006, the Permittee completed the Third Unit Process project to increase the Facility capacity from 1.2 mgd to 3.5 mgd. During the term of the current permit, the Permittee corrected two significant deficiencies in the wastewater treatment system. The Permittee designed and constructed a UV disinfection system to replace its chlorine disinfection system which did not have adequate capacity to provide reliable disinfection during periods of sustained wet weather flow and resulted in the creation of dichlorobromomethane (a disinfection by-product) at levels that exceeded the California Toxics Rule water quality. In addition, the Permittee has made significant progress toward completing an upgrade to provide biological nutrient removal in order to significantly reduce effluent ammonia, nitrate and phosphorus

concentrations to meet existing effluent limitations for ammonia and nitrate and probable future effluent limitations for phosphorus.

Although, the Permittee identify any violations related to the limitations on the wet-weather capacity of its facilities during the term of Order No. R1-2009-0003, the Permittee should give high priority to addressing identified deficiencies and limitations at this Facility to avoid violations in the future. The Proposed Permit has been modified to require the Permittee to provide an updated evaluation of its treatment and disposal capacity and to provide a written report identifying the current limitations of the system, the specific measures needed to address the identified limitations, and a schedule for addressing those limitations.

Comment 1b: Collection System Spills, Condition, Maintenance and Repairs. Please define the extent of problems related to the collection system, including spills and the condition, maintenance, and repair of private laterals in the system, especially in the low-lying flood areas.

Response: The Permittee is enrolled under Order No. 2006-0003-DWQ, Statewide General Waste Discharge Requirements for Sanitary Sewer Systems. This Order establishes minimum requirements to prevent SSOs and requires preparation of a sewer system management plan (SSMP) which includes a System Evaluation and Capacity Assurance Plan for all parts of the sanitary sewer system owned or operated by the Permittee, an operation and maintenance program, and an overflow emergency response plan. The Permittee initiated a Sewer Master Plan/Modeling agreement fiscal year 2012-2013. The Sewer Master Plan/Modeling includes a sewer system capacity analysis. It is anticipated that the Sewer Master Plan/Modeling Study will be completed in late 2014.

As required by its current permit, Order No. R1-2009-0003 and Order No. 2006-0003 DWQ, the Permittee conducts regular maintenance and repair activities of its collection system, including regular inspections to identify and correct inflow and infiltration, cleaning of the collection system to remove grease and roots to prevent sanitary sewer overflows, and regular inspection and preventative maintenance of lift stations. The Permittee is not responsible for the maintenance and repair of private laterals. However, the Permittee responds to all sanitary sewer stoppages and overflows from private laterals to ensure that everything is contained and cleaned up properly. In 2011, the Permittee reported cleaning approximately 49,000 feet of its collection system, that no SSOs occurred in the Permittee's collection system, and that the Permittee responded to 9 private lateral stoppages/SSOs. In 2012, the Permittee reported cleaning approximately 91,000 feet of its collection system, that two SSOs that were caused by grease blockage occurred, and that the Permittee responded to 11 private lateral stoppages/SSOs. The Permittee's 2013 Annual Report is not yet available, but no SSOs were reported during the year. During the large storm in February 2014 that brought over 11 inches of rain to the Guerneville area, there were no SSOs identified.

The Permittee reported leakage from the force main at the Vacation Beach lift station on February 12, 2014 and failure of the force main pipe on February 13, 2014 that resulted in the discharge of a large volume of raw sewage to the Russian River. The

Permittee believes that the spill was caused by the age of the pipe (approximately 40 years old), the lack of cathodic protection on the steel pipe, and is investigating if other factors contributed to the spill. This incident is expected to result in the Permittee making it a high priority to evaluate the condition of the force mains at its 11 lift stations and the condition of the force main that runs under the Russian River.

The Proposed Permit and the Statewide General WDRs for Sanitary Sewer Systems include requirements for the operation and maintenance of the Permittee's collection system that are protective of water quality. When the Permittee submits a written spill report regarding the February 2014 spill incident, Regional Water Board staff will evaluate whether the Permittee followed all permit requirements and the Permittee's SSMP and Overflow Emergency Response Plan.

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

Comment 1c: Effect of the current drought and global warming. RRWPC expressed concerns about whether the current wastewater treatment, storage and disposal system has adequate capacity under the current drought conditions. RRWPC is specifically concerned that the system may not be capable of storing and discharging treated effluent in compliance with permit requirements because low river flows mean that the Permittee is limited on how much effluent can be discharged to the river under the 1-percent discharge limitation. RRWPC is specifically concerned about potential overtopping of ponds, wintertime irrigation, or discharges to the river at rates higher than 1 percent of the river flow.

Response: The Facility has adequate storage and disposal capacity to balance the influent flows to the Facility. Although flows in the Russian River are low, the Facility is experiencing minimal infiltration and inflow, thus influent flows to the plant are not typical winter time flows. According to the Permittee's December 2013 self-monitoring report, the Permittee has increased its discharge rate slightly, but the discharge rate is still well under 1 percent of the river flow. The Permittee has also been delivering recycled water to the golf course for irrigation due to the dry wintertime conditions. No changes were made to the Proposed Permit in response to this comment.

Comment 1d: Concerns about connecting other communities to the Russian River CSD WWTF. RRWPC expressed concerns about the potential connection of other communities, such as Monte Rio to the Russian River CSD WWTF.

Response: This issue is not addressed in the Proposed Permit because there are currently no plans moving forward that would result in the connection of another community to the Russian River wastewater treatment plant. A detailed proposal and evaluation would need to be completed identifying upgrades that are needed to address the current limitations in storage and disposal capacity in order to accommodate the addition of new connections outside of the Permittee's current boundaries. No changes were made to the Proposed Permit in response to this comment.

Topic No. 2: Compliance with the California Environmental Quality Act and Public Participation Requirements. RRWPC brought up several concerns to verify that the Draft Permit is compliant with the requirements of CEQA and public participation requirements, as follows:

Comment 2a: CEQA Compliance. RRWPC inquired whether the Draft Permit needs a detailed description of the project setting, including a description of the environmental and community setting, both in time and in regards to place and key issues over time and whether CEQA review is required for the existing discharges, particularly the land disposal of effluent to the Burch property and reclamation use at the Northwood golf course. Will irrigation projects be subject to CEQA?

Response: The Proposed Permit includes required information about the wastewater treatment and disposal facilities, but is not required to include a description of the environmental and community setting. Fact Sheet section IV.D.2.b (Antidegradation – Groundwater) of the Proposed Permit has been modified to acknowledge that recent monitoring of groundwater beneath the land disposal area on the Burch property shows an increase in the concentrations of wastewater pollutants (nitrate, TDS, etc.) in a downgradient well in comparison to an upgradient well that will be addressed in a CDO to be brought to the Regional Water Board for consideration in the near future.

Section III.B of the Fact Sheet explains how the Draft Permit is compliant with CEQA. Issuance of waste discharge requirements for discharges from an existing facility for which no expansion is being permitted is exempt from CEQA. Distribution of recycled water to the Northwood Golf Course and to the Burch property for land disposal are existing uses.

The Permittee, as the lead agency for CEQA, is required to conduct an environmental analysis and demonstration of CEQA compliance prior to any expansion of the reclamation system or land disposal area. The Permittee certified an EIR for an irrigation expansion project in 2009. Section II.E of the Fact Sheet explains that the Permittee needs to complete additional planning efforts to identify a phase 1 reclamation project for approval. At that time, the Permittee would need to determine if any project specific analysis needs to be done for CEQA. In addition, the Permittee would need to revise its title 22 Recycled Water Engineering Report and its Recycled Water BMP/Operations and Management Plan to address new recycled water use sites.

Comment 2b: Public participation requirements. RRWPC would like clarification regarding the review and approval of the Recycled Water BMP/Operations and Management Plan identified in section VI.C.2.b of the Draft Permit and whether it will be made available for a public review and comment period prior to approval. If the answer is “no”, how can this permit be CEQA compliant if a significant piece of the Reclamation Permit will occur after the permit is adopted by the Regional Water Board?

Response: The Recycled Water BMP/Operations and Management Plan identified in section IV.C.2.b of the Proposed Permit is required to ensure that agronomic rate requirements of the statewide Recycled Water Policy are met. The report will initially address existing irrigation uses at the Northwood Golf Course and the Burch property.

This report will be reviewed and assessed for completeness and adequacy to protect groundwater and surface water. Although there is no explicit requirement for public review for existing uses, the Proposed Permit has been modified to include a 30-day public comment period prior to final approval by the Regional Water Board Executive Officer.

Topic No. 3: Monitoring Requirements

Comment 3a: Downstream Monitoring Location. It does not appear as though the downstream monitoring location has changed from its current location to a location closer to the discharge point.

Response: Section VI.B of the Proposed Permit has been modified to include a requirement for the Permittee to review, revise as appropriate, and resubmit its Receiving Water Limit Compliance Assurance and Monitoring Plan with a schedule for implementing a plan to establish a new downstream receiving water monitoring location.

Comment 3b: Monitoring for toxic pollutants and endocrine-disrupting chemicals. RRWPC is concerned that the Draft Permit does not address the threat that toxic pollutants and endocrine-disrupting chemicals pose to water quality, aquatic life, and public health nor does the Draft Permit require monitoring for these pollutants. RRWPC requested clarification of how compliance with the receiving water limitation related to pesticides (section V.A.15) is determined, whether the Permittee has monitored for toxic pollutants that must be monitored in the Russian River estuary as part of the RRWPC settlement with SCWA, and how priority pollutant compliance determinations are made (per section X.B.7 of the MRP).

Response: The State Water Board Recycled Water Policy clearly restricts the ability of the regional water boards to require monitoring of constituents of emerging concern (CECs) in recycled water in waste discharge requirements. The Proposed Permit requires the Permittee to monitor for pollutants for which water quality objectives have been developed, namely California Toxics Rule pollutants and title 22 drinking water pollutants. A number of pesticides are included in these analyses. Although there is much concern over many other toxic pollutants, including pharmaceuticals, personal care products, and endocrine disruptors, the science is not yet available to determine the level at which these pollutants cause adverse impacts to water quality and its beneficial uses, or for setting water quality objectives. As the science evolves, there are likely to be limits set for these compounds in the future. Although the Proposed Permit does not contain monitoring requirements for all toxic pollutants, it does contain source control requirements to minimize the potential for toxic pollutants being discharged to the Facility. Source control efforts include public outreach and education efforts to encourage the public not to discharge these types of pollutants into the sewer system. The Russian River Watershed Association and the Sonoma County Water Agency sponsor a safe medicine disposal program that promotes the safe disposal of unused medications.

The Permittee has monitored at least two times for most of the pollutants listed on page 7 of the RRWPC comment letter, namely the pollutants for which water quality

objectives have been identified in the document *A Compilation of Water Quality Goals* (California Environmental Protection Agency, 16th Edition, April 2011). The pollutants that have not been monitored are Biphenyl, 2,6-Dimethylnaphthalene, 1-Methylnaphthalene, and Perylene. Regional Water Board staff did not find listings for these four pollutants in the Water Quality Goals document.

The language in section X.B.7 of the MRP states “the Permittee shall be deemed out of compliance with effluent limitations if the concentration of the priority pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reporting level (RL)”. Once an effluent limitation is established for a priority pollutant (based on the reasonable potential analysis), the RL is the basis for compliance determinations.

Comment 3c: Toxicity monitoring questions. Based on how the acute toxicity effluent limitation in section IV.A.3 of the Draft Permit is worded, how can you know if bioassays are being thrown out in order to achieve better numbers and be in compliance? If acute toxicity monitoring is limited to once per discharge season, how would you discover toxicity caused by an occasional intermittent toxic discharge into the plant?

Response: The results of all bioassay monitoring must be submitted to the Regional Water Board. The acute toxicity effluent limitation in section IV.A.3 of the Proposed Permit does not allow the Permittee to ignore or throw out any bioassay monitoring results. Every individual result is compared to the single-sample effluent limitation which requires that each bioassay demonstrate that 70 percent or more of the organisms survived during the 96-hour test period. All sets of three consecutive samples are compared to the median acute toxicity effluent limitations which must equal or exceed 90 percent survival.

Order No. R1-2009-0003 required monthly acute toxicity monitoring. The acute toxicity monitoring frequency was reduced to quarterly in the Draft and Proposed Permits because monitoring over the last six years consistently showed 100% survival in the acute toxicity test. Even monthly grab samples aren’t guaranteed to catch intermittent toxic discharges if they occur. The Proposed Permit addresses this with source control requirements.

Comment 3d: Reductions in monitoring requirements. RRWPC is concerned about reductions in monitoring requirements, including elimination of regular monitoring for copper and hardness, limiting monitoring for CTR pollutants to once per permit term, and reduction in acute monitoring frequency to once per discharge season.

Response: Monitoring requirements have been reduced for constituents that have been compliant with effluent limitations or for which there is no longer reasonable potential to exceed or cause an exceedance of a water quality objective. Fact Sheet section VII of the Proposed Permit provides pollutant-specific rationale for reducing or eliminating monitoring requirements. The Proposed Permit has also been modified to include once per discharge season monitoring of copper and hardness to verify annually that conditions still support a finding of no reasonable potential.

Comment 3e: Compliance with one percent discharge rate limitation. The RRWPC expressed serious concerns about the Draft Permit's "new" language allowing compliance with the 1 percent discharge rate limitation as a monthly average. RRWPC also requested a detailed analysis to show how often the Permittee exceeded the 1 percent discharge rate.

Response: The language in section III.K of the Draft and Proposed Permits is not new language. This language was included in Order No. R1-2009-0003 and is standard language in all of Region 1's NPDES permits for municipal wastewater treatment plants that discharge to surface waters.

The Proposed Permit requires the Permittee to adjust its discharge flow rate on a daily basis to 1 percent of the flow of the Russian River as measured at USGS flow gage at Hacienda Bridge, but the language recognizes that under changing flow conditions, such as those that occur during periods of heavy rainfall, individual daily measurements might occasionally exceed the 1 percent requirement. During these periods of heavy rainfall, dischargers are still required to make a reasonable effort to achieve the one percent discharge rate on a daily basis, but must demonstrate that the monthly average does not exceed one percent of the river flow. This language provides day-to-day operational flexibility for the Permittee, while retaining the intent of the prohibition. This language does not allow the Permittee to count days of no discharge in the calculation of the average monthly discharge rate because it is very clear that the Permittee must make reasonable efforts to achieve the 1 percent flow limitation on a daily basis. This language doesn't allow the Permittee to discharge at high discharge rates to make up for days when they didn't discharge – a concern expressed by RRWPC.

RRWPC also requested a detailed analysis to show how often the Permittee exceeded the one percent discharge rate. During the term of Order No. R1-2009-0003, the Permittee never exceeded the one percent discharge rate on a daily or monthly basis (based on a review of monitoring data submitted for the period of March 2009 through December 2013). The Permittee's daily discharge rate typically ranges between 0.01 and 0.25 percent of the Russian River flow which is about one fourth of what the Permittee is allowed to discharge. Flow and discharge rate monitoring data submitted by the Permittee in October, November and December 2013 shows that the daily discharge rates have ranged from 0.16 and 0.73 percent of the Russian River flow. It appears that the Permittee is currently discharging at higher daily discharge rates due to the lower flows in the Russian River, but the Permittee's daily discharge rate is still below the allowed 1 percent discharge rate.

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

Topic No. 4: Reasonable Potential Analysis, Effluent Limitations and Receiving Water Limitations

Comment 4a: Reasonable potential analysis for copper and use of water effects ratio. One issue of great concern to the RRWPC is the determination of hardness and relation to WER analysis in reference to copper. Salmonids have extremely sensitive olfactory systems and it appears that the numbers mentioned in the permit are much higher than what salmonids can tolerate.

Response: Water quality standards for copper in the California Toxics Rule (CTR) were established by the U.S. EPA after considerable technical input and a lengthy public participation process, and were based on best available science. This includes the allowance for a discharger to conduct a discharge-specific study to determine if a water effect ratio is appropriate for use in the calculation of a water quality objective for copper. If new information becomes available in the future that convinces the U.S. EPA to modify the water quality standard for copper, discharge requirements will be reviewed and revised, if appropriate.

Comment 4b: Nitrate effluent limitations and discharge specifications for surface water and land disposal. Why is the interim maximum daily interim effluent limit for nitrate for discharges to surface water much higher than the discharge specification for nitrate for discharges to land?

Response: Interim effluent limitations are authorized in a permit when a Permittee is required to meet a new or newly interpreted standard and the Permittee needs time to develop a program or capital improvement project to comply with the effluent limitation. Interim effluent limitations are always higher than a final effluent limitation because interim effluent limitations are based on facility performance, while final limits are based on protection of water quality.

Comment 4c: Groundwater receiving water limitations. How will you know if the groundwater receiving water limitations in section V.B of the Draft Permit are being met? Will groundwater be monitored for chemicals and other properties?

Response: If effluent monitoring data reveals concentrations of pollutants that could affect groundwater quality, groundwater monitoring requirements are established. The groundwater monitoring data is then used to determine compliance with groundwater receiving water limitations.

During the term of Order No. R1-2009-0003, the Permittee was required to monitor its effluent three times for CTR priority pollutants and title 22 drinking water constituents. These analyses captured a broad range of chemical and organic pollutants. Only a few constituents were detected in the effluent at levels that could affect groundwater quality, namely nitrate, total dissolved solids, sodium, and pH. In addition, groundwater monitoring for aluminum was included in the Permittee's groundwater monitoring requirements based on a finding that groundwater aluminum concentrations occasionally exceed the primary drinking water quality objective for aluminum. These constituents are included in the groundwater monitoring program in the Proposed Permit. No changes were made to the Proposed Permit in response to these comments.

Comment 4d: Mercury. Mercury has been identified as a serious problem for the Laguna and Russian River and needs to be addressed.

Response: Currently, mercury is included on the 303(d) list of impaired waterbodies for the Upper and Middle reaches of the Russian River and the Laguna de Santa Rosa. Mercury is not listed for the Lower Reach of the Russian River, which is where the Permittee discharges to. Nonetheless, the Permittee has monitored its effluent and the Russian River for mercury each time it monitored for CTR priority pollutants. The

maximum effluent concentration for mercury was 0.00276 ug/L and the maximum concentration detected in the Russian River was 0.0134 ug/L. The most stringent water quality objective for mercury is the CTR human health criterion of 0.050 ug/L. The reasonable potential analysis for mercury that was conducted with the available data showed that there is no reasonable potential for mercury to exceed water quality objectives for mercury, therefore the Proposed Permit does not include effluent limitations for mercury. No changes were made to the Proposed Permit in response to this comment.

Topic No. 5: Reclamation and Land Disposal

Comment 5a: Concerns about land disposal on the Burch property. RRWPC would like to know what care is taken now to prevent over-irrigation of the lower Burch property and to protect the shallow groundwater beneath that property and the historic Clar tree. How are agronomic rates determined for the Burch property?

Response: The Burch property is recognized in the Draft and Proposed Permits as a land disposal site which generally means that irrigation is permitted to occur at greater than agronomic rates. Land disposal is allowed to the extent that it does not result in a statistically significant degradation of groundwater quality unless a technical evaluation is performed to demonstrate that any degradation that occurs after implementation of best practicable treatment or control of the discharge will not result in a pollution or nuisance and the highest water quality consistent with maximum benefit to the people of the state will be maintained.

Order No. R1-2009-0003 required the Permittee to monitor three existing monitoring wells on a quarterly basis. The Permittee increased monitoring to monthly in 2010. Groundwater monitoring conducted by the Permittee during the term of Order No. R1-2009-0003 revealed that concentrations of wastewater pollutants (nitrate, total dissolved solids, aluminum, sodium, chloride) are higher in a downgradient well in comparison to an upgradient well. In light of these findings, it is necessary to require the Permittee to gather additional information to assess its irrigation and disposal operation and groundwater conditions. Regional Water Board staff intends to prepare a cease and desist order to be brought before the Regional Water Board in June 2014.

Comment 5b: Reclamation and irrigation runoff. It is important to control irrigation runoff since this Facility is in a recreational area and runoff is likely to contain remnant toxins after the treatment process as well as toxins from the ground such as pesticides that could get carried into the waterway when there is runoff.

It is our understanding that any runoff not specifically coming under the reclamation definitions is an illegal discharge. In other words, irrigators with multiple instances of runoff, even when claimed to be minimal, are out of compliance with their permit. Section IV.G.3.e of the Fact Sheet requires the development of BMPs for the prevention of recycled water spills. In most instances, the word “spills” is probably inappropriate. RRWPC suggests that it be replaced with the term “runoff”. We are here back to the problem of legalizing “incidental runoff” which has not been enforced as it is defined.

Response: The Draft and Proposed Permits utilize a definition of incidental runoff that combines definitions from the Basin Plan Action Plan for Storm Water Discharges and the State Board’s Recycled Water Policy. Section A.8 of Attachment G, states “Incidental runoff is defined as unintended small amounts (volume) of runoff from recycled water use areas where agronomic rates and appropriate BMPs are being implemented. Examples of incidental runoff include unintended, minimal over-spray from sprinklers that escapes the recycled water use area or accidental breakage of a sprinkler head on a properly maintained irrigation system. Water leaving a recycled water use area is not considered incidental if it is due to negligent maintenance or poor design of the facility infrastructure, if it is due to excessive application, if it is due to intentional overflow or application, or if it is due to negligence. Incidental runoff events are typically infrequent, low-volume, accidental, not due to a pattern of neglect or lack of oversight, and are properly addressed.” This definition is intended to provide a clear description of what incidental runoff is and is not, using specific examples.

Regional Water Board staff continues to work with all dischargers to more clearly distinguish incidental runoff from non-incidental runoff. Each runoff incident must be evaluated individually, and in comparison to other incidents, to determine if there is a pattern of runoff incidents that are not incidental. Runoff at individual irrigation sites that does not meet the conditions of incidental runoff constitutes permit noncompliance which is subject to enforcement action by the Regional Water Board.

Since this Permittee currently has one recycled water user, the Northwood Golf Course, it is fairly straight-forward to work with the Permittee to ensure that runoff incidents are kept to a minimum, that the ones that do occur are incidental, and that any runoff that is not incidental is properly reported and corrected. As noted by the commenter, the Proposed Permit requires the Permittee to submit a Recycled Water BMP/Operations and Management Plan to identify the operational practices that will be implemented to achieve efficient irrigation at its current recycled water use site. [See also response to Comment 2b, above]. No changes were made to the Proposed Permit in response to this comment.

The Proposed Permit uses the terms “spills” and “runoff”, as well as “unauthorized discharges” to reflect language from the applicable regulation or policy (e.g., Water Code, Recycled Water Policy, Basin Plan, etc.).

Comment 5c: Night time irrigation and runoff. If irrigation is at night, overflows can’t be easily observed. Early morning or late afternoon might work.

Response: Irrigation during the night is a standard protocol, for both potable and recycled water irrigation. There is generally less wind and evaporation during the night, allowing for efficient use of the irrigation water and minimizing the potential for overspray or windblown spray. For recycled water, night time irrigation is particularly important on use sites that are utilized by the public during the day, which is the case for a golf course. Section B.13 of Attachment G specifically requires that use areas that are spray irrigated and allow public access must be irrigated during periods of minimal use and must allow maximum drying time prior to subsequent public use pursuant to title 22.

With proper determination of irrigation rates and use of BMPs to prevent and minimize runoff, night time irrigation should not be a problem. When Regional Water Board staff inspected the Northwood Golf Course in 2012, the golf course manager stated that the entire golf course is inspected early in the morning each day following irrigation with particular attention paid to areas where ponding could occur if over-irrigation occurs and repairing any broken pipes or nozzles when they are found.

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

Comment 5d: Agronomic rates. RRWPC would like the Draft Permit to include specific standards to define agronomic rates, because the current language is mushy, and compliance may be difficult to determine. Aren't there industry standards that can be included to make this language more specific? What changes in loading rates might occur from one part of a season to another?

Response: Agronomic rate refers collectively to an optimum amount of hydraulic and nutrient loading rate. This means that only optimum amounts of water and nutrients must be applied through recycled water application on use area crops/grasses in order to avoid (1) excessive water ponding or run-off in the recycled water use areas, and (2) percolation of nutrients (nitrogen) beyond the root zone of the plants. The design hydraulic and nutrient agronomic rates are obtained using a water balance and a nutrient balance analysis.

The recycled water industry, U.S. EPA, and several University extension programs have developed guidance documents and empirical journals to explain how to determine agronomic rates. Nutrient uptake rates for specific types of grasses and crops are available from various recognized publications. The consulting engineers use these references while preparing the water and nutrient balance analysis. Regional Water Board staff expects the Permittee's agronomic rate analysis to provide clear justification for the agronomic rates used at the Northwood Golf Course.

Agronomic rates are generally identified as annual rates and take into account variations throughout an irrigation season. When agronomic rates are applied in combination with knowledge of average monthly evapotranspiration rates and appropriate BMPs to prevent runoff, recycled water use generally complies with state requirements. Regional Water Board staff will review the Permittee's technical reports to ensure that all assumptions and calculations are justified and demonstrate that water quality will be protected.

Comment 5e: Cessation of recycled water delivery. Section B.5 of Attachment G states that the Permittee must discontinue delivery of recycled water during any period in which there is reason to believe that the requirements for use are not being met and cannot be corrected in a timely manner. RRWPC supports this approach, but is concerned that it may not be implemented. Based on observations of the City of Santa Rosa recycled water system, RRWPC wonders why this requirement is not enforced for everyone.

Response: The Permittee implements controls within the treatment plant to ensure that non-compliant recycled water is not accidentally delivered to the recycled water system, including the use of set points that are slightly lower than the permit

specifications for turbidity, UV dose, and UV transmittance. When a set point is reached, potentially non-compliant effluent is directed to the emergency holding pond rather than to the treated effluent storage pond, so that the water is not discharged to the Russian River or distributed to the land disposal or reclamation sites.

This requirement also means that the Permittee is required to terminate recycled water service to a reclamation site where there is repeated non-compliance. Regional Water Board staff is not aware of incidents of repeated non-compliance at the Northwood Golf Course. If such incidents were to occur, Regional Water Board staff expects that recycled water service would be curtailed until such time that the problems causing the non-compliance are resolved.

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

Comment 5f: Control of overspray. RRWPC has a problem with the concept of “unintended, minimal overspray” (section B.11 of Attachment G) being cited as an event that is not a violation of permit requirements. RRWPC requests that the permit include a requirement that irrigation should not take place when winds are over a certain speed, such as 5 or 10 miles per hour, stating that this is particularly important in urban areas where spray can expose people to wastewater.

Response: The Proposed Permit includes the requirements of title 22 for the protection of human health. If inspections reveal that the recycled water system is not properly designed to prevent overspray and/or that the system isn’t being adjusted if unintended wind-blown spray is discovered, this would be a violation of the permit and enforcement may be taken to address the violation. [See also response to Comment 5c.] No changes were made to the Proposed Permit in response to this comment.

Comment 5g: Recycled water use site signage. RRWPC is concerned that signs identifying recycled water use are too small.

Response: Title 22 defines the proper size for recycled water signs. These requirements are included in section B.23 of Attachment G. No changes were made to the Proposed Permit in response to this comment.

Comment 5h: Suggested reclamation best management practices. RRWPC provided suggested BMPs and operational and reporting practices that should be required of the Permittee on page 12 of the comment letter.

Response: As described in response to comments above, use of agronomic rates, BMPs to control unintended runoff, ponding, and spray mist, and proper installation, operation and maintenance of the reclamation system are all essential to ensure compliance with permit requirements. The Permittee is required to prepare a Recycled Water Management/Operations and Management Plan to identify all of these elements in writing. The Permittee will need to describe the irrigation system and document how agronomic rates are determined based on the irrigation needs of the vegetation and climatic conditions. In addition, Attachment G includes BMPs that are required or suggested to ensure successful, compliant operation of the reclamation system. The

Permittee may elect to incorporate some of the commenter's suggestions into the BMP plan.

The Proposed Permit specifically addresses some of the issues identified in the commenter's list of suggestions including setback requirements, inspection requirements, and reporting requirements. Regional Board staff agrees that drip irrigation is an excellent method to deliver recycled water in a controlled manner, but that it is not an effective method for all uses. Generally speaking, additional BMPs are needed when spray irrigation systems are utilized. It is the expectation of Regional Water Board staff that the agronomic rate calculations not include the area of impervious surfaces.

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

Comment 5i: Reclamation site inspections. The word "inspections" must be clearly defined, as there are many different levels, types, and frequencies of inspections. Inspections to look for runoff need to happen more than once per month.

Response: Water Recycling Provision C.3 of Attachment G requires the Permittee to conduct periodic inspections of the recycled water use areas, facilities, and operations to monitor and assure compliance with the conditions of the Order. The Permittee has reported in its annual reports that it conducts daily inspections of the Burch property irrigation area and that the golf course site supervisor conducts daily inspections of the golf course to verify that permit conditions related to prevention of runoff, ponding, spray mist, etc. are being met. In addition, both irrigation systems are inspected at least annually to ensure that there are no broken irrigation lines or irrigation heads and that pumps are properly operated and maintained. No changes were made to the Proposed Permit in response to this comment.

Comment 5j: Responsibility for compliance with irrigation requirements. There are many requirements for irrigation in the Draft Permit, but isn't most irrigation under the control of SCWA on the Burch Property? In the case of the golf course, wouldn't that be under the control of the property owner? How many property owners in the District are responsible for complying with irrigation requirements?

Response: The Proposed Permit identifies the Permittee as Russian River County Sanitation District and the Sonoma County Water Agency. The Permittee is responsible to ensure compliance with all permit requirements on the Burch property and at the Northwood Golf Course. The Permittee has direct control over-irrigation on the Burch property, while the Permittee's control over what happens at the Northwood Golf Course is through its recycled water agreement with the Northwood Golf Course and use site inspections. No changes were made to the Proposed Permit in response to this comment.

Comment 5k: Recycled water spill reporting. Reporting requirements for irrigation runoff is within 24 hours of discovery. How does this mesh with the MRP requirement that spills of 50,000 gallons or more of tertiary wastewater require immediate notification, implying that under 50,000 gallons does not?

Response: Unauthorized discharges of 50,000 gallons or more of tertiary recycled water require immediate notification to the Regional Water Board pursuant to state regulations (Cal. Water Code section 13529.2). Spills less than 50,000 gallons must be reported within 24 hours of discovery. No changes were made to the Proposed Permit in response to this comment.

Comment 5m: Recycled Water Policy and salt and nutrient management planning. RRWPC requests an explanation of how the salt and nutrient management planning requirements of the Recycled Water Policy will be applied for recycled water use by the Permittee.

Response: The State Water Board Recycled Water Policy allows the Regional Water Boards to approve recycled water projects within a groundwater basin where a salt and nutrient management plan has not been completed provided that a recycled water management plan demonstrating that agronomic rates and BMPs are being implemented for the protection of water quality and by demonstrating through a salt/nutrient mass balance or similar analysis that the recycled water project uses less than ten percent of the available assimilative capacity as estimated by the project proponent in a basin/sub-basin, or where there are multiple recycled water projects, that the projects use less than twenty percent of the available assimilative capacity as estimated by the project proponent in a basin/sub-basin.

For existing recycled water uses, the Regional Water Board must gather this information retrospectively. The Proposed Permit has been modified to make it clear that the Permittee must submit both a recycled water management plan and an assimilative capacity analysis for the existing reclamation and land disposal uses.

Comment 5n: Effect of CDPH reorganization under State Water Board on permit requirements. The Draft Permit fails to note the imminent reorganization of the state's Drinking Water Program to place it under the State Water Board rather than the Department of Public Health and how it will affect the permitting of recycled water use. The Memorandum of Agreement (MOA) between the Department of Health Services and the State Water Board (Attachment G, section A.5) will be abandoned soon and new documents will be developed. Recycled water criteria and title 22 engineering report requirements may be different as well.

Response: Regional Water Board staff acknowledges that the reorganization of CDPH Drinking Water Program under the State Water Board is moving forward. The Drinking Water Reorganization Task Force January 2014 report regarding the Transfer of Drinking Water Program from California Department of Public Health to State Water Resources Control Board states that the MOA on the Use of Reclaimed Water (1996) would no longer be necessary since recycled water would be managed under the State Water Board and that the State Water Board plans to continue to implement the MOA's existing provisions regarding Regional Water Board roles. Recycled water requirements are not expected to change as a result of the reorganization. No changes were made to the Proposed Permit in response to this comment.

Topic 6: TMDL Requirements

Comment 6a: Reopener for 303(d)-Listed Pollutants. The list identifies TMDL listings for nitrogen, phosphorus, dissolved oxygen, sediment and temperature, but does not identify the listing for pathogens.

Response: The reopener provision in section VI.C.1.d of the Proposed Permit has been corrected to identify the proper listings for the lower Russian River which are sediment, temperature, and pathogens. The lower Russian River is not 303(d)-listed for nitrogen, phosphorus, or dissolved oxygen, thus references to these pollutants have been removed from section VI.C.1.d of the Proposed Permit.

Comment 6b: Pathogen TMDL and implementation of AB 885. The Draft Permit should acknowledge how development of the pathogen TMDL and implementation of AB 885 will affect discharges from this Facility. The Regional Water Board has hinted that upon completion of the pathogen TMDL around 2016, that there will be implementation of AB 885 for Monte Rio and the surrounding area, including the Russian River CSD treatment plant.

Response: Fact Sheet section III.D of the Proposed Permit has been modified to acknowledge that Regional Water Board staff is working on the pathogen TMDL. The TMDL may include waste load allocations for wastewater discharges to surface waters in the Russian River watershed. Since the pathogen TMDL is a work in progress, it is premature to identify the sources, the wasteload allocations, implementation actions or monitoring requirements that will be established in the pathogen TMDL. Section VI.C.1.d of the Proposed Permit includes a reopener provision that states that the permit will be reopened and modified, if necessary, upon adoption of the TMDLs that are being developed for the Russian River watershed. No changes were made to the Proposed Permit in response to this comment.

AMEC Environment and Infrastructure, Inc. and Castellon and Funderburk,LLP on behalf of Roger and Michele Burch

On January 27, 2014 AMEC Environment and Infrastructure, Inc (AMEC) and Castellon and Funderburk, LLP, on behalf of the RMB Revocable Family Trust, with Roger A. Burch and Michele Burch as Trustees (Castellon) submitted comments on the Draft Permit. The AMEC letter is focused on 4 technical issues that are repeated in the Castellon comment letter. Please refer to the comment letters for the full text of comments. The following are staff responses to significant comments submitted on behalf of the Burch family.

The Castellon comment letter consists of a 7 page comment letter and 6 attachments that include the following; (1) a written document titled “Comment, Opposition and Complaint by Adjacent Landowner Roger Burch to Order No. R1-2003-0026, NPDES Permit No. CA0024058, ID #1B820450SON, Waste Discharge Requirements; (2) four undated photographs of ponding in the land disposal area; (3) a map of the irrigation area; (4) a February 19, 2009 memorandum titled “Engineering Geologic Review of Timber Harvesting Plan 1-02-179 SON”; (5) an October 28, 2003 memorandum titled “Effects of Wastewater Spraying on Hydrogeologic Conditions on Silver Estate Tract, Lands of Burch, Sonoma County, California – T7&8N, MDBM”, and (6) a 2000 document produced by the Marin/Sonoma Mosquito and Vector Control District titled, “Wetlands Development and Management Guidelines for Mosquito Control in Marin and Sonoma.”

The letter states that the Russian River County Sanitation District (District) has grossly overburdened its spray easement over the Burch property, adversely impacting the environment and resource values of the land and interfering with the Burch property’s rights to use of the land and exercise of its timber rights. The letter further states that the District is only using 17 acres of an available 77 acres for irrigation of its treated waste water – meaning that 22% of the Burch Property is receiving all of the waste water intended for over 77 acres.

In light of this overburdening of the spray easement, the letter requests the Regional Water Board to increase the Permittee’s reporting requirements and allow for adequate notice and comments to ensure compliance with the Draft Permit, specifically as described in the following comments.

Comment No. 1: AMEC requests that Provision VI.C.2.b of the Draft Permit (Recycled Water BMP/Operations and Management Plan requirement) include language that provides for review and comments by all interested and affected parties, including the Burch property prior to the adoption of the Draft Permit. The Plan should include the amount of planned discharge rate, and locations on the Burch property.

Response: The Proposed Permit states that 17 acres of wooded property adjacent to the treatment facility (Burch property) are irrigated. During the irrigation season (May 15 through September 30), approximately 0.02 mgd and 0.23 mgd, respectively, are currently applied to the “upper” and “lower” areas of the Burch property. A review of the Permittee’s submitted flow monitoring data to the Burch property for the period of 2009-2013 indicates that the Permittee never exceeded these irrigation rates as average daily rates over each irrigation season. The Permittee has not identified any changes to the irrigation acreage or volume. However, due to the fact that groundwater monitoring data collected during the term of Order No. R1-2009-0003 shows higher

concentrations of wastewater pollutants in a down-gradient monitoring well in comparison to an up-gradient monitoring well, Regional Water Board staff are preparing a cease and desist order for consideration by the Regional Water Board at a Board Meeting in the near future. The cease and desist order is tentatively scheduled for the June 19, 2014 Board Meeting. [See responses to Sonoma County Water Agency Comments 5 and 14 and RRWPC Comments 2a and 5a, above]

In addition, the Proposed Permit has been modified to state that the Recycled Water BMP/Operations and Management Plan will be made available for a 30-day public review period prior to final approval by the Regional Water Board Executive Officer. [See also response to RRWPC Comment 2b, above]

Comment No. 2: The Draft Permit should be modified to include language that requires the Permittee to submit an up-to-date CDPH-approved title 22 engineering report for the use of recycled water and to allow for review and comments by all interested and affected parties, including the Burch Property (owners) prior to the adoption of the Draft Permit.

Response: Section A.7 of Attachment G requires the Permittee to maintain an up-to-date, CDPH-approved title 22 engineering report for the use of recycled water pursuant to the requirements of title 22. Regional Water Board staff agree that the title 22 engineering report needs to be updated to reflect changes to the treatment facility and any changes in the reclamation system that have occurred since the current title 22 engineering report was prepared in 2004. Under the terms of the Memorandum of Agreement between the State Water Board and CDPH, the title 22 Engineering Report is reviewed and assessed for completeness and adequacy by CDPH, thus the Proposed Permit has not been modified to include a public comment period for this report. Section IV.C.1 of the Proposed Permit has been modified to require the Permittee to submit an updated title 22 recycled water engineering report for CDPH review and approval no later than May 1, 2014.

Comment No. 3: The Draft Permit should be modified to include language that requires the Permittee to submit copies of self-monitoring data related to Discharge Point 003, including Monitoring Locations LND-001, GW-001, GW-002, and GW-003 to the Burch property (owners) within five days of submittal to any regulatory agency.

Response: The Permittee is required to submit electronic monitoring reports. That data is available to the public at the State Water Board public reports website, http://www.waterboards.ca.gov/water_issues/programs/ciwqs/publicreports.shtml, as soon as it is electronically submitted by the Permittee. No changes were made to the Proposed Permit in response to this comment.

Comment No. 4: Due to the drought conditions in California, the Regional Water Board should specifically require the Permittee to prepare a report documenting that the irrigation plans comply with applicable “waste to water” State policies and mandates prior to the adoption of the Draft Permit.

Response: Section 13550 of the California Water Code states that the use of potable domestic water for non-potable uses is a waste or an unreasonable use of the water if recycled water is available which meets specific conditions identified in this section of

the water code. The conditions include: (1) the source of recycled water must be of adequate quality for the uses and is available for the uses as a replacement to potable water; (2) the recycled water must be furnished at a reasonable cost to the user; (3) the use of recycled water from the proposed source will not be detrimental to public health; and (4) the use of recycled water will not adversely affect downstream water rights, will not degrade water quality, and is determined not to be injurious to plant life, fish, and wildlife.

Reclamation opportunities in the immediate vicinity of the Facility are limited, therefore the Permittee has utilized the land disposal operation on the Burch property to provide the extra irrigation capacity it needs. Regional Water Board staff is preparing a cease and desist order for the Regional Water Board's consideration to require the Permittee to gather additional information to assess its irrigation and disposal plan. In addition, the Proposed Permit has been modified (section VI.C.2.b) to require the Permittee to assess its treatment and disposal capacity and submit a report by March 1, 2015, documenting the findings of the assessment and a schedule for addressing any identified deficiencies in the treatment and disposal systems.

The Permittee has completed design work for a treatment plant upgrade to accomplish biological nutrient removal (BNR) by the end of 2014 in order to comply with effluent limitations for nitrate and ammonia for discharges to the Russian River and to reduce nitrogen concentrations in its recycled water. Upon completion, this BNR project is expected to reduce nitrogen in the Permittee's recycled water to concentrations that comply with nitrate and ammonia effluent limitations and discharge specifications in the Proposed Permit. It is anticipated that these reductions in effluent nitrogen concentrations will be protective of groundwater quality in the land disposal area on the Burch property.

Permit Modifications Made by Staff to the Proposed Permit

1. Table E-3. Regional Board staff added requirements for the Permittee to report its calculations of mass-emission rate (lbs/day) and monthly percent removal. The Proposed Permit includes effluent limitations for these two calculated limits, therefore, the MRP should call out the need to report the results.
2. Fact Sheet section II.B retitled “Recycled Water and Land Disposal” to capture the fact that the section includes a discussion about both elements of the Permittee’s irrigation system.
3. Fact Sheet section IV.D.1. Regional Water Board staff removed the discussion regarding removal of chloride discharge specifications because land discharge requirements are not subject to federal anti-backsliding regulations. The discussion regarding removal of chloride discharge specifications was added as section IV.F.3.f of the Fact Sheet.
4. MRP section VIII.B, Table E-7b. Regional Water Board staff added chloride monitoring requirement back to this table. Although the Permittee’s effluent does not exceed the chloride water quality objective of 250 mg/L, the Permittee should continue to monitor for nitrogen and salts until the Permittee demonstrates that the land disposal system is fully compliant with all permit requirements.
5. MRP section VIII.B, Table E-7b. Regional Water Board staff changed the monitoring frequencies for all constituents in Table E-7b from quarterly to monthly to be consistent with the monthly monitoring frequency that has been used by the Permittee for the last four years. This monthly monitoring frequency is needed to document trends in groundwater quality until the Permittee demonstrates that the land disposal system is fully compliant with all permit requirements.