

² The contact number for sewer spill reporting for CalEMA is (800) 852-7550. The contact number of the Regional Water Board during normal business hours is (707) 576-2220. After normal business hours, sewer spill reporting to CalEMA will satisfy the 2 hour notification requirement for the Regional Water Board.

~~e. Within five (5) business days, the Permittee shall submit a written report to the Regional Water Board office. The report must include all available details related to the cause of the sewer spill and corrective action taken or planned to be taken, as well as copies of reports submitted to other agencies.~~

- ~~i. Information provided in the verbal notification;~~
- ~~ii. Other agencies notified by telephone;~~
- ~~iii. Detailed description of cleanup actions and repairs taken; and~~
- ~~iv. Description of actions that will be taken to minimize or prevent future sewer spills.~~
- ~~v. CalEMA certification number~~

~~b.d.~~ In the cover letter of the monthly monitoring report, the Permittee shall include a brief written summary of the event and any additional details not included in reports submitted pursuant to Order Nos. 2006-0003-DWQ and WQ-2008-0002-EXEC related to the cause or resolution of the event, including, but not limited to results of any water quality monitoring conducted.

2. All sewer spills, and unauthorized discharges, ~~and sanitary sewer overflows (SSOs)~~ less than 1,000 gallons that do not reach a drainage channel or a surface water: .

a. As soon as possible, but not later than ~~twenty-four (24) hours~~ the next business day after becoming aware of the discharge, the Permittee shall notify the Regional Water Board and provide the applicable information in requirement 1.a of this section.

b. In the cover letter of the monthly monitoring report, the Permittee shall include a written description of the sewer spill event.

COMMENT 26. WDR SECTION VI.C.7.A. PAGE 28 "CAPACITY INCREASE ENGINEERING REPORT.

This section states that "by December 1, 2013, the Permittee shall submit to CDPH and the Regional Water Board an updated Recycled Water Engineering report, prepared in accordance with title 22, documenting that treatment and/or total reclamation capacity has been added." The purpose of this provision is to provide the opportunity to increase the permitted treatment and disposal capacity of the system at such time it is constructed. Therefore, no date should be specified.

Proposed Revisions to Tentative Order:

a. Capacity Increase Engineering Report. ~~By December 1, 2013,~~ At such time that the Permittee makes improvements or other changes that increase the treatment and/or total reclamation capacity, the Permittee shall submit to CDPH and the Regional Water Board an updated Recycled Water Engineering report, prepared in accordance with title 22, documenting that

treatment and/or total reclamation capacity has been added. This report shall document that the Permittee exceeds the total reclamation capacity of 4,607 million gallons for Geysers recharge, and maintains the capability to irrigate at least 2,590 million gallons per year at 21.34 mgd ADWF. The Executive Officer will inform the Permittee within 90 days after receipt of the report that the additional capacity is recognized by the Regional Water Board.

COMMENT 27. WDR SECTION VI.C.7.B PAGE 28;

The Tentative Order appears to incorporate by reference the requirement to comply with another NPDES permit, Order No. 97-03-DWQ, for industrial stormwater discharges. Since compliance with that separate permit is already required and separately enforceable, the words "and meet" must be removed from this permit. As with the comment on the SSO WDR above, this section should also make clear that the Industrial Stormwater Permit is not incorporated by reference into and enforceable under this Tentative Order, which is consistent with Order No. R1-2012-0031 at pages 26-27. In addition, the City submitted comments regarding the third draft of the Industrial Stormwater Permit. The City requests that the Regional Water Board support State Water Board revisions to address the City's concerns before the Industrial General Permit renewal is formally adopted.

Proposed Revisions to Tentative Order:

b. **Storm Water.** For the control of storm water discharge from the Subregional System, the Permittee shall ~~maintain~~ seek separate authorization to discharge under and meet the requirements of the State Water Board's Water Quality Order No. 97-03-DWQ, NPDES General Permit No. CAS000001, Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities Excluding Construction Activities (or subsequent renewed versions of the General Permit), which are not incorporated by reference in this Order.

COMMENT 28. WDR SECTION VII. PAGES 28 THROUGH 33; COMPLIANCE DETERMINATION LANGUAGE

Some of the proposed language in this section unlawfully presumes that the permittee "shall be deemed out of compliance," even though there may be an explanation or defense for such non-compliance (*see e.g.*, Standard Provisions D.I.G. and H). Further, the language eliminates due process prior to a finding of non-compliance (such as a hearing, and the opportunity to present contrary evidence or defenses).

Reliance on the permit template prepared by the State Water Board is not acceptable, as the permit template is not a regulation, but merely a guidance document able to be readily changed. Therefore the City requests that all references to "violation(s)" or conclusions that the Permittee "shall be deemed out of compliance" be removed and the wording be changed in the compliance determination language to reflect that exceedances are "alleged violations" and that exceedances "may" be deemed violations, since they may also NOT be deemed violations if a defense exists.

Proposed Revisions to Tentative Order:

Remove all references to “violations”⁶ and replace with a more generic term “exceedance,” or the phrases “may be deemed out of compliance” or “may be grounds for an enforcement action.”

Alternatively, the Tentative Order could simply state when compliance will be considered attained, or provide what data will be reviewed and what standards the data will be compared to in order to determine compliance, as is done in Provision VII.A. (first sentence), VII.B, C., I., J., K., L. and M. As illustration, the following alternative modifications could be acceptable:

VII.A.... “For purposes of reporting and administrative enforcement by the Regional and State Water Boards, the Permittee shall compare ~~be deemed out of compliance with effluent limitations if~~ the concentration of the priority pollutant in monitoring sample is ~~greater than~~ to the effluent limitation and ~~greater than or equal~~ to the reporting level (RL).”

or

VII.A.... “For purposes of reporting and administrative enforcement by the Regional and State Water Boards, the Permittee shall be deemed in out of compliance with effluent limitations if the concentration of the priority pollutant in monitoring sample is ~~greater~~ less than or equal to the effluent limitation and ~~greater less than or equal to~~ the reporting level (RL).”

⁶ Similar problematic language exists in the Fact Sheet on page F-45 related to a determination as to whether “the discharge is in violation of the narrative toxicity water quality objective.” Since under the current SIP policy and State Water Board precedent, the TUC values are merely triggers into additional testing, exceedances of these trigger values should not be deemed to constitute violations, and this language should be modified accordingly.

ATTACHMENT D – STANDARD PROVISIONS
COMMENTS

COMMENT 29. ATTACHMENT D SECTION V.B.5. PAGE D-6. CERTIFICATION REQUIREMENTS

The Tentative Order contains certification language that must be modified in relation to whole effluent toxicity (“WET”) testing results. The word “accurate” needs to be removed from this certification or, alternatively, after the word “accurate,” the following caveat should be included: “(except in the case of toxicity testing, the accuracy of which cannot be guaranteed).”

More specifically, because of the inherent and recognized uncertainty (and false positives) surrounding toxicity (WET) testing results, the certification requirements in Section V.B.5. must be modified to remove the word “accurate” from the certification for all WET tests. When EPA promulgated its whole effluent toxicity tests in 40 C.F.R. Part 136, it stated: “*Accuracy of toxicity test results cannot be ascertained, only the precision of toxicity can be estimated.*” (emphasis added).⁷

Proposed Revisions to Tentative Order:

Modify the certification requirements in Section V.B.5. as follows:

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons responsible for gathering the information, all information except for whole effluent toxicity test (WET) results is, to the best of my knowledge and belief, true, accurate, and complete. With respect to WET test data, for which accuracy cannot be ascertained (see Federal Register, Vol. 60, No. 199; Oct. 16, 1995 @ p. 53535), I certify that all results reported are complete and uncensored and contain no known errors or omissions. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.” (additions emphasized)

If the Regional Board does not wish to modify this regulatory language, then the Fact Sheet should recognize that EPA has stated that the accuracy of toxicity tests cannot be guaranteed and the Regional Board should, at the very least, insert the following footnote on page D-7 clarifying this certification requirement:

On March 3, 2000, U.S. EPA issued a memorandum stating that ‘a certification of “accuracy” in information submissions is a certification that the information provided is

⁷ See 60 Fed. Reg. 53535 (Oct. 16, 1995). EPA made similar statements in the procedures manual for each method. For example: “*The accuracy of toxicity tests cannot be determined.*” (emphasis added), Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms; EPA/600/4-91/002; July, 1994 @ pgs. 139, 193 & 225.

- City of Santa Rosa. 2007a. Incremental Recycled Water Program Discharge Compliance Project, Draft Environmental Impact Report. November. Available at <http://ci.santa-rosa.ca.us> .
- City of Santa Rosa. 2007b. Technical Memorandum D-7: Santa Rosa IRWP - Discharge Compliance Project Water Balance Model Summary. August. Available at <http://ci.santa-rosa.ca.us> .
- City of Santa Rosa. 2007c. Technical Memorandum D-6: Santa Rosa IRWP - Discharge Compliance Project; Laguna de Santa Rosa and Russian River Flow and Water Quality Model Summary. August. Available at <http://ci.santa-rosa.ca.us> .
- City of Santa Rosa. 2008. Incremental Recycled Water Program Discharge Compliance Project, Final Environmental Impact Report. September. Available at <http://ci.santa-rosa.ca.us> .

Table 1).

These results indicate that the travel time to the Russian River confluence from Delta Pond (the City's discharge location) is between 6.3 and 7 hours during the year types when recycled water discharge would occur (median, wet and wettest – no discharge is expected in the dry and driest year types). The driest year (1977) experienced the longest travel time. This is due to the extreme drought condition during water year 1977, when maximum flows in the Laguna at the downstream confluence with the Russian River was approximately 120 cubic feet per second (cfs). The model identified no River-induced backwater condition at these low flows.

During the dry (1972), median (1917), wet (1914), and wettest (1983) hydrologic year types, maximum Laguna flows at the confluence reached approximately 500 cfs, 1,900 cfs, 2,200 cfs and 2,300 cfs, respectively. Similar to the driest year type, dry year type conditions were not remarkably affected by Russian River backwater, and with higher flows, travel time was 6.5 hours from Delta Pond. For the median, wet, and wettest year types backwater conditions occurred due to elevated Russian River water surface elevations resulted in longer travel times than the dry year type condition. However, in the wettest year type, results suggest that sufficient inflows to the Laguna countered some of the Russian River backwater, resulting in a slightly shorter transit time than the wet year type.

The model identified no backflow conditions (i.e., when the direction of flow is reversed) in these simulations.

Table 1. Summary of Travel Time in the Laguna de Santa Rosa (hours)

Water Year:	1977	1972	1917	1914	1983
Date/Hour:	3/16/77 1:00	2/4/72 21:00	2/24/17 3:00	1/1/14 17:00	1/23/83 19:00
Year Type:	driest	dry	median	wet	wettest
<u>To River From</u>					
Meadow Lane Pond	20.1	14.1	18.2	22.3	19.9
Delta Pond	7.7	6.5	6.3	7	6.4
Trenton-Healdsburg Road	3.7	3.6	2.7	2.8	2.6

Box surrounds travel time values at the City's discharge location (Delta Pond) during years when discharge would occur (median, wet and wettest).

REFERENCES

ATTACHMENT 3

CITY OF SANTA ROSA COMMENTS REGARDING WASTE DISCHARGE REQUIREMENTS AND MASTER RECLAMATION PERMIT FOR THE SANTA ROSA SUB-REGIONAL WATER RECLAMATION SYSTEM

An assessment of water travel times was completed under flooding conditions using simulations completed for the Discharge Compliance Project Environmental Impact Report (City of Santa Rosa 2007a, 2008). Specifically, the existing Russian River and Laguna de Santa Rosa (Laguna) hydrodynamic model results for five hydrologic year types (driest, dry, median, wet, wettest (see City of Santa Rosa 2007b)) for the existing conditions simulations were used to determine travel time from the headwaters of the Laguna to the Russian River. Hourly model output was available at 200 meter increments throughout the Laguna. The model represents both the Russian River and the Laguna in a single model network, allowing for simulation of backwater conditions within the Laguna in response to local Laguna geomorphology and hydrology, as well as Russian River hydrology. Complete model details are provided in City of Santa Rosa (2007c)

The travel times for each of the five hydrologic year type were simulated for the hour when the peak flow occurred immediately above the confluence of the Laguna and the Russian River. Peak flow conditions were selected for presentation here since backwater conditions will generally be greatest and travel times longest under such conditions. The hydrograph for various locations along the Laguna were compared and the peak flows at all locations coincided with the peak flows at the confluence. The simulated travel times for various Laguna locations to the Russian River are presented below (These results indicate that the travel time to the Russian River confluence from Delta Pond (the City's discharge location) is between 6.3 and 7 hours during the year types when recycled water discharge would occur (median, wet and wettest – no discharge is expected in the dry and driest year types). The driest year (1977) experienced the longest travel time. This is due to the extreme drought condition during water year 1977, when maximum flows in the Laguna at the downstream confluence with the Russian River was approximately 120 cubic feet per second (cfs). The model identified no River-induced backwater condition at these low flows.

During the dry (1972), median (1917), wet (1914), and wettest (1983) hydrologic year types, maximum Laguna flows at the confluence reached approximately 500 cfs, 1,900 cfs, 2,200 cfs and 2,300 cfs, respectively. Similar to the driest year type, dry year type conditions were not remarkably affected by Russian River backwater, and with higher flows, travel time was 6.5 hours from Delta Pond. For the median, wet, and wettest year types backwater conditions occurred due to elevated Russian River water surface elevations resulted in longer travel times than the dry year type condition. However, in the wettest year type, results suggest that sufficient inflows to the Laguna countered some of the Russian River backwater, resulting in a slightly shorter transit time than the wet year type.

The model identified no backflow conditions (i.e., when the direction of flow is reversed) in these simulations.

Proposed Revisions to Tentative Order:

The recycled water use sites identified in the table below and on the attached map are ~~conditionally~~ approved recycled water use sites. To maintain approval of these sites, the Permittee must submit technical reports required in Attachment G according to the schedule specified in VI.1.a.ii to demonstrate that recycled water is applied in a manner that is protective of water quality in compliance with Attachment G for approval by the Regional Water Board Executive Officer. The City seeks additional language that allows future identified and approved use sites to be incorporated into the list of Approved Recycled Water Use Sites.

COMMENT 78. ATTACHMENT G-1. PAGE G-17.

The list should be specifically allowed to be modified without going through a permit modification. Additionally, the current list of Approved Recycled Water Use Sites should be updated to include the following:

Proposed Revisions to Tentative Order:

Owner/operator	APN	Type of Use/Irrigation Types	Total Irrigated Acreage	Volume of Recycled Water (Acre-feet/year)
Cal Trans	N/A	Landscape Irrigation	2.2	0.3
Errichetti	134-211-013	Landscape Irrigation	4.7	1
Ryan	063-120-001	pasture Irrigation	10	15
Rojas	130-250-057	Vineyard	10	2
Castaneda (Spider Web)	130-040-017	Vegetable Irrigation	40	45
<u>New Recycled Water Sites to be added as approved</u>				

The portions of the recycled water piping system that are in areas subject to access by the general public shall not include any hose bibs, except in cases explicitly allowed by CDPH.

COMMENT 75. ATTACHMENT G SECTION II.27. PAGE G-9. WATER RECLAMATION REQUIREMENTS.

This section states that dust suppression shall be limited to areas under the control of the Permittee. However, the City allows and issues a permit to contractors to use recycled water for dust control. This could potentially end the use of recycled water for dust control on construction sites.

Proposed Revisions to Tentative Order:

27. The use of recycled water for dust suppression shall only occur during periods of dry weather, shall be limited to periods of short duration, and shall be limited to areas for which the Permittee has explicitly permitted such use or under the control of the Permittee.

COMMENT 76. ATTACHMENT G SECTION III.4. PAGE G-10. WATER RECLAMATION PROVISIONS.

This provision requires the City to train ALL persons involved in the operation and/or maintenance of the recycled water system. The City trains a Site Supervisor for each recycled water user and is willing to train as many people as the users would like. However, the City cannot control who performs the operation and maintenance of each user. This requirement is potentially quite burdensome on the recycled water users and could discourage reuse.

Proposed Revisions to Tentative Order:

2. The Permittee shall be responsible for ensuring that recycled water meets the quality standards of this Order and for the operation and maintenance of transport facilities and associated appurtenances. The Permittee shall hold the recycled water users responsible for the application and use of recycled water on their designated areas and associated operations and maintenance in accordance with all applicable CCR title 22 requirements and this Order. ~~All persons~~ A designated Site Supervisor involved in the operation and/or maintenance of the recycled water system shall attend training regarding the safe and efficient operation of recycled water use facilities.

COMMENT 77. ATTACHMENT G-1. PAGE G-17

This section states that current recycled water users are to become conditionally approved until it has been demonstrated that recycled water is applied in a manner that is protective of water quality in compliance with Attachment G. Information that demonstrates that recycled water is being applied by these users in a manner that is protective of water quality was documented in the Title 22 Engineering Report, and current recycled water users were approved under the current Permit. The City seeks additional language that allows future identified and approved use sites to be incorporated into the list of Approved Recycled Water Use Sites (see proposed revisions in Comment 78).

~~h. Use of repeat start times and multiple water days to increase irrigation efficiency and reduce runoff potential;~~

~~i. Maintenance of recycled water infrastructure (pipelines, pumps, etc.) to prevent and minimize breakage and leaks; and~~

~~j. Adequate protection of all recycled water reservoirs and ponds against overflow, structural damage, or a reduction in efficiency resulting from a 25-year, 24-hour storm or flood event or greater, and notification of the Regional Water Board Executive Officer, if a discharge occurs.~~

COMMENT 72. ATTACHMENT G SECTION II.15. PAGE G-7. WATER RECLAMATION REQUIREMENTS.

This section states that direct or windblown spray, mist, or runoff from irrigation areas shall not enter roadways or any area where the public would be accidentally exposed to recycled water and references CCR title 22, section 60310(e)(3). CCR title 22, section 60310(e)(3) actually states "Drinking water fountains shall be protected against contact with recycled water spray, mist, or runoff." The term "any area where the public would be accidentally exposed to recycled water" is extremely vague and could potentially prohibit use of recycled water. This language is not contained in title 22, not based on public health risk, and should be omitted

Proposed Revisions to Tentative Order:

15. Direct or windblown spray, mist, or runoff from irrigation areas shall not enter dwellings, designated outdoor eating areas, or food handling facilities, ~~roadways, or any other area where the public would be accidentally exposed to recycled water.~~ [CCR title 22, section 60310(e)(3~~2~~)]

COMMENT 73. ATTACHMENT G SECTION II.18. PAGE G-7. WATER RECLAMATION REQUIREMENTS.

The section that requires the annual documentation of installation and marking of recycled water piping should be clarified to indicate that this provision refers only to new sites or newly retrofitted piping.

Proposed Revisions to Tentative Order:

The Permittee shall document compliance with this requirement for new sites or newly retrofitted piping on an annual basis in its annual monitoring report.

COMMENT 74. ATTACHMENT G SECTION II.19. PAGE G-7. WATER RECLAMATION REQUIREMENTS.

The City requests an exception to the prohibition of hose bibs in areas subject to access by the general public in cases, which CDPH explicitly allows.

Proposed Revisions to Tentative Order:

~~demand of the landscape or vegetation receiving the recycled water. The Permittee must annually communicate to recycled water users the nutrient levels in the recycled water and the nutrient demand of each recycled water user's crop or landscape at least monthly during the irrigation season so that the recycled water users can appropriately evaluate fertilizer needs prior to application of fertilizers. If the Permittee demonstrates that the recycled water nutrient concentrations are low and consistent from month to month, then the Permittee may reduce the frequency of notifications upon approval by the Regional Water Board Executive Officer.~~

COMMENT 71. ATTACHMENT G SECTION II.13.A-J. PAGE G-6. WATER RECLAMATION REQUIREMENTS.

This section lists several BMPs to prevent runoff. As discussed in Comment 65 above, the City had developed an extensive list of BMPs in the Recycled Water User's Guide and recycled water users are required to implement these BMPs. The City requests that this guide be used as the basis for required BMPs.

Proposed Revisions to Tentative Order:

13. Recycled water shall not be allowed to escape the recycled use area(s) in the form of surface runoff. [CCR title 22, section 60310(e)] However, incidental runoff of recycled water, such as 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, is not a violation of this Order. Permittee shall require recycled water users to follow the BMPs contained in the Recycled Water User's Guide. ~~Practices and strategies to prevent the occurrence of runoff shall include, where appropriate, but not be limited to:~~

a. ~~All new recycled water use sites shall include a 100-foot setback to all surface waters or provide written documentation of appropriate best management practices that will be implemented in order to prevent or minimize the potential for runoff discharging to surface water;~~

b. ~~Urban recycled water use sites shall maintain appropriate setbacks to the street gutter and other inlets to the storm drain system based on site conditions or implement alternative means to prevent the discharge of runoff to surface waters. [Urban]~~

c. ~~Implementation of an Operations and Maintenance Plan that provides for detection of leaks (for example, from sprinkler heads), and correction within 72 hours of learning of the runoff, or prior to the release of 1,000 gallons, whichever comes first.~~

d. ~~Proper design and aim of sprinkler heads;~~

e. ~~Proper design and operation of the irrigation system;~~

f. ~~Refraining from application during precipitation events;~~

g. ~~Application of recycled water at an agronomic rate that does not exceed the water or nutrient demand of the crop or vegetation being irrigated;~~

~~the site User Supervisor. The Permittee shall conduct quarterly interviews with each site User Supervisor to determine whether system modifications have been made properly, to solicit their assessment of system peculiarities, and to verify employee training. Any identified problems or permit violations identified shall be addressed properly.~~

COMMENT 69. ATTACHMENT G SECTION II.10. PAGE G-5. WATER RECLAMATION REQUIREMENTS.

This section requires customer reporting of all of recycled water regulation violations identified in the permit, including incidents of unauthorized irrigation activity and runoff incidents. It is not clear what "unauthorized irrigation" is and how it is different from spill reporting and inspections. Currently, the City staff does inspections and the City also has waste water and storm water programs that apply to recycled water. The City provides a phone number and a website where runoff/water waste can be reported. In addition, permit section X.E. requires spill reporting. Thus, Attachment G Section II.10 is redundant.

Proposed Revisions to Tentative Order:

~~10. The Permittee shall require each site User Supervisor and all employees who are routinely in the field to report all violations of recycled water regulations identified in this Order, including incidents of unauthorized irrigation activity and runoff incidents to the Permittee's water reclamation inspector. If it is determined that irrigation is unauthorized, the inspector shall notify the site User Supervisor and the Regional water Board by telephone within 24 hours and submit a written report within 15 days describing the corrective actions taken. All reported violations of recycled water regulations shall be included in the Permittee's quarterly recycled water monitoring report, including incidental runoff events that the Permittee is aware of.~~

COMMENT 70. ATTACHMENT G SECTION II.11. PAGE G-5. WATER RECLAMATION REQUIREMENTS.

This section requires that the nutritive value of organic and chemical fertilizers and of the recycled water not exceed the nutritive demand of the landscape or vegetation receiving the recycled water. However, the application of nutrients, such as fertilizers or compost, by the recycled water users is not under control of the City. In addition, monthly reporting of nutrient levels to recycled water users is unnecessary since the nutrient levels remain relatively constant.

Proposed Revisions to Tentative Order:

11. Application of recycled water to use areas shall not exceed ~~the nitrogen or~~ hydraulic loading reasonably necessary to satisfy the nitrogen or water uptake needs of the use area considering plant, soil, climate, and nutrient demand (i.e., generally accepted agronomic rates).

a. Hydraulic loading to any individual recycled water use site shall be at reasonable agronomic rates designed to minimize percolation of wastewater constituents below the evaporative and root zone.

b. ~~The seasonal nutritive loading of use areas, including the nutritive value of organic and chemical fertilizers and of the recycled water, shall not exceed the nutritive~~

COMMENT 67. ATTACHMENT G SECTION II.8. PAGE G-4. WATER RECLAMATION REQUIREMENTS.

This section again treats incidental runoff as a violation of recycled water regulations, with a requirement that all incidents of incidental runoff be reported in the quarterly recycled water monitoring report. The City requires an annual self-inspection report that includes reporting of incidental runoff. More frequent reporting would be very burdensome on users and would discourage recycled water use. In addition, the wording of this requirement makes it seem that incidental runoff is a violation, which is not the case. Incidental runoff would be reported annually, as indicated in Comment 54.

Proposed Revisions to Tentative Order:

8. The Permittee shall require each recycled water user to report all violations of recycled water regulations identified in this Order, including runoff incidents. All reported violations of recycled water regulations shall be included in the Permittee's quarterly recycled water monitoring report, ~~including incidental runoff events that the Permittee is aware of.~~ Incidental runoff events, of which the Permittee is aware, of shall be included in the Annual Recycled Water Report.

COMMENT 68. ATTACHMENT G SECTION II.9. PAGE G-5. WATER RECLAMATION REQUIREMENTS.

Health and Safety Code Section 7586 states that "[t]he health agency and water supplier may, at their discretion, require an industrial water user to designate a user supervisor" Section II.9 of Attachment G requires that a site supervisor be designated, but the authority to do so under Section 7586 does not extend to the Regional Water Board. As described in the City's Recycled Water User's Guide, the City requires, by ordinance, that a site supervisor is designated consistent with the authority granted under Section 7586. By requiring approval of, and by approving the Recycled Water User's Guide as a condition of operating the reclamation system, the Regional Water Board has required designation of a site supervisor. A specific requirement is not necessary to address any Regional Water Board concern that site supervisors be required.

Section II.9 of Attachment G requires the City to conduct quarterly interviews with each site User Supervisor to determine whether system modifications have been made properly, to solicit their assessment of system peculiarities, and to verify employee training. Mandatory quarterly interviews would be burdensome on the customers and would be a cost to them, which could ultimately discourage recycled water use. As it is, any issues are addressed when noticed and the City follows up with the customer on any needed corrective action. It is unclear what system modifications would require reporting. The customers should not be required to report normal operations and maintenance. The term "system peculiarities" is also unclear. In addition, this section appears to require the users to train employees. The City trains the Site Supervisor, but cannot feasibly train all employees of customers.

Proposed Revisions to Tentative Order:

9. ~~The Permittee shall identify a site User Supervisor (per Title 22, section 7586) for each of the recycled water use sites and maintain daytime and emergency contact telephone numbers for~~

The Regional Water Board recognizes that ~~such minor violations are~~ incidental runoff is unavoidable and presents a low risk to water quality.

COMMENT 64. ATTACHMENT G SECTION I.A.8. PAGE G-3. STREAMLINED PERMITTING.

Although the City has user agreements with recycled water users in Rohnert Park, it has a City ordinance that requires permits for Santa Rosa recycled water users.

Proposed Revisions to Tentative Order:

8. This Order authorizes the Permittee to reuse treated municipal wastewater that complies with effluent limitations contained in section IV of the Order for uses that have been addressed in an approved title 22 Engineering Report and for which recycled water user agreements have been negotiated and/or recycled water use permits have been issued.

COMMENT 65. ATTACHMENT G SECTION II.4. PAGE G-4. WATER RECLAMATION REQUIREMENTS.

The City has developed a set of BMPs, which are contained in the Recycled Water User's Guide (attached). This guide was reviewed by the Regional Board and their input was incorporated. Recycled water users are required to implement these BMPs. The City requests that this guide be used as the basis for required BMPs.

Proposed Revisions to Tentative Order:

4. Best management practices ("BMPs") that are protective of groundwater and surface water quality and human health shall be developed and implemented to achieve an efficient irrigation system. At a minimum, the Permittee shall implement the required BMPs identified in ~~Water Reclamation Requirement B.11 and implement other BMPs as appropriate~~ the Recycled Water User's Guide.

COMMENT 66. ATTACHMENT G SECTION II.6. PAGE G-4. WATER RECLAMATION REQUIREMENTS.

This section requires immediate cessation of delivery of recycled water if the requirements for use as specified in the Permit or the requirements of CDPH or USEPA are not being met. However, in some cases, the problem can be corrected in a timely manner. The City believes the reference to the USEPA is incorrect because the USEPA does not have regulatory authority over the City's reclaimed water projects.

Proposed Revisions to Tentative Order:

6. The Permittee shall discontinue delivery of recycled water during any period in which there is reason to believe that the requirements for use as specified in this Order or the requirements of CDPH ~~or USEPA~~ are not being met and cannot be corrected in a timely manner. The delivery of recycled water shall not resume until all conditions have been corrected.

Discharge Prohibition III.F. The discharge of waste to land that is not owned, governed by City ordinance, or under agreement to use by the Permittee is prohibited, except for use for fire suppression as provided in CCR title 22, sections 60307 (a) and (b).

This prohibition is retained from Order No. R1-2006-0045. Land used for the application of wastewater must be owned by the Permittee, governed by City ordinance, or be under the control of the Permittee by contract so that the Permittee maintains a means for ultimate disposal of treated wastewater.

COMMENT 61. ATTACHMENT F SECTION V.I PAGE F-53

The Fact Sheet states that the reclamation system irrigates from May 15 - Sept 30 and “other times during the year when weather allows.” This implies disposal is the intent of irrigation, but the intent is beneficial reuse.

Proposed Revisions to Tentative Order:

“The Permittee has a reclamation system to irrigate urban and agricultural areas consistent with agronomic demand. Most irrigation occurs from May 15 through September 30 ~~and other times during the year when weather allows (e.g., dry fall, winter and spring periods).~~”

**ATTACHMENT G – WATER RECLAMATION REQUIREMENTS
COMMENTS**

COMMENT 62. ATTACHMENT G SECTION I.A.1.II. PAGE G-2. STREAMLINED PERMITTING.

This section states that with the exception of frost protection uses, the proposed irrigation uses will not exceed agronomic rates and will not occur when soils are saturated. Frost protection is not an irrigation use of the City’s recycled water.

Proposed Revisions to Tentative Order:

~~With the exception of frost protection uses,~~ The proposed irrigation uses will not exceed agronomic rates and will not occur when soils are saturated. An operations and management plan will be developed describing how appropriate irrigation amounts and rates will be applied and may include, but not be limited to, proper design and maintenance of irrigation systems, accurate monitoring of the amount of water delivered, developing water budgets for use areas, providing supervisor training, and installing smart controllers. An operations and management plan may be developed to cover multiple sites.

COMMENT 63. ATTACHMENT G SECTION I.A.7. PAGE G-3. STREAMLINED PERMITTING.

The second paragraph of this section refers to incidental runoff as a minor violation. Incidental runoff does not represent a violation.

Proposed Revisions to Tentative Order:

**ATTACHMENT F – FACT SHEET
COMMENTS**

COMMENT 57. ATTACHMENT F. SECTION II.A. PAGE F-5

The description of the Subregional System's treatment system does not include flexibility to account for treating effluent destined for Geysers recharge to a lower level of treatment than that to be used for recycled water irrigation.

Proposed Revisions to Tentative Order:

The current treatment system consists of grit removal in aerated grit chambers, sludge and scum removal in primary sedimentation tanks, biological secondary treatment (activated sludge) with alum coagulation, flocculation, and clarification followed by tertiary filtration and ultraviolet light disinfection that meet title 22 guidelines or as otherwise specified in this Order.

COMMENT 58. ATTACHMENT F SECTION II.A.4. PAGE F-7. THIRD PARAGRAPH, SECOND SENTENCE

The City requests the sentence be modified as follows:

Proposed Revisions to Tentative Order:

The approval process requires demonstration that a valid CEQA analysis has been conducted for any proposed recycled water use project.

COMMENT 59. ATTACHMENT F. SECTION II.B.2. PAGE F-8.

The third paragraph states "Upstream receiving water is monitored at two locations each approximately 2000 feet upstream of the effluent discharge point." As per Table E-2 on page E-5, sampling location RSW-012BD-L is approximately 75 feet upstream of discharge. Table E-2 defines RSW-012BU as upstream of the discharge point. This location was further defined in the 2009 update to the 2006 permit as just upstream of the discharge. The permit should be modified to reflect the City's current practice to sample approximately 75 feet upstream of the discharge at this location as well.

Proposed Revisions to Tentative Order:

Upstream receiving water is monitored at two locations, each approximately ~~2,000~~ 75 feet upstream of the effluent discharge point. Discharge from Delta Pond will preferentially occur via Discharge Point 012B.

COMMENT 60. ATTACHMENT F- SECTION IV.A.6. PAGE F-23.

In addition to recycled water use on land owned by the City and by users under agreement to the City, some recycled water users are governed by ordinance.

Proposed Revisions to Tentative Order:

~~A summary of scheduled and non-scheduled maintenance of the reclamation system appurtenances and irrigation areas;~~

COMMENT 56. ATTACHMENT E SECTION X.D.2.C. PAGE E-29 (SECOND PARAGRAPH FROM TOP OF PAGE) OTHER REPORTS – WATER RECLAMATION SYSTEM – ANNUAL RECYCLED WATER REPORT.

The section that requires the annual documentation of installation and marking of recycled water piping and should be clarified to indicate that this section refers only to new sites or newly retrofitted piping.

Proposed Revisions to Tentative Order:

Documentation of compliance with California Health and Safety Code section 116815 as specified in Water Reclamation Requirement B.16 of Attachment G regarding the installation and marking of new sites or newly retrofitted recycled water piping.

g. A record of equipment or process failures initiating an alarm that prevented recycled water from meeting the requirements in this Order, as well as any corrective and preventative actions;

COMMENT 53. ATTACHMENT E SECTION X.D.2.B.H. PAGE E-28 OTHER REPORTS – WATER RECLAMATION SYSTEM – QUARTERLY RECYCLED WATER REPORT.

This section requires that the quarterly report include documentation of the total volume of recycled water supplied to each recycled water user for each month of the reporting period. However, because the volume of recycled water supplied to each user is fairly stable, monthly reporting is unnecessary. As indicated in Comment 44, the City requests that this be changed to annual reporting as part of the Annual Recycled Water Report and deleted from the Quarterly Recycled Water Report requirements.

Proposed Revisions to Tentative Order:

~~a. Total volume of recycled water supplied to each recycled water user for each month of the reporting period;~~

COMMENT 54. ATTACHMENT E SECTION X.D.2.C. PAGE E-28. OTHER REPORTS – WATER RECLAMATION SYSTEM – ANNUAL RECYCLED WATER REPORT.

The City requests that this section be clarified to indicate that incidental runoff does not represent a violation of this permit and to specify that the information about incidental runoff shall be reported annually.

Proposed Revisions to Tentative Order:

i. ~~If violations~~ instances that might represent non-compliance have occurred, the report shall also discuss the corrective actions taken and planned to bring the reclamation program into full compliance with this Order. Because incidental runoff is not prohibited, this requirement does not apply to incidents of incidental runoff.

v. If incidental runoff events occur, these events, of which the City is aware, should be reported along with a description of the action(s) taken to minimize incidental runoff.

COMMENT 55. ATTACHMENT E SECTION X.D.2.C. PAGE E-28 (SECOND PARAGRAPH FROM BOTTOM OF PAGE) OTHER REPORTS – WATER RECLAMATION SYSTEM – ANNUAL RECYCLED WATER REPORT.

A summary of scheduled and non-scheduled maintenance of the reclamation system appurtenances and irrigation areas realistically cannot be conducted because 1) what constitutes “maintenance” is vague, and 2) maintenance is the responsibility of the recycled water user and is ongoing. If the users have to track and report every action, such as adjusting sprinkler head, it will discourage maintenance, or discourage recycled water use.

Proposed Revisions to Tentative Order:

VIII.A.1.a. The City also suggests that the Sampling Frequency of “once per permit term” be changed to “once per permit cycle,” to be consistent with Attachment E Section VIII.A.1.a.

Proposed Revisions to Tentative Order:

Table E-11. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On...	Monitoring Period	SMR Due Date
Once per Permit Term <u>Cycle</u>	Permit effective date	<u>Two weeks, or the length of the first discharge period if less than two weeks</u>	With application for permit renewal

COMMENT 50. ATTACHMENT E SECTION X.D.2.B.D.II. PAGE E-27. OTHER REPORTS – WATER RECLAMATION SYSTEM – QUARTERLY RECYCLED WATER REPORT.

This section requires site inspections and reporting of recycled water violations, including all observations of recycled water over-application and/or runoff. The City requests that this section be modified to make clear that incidental runoff is not a violation.

Proposed Revisions to Tentative Order:

- ii. All observations of recycled water over-application and/or runoff, excluding incidental runoff

COMMENT 51. ATTACHMENT E SECTION X.D.2.B.D.IV. PAGE E-27. OTHER REPORTS – WATER RECLAMATION SYSTEM – QUARTERLY RECYCLED WATER REPORT.

This section requires the reporting of the number and location of improper backflow prevention devices. Backflow testing is done annually by customers as required by Title 17 and City code. This testing is not under the control of the Reclamation System. Therefore, the City requests this provision be removed from Reclamation requirements.

Proposed Revisions to Tentative Order:

- iv. The number and location of any cross-connections ~~and/or improper backflow prevention devices~~

COMMENT 52 ATTACHMENT E SECTION X.D.2.B.G. PAGE E-28

This section requires quarterly reporting of equipment failures initiating an alarm. However, the majority of equipment or process failures that initiate an alarm do not result in failing to meet Permit requirements.

Proposed Revisions to Tentative Order:

COMMENT 47. ATTACHMENT E SECTIONS IX.C.2 AND 3. PAGES E-22 AND E-23

These sections require that the UV transmittance (UVT at 254 nanometers) in the wastewater shall not fall below 55 percent of maximum at any time, unless otherwise approved by CDPH. However, the City's UV system controls dose using a calculation (accepted by CDPH) in which UVT as one of the factors in determining the ballast power level needed to provide the required dose. Thus the dose would account for low UVT, a minimum UVT is unnecessary. See also Comment 22

Attachment E section IX.C.2

2. Compliance. ~~The UV transmittance shall not fall below 55 percent of maximum at any time, unless otherwise approved by CDPH.~~ The operational UV dose shall not fall below 100 millijoules per square centimeter (mJ/cm²) at any time, unless otherwise approved by CDPH.

Attachment E section IX.C.3

3. Reporting. The Permittee shall report daily average and lowest daily transmittance and operational UV dose on its monthly monitoring reports. ~~If the UV transmittance falls below 55 percent or UV dose falls below 100 mJ/cm²,...~~

COMMENT 48. ATTACHMENT E SECTION X.B. PAGE E-23. RECYCLED WATER MONITORING. TABLE E-11.

The City requests an example be provided in Table E-11 for monthly SMR due dates

Proposed Revisions to Tentative Order:

Table E-11. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On...	Monitoring Period	SMR Due Date
Monthly	First day of calendar month following permit effective date or on permit effective date if that date is first day of the month	First day of calendar month through last-day of calendar month	First day of second calendar month following month of sampling. <u>For example, data collected in March would be due on May 1.</u>

COMMENT 49. ATTACHMENT E SECTION X.B TABLE E-11 PAGE E-24

The final row in Table E-11 states that the Sampling Frequency is "once per permit term," and the Monitoring Period for the term is "all." The City requests that the Monitoring Period be changed to "two weeks or the length of the first discharge period if less than two weeks" as an appropriate monitoring period for the model verification required in Attachment E Section

Total area of application	Acres	Observation	Monthly
Total Nitrogen application rate ^{2,3}	lbs./acre-month	Calculation	Monthly
Rainfall	Inches	Gage	Daily
<p>Table Notes:</p> <p>1. Estimation of the volume of recycled water shall not include other potable or non-potable "make-up" water used in conjunction with recycled water.</p> <p>2. Nitrogen application rate shall consider nitrogen content of the recycled water, based on effluent monitoring data.</p> <p>3. Nitrogen concentrations shall be calculated and reported "as N". For example, nitrate-nitrogen = 27 mg/L as NO₃ shall be converted and reported as nitrate-nitrogen = 6.1 mg/L as N using a conversion factor of 14.067 (N)/62.0049 (NO₃).</p> <p>4. Reporting of the required monitoring shall be provided annually in the <u>Annual Recycled Water Report to the Regional Board and annually to users</u></p>			

COMMENT 45. ATTACHMENT E SECTION IX.B.2.C. PAGE E-22.

This section states that "if the filter effluent turbidity exceeds 2 NTU during a 24-hour period, 5 NTU more than 5 percent of the time during a 24-hour period, or 10 NTU at any time, the incident shall be reported in the monthly ...". However, under the WDR, the filtration process requirements in section IV.D.1.b.i sets an average turbidity of 2 NTU in a 24-hour period.

Proposed Revisions to Tentative Order:

If the filter effluent turbidity exceeds an average of 2 NTU during a 24-hour period, 5 NTU more than 5 percent of the time during a 24-hour period, or 10 NTU at any time, the incident shall be reported in the monthly self-monitoring report and the incident shall be reported to the Regional Water Board and CDPH by telephone within 24 hours in accordance with Provision VI.A.2.b of this Order.

COMMENT 46. ATTACHMENT E SECTION IX.C.1 PAGE E-22.

This section states that the UV transmittance of the effluent from the UV disinfection system shall be monitored continuously and recorded. However, The City does not monitor UVT at the effluent from the UV disinfection system. Instead, UVT is monitored at the influent to the UV system. Monitoring the influent to the system is superior to monitoring the effluent because the UV system can change the UVT in response to what is needed as determined by what is coming in to the system.

Proposed Revisions to Tentative Order:

2. Monitoring. The UV transmittance of the ~~effluent from~~ influent to the UV disinfection system shall be monitored continuously and recorded.

Title 22 Drinking Water Pollutants Constituents	µg/L (or other as appropriate)	24-hour Composite	1X/ Permit Term	40 CFR 136
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COMMENT 43. ATTACHMENT E SECTION VII.A RECYCLED WATER MONITORING. PAGE E-17. TABLE E-7. VISUAL OBSERVATIONS AND FOOTNOTE 6.

The City has an aggressive recycled water inspection program, but it would be very difficult for them to inspect all the users weekly and even more difficult to conduct daily inspections during periods of frost protection (night, weekends for example). If this task were to be required by the users (as allowed in Footnote 6), it would be quite burdensome and thus discourage recycled water use. Since there are other places in the permit where inspections and spill reporting are required, the City requests that these "visual observations" be changed to at least quarterly.

Proposed Revisions to Tentative Order:

Table E-7. Reclamation Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Visual Observations	--	--	<u>quarterly</u> ⁶	Visual

⁶ During periods of discharge to the irrigation system, visual observations shall be conducted at least ~~weekly for agronomic applications and daily during periods of frost protection~~ quarterly to verify compliance with recycled water requirements in Attachment G and shall confirm proper operation of the recycled water system and associated BMPs and include a record of any malfunctions or findings of improper operation, including, but not limited to odors, evidence of surface run-off, or ponding that lasts for 24-hours. Visual observations may be performed by the irrigation users in accordance with the Permittee's user agreements. ~~The monthly~~ quarterly monitoring report shall include the daily volume of treated wastewater discharged to the irrigation system and any observations indicating non-compliance with the provisions of the waste discharge requirements.

COMMENT 44. ATTACHMENT E SECTION VII.A RECYCLED WATER MONITORING. TABLE E-8. PAGE E-18

The City requests that a footnote be added to Table E-8 to indicate that reporting of the required monitoring shall be provided in the ~~annual report to regional board and annually~~ to users.

Proposed Revisions to Tentative Order:

Table E-8. Recycled Water Production and Use ¹

Parameter	Units	Sample Type	Minimum Sampling Frequency
Volume of recycled water ¹	Acre-feet	Meter	Monthly

collected from the same body of water showed inconsistent results. This also occurred in 2010 with two samples collected from the same body of water showing different toxicity results – one indicating toxicity and the other with no toxicity.”

The Tentative Order seems to acknowledge this problem with variable and transient toxicity in the selection of a TUc of 1.6 to trigger accelerated testing. The City requests that the variability and transience of toxicity also be acknowledged in the TUc value that triggers a TRE so that a TRE is not required unless clear evidence exists of persistent toxicity.

Proposed Revisions to Tentative Order:

MRP Section V.B.9.a. Page E-13

a. If the ~~result-median~~ median of ~~any~~ the results of accelerated toxicity test exceeds ~~1.0~~ 1.6 TUc, the Permittee shall cease accelerated monitoring, and within 30 days of the date of completion of the accelerated monitoring, initiate the TRE Workplan developed in accordance with section VI.C.2.a (2) of the Order to investigate the cause(s) and identify actions to reduce or eliminate the chronic toxicity

MRP Section V.B.9.b Page E-14

b. If the median of the results of four consecutive accelerated monitoring tests do not exceed 1.0 TUc, the Permittee may cease accelerated monitoring and resume regular chronic toxicity monitoring.

COMMENT 41. ATTACHMENT E SECTION V.C.3. PAGE E-16. COMPLIANCE SUMMARY.

This section, which states that the monthly self-monitoring reports shall contain an updated chronology of chronic toxicity test results expressed in TUc, does not state how far back this chronology needs to go. For example, the current permit specifies 3 most recent samples, which the City believes represents an acceptable chronology.

Proposed Revisions to Tentative Order:

3. Compliance Summary. The monthly self-monitoring reports shall contain an updated chronology (at least three of the most recent samples) of chronic toxicity test results expressed in TUc,...

COMMENT 42. ATTACHMENT E SECTION VII.A. PAGE E-17. TABLE E-7.

Please clarify that Title 22 pollutants are drinking water constituents and recognize that not all Title 22 constituents are reported in µg/L (for example radioactivity).

Proposed Revisions to Tentative Order:

Table E-7. Reclamation Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method

COMMENT 37. ATTACHMENT E SECTION V.A.2. PAGE E-10

Section IV.A.2 indicates acute toxicity should be done using a 24-hour composite sample. However, as required in Tables E-5 and E-6 (Pages E-8 and E-9), acute toxicity tests are done on grab samples.

Proposed Revisions to Tentative Order:

1. **Sample Type.** For 96-hour static renewal or 96-hour static non-renewal testing, the effluent samples shall be ~~24-hr composite~~ grab samples.

COMMENT 38. ATTACHMENT E SECTION V.A.3. PAGE E-10.

The last sentence of this section is unclear.

Proposed Revisions to Tentative Order:

Test species for acute WET testing shall be with an invertebrate, the water flea (*Ceriodaphnia dubia*) and a vertebrate, the rainbow trout (*Oncorhynchus mykiss*) for the first two suites of testing. After this screening period, monitoring shall be conducted annually using the most sensitive species. The next two species acute WET test shall be conducted during the ~~next~~ first surface water discharge following the Permit's effective date.

COMMENT 39. ATTACHMENT E SECTION V.B.3 PAGE E-12.

The last sentence of this section is unclear

Proposed Revisions to Tentative Order:

... After this screening period, monitoring shall be conducted annually using the most sensitive species. The next multiple species chronic WET test shall be conducted ~~by~~ during the ~~next~~ first discharge to surface waters following the Permit's effective date.

COMMENT 40. ATTACHMENT E SECTION V.B.9.A. PAGE E-13 AND MRP SECTION V.B.9.B PAGE E-14

These sections relate to the toxicity level that will trigger performance of a TRE. Any indication of toxicity ($TU_c > 1.0$) in the accelerated monitoring bioassays and the "Permittee shall cease accelerated monitoring, and within 30 days of the date of completion of the accelerated monitoring, initiate the TRE Workplan." However, the City's experience is that chronic toxicity is variable and transient. For example, in a letter to the Regional Board Executive Officer (Laguna Subregional Water Reclamation System Chronic Bioassay Results and Toxicity Reduction Action Plan dated June 23, 2010), the City stated:

"The February 2008 chronic bioassay for *Selenastrum* and *Ceriodaphnia* for the Delta Pond discharge showed toxicity values that exceeded NPDES permit requirements. Duplicate bioassays were conducted in April 2008 post discharge. These subsequent bioassays showed no toxicity. Therefore, the three chronic toxicity analyses that were

COMMENT 36. ATTACHMENT E SECTION IV.A.2 PAGE E-8; SECTION IV.B PAGE E-9; AND SECTION V.A.2 PAGE E-10

The MRP Section IV.A.2 and IV.B Tables E-5 and E-6 and MRP section V.B.1 indicate the samples for chronic toxicity should be 24-hour composites. The current permit requires samples for chronic toxicity to be grab samples. Grab samples are appropriate because the City is discharging from a static body of water (as opposed to most POTWs that are discharging from the outfall pipe of the plant). Delta Pond is a homogenous mix of water and, therefore, there is no valid reason for collecting composite samples.

In addition, a discrepancy exists between the testing frequency for chronic toxicity as specified in MRP Section IV.A.2 and IV.B, Tables E-5 and E-6, and MRP section V.B.1. The tables in the MRP indicate quarterly chronic testing, but MRP section V.B.1 page E-12 requires annual testing.

Proposed Revisions to Tentative Order:

MRP Section IV.A.2

Table E-5. Effluent Monitoring for Discharges to 012A(1) and 015

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Chronic Toxicity	TUc	24 hr composite <u>Grab</u>	Quarterly <u>Annual</u>	See section V.B below

MRP Section IV.B

Table E-6. Effluent Monitoring for Discharges to 006A, 006B, EFF-012A(2), and EFF-012B

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Chronic Toxicity	TUc	24 hr composite <u>Grab</u>	Quarterly <u>Annual</u>	See section V.B below
Chronic Toxicity (narrative)	Passed/Triggered ⁶			---

MRP Section V.A.2

2. **Sample Type.** For 96-hour static renewal or 96-hour static non-renewal testing, the effluent samples shall be ~~24 hr composite~~ grab samples.

MRP Section IV.A.2

Table E-5. Effluent Monitoring for Discharges to 012A(1) and 015

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Mercury, Total Recoverable	µg/L	Grab	Weekly	USEPA Method 1631E

MRP Section IV.B

Table E-6. Effluent Monitoring for Discharges to 006A, 006B, EFF-012A(2), and EFF-012B

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Mercury, Total Recoverable	µg/L	Grab	Weekly	USEPA Method 1631E

COMMENT 35. ATTACHMENT E SECTION IV.A.2 PAGE E-8 AND SECTION IV.B PAGE E-9

The MRP Section IV.A.2 and IV.B Tables E-5 and E-6 state that hardness should be measured weekly. However, the primary reason for measuring hardness is to calculate hardness-based metals criteria. These metals are only required to be measured quarterly. Therefore, in order to be consistent, hardness should only be measured quarterly.

Proposed Revisions to Tentative Order:

MRP Section IV.A.2

Table E-5. Effluent Monitoring for Discharges to 012A(1) and 015

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Hardness	mg/L as CaCO ₃	Grab	Weekly Quarterly	Standard Methods

MRP Section IV.B

Table E-6. Effluent Monitoring for Discharges to 006A, 006B, EFF-012A(2), and EFF-012B

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Hardness	mg/L as CaCO ₃	Grab	Weekly Quarterly	Standard Methods

Table E-5. Effluent Monitoring for Discharges to 012A(1) and 015

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Remaining CTR Priority Pollutants	µg/L	24-hr composite	Quarterly	40 CFR 136 ⁵
Table Notes: ...				
5. Holding times for unpreserved cyanide samples shall not exceed one hour.				

MRP Section IV.B Table E-6

Table E-6. Effluent Monitoring for Discharges to 006A, 006B, EFF-012A(2), and EFF-012B

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Remaining CTR Priority Pollutants	µg/L	24-hr composite	Quarterly	40 CFR 136 ⁷
Table Notes: ...				
7. Holding times for unpreserved cyanide samples shall not exceed one hour.				

COMMENT 33. ATTACHMENT E SECTION IV.A.1 PAGE E-6. TABLE E-4.

This Table states that pH should be 24-hour composite sample. The current and previous permits required pH to be measured on a grab sample. Since no rationale was provided for this change, the City requests that the sample method be changed back to a grab sample.

Proposed Revisions to Tentative Order:

Table E-4. Effluent Monitoring for Discharges to 006A, 006B, 012A(2), and 012B

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
pH	s.u.	24-hour composite <u>grab</u>	Daily	Standard Methods

COMMENT 34. ATTACHMENT E SECTION IV.A.2 PAGE E-8 AND SECTION IV.B PAGE E-9

Tables E-5 and E-6 list the monitoring frequency for total recoverable mercury as “Weekly.” Since mercury in the Subregional Systems discharge does not show reasonable potential to cause or contribute to an exceedance of an applicable water quality standard, mercury should not be required to be sampled any more frequently than other CTR priority pollutants (i.e., quarterly). By removing the lines in Tables E-5 and E-6 specific for mercury, mercury will be included in the line for “remaining CTR priority pollutants” and monitored quarterly.

The requested permit modifications are as follows:

Regulatory Background

On May 18, 2012 EPA published the final MUR which outlines approved modifications to the Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act; Analysis and Testing Procedures. Specifically the 2012 MUR contains the following footnote for cyanide in Table II (Required Containers, Preservation Techniques, and Holding Times):

6 Sampling, preservation and mitigating interferences in water samples for analysis of cyanide are described in ASTM D7365-09a. There may be interferences that are not mitigated by the analytical test methods or D7365-09a. Any technique for removal or suppression of interference may be employed, provided the laboratory demonstrates that it more accurately measures cyanide through quality control measures described in the analytical test method. Any removal or suppression technique not described in D7365-09a or the analytical test method must be documented along with supporting data.

ASTM D7365-09a states the following in section 8.3.2 ...

A holding time study described in Practice D4841 is required if there is evidence that a change in cyanide occurs from interferences which would cause the holding time to be shorter than specified in this section...

ASTM D4841 states in section 4.1 as follows:

Holding time is estimated by means of replicate analyses at discrete time intervals using a large volume of a water sample that has been properly collected and preserved. A sufficient number of replicate analyses are performed to maintain the 99 % confidence interval within 15 % of the concentration found at zero time. Concentration of the constituent of interest is plotted versus time. The maximum holding time is the period of time from sample collection to such time that degradation of the constituent of interest or change in sample matrix occurs and the systematic error exceeds the 99 % confidence interval (not to exceed 15 %) of the test calculated around the mean concentration at zero time.

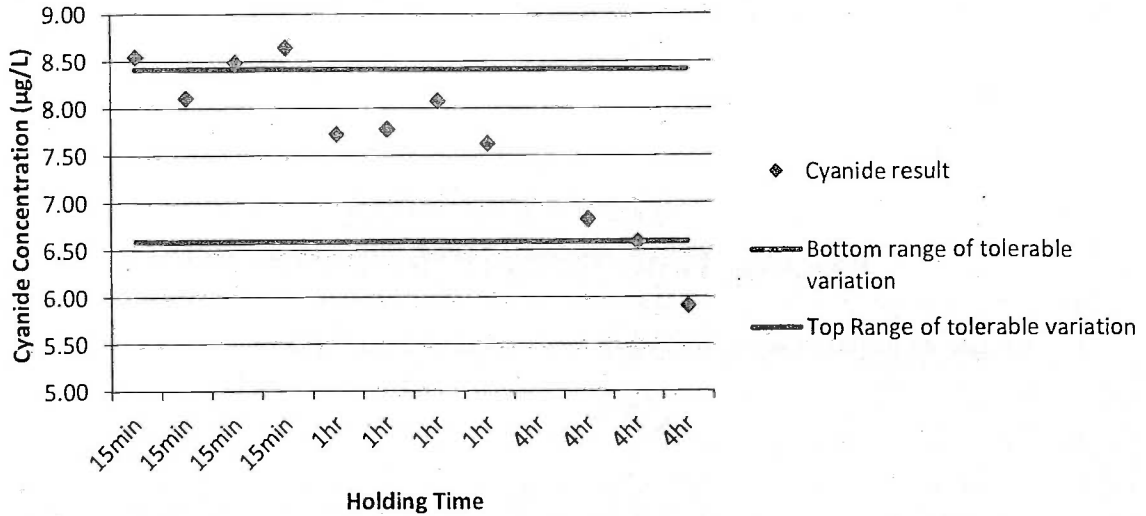
Proposed Revisions to Tentative Order:

MRP Section III.A.1. Table "E-1" (sic). Footnote 2.

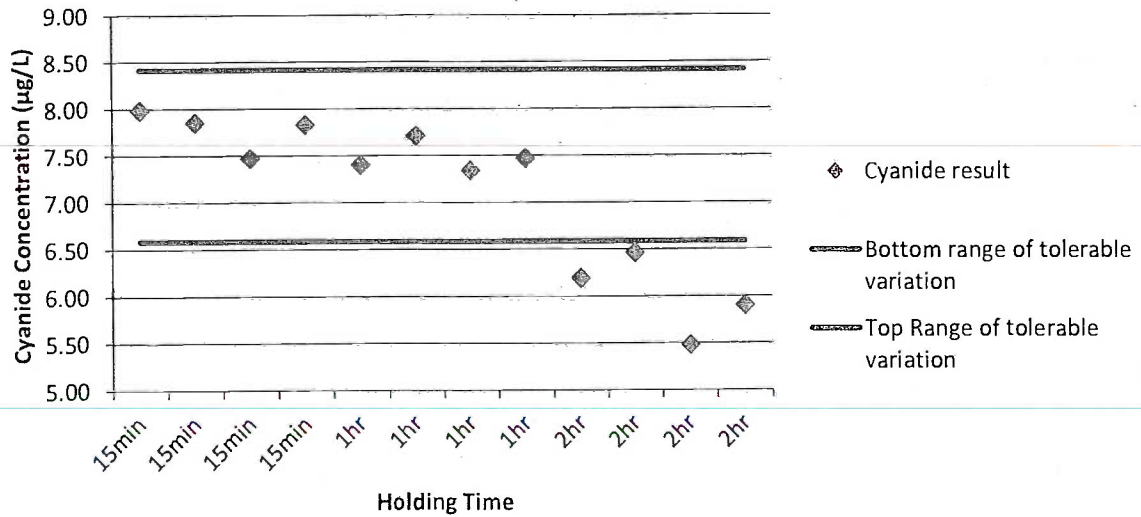
2. ... The priority pollutant monitoring report shall document the sampling method used for each constituent and justify the use of grab sampling for specific constituents (e.g., volatile, ultraclean method required, etc.). Holding times for unpreserved cyanide samples shall not exceed one hour.

MRP Section IV.A.2 Table E-5

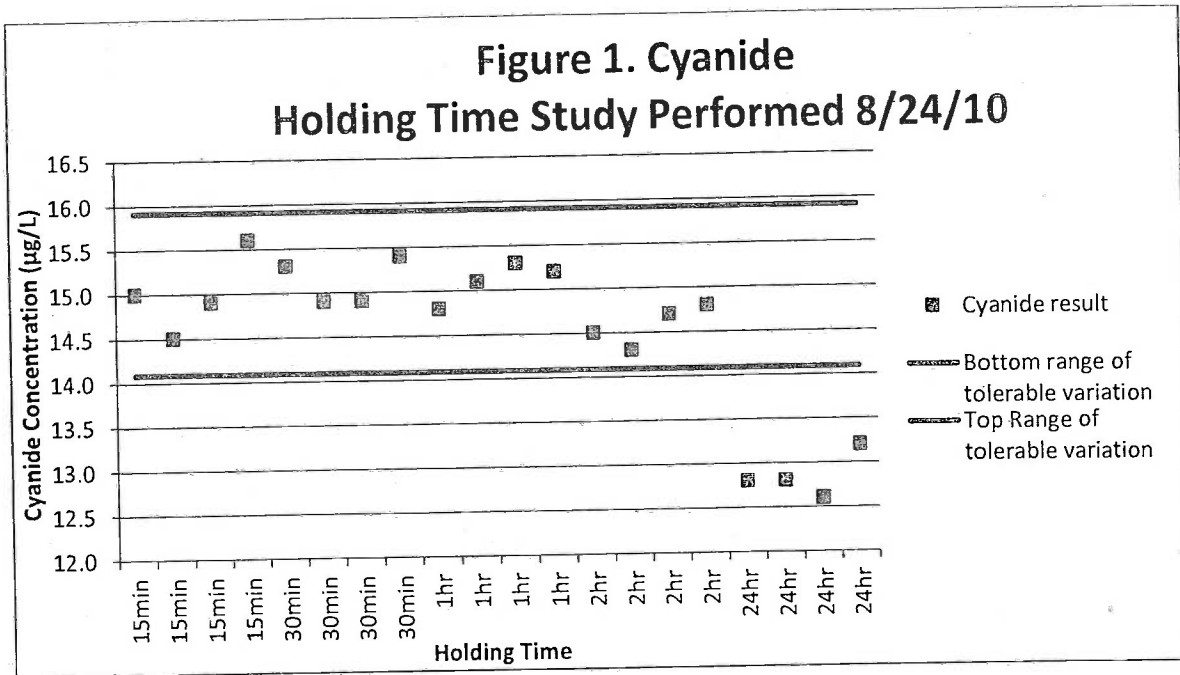
**Figure 2. Cyanide Holding Time Study Performed
2/16/11**



**Figure 3. Cyanide Holding Time Study Performed
2/24/11**



Background section below). The results of these studies are shown in Figures 1 through 3 below. All three studies show that samples held for 1 hour fell with the tolerable range of variation as defined by ASTM D4841. Thus cyanide samples held for up to 1 hour meet holding time criteria established by the EPA. The City therefore requests that holding times without preservation for up to one hour be allow for cyanide samples.



**ATTACHMENT E – MRP
COMMENTS**

COMMENT 30. ATTACHMENT E SECTION III.A.1 PAGE E-6. TABLE E-1.

The table number should be Table E-3. Also the table caption does not match content.

Proposed Revisions to Tentative Order:

Table E-13. Test Methods and Minimum Levels for Priority Pollutants Influent Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Biochemical Oxygen Demand (5-day @ 20°C)	mg/L	24-hr composite	2X/Week	Standard Methods I

COMMENT 31. ATTACHMENT E SECTION III.A.1. PAGE E-6. TABLE “E-1” (SIC). FOOTNOTE 2.

Footnote 2 states “24-hour composite samples shall be collected, expect for those constituents”. It appears to be a typo and “expect” should be “except”

Proposed Revisions to Tentative Order:

24-hour composite samples shall be collected, ~~expect~~ except for those constituents...

COMMENT 32. ATTACHMENT E SECTION III.A.1. PAGE E-6. TABLE “E-1” (SIC). FOOTNOTE 2; ATTACHMENT E SECTION IV.A.2 TABLE E-5 PAGE E-8; AND SECTION IV.B TABLE E-6 PAGE E-9.

Background

As outlined in a memorandum to the NCRWQCB on September 18 2007 (Cyanide Compliance Schedule Report and Reasonable Potential Analysis), the preservation step in the analytical methods for cyanide results in an artificial elevation in cyanide concentration. Therefore, in 2007 the Laguna Environmental Laboratory (LEL) obtained permission from EPA for a limited Alternative Test Procedure (ATP) to collect samples for cyanide without preservative as long as distillation of the sample was started within 15 minutes of sample collection (a 15 minute holding time). Since this time, LEL has been performing further holding time studies to determine the stability of cyanide in unpreserved pond water over longer periods of time.

Holding Time Study Results

Three hold time studies were performed by LEL on unpreserved pond water samples spiked with 15 µg/L cyanide (Study 1) and 7.5 µg/L cyanide (Studies 2 and 3). These studies meet USEPA criteria as outlined in the 2012 Method Update Rule (MUR) (described in the Regulatory

“accurate” as the layperson uses the term, rather than “accurate” as that term is used to describe the quantifiable performance of a measurement system.... In EPA documents associated with testing procedures for measuring whole effluent toxicity, the Agency stated that the “accuracy” of toxicity tests cannot be determined in a meaningful way.... When a person certifies that the submission of WET testing information is “accurate” to the best of their knowledge and belief, the person certifies that the results obtained using the WET testing procedures are faithfully and truthfully transcribed on the information submission, and that the results were, in fact, results that were obtained using the specified testing procedures.’

Response to Written Comments

**In Consideration of Waste Discharge Requirements Order No.
R1-2013-0001, Renewal of National Pollutant Discharge
Elimination System (NPDES) Permit for the Santa Rosa
Subregional Water Reclamation System**

**Regional Water Quality Control Board, North Coast Region
November 21, 2013**

LIST OF ACRONYMS AND ABBREVIATION

ACL	Administrative Civil Liability
Basin Plan	Regional Water Quality Control Plan
BMP	Best Management Practice
Cal. Code Regs.	California Code of Regulations
Cal. Wat. Code	California Water Code
CDPH	California Department of Public Health
CECs	Constituents of Emerging Concern
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CTR	California Toxics Rule
CWA	Clean Water Act
DCP	Discharge Compliance Project
DMR	Discharge Monitoring Report
EIR	Environmental Impact Report
GWDR	General Waste Discharge Requirements
LA	Load Allocation
MOA	Memorandum of Agreement
MRP	Monitoring and Reporting Program
MS4	Municipal Separate Storm Sewer System
NPDES	National Pollutant Discharge Elimination System
POTW	Publicly Owned Treatment Works
Regional Water Board	Regional Water Quality Control Board
ROWD	Report of Waste Discharge
RPA	Reasonable Potential Analysis
SIP	Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California
SMR	Self-Monitoring Report
SNMP	Salt and Nutrient Management Plan
SSO	Sanitary Sewer Overflow
State Water Board	State Water Resources Control Board
TMDL	Total Maximum Daily Load
TSD	Technical Support Document for Water Quality-based Toxics Control (EPA/505/2-90-001, March 1991)
TSO	Time Schedule Order
USEPA	United States Environmental Protection Agency
UVT	Ultraviolet Transmittance
WDR	Waste Discharge Requirement
WET	Whole Effluent Toxicity
WLA	Waste Load Allocation
WQBEL	Water Quality-Based Effluent Limitation

Comment Letters Received

Comment Page No.	Affiliation	Date Received	Author
4	City of Santa Rosa	12/03/2012	Miles Ferris
20	City of Santa Rosa	07/22/2013	David Guhin
43	Russian River Watershed Protection Committee	12/03/2012	Brenda Adelman
57	Russian River Watershed Protection Committee	07/22/2013	Brenda Adelman
64	General Public	12/03/2012	John Short
69	General Public	07/22/2013	John Short
74	Coast Action Group	11/26/2012	Alan Levine
76	Russian River Watershed Association	12/03/2012	Jake MacKenzie
77	Northern California River Watch	12/07/2012	Larry Hanson
78	Northern California River Watch	07/22/2013	Sarah Danley
79	General Public (Form Letter 1)	Various	Various
---	Friends of the Gualala River, received after the close of the comment period.	08/05/2013	Chris Poehlman
---	General Public (Form Letter 2), received after the close of the comment period.	Various	Various

City of Santa Rosa – Comment Letter No. 1

On December 3, 2012, the City of Santa Rosa (hereinafter "City" or "Permittee") submitted 78 comments on the draft Order released on October, 31, 2012. On July 22, 2013, the City submitted 71 comments on the revised draft Order released on June 20, 2013. A number of the comments received identified typographic errors, unclear requirements, or made requests for permit revisions that were deemed acceptable to Regional Water Board staff and resolution of the comments were reflected in the previous draft Order or the proposed Order without a written staff response. Some comments from the Permittee are summarized here by Regional Water Board staff with reference to the comment number included in the City's letter. Please refer to the comment letters for the full text of comments. The following are responses to other significant comments from the Permittee on December 3, 2012:

Comment No. 1: No Net Loading Effluent Limitations for Nitrogen and Phosphorus.

The City does not believe that either the 303(d) listings for nitrogen and phosphorus in the Laguna de Santa Rosa or the "no net loading" limitations in the draft Order are supported or reasonable. Further, the City is not confident that the Nutrient Offset Program is a viable means to comply with the proposed "no net loading" requirements in the draft Order. The proposed "no net loading" effluent limitations are contrary to State Water Board and judicial precedent, unsupported, unnecessary, and unreasonable. The City requests replacing the "no net loading" effluent limitations with final limitations based on the anticipated WLAs in the upcoming nutrient TMDL and that interim mass load limitations be imposed for total nitrogen and total phosphorus until the TMDLs are adopted and approved.

Response: See response to Comment No. 1 from the City's July 2013 comment letter.

Comment No. 1B. The City's discharges to receiving waters are disassociated from any upstream impairment.

Response: The Regional Water Board is currently developing new TMDLs for nitrogen and phosphorus that will apply to all water bodies in the Laguna de Santa Rosa, Santa Rosa Creek, and the Mark West Hydrologic Subareas, referred to collectively as the greater Laguna de Santa Rosa watershed. While it is true that certain indicators of impairment, particularly low dissolved oxygen and the presence of nuisance benthic macrophytes (*Ludwigia*), are most pronounced in reaches of the Laguna de Santa Rosa that are upstream of the City's preferred discharge location at Delta Pond, available data and other information suggest that biostimulatory conditions are present in both the lower mainstem Laguna and lower Mark West Creek, both of which are influenced by the City's existing discharge at Delta Pond and could be influenced by potential discharges at Meadow Lane and at Discharge Point 015, should they occur.

Comment No. 1D. Significant challenges encountered with implementation of Nutrient Offset Policy.

Response: Regional Water Board staff appreciates the efforts taken by the City to implement the Nutrient Offset Policy. However, with the implementation of any new program, particularly one as complicated as the Nutrient Offset Policy, it should be

expected that there will be some challenges initially and gradual improvement in implementation as the parties gain experience with the process of project proposal, review, and approval. This certainly has been the case. Since 2012, all three offset credit projects proposed by the City have been approved by the Executive Officer, and in 2013, the City has sought conceptual approval from Regional Water Board staff for an even greater number of potential offset credit projects. These conceptual proposals are currently under review by Regional Water Board staff.

Comment No. 1E. No net loading effluent limitations for total nitrogen and total phosphorus are contrary to State Water Board and Judicial precedent (Tosco), unsupported, unnecessary, and unreasonable.

The City's reliance on State Water Board Order No. WQ 2001-06 ("Tosco") is misplaced. It bears noting that the City raised similar arguments in its petition on its current permit during the last adoption cycle. The City's petition was dismissed and the analysis contained in the dismissal memo is reflected, in large part, below.

In Tosco, several petitioners, including Tosco, objected to alternative final limits in refinery permits for pollutants identified as impairing the receiving waters. The permit provided that the final effluent limits would be based on the anticipated completion of a TMDL; however, if a TMDL was not timely completed, the final limit would be no net loading for bioaccumulative pollutants and the applicable water quality objective applied end-of-pipe for non-bioaccumulative pollutants. The San Francisco Bay Regional Water Board imposed the alternative final limits based on its determination that the receiving waters lacked assimilative capacity for the impairing pollutants.

Among other things, the State Water Board held that the no net loading limits were inappropriate for several reasons. First, the San Francisco Bay Regional Water Board concluded that the San Francisco Bay lacked assimilative capacity solely on the fact that it was listed as impaired pursuant to section 303(d) of the Clean Water Act. Second, the State Water Board noted that evidence in the record indicated that the refineries were insignificant sources for some of the impairing pollutants. Third, the State Water Board cited evidence that it was technically infeasible for the refineries to comply with some of the alternative limits. Fourth, it would be preferable, under this fact scenario, to establish a TMDL-based compliance schedule as was then authorized in the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California ("SIP").

The Proposed Order is clearly distinguishable from the underlying permit in Tosco. First, the Proposed Order does not rely on the receiving water's 303d-listing as the basis for concluding that there is no assimilative capacity. Rather, the Proposed Order relies on robust analysis contained in the Revised Fitzgerald Memo (October 22, 2013) and the Fact Sheet to support its finding of no assimilative capacity for phosphorus. Second, as opposed to the facts in Tosco, the City's discharge cannot be considered an insignificant source of phosphorus. Third, the City has several compliance options, including participating in an offset program, which makes it feasible to comply with the no net loading limitation for phosphorus. As noted elsewhere in these responses, City and Regional Water Board staff have worked diligently over the past several years

to implement the offset program and ensure its success. Fourth, the preferred approach identified by the State Water Board in Tosco to rely on a TMDL-based compliance schedule is no longer legally viable as USEPA later disapproved this provision. As explained in the Fact Sheet and elsewhere in these responses, the Regional Water Board has established a scientific and regulatory basis for imposing the no net loading limitation.

In response to the claim that the Regional Water Board did not articulate in the draft permit that the "no net loading" is necessary to prevent nuisance or adversely affect beneficial uses, a more complete explanation of the justification has been provided in the Fact Sheet for the revised Order and additional information provided in the proposed Order.

Regarding consideration of factors listed in Water Code section 13241: The Fact Sheet explained that staff considered the factors listed in Cal. Water Code section 13241 for the non-NPDES discharges. However, Regional Water Board staff are not required to consider 13241 factors when issuing NPDES permits because those permits are driven solely by federal law. The 13241 factors allow for discretion in setting the effluent limits - discretion which we cannot by law exercise when the NPDES permit is solely based on federal regulations. In considering the options for compliance with the no net loading and the costs to comply, staff naturally reviewed economic considerations in the City's DCP EIR and have met with City staff.

Comment No. 1F. Replace "no net loading" effluent limitations with interim performance-based limits and final limits based on the WLA in the upcoming TMDLs.

Response: See response to comment No. 1E, above, and the Fact Sheet.

Comment No. 2 (Cover Letter): Reclamation Activities as Discharges. The City requests global changes to the permit removing the concept of "discharges" to "receiving waters" when referring to water reclamation activities and replacing the terms with an appropriately descriptive nomenclature.

Response: The Proposed Order was revised to make clear that authorized water reclamation activities do not result in a discharge.

Comment No. 3 (Cover Letter): New Reclamation and Reporting Requirements. The City states that many of the new requirements in the draft Order are overly burdensome and apparently taken directly from the State's GWDR for Landscape Irrigation Uses of Municipal Wastewater. The City requests the removal or revision of many of these requirements, in accordance with the detailed comments contained in the comment letter.

Response: The draft Order contained many requirements from the State's GWDR for Landscape Irrigation that Regional Water Board staff has determined are not applicable to the Permittee's well-established Water Recycling Program. Regional Water Board staff has removed or revised many of the requirements in question in response to the City's comments. Where a request by the Permittee for modification of a requirement was not approved, a response by Regional Water Board staff is provided.

Comment No.4 (Cover Letter): Sanitary Sewer Overflow Requirements. The Permittee asserts that provisions in the draft Order related to SSOs are duplicative with the State's GWDR for Sanitary Sewer Systems and are unnecessary.

Response: Many of the duplicative requirements cited by the Permittee were removed from the draft Order. See responses to Comments Nos. 8, 24, and 25.

Comment No. 6: Enforceability of Conditions of Previous Permit. (Ref: WDR Page 2) The City objects to language in the permit included subsequent to "IT IS HEREBY ORDERED" related to the enforceability of the expiring NPDES permit and request that this specific language be stricken and replaced by language in this section used in other regional permits.

Response: This section of the Proposed Order was revised as follows:

IT IS HEREBY ORDERED that Waste Discharge Requirements (WDR) Order No. R1-2006-0045, as amended by the Order No. R1-2008-0091, and Monitoring and Reporting Program (MRP) No. R1-2006-0045, are rescinded upon the effective date of this Order except for enforcement purposes, and, in order to meet the provisions contained in division 7 of the Water Code (commencing with section 13000) and regulations adopted thereunder, and the provisions of the CWA and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this Order. This action in no way prevents the North Coast Regional Water Quality Control Board (Regional Water Board) from taking enforcement action for past violations of the previous Order.

Comment No. 7: Diversions of Recycled Water in event of WWTP upset or failure. (Ref: WDR Section III.D. Page 6) This section prohibits the reclamation use of untreated or partially treated waste (receiving a lower level of treatment than described in section II.A of the Fact Sheet) from anywhere within the collection, treatment, or disposal systems. However, in the unlikely event of a Laguna Treatment Plant filtration or UV disinfection failure or upset, the procedure is to capture the water in Reclamation ponds Alpha or Brown (see the Laguna Treatment Plant emergency response procedure section 4.b.). The water captured in the City's reclamation ponds Alpha or Brown is then used for City farm irrigation only. The City requests that this section be modified to permit disposal of partially treated waste on City-owned land. The City owns property, in part, so such waste can be managed in situations such as this. The City controls access to and use of the land so public health will be adequately protected.

Response: This section was revised in response to comments on the June 2013 draft permit as follows:

- c. **Diversions.** In the event of treatment plant failure such that the disinfected effluent does not meet water Reclamation Specifications in section IV.C.2.b, the Permittee is authorized to divert the partially-treated waste to City-owned land provided that all diversions of partially-treated waste comply with ~~Reclamation Requirements in section IV.C.1 and the Laguna Treatment Plant emergency response procedure~~ (Off-Spec Condition Response Plan) and consistent with title 22 requirements.

Comment No. 8: SSO Prohibition is Unnecessary and Duplicative. (Ref: WDR Section III.E. Page 6) The City states that discharge prohibitions III.B and III.E regarding sanitary sewer overflows are unnecessary and contains provisions duplicative of other discharge prohibitions. Imposing duplicative provisions merely creates additional enforcement jeopardy for a single event that might fall under numerous prohibitions. If Section III.E. were retained, there is no need to separately list (a) waters of the State and (b) groundwater, since groundwater is already encompassed within the definition of "waters of the State," and regulated by the SSO WDR. (See Cal. Wat. Code §13050 (e)(means "any surface water or groundwater"). In addition, there is no regulatory need for this prohibition to be specifically applied to SSOs since the City is already separately covered by the GWDR for Sanitary Sewer Systems (Order No. 2006-0003-DWQ).

Response: Regional Water Board staff's response to the City's objection to this prohibition was addressed in detail in response to the City's Petition of its previous permit, WDR Order No. R1-2006-0045. As explained in the petition response and the Fact Sheet for the draft Order, the intent of the prohibition is to protect shallow groundwater that may be used for a drinking water source and other state waters (e.g., wetlands, vernal pools) that are not considered waters of the United States, but are common in the North Coast Region, in particular in the Santa Rosa Plain. The GWDR for Sanitary Sewer Systems prohibits SSOs only to waters of the United States.

Regional Water Board staff agrees that the definition of "waters of the State" includes groundwater. Consequently, the redundant term "groundwater" has been deleted from Prohibition III.E in the Proposed Order.

Comment No. 10: Mass-Based Effluent Limitations for BOD and TSS are Unnecessary and Requests for Revision of Effluent Limitations for pH for Continuous Monitoring. (Ref: WDR Section IV.A.1.a) The draft Order failed to explain the necessity for including both mass limits and 85 percent removal requirements as both are not required by either federal or state law. Under federal law, mass limits are specifically not required for Technology-Based Limits, such as BOD and TSS. The federal regulations only require concentration-based effluent limits and 85 percent removal requirements. (See 40 C.F.R. §133.102(a)(1)-(3) and (b)(1)-(3)

Response: Mass limitations for BOD and TSS have been removed from the Proposed Order. For pH, the Proposed Order was revised to provide for an alternative means of compliance when effluent is monitored continuously for pH.

Comment No. 12: Removal of Effluent Limitation and Monitoring for Acute Toxicity. (Ref: WDR Section IV.A.2.b Page 9) The draft Order contains an effluent limitation for acute toxicity, even though there is no demonstrated reasonable potential, simply because a similar effluent limitation was imposed in the previous permit. (See page F-41 ("Consistent with Order No. R1-2006-0045"); page F-60 ("retained from the previous Order"); but see RPA Analysis tables on Fact Sheet page F-37 to F-38; see also Fact Sheet at F-42 ("All acute toxicity testing results during the term of the previous permit were 100 percent survival.") Effluent limitations are not required where there is no reasonable potential.

Response: This effluent limitation for acute toxicity implements the Basin Plan's narrative water quality objective for toxicity, which states that "effluent limits based on acute bioassays of effluent will be prescribed" for waste discharges to surface waters. Removing the acute toxicity limit would make the permit out of compliance with the Basin Plan. No change is necessary.

Comment No. 15: Reclamation Specifications. (Ref: *WDR Section IV.C.2*) The City's recycled water/reclamation activities do not involve direct discharges to waters of the State or the United States, and recycled water applied to land is not for the purpose of disposal. However, Section IV.C.2 requires recycled water deliveries to meet effluent limitations that are intended to be applicable to discharges to surface waters of the United States. This is an inappropriate application of effluent limitations to reclamation projects that do not involve such discharges. Therefore, the City requests removal of Section IV.C.2. Alternatively, the language in Section IV.C.2 should be revised reflect the applicable requirements for reclamation projects.

Response: The draft Order was revised to clearly differentiate effluent limitations for discharges to surface water from reclamation specifications for distribution to the recycled water system. The reclamation specifications for BOD₅, TSS, and pH in section IV.C.2 of the draft Order are justified and appropriate so that recycled water applied to the ground surface does not cause exceedances in applicable water quality objectives for the protection of groundwater quality. See also response to Comment No. 45 (July 2013 Comment letter).

Comment No. 16: Revision of Reclamation Capacity Requirement and Removal of Reclamation Alternatives Requirement. (Ref: *WDR Sections IV.C.3 and 4. Pages 10-11. Reclamation Capacity and Reclamation Alternatives and Fact Sheet Sections VI.3.e. Page F-55*) The draft Order contains requirements that the City maintain a minimum reclamation capacity and utilize all reasonable alternatives for reclamation. The Fact Sheet contains no legal justification or authority for these requirements, and the City believes that these are inappropriate requirements. It is in the City's best interest to maintain its reclamation capacity which, with the Geysers Expansion Project in 2007, is 4,607 million gallons. Consequently, this requirement need not be included in a federally enforceable NPDES permit. Therefore, the City requests that the phrase "The Permittee shall maintain, at a minimum," be changed to "The Permittee currently possesses..."and make corresponding changes to the Fact Sheet at F-55, Provision V.D.1.e. In addition, the City requests that Provision IV.C.4. be removed as unnecessary and not justified for inclusion in the permit.

Response: Section IV.C.3 (Reclamation Capacity) is required to ensure that there is adequate capacity in storage and reclamation system so that discharge to surface water is minimized. The provision implements the Basin Plan requirement in Chapter 4, Implementation Plans, North Coastal Basin, paragraph 4, which prohibits discharges of waste to the Russian River from May 15 through September 30, and during other times when the waste discharge is greater than one percent of the receiving stream's discharge flow as set forth in NPDES permits.

Section IV.C.4 (Reclamation Alternatives) requires the Permittee to use all reasonable alternatives for water reclamation. These requirements implement the objectives of

the State Water Board to increase the use of recycled water in California and Cal. Wat. Code section 13550 that states that it is a waste and unreasonable use of water for water agencies not to use recycled water when it is available and not being put to beneficial use. This requirement also implements the Basin Plan prohibition limiting discharges to the Russian River to an approved percentage of the flow in the receiving stream by requiring the Permittee to maximize use of its reclamation system.

Comment No. 18: Filtration Process Requirements are not Effluent Limitations as defined in Water Code. (Ref: WDR Section IV.D.1. Page 11) Some of the requirements in this section read like effluent limitations, even though they are operational requirements. Therefore, the language should include language clarifying that these filtration process requirements are not effluent limitations, and subject to mandatory minimum penalties. The City requests that the Tentative Order specify that Filtration Process Requirements are Operation and Maintenance specifications, and not effluent limitations as defined in Water Code section 13385.1(d)

Response: Section IV.D is cited in Finding II.C as a requirement to implement state law only, which states that violations of the requirement are not subject to enforcement remedies for NPDES permits, which includes mandatory minimum penalties under Water Code section 13385(d). No change is necessary.

Comment No. 20: Notification for Noncompliance with Turbidity Process Requirements (Ref: WDR Section IV.D.1.b.iv. Page 12) This section states that the Permittee shall provide notification to the Regional Board if chemical addition or wastewater diversion is activated. Notification is unwarranted (and not required by Health and Safety Code Sections 60304 and 60307) if effluent turbidity 24-hr average does not exceed 2 NTU.

Response: The requirement was revised to state that notification shall be provided in accordance with Regional Water Board Standard Provision VI.A.2.b, which applies when the noncompliance may result in significant threat to human health or the environment.

Comment No. 21: Prescriptive Requirements for Disinfection Violates Cal. Wat. Code § 13360, which Prohibits Mandating Manner of Compliance. (Ref: WDR Section IV.D.2. Pages 12 through 14) The permit language in this section on pages 12-14 (Disinfection Requirements) of the draft Order violates Water Code §13360(a)'s prohibition on mandating the manner of compliance and is inconsistent with other permits adopted in this region. For these reasons, the language of this section should be modified to conform to the language adopted in other region permits (e.g., Order No. R1-2012-0031 at pg. 10), and modified to reflect Santa Rosa's existing system.

Response: The establishment of prescriptive water reclamation requirements in permits is consistent with State law, which under Cal. Wat. Code § 13523, authorizes regional water boards to prescribe water reclamation requirements for water that is used or proposed to be used as reclaimed water after consulting and receiving the recommendations of CDPH. The requirements in section IV.D.2 were incorporated into the Proposed Order at the recommendation of CDPH, consistent with the MOA between

CDPH and the State Water Board, to comply with water recycling criteria in title 22 of the California Code of Regulations. No change to the Order is needed.

The permit revision for section IV.D.2 proposed by the Permittee is not sufficient to ensure the microbiological water quality objective is being met. In addition to achievement of the microbiological water quality standard, proper operation of the UV disinfection system is critical to ensure continuous compliance. The requirements prescribed in this section are designed to demonstrate proper operation and management of the UV disinfection system at all times.

Comment No. 22b: Removal of Minimum UV Transmittance Requirement. (Ref: *WDR Section IV.D.2.d. Page 12*) This section requires that the UV Transmittance (UVT at 254 nanometers) in the wastewater shall not fall below 55 percent of maximum at any time, unless otherwise approved by CDPH. However, the City's UV system controls dose using a calculation (accepted by CDPH) in which UVT as one of the factors in determining the ballast power level needed to provide the required dose. Thus, the dose would account for low UVT, and a minimum UVT is unnecessary.

Response: The minimum 55 percent UVT standard is based on National Water Research Institute guidance based on the expected water quality for media filters. Based on the understanding at CDPH that the UVT at the Santa Rosa plant is normally 60-65 percent, CDPH recommended a minimum 55 percent UVT for Permittee's media filters. However, based on new testing information demonstrating that the Permittee's ultraviolet light disinfection system performance did not deteriorate at a UVT as low as 50 percent of maximum, CDPH now recommends that for this Permittee only, the permit may state the minimum UVT is 50 percent. The Proposed Order was revised to include a 50 percent minimum UVT.

Comment No. 24: Spill Notification Provisions in Reference to SSOs. (Ref: *WDR Section VI.A.2.b. Page 17*) Included within Provision VI.A.2.b. are requirements for notification and reporting for "sanitary sewer overflows" that should be removed to avoid imposing requirements in the City's NPDES permit that conflict and/or duplicate requirements contained in the SSO WDR that separately applies to the City and under which the Regional Water Board already receives appropriate notifications and reporting (discussed further in Comment 25). Further, the City seeks to avoid federalizing SSO notification and reporting requirements as not all SSOs involve discharges to waters of the United States to which NPDES permit requirements should apply. Creating differing standards for monitoring and reporting of SSOs from the State Water Board's already established program, and exposing the City to duplicative liability under different permits and laws for the same occurrence is unreasonable and unsupported.

The City also requests that the phrase "irrigation runoff" be modified to "recycled water main break or equivalent release." This is consistent with recent discussions with Regional Water Board staff and the City's Non-Storm Water Discharge Plan (requirement of City NPDES Storm Water Permit). Further, since recycled water main breaks or equivalent releases are addressed in this Section, reference generally to "waste" when describing unauthorized spills should be removed, as recycled water is not a "waste" under the Water Code (see Water Code §13050(n)).

Further, as Regional Water Board staff members are not available on weekends or holidays, the City requests that Regional Water Board notification be changed from "twenty-four (24) hours" to "the next business day."

Response: The notification requirements in the Proposed Order have been significantly revised in response to the City's comment. Notification for SSOs has been deleted in its entirety from the Proposed Order. Regional Water Board staff has determined that sufficient and appropriate notification for SSOs is provided by compliance with the General WDRs for Sanitary Sewer Systems (referred to in the comments as the SSO WDR).

The terms "recycled water main breaks or equivalent release" has been added to section VI.A.2.b of the Order for noncompliance events that must be reported to Regional Water Board staff within 24 hours if noncompliance may result in a significant threat to human health or the environment. For after-hours reporting, the Proposed Order directs the Permittee to contact the California Emergency Management Agency (CalEMA) for notification of emergencies requiring 24-hour notification. Regional Water Board staff is then alerted by CalEMA. All other spills of recycled water are reported in accordance with section X.E.3 of the MRP.

Comment No. 25: SSO Reporting. (Ref: WDR Section VI.C.6.a.i and ii. Page 24) Sections VI.C.6.a.i. and ii. introduce new requirements related to SSOs that are unnecessary, duplicative, and/or conflict with the State Water Board's SSO WDR, and these should be removed. Further, it appears the Regional Water Board is requiring compliance with the SSO WDR via the NPDES permit, when the SSO WDR is already independently applicable to the City, and the City secured coverage under that WDR many years ago.

Response: See Response to Comment No. 24.

Comment No. 28: Compliance Determination Precludes Affirmative Defense. (Ref: WDR Section VII. Pages 28 through 33) Some of the proposed language in this section unlawfully presumes that the Permittee "shall be deemed out of compliance," even though there may be an explanation or defense for such non-compliance (see e.g., Standard Provisions D.1.G. and H). Further, the language eliminates due process prior to a finding of non-compliance (such as a hearing, and the opportunity to present contrary evidence or defenses). Reliance on the permit template prepared by the State Water Board, from which the requirement in this section is taken, is not acceptable, as the permit template is not a regulation, but merely a guidance document able to be readily changed.

Response: The compliance determination language in question comes from the SIP, section 2.4.5, not just from the template as stated in the comment. There is nothing in the provision that limits the Permittee from challenging the determination of noncompliance or providing an affirmative defense.

Comment No. 29: Certification Statement and Accuracy. (Attachment D Section V.B.5. Page D-6) The draft Order contains certification language that must be modified in relation to toxicity testing results. The word "accurate" needs to be removed from this certification or, alternatively, after the word "accurate," the following caveat should be

included: "(except in the case of toxicity testing, the accuracy of which cannot be guaranteed)."

More specifically, because of the inherent and recognized uncertainty (and false positives) surrounding toxicity (WET) testing results, the certification requirements in Section V.B.5. must be modified to remove the word "accurate" from the certification for all WET tests. When EPA promulgated its whole effluent toxicity tests in 40 CFR Part 136, it stated: "Accuracy of toxicity test results cannot be ascertained, only the precision of toxicity can be estimated." (emphasis added).

If the Regional Water Board does not wish to modify this regulatory language, then the Fact Sheet should recognize that EPA has stated that the accuracy of toxicity tests cannot be guaranteed and the Regional Water Board should, at the very least, insert language clarifying the certification requirement that cites a March 2003 memorandum from USEPA on the subject.

Response: The language in the certification statement is included verbatim from federal regulations. It is inappropriate to add qualifying statements to the federal requirement.

USEPA clarified in its March 3, 2000, memorandum to EPA Regional Water Management Division Directors and Enforcement Division Directors that the purpose for and meaning of the DMR certification was to certify only that all the WET test results had been submitted and not tampered with or inappropriately modified prior to reporting on the DMR. The memorandum sought to resolve the confusion over the term "accuracy", which is sometimes used as a term of art to describe a performance characteristic of a measurement system; however, in the context of DMR certification, the term "accuracy" is a certification of information submission in that the information provided is "accurate" as the layperson uses the term, rather than "accurate" as that term is used to describe quantifiable performance of a measurement system. Therefore, the DMR/SMR certification is not intended to certify that the WET test results are accurate including whether or not the WET test results are valid from a toxicity test standpoint (e.g., quality assurance/quality control on the test was done properly by the analytical laboratory). Rather when a person certifies that the submission of WET testing information is "accurate" to the best of their knowledge and belief, the person certifies that the results obtained using the WET test procedures are faithfully and truthfully transcribed on the information submission, and the results were, in fact, results obtained using the specified testing procedures.

Comment No. 34: Mercury Monitoring. (Ref: *Attachment E Section IV.A.2 Page E-8 and Section IV.B Page E-9*) Tables E-5 and E-6 list the monitoring frequency for total recoverable mercury as "Weekly." Since mercury in the Subregional System's discharge does not show reasonable potential to cause or contribute to an exceedance of an applicable water quality standard, mercury should not be required to be sampled any more frequently than other CTR priority pollutants (i.e., quarterly). By removing the lines in Tables E-5 and E-6 specific for mercury, mercury will be included in the line for "remaining CTR priority pollutants" and monitored quarterly.

Response: The weekly monitoring requirement for total recoverable mercury was revised in the June 2013 draft Order to require only quarterly monitoring, which is consistent with other CTR pollutants where it was found that there was no reasonable potential for the discharge to exceed the applicable water quality standard. However, because recent information has become available regarding the presence of mercury above the state-recommended consumption level in fish caught in the Laguna De Santa Rosa, Regional Water Board staff is proposing to retain the weekly effluent mercury monitoring frequency.

Comment No. 36: Grab Sampling for Chronic Toxicity. (Ref: Attachment E Section IV.A.2 Page E-8; Section IV.B Page E-9; and Section V.A.2 Page E-10) The MRP Section IV.A.2 and IV.B Tables E-5 and E-6 and MRP section V.B.1 indicate the samples for chronic toxicity should be 24-hour composites. The current permit requires samples for chronic toxicity to be grab samples. Grab samples are appropriate because the City is discharging from a static body of water (as opposed to most POTWs that are discharging from the outfall pipe of the plant). Delta Pond is a homogenous mix of water and, therefore, there is no valid reason for collecting composite samples.

In addition, a discrepancy exists between the testing frequency for chronic toxicity as specified in MRP Section IV.A.2 and IV.B, Tables E-5 and E-6, and MRP section V.B.1. The tables in the MRP indicate quarterly chronic testing, but MRP section V.B.1 page E-12 requires annual testing.

Response: The sample type has been revised to replace 24-hour composite sampling with grab sampling, as requested; however, quarterly monitoring frequency is retained and is appropriate for the Subregional System with a dry weather design flow of 21.34 MGD. For consistency, the Proposed Order (MRP section V.B.1) was revised to require quarterly, not annual testing.

Comment No. 40: Revise Chronic Toxicity Monitoring Trigger. (Ref: Attachment E Section V.B.9.a. Page E-13 and MRP Section V.B.9.b Page E-14) These sections relate to the toxicity level that will trigger performance of a TRE. Any indication of toxicity ($TUc > 1.0$) in the accelerated monitoring bioassays and the "Permittee shall cease accelerated monitoring, and within 30 days of the date of completion of the accelerated monitoring, initiate the TRE Workplan." However, the City's experience is that chronic toxicity is variable and transient. The Tentative Order seems to acknowledge this problem with variable and transient toxicity in the selection of a TUc of 1.6 to trigger accelerated testing. The City requests that the variability and transience of toxicity also be acknowledged in the TUc value that triggers a TRE, by expressing the trigger as a monthly median, so that a TRE is not required unless clear evidence exists of persistent toxicity.

Response: The 1.6 TUc trigger for chronic toxicity is derived from the monthly median limitation and corresponds to a daily maximum. The use of a median of results for this trigger would be inconsistent with this formulation. No change is necessary.

The TSD defines persistent toxicity as toxicity present above the effluent limit (or trigger) more than 20 percent of the time, and recommends that a TRE should be required if the additional monitoring shows persistent toxicity. As outlined in the TSD (page 118, section 5.8.3), if the first trigger is a failed test, the Permittee needs 4 passed

tests to remain below 40 percent. One additional test result exceeding the effluent limit (or trigger) would mean two out of five tests (or 40 percent) exceeded the effluent limit (or trigger). No change is necessary.

Comment No. 43: Revise Visual Observations Requirement in MRP. (Ref: *Attachment E Section VII.A Recycled Water Monitoring, Page E-17, Table E-7*) The City has an aggressive recycled water inspection program, but it would be very difficult for them to inspect all the users weekly and even more difficult to conduct daily inspections during periods of frost protection (night, weekends for example). If this task were to be required by the users (as allowed in Footnote 6), it would be quite burdensome and thus discourage recycled water use. Since there are other places in the permit where inspections and spill reporting are required, the City requests that these “visual observations” be changed to at least quarterly.

Response: The prevention and correction of unauthorized recycled water runoff, ponding, and structural deficiencies is critical to Regional Water Board’s support of water recycling through urban and agricultural irrigation. The Permittee’s request to reduce the frequency of visual observations from weekly to quarterly would not provide timely information to the Permittee. However, Regional Water Board staff has determined that monthly visual observations will suffice as a minimum requirement, but recommends more frequent monitoring at locations where incidental runoff is frequently observed or may occur under certain circumstances.

Comment No. 47: Revise Minimum UV Transmittance Requirement. (Ref: *Attachment E Sections IX.C.2 and 3, Pages E-22 and E-23*) These sections require that the UV transmittance (UVT at 254 nanometers) in the wastewater shall not fall below 55 percent of maximum at any time, unless otherwise approved by CDPH. However, the City’s UV system controls dose using a calculation (accepted by CDPH) in which UVT one of the factors in determining the ballast power level needed to provide the required dose. Thus the dose would account for low UVT, a minimum UVT is unnecessary. See also Comment 22.

Response: Agree. See response to Comment 22(b).

Comment No. 48: Provide Example in Table E-10 for Monthly Report Due Date. (Ref: *Attachment E, Section X.B, Page E-23*) The City requests an example be provided in Table E-11 for monthly SMR due dates, such as:

Reporting requirement for monthly sampling: “First day of second calendar month following month of sampling. For example, data collected in March would be due on May 1.”

Response: Regional Water Board staff believes that the due date of the report is clear without an example provided.

Comment No. 49: Provide consistency for “Once per Permit Term” monitoring frequency in Table E-10 and clarify in Table E-11 that Receiving Water Monitoring at RSW-012B is “two weeks or the length of the first discharge period if less than two weeks.”. (Ref: *Attachment E Section X.b Table E-11 Page E-24*) The final row in Table E-11 states that the Sampling Frequency is “once per permit term,” and the Monitoring

Period for the term is "all." The City requests that the Monitoring Period be changed to "two weeks or the length of the first discharge period if less than two weeks" as an appropriate monitoring period for the model verification required in Attachment E Section VIII.A.1.a. The City also suggests that the Sampling Frequency of "once per permit term" be changed to "once per permit cycle," to be consistent with Attachment E Section VIII.A.1.a.

Response: "Once per Permit Term" is the preferred language and replaces the language in Table E-11. In addition, a table note was added to Table E-10 to clarify that for receiving water monitoring at RSW-012B, the monitoring period is "two weeks or the length of the first discharge period if less than two weeks."

Comment No. 50: Quarterly Recycled Water Report- Reporting Over-irrigation and Runoff. (Ref: Attachment E Section X.D.2.b.d.ii. Page E-27) This section requires site inspections and reporting of recycled water violations, including all observations of recycled water over-application and/or runoff. The City requests that this section be modified to make clear that incidental runoff is not a violation.

Response: While true that incidental runoff is not a violation of the Order, the requirement (section X.D.3.a(d) of the MRP of the Proposed Order) simply requires reporting of occurrences of over-irrigation and runoff. The Proposed Order is clear that runoff meeting the definition of incidental runoff is not a violation. No change is necessary.

Comment No. 53: Reporting of Monthly Recycled Water Use at Each Site Quarterly Reporting To Regional Board are Unnecessary. (Ref: Attachment E Section X.D.2.b.h. Page E-28) This section requires that the quarterly report include documentation of the total volume of recycled water supplied to each recycled water user for each month of the reporting period. However, because the volume of recycled water supplied to each user is fairly stable, monthly reporting is unnecessary. As indicated in Comment 44, the City requests that this be changed to annual reporting as part of the Annual Recycled Water Report and deleted from the Quarterly Recycled Water Report requirements.

Response: State water recycling regulations (Cal. Wat. Code section 13523.1(b)(4)) require that master reclamation permits include a requirement for the Permittee to submit a quarterly report that includes the total amount of reclaimed water supplied to users. The Proposed Order requires the City to measure and report the total reclaimed water supplied by site and by month to facilitate assessment whether reclaimed water is being overapplied at certain sites given site-specific characteristics and weather conditions. Quarterly measurement of reclaimed water would not always be useful to make this assessment. No change is recommended.

Comment No. 54: Clarify that Incidental Runoff is not a Permit Violation. (Ref: Attachment E Section X.D.2.c) The City requests that this section be clarified to indicate that incidental runoff does not represent a violation of this permit and to specify that the information about incidental runoff shall be reported annually.

Response: Regional Water Staff agrees that incidental runoff is not a violation of the Order. However, repeated occurrences of incidental runoff at the same location may indicate that the runoff is no longer incidental and is a problem that requires correction

by the recycled water user. This section of the Proposed Order was revised to require the City to identify repeated occurrences of incidental runoff (section X.D.3.a.ii(a)(3)).

Comment No. 55: Remove Requirement to Report Scheduled and Non-scheduled Maintenance at Water Reclamation Sites. (Ref: Attachment E Section X.D.2.c. Page E-28 (second paragraph from bottom of page)) A summary of scheduled and non-scheduled maintenance of the reclamation system appurtenances and irrigation areas realistically cannot be conducted because (1) what constitutes "maintenance" is vague, and (2) maintenance is the responsibility of the recycled water user and is ongoing. If the users have to track and report every action, such as adjusting sprinkler head, it will discourage maintenance, or discourage recycled water use.

Response: This section was clarified to require a summary of major repairs that affected the reclamation system during the previous quarter. Major repairs do not include adjustment of sprinkler heads or equivalent routine maintenance and repair. The requirement is intended to obtain information about significant repairs that involve the design and/or operation of the reclamation system at a use site or sites.

Comment No. 67: Remove Requirement to Report Incidental Runoff at Reclamation Sites. (Ref: Attachment G Section II.8. Page G-4) The City requests that this section (Attachment G, section II.8) be clarified to indicate that incidental runoff does not represent a violation of this permit and to specify that the information about incidental runoff shall be reported annually.

Response: Staff agrees that incidental runoff is not a violation of the Order. However, repeated occurrences of incidental runoff at the same location may indicate that the runoff is no longer incidental and is a problem that requires correction by the recycled water user. The permit section has been revised to require reporting of runoff incidents only when the runoff occurrence does not meet the conditions of incidental runoff, which would be a violation of permit conditions.

Comment No. 68: Designation of Site Supervisors at Reclamation Sites. (Ref: Attachment G Section II.9. Page G-5) Health and Safety Code Section 7586 states that "[t]he health agency and water supplier may, at their discretion, require an industrial water user to designate a user supervisor" Section II.9 of Attachment G requires that a site supervisor be designated, but the authority to do so under Section 7586 does not extend to the Regional Water Board. As described in the City's Recycled Water User's Guide, the City requires, by ordinance, that a site supervisor is designated consistent with the authority granted under Section 7586. By requiring approval of, and by approving the Recycled Water User's Guide as a condition of operating the reclamation system, the Regional Water Board has required designation of a site supervisor. A specific requirement is not necessary to address any Regional Water Board concern that site supervisors be required.

Section II.9 of Attachment G requires the City to conduct quarterly interviews with each site User Supervisor to determine whether system modifications have been made properly, to solicit their assessment of system peculiarities, and to verify employee training. Mandatory quarterly interviews would be burdensome on the customers and would be a cost to them, which could ultimately discourage recycled water use. As it is, any issues are addressed when noticed and the City follows up with the customer on any needed

corrective action. It is unclear what system modifications would require reporting. The customers should not be required to report normal operations and maintenance. The term "system peculiarities" is also unclear. In addition, this section appears to require the users to train employees. The City trains the Site Supervisor, but cannot feasibly train all employees of customers.

Response: CDPH requires recycled water users to identify a site supervisor of the use area as a component of the title 22 Engineering report. The MOA between the State Water Board and CDPH requires the Regional Water Board to incorporate recommendations and requirements related to recycled water into waste discharge requirements. The permit requirement for identifying a site supervisor responsible for each use site is consistent with the MOA and title 22.

The requirement to conduct quarterly interviews in Section II.9 (Attachment G) of the December 2012 draft Order was replaced with a more general requirement, consistent with title 22, that the Permittee ensure that site supervisors are appropriately trained.

Comment No. 69: Remove Requirements to Report All Recycled Water Regulation Violations. (Ref: Attachment G Section II.10. Page G-5) This section requires customer reporting of all of recycled water regulation violations identified in the permit, including incidents of unauthorized irrigation activity and runoff incidents. It is not clear what "unauthorized irrigation" is and how it is different from spill reporting and inspections. Currently, the City staff does inspections and the City also has waste water and storm water programs that apply to recycled water. The City provides a phone number and a website where runoff/water waste can be reported. In addition, permit section X.E. requires spill reporting. Thus, Attachment G Section II.10 is redundant.

Response: The requirement to report all violations, "including incidents of unauthorized activity" in the draft Order (Attachment G, section II.10) is not included in the revised Attachment G. This section was replaced with the following requirement:

"7. The Permittee shall require each recycled water user to report to the Permittee all violations of recycled water regulations identified in this Order, including runoff incidents not meeting the conditions of incidental runoff. All reported violations of recycled water regulations shall be included in the Permittee's Quarterly Recycled Water Report."

This section indicates one piece of information that must be included in the Quarterly Recycled Water Report. Spill notification requirements in section X.E of the draft Order are not a substitute for this requirement. Notification requirements in section X.E.3 pertain to discharges of recycled water over 1,000 gallons to waters of the state. The section in the Attachment G requires reporting of runoff incidents not meeting the conditions of incidental runoff.

Comment No. 70: Remove Limitation that Nutritive loading at Recycled Water Sites not Exceed Nutritive Demand of Vegetation. (Ref: Attachment G Section II.11. Page G-5) This section requires that the nutritive value of organic and chemical fertilizers and of the recycled water not exceed the nutritive demand of the landscape or vegetation receiving the recycled water. However, the application of nutrients, such as fertilizers or

compost, by the recycled water users is not under control of the City. In addition, monthly reporting of nutrient levels to recycled water users is unnecessary since the nutrient levels remain relatively constant.

Response: Appropriate use of fertilizers that takes into account nutrient levels in recycled water and communicate nutrient levels in recycled water to users is a requirement in the Water Recycling Policy to demonstrate compliance with the State Anti-degradation Policy (Resolution 68-16) for recycled water projects over groundwater basins where a salt and nutrient management plan is being prepared. The City should revise its Recycled Water User's Guide if it believes that it does not have adequate control over conditions at sites to which it provides recycled water.

The requirement to communicate the nutrient value of the recycled water to the recycled water users each month is not included in the revised Attachment G.

Comment No. 71: BMPs for Recycled Water Use. (Ref: Attachment G Section II.13.a-j, Page G-6) This section lists several BMPs to prevent runoff. As discussed in Comment 6, the City had developed an extensive list of BMPs in the Recycled Water User's Guide and recycled water users are required to implement these BMPs. The City requests that this guide be used as the basis for required BMPs.

Response: Regional Water Board staff believes that the BMPs listed in Attachment G are minimum BMPs needed to protect groundwater, surface water and public health, and they apply to all recycled water sites, both existing and those approved after 2007. The City should revise its Recycled Water User's Guide if it believes that it does not include this set of minimum BMPs.

Comment No. 72: Control of Windblown Spray of Recycled Water. (Ref: Attachment G Section II.15, Page G-7) This section states that direct or windblown spray, mist, or runoff from irrigation areas shall not enter roadways or any area where the public would be accidentally exposed to recycled water and references Cal. Code Regs., title 22, section 60310(e)(3). Cal. Code Regs., title 22, section 60310(e)(3) actually states "Drinking water fountains shall be protected against contact with recycled water spray, mist, or runoff." The term "any area where the public would be accidentally exposed to recycled water" is extremely vague and could potentially prohibit use of recycled water. This language is not contained in title 22, not based on public health risk, and should be omitted

Response: While it is true that protection of roadways is not included in title 22, section 60310(e)(3), Regional Water Board staff often observe recycled water blowing into a roadway and have determined that it is in the interest of public health to control its occurrence to the extent possible. The requirement was modified in the revised Attachment G to correct the citation of the regulation, but the requirement that recycled water be prevented from entering roadways and other areas where the public could be accidentally exposed is retained, because the requirement is reasonable and appropriate to protect public health.

City of Santa Rosa – Comment Letter No. 2

The following are responses to significant comments from the Permittee submitted on July 22, 2013, with reference to the comment number identified in the City's comment letter:

Comment No. 1: Discharge Requirements for Total Nitrogen and Total Phosphorus are Inappropriate. (Ref.: WDR Page 9, Section IV.A.2.b.i.) This comment, as presented in Attachment 1 to the City's Comments regarding Draft Tentative Waste Discharge Requirements and Master Reclamation Permit for the Santa Rosa Subregional Water Reclamation System (hereinafter "the City's comment letter"), dated July 22, 2013, contains 16 pages of written material, including tables, figures, and photos. This comment contains three major sections as follows. First, the City proposes changes to several sections of the draft Order pertaining to effluent limitations for nitrogen and phosphorus. Second, the City presents a summary of its objections to staff's rationale for including the "no net loading" effluent limitation for total phosphorus in the draft Order. Third, the City presents a detailed explanation of those objections.

Background. Reasonable potential analyses and effluent limitations for nutrients included in the draft Order were based in part on data and information presented in a June 14, 2013 memorandum from Rebecca Fitzgerald, supervisor of the Regional Water Board's TMDL Unit, to Charles Reed et al., and on works referenced therein. In response to public comments received by the City (and others), this memorandum was revised and reissued on October 22, 2013, and is attached to the Executive Officer's Summary Report. Many of the issues raised in the City's Comment No. 1 are addressed in the revised memorandum (hereinafter "the Revised Fitzgerald Memorandum"), and sections of the Fact Sheet for the draft Order have been revised accordingly.

General Response. Information to support the 'no net load loading' effluent limitation for total phosphorus and the performance-based effluent limitation for total nitrogen in the Proposed Order is presented in the Fact Sheet. Conclusions reached therein by Regional Water Board staff are based, in part, on the information contained in the Revised Fitzgerald Memorandum, as well as from information provided by the Permittee in the ROWD and from other sources as cited in the Fact Sheet. On the basis of available information, Regional Water Board staff concludes that the discharge from the Subregional System will cause, has the reasonable potential to cause, or contribute to an exceedance of water quality standards. Therefore, Regional Water Board staff is required by NPDES regulations at 40 CFR 122.44(d) to include effluent final limitations for total phosphorus that are no less stringent than the effluent limitations in the previous permit. Less stringent effluent limitations for total nitrogen are newly established in this Order, also in accordance with federal regulations.

The legal and technical basis for the final effluent limitation for total phosphorus in the Proposed Order is set forth more specifically in the Fact Sheet, as summarized below:

- The mainstem Laguna de Santa Rosa and lower Mark West Creek are impaired by low dissolved oxygen levels, which occur as a result of the excessive growth and decay of aquatic biomass in the Laguna system, and that are harmful to some beneficial uses.

- Aquatic biomass production in the Laguna is controlled by excessive amounts of phosphorus, the limiting nutrient in the Laguna system.
- There is no assimilative capacity for discharges of phosphorus and any additional phosphorus loading contributes more phosphorus to the system's already high internal phosphorus load.
- The City of Santa Rosa is permitted to discharge waste from its wastewater treatment facility to the mainstem Laguna de Santa Rosa and lower Mark West Creek under conditions contained in its NPDES permit.
- The Permittee's Subregional System is a controllable source, among many other significant sources of phosphorus entering the mainstem Laguna de Santa Rosa and lower Mark West Creek.
- The Permittee's NPDES permit must control the discharges of phosphorus so that no additional phosphorus is added to the system that will exacerbate existing conditions and delay the recovery of beneficial uses in the Laguna system.
- An effluent limitation of "no net loading" will effectively control discharges of phosphorus from the Subregional System.
- The Permittee is able to comply with the "no net loading" effluent limitation using treatment upgrades to reduce effluent phosphorus concentrations, by diverting more treated flow to the water reclamation system, or by offsetting phosphorus loads through implementation of its approved Nutrient Offset Program.

As explained in the Revised Fitzgerald Memorandum, waters of the mainstem Laguna de Santa Rosa and lower Mark West Creek (hereinafter collectively "the Laguna", "the Laguna de Santa Rosa", or "the Laguna system") are impaired due to biostimulatory conditions, regularly fail to meet Basin Plan water quality objectives for dissolved oxygen due to biostimulatory conditions, and do not currently meet recommended water quality criteria for nitrogen, phosphorus, and chlorophyll *a* (and indicator of algal biomass).

Regional Water Board staff provides the following responses to unique, substantive portions of this comment as paraphrased in sections below.

Comment 1A: "No Net Loading" Effluent Limitation for Total Phosphorus and Proposed Revisions to the Draft Order. While the City greatly appreciates removal of this type of requirement for nitrogen, the City believes the same rationale for removal of the nitrogen requirement applies to total phosphorus. The City requests that total phosphorus be similarly regulated by a performance-based mass effluent limitation until completion of the upcoming nutrient TMDL, and that the Nutrient Offset Program, to which the City remains committed, be utilized to offset any nutrient discharges in excess of the performance-based mass effluent limitations for total phosphorus and nitrogen. The comment also includes proposed revisions to the draft Order.

Response: See response to Comment No. 1E from the City's December 2012 comment letter.

Because Regional Water Board staff is not recommending changes to effluent limitations for total phosphorus, most of the permit revisions proposed by the Permittee were not accepted. However, Regional Water Board staff made appropriate

structural revisions to section VII.N (Compliance Determination) that are consistent with the Permittee's proposed revisions to this section.

Comment 1B: The City's Contribution of Phosphorus to the Laguna is Insignificant. The City's relative contribution of total phosphorus loading to the Laguna de Santa Rosa is very small, compared to contributions from other external sources. Therefore, including a no net loading provision for total phosphorus in the draft Order is unreasonable, and not likely to result in a measurable water quality benefit.

Response: First, this comment appears to misstate the applicable legal standard. This comment appears to argue that effluent limitations are only appropriate if they are likely to, by themselves, result in a meaningful water quality benefit. This is inconsistent with relevant federal regulations. As explained in more detail in the Fact Sheet, when, as it has occurred here, reasonable potential is established, then effluent limits must be established which are consistent with the relevant water quality standard.

Second, regarding the relative significance of the City's discharge, many of the objections raised by the City in its comment letter are based on an assumption that the City's relative contribution of total phosphorus loading to the Laguna is very small - approximately 0.11%. This figure is purportedly based on information presented in a technical memorandum by Regional Water Board staff (Butkus 2011, as cited in the City's comment letter). The data used by the City to calculate this percentage are presented in Table 1 and Figure 1 of the City's Comment No. 1.

Staff is unable to verify the connection between data presented in the City's Comment No. 1 and the apparent source of those data (Butkus 2011). In fact, the City's estimates are drastically different than staff's estimates. The City's estimate of average total annual phosphorus loading to the Laguna from all external sources is roughly 3,670,000 lbs/yr¹, of which the City's discharge represents 0.11%. By contrast, staff's estimate of average total annual phosphorus loading to the Laguna is roughly 180,000 lbs/yr, of which the City's discharge represents 5.60%.

Butkus (2011) was not used as a supporting document for the Revised Fitzgerald Memorandum, nor was it used to support staff's reasonable potential analyses in the Fact Sheet for the draft Order or in the Proposed Order. However, given the City's interest in work presented by Butkus (2011), and given the substantial discrepancies between the estimates cited above, Regional Water Board TMDL staff has initiated the process of revising the subject memorandum for clarity, completeness, and to correct minor errors. Once completed, the revised memorandum will replace the previous version, and will be made publically available as a provisional TMDL development product. Meanwhile, staff has shared with the City the source data behind its phosphorus loading estimates, and continues to work with the City toward a shared understanding of staff's TMDL development work to date. A current summary of staff's best available source data is presented below in Table 1, which should be used in lieu of the table (and figure) originally featured in the City's Comment No. 1.

¹ The City originally presented its data in units of millions of tons/yr. However, the City has since acknowledged that the correct units are lbs/yr.

As indicated in Table 1, the City's relative discharge of total phosphorus to the Laguna in an average year is 10,050 lbs, which represents 5.60% of all external phosphorus loading to the Laguna system. An average discharge of this size, when considered in the context of the information presented in the Revised Fitzgerald Memorandum, and subject to NPDES permit regulations, is sufficiently large to validate the 'no net loading' effluent limitation for total phosphorus in the Proposed Order.

Table 1. Relative Discharges of Total Phosphorus to the Laguna de Santa Rosa

Land Cover	Total-P		Dissolved P		Particulate P	
	Median Loading Rate	Relative Loading Rate	Median Loading Rate	Relative Loading Rate	Median Loading Rate	Relative Loading Rate
	(lbs/yr)	(%)	(lbs/yr)	(%)	(lbs/yr)	(%)
Forested	5,859	3.3%	4,519	3.8%	1,340	2.2%
Rangeland	15,702	8.8%	9,377	8.0%	6,325	10.2%
Orchards & vineyards	13,837	7.7%	7,767	6.6%	6,070	9.8%
Cropland & pasture	82,145	45.8%	53,749	45.8%	28,396	45.8%
Residential: non-sewered	14,856	8.3%	8,162	7.0%	6,694	10.8%
Residential: sewerred	20,713	11.5%	14,529	12.4%	6,184	10.0%
Commercial	8,816	4.9%	5,617	4.8%	3,199	5.2%
Other Land Covers	1,600	0.9%	997	0.8%	603	1.0%
Permitted Santa Rosa Load	10,050	5.6%	8,040	6.8%	2,010	3.2%
Permitted Windsor Load	5,799	3.2%	4,639	4.0%	1,160	1.9%
Total	179,376	100.0%	117,397	100.0%	61,980	100.0%

Comment 1C: The City's Winter-time Discharges do not pose a threat to Water Quality. The City suggests that it only discharges phosphorus into the Laguna de Santa Rosa during the winter, and that harmful water quality responses due to excessive biomass in the Laguna only occur during the summer.

Response: Staff disagrees with the City on each of these points, as documented in the Revised Fitzgerald Memorandum, and as further explained below.

- The discharge season, as defined in the Proposed Order is October 1 through May 14. However, due to storage and monitoring requirements in the City's approved Discharge Management Plan, the City's ability to discharge at any time during the discharge season is effectively constrained. Based on the results of modeled simulations recently provided by the City to Regional Water Board staff, the City is likely to discharge between December and March under average precipitation conditions, and additionally during the months of November and April under unusually wet conditions. Thus the Proposed Order allows the City to discharge during the fall, winter and spring – a condition reflected in staff's reasonable potential analysis in the Fact Sheet.
- Available data in the Laguna system and other information suggest that harmful effects of high phosphorus concentrations are not limited to the summer. As

explained in the Revised Fitzgerald Memorandum, phosphorus levels in the Laguna cause biomass (i.e., aquatic plant and algae) production, which in turn causes responses in dissolved oxygen levels. Means by which biomass affects dissolved oxygen levels tend to vary throughout the year. When conditions favor plant and algae growth (generally during the spring and summer), dissolved oxygen levels are driven to harmfully low levels by respiring plants. When conditions favor plant and algae decay and decomposition (generally during the fall and winter), dissolved oxygen levels are driven to similarly low levels by respiring bacteria. Diel dissolved oxygen data demonstrating these effects in the Laguna system are presented and described by Butkus (2010 and 2011, as referenced in the Revised Fitzgerald Memorandum). The data show that surface waters in the Laguna regularly fail to meet Basin Plan objectives for dissolved oxygen – not just during the summer, but year-round.

Comment 1D: The Soluble Fraction of the City's Discharges of Phosphorus does not Pose a threat to Water Quality. The City suggests that only the particulate fraction of its discharge is likely to be captured in the Laguna system².

Response: Staff disagrees with the City on this point, as mentioned in the Revised Fitzgerald Memorandum, and as further explained below.

Particulate and dissolved forms of phosphorus discharged into the Laguna throughout the year may be captured through a variety of means. Means by which the City's discharge may be captured in the Laguna system are summarized in Table 2.

² Based on available data, the City asserts that its total phosphorus discharges consist of 20% particulate forms of phosphorus, and 80% soluble (or dissolved) forms of phosphorus.

Table 2. Modes and Timing of Phosphorus Capture in the Laguna de Santa Rosa

Discharge	Mode of Capture ¹	Timing of Capture ²
Dissolved Phosphorus	Readily taken up by growing plants and algae.	Occurs year-round, but more likely in the spring and summer, or under preferable growing conditions.
	Readily sorbed by mineral particulate matter in the channel bottom, floodplain, and/or in suspension.	Occurs year-round, but more likely during and following storm events.
	Readily sorbed by organic particulate matter in the channel bottom, floodplain, and/or in suspension.	Occurs year-round, but more likely in the fall and winter, and during and following storm events.
Particulate Phosphorus	Deposited in the channel bottom.	Occurs year-round, but more likely during and following storm events.
	Deposited in the floodplain.	Occurs during and following storm events.

Table Notes:

- ¹ Sediment transport dynamics in the Laguna system are not well understood. However, sedimentation rates have been studied by Philip Williams & Associates (PWA), among others. According to PWA (2004, as referenced in the Revised Fitzgerald Memorandum), the Laguna has an estimated sediment trap efficiency of approximately 50%. Though sediment trap efficiency does not necessarily correspond to directly to capture of particulate phosphorus, it is relevant information with regard to the fate and transport of phosphorus in the Laguna system.
- ² Instream hydraulics in the Laguna system are not well understood. The City typically discharges during storm events. Backwater effects and protracted floodplain (and wetland) inundation are commonly observed during these events. In addition, available stream flow data from the United States Geological Survey (USGS) indicate reverse flows in the Laguna upstream of the City's discharge point during at least four separate storm events since 2009 (USGS Gage No. 11465750). These phenomena are not adequately reflected in the City's Comment No. 1, or in its assessment of water travel times (Attachment 3 to the City's comment letter). These observed flow conditions provide counter evidence to the City's assertion that its discharge is flushed out of the Laguna System and does not contribute to summertime water quality conditions.

Comment 1E: The City's discharges of phosphorus do not pose a threat to water quality in the Laguna because of low equilibrium saturation concentrations. The City states that soluble phosphorus concentrations recently measured in the Laguna are three times higher than what the City claims is the maximum equilibrium concentration. Under such saturated conditions, the City contends that its discharges of phosphorus to the Laguna are not likely to be captured in the system via sorption processes, and thus will not add to existing biostimulatory conditions.

Response: Staff disagrees with the City's rationale.

First, staff question whether the concept of equilibrium saturation for soluble phosphorus truly applies in dynamic aquatic settings such as in the Laguna de Santa Rosa. Second, equilibrium concentration values based on conditions specific to the

Laguna have not been developed. Third, it is inappropriate to assume that the value put forth by the City, based on work by Froelich (1988), is representative of conditions in the Laguna. Reasons include:

- The equilibrium concentration specified by the City (0.05 mg/L) does not directly appear in the referenced work. The specified value was apparently selected by the City from a wide range of values presented by the author. The variability of the equilibrium concentrations presented by the author spans three orders of magnitude, and range from 0.001 mg/L to 0.109 mg/L. In its comment letter, the City does not explain the method it used to select the specified value.
- The referenced work presents equilibrium concentrations estimated by the author based on the results of six buffer experiments (i.e., laboratory studies) conducted between 1960 and 1985. According to the author, the experiments were performed using natural soils and sediments collected from the following locations: wooded streams in New York and New Hampshire, the Mississippi River, the Colorado River, and the Amazon River. Conditions in these predominately lotic aquatic systems cannot reasonably be expected to approximate conditions in the lake-like Laguna de Santa Rosa.

Comment 1F: The City's discharges of phosphorus do not pose a threat to water quality in the Laguna because of short water travel times. The City claims that water travel times between the City's point of discharge at Delta Pond and the Laguna's confluence with the Russian River are relatively short (i.e., never greater than 7 hours) during periods when the City is most likely to discharge. As such, the City claims that its discharges of soluble phosphorus to the Laguna are not in the system long enough to be captured via sorption processes, and thus will not add to existing biostimulatory conditions.

Response: Staff disagrees with City's claims regarding water travel times for reasons described below.

The City's estimates of water travel times are based on simulations using a hydrologic model (as described in Attachment 3 to the City's comment letter). The model was originally developed to investigate the water quality impacts of potential future scenarios for discharges by the City of Santa Rosa into the Russian River and Laguna de Santa Rosa at various locations. Based on staff's review of Attachment 3 to the City's comment letter (and works cited therein), water travel times predicted by the City's hydrologic model are likely underestimated, due to selected model parameter values, simplified channel representation, chosen design flows, and the model's limited ability to simulate reverse flow conditions. Specifically:

- Model simulations were performed using an assumed Manning's roughness coefficient of 0.040 along the entire length of the modeled Laguna reach. According to Chow (1959), this value represents clean, winding, natural streams with some pools and shoals. Actual channel conditions in the Laguna are more complex than this description suggests, and would be better represented by a higher value. For example, a Manning's roughness coefficient of 0.070 represents a natural channel with sluggish reaches, weeds and deep pools. In this case, the low roughness

coefficient used in the City's model simulations likely lead to underestimated water travel times for the Laguna.

- The City's model assumes that the Laguna de Santa Rosa has a trapezoidal channel shape, a fixed width of 5 meters, and side slopes that may vary, but remain fixed along 200 meter stream segments. The modeled reach begins upstream at Stony Point Road, and ends at the Laguna's confluence with the Russian River.

While the model allows for channel constrictions to be represented in 200 meter segments, it does not allow for abrupt constrictions to be considered, such as those caused by bridges in several locations downstream of the City's discharge point at Delta Pond (such as at Guerneville Road, River Road, and Trenton Healdsburg Road). Abrupt channel constrictions cause velocities in the Laguna to slow considerably during high flow events, as flood waters pool behind the bridge abutments and piers. In this case, the simplified representation of channel structure used in the City's model simulations leads to underestimated water travel times for the Laguna.

- In the City's modeled assessment of water travel times, the wettest design flow simulated for the Laguna at its confluence with the Russian River is 2,300 cubic feet per-second (cfs), which the City lists as having a 1 percent probability of exceedence (i.e., the 100-yr flow event). However, available stream flow data from the United States Geological Survey (USGS) indicate that 2,300 cfs is regularly exceeded at this location (specifically, lower Mark West Creek at Trenton-Healdsburg Road, USGS Gage No.11466800). In fact, approximately 22 separate events have occurred within the last 5 years of recent record, during which stream flows have exceeded the City's maximum design event.³ In this case, low design flows used in the City's model simulations leads to unknown, but likely substantial effects on the City's estimates of water travel times for the Laguna.
- According to the City, the model used to assess water travel times in the Laguna identified no backflow conditions (i.e., when the direction of flow is reversed) for any of the five simulated design events. However, available USGS stream flow data indicate reverse flows in the mainstem Laguna have occurred during at least four separate storm events since 2009, as measured upstream of the City's Delta Pond discharge point (USGS Gage No. 11465750 at Occidental Road)⁴. In this case, the model's apparent inability to simulate reverse-flow conditions known to occur in the Laguna mainstem leads to underestimated water travel times.

Reference Cited: Chow, V.T. 1959. Open-Channel Hydraulics. McGraw-Hill Book Company, New York, NY.

Comment No. 2: Separation of Master Water Reclamation and NPDES Permits. The City's discharge and reclamation activities should be regulated in two separate permits,

³ Complete daily stream flow records are available at the referenced gage for the following hydrologic years: 2006, 2007, 2008, 2012, and 2013.

⁴ The four events occurred on the following dates: Feb. 22, 2009; Jan. 18, 2010, Mar. 13, 2012, Dec 21, 2012.

with the City's limited and intermittent discharges to waters of the United States regulated by a federal NPDES permit, and the remainder of the City's reclamation or other activities regulated by a Master Reclamation Permit (Water Code section 13523.1) and/or Waste Discharge Requirements (Water Code section 13263) issued pursuant to state law, namely the Porter-Cologne Water Quality Control Act.

Response: Regional Water Board staff is considering the possibility of separate permits for the City's federal NPDES permit and the remainder of the City's reclamation activities; however, separating the permits is not a priority at this time. As staff time becomes available, we will consider adopting Waste Discharge Requirements for reclamation activities. Such a permit, however, would not authorize any discharge, incidental or otherwise, from the reclamation area; so NPDES permit coverage of some type would still be needed to avoid unpermitted discharges in the case of a broken sprinkler head for example. Regional Water Board staff will continue to work with City staff to resolve these permitting issues.

Finding II.C of the permit clearly states what sections in the permit implement state law only and is not subject to enforcement remedies available for federal NPDES violations. The City provides no evidence that a dual permit increases the City's exposure to third party enforcement under the Clean Water Act. No change is necessary.

Comment No. 4: Permit Effective Date Should be 50 days after Adoption. (Ref.: WDR Page 3, Table 3.) The draft permit's stated effective date of November 1, 2013 is not consistent with the state's memorandum of agreement with USEPA that states that "the permit shall be effective on the 50th day after the date of adoption." The permit effective date and expiration date should be modified accordingly.

Response: It is common practice in state-issued NPDES permits to set the permit's effective date on the first day of the month after 50 days have passed since the date of permit adoption. The purpose of this is to avoid commencement of permit requirements in the middle of the monthly monitoring period. USEPA Region 9 is aware of this practice and has had no objections. No change is necessary.

Comment No. 5: Permit Section Beginning "IT IS HEREBY ORDERED" AND ENFORCEABILITY OF PREVIOUS PERMIT. (Ref.: WDR Page 3) The permit section that begins "IT IS HEREBY ORDERED..." should be modified to be consistent with language in other state-issued permits related to the enforceability of the previous permit.

Response: This permit section has been revised, consistent with the State Water Board NPDES template, to read as follows:

IT IS HEREBY ORDERED, that Waste Discharge Requirements (WDR) Order No. R1-2006-0045, as amended by Regional Water Board Order No. R1-2008-0091, and Monitoring and Reporting Program (MRP) No. R1-2006-0045, are rescinded upon the effective date of this Order except for enforcement purposes, and in order to meet the provisions contained in division 7 of the California Water Code (Water Code) (commencing with section 13000) and regulations and guidelines adopted thereunder, and the provisions of the federal Clean Water Act (CWA) and regulations and guidelines adopted thereunder, the Permittee shall comply with the requirements of this Order. This action in no way prevents the

North Coast Regional Water Quality Control Board (Regional Water Board) from taking enforcement action for past violations of the previous permit.

Comment No. 8: Specifying Advanced Waste Treatment Dictates Manner of Compliance in Violation of CWC 13360(a). (Ref: *WDR Page 7, Footnote 1 (and throughout.)*) The definition of advanced treated wastewater in footnote 1 ignores State Water Board precedent. Pursuant to Water Code section 13360(a), no waste discharge requirement or other order of a Regional Board shall specify the design, location, type of construction, or particular manner of compliance for that requirement or order. This issue has been litigated against regional boards previously. To avoid running afoul of this statutory requirement, the City requests that the term "equivalent treatment" be included in the Draft Order as noted in Comment No. 8.

Response: In the Implementation Plan for the North Coast Basin (Basin Plan, Chapter 4) it states that for Russian River and its tributaries from October 1 through May 14, the discharges of municipal waste shall be of advanced treated wastewater (AWT) in accordance with effluent limitations contained in NPDES permits for each affected discharger. However, the treatment processes listed in footnote 1 are not effluent limitations and should not have been used to define AWT in the Proposed Order. Accordingly, this definition will be deleted and AWT will be defined as wastewater meeting the effluent limitations in Table 6 of the Proposed Order. Similarly, the reference to the definition of AWT on page F-59 will also be deleted.

For references to tertiary recycled water or tertiary treatment on pages E-36 and F-58, respectively, the language proposed by the City "or equivalent" is not appropriate because it is not consistent with the definition of disinfected tertiary recycled water in section 60301.230 of title 22.

Comment No. 10: Daily Maximum Limits for WQBELs are Not Authorized by Federal Law or Justified in the Draft Permit. (Ref: *WDR Page 9, Section IV.A.2.a Table 5, and Attachment F, Pages 133 and 134 Tables F-8 and F-9.*) The Draft Order in Table 5 (and in Tables F-8 and F-9) contains Maximum Daily effluent limits for chlorodibromomethane and dichlorobromomethane. Federal law only authorizes monthly and weekly average effluent limitations for publicly owned treatment works ("POTWs") without a demonstration that such effluent limitations are "impracticable." (See 40 C.F.R. §122.45(d)(2) ("For continuous discharges all permit effluent limitations, standards and prohibitions, including those necessary to achieve water quality standards, shall unless impracticable be stated as: (2) Average weekly and average monthly limitations for POTWs.")) The Draft Order includes not only average weekly and average monthly limits, but also includes these maximum daily limits. (See Table 4.) These proposed limits are more stringent than required by federal law and have not been adequately justified.

Response: As described in the Fact Sheet, the reasonable potential analysis and development of effluent limitations for chlorodibromomethane and dichlorobromomethane follow the protocol in the SIP, which results in daily maximum and monthly average effluent limitations. The rationale for expressing final limitations as a monthly average and a daily maximum for priority pollutants is provided in the Final Functional Equivalent Document for the 2000 SIP. No change is needed.

Comment No. 11: Acute Toxicity Limits Should Be Removed or Lack of Reasonable Potential. (Ref.: *WDR Page 10, Section IV.A.2.b.iii*) There is no evidence that demonstrates that there is reasonable potential to trigger the need for an acute toxicity effluent limitation, which is proposed in the Draft Order. The Draft Order at page F-47 and F-48 states that "The Permittee consistently maintained compliance with the acute toxicity limitations during the term of the previous permit. All acute toxicity testing results during the term of the previous permit were 100 percent survival." Provision IV.A.2.b.iii and Provision VII.K should be removed and the other Toxicity Requirements in the Draft Order should be modified as described in Comment No. 11.

Also, modify Fact Sheet Section IV.C.5.b., Chronic Aquatic Toxicity. The second to the last paragraph in this section must be modified since it is inconsistent with the findings of the State Water Board that toxicity triggers are not equivalent to effluent limitation.

Response: The Basin Plan's narrative water quality objective for toxicity describes how compliance with this objective will be determined. In the third paragraph of this objective, it states "*In addition, effluent limits based on acute bioassays of effluent will be prescribed.*" Regional Water Board staff interprets this statement to mean that NPDES permits must include an acute toxicity effluent limitation. Removing the limitation as requested would make the permit out of compliance with the Basin Plan. See response to (Santa Rosa) Comment No. 12 from December 2012. No changes to the acute toxicity requirements are necessary.

For the chronic toxicity trigger, section IV.C.5.b of the Fact Sheet has been revised in accordance with the City request.

Comment No. 12: Reclamation Requirements in Section IV.C.2 are not Consistent with Title 22 and should also be Removed. (Ref.: *WDR Page 11 Sections IV.C.2.a. and IV.C.2.b and Attachment E, Table E-7*) In the December 2012 draft of the draft Order, reclamation specifications stated that water used for reclamation should be TBELs contained in section IV.A of the permit. The Regional Water Board responded by adding the same limitations found in section IV.A to section IV.C.2. However, it should be further clarified that these reclamation specification are not effluent limitations and are not subject to mandatory minimum penalties under Water Code section 13385. In addition, Section IV.C requires compliance with Title 22, and the requirements in Section IV.C are currently inconsistent with Title 22. Since Title 22 does not include BOD, TSS or pH limits, and the Fact Sheet does not justify including them, these limits should not be included. The City again requests removal of Sections IV.C.2.a. and IV.C.2.b.

Response: The City is required to produce recycled water that meets requirements for disinfected tertiary recycled water, as defined in title 22 of the California Code of Regulations. Title 22 states that disinfected tertiary recycled water means wastewater that is filtered and subsequently disinfected to meet disinfection criteria in section 60301.230. Filtered wastewater is further defined in Title 22 as oxidized wastewater that meets filtration criteria in section 60301.320. Therefore, disinfected tertiary recycled water must be oxidized, filtered, and disinfected to meet requirements in sections 60301.320 and 60301.230. The reclamation specifications in sections IV.C.2.a and IV.C.2.b ensure that treated wastewater meets title 22 requirements. These

specifications have been consistently achieved by the Permittee to date. No change is necessary.

Finding II.C of the permit clearly states that section IV.C implements state law only and is not subject to enforcement remedies available for federal NPDES violations, which include mandatory minimum penalties under Water Code section 13385. No change is necessary.

Comment No. 15: Filtration Process Requirements Should Be Clearly Noted as not subject to Mandatory Minimum Penalties. (Ref.: *WDR Page 12 and 13, Sections IV.D.1. and IV.D.2.*) The City requests that the Tentative Order specify that Filtration Process Requirements are Operation and Maintenance specifications, and not effluent limitations as defined in Water Code section 13385.1(d).

Response: Finding II.C of the permit clearly states that section IV.D implements state law only and is not subject to enforcement remedies available for federal NPDES violations, which include mandatory minimum penalties under Water Code section 13385.

Comment No. 16: Revision of Reclamation Capacity Requirement and Removal of Reclamation Alternatives Requirement. (Ref.: *WDR Pages 12-15, Section IV.D; Appendix E Pages E-23 to E-24, Sections IX.B, IX.C.2., IX.C.3; and Attachment F Pages F-60 to F-62, Sections IV.G.3.c and IV.H.1.*) The Draft Order violates Water Code §13360(a)'s prohibition on mandating the manner of compliance and is inconsistent with other permits adopted in this region. For these reasons, the language of this section should only include the effluent requirements to be met, not the manner in which those effluent requirements must be met. The sections identified in Comment No. 16 should be removed.

Response: Regional Water Board staff disagrees. No change is necessary. See the response to Comment No. 21 from December 2012.

Comment No. 18: A Minimum UV Transmittance Requirement is Unnecessary. (Ref.: *WDR Page 13, Section IV.D.2.d. and Attachment E Page E-24, Sections IX.C.2 and 3.*) This section requires that the UV Transmittance (UVT at 254 nanometers) in the wastewater shall not fall below 50 percent of maximum at any time, unless otherwise approved by CDPH. As per Comment 22b of the City's December 3, 2012 Comment Letter, the City's UV system controls dose using a calculation (accepted by CDPH) in which UVT as one of the factors in determining the ballast power level needed to provide the required dose. Thus, the dose would account for low UVT, and a minimum UVT is unnecessary.

Response: UV disinfection systems demonstrated and tested following the National Water Research Institute/American Water Works Association's UV Disinfection Guidelines (NWRI 2012), should be adequate to achieve the objective of Title 22 Chapter 3 Article 1 Section 60301.230(a)(2). Santa Rosa submitted a test protocol, which included a minimum UVT. UVT is a critical parameter and any UVT lower than what was tested falls outside the range that demonstrates compliance with Title 22 Section 60301.230 (a) 2. The NWRI guidance assumes media filters should produce water quality with the minimum UVT at 55 percent. Normally, the UVT at the Santa Rosa plant is 60-65 percent. Therefore, the normal recommendation from CDPH is a

minimum 55 percent UVT for media filters. However, since there was extensive MS2 bioassay work performed, with some test runs at a UVT as low as 50 percent, and performance did not deteriorate, CDPH recommends that for only the Santa Rosa plant, the permit may state the minimum UVT is 50 percent. A potential issue to consider is that any future modification to allow a higher filtration rate should be examined in light of the impact on UVT.

Comment No. 19: The Minimum UVT should be 49%, not 50%. (Ref.: WDR Page 13, Section IV.D.2.d. and Attachment E Page E-24, Sections IX.C.2 and 3.) The Carollo bioassay referenced in Comment 17 determined that the percent of maximum UVT should be 49 percent. Should the Regional Board decline the City's requested change in Comment 18 above, the City requests the Draft Order reflect the findings of this study.

Response: According to the review of the study by CDPH, there was one test at a UVT of 49.4 percent, which underperformed the UV dose by 72 percent; therefore at 49 percent, the UV system at Santa Rosa did not demonstrate sufficient disinfection. No change is necessary.

Comment No. 20: Diversion of Flow in Response to High Coliform Results Should be Removed. (Ref.: WDR Page 13, Section IV.D.2.h.iii.) As per Comment 22c of the City's December 3, 2012 Comment Letter, diverting flow to waste as a response to high daily and weekly median total coliform values is operationally impossible. Flow is beyond recall by the time the 2-4 day test is complete.

Response: Agree. The Proposed Order was revised to require the Permittee to follow the Off-Spec Condition Response Plan when off-spec conditions occur.

Comment No. 23: Receiving Water Limitation for Temperature is Inappropriate and Use of USEPA Region 10 Guidance Constitutes an Underground Regulation. (Ref.: WDR Page 17, Section V.A.12.d, and Attachment F Page F-63.) The Draft Order contains a new receiving water limitation for temperature, which is not based on federal or state law, or even the Basin Plan, but is based on a guidance document from EPA Region 10, not Region 9 that has jurisdiction over the City's NPDES permit. (See Draft Order at page F-63.) This temperature criteria set to protect salmonids in the extreme Northwest of the United States has not been adopted or justified for use in Northern California. Use of this inapplicable guidance constitutes an improper underground regulation. Therefore, the new temperature requirement should be removed since not based on properly adopted and approved temperature objectives in the Basin Plan.

Response: The additional receiving water limitation is consistent with the existing water quality objective for temperature, which requires that receiving water temperatures shall not be altered unless it can be demonstrated to not adversely affect the beneficial uses present. This water quality objective requires that the objective be interpreted in the context of the beneficial uses present. The USEPA Region 10 guidance was developed based on the available literature describing the thermal thresholds of salmonids. The guidance was developed for the salmonid species present in the northwest, but is based on the species, not the geography. The thermal criteria presented in the USEPA Region 10 guidance is completely consistent with the salmonid

species of Coho salmon, steelhead trout, and occasionally Chinook salmon which are present in the mainstem Laguna de Santa Rosa and lower Mark West Creek. The thermal criteria presented in the USEPA Region 10 guidance are also consistent with literature describing salmonid temperature thresholds in the North Coast Region. The Regional Water Board has no information to suggest the 7-day average of the daily maximum criterion is inappropriate, given the known thermal tolerances of these species. No change is necessary.

Comment No. 25: TRE Workplan Clarification. (Ref.: WDR Page 21, Provision VI.C.2.a.ii.) This provision states that the TRE workplan should be reviewed and updated as necessary every five years. The City requests that this statement be revised for clarification.

Response: The requirement was revised as requested to require the Permittee to review the TRE workplan within 180 days of the adoption of the permit. A new requirement was added in this section that requires the Permittee to submit the results of the review and, if necessary, an updated TRE workplan with its next ROWD.

Comment No. 27: Draft Order Includes Duplicative Requirements related to Proper Operation and Maintenance. (Ref.: WDR Pages 23 and 24, Provisions VI.C.4 and VI.C.5.a.i (and corresponding parts of the Fact Sheet) and Attachment E, Page E-3 Section I.D.) The Draft Order includes several provisions that duplicate the Standard Provisions and could cause the City to incur more than one permit violation for the same event. For example, Provisions VI.C.4 (*Construction, Operation and Maintenance Specifications*) and VI.C.5.a.i. (*Proper Operation and Maintenance*), duplicate the provisions contained in Attachment D at page D-1, Provision I.D. (*Proper Operation and Maintenance*). Provision VI.C.5.a.i. also duplicates Standard Provisions I.E. (*Duty to Mitigate*), V.E. (*Twenty-Four Hour Reporting*) and V.H. (*Other Noncompliance*). It is already clear from Attachment F at pages F-4 and F-5 that “[t]he Permittee’s collection system is part of the treatment system that is subject to this Order.” Therefore, this statement and the recitation to Standard Provisions in Provision VI.C.5.a.i. is unnecessary and duplicative. For these reasons, the City requests removal of Provisions VI.C.4. and VI.C.5.a.i. A similar argument applies to the new section in Attachment E, Section I.D., which requires maintenance and calibration of monitoring instruments - these too would fall under the Standard Provision for “Proper Operation and Maintenance” and need not be included.

Response: Regional Water Board staff agrees that permit requirements in Provision VI.C.5.a.i are duplicative with identical requirements contained in Attachment E. Accordingly, these duplicative requirements were deleted from the Proposed Order. Permit Provision VI.C.4 (*Construction, Operations, and Maintenance Specifications*) is not intended to be duplicative; rather, the intent of this provision is to require the Permittee to maintain an up-to-date O&M manual and to describe reasonable expectations for what should be included in an acceptable O&M manual. Nevertheless, subsection VI.C.4 was revised to remove what might be interpreted as duplicative requirements, but retains requirements pertaining to an O&M manual.

Comment No. 29: Clarify of Remove Adequate Justification for Solids Treatment and Storage Ponds. (Ref.: WDR Page 27, Section VI.C.5.c.vii.) This subsection defines adequate protection for the solids and sludge treatment and storage sites as “protection

from at least a 100-year storm." The City questions the authority and justification for this protection level, and also requests clarity as to the duration. Most design storms are set by recurrence interval and duration (e.g., 2-year, 24-hour storm), not just a recurrence interval as set forth here. Because this provision lacks justification and inserts confusion and uncertainty into the permit, the last sentence of this section should be removed.

Response: The requirement is intended to be consistent with protection for a Class III waste management unit pursuant to title 27, section 20365, CCR, which requires protection from inundation and erosion from a design storm with a 100-year recurrence interval and 24-hour duration. The Proposed Order was revised to specify the design storm duration.

Comment No. 31: Compliance Determination Section Precludes an Affirmative Defense for Noncompliance. (Ref.: WDR Pages 29-31, Section VIII.) Some of the proposed language in this section unlawfully presumes that the permittee has incurred a "violation, or "shall be deemed out of compliance," even though there may be an explanation or affirmative defense for such noncompliance (see e.g., Standard Provisions D.1.G. (Bypass) and H. (Upset)). Further, the language eliminates due process prior to a finding of non-compliance (such as a hearing, and the opportunity to present contrary evidence or defenses). Reliance on the permit template prepared by the State Water Board is not acceptable, as the permit template is not a regulation, but merely a guidance document able to be readily changed. Therefore, the City requests that all references to "violation(s)" be removed and the wording be changed in the compliance determination language to reflect that exceedances are *alleged* violations, since they may also NOT be deemed violations if a defense exists.

Response: Justification for the compliance determination language in Section VII (Compliance Determination) is addressed in Regional Water Board staff's response to Comment No. 28 from December 2012. With regard to the use of the term "violation(s)," Regional Water Board staff has revised the Proposed Order to preferentially use the term "noncompliance," where appropriate.

Comment No. 32: Failure to Consider Dilution Credits for Effluent Limitations. The SIP specifically authorizes the consideration of dilution credits when "establishing and determining compliance with effluent limitations for applicable human health ... or the toxicity objective for aquatic life protection in a RWQCB Basin Plan." (SIP at Section 1.4.2 at page 15.) The Draft Order recognizes and uses a Zone of Initial Dilution for compliance with receiving water limitations but, without justification, states that this "concept was not used for determining reasonable potential or establishing water quality-based effluent limitations (WQBELs) for priority pollutants or water quality objectives other than dissolved oxygen, pH, turbidity, and temperature." This inconsistent treatment of dilution is not only unjustified, but contrary to state and federal law that clearly allow the consideration of dilution in reasonable potential calculations (40 CFR §122.44(d)(1)(ii) (allowing consideration of "the dilution of the effluent in the receiving water"); see also SIP, Section 1.4 at page 8 (including D in effluent limit calculation where D equals the dilution credit).)

No dilution was considered or granted for human health-based effluent limitations or for chronic toxicity. (See e.g., Draft Order at page 20, footnote 7 ("This Order does not allow

any credit for dilution for a chronic condition.”) This failure to consider dilution when the City may only discharge during periods of high flow, and when the City’s discharge is less than 5 percent of the flow, is an abuse of discretion. Harmonic mean dilution or long-term arithmetic mean flow during period of discharge should have been used for the City’s highly treated, intermittent discharges.

Specifically, the City requests that dilution be considered in both the reasonable potential analysis and, if reasonable potential still exists, in the calculation of effluent limitations for chlorodibromomethane and/or dichlorobromomethane.

Response: The concept of a Zone of Initial Dilution was borrowed from the California Ocean Plan for the purpose of implementing the Subregional System’s receiving Water Monitoring model and was only intended for use for complying with water quality objectives for dissolved oxygen, pH, turbidity, and temperature using the Permittee’s Water Monitoring model. Use of this concept for the discharge of waste from the Delta Pond should not be construed as establishment of a mixing zone policy for the water body or extended to another watershed.

A dilution credit was not applied in developing effluent limitations for chlorodibromomethane (CDBM) and dichlorobromomethane (DCBM) due to insufficient information provided by the Permittee in the ROWD to calculate a dilution ratio. The RPA was conducted using information provided in the ROWD, which did not contain information verifying that the discharge at Delta Pond is completely mixed, which is the condition in the SIP necessary to apply a dilution credit in the absence of a mixing zone study. At discharge locations where the Permittee can demonstrate that there is complete mixing or where the Permittee has completed an independent mixing zone study that demonstrates to the satisfaction of the Regional Water Board that a dilution credit is appropriate, Regional Water Board staff will consider application of dilution credits for developing effluent limitations for priority pollutants, in accordance with section 1.4.2.1 of the SIP.

In accordance with procedures in the SIP, a dilution credit, when granted by the Regional Water Board, is used only in the calculation of effluent limitations. The SIP does not permit consideration of a dilution credit for the RPA.

Comment No. 34: MLs for Priority Pollutants. (Ref.: *Attachment E Table E-1*) Table E-1 previously included gas chromatography/mass spectroscopy (GCMS) for dibromochloromethane and dichlorobromomethane, but these values were removed. Both values should be maintained as both are set forth in the SIP at page 4-1. Under the SIP at page 23, Section 2.4.2, “[t]he discharger may select any one of those cited analytical methods for compliance determination.” Removal of the GCMS ML unreasonably and arbitrarily limits the City’s options for available MLs. In addition, the GC methodology is outdated and some the equipment required to run the analyses with this method for halogenated volatiles is no longer being manufactured. Since the Laguna Environmental Laboratory ML for GCMS is as low as that for GC (0.5 µg/L), there is no reason to exclude GCMS. For these reasons, both GC and GCMS should be included with MLs as specified in the SIP.

Response: In addition to the exception provided by the commenter, section 2.4.2 of the SIP also states that "If no ML value is below the effluent limitation, then the RWQCB shall select as the RL, the lowest ML value, and its associated analytical method, listed in Appendix 4 for inclusion in the permit." There are two effluent limitations each for DBCM and DCBM and no ML value in Appendix 4 is below all four of the effluent limitations; therefore, Regional Water Board staff is required to include the lowest ML and its associated analytical method in the permit. However, in light of the ability of the Permittee's laboratory to run the GCMS at a greater sensitivity than the ML for GCMS listed in Appendix 4 of the SIP and because the Permittee has indicated is intent to test at a detection level comparable to the lowest ML in Appendix 4 of the SIP for CDBM and DCBM, the table has been revised to include the SWRCB ML for these constituents. A footnote has also been added to Table E-1 to condition the use of the GCMS method.

Comment No. 35: Monitoring Location Names. (Ref.: Attachment E Table E-2) The monitoring location names in Table E-2 have changed from what they were in the current Permit. The monitoring location names in the current Permit were changed from what they were in the permit before that. These changes require changes to the quarterly and discharge reports. For consistency, the City requests that the monitoring location names not be changed.

Response: Regional Water Board staff understands the potential for confusion in the naming of monitoring locations in the draft Order. However, the monitoring locations were named to conform to naming conventions established in the State Water Board's NPDES template, for the purpose of statewide consistency. No change is necessary.

Comment No. 36: Typographic Error Regarding Monitoring of Radionuclides. (Ref.: Attachment E, Page E-8, Table E-4, Footnote 4) Footnote 4 concerns types of radionuclides, but radionuclides are not required monitoring in Table E-4. Therefore, footnote 4 should be deleted.

Response: The monitoring requirement for radionuclides was inadvertently omitted from Table E-4 for discharges to Discharge Points 006A, 006B, 012A(2) and 012B and was corrected in the Proposed Order.

Comment No. 39: Retain Multiple Species Screening for Chronic Toxicity. (Ref.: Attachment E Page E-11, Section V.A.3.) This section requires all acute toxicity tests to be run with both the water flea (*Ceriodaphnia dubia*) and the rainbow trout (*Oncorhynchus mykiss*). This change is contrary to both the current permit and the previous draft permit, which required that both species be used for the first two suites of testing after which only the most sensitive species need be used. The change is also contrary to federal guidelines.

Response: The previous permit required the Permittee to conduct monthly acute toxicity monitoring of the treated effluent using the most sensitive species determined from a sensitive species test conducted once every five years. In the Proposed Order, the monitoring frequency is reduced to annual but requires the Permittee to conduct the test using all required species, both an invertebrate and a vertebrate, to compensate for the reduction in frequency.

Comment No. 43: Require TRE only when there is clear evidence of persistent toxicity. (Ref.: *Attachment E Page E-15, Section V.B.9.a., and Page E-14, Section V.B.9.b.*) These sections relate to the toxicity level that will trigger performance of a TRE. Currently, any indication of toxicity ($TUC > 1.0$) in the accelerated monitoring bioassays requires that the "Permittee shall cease accelerated monitoring, and within 30 days of the date of completion of the accelerated monitoring, initiate the TRE Workplan...." However, the City's experience is that chronic toxicity is variable and transient. The City also requests that the variability and transience of toxicity also be acknowledged in the TUC value that triggers a TRE so that a TRE is not required unless clear evidence exists of persistent toxicity.

Response: The language in section V.B.9 is sufficiently broad to capture the possibility that pollutant specific monitoring or other investigations conducted during the TRE may identify the pollutant(s) or cause of effluent toxicity. In addition, in the TRE Workplan, the Permittee can propose a procedure to determining when a TRE may be terminated because there is insufficient evidence that there is a consistent pattern of toxicity. For clarity, Fact Sheet section VII.B.2.a of the Proposed Permit has been modified to identify various means that could be used to demonstrate that conditions support cessation of a TRE.

The changes to the accelerated monitoring triggers proposed by the Permittee are not consistent with the TSD and USEPA guidance for WET monitoring. No change is necessary.

Comment No. 45: Requirement to Monitoring Recycled Water for Drinking Water Constituents is Inappropriate. (Ref.: *Attachment E Page E-18, Table E-7.*) The Draft Order at Table E-7 requires annual testing of recycled water for "Title 22 Drinking Water Constituents". This requirement has not been adequately justified. (See Draft Order at pages F-65 to F-67.) Further, this requirement is not justified because the recycled water is being used at the Geysers or for irrigation purposes, not for drinking water-related recycled water uses. Thus, the water need not meet Title 22 drinking water standards, only bacteriological and other requirements for the uses for which the water is being provided. For these reasons, the City requests that the requirement to monitor recycled water for all "Title 22 Drinking Water Constituents" be removed.

Response: Recycled water applied to the ground surface must not cause exceedances of applicable water quality objectives for the protection of groundwater quality. Because the groundwater underlying the Permittee's urban and agricultural reuse sites has a designated beneficial use of Municipal and Domestic Supply (MUN), drinking water standards apply. An alternative means to demonstrate compliance with groundwater objectives would be to monitor the groundwater quality at each water reuse site within the Subregional System, which is not practical given the large number of reuse sites and the difficulty in distinguishing between potential pollutant sources.

Comment No. 46: Infeasibility of Daily Recycled Water Flow Monitoring and Reporting. (Ref.: *Attachment E, Page E-19, Table E-7*) Footnote 1 of Table E-7 requires that the City report each month, the number of days that treated wastewater was used for reclamation at all authorized reclamation sites, as well as the average and maximum daily flow rate. However, the City does not have the metering capability to comply with this

request. Meters at each reclamation site record only total flow and would need to be read daily to obtain daily use rates. City staff are not available to undertake this effort and if recycled water users were required to report every day, it would be extremely burdensome and discourage recycled water use. Therefore, the City requests that this footnote be deleted.

Response: Measurement of daily application rate is necessary to demonstrate that the application does not exceed agronomic rates. However, the Proposed Order was revised to remove average and maximum daily flow measurement because Regional Water Board staff agrees that these measurements are infeasible.

Comment No. 48: Unnecessary to Monitoring Receiving Water for Nutrients. (Ref.: *Attachment E Page E-20, Table E-9.*) The City objects to a requirement for receiving water nutrient monitoring. Despite repeated offers to collaborate with the Regional Water Board staff to identify and collect nutrient data to support an adequate nutrient TMDL, Board staff has not yet engaged in a substantive discussion on the matter. At such time that a comprehensive nutrient data collection strategy is developed, the City would be pleased to discuss how it can support implementation. Without such a comprehensive plan, the utility of the nutrient data is unknown and therefore this requirement should be deleted from the permit.

Response: The requirement to measure nitrogen compounds and phosphorus at the receiving water monitoring locations identified in Table E-9 is consistent with the monitoring requirements at the receiving water monitoring locations associated with the Permittee's primary discharge location.

The absence of a comprehensive plan for nutrient monitoring at these locations does not render the data unusable. Monitoring data collected at these locations could be used to determine compliance with receiving water quality objectives or other purposes, including for development of the nutrient TMDL for the Laguna de Santa Rosa and for demonstration of compliance with anti-degradation requirements. Currently, there are limited receiving water data at these monitoring sites, so collection of additional data improves understanding of receiving water conditions. Regional Water Board staff has considered the cost of this monitoring requirement for the Permittee and determined that the data obtained is commensurate with the cost of monitoring. No change is necessary.

Comment No. 50: Biosolids Monitoring. (Ref.: *Attachment E Page E-22, Section IX.A.1; Page E-31, Section X.D.4.a; and Page E-34, Section X.D.5.a.-d*) The Regional Water Board has failed to justify the need for biosolids monitoring and other requirements particularly when, at pages 27-28 of the Draft Order, regulation of biosolids is specifically stated to be regulated under the statewide biosolids WDR, Order No. 2004-2012-DWQ. Thus, all biosolids monitoring and compliance reporting requirements should be removed from this permit that does not regulate biosolids disposal.

Further, although this section relates to "biosolids," the Draft Order continues to use the word "sludge." In this section, and elsewhere where appropriate, the word "sludge" should be replaced with "biosolids." The same comment would apply to MRP Section X.D.4.a. and b., and MRP Section X.D.5.a.-d.

Response: The USEPA's POTW *Sludge Sampling and Analysis Guidance Document* (EPA 833-B-89-100) recommends that POTWs sample and analyze their sludge at least annually to determine if the sludge quality is such that the sludge may be safely reused, recycled, or disposed. This guidance document also states that characterization of sludge composition may identify operational problems and indicate potential environmental problems if reused or disposed. Where applicable, the Permittee may use monitoring data generated through compliance with the Order to demonstrate compliance with the biosolids monitoring and reporting requirements in the statewide biosolids WDR.

Provision VI.C.5.c defines biosolids as sludge that has been treated, tested, and demonstrated to be capable of being beneficially and legally used as soil amendment for agriculture, silviculture, horticulture, and land reclamation activities. Where there is the potential for confusion between the terms "sludge" and "biosolids" in the Proposed Order, Regional Water Board staff has revised the Proposed Order to clarify the use.

Comment No. 51: Annual Summary Report is Unnecessary. (Ref.: *Attachment E Page E-28 and E-29, Section X.D.2.a-f.*) This appears to be a new requirement for an annual report beyond what is currently required without any justification or burden/benefit analysis required under Water Code section 13267(b). Thus, the entire section should be removed. If this section adequately justified through additional edits to the Draft Order and maintained, then the City requests that the requirements in sections c and e be modified. These sections are particularly irrelevant and intrusive. The City is willing to include a statement in the annual report that monitoring instruments, including flow meters, were calibrated as per the manufacturers' recommendations. The annual report is certified by the responsible City person as being true and correct under penalty of law, so this should be sufficient.

Response: The reference to 13267(b) in the MRP was misplaced and has been removed from the Proposed Order. Section 13383 of the Water Code provides a regional water board the authority to establish "monitoring, inspection, entry, reporting, and recordkeeping requirements" to discharges of waste.

Although Regional Water Board staff does not agree that section X.D.2.c of the draft Order, requiring that the annual report include names, certificate grades, and general responsibilities of employees of the Laguna Treatment Plant, is irrelevant and intrusive, staff agrees that this information need not be submitted as part of the annual summary report. However, the names and certificate grades of licensed operators of the Facility should be posted at the location, in accordance with title 23, division 3, chapter 26, section 3719.16 of the CCR and should be available upon request by Regional Water Board staff or authorized representatives during a compliance inspection. The Proposed Order was revised to remove Section X.D.2.c in the draft Order.

Section X.D.2.c of the Proposed Order is necessary to determine compliance with the requirement to properly operate and maintain all facilities and treatment systems used to achieve and/or document compliance with the Order. Reliance on the general certification statement that the annual report is true and correct is not a sufficient demonstration of compliance. No change is necessary.

Comment No. 52: Reporting of Number and Dates of Inspections of Recycled Water Use Sites is too Onerous. (Ref.: Attachment E Page E-29, Section X.D.3.i.d.) This section requires the number and dates of inspections conducted for each use site during the reporting cycle. This is a new requirement that would be extremely burdensome for City staff with no corresponding increased benefit. Therefore, the City requests that requirement for reporting number and dates of all inspections, whether or not noncompliance was observed, be omitted.

Response: Regional Water Board staff requires this information to document that all recycled water use sites are being regularly inspected. No change is necessary.

Comment No. 53: Reporting of Major Repairs of Recycled Water System is overly Burdensome and will Discourage Reclamation. (Ref.: Attachment E page E-30, Section X.D.3.ii.b.) This section requires the annual recycled water report to include a summary of major repairs scheduled or completed that affected the reclamation system appurtenances and irrigation areas. For non-City owned property, this would require an added burden for the City and recycled water customers that could discourage recycled water use. Therefore, the City requests that this section be limited to major repairs the City makes to the system.

Response: Regional Water Board staff requires this information to document the condition and level of maintenance at all recycled water use sites. No change is necessary.

Comment No. 58: Remove beneficial uses for WET, FLD, CUL and FISH. (Ref.: Attachment F Page F-13 and F-14, Table F-3.) The Fact Sheet incorrectly added up to four new beneficial uses to the Laguna de Santa Rosa (Hydrologic Subarea 114.21) and Santa Rosa Creek (Hydrologic Subarea 114.2116), including Wetland Habitat (WET), Flood Attenuation (FLOOD), Native American Culture (CUL), and Subsistence Fishing (FISH). This information is inaccurate and contrary to the Basin Plan. The beneficial uses designated in the Basin Plan for the Laguna de Santa Rosa (Hydrologic Subarea 114.21) and for Santa Rosa Creek (Hydrologic Subarea 114.22) do not include CUL, FLD, WET, or FISH uses. (See NCRWQCB Basin Plan at 2-11.00.) These are not designated as potential uses. Although the Basin Plan at page 2-12.00, Table 2-1, designates Freshwater Wetlands with WET as an Existing Use ("E") and CUL and FLD as Potential Uses ("P"), there is no designation of FISH. Further, since Table 2-1 does not designate WET for Hydrologic Subareas 114.21 or 114.22, the Freshwater Wetlands designations should not apply in those subareas. In addition, the Fact Sheet fails to provide any evidence that any of these uses are existing uses that would justify the addition of these uses in the Draft Order absent designation in the Basin Plan. (See accord 40 C.F.R. §131.3(e).) For these reasons, these four uses should be removed from Table F-3.

Response: While it is true that the CUL, FLD, WET, and FISH beneficial uses are not designated in Table 2-1 of the Basin Plan specifically for the Laguna Hydrologic Subarea and Santa Rosa Hydrologic Subarea, they are identified as existing beneficial uses in the region and must be protected where they exist. There is significant evidence to conclude that WET, FLD, and FISH are existing beneficial uses in the Laguna de Santa Rosa and FLD is an existing beneficial use in Santa Rosa Creek. The Fact Sheet was revised to include a discussion of these existing beneficial uses. In addition to including

the WET, FLD, and CUL beneficial uses, the Water Quality Enhancement (WQE) beneficial use has been added to Table F-3 for the Laguna de Santa Rosa (HAS 114.21) because it is associated with the WET beneficial use and exists in the Laguna de Santa Rosa. The CUL beneficial use for the Laguna de Santa Rosa has been removed from the Proposed Order for lack of supporting documentation that the use exists.

Comment No. 59: Inadequate Justification of BOD and TSS Mass Loadings. (Ref.: *Attachment F Pages F24 through F-26, Section IV.B.*) The Draft Order inadequately justifies the necessity for including both mass limits and 85 percent removal requirements as both are not required by either federal or state law. Under federal law, mass limits are specifically *not required* for Technology-Based Limits, such as BOD and TSS. The federal regulations only require concentration-based effluent limits and 85 percent removal requirements. (See 40 C.F.R. §133.102(a)(1)-(3) and (b)(1)-(3); see e.g., Order No. R2-2012-0051, Table 6 (monthly and weekly conventional pollutant limits only with no mass limits required).)

The Fact Sheet at page F-24 states that 40 C.F.R. "section 122.45(f) requires the establishment of mass-based effluent limitations for all pollutants limited in Orders, except for 1) pH, temperature, radiation, or other pollutants which cannot be appropriately expressed by mass, and 2) when applicable standards and limitations are expressed in terms of other units of measure." (Emphasis added.) Further, that same page recognizes that the BOD and TSS limitations are all expressed in concentration, not mass. Because the technology-based limitations are expressed in concentration (i.e., "other units of measure" besides mass), the exception to the requirement for mass limits has been met and mass limits are not required under federal law.

If being imposed under state law or the discretionary ability to include mass limits in addition to concentration based limit under section 122.45(f)(2), then these requirements are more stringent than *required* by federal law and have not been adequately justified nor have all of the considerations under Water Code section 13263 and 13241 been satisfied. (See *City of Burbank v. State Water Resources Control Board*, 35 Cal. 4th 613, 629 (2005).)

There is no evidence that the City could or would "artificially dilut[e] its effluent to meet concentration-based limits" as suggested on page F-26 and, in fact, the City meets concentration-based limits much more stringent than those proposed under federal secondary treatment requirements. There is also no evidence to transform these technology-based limits into water quality-based effluent limitations, which the Fact Sheet states at page F-26 "are necessary and appropriated to protect water quality because the effluent is at times discharged to effluent dominated water bodies, primarily Santa Rosa Creek but also Laguna de Santa Rosa, and mass loading of these pollutants may degrade water quality," when they are specifically stated in that same paragraph to be "technology-based... on the Subregional System's existing design dry weather capacity..." Without evidence to support the findings of necessity for these limits and without the Water Code section 13241 analysis required for these limits that are more stringent than required by federal law, the mass limits for BOD and TSS must be removed.

Response: Regional Water Board staff has determined that mass-based limitations for BOD and TSS for effluent that is stored in storage ponds prior to discharge to surface water are not required. However, in order to comply with the federal prohibition

against backsliding in NPDES permits, mass-based effluent limitations for BOD and TSS are retained for direct discharges to surface water (i.e., effluent that is not stored in a storage pond prior to discharge to surface water). For more details, see Response to Comment No. 10 from the December 2012 comment letter and the updated Fact Sheet.

Comment No. 68: Allowance for use of hose bibs. (Ref.: Attachment G Page G-7, Section B.18) Pending legislation would allow hose bibs under certain circumstances and a change to this section to accommodate enactment of such legislation and to correct spelling consistent with Title 22 is requested.

Response: This requirement is excerpted verbatim from title 22. Therefore, it would be improper to modify or otherwise change the meaning of this requirement, except to correct the spelling of hose bibs to "hose bibbs."

Comment No. 69: Overly Stringent Prohibition of Degradation of Water Supply. (Ref.: Attachment G Page G-7, Paragraph B.21.) The proposed language in this section seems to imply that no degradation is allowed through the use of recycled water, which is not the case. The State's Antidegradation Policy is not a "no degradation" policy, it specifically allows degradation when certain findings about the importance of the use and the levels of degradation. The Recycled Water Policy has also cleared the use of recycled water under the Antidegradation Policy. Thus, this sentence should be modified.

Proposed Revisions to Draft Order:

21. The use of recycled water shall not cause statistically significant degradation of any water supply above applicable water quality objectives.

Response: Water Reclamation Requirement B.21 was revised to read, "The use of recycled water shall not cause degradation of any water supply, except in conformance with the State Antidegradation Policy."

Russian River Watershed Protection Committee – Comment Letter No. 1

On December 3, 2012, the Russian River Watershed Protection Committee (RRWPC) submitted comments on the draft Order released on October 31, 2012. On July 22, 2013, the RRWPC submitted comments on the draft Order released on June 20, 2013. Both comments letters contained numerous and wide-ranging comments on the draft Orders. Comments from RRWPC are 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 on December 3, 2012:

Comment No. 1: State Recycled Water Policy

General Staff Response: The RRWPC provided numerous comments critical of the State's Recycled Water Policy, which was approved in 2009, and a recent amendment to the Policy adopted in January 2013. The Recycled Water Policy is not the topic of this Order. Comments related to the adopted Policy are misplaced.

Comment No. 2: Fertilizer Use and Recycled Water Irrigation. Neither the permit nor the Reclamation Plan makes mention of the need to limit irrigation on lands that have been treated with bioactive chemical products, including fertilizer. What is the fate of the chemicals listed above if the lands that use those products are over-irrigated? How will they impact the wildlife and aquatic life that have to live in the water 24/7?

Response: In accordance with the Recycled Water Policy, fertilizer use may be considered as part of the SNMP in estimating nutrient loadings to groundwater. In its draft SNMP, the City considered fertilizer use within the urban sector where recycled water is applied and concluded that site supervisor requirements in title 22 effectively reduce the likelihood of over-application of fertilizers and soil amendments at these sites. In addition, the transport of land-applied fertilizer to surface waters via recycled water should be minimal because over-irrigation and incidental runoff from recycled water use sites irrigated are minimized through compliance with the City's Recycled Water User's Guide and the Basin Plan's prohibition of discharges (i.e., runoff) of recycled water to surface waters unless the runoff events meet the definition of incidental.

Comment No. 3: Increased Capacity Means Increased Discharge to Surface Waters Through Incidental Runoff. The permit allows an increase in flow to the treatment plant up to 25.9 mgd and assumes that the increased effluent would be used for/by reclamation and not discharged to surface waters. Therefore the requirements for the allowed increased capacity will be far less stringent. Yet summer irrigation discharge cannot be adequately quantified and is bound to occur, especially if irrigation occurs at night or the late evening.

Response: Requirements for the production and use of reclaimed water are contained in Cal. Wat. Regs., sections 13500-13577 and in CDPH regulations at title 22, sections 60301-60357. The Proposed Order contains requirements that are consistent with these regulations. This commenter appears to be asserting that reclaimed water should be regulated as if it were an indirect discharge to surface water because reclaimed

water will necessarily discharge to surface waters. The Proposed Order acknowledges that incidental runoff is unavoidable, but the environmental and public health risk is low if the incidents are infrequent and low volume. In addition, the Proposed Order requires the City to implement its Recycled Water User's Guide, which if implemented effectively, will minimize irrigation runoff in the estimation of Regional Water Board staff.

Regional Water Board staff agrees that requirements to minimize or prevent irrigation runoff need to be enforced. Regional Water Board staff is working with City staff to update and revise the Santa Rosa Non-Storm Water Discharge Best Management Practices Plan submitted to the Regional Water Board as required by the NPDES MS4 Permit Order No. R1-2009-0050 and the City's Recycled Water User's Guide to better track and report noncompliance with recycled water requirements and improve enforcement of existing and anticipated new requirements.

Comment No. 4: Undated CEQA Review is Needed. Page F-12, section III.A of the Fact Sheet concludes that CEQA review has been adequate even though this section comes immediately after the one (Section II.D) describing three enforcement actions during the course of the last permit. It seems as though there have been changed conditions since the last permit had been approved that should be addressed. There was no updated CEQA process by the City since December 2007, which is now five years ago. Changed conditions include lowering of Russian River flows because of the Biological Opinion; adoption of the Recycled Water Policy, which encourages much greater reuse of wastewater at a time when runoff can have much greater impact, adoption of the MS4 permit which allows incidental runoff and finally the Basin Plan Amendment allowing incidental runoff.

The MS4 Permit and Basin Plan Amendment were authorized for 'incidental runoff' before information had been attained on salt and nutrient issues, groundwater studies by USGS were available, and TMDLs had been promulgated for Laguna nutrients, dissolved oxygen and temperature. Naturally, without adequate information, the CEQA equivalent could not possibly have addressed these issues.

Response: As explained in the Fact Sheet, CEQA analysis is not required for the NPDES discharges to surface waters. The comment above appears to concern, in part, the receiving waters of the NPDES discharge. Therefore, to the extent that the comment relates to these NPDES discharges, the comment is misplaced.

The permit violations and subsequent enforcement actions taken against the Permittee and identified in the Fact Sheet do not undermine the CEQA finding that the increased use of reclaimed water will be less than significant. The violations of the coliform limitations were of short duration and corrected and do not indicate that the disinfection system is inadequate.

Incidental runoff is judged not to be a significant risk to public health or aquatic life because it occurs infrequently, is low volume, and is corrected quickly. When these conditions are not met, corrective action by the Permittee, in accordance with the Recycled Water User's Guide and/or enforcement action by the Regional Water Board is required.

Comment No. 5: Determination of Application Rate for Recycled Water. This permit

fails to clarify how runoff will be controlled and what amount of runoff will be considered 'incidental'. The Draft Permit does not define how proper application rates will be achieved. Therefore it can't possibly assure that anti-degradation goals will be realized. It fails to define how agronomic rates will be calculated and therefore limits ability to define runoff itself. It allows ponding, a sign of over irrigation, for up to 24 hours. It calls for self-reporting, but allows nighttime irrigation when agronomic rates are much lower and there is much greater risk of runoff. Who will be watching?

Response: The appropriate recycled water application rate will be site-specific, depending on site conditions, vegetation demand, and field conditions of the soil. The application rate is determined by the City upon commencement of the recycled use project and adjusted as needed to achieve efficient water use and prevent runoff. If recycled water is applied taking into account specific site conditions, water percolation will be complete, incidental runoff will be minimal and migration of contaminants to groundwater will be insignificant; thus satisfying anti-degradation requirements.

The determination whether runoff from an urban or agricultural irrigation site is "incidental" does not necessarily depend on the volume released, although a large volume release may indicate negligence on the part of the user, which would cause the release to be determined to be non-incidental. Regional Water Board staff continues to work with the Permittee to more clearly distinguish incidental runoff from non-incidental runoff.

Ponding is not necessarily a sign of over-irrigation and only would be problematic if the ponded recycled water resulted in runoff, created conditions that promoted mosquito breeding, or otherwise posed a threat to public health through unreasonable public exposure to the recycled water. Runoff from ponded water is unlikely because ponding necessarily occurs on flat surfaces where there is a low risk of runoff. The allowance of ponding for no more than 24 hours is to prevent conditions that promote mosquito breeding.

The Proposed Order requires the Permittee to implement its Recycled Water User's Guide, which in turn, makes the water user responsible for complying with and enforcing City rules and regulations for recycled water that are designed, in part, to minimize incidental runoff and prevent non-incidental runoff. Failure to adequately implement its recycled water program would constitute noncompliance with the Proposed Order and would be subject to enforcement action by the Regional Water Board.

As detailed in the City's Non-Storm Water Discharge BMP Plan, the City has a number of programs to minimize or prevent non-storm water discharges, including incidental runoff. The City operates a spill call phone line, a website, and 24-hour hotline for reporting after hour spills and compliance and enforcement units that respond to complaints and reports of noncompliance. Runoff incidents that occur at night can be reported to the 24-hour hotline.

Comment No. 6: Runoff is not Negligible and Health Risks are Not Accounted For. The RRWPC is concerned about the assumption that runoff will be so negligible that it can't possibly do any harm. Further, it does not account for health and safety risks resulting from unregulated and undocumented chemicals that may be left in the wastewater as noted above.

Response: Staff is unaware of reported incidences where the application of recycled water has resulted in documented health and safety problems. Regulation of recycled water in the Proposed Order is consistent with the State's Recycled Water Policy.

Comment No. 7: Night time Irrigation and Runoff. If irrigation is at night, who will know whether agronomic rates are being met? How is the amount of runoff calculated, especially if most occurs at night?

Response: As stated in response to Comment No. 5, above, the application rate is site specific, determined upon project start-up, and adjusted as needed to prevent and minimized runoff, incidental runoff. If there is evidence of water waste at recycled water use sites, reported by the site supervisor, observed by City staff during an inspection, or reported by the public, the City's Recycled Water User's Guide and the City's Non-Storm Water BMP Plan, describes measures that the City will take to correct the noncompliance.

Regional Water Board staff has concluded that it is impractical to require the Permittee to measure the amount of runoff from multiple reuse sites throughout its extensive recycled water system. With proper implementation of the Recycled Water User's Guide, irrigation runoff, both incidental and non-incidental, should be minimal.

Comment No. 8: Inadequate Compliance Oversight What safeguards are in place to assure that all self-monitoring reports will be conducted strictly according to protocol? How do you know whether test samples used the proper water source? How do you know that undesirable results weren't thrown out and the test repeated until desired results were achieved?

Response: Permit compliance inspections are conducted at the Permittee's Laguna WWTP at least annually. During the course of a typical inspection, laboratory records are inspected to document that the proper test protocols are employed and records are in order. Results of inspections are part of the facility file record and may be reviewed by the public in accordance standard procedures for file review.

Comment No. 9: Contribution to Sediment Impairment in Laguna. While Santa Rosa's BOD, TSS, total coliform bacteria, and settleable solids in their wastewater are generally in compliance and less than permit limits, nevertheless, these discharges have been going on for a long time, and we wonder how much sediment accumulation has occurred? Bacterial and nutrient problems keep getting worse in the lower river. *Ludwigia* is now a constant nuisance that may harbor pathogens, including West Nile Virus, possibly causing illness to those recreating and pets utilizing the river.

As the river becomes more impaired with sediments, to what extent will these problems become exacerbated? Is there a point where it will become necessary to adjust (raise) limits for Santa Rosa's discharge because the impairment has gotten worse? (I guess this would be part of a sediment TMDL, but we are concerned about on-going incremental increases that over time, turn into a much bigger problem.

Response: The amount of accumulated sediment in the Laguna de Santa Rosa traceable to the Permittee's surface water discharge has not been evaluated. However, effluent

monitoring results () the Permittee indicate that the () measurement of effluent settleable solids, one indicator of sediment that will settle under ambient conditions, is consistently below the reporting limit of 0.1 milliliters per liter. Using this measure, the amount of sediment settling during or after discharge to surface waters is very small under normal discharge conditions and under existing treatment performance. However, should the Permittee's discharge be identified as a source of sediment, the sediment TMDL would apply a WLA to the City's discharge. The WLA would then be translated into effluent limitations and/or other requirements in a future permit.

Comment No. 10: Incidental runoff contributes nutrients that are not included in the "no net loading limit." While it is good that Santa Rosa discharges must meet a "no net nutrient" standard, this incidental runoff will be allowed to add relatively high levels of nutrients (phosphorus in particular) with no clear enforcement mechanisms defined. The agronomic rates will be determined in a later report and the application rates are as yet undefined. The nutrient application rate is undefined. If this process has followed a CEQA equivalent, why are critical requirements dependent on future reports? Future reports are not allowed as mitigation in CEQA and they should not be allowed here either unless public process is reopened.

Response: The City's Nutrient Offset Program was designed as a means for the City for comply with effluent limitations for nitrogen and phosphorus in its NPDES permit. Runoff, whether incidental or non-incidental, is not included in the "no net loading" effluent limitation for the permitted surface water discharge. Non-incidental runoff constitutes permit noncompliance and is subject to enforcement action. The volume of incidental runoff reaching surface water is considered to be minimal.

The Nutrient TMDL for the greater Laguna de Santa Rosa is currently in development and expected to be completed during the term of the new NPDES permit for the City of Santa Rosa. The contribution of nutrients from recycled water irrigation runoff, both incidental and non-incidental, is an area of interest to Regional Water Board staff developing the nutrient TMDL and may figure into future actions by the Regional Water Board.

In accordance with the Recycled Water Policy, in order to meet anti-degradation requirements, each application site, or multiple sites, must be subject to an operation and maintenance plan that specifies agronomic rate(s) and describes BMPs to ensure compliance with the agronomic rate(s). Existing irrigation sites and irrigation sites approved prior to the effective date of the Recycled Water Policy are operated under a set of design standards, rules, regulations, and BMPs that are established to minimize or prevent incidental runoff; however, for these sites, allowable agronomic rates for individual sites, or site types, have not yet been provided to the Regional Water Board. The Permittee must provide a description of agronomic rate compliance for all existing recycled water irrigation sites in the Annual Recycled Water Report pursuant to section X.D.3.ii.f of the MRP. All new recycled water irrigation projects must comply with the Recycled Water Policy, which includes the provision to specify agronomic rate(s) for water reuse sites.

Comment No. 11: Salt and Nutrient Management Plan is insufficient for Laguna. The Fact Sheet (p. F-20) refers to the Recycled Water Policy's mandate to develop an area wide

salt and nutrient management plan (rather than individual assessments). It seems as though it should be necessary to do both. As they are waiting for data from USGS for the Plan, and this can take an unknown amount of time, it seems as though individual projects need to do some kind of assessment in light of Laguna and Russian River impairments.

Response: The State's Recycled Water Policy states that the appropriate way to address salt and nutrient issues is through the development of regional or subregional salt and nutrient management plans rather than through imposing requirements solely on individual recycled water projects. The Proposed Order is consistent with that approach.

Comment No. 12: Permit Objectives are Moving Target. This permit document seems to be filled with 'donut holes' where a fairly stringent goal is stated (compliance with Anti-Degradation for instance), but then is surrounded by slippery contingencies that allow escapes through the back door, mostly provided by the Recycled Water Policy.

Response: The purpose of the State's Recycled Water Policy is to increase the use of recycled water from municipal wastewater sources in a manner that implements state and federal water quality laws. The State Water Board has found that recycled water is safe for approved uses when it is used in compliance with the Policy and title 22. The Proposed Order implements the State's Recycled Water Policy.

Comment No. 13: No Effluent Monitoring for Endocrine Disrupting Chemicals. The Recycled Water Policy Amendment calls for no monitoring of endocrine disrupting chemicals for application of tertiary wastewater on landscapes. RRWPC has written extensive comments on this, which went unanswered. (See attachments) As mentioned before, Dr. Vandenberg wrote of the low dose effects on endocrine disrupting chemicals. They did not respond to her either. The justification for this finding (by State Scientific Panel) was first that these chemicals have no impact at low doses. Then they switched horses to say that there is little likelihood of exposure. This also is false, since we have photographed extensive over-irrigation of wastewater repeatedly at bus stops across the street from Santa Rosa's Utility Center. These chemicals have huge impacts on young people, and repeatedly flooded area next to City bus stop. We submitted dated pictures to Regional Board in early 2012 to prove this.

Yet the draft permit states on page 15 (No. 10), "*The discharge shall not cause receiving waters to contain toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in humans, plants, animals, or aquatic life. Compliance with this objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, bioassays of appropriate duration, or other appropriate methods, as specified by the Regional Water Board.*" It is really hard to believe that with all the health problems showing up prematurely in the general population, the disappearance and malformations of wildlife being observed, it's a little hard to believe that Santa Rosa has such a sterling record in regards to their toxicity testing. Why is the City so resistant to testing for endocrine disrupting chemicals in their wastewater (especially estradiol) if their treatment methods are so reliably safe? Why is the City resistant to testing fish living in their wastewater for signs of vitellogenin production (fish feminization). Years ago Santa Rosa's Board of Public Utilities agreed to do this, and two weeks later withdrew their commitment.