

Response to Written Comments

In Consideration of Waste Discharge Requirements Order No. R1-2013-0042 Renewal of National Pollutant Discharge Elimination System (NPDES) Permit for Town of Windsor Wastewater Treatment, Reclamation and Disposal Facility

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

DAVID M. NOREN, CHAIR | MATTHIAS ST. JOHN, EXECUTIVE OFFICER

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Response to Comments
Town of Windsor Wastewater Treatment, Reclamation, and Disposal Facility
WDID No. 1B820370SON

The Town of Windsor submitted the only comment letter in response to the June 19, 2013 draft NPDES permit, Order No. R1-2013-0042 for the Town of Windsor Wastewater Treatment, Reclamation, and Disposal Facility. The Town of Windsor is also referred to as “the Town” or “the Permittee” in this document.

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

The June 19, 2013 version of Order No. R1-2013-0042 is referred to as “the Draft Permit” in this document. The version of Order No. R1-2013-0042 that has been modified in response to comments and that will be presented to the Regional Water Board at the November 21, 2013 hearing is referred to as “the Proposed Permit”.

Each response indicates whether or not changes were made to the permit in response to the comment. Some changes to the Proposed Permit resulted in removal of subsections or tables that affected the numbering of subsequent subsections or tables. This document identifies the current and former numbering for clarity.

This document also includes a summary of additional changes made to Order No. R1-2013-0042 to maintain consistency with changes made to the City of Santa Rosa Draft Permit (Order No. R1-2013-0001) in response to comments that were submitted regarding the Santa Rosa permit.

Town of Windsor Comments

Comment 1.A.: The Regional Water Board’s reasonable potential analysis for total phosphorus is flawed and does not support any effluent limitations for total phosphorus.

Background: Reasonable potential analyses and effluent limitations for nutrients included in the Draft Permit 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 regarding the Draft Permits for the Town and the City of Santa Rosa, 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 Town’s Comment No.1 are addressed in the revised memorandum (hereinafter “the Revised Fitzgerald Memorandum”), and sections of the Fact Sheet in the Proposed Permit have been revised accordingly.

General Response: Information to support the “no net load loading” effluent limitation for total phosphorus is presented in the Fact Sheet of the Permit (Draft and Proposed). 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 report of waste discharge (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 Permittee's Facility will cause, has the reasonable potential to cause, or contribute to an exceedance of water quality standards, and Regional Water Board staff are required by NPDES regulations at 40 CFR 122.44(d) to establish effluent final limitations for total phosphorus based on this information.

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

- Lower Mark West Creek is impaired by harmfully low dissolved oxygen levels, which occur as a result of the excessive growth and decay of aquatic biomass in the lower reaches of the greater Laguna de Santa Rosa watershed¹.
- Aquatic biomass production in lower Mark West Creek and the mainstem Laguna de Santa Rosa (hereinafter "the Laguna system") is controlled by excessive amounts of phosphorus, the limiting nutrient in the Laguna system.
- There is no assimilative capacity for discharges of phosphorus into the Laguna system. Any additional discharge of phosphorus to these water bodies will exacerbate existing impaired conditions.
- The Town is permitted to discharge waste from its wastewater treatment facility into lower Mark West Creek under conditions contained in its NPDES permit.
- The discharge from the Permittee's Facility is a controllable source of phosphorus entering the Laguna system.
- The Permittee's NPDES permit must control discharges of phosphorus to lower Mark West Creek so that no additional phosphorus is added to the Laguna system that could exacerbate the level of degradation and impede the recovery of the impaired beneficial uses of the Laguna and lower Mark West Creek.
- An effluent limitation of "no net loading" will effectively control discharges of phosphorus from the Permittee's Facility, and will protect the beneficial uses of water in lower Mark West Creek.

As explained in the Revised Fitzgerald Memorandum, this receiving water is clearly impaired in violation of the narrative water quality objective (WQO) for biostimulatory substances. The Permittee's discharge of phosphorus is a significant source contributing to and/or causing the impairment. There is reasonable potential for the Permittee's discharge to cause or further contribute to the impairment, and by NPDES regulations,

¹ The Proposed Permit defines the greater Laguna de Santa Rosa watershed as consisting of the Laguna de Santa Rosa, Santa Rosa Creek and Mark West Creek Hydrologic Subareas (HSAs), as mapped in the Basin Plan. The lower reaches of the greater Laguna de Santa Rosa watershed include lower Mark West Creek and the mainstem Laguna de Santa Rosa.

must therefore be controlled. Given the options for establishing permit limitations for phosphorus, no net loading is by far the most reasonable, and the most defensible.

Comment 1.A.i: The Draft Permit contains limitations for total nitrogen and total phosphorus on the basis that they contribute to excessive growth of algae and macrophytes and associated problems with eutrophication, such as low dissolved oxygen. However, the Town only discharges during the wet season, and the impairment is most critical in the late summer.

Response: The final effluent limitation for total nitrogen has been modified and is set forth in section IV.A.1.e of the Proposed Permit. As explained in the Fact Sheet of the Proposed Permit and the Revised Fitzgerald Memorandum, this performance-based effluent limitation for total nitrogen is no longer based on compliance with the narrative objective for biostimulatory substances because Regional Water Board staff has determined that there is no reasonable potential for the Permittee's nitrogen discharges to cause an exceedance of the Basin Plan's WQO for biostimulatory substances. However, Regional Water Board staff has also determined that increased discharges of total nitrogen to receiving waters could (through the conversion of nitrogen to ammonia) lead to exceedances of the Basin Plan narrative WQO for toxicity. Therefore, to remain consistent with federal and state anti-degradation policies, the Proposed Permit includes a performance-based effluent limitation for total nitrogen that will ensure that no degradation occurs.

The Revised Fitzgerald Memorandum includes an expanded discussion of the evidence of water quality impairments caused by phosphorus and critical seasonal conditions. Available data and 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 mainstem Laguna and lower Mark West Creek 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 and photosynthesis (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 lower Mark West Creek at Trenton-Healdsburg Road are presented and described by Butkus (2010 and 2011, as referenced in the Revised Fitzgerald Memorandum). The data show that surface waters in the greater Laguna system regularly fail to meet Basin Plan WQOs for dissolved oxygen – not just during the summer, but year-round.

Comment 1.A.ii: The only way that nitrogen and phosphorus discharged by the Town can contribute to summer algae blooms is if it is stored in the sediment and organic matter lining the channels of the mainstem Laguna and lower Mark West Creek. Most phosphorus in the effluent is likely to be in dissolved rather than particulate form, further hastening its export from the watershed during the wet season. Additionally, the travel time between

the discharge point and confluence with the Russian River is likely to be insufficiently short to allow any dissolved phosphorus to sorb to sediment and organic matter lining the channels. The vast majority of phosphorus is likely to be exported out of the watershed, not retained in the channel. As a result, there is little to no possibility that the Town's contribution of phosphorus would create any reasonable potential for biostimulatory substances.

Response: See the response to Comment 1.A.i. regarding the occurrence of low dissolved oxygen levels and biostimulatory conditions throughout the year in lower Mark West Creek. Additionally, particulate and dissolved forms of phosphorus discharged into lower Mark West Creek throughout the year may be captured through a variety of means, which are summarized in the following table.

Discharge	Mode of Capture¹	Timing of Capture²
Dissolved Phosphorus	Readily taken up by growing plants and algae.	Occurs year-round, but more likely in the spring 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.

Notes:

1. Sediment transport dynamics in the Laguna de Santa Rosa/lower Mark West Creek watershed 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 watershed has an estimated sediment trap efficiency of approximately 50%. Though sediment trap efficiency does not necessarily correspond 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 de Santa Rosa/lower Mark West Creek watershed are not well understood. The Town 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 Town's discharge point during at least four separate storm events since 2009 (USGS Gage No. 11465750). These phenomena are not adequately reflected in the Town's Comment No. 1, or in its assessment of water travel times. These observed flow conditions provide counter evidence to the Town's assertion that its discharge is flushed out of the Laguna System and does not contribute to summertime water quality conditions.

Comment 1.B.: The method of determining the no net loading effluent limitation for total phosphorus is wholly unsupported.

Response: The reasonable potential analysis and effluent limitations for nutrients included in the Draft Permit were based in part on data and information presented in the Revised Fitzgerald Memorandum, and on works referenced therein. The scientific explanation and justification to support a final effluent limitation of “no net loading” for total phosphorus is presented in the Revised Fitzgerald Memorandum and in sections of the Fact Sheet that have been revised accordingly.

Comment 1.B.i: The Regional Water Board should place the Town’s load of phosphorus in context; previous background information, such as the *Development of the Land Cover Loading Model for the Laguna de Santa Rosa Watershed* (Butkus 2011, as referenced in the Town’s comment letter) noted that the total loads to the watershed from nonpoint sources alone exceeds 300,000 lbs/year. The Town’s recent loads average less than 6,000 lbs/year, which means they are approximately two percent of the total loading to the Laguna watershed.

Response: 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 Proposed Permit. The subject memorandum was developed as part of the Laguna de Santa Rosa TMDL nutrient source analysis, which is still under development. However, given the Town’s interest in work presented by Butkus (2011), 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 publicly available as a provisional TMDL development product.

Meanwhile, a current summary of staff’s best available phosphorus load estimates for the Laguna system is presented in the following table. As indicated in the table, the Town’s relative discharge of total phosphorus into lower Mark West Creek in an average year is 5,799 pounds², which represents 3.2% 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, seems sufficiently large to validate the “no net loading” final effluent limitation for total phosphorus in the Proposed Permit.

² Median of annual phosphorus load using data submitted by the Permittee between December 2007 and February 2013.

External Phosphorus Loading to the Laguna de Santa Rosa by Source (Average Annual Estimates)

Land Cover / Source	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: sewered	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 2: The final effluent limitations for biostimulatory substances (total nitrogen and total phosphorus) are premature and must be deferred until a TMDL for these constituents is adopted.

Response: Final effluent limitations for biostimulatory substances are necessary irrespective of the status of the development of the TMDL. The fact that a water body is listed as impaired and a TMDL is being developed does not allow the Regional Water Board to avoid conducting a reasonable potential analysis to determine whether water quality-based effluent limitations are necessary. Fact Sheet section IV.C.3.a.ii of the Proposed Permit has been revised to clarify the Regional Water Board’s finding that discharges of phosphorus from the Facility will cause, have the reasonable potential to cause, or will contribute to exceedances of the Basin Plan’s narrative WQO for biostimulatory substances. This finding of reasonable potential was based on information submitted by the Permittee in its ROWD and on information and references contained in the Revised Fitzgerald Memorandum. Accordingly, final and interim water quality effluent limitations for total phosphorus for compliance with the Basin Plan narrative objective for biostimulatory substances have been retained in the Proposed Permit (sections IV.A.2.d and IV.3.a, respectively), including the final effluent limitation of “no net loading” for total phosphorus.

The interim effluent limitation for total phosphorus (Fact Sheet section IV.E.1) has been re-calculated using the upper 95th percentile (and upper 95 percent confidence bound) of a lognormal sample distribution using data collected by the Permittee during the period of December 2007 through February 2013, and the statistical program RPcalc. This recalculation resulted in changing the interim effluent limitation for total phosphorus from 11 mg/L to 7.8 mg/L as an average monthly effluent limitation (AMEL). The calculation that was used in the Draft Permit was based on the upper 99th

percentile, which results in a maximum daily effluent limitation (MDEL). The Regional Water Board has followed the practice of establishing an AMEL for interim effluent limitations.

A final effluent limitation for total nitrogen has also been retained as explained in the response to Comment 1.A.i, above.

Comment 3: If the requests in Comment Nos. 1 and 2 are rejected, the Town requests that the interim limitation for total phosphorus be reclassified as a final effluent limitation.

Response: As explained in the response to Comment 2, there is reasonable potential for total phosphorus and, accordingly, water quality-based effluent limitations are required. The Revised Fitzgerald Memorandum and other evidence in the record demonstrate that inputs of phosphorus at any level will only increase the potential biostimulatory response in the greater Laguna watershed. Therefore, “no net loading” is an appropriate and scientifically justified final water quality-based effluent limitation.

To use the currently proposed interim water quality-based effluent limitation as the final water quality-based effluent limitation would be inconsistent with the scientific evidence in the record. The interim limitation for total phosphorus established in the Proposed Permit is based on the Permittee’s performance during the term of WDR Order No. R1-2007-0013. As such, the Town can comply immediately with this performance-based interim effluent limitation. This limitation is included to make it clear that the Town must not allow performance to drop during the period of time it takes to comply with the final effluent limitation for phosphorus. Using the proposed interim limitation as a final effluent limitation (as the Town has requested) would be inappropriate because it is based on practices that cause or contribute to reasonable potential for exceedance of a water quality standard and, as such, would be inconsistent with state and federal law.

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

Comment 4: Section VII.M [of the Draft Permit] improperly dictates the manner of compliance in violation of Water Code section 13360.

Response: Section VII.M of the Draft Permit identifies potential options for the Town to comply with the “no net loading” limit for total phosphorus. The Town asserts that section VII.M dictates the manner of compliance in violation of Water Code section 13360. It is ultimately up to the Town to determine the most effective manner of compliance with the “no net loading” limit for total phosphorus. Once the Town selects and implements the manner of compliance, Regional Water Board staff will determine compliance by comparing the Town’s calculation of the mass of total phosphorus discharged to the Town’s calculations of the mass of total phosphorus reduced or controlled through the treatment/control option(s) that the Town implements. The language in section VII.M of the Draft Permit was already stated in Fact Sheet section

IV.C.3.a.ii(5), a more appropriate location. Therefore, section VII.M has been deleted and does not appear in the Proposed Permit.

Comment 5: If the requests in Comment Nos. 1-3 are rejected, the Town requests that the due dates and targets for compliance with interim limitations for total phosphorus be extended to reduce the probability that a significant compliance effort, which might later be judged as wasteful, would be required in advance of adoption and implementation of a TMDL.

Response: The compliance schedule in the Proposed Permit has been modified to provide additional time for the Permittee to comply with the narrative objective for biostimulatory substances. The extended compliance schedule provides almost three additional years (33 months) before the Town is required to implement activities, programs, and/or approved projects that will result in reductions or offsets. In addition, the compliance schedule language has been revised to allow the Town the requested 10, 33, 66, 100 reduction/offset percentages in place of the 25, 50, 75, and 100 reduction/offset percentages that were included in the Draft Permit. Regional Water Board staff anticipates that the TMDL for the greater Laguna watershed will be completed within the term of the Proposed Permit and that the biostimulatory effluent limits and compliance schedule may be modified to implement specific requirements in the adopted TMDL.

The Compliance Schedule is in section VI.C.7 of the Proposed Permit and is now presented in a tabular format. The Compliance Schedule also includes a new task (completion of a treatment plant modernization and optimization study) and additional language to provide clarity regarding each task.

Fact Sheet section VII.B.7 of the Proposed Permit has new language that describes how the compliance schedule in the Proposed Permit meets the requirements of the State Water Board Compliance Schedule Policy.

Comment 6: The Regional Water Board must guard against anti-backsliding concerns regarding the “no net loading” effluent limitation.

Response: Federal regulations at 40 CFR 122.44(l) and section 402(o) of the Clean Water Act prohibit backsliding, but provide some exceptions where limitations may be relaxed. These regulations allow for the relaxation of effluent limitations if information is available which was not available at the time of permit issuance and which would have justified the application of a less stringent effluent limitation at the time of permit issuance. If the TMDL that is developed for the greater Laguna watershed for total phosphorus is less stringent than “no net loading”, the exception language in these regulations would be used to justify a less stringent effluent limitation. Additionally, 33 U.S.C. 1313(d)(4)(a) allows for backsliding as long as the limit implements or is consistent with the wasteload allocations in a TMDL. Since the anti-backsliding regulations exist and are operative independent of the permit, and the exceptions are

described in section IV.D.1 of the Fact Sheet, no additional language is needed to address this concern.

Comment 7: The Regional Water Board has failed to conduct a Water Code section 13241 analysis for the “no net loading” effluent limitation.

Response: The California Supreme Court has ruled that although California Water Code section 13263 requires the State and Regional Water Boards to consider the factors set forth in California Water Code section 13241 when issuing an NPDES permit, the Regional Water Boards may not consider the factors to justify imposing pollutant restrictions that are less stringent than the applicable federal regulations require. (*City of Burbank v. State Water Resources Control Bd.* (2005) 35 Cal.4th 613, 618, 626-627). However, when the pollutant restrictions in an NPDES permit are more stringent than federal law requires, California Water Code section 13263 requires that the Regional Water Boards consider the factors described in section 13241 as they apply to those specific restrictions. The requirements in the Proposed Permit are not more stringent than the minimum federal requirements; therefore, a 13241 analysis is not required, and no changes have been made in response to this comment.

Comment 8: The Town Reserves its rights under the U.S. Supreme Court decision in *Koontz*.

Response: Comment noted. No changes were made to the Proposed Permit.

Comment 9.a.: The Town requests that Discharge Prohibition III.J.3, which contains a requirement that the total volume of advanced treated wastewater discharged not exceed one percent of the total volume of Mark West Creek, be rephrased as a goal, since this requirement is not consistent with the other requirements in section III.J of the Draft Permit.

Response: The language requiring the Permittee to discharge no more than one percent of the flow of Mark West Creek in a discharge season is to provide a means to ensure that the Town does not use the allowance to discharge up to 10% of the receiving water flow on a shorter term basis as a means to discharge more than what is needed to maximize the Permittee’s reclamation goals. It is reasonable to restate the seasonal discharge rate of one percent as an operational goal, rather than a permit requirement.

The Proposed Permit has been modified to include removal of Draft Permit section III.J.3, modified language in section VI.C.2.b to restate the seasonal discharge limitation as an operational goal, and revised language in Fact Sheet section IV.C.3.ii(3) (2nd paragraph) to be consistent with the changes made in response to the Permittee’s comment.

The Proposed Permit retains a requirement for the Permittee to submit a written report each year to demonstrate that reclamation has been maximized and that the discharge to Mark West Creek has been operated in a manner that supports the Permittee's maximized reclamation goal.

Comment 9.b.: The Town also requests modifications to the language in this section to remove the reference to the USGS gage and clarify the adjustments to the discharge flow rate.

Response: Regional Water Board staff maintains the position that the USGS stream flow gage is more reliable than the Town's stream flow gage and that the Town needs to complete an evaluation of its own stream flow gage, including the stream flow measurement calibration and operations. The language retained in the Proposed Permit allows the Town to develop a quality assurance plan that provides reasonably accurate measurements of stream flow in Mark West Creek to advise decisions regarding discharge volume. The language that specifies the use of the USGS stream flow gage until a report on the Town's stream flow measurement calibration and operations is approved by the Regional Water Board Executive Officer has been retained in the Proposed Permit. The Proposed Permit has not been changed in response to this comment.

Comment 10: The Town requests minor modifications to the Disinfection Process Requirements for UV Disinfection System to remove overly prescriptive language, more accurately reflect system capabilities, and note that the requirements are not effluent limitations.

Response: The Permittee is concerned that UV Disinfection Process requirements may be construed as effluent limitations that are subject to mandatory minimum penalties. The Permittee requests the addition of the following language to address its concern: "The discharge specifications in this section are included to implement state law only, and are not effluent limitations as described in section 402 of the federal Clean Water Act."

Regional Water Board staff does not believe that the Permittee's requested change is necessary because the permit language already addresses this issue in two ways. First, the UV Disinfection Process Requirements are spelled out as process requirements, not effluent limitations. Second, Finding II.C of the permit identifies sections of the permit that implement state law only and that are not subject to the enforcement remedies that are available for NPDES violations. Mandatory minimum penalties are assessed for NPDES effluent limitation violations and late submittal of self-monitoring reports required pursuant to federal regulations. Two changes were made in the Proposed Permit to provide additional clarity, including modification of the heading to section IV of the Order to add the words "Reclamation" and "Requirements", and to section IV.D.2 (introductory paragraph) of the Proposed Permit to change the word "demonstrate" to "ensure".

The Permittee also requested several changes to the UV disinfection process language. The following changes were made in the Proposed Permit in response to the Permittee's request.

Section IV.D.2.b has been modified to remove the words "per channel". This modification is appropriate because the Permittee demonstrated that there is equal flow through the UV channels during its pre-commissioning assessment of the UV disinfection system and to acknowledge that the Town's UV disinfection system controls only provide a measurement of total flow (not flow per channel).

Section IV.D.2.f has been modified with input from staff at the California Department of Public Health (CDPH) to require cleaning of the quartz sleeves at least every 30 days rather than every 24 hours. A daily cleaning requirement for a manual cleaning process such as the one on the Permittee's UV disinfection system that requires physical removal of UV banks from channels would be a burdensome and unnecessary requirement. A 30-day cleaning frequency is a reasonable frequency and is supported by the Permittee's October 8, 2013, report titled "Summary Report: Assessment of Coliform Exceedances at the UV Disinfection System, Town of Windsor Water Reclamation Facility", which states that the Permittee currently cleans the quartz sleeves in the acid bath on a monthly basis.

The Permittee requested modification of language in section IV.D.2.h to remove language that specifies the timing for replacement of UV lamps. The requirement for replacement of lamps by 9,400 hours is a specific requirement that CDPH placed on the manufacturer of the Permittee's UV disinfection unit when CDPH conditionally accepted the Aquaray 40 HO VLS Disinfection System for the disinfection of filtered wastewater in water recycling application. The Proposed Permit retains the 9,400 hour lamp replacement requirement.

Comment 11: The Town requests a minor modification to the Reclamation Requirements in Section IV.C.1.b to specify that title 22 engineering reports will only be submitted if necessary. The Permittee's specific request is that the Discharge Specification in section IV.C.1.b be modified to specify the circumstances under which the Permittee must submit engineering reports pursuant to title 22.

Response: During its review of this comment, Regional Water Board staff identified the language in section IV.C.1.b of the Order as duplicative of language in sections IV.C.1.a and IV.C.1.c of the Order and section A.7 of Attachment G. Attachment G language clarifies the need to maintain an up-to-date engineering report and the conditions that would trigger the need to revise it. The Proposed Permit has been modified to include removal of section IV.C.1.b of the Draft Permit, and changes to Attachment G language related to the title 22 engineering report in sections A.7 and C.2.

Comment 12: The Town requests that the Surface Water Limitation for temperature be retained from the current permit, as it more closely aligns with both the Basin Plan and the Town's Monitoring and Reporting Program (MRP).

Response: Regional Water Board staff has determined that it is appropriate to give Windsor the receiving water temperature limitation that was included in its 2002 and 2007 permits and which is consistent with the temperature receiving water limitations in the Santa Rosa permit. This receiving water limitation was approved by the Regional Water Board with input from the California Department of Fish and Game based on a temperature limit study conducted by the City of Santa Rosa in 1998. Regional Water Board staff recently re-reviewed that study and finds that the study was sufficiently broad to apply the receiving water limitation to the Town of Windsor's permit. Santa Rosa's temperature limit study evaluated temperatures throughout the Laguna de Santa Rosa, including lower Mark West Creek and evaluated potential impacts on beneficial uses, focusing on migrating salmonids, as the most sensitive beneficial use. The study found that short-term increases in temperature of up to 5^oF (2.8^oC) caused by effluent discharges would not impact beneficial uses of the Laguna de Santa Rosa. Therefore the Proposed Permit has been revised to include the same temperature receiving water limitation language that was in Windsor's previous permit, Order No. R1-2007-0013.

The receiving water limitation language included in the Draft Permit that requires that the discharge not cause the 7-day average of the daily maximum receiving water temperatures to not exceed 64.4 ^oF has been retained in the Proposed Permit. This additional receiving water limitation language is consistent with the Basin Plan WQO 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 WQO 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.

The MRP in the Proposed Permit requires weekly temperature monitoring of Mark West Creek during periods that the Permittee is discharging to the creek. Regional Water Board staff reviewed the Town's temperature monitoring data for the period of December 2007 through February 2013, and observed that during the months that the Permittee has historically discharged, the months of December through April, all receiving water temperatures recorded are less than or equal to 15^oC, with the exception of one weekly temperature of 18^oC that was recorded on April 26, 2010. This historical data demonstrates that it is highly unlikely that receiving water temperatures

would exceed the proposed 7-day average maximum limitation of 64.4⁰F (18⁰C) during the months of December, January, February, or March, and that it could exceed the proposed 7-day average limitation during the month of April during periods of seasonally warm weather. A new Table Note 2 has been added to Table E-7 (formerly Table E-8) in the MRP of the Proposed Permit to require continuous temperature monitoring at RSW-002 if the Permittee discharges to Mark West Creek during the months of October, November, April, or May.

Comment 13: The Town requests a minor modification to the Toxicity Reduction Evaluation (TRE) Work Plan requirement in Special Provision VI.C.2.a.ii to clarify that the Town, and not the Regional Water Board, reviews the work plan to ensure that it is current.

Response: Section VI.C.2.a.ii (second sentence) of the Proposed Permit has been modified with the words “by the Permittee” to clarify that the Town reviews the work plan to ensure that it is current.

Comment 14: The Town requests that the term “consistent toxicity,” as used with respect to Toxicity Reduction Evaluation (TRE) implementation, be further defined.

Response: Section VI.C.2.a.iii of the Draft Permit states that a TRE may end at any stage if, through monitoring results, it is determined that there is no longer consistent toxicity. The Draft Permit requires the Permittee to conduct a TRE if a chronic toxicity sample result exceeds the chronic toxicity monitoring trigger and accelerated monitoring conducted in response to that exceedance shows that more than 20 percent of the samples exceed the trigger (two or more of five samples). The Permittee requested that section VI.C.2.a.iii of the Draft Permit be revised to state that four consecutive chronic toxicity tests that do not exceed the chronic toxicity trigger of 1.0 TU_c demonstrates that there is no longer consistent toxicity. This statement would be too narrow, because there are other conditions that can demonstrate that toxicity is not consistent, such as a short-term or temporary condition or plant upset (e.g., incomplete dechlorination, toxic chemical slug, etc.).

The language in section VI.C.2.a.iii.(d) of the Proposed Permit has not been changed in response to this comment. The language in the Proposed Permit is consistent with the USEPA Technical Support Document for Toxicity Control and USEPA guidance for whole effluent toxicity monitoring and is sufficiently broad to capture the possibility that pollutant specific monitoring conducted during the TRE may identify the pollutant(s) causing toxicity. In addition, the Permittee may revise its TRE Work Plan to propose a procedure for determining when a TRE may be terminated when there is insufficient evidence that there is a consistent pattern of toxicity. For clarity, Fact Sheet section VII.B.2.a (2nd paragraph) of the Proposed Permit has been modified to identify various means that could be used to demonstrate that conditions support cessation of a TRE.

Comment 15: The Town requests removal of the Special Provision requiring a Receiving Water Special Study [section VI.C.2.c of the Draft Permit], as the necessary information is already generated by the MRP.

Response: The MRP included in the Draft and Proposed versions of the Permit, includes receiving water monitoring requirements that are fairly minimal for assessing compliance with permit requirements, including receiving water limitations. In addition, the Permittee's receiving water monitoring location is located about 800 feet downstream of the discharge point when Mark West Creek is flowing within its banks and over one mile downstream during higher flow conditions. The Receiving Water Special Study is needed to evaluate the effect of the increased discharge flow (i.e., discharge flow of 1% of the natural flows is being increased to 10% of the natural flow during the period of November 1 through April 30 time period). This special study is necessary due to the uncertainty regarding possible impacts to the beneficial uses of Mark West Creek from the increase in permitted discharge flow. The Receiving Water Special Study language has been clarified in the Proposed Permit to specify the monitoring questions associated with assessing the effect of the increased discharge over a range of stream flow regimes. The DO sag study is necessary to determine whether the discharge is causing any changes in the receiving water that might cause decreases in DO downstream. The data and information to be collected in the Receiving Water Special Study supplements information generated by the MRP. The date for submittal of the work plan has been extended three months to adjust for the three-month delay for the adoption of the Proposed Permit.

Comment 16: The Town requests a time extension for compliance with Special Provisions VI.C.2.b and VI.C.2.e to allow for these requirements to be included in the Town's two-year budget. The Town requested that the date for submittal of the Discharge and Reclamation System Operations and Management Plan required by section VI.C.2.b of the Order be changed from February 1, 2014, to February 1, 2015, and that submittal of the first Discharge and Reclamation Operations report required by section VI.C.2.d of the Order be required "beginning in 2015". The Town also requests a minor clarification to the Operations and Management Plan for the Discharge and Reclamation System.

Response: Due to the fact that the Proposed Permit allows the Permittee to discharge at rates up to 10% of the receiving water flow, it is not appropriate to postpone the submittal of the Discharge and Reclamation System Operations and Management Plan for too long. Regional Water Board staff has changed the date for submittal of the Reclamation System Operations and Management Plan to October 1, 2014. This modification provides the Permittee with 8 additional months to prepare the document so that it is available at the beginning of the second discharge season following permit adoption. If the submittal deadline were to be extended to February 1, 2015, as requested by the Permittee, it would not be available until that second discharge season is at least half over.

The compliance date for Discharge and Reclamation Operations Reporting has been modified to allow submittal of the first Discharge and Reclamation Operations report on

July 1, 2015. This report will address the Permittee's operations for the period of May 15, 2014, through May 14, 2015.

Section VI.C.2.b (third paragraph, last sentence) has been modified to replace the words "be sufficient to accommodate" with the words "describe how to make", as requested by the Permittee.

Comment 17: The Town requests minor modifications to the UV Disinfection System Evaluation requirement (section VI.C.2.e) of the Draft Permit to allow for greater flexibility in achieving the objectives of the Evaluation.

Response: On October 10, 2013, the Permittee submitted a report titled "Summary Report: Assessment of Coliform Exceedances at the UV Disinfection System, Town of Windsor Water Reclamation Facility, October 8, 2013." The report was prepared by the Town's consultant, Brelje and Race Consulting Engineers, and summarizes the findings of an evaluation of the Town's UV disinfection system. This evaluation and report was performed with the Town's knowledge of the importance of completing the UV Disinfection System Evaluation requirement that was included in the Draft Permit. Regional Water Board staff commends the Town for moving forward with this evaluation. Regional Water Board and CDPH staff will review the submitted report and work with the Town to ensure that the UV disinfection system evaluation is thorough and complete.

Since the Permittee has submitted a draft report, section VI.C.2.e of the Draft Permit has been deleted and does not appear in the Proposed permit.

Comment 18: The Town requests minor modifications to the Industrial Waste Survey required by Special Provision VI.C.5.b.i(c) [of the Draft Permit] to reflect the Town's recent efforts in tracking industrial and commercial dischargers.

Response: Section VI.C.5.b.i(c)(i) (second sentence) has been modified as requested by the Permittee to remove the requirement to track peak flow rates. This will allow the Town to characterize industrial users using average flow rates determined using water use records, since industrial users are not currently equipped with flow meters.

Section VI.C.5.b.i(c)(iii) has been modified as requested by the Permittee to state when the IWS and priority pollutant monitoring must be completed (by February 1, 2015).

Comment 19: The Town requests minor modifications to Special Provision VI.C.5.b.i(d) [of the Draft Permit] to define the required public outreach effort.

Response: Public outreach to the users of the wastewater treatment system is an effective way to prevent problems that could lead to upset conditions, exceedance of effluent limitations, or other violations of permit conditions. Public outreach should be

occurring on a regular basis, during routine interactions with industrial and commercial users, in response to sanitary sewer overflows, and with occasional education materials inserted in billings to users. Public outreach may also include participation in community events. It is reasonable to expect that outreach activities occur at least annually. Therefore, section VI.C.5.b.i.(d) of the Proposed Permit has been modified to require outreach activities to occur at least once per year.

Comment 20: The Town requests minor modifications to Special Provision VI.C.5.b.ii(b) [of the Draft Permit] to more clearly describe the information to be submitted regarding a pretreatment program.

Response: Water Code section 13260(c) requires submittal of a ROWD relative to any material change or proposed change in the character, location or volume of the discharge. The identification of industrial wastes subject to regulation under the NPDES Pretreatment Program constitutes a material change, subject to the need to submit the proposed pretreatment program as part of a ROWD. A ROWD that is submitted for the purpose of amending an NPDES permit prior to the five-year renewal is required to include an Application/ROWD General Information Form for Waste Discharge Requirements or NPDES Permit (Form 200) and the information needed to amend the permit. In this case, the ROWD would consist of a Form 200 and the Permittee's proposed pretreatment program. It would not need to include the USEPA forms (e.g., Form 1, 2A, etc.) unless the pretreatment program will be considered as part of a five-year permit renewal.

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

Comment 21: The Town requests a minor clarification to the sludge handling requirements in Section VI.C.5.c. [of the Draft Permit].

Response: The Permittee requests that the permit language in section VI.C.5.c.viii that states "The discharge of sewage sludge and solids shall not cause waste material to be in a position where it is, or can be, conveyed from the treatment and storage sites and deposited in the waters of the State" be modified to remove the words "a position where it is, or can be", based on a desire that compliance be assessed based on performance rather than potential.

The Water Code allows the Regional Water Board to regulate threatened and actual discharges, therefore, no change has been made to the Proposed Permit in response to this comment.

Comment 22: The Town requests that the definition of compliance determination of mass-based effluent limitations be revised to reflect discharge points other than 001.

Response: The Draft Permit contained mass-based effluent limitations that applied at EFF-001 and EFF-002. Mass-based effluent limitations for total nitrogen and total phosphorus that applied at EFF-002 have been removed from the Proposed Permit, as further explained in the response to Comment 26. Therefore, it is not necessary to modify the language in section VII.H to include EFF-002.

In addition, the City of Santa Rosa commented on mass-based effluent limitations included in its Draft Permit which is being reviewed and finalized concurrently with the Windsor Proposed Permit. The following response (to Santa Rosa Comment 10) is included to justify the removal of mass-based effluent limitations at EFF-001 (discharge to effluent storage pond) for BOD₅ and TSS from the Town of Windsor's permit:

The EPA's "NPDES Permit Writers' Manual" (EPA-833-K-10-001) states that mass-based discharge limitations are not specifically required to implement secondary treatment standards when applicable standards are expressed in other units of measure. The document also provides the flexibility to permit writers regarding the inclusion of mass-based limitations for technology-based limits (BOD₅ and TSS) in permits. Regional Water Board staff has routinely incorporated mass-based limits (in addition to concentration-based limitations) for BOD₅ and TSS in NPDES permits to encourage correction of infiltration and inflow (I&I). Applied in this way, mass-based limitations effectively restrict a POTW's wet weather influent flows to less than or equal to the treatment facility's design capacity in situations where POTWs experience excessive I&I as a result of climate conditions and/or aging infrastructure.

For the Town of Windsor's wastewater treatment system, the application of mass-based effluent limitations for BOD₅ and TSS is not necessary to limit wet weather inflow into the wastewater treatment facility; excessive I&I is not a significant problem and the Permittee is not in danger of exceeding treatment capacity for reasonably anticipated flows. In addition, Regional Water Board staff has determined that mass-based effluent limitations for BOD₅ and TSS are not necessary for the reasons stated above and are allowable under federal anti-backsliding provisions.

Based on the discussion in the paragraphs above, mass-based effluent limitations for BOD₅ and TSS have been removed in the Proposed Permit.

Several sections of the Proposed Permit have changed as a result of the decision to remove mass-based effluent limitations for BOD₅ and TSS. Order section IV.A.1.a, Table 4 has been modified to remove the mass emission rate effluent limitations, including removal of three table notes, and section VII.H of the Draft Permit has been removed from the Proposed Permit. Several Fact Sheet sections have been modified to acknowledge the removal of mass-based effluent limitations for BOD₅ and TSS, including section III.B.7 (Anti-Backsliding Requirements), section IV.B.2.d (Mass-Based Effluent Limitations), and section IV.D.1 (Satisfaction of Anti-Back-Sliding Requirements).

Comment 23: The Town requests that the section addressing Compliance Determination for Chronic Toxicity (VII.K) [of the Draft Permit] be modified to more clearly state that the “triggers” relate to accelerated monitoring, not compliance with a numeric effluent limitation.

Response: The Permittee’s request is appropriate because the permit does not contain effluent limitations for chronic toxicity, only chronic toxicity triggers, therefore, section VII.J of the Proposed Permit has been modified to acknowledge that chronic toxicity data will be reviewed to determine the need for accelerated monitoring, rather than compliance.

Comment 24: The Town requests that the calibration requirement in section I.D of the MRP also include a reference to UV transmittance monitors.

Response: Section I.D of the MRP has been modified as requested by the Permittee.

Comment 25: The Town requests removal of Table E-1, which appears to have been included in error.

Response: Table E-1 is included in permits to identify test methods and minimum reporting levels for priority pollutants. This table is not needed in the Town’s permit due to the fact that the Town’s discharge has no reasonable potential for discharge of any priority pollutants, and the MRP does not require monitoring for any priority pollutants, except for the full priority pollutant scan on an annual basis. Therefore, Table E-1 of the Draft Permit does not appear in the Proposed Permit.

Comment 26: The maximum monthly mass emission rate calculation for total phosphorus contains a mathematical error, and should be corrected.

Response: The Permittee correctly identified an error in the calculation of the total mass-based effluent limitation for total phosphorus in the Draft Permit. However, the interim mass-based effluent limitation for total phosphorus, and the final mass-based effluent limitation for total nitrogen have been removed from the Proposed Permit, and replaced with concentration-based limits. All references to mass-based effluent limitations for these nutrients have been removed from the Proposed Permit, including the Order and Fact Sheet sections that included the mathematical error. The final performance-based concentration effluent limitation for total nitrogen and the interim performance-based concentration effluent limitation for total phosphorus have been recalculated, and included in the Proposed Permit.

The removal of mass-based effluent limitations for total nitrogen and total phosphorus is reflected in the following sections of the Proposed Permit: Order sections IV.A.2.f (final mass-based effluent limitation for total nitrogen) and IV.A.3.b (interim mass-based effluent limitation for total phosphorus); and Fact Sheet sections IV.C.3.a.ii

(modified to include corrected mass emission rates from all discharges that occurred between December 2007 and February 2013), IV.C.4.c (removed this section which also included Tables F-8, Mass Emission Rate Calculations for Total Nitrogen and F-9, Calculation of Seasonal Mass Emission Rate for Total Nitrogen), and IV.E.2 (removed this section which also included Tables F-11, Mass Emission Rate Calculations for Total Phosphorus and Table F-12, Calculation of Seasonal Mass Emission Rate for Total Phosphorus).

Comment 27: The Town requests that requirements in Table E-6 [of the Draft Permit] applicable to Monitoring Location REC-005 be listed in a separate table for clarity.

Response: Table E-5 (formerly Table E-6), Reclamation Monitoring Requirements is applicable to Monitoring Locations REC-003A and REC-005. Monitoring Location REC-005 was inadvertently left out of this table. The monitoring data identified in Table E-5 is needed to calculate the nitrogen application rate to the recycled water use sites and to determine the concentration of salts being applied to recycled water use sites. MRP section VII.A.1 (which includes Table E-5) of the Proposed Permit has been modified to include monitoring location REC-005 and Distribution Point 005. Footnote 7 has been retained in Table E-5 because it is applicable to Monitoring Location REC-005 which is now identified specifically in the Table.

Comment 28: The Town requests the removal of monthly effluent monitoring for hardness, which appears to have been included in error.

Response: Due to the fact that there are no monthly monitoring requirements for hardness-based metals, the monthly monitoring requirement for hardness from Table E-4 (formerly Table E-5) in section IV.B of the MRP has been removed in the Proposed Permit.

Comment 29: The Town requests that the recycled water monitoring frequency for total dissolved solids (TDS), chloride, boron, and sodium be defined in greater detail.

Response: Table E-5 (formerly Table E-6) requires monthly monitoring of TDS, chloride, boron, and sodium, but notes that the frequency “may be reduced or eliminated by the Regional Water Board Executive Officer if monitoring data demonstrates that concentrations of these constituents are consistently lower than WQOs for protection of groundwater.” The term “consistently” is not defined in the MRP or in the Fact Sheet. For greater certainty with respect to monitoring requirements, the Permittee requests that these constituents be reviewed on an annual basis, and that monthly monitoring be reduced to annual monitoring if the previous year of sampling shows that constituent concentrations are lower than WQOs for protection of groundwater.

Since the MRP requires monthly monitoring for these constituents, it would be appropriate to evaluate the monitoring data at the end of the first year of monitoring to

determine the appropriate frequency and timing of monitoring, therefore Table E-5 (formerly Table E-6) of the Proposed Permit has been modified to provide the requested clarity.

Comment 30: The Town requests that a new frequency of “Once per Discharge Season” be added for closer adherence to the concept of seasonal discharge to Mark West Creek.

Response: The annual discharge season to Mark West Creek spans the period from October 1 to May 14, while the definition of “annually” in the MRP spans the period from January 1 to December 31. This discrepancy contributes to confusion about when representative samples should be collected. It is the Permittee’s position that annual samples related to discharge to Mark West Creek would be most representative if they were collected once per discharge season. Likewise, if no discharge occurs in a given discharge season, then no sampling would be appropriate. Therefore, the Permittee requests that the definition “Once per Discharge Season” be added to Table E-9 [now Table E-8], and that the all occurrences of the frequency “annually” in Table E-5 [now Table E-4] and Table E-8 [now Table E-7] be revised to “Once per Discharge Season.” The reference to “annual” in section V.B.1 of the MRP should likewise be removed.

Regional Water Board staff agrees that it is more clear to require reporting by discharge season, rather than by the calendar year. Therefore, the following sections in the MRP of the Proposed Permit have been modified to reflect this change: Table E-8 (formerly Table E-9) (Monitoring Periods and Reporting Schedule), Table E-4 (formerly Table E-5) (Effluent Monitoring for Monitoring Location EFF-002) and Table E-7 (formerly Table E-8) (Receiving Water Monitoring Requirements for Monitoring Locations RSW-001 and RSW-002).

Comment 31: The description of the collection system in section II.A.1 of the Fact Sheet should be revised to accurately reflect both the current system size, as well as planned minor modifications.

Response: Fact Sheet section II.A.1 of the Proposed Permit has been modified as requested by the Permittee.

Comment 32: The description of wastewater treatment in section II.A.2 of the Fact Sheet should be revised for accuracy.

Response: Regional Water Board staff agrees with this requested change, thus sections II.A.2 (last sentence) and IV.D.1 (4th paragraph) of the Fact Sheet have been modified as requested by the Permittee.

Comment 33: The Town requests that the discussion of the Basin Plan in Section III.B.1 of the Fact Sheet reference the later discussion of an exception that the Regional Water Board has granted in this Draft Permit.

Response: The second to last paragraph of section III.B.1 of the Fact Sheet has been modified to recognize that exceptions to the Basin Plan flow rate limitation may be granted. The added language is consistent with language in the Santa Rosa Permit.

Comment 34: The Town requests that the description of compliance schedules in section III.B.4 of the Fact Sheet be revised for internal consistency. The Draft Permit does not contain a compliance schedule for total nitrogen, and the Town requested removal of the compliance schedule for total phosphorus in Comments 1-3.

Response: The Town is correct in observing that the Draft Permit does not contain a compliance schedule for total nitrogen, therefore references to a compliance schedule for total nitrogen have been removed from the Proposed Permit in Order section VII.B.7 (as described in response to Comment 5) and Fact Sheet section III.B.4 (3rd paragraph).

The compliance schedule and interim effluent limitations for total phosphorus have been retained in the Proposed Permit. The Compliance Schedule Policy allows the establishment of a compliance schedule when a discharger provides adequate documentation to show that it cannot comply immediately with final effluent limitations. See also responses to Comments 5 and 43.

Comment 35: The description of system redundancy in section IV.A.10.a of the Fact Sheet should be revised for accuracy.

Response: The Permittee provided clarification that the emergency generator described in section IV.A.10.a of the Fact Sheet powers critical portions of the treatment plant, not the entire treatment plant, therefore Fact Sheet section IV.A.10.a (third paragraph, last sentence) of the Proposed Permit has been modified as requested by the Permittee.

Comment 36: The mass emission values listed in section IV.C.3.ii(3) of the Fact Sheet should be revised for accuracy, as these values are not consistent with the monthly mass emission values listed in Table F-8 [of the Draft Permit] for total nitrogen or Table F-11 [of the Draft Permit] for total phosphorus.

Response: The Town is correct in noting the discrepancy between the mass-emission values in section IV.C.3.ii.(3) and Tables F-8 and F-11 of the Draft Permit. Tables F-8 and F-11 have not been retained in the Proposed Permit because mass-based effluent limitations have been removed from the Proposed Permit. It is still appropriate to identify the mass of total nitrogen and total phosphorus that has been discharged over the years, therefore section IV.C.3.ii.(3) of the Proposed Permit has been revised to

include the correct mass emission values. These values were calculated using data submitted by the Permittee between December 2007 and February 2013, as shown in the following table:

Month/Year	Total Discharge Flow for Month (MG)	Total Nitrogen Average Concentration (mg/L)	Total Phosphorus Average Concentration (mg/L)	Total Nitrogen Mass Load (lbs/month)	Total Phosphorus Mass Load (lbs/month)
Dec-07	24.31	6.3	2.5	1277	507
Jan-08	146.38	4	2.2	4883	2686
Feb-08	98.81	3	2.5	2472	2060
Mar-08	5.54	3.3	2.7	152	125
Dec-08	3.97	5.8	5.9	192	195
Feb-09	96.45	7.1	5.3	5711	4263
Mar-09	49.14	6.8	4.3	2787	1762
Jan-10	114.21	6.9	5.6	6572	5334
Feb-10	75.79	8.9	1.7	5626	1075
Mar-10	60.56	6.7	2.9	3384	1465
Apr-10	35.53	7.1	1.7	2104	504
Dec-10	152.97	8.9	3.5	11354	4465
Jan-11	58.11	5.8	1.6	2811	775
Feb-11	70.42	7.4	1.6	4317	940
Mar-11	122.84	8	1.0	8196	1024
Mar-12	48.21	7.8	2.7	3136	1086
Apr-12	33.57	8.6	2.5	2408	700
Dec-12	130.1	6.2	2.0	6727	2170
Jan-13	19.7	6.7	0.9	1101	148
Feb-13	4.6	3	1.9	113	73
Total Mass	---	---	---	75,323	31,357

Comment 37: The description of visual monitoring of recycled water use sites in section VI.E.4 of the Fact Sheet should be revised for consistency with the MRP.

Response: Section VI.E.4 of the Fact Sheet has been modified as requested by the Permittee to recognize that “visual observations may be performed by the irrigation users in accordance with user agreements”.

Comment 38: The reference to percolation ponds in section IV.C.3.c of the Fact Sheet should be removed.

Response: The language in the last paragraph of section IV.C.3.c of the Fact Sheet has been removed because it was erroneously included in the Draft Permit.

Comment 39: The Town requests that reference to a new monitoring requirement for chronic toxicity be removed from section VI.B of the Fact Sheet, as this monitoring requirement is not new.

Response: The new chronic toxicity monitoring requirement identified in section VI.B.4 of the Fact Sheet is referring to the new narrative chronic toxicity requirement included

in Table E-4 (formerly Table E-5) of the MRP. The requirement is actually a reporting requirement because it simply requires the Permittee to identify whether the chronic toxicity test passed or triggered in relation to the chronic toxicity triggers identified in section VI.C.2.a.1 of the Order section of the Draft and Proposed versions of the Permit. This requirement is further explained in Footnote 3 of Table E-4 of the revised MRP. This requirement is also needed to assess compliance with the Basin Plan narrative WQO for toxicity which is included as Receiving Water Limitation V.A.10 of the Order.

In response to this comment, section VI.B.4 of the Fact Sheet has been modified to use the word “reporting” in place of “monitoring”. Other minor wording changes were made to make it clear that this requirement will be used to assess compliance with the toxicity objective in Receiving Water Limitation V.A.10 of the Permit.

Comment 40: The Town requests that section VI.E of the Fact Sheet be revised for consistency with the MRP with respect to flow monitoring of reclamation sites.

Response: The Proposed Permit has been modified as requested by the Permittee by revising the second paragraph of section VI.E of the Fact Sheet.

Comment 41: The Town requests that the discussion of sediment oxygen demand in section IV.C.3.a.ii(4) of the Fact Sheet be clarified with respect to the impact of particulate matter from wastewater discharges.

Response: The language in the Draft Permit adequately describes sources of organic matter, therefore it has not been changed in the Proposed Permit.

Comment 42: The Town requests that the description of the Source Control Program in section VII.B.5.a.iii of the Fact Sheet be revised for consistency with other sections of the Draft Permit.

Response: Although section VI.C.5.b contains source control and pretreatment provisions, it does not specifically require implementation of a source reduction program. Section VI.C.3.a only requires a pollutant minimization program under certain circumstances, and does not include all of the detailed requirements listed in section VII.B.4.a.iii of the Fact Sheet.

Section VII.B.5.a.ii (formerly VII.B.5.a.iii) (second paragraph) of the Fact Sheet has been changed in the Proposed Permit to more accurately reflect the requirements stated in the Order section, as requested by the Permittee.

Comment 43: The Town requests that the description of compliance schedules in the Fact Sheet be corrected to note that there is no compliance schedule for total nitrogen.

Response: Fact Sheet section VII.B.7 (1st paragraph) of the Proposed Permit has been modified to remove the words “total nitrogen”. The Permittee is correct to state that there is no compliance schedule for total nitrogen, because there is no reasonable potential for total nitrogen.

Comment 44: The Town requests that the header to Attachment G clearly state “Water Reclamation Requirements and Provisions.”

Response: Attachment G has been revised to include the proper header at the top of page G-1, as follows: “**ATTACHMENT G – WATER RECLAMATION REQUIREMENTS AND PROVISIONS**”. This heading did not appear in the Draft Permit due to a formatting error in the document.

Comment 45: The Town requests recognition of the submittal of the Salt and Nutrient Management Plan (SNMP) for the Santa Rosa Plain.

Response: Section A.3.a.iii of Attachment G has been modified as requested by the Permittee. Order section VI.C.1.g states that the Order may be reopened to incorporate provisions consistent with any SNMP(s) adopted by the Regional Water Board.

Comment 46: The Town asks that Water Reclamation Requirement B.6 be revised for consistency with Table 7 of the Draft Permit.

Response: Proposed Permit section B.6 of Attachment G has been modified to be consistent with terminology used in the permit section of the Proposed Permit, as requested by the Permittee.

Comment 47: The Town requests minor modifications to Water Reclamation Requirement B.8 to use the term “site supervisor.”

Response: Proposed Permit section B.8 of Attachment G has been modified to use the term “site supervisor”, as requested by the Permittee. This change is consistent with terminology used in the Permittee’s title 22 engineering report.

Comment 48: The Town requests removal of the reference to the Recycled Water User’s Guide in section B.12, because the Guide does not include BMPs.

Response: The reference to the Permittee’s Recycled Water Users’ Guide has been removed from section B.12 of Attachment G. The Permittee will need to develop best management practices (BMPs) that ensure that recycled water is applied at agronomic rates and in a manner that prevents/minimizes runoff. The Proposed Permit has been

modified in Order section VI.C.2.b and Attachment G, section B.12 to require the development of these BMPs.

Comment 49: The Town requests clarification of the requirement in section B.24 regarding horizontal separation between potable and recycled water pipelines.

Response: Section B.24 of Attachment G has been modified to provide the clarity requested by the Permittee with the removal of the words “recycled water and those transporting”.

Comment 50: The Town requests that an additional user be added to Attachment G-1.

Response: The additional user has been added at the end of Attachment G-1 in the Proposed Permit.

Comment 51: The Town requests the following minor modifications to correct typographical and formatting errors throughout the Draft Permit. (Note: typographical errors in the “Draft Permit Text” column are intentional).

Location in Draft Permit	Draft Permit Text	Proposed Revision
Page 7, paragraph 2, line 2	ten percent percent	ten percent
Page 11, paragraph 1, line 2	biostimulantatory	biostimulatory
Page 12, last paragraph, line 8	in accordance with Table 7	in accordance with Table 8
Page 14, section heading	Other Requirements	D. Other Requirements
Page 19, section heading	Groundwater Limitations	B. Groundwater Limitations
Page 20, section heading	VII. Special Provisions	VI.C. Special Provisions
Page 21, paragraph 3, line 1	limitations	limitations
Page 37, paragraph 1, line 6	1.) TUC	1.6 TUC
Page E-5, Table E-4, note 2	ultraclean sample collection methods reured	ultraclean sample collection methods required
Page E-7, paragraph 1, line 1	while discharging at Discharge Point 001	while discharging at Discharge Point 002
Page E-15, Table E-7, note 2	potatble or non-potable	potable or non-potable
Page E-21, last paragraph, last line	section VI.C.2.e	section VI.C.2.d
Page E-26+ , subsection E.2, line 2	requiriements	requirements
Page E-27, section heading	Tertiary Recycled Water ⁴	Tertiary Recycled Water
Page F-6, paragraph 4, line 3	0.58 MGD to the Geyser’s	0.53 MGD to the Geysers

Page F-8, subsection 4	antidegration	antidegradation
Page F-34, first paragraph, line 9	Neglecting the concentration of nitrate	Neglecting the concentration of nitrite
Page F-34, paragraph 1, line 4	August 2001	August 2011
Page F-36, paragraph 4, line 4	Section III.C.4.b	Section IV.E.b
Page F-42, paragraph 1, line 1	hat resulted	that resulted
Page F-46, Table F-8, last line (December 2012)	793 lbs/month	6614 lbs/month
Page G-2, paragraph 2, line 4	applicableSNMP	applicable SNMP

Response: Corrections were made to the Proposed Permit based on the details presented in the table included in Comment 51, with two exceptions.

- MRP section X.E of the Proposed Permit was modified to include Footnote 4 which reads as follows: “Tertiary Recycled Water” means “disinfected tertiary 2.2 recycled water” as defined by CDPH or wastewater receiving advanced treatment beyond disinfected tertiary 2.2 recycled water.
- Fact Sheet section IV.C.3.ii(5) of the Proposed Permit was modified to refer to section IV.E.2 (third paragraph, second sentence) of the Fact Sheet. The Permittee’s comment requested a reference to section IV.E.b, but the proper reference is IV.E.2.

Changes Made to Town of Windsor Draft Permit (Order No. R1-2013-0042) in Response to Comments Received for the City of Santa Rosa Draft Permit (Order No. R1-2013-0001), dated July 22, 2013

A draft of the NPDES permit for the City of Santa Rosa (Order No. R1-2013-0001) was circulated for public review during the same time period that the Town of Windsor’s Draft Permit (Order No. R1-2013-0042) was circulated. Some of the changes made to the Proposed City of Santa Rosa permit were made in the Town of Windsor Proposed Permit for consistency. This section documents many of those changes.

Draft Permit Section No.	Description of Change made in Proposed Permit	Reason for Change
Changes to Permit		
Table 2b IV.C.2.a	Changed the words “discharge point” to “distribution point”.	To provide consistency with decision to call recycled water locations “distribution points” rather than “discharge points”. (SR Comment 3)

IV.A.1.a	Removed Footnote 1 which provided a definition for advanced treated wastewater.	The Implementation Plan for the North Coast Basin (Basin Plan, Chapter 4) 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 be used to define AWT in the permit. Accordingly, this definition will be deleted and AWT will be defined as wastewater meeting the effluent limitations in Table 6 of the permit. Similarly, the reference to the definition of AWT in section IV.G.3.a of the Fact Sheet has been deleted. (SR Comment 8)
V.B.3	Removed the words “contribute to”.	To make this receiving water limitation consistent with the wording of other receiving water limitations which do not use the words “contribute to”. (SR Comment 24)
VI.C.4.a	Minor language modification.	To remove what might be interpreted as duplicative requirements. (SR Comment 28)
VI.C.5.a.i	Deleted section regarding proper operation and maintenance.	This section is duplicative of requirements in Attachment D, section I.D. (SR Comment 28)
VI.C.5.a.ii	Minor language modification.	To change the implied intent of this language from a statement that appeared to be an enforceable requirement of this Order to a statement that refers to the requirements of another permit. (SR Comment 28)
VI.C.5.c.vii	Last sentence changed to define the recurrence interval of the 100-year design storm.	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 permit was revised

		to specify the design storm duration. (SR Comment 29)
Changes to MRP		
Intro Paragraph	Modified to remove section 13267 of the Water Code.	Removed inappropriate regulatory reference. (SR Comment 51)
Table 1	Changed the words “discharge point” to “distribution point”.	To provide consistency with decision to call recycled water locations “distribution points” rather than “discharge points”. (SR Comment 3)
V.B.9.b VII.A.1	Language modified to add the words “median of the”.	To provide consistency with language in section VI.C.2.a.i of the permit which defines the chronic toxicity trigger of 1.0 TUc as a monthly median. (SR Comment 43)
IX.A.1 X.D.5.g	Language regarding sludge and biosolids modified.	To provide clarity. The Proposed Permit has been revised where there is potential confusion between the use of the terms “sludge” and “biosolids”. (SR Comment 50)
X.D.2.5	Removed requirement to submit information about all persons employed at the Facility.	In place of requiring this information to be submitted with the annual report, the Permittee must post the names and certificate grades of licensed operators of the Facility in accordance with title 23, division 3, chapter 26, section 3719.6 of the CCR and should be available upon request by Regional Water Board staff or authorized representatives during a compliance inspection. (SR Comment 51)
X.E.2	Minor language modification.	To change the implied intent of this language from a statement that appeared to be an enforceable requirement of this Order to a statement that refers to the requirements of another permit. (SR Comment 28)
V.A.9	Minor language modification.	To provide complete description of document cited. (SR Comment 41)
V.C.2	Language modified to add the words “or subsequent editions”.	To provide consistency with other document citations. (SR Comment 41)
Changes to Fact Sheet		
III.B.4	Deleted language in 1 st paragraph and modified language in 3 rd paragraph.	Language no longer applicable because it refers to an old requirement from the California Toxics Rule.
Table F-4	Changed the words “discharge point”	To provide consistency with decision

VI.E	to “distribution point”.	to call recycled water locations “distribution points” rather than “discharge points”. (SR Comment 3)
VII.B.5.d	Minor language modification.	To change the implied intent of this language from a statement that appeared to be an enforceable requirement of this Order to a statement that refers to the requirements of another permit. (SR Comment 28)
VII.B.6	Minor language modification.	To change the implied intent of this language from a statement that appeared to be an enforceable requirement of this Order to a statement that refers to the requirements of another permit. (SR Comment 28)