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## North Coast Regional Water Quality Control Board

**AMENDMENT ORDER R1-2021-0041  
NPDES NO. CA0022764  
WDID NO. 1B83099OSON**

**AMENDMENT OF ORDER No. R1-2020-0012**

**FOR THE**

**CITY OF SANTA ROSA  
SANTA ROSA REGIONAL WATER REUSE SYSTEM, LAGUNA TREATMENT PLANT  
SONOMA COUNTY**

The California Regional Water Board, North Coast Region, hereinafter referred to as the Regional Water Board finds that:

1. The City of Santa Rosa (hereinafter Permittee) is currently discharging treated wastewater from the City of Santa Rosa Regional Water Reuse System, Laguna Treatment Plant (Facility) under Order No. R1-2020-0012, National Pollutant Discharge Elimination System (NPDES) Permit No. CA0022764, adopted on August 20, 2020 (Permit). The Permit will expire on September 31, 2025.
2. The Facility provides tertiary treatment and ultraviolet light disinfection and has an average dry-weather design flow of 21.34 million gallons per day (mgd). Treated wastewater is discharged to an effluent storage pond system prior to discharge to the water reclamation system or the surface water discharge system. The pond system consists of Brown Pond; Meadow Lane Ponds A, B, C, and D; and Delta Pond. The combined maximum capacity of the existing storage ponds is 1,650 million gallons. The storage ponds allow the Permittee to control the timing, location, and volume of discharge to protect beneficial uses of the receiving water and provide a source of recycled water during the discharge prohibition period. Discharges to surface waters are limited to no more than one-percent of the flow of the receiving water during the period of October 1 through May 14.
3. Instead of establishing a numeric water quality-based effluent limitation for total phosphorus, the Permit includes a narrative (BMP-based) effluent limitation,

expressed as “no net loading.” This final effluent limitation was first established in Order No. R1-2006-0045 and became effective on November 9, 2011. A “no net loading” effluent limitation represents a conservative effluent limitation to control phosphorus loading to water bodies of the Laguna de Santa Rosa and to prevent further water quality degradation. Compliance with the “no net loading” effluent limitation for total phosphorus is achieved through compliance with the Water Quality Trading Framework for the Laguna de Santa Rosa (WQT Framework or WQTF).

4. The Permittee has expressed concerns with the available time that credits generated within the WQTF remain available for use. This time is defined as a credit’s banking period. The Regional Water Board expanded the maximum allowable banking period for credits in Order R1-2020-0012 from five years to the predetermined period of time over which the specific project that generated the credits is anticipated to generate usable water quality credits. The Permittee has requested that the Regional Water Board further revise the WQTF to clarify that credits generated from a subset of multi-benefit projects shall receive credits that do not expire.
5. As the development and implementation of credit generating projects is at the discretion of the credit generator, the expanded banking life policy included in Order R1-2020-0012 was anticipated to promote longer term projects and result in longer banking periods for their respective credits. The Permittee’s remaining concerns regarding the credit banking periods demonstrates that the WQTF has not yet established the level of confidence needed to promote a significant investment into the longer term, multi-benefit projects that are incentivized under the WQTF.
6. In order for the WQTF to be most effective, credit generating projects must be long-term and multi-benefit. To incentivize the implementation of these types of projects it is essential to provide credit generators the assurance that their investment will result in usable credits. Permittee Allowing long-term, multi-benefit projects to receive credits that do not expire would provide credit generators the confidence to pursue such projects and ultimately will promote implementation of these types of projects.
7. The Permittee’s request for modification is appropriate. The Regional Water board developed a revised WQTF to provide a classification of long-term, multi-benefit project that will receive credits that do not expire. Furthermore, Regional Water Board staff have included several clarifications to support the inclusion of the proposed project category.
8. Pursuant to 40 CFR Sections 124.5(c)(2) and 122.62, only those conditions to be modified by this amendment shall be reopened with this amendment. All other

aspects of the existing Permit shall remain in effect and are not subject to modification by this amendment.

9. The Permittee and interested agencies and persons have been notified of the Regional Water Board's intent to modify the WQT Framework and have been provided opportunities for public meetings and to submit their written views and recommendations. Notification was provided through posting on the [Regional Water Board's website for tentative orders for Board decisions](#) on September 10, 2021.
10. On December 2, 2021, after due notice to the Permittee and all other affected persons, the Regional Water Board conducted a public hearing and evidence was received regarding modification of Order No. R1-2021-0041.

**IT IS HEREBY ORDERED** that the Permittee, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted hereunder and the provisions of the Clean Water Act as amended, shall comply with the following revisions identified in underline and strikeout format to indicate language to be added to and deleted from the WQT Framework and Fact Sheet, as adopted in Order No. R1-2020-0012.

**The WQT Framework shall be Amended as follows:**

1. Footnote 1 has been added to the WQT Framework to clarify that the WQT Framework adopted with a NPDES Permit is the operative Framework for compliance purposes, and not the Framework attached to Resolution R1-2018-0025, as follows:

<sup>1</sup> Resolution R1-2018-0025 and supporting documents provide support for the adoption of a WQT Framework within NPDES permits. The Framework included within adopted NPDES permits is the operative WQT Framework for compliance purposes, not the Framework described in Resolution R1-2018-0025.

2. A provision that all documents submitted to the Regional Water Board pursuant to the WQT Framework should comply with the most current online accessibility requirements of the Regional Water Board has been added to Section 1.3 of the WQT Framework, as follows:

All documents submitted to the Regional Water Board pursuant to this Framework should comply with the most current online accessibility requirements of the Regional Water Board. Regional Water Board staff will provide all parties submitting such documents with the most current accessibility requirements upon request.

3. Section 2.3, Trading Area, and Section 2.4, Types of Credits to be Traded, have been consolidated into a single section. The resulting Section 2.3, Credit Units – Place, Kind, and Time, details the geographic limitations to the WQT Framework, and identifies the credit value and available use period for credits. Section 2.3 further clarifies the units of water quality credits as being pounds of phosphorus per discharge season within the Laguna de Santa Rosa watershed. These modifications are provided as follows:

### **2.3 Trading Area**

#### **2.3 Credit Units – Place, Kind, and Time**

~~The trading area for this Framework (where water~~Water quality credits may be generated, bought, sold, and used) is under this Framework in the Laguna de Santa Rosa watershed in Sonoma County, CA. The 254 square-mile watershed consists of all areas drained by the Laguna de Santa Rosa, Santa Rosa Creek, and Mark West Creek, which collectively drain into the Russian River. A map of the trading area is presented in Figure 2.3 below.

#### **2.4 Types of Credits to be Traded**

This Framework supports trading of water quality credits for one pollutant only, total Phosphorus, on a mass basis. Credits are generated through approved Phosphorus reduction or removal actions. One credit is equal to one pound of total Phosphorus.

Water quality credits generated under this Framework may be used to offset a pollutant discharge that occurs during a single discharge season.

Therefore, water quality credits generated under this Framework have units of pounds of Phosphorus per discharge season within the Laguna de Santa Rosa watershed and such credits can only be used to offset discharges that can be expressed in those same units.

4. WQTF Section 3.2.1, Avoiding Localized Impacts, has been provided language clarifying that the “in time” requirement for credit use shall be satisfied when credits are used consistent with the credit banking provisions included in the WQT Framework, as follows:

“In time” will be considered satisfied if credits are generated and used consistent with the credit banking provisions set forth in this Framework.

5. Section 4, Quantifying Pollutant Reductions for Water Quality Credits, has been clarified to detail the types of practices that require credit quantification methods in their supporting documents, as follows:

As described in Section 2.54 above, credit quantification methods for ~~pre-qualified practices~~ must be included in the supporting documentation for pre-qualified these practices and Combined Qualified Practice and Credit Project Plans (as described in Section 7.4) projects and will be approved on a case-by-case basis. Once approved, credit quantification methods for those practices shall be considered pre-qualified for future use.

6. Section 5.1, Trading Ratio Reduction Criteria, has been amended to ensure trading ratio reductions are provided when credit-generating projects meet the necessary criteria. A description of qualifying trading ratio reduction criteria elements has also been added to this section. Furthermore, Table 5.1 has been added to the WQT Framework to summarize each trading ratio criteria type with its base trading ratio, maximum ratio reduction, and applicable reduction criteria. These changes are provided as follows:

### **5.1 Trading Ratio Reduction Criteria**

~~The Regional Water Board Executive Officer may allow~~ shall approve a reduction of the retirement and/or uncertainty ratios ratio specified above to be adjusted downward by as much as 0.5 (each) for a particular trade under if it has been demonstrated that the following circumstances conditions in (a) or (b) below are met:

- ~~A reduced retirement ratio may be applied when~~ When a credit-generating project is explicitly designed to enhance environmental values (e.g., habitat or ecosystem restoration, recognized priority or multi-benefit actions); or
- ~~A reduced retirement ratio may be applied when~~ When a credit-generating project occurs on permanently protected lands.

~~A reduced~~ The Regional Water Board Executive Officer shall approve a reduction of the uncertainty ratio may be applied when specified above by as much as 0.5 for a particular trade if it has been demonstrated that the conditions in (c) below are met:

- When a credit-generating project includes direct measurement of pollutant reductions.

Table 5.1 summarizes the above criteria for reduced trading ratios.

**Table 5.1. Trading Ratio reduction criteria, types, and amounts.**

<u>Ratio Type</u>	<u>Base Ratio</u>	<u>Maximum Reduction</u>	<u>Criteria for Reduction</u>
<u>Retirement Ratio</u>	<u>0.5</u>	<u>0.5</u>	<u>The maximum reduction can be achieved by meeting criteria in (a) or (b)</u>
<u>Uncertainty Ratio</u>	<u>2.0</u>	<u>0.5</u>	<u>The maximum reduction can be achieved by meeting criteria in (c)</u>

Design elements of a credit-generating project that explicitly enhance environmental values include, but are not limited to, elements that change factors that influence how Phosphorus is processed within a particular water body. These factors include, but are not limited to water temperature, riparian cover density and/or height, vegetation extent, vegetation composition, channel geometry, channel network configuration, and stream flow levels and/or timing.

Factors that indicate environmental values are being enhanced include, but are not limited to, expected improvements to concentrations of Dissolved Oxygen and pH levels and other observable phenomena such as decreased macrophyte and algae blooms, decreased concentrations of chlorophyll-a (a measure of algal biomass), and/or beneficial changes in the species composition of plant and animal communities that occupy the water body.

A credit-generating project on permanently protected lands is eligible for the retirement ratio reduction where the project's benefits will continue indefinitely regardless of any change of ownership, operation, or use of the land. Mechanisms that can permanently protect lands include, but are not limited to, public ownership, permanent conservation easements, and land use covenants (examples include, but are not limited to written instruments and agreements restricting land uses, including easements, servitudes, and other land use restrictions).

7. The term Credit Life, previously detailed as Section 6.1, has been removed to reduce confusion in the WQT Framework. The Regional Water Board has determined that the term Credit Life is no longer necessary as each credit may be used to offset the discharge of phosphorus in a single discharge season.

8. Section 6.1, Project Life, has been amended to specify that credit release schedules must provide reasonable justification for the timing of the release of credits, and that no credits may be released after the project life has ended. Furthermore, this section has been updated to remove references to the term credit life. These changes are provided as follows:

“Project life” is defined as the period of time over which a project is anticipated to generate usable water quality credits. The life of a credit-generating project often spans several years (i.e., several consecutive credit lives)-a number of years. The credits generated by that project shall be distributed uniformly over those years, unless otherwise specified, and can be used immediately or over time, as specified in the credit release schedule included in the approved Credit Project Plan (Section 7.1 and/or Section 7.4). Credit release schedules must provide reasonable justification for the timing of the release of credits. No credits may be released after the project life has ended unless the project has been renewed as discussed in Section 6.3. Projects can change over time, and any changes to project life, the credit generation, and credit release elements should be requested in writing for consideration and approval by the Executive Officer.

9. A new category of Permanently Protected Environmental Enhancement Projects (PPEEPs) has been established in the WQT Framework to encourage the development of projects that offer both enhanced environmental value and will be located on permanently protected lands. Projects qualifying as PPEEPs will be granted permanent project lives, allowing credits generated from this project classification to be banked until the credits are used, suspended, or cancelled. This new section reads as follows:

#### **6.1.1 Permanently Protected Environmental Enhancement Projects**

Projects that attain a higher standard by meeting both criteria (a) and (b) for reducing the retirement ratio as described in Section 5 will be classified as a Permanently Protected Environmental Enhancement Project (PPEEP). PPEEPs are exceptional projects because they occur on permanently protected lands and are explicitly designed to enhance environmental values. As such, PPEEPs will be granted permanent project lives, obviating the need to renew the project (Section 6.3) and allowing credits generated from the project to be banked until they are used or until the credits are suspended or cancelled (Section 9.3). All credits generated from PPEEPs may be banked for the duration of the project life regardless of the practice that generated the credits, provided that the project is verified to be functioning as designed (Section 8). Conditions under which credits generated by a PPEEP may be suspended or cancelled include (1) a material failure of the project (as described in Section 8.3) that the Executive Officer determines cannot be corrected, or (2) the lands are no longer permanently protected (Section 5). Project and credit verification for PPEEPs must occur as

identified in the prequalified practice and/or in approved Credit Project Plan documents for credits to continue to be generated and/or be banked.

10. Language clarifying that credits are considered active until used, retired, suspended, or cancelled has been added to Section 6.2, Banking Credits for Later Use, as follows:

All certified credits are considered active until used, retired, or suspended or cancelled per section 9.3. A banked credit is an active credit that has not been used, retired, or suspended or cancelled.

11. Table 6.1 has been added to Section 6.2 the WQT Framework to summarize the relationship between the presence of applied retirement ratio criteria and a project’s credit banking period, as follows:

Table 6.1 summarizes how credit banking and project renewal are linked to the retirement ratio.

**Table 6.1. Summary of the criteria associated with different banking periods.**

<b><u>Project Designed to Enhance Environmental Values</u></b>	<b><u>Project on Permanently Protected Lands</u></b>	<b><u>Credit Banking Period</u></b>
<u>No</u>	<u>No</u>	<u>Not less than 3 years</u>
<u>Yes</u>	<u>No</u>	<u>Duration of project life, and not less than 3 years</u>
<u>No</u>	<u>Yes</u>	<u>Duration of project life, and not less than 3 years</u>
<u>Yes</u>	<u>Yes</u>	<u>Duration of project life (indefinite)</u>

12. Language clarifying that credits generated before a project is renewed can be banked for the renewed project’s life only if the project has received a reduced retirement ratio has been added to Section 6.3, Project Expiration and Renewal, as follows:

Under this WQT Framework, once a credit-generating project reaches the end of its specified project life, it shall be considered expired and no longer able to generate credits. However, where such a project continues to function, is properly maintained, and meets all eligibility criteria and Framework requirements



that are in effect at the time, it may be renewed and allowed to generate additional credits. Credits generated before a project is renewed can be banked for the renewed project's life only if the project received a reduced retirement ratio. The process for renewing an expired project shall be the same as the process for approving a new project (Section 7.2 or Section 7.4).

13. A new requirement that third-party verification must confirm that the basis for a retirement ratio reduction is still present when a project has received a retirement ratio reduction has been added to Section 8.3. Furthermore, this language specifies that if the basis for the retirement ratio reduction is no longer present, this finding will result in the declaration of a material failure for that project. The provided addition is included as follows:

If a project has received a reduction in the retirement ratio as described in Section 5, because the environmental enhancements and/or permanent protection of the land are the basis of the reduced retirement ratio, the third-party verification must confirm that (1) the land continues to be protected, and/or (2) environmental values are being enhanced by the project as described in the Credit Project Plan. If the third-party verification finds that the basis for a reduced retirement ratio is not present, this finding will result in 1) the declaration of a material failure to meet approved practice standards or other requirements of an approved Credit Project Plan and 2) the initiation of the process described in Section 8.3.1.

14. Section 8.3.1 has clarified the process that a Permittee must complete to address a material failure to meet approved practice standards or other requirements of the approved Credit Project Plan. Furthermore, the available options to address a credit deficit resulting from suspended or cancelled credits that have already been used has been updated. The changes to this section are as follows:

Upon such notification, the seller (or responsible party) will have 60 days to submit to Regional Water Board staff a ~~plan for remedy~~, Project Remedy Workplan for consideration and approval by the Executive Officer. In addition to any other relevant information, the Project Remedy Workplan must include ~~including~~ recommended performance benchmarks, the conditions under which Regional Water Board staff should consider suspending or cancelling any credits that have already been certified<sup>11</sup> (Section 9.1), proposed corrective actions and associated time schedule, and/or recommendations for adaptive project management, including but not limited to any possible changes to the retirement ratio and credit release schedule. The Project Remedy Workplan for remedy will also describe ~~whether~~ how any deficit resulting from suspended or cancelled credits has occurred. ~~that have already been used but are subsequently suspended or cancelled will be addressed by either~~ Such credit deficits may be remediated by: 1) correcting the material failure to meet approved practice standards or other requirements of an the originally approved Credit Project Plan;

or 2) identifying alternative active credits to be used; or 3) if the credit deficit cannot be resolved using 1) or 2), then the Project Remedy Workplan must identify a future project that will generate sufficient credits to resolve the deficit. ~~implementing a new credit generating project to address the deficit.~~ Regional Water Board staff will make such approved Credit Project Workplans available on the Regional Water Board's website. Upon completion of the tasks identified in the approved Project Remedy Workplan, the responsible party will submit an updated initial project verification report as described in Section 8.2.2.

In all cases, the Regional Water Board Executive Officer has the authority to determine whether a verification report accurately reflects the credits generated, and may certify, suspend or cancel credits as described in Section 9 below, or request additional information as necessary to verify that a project is implemented in accordance with its approved Credit Project Plan.

15. Footnote 11 has been added to the WQT Framework to identify that the suspension or cancellation of previously generated credits is dependent on the timing and basis of a material failure. This footnote reads as follows:

<sup>11</sup> Previously generated/certified credits may be suspended or cancelled based on the timing and basis for the material failure.

16. Section 9.1, Credit Certification, has been modified to allow credits awaiting certification to be identified for use within the current discharge season if the associated credit verification report has been submitted, as follows:

Credits awaiting certification may be identified for use within the current discharge season to fulfill compliance with the Phosphorus effluent limitation if the associated verification report has been submitted. If the verification report is subsequently determined to be inaccurate or incomplete: 1) a corrected verification report will be submitted to Regional Water Board staff within 60 days and, 2) if necessary, alternative credits for substitution will be identified or the Permittee risks being out of compliance.

17. Footnote 12 has been added to the WQT Framework to identify that a credit certificate may apply to multiple credits. This footnote reads as follows:

<sup>12</sup> A Credit Certificate may apply to multiple credits. In such cases, the Credit Certificate shall provide the credit serial numbers of all the credits being certified. This may be done by listing the serial numbers individually or by expressing them as a continuous range, such as: 00001-01000.

18. The definition of "used" in Section 9.3, Changes in Credit Status has been updated to further explain that credits shall be banked per the approved Credit Project Plan if unused, as follows:

Credits shall be considered used once they have been applied by an NPDES permittee to meet an effluent limitation. If unused, the credit(s) shall be banked per the approved Credit Project Plan and be considered active. The status of used credits shall be documented in annual compliance reports submitted to Regional Water Board staff as required in the user's NPDES permit.

19. Multiple sections of the WQT Framework have been updated to reference both Sections 7.1 and/or Section 7.4 where they inadvertently only referenced Section 7.1. These sections include Sections 3.2.1, 3.2.2, 8.2, 8.2.1, and 8.3. Furthermore, the WQT Framework has been corrected to read Phosphorus instead of phosphorus throughout the text.

### **Other Modifications**

1. Modify Fact Sheet Section IV.I.1 to include a summary of changes and reasoning for the WQT Framework modifications enacted under Amendment Order R1-2021-0041. The additional summary of changes is as follows:

Furthermore, the WQTF as adopted by the Regional Water Board within Order No. R1-2020-0012 on August 20, 2020 has subsequently been modified per Amendment Order R1-2021-0041 as follows:

- a. To clarify that the WQT Framework within a NPDES Permit is the operative WQT Framework for compliance purposes, and not the Framework attached to Resolution R1-2018-0025 (Footnote 1 of the WQTF in Attachment I).
- b. To request that all documents submitted to the Regional Water Board pursuant to the WQTF comply with the most current online accessibility requirements of the Regional Water Board (section 1.3 of the WQTF in Attachment I).
- c. To clarify the geographic limitations, credit value, and available use periods for credits (section 2.3 of the WQTF in Attachment I).
- d. To clarify the "in time" requirement for credit use shall be satisfied when credits are used consistent with the credit banking provisions included in the WQTF (section 3.2.1 of the WQTF in Attachment I).
- e. To clarify the practice types that credit quantification methods must be included for (section 4 of the WQTF in Attachment I).
- f. To clarify that trading ratio reductions will be provided when credit-generating projects meet the necessary criteria (section 5.1 of the WQTF in Attachment I).

- g. To clarify each trading ratio criteria type's base trading ratio, maximum ratio reduction, and applicable reduction criteria. (Table 5.1 of the WQTF in Attachment I).
- h. To reduce confusion in the WQTF, the term "credit life" has been removed. (previously included as section 6.1 from the WQTF)
- i. To clarify that credit release schedules must provide reasonable justification for the timing of the release of credits, and that no credits may be released after the project life has ended. (section 6.1 of the WQTF in Attachment I).
- j. To create a new category of Permanently Protected Environmental Enhancement Projects (PPEEPs) in the WQTF. (section 6.1.1 of the WQTF in Attachment I).
- k. To define the term "banked credit" and clarify that credits are active until used, retired, suspended, or cancelled. (section 6.2 of the WQTF in Attachment I).
- l. To clarify the relationship between the presence of applied retirement ratio criteria and a project's credit banking period. (Table 6.1 of the WQTF in Attachment I).
- m. To clarify that credits generated before a project is renewed can be banked for the renewed project's life only if the project has received a reduced retirement ratio. (section 6.3 of the WQTF in Attachment I).
- n. To require that third-party verification must confirm that the basis for a retirement ratio reduction is still present when a project has received a retirement ratio reduction. (section 8.3 of the WQTF in Attachment I)
- o. To clarify that a Project Remedy Workplan must be completed to address a material failure and to provide the available options to remediate a credit deficit resulting from suspended or cancelled credits. (section 8.3.1 of the WQTF in Attachment I)
- p. To clarify that suspended or cancelled credits will be dependent on the timing and basis of a material failure. (Footnote 11 of the WQTF in Attachment I)
- q. To allow credits awaiting certification to be identified for use within the current discharge season to fulfil the no net loading requirement for phosphorus. (section 9.1 of the WQTF in Attachment I)
- r. To clarify that a credit certificate may apply to multiple credits. (Footnote 12 of the WQTF in Attachment I).

s. To clarify that credits, if unused, shall be banked per the approved Credit Project Plan and will be considered active. (section 9.3 of the WQTF in Attachment I)

2. Modify Fact Sheet Section VIII.A, Public Participation, Notification of Interested Parties to add the following paragraph at the end of the section:

Additionally, the Regional Water Board notified the Permittee and interested agencies and persons of its intent to modify waste discharge requirements for the existing discharge and provided opportunity to submit written comments and recommendations. Notification was provided through posting on the Regional Water Board's Internet site at:

[http://www.waterboards.ca.gov/northcoast/public\\_notices/public\\_hearings/npdes\\_permits\\_and\\_wdrs.shtml](http://www.waterboards.ca.gov/northcoast/public_notices/public_hearings/npdes_permits_and_wdrs.shtml) on September 10, 2021. On December 2-3, 2021, after due notice to the Permittee and all other affected persons, the Regional Water Board conducted a public hearing and evidence was received regarding adoption of Order No. R1-2021-0041, modifying Order No. R1-2020-0012.

3. Modify Fact Sheet Section VIII.B, Public Participation, Written Comments to add the following paragraph at the end of the section:

Furthermore, to be fully responded to by staff and considered by the Regional Water Board, written comments on modifications to Order No. R1-2020-0012 contained in Order No. R1-2021-0041 were due at the Regional Water Board offices by 5:00 p.m. on October 11, 2021.

**Certification:**

I, Matthias St. John, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, North Coast Region, on December 2-3, 2021.

Matthias St. John  
Executive Officer

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