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## North Coast Regional Water Quality Control Board

January 24, 2013

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In the Matter of

**Notice of Approval, Nutrient Reduction Activities**

**for the**

**Nunes Ocean View Dairy Nutrient Offset Project**

APPLICANT: City of Santa Rosa  
RECEIVING WATER: Windsor Creek/Mark West Creek/Laguna de Santa Rosa  
HYDROLOGIC AREA: Mark West Hydrologic Sub Area No. 114.23,  
Russian River Hydrologic Unit No. 114.00  
COUNTY: Sonoma County  
FILE NAME: Santa Rosa Subregional Water Reclamation System

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BY THE EXECUTIVE OFFICER:

1. This Notice of Approval provides notice that certain activities are eligible under Resolution No. R1-2008-0061 Approving the Nutrient Offset Program for the Santa Rosa Subregional Water Reclamation System, which was adopted by the California Regional Water Quality Control Board, North Coast Region, (Regional Water Board) on July 24, 2008. The Nutrient Offset Program establishes a framework for the review and approval of projects proposed by the City of Santa Rosa (City) that are designed to reduce the nutrient load discharged to the Laguna de Santa Rosa and a procedure for granting nutrient reduction credits to the City that will offset nutrient discharges from the City's wastewater treatment facility to the Laguna.
2. The City is regulated under National Pollutant Discharge Elimination System (NPDES) Permit No. CA0022764, Waste Discharge Requirements Order No. R1-2006-0045 for the Santa Rosa Subregional Water Reclamation System (Permit). The Permit imposes the following final effluent limitations for total nitrogen and total phosphorus:

"The Regional Board plans to develop and adopt total maximum daily loads (TMDLs) for nitrogen and phosphorus which specify wasteload allocations (WLAs) for point sources and load allocations (LAs) for non-point sources, as appropriate. Following

the adoption of these TMDLs by the Regional Water Board, this Order will be issued with final WQBELs based on applicable WLAs. Alternatively, in the absence of a TMDL, at the end of the compliance schedule authorized by this Order, the final effluent limitations for nitrogen and phosphorus will be zero, or no net loading.”

3. Footnote 5 to Effluent Limitations section IV.A.1.g of the Permit also states:  
  
“A ‘no net loading’ effluent limit may be met by: 1) reducing the effluent concentration below detectable levels through source control and/or treatment; 2) reducing loads through recycling/reclamation; and/or 3) reducing loads elsewhere in the watershed by an amount at least equal to the amount discharged (and of equivalent bioavailability) through an approved offset program.”
4. The Nutrient Offset Program is designed to encourage the City to undertake nutrient reduction projects that improve habitat and ecosystem conditions and projects that reduce or eliminate nonpoint source or other waste discharges not currently subject to waste discharge requirements (WDRs), waivers, or other permits. The Nutrient Offset Program also prohibits the City from receiving nutrient offset credits for projects that later become subject to additional regulatory controls imposed by the Regional Water Board.
5. On October 30, 2012, Mr. Miles Ferris, on behalf of the City, submitted the proposal for activities associated with the Nunes Ocean View Dairy Nutrient Offset Proposal (Project). The Project is located adjacent to Windsor Creek, approximately 0.75 miles upstream of the confluence of Windsor Creek and the Laguna de Santa Rosa.
6. The Project consists of implementation of Management Practices (MPs) to control and appropriately redistribute accumulated manure and manure enriched soil at the Ocean View Dairy to eliminate nutrient runoff to Windsor Creek, a tributary of the Laguna de Santa Rosa, in Sonoma County. Proposed BMPs include:
  - a. The emptying the two full manure lagoons and land applying the manure slurry and remaining solids at agronomic rates on forage fields on site. (MP No.1)
  - b. The restoration of 3.6 acre heavy use areas adjacent to Mark West Creek, including the removal of accumulated manure and establishment of a cover crop to increase nutrient uptake and reduce erosion. (MP No. 2)
  - c. The construction of an interim containment berm between the manure stacking area and Windsor Creek to eliminate nutrient loading contributions from the existing manure stacks and the eventual removal and beneficial reuse of the manure through land application. (MP No. 3)
7. The Proposed nutrient offset credits and eligibility periods are as follows:

<b>Proposed Crediting Options</b>	<b>Annual Credits (lbs TN/yr)</b>	<b>Annual Credits (lbs TP/yr)</b>	<b>BMP Eligibility Period</b>
<b>MP Type No. 1:</b> Empty and Manage Manure Lagoons	53,487 <sup>1</sup>	12,241 <sup>1</sup>	Up to 4 years <sup>2</sup>
<b>MP Type No. 2:</b> Upgrade Heavy Use Areas	0	92	Up to 4 years
<b>MP Type No. 3:</b> Onsite Reuse of Stacked Manure Solids	104	21	Up to 4 years

<sup>1</sup> To account for annual reductions in the volume of manure contained in the lagoons after initiation of the project, it is proposed that annual credits for total nitrogen and total phosphorus are discounted by 40 percent and 30 percent, respectively, after the first year.

<sup>2</sup> Offset credits are available for discharges of nitrogen and phosphorus controlled through the 2014/2015 discharge season, provided the Nunes Dairy obtains coverage under Order No. R1-2012-0002, *General Waste Discharge Requirements for Existing Cow Dairies in the North Coast Region*.

8. Regional Water Board staff reviewed the Project to assess the eligibility of the MPs for offset credits under the City's Nutrient Offset Program, focusing on the following criteria:
  - a. Are the proposed activities required by Regional Water Board WDRs, waivers, or other permits and thus ineligible for credit offsets?
  - b. Will the project improve habitat and ecosystem conditions and provide long term benefit to water quality?
  - c. Are the calculations for nutrient reductions and offset credits supported by scientific literature or other acceptable methodology?
  
9. Regional Water Board staff determined that the Project is eligible because the proposed MPs are not required by waste discharge requirements, waiver or other Regional Water Board permit. Order No. R1-2012-0002, *General Waste Discharge Requirements for Existing Cow Dairies in the North Coast Region* (Dairy General Permit), states that nutrient reduction projects may be eligible for offset credits for a maximum of two years past the deadlines to submit required management plans for the dairy if the enrollee is participating in an approved nutrient offset project. Accounting for the two additional years for participation in an approved offset program, the deadline for submission of required management plans is January 19, 2015. Thus, the Project would be eligible for offset credits until January 19, 2015, provided the Nunes Dairy obtains coverage under the Dairy General Permit.

The Project involves the removal and land application of manure that has accumulated as a result of past practices and site restoration to prevent erosion and migration of soil-attached nutrients to surface waters. The primary management practice proposed as a component of the Project, removal and land application of manure, is not required at this non-operational dairy by the Dairy Waiver (Order No. R1-2012-0003), the Dairy General Permit, or title 27 of the California Code of

Regulations. Ancillary activities included in the Project, including establishment of a cover crop to prevent erosion and migration of manure-enriched soil to surface waters, are proposed to generate credits only until the Nunes Dairy is required to fully comply with the Dairy General Permit.

In addition, approval of the Project implements key elements of the State Water Resources Control Board's *Policy for Implementation and Enforcement of the Nonpoint Source Control Program* (Nonpoint Source Policy) by applying management practices designed to prevent and control nonpoint sources of pollution through cooperative agreements with individual dischargers and third-party organizations.

10. The MPs recommended in the Project are accepted techniques that have been demonstrated to be effective in preventing and controlling erosion and reducing sediment delivery to watercourses from the types of sources described in the Project. Regional Water Board staff has concluded that, if implemented and employed in combination with protective land use practices, the MPs will significantly improve and protect water quality in the lower Mark West Creek watershed and the lower Russian River system, and will provide long term protection of beneficial uses of the State's waters.
11. The methodology for calculating nutrient reductions and offset credits was developed by the City's consultant, Keiser and Associates, using a nutrient offset tool known as the Pennsylvania Credit Calculator. This offset calculating tool is well established in the Midwest and accepted there by the pertinent regulatory agencies. Regional Water Board staff concluded that the assumptions used in the model were conservative and reasonable, and that the final credit proposals are acceptable.
12. On October 8, 2008, the City certified a program-level Discharge Compliance Project Environmental Impact Report (DCP EIR) for activities related to manure management and agricultural land management projects, such as the projects proposed for the Nunes Ocean View Dairy. The DCP EIR evaluated the potential impacts from nutrient offset projects and found that the impacts from nutrient offset projects would be less than significant and no mitigations were required because the nutrient offset project would reduce the nutrient loads from the Laguna Subregional Water Reclamation System to no net increase. In addition, given the nature of these offset projects, which are designed to be beneficial to water quality, it is expected that an offset project would not have a significant negative impact to the environment.
13. Pursuant to its role as a responsible agency, the Regional Water Board has considered the SCP EIR as required under title 14, California Code of Regulations, section 15096 and determined that there are no potentially significant impacts associated with the Project. The Regional Water Board will file a notice of determination in accordance with title 14, California Code of Regulations, section 15096(i) within five days from the issuance of this Notice of Approval.

14. The Project Proposal was made available for public review on the Regional Water Board's website from November 26, 2012, to December 17, 2012, in accordance with provisions of the Nutrient Offset Program. Public comments were received and considered by the Regional Water Board Executive Officer. Regional Water Board staff provided a written response to significant public comments related to this Project.

**ACCORDINGLY, BASED ON AN INDEPENDENT REVIEW OF THE RECORD, THE REGIONAL WATER BOARD EXECUTIVE OFFICER APPROVES THE NUNES OCEAN VIEW DAIRY OFFSET PROPOSAL AS ELIGIBLE FOR NUTRIENT OFFSET CREDITS IN ACCORDANCE WITH RESOLUTION NO R1-2008-0061, PROVIDED THAT THE PROJECT COMPLIES WITH THE FOLLOWING TERMS AND CONDITIONS:**

1. Except as may be modified by any preceding conditions, all actions subject to this approval are contingent on: (a) all proposed activities and activities to mitigate potential water quality impacts being completed in strict compliance with the City's project description, and (b) compliance with all applicable requirements of the Basin Plan.
2. Any change to the operation of the Project that would have a significant or material effect on the findings, conclusions, or conditions of this Notice of Approval must be submitted to the Executive Officer of the Regional Water Board for prior review and written approval.
3. The Project meets the eligibility criteria for Resolution No. R1-2008-0061 and the Nutrient Offset Program and, if constructed as described in the proposal and in compliance with the above-listed conditions, the Project will adhere to applicable water quality standards. Therefore, the Project is eligible for nutrient offset credits, as proposed.



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Matthias St. John  
Executive Officer