

Central Valley Regional Water Quality Control Board

26 July 2019

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NOTICE OF APPLICABILITY

WATER QUALITY ORDER 2004-0012-DWQ, GENERAL WASTE DISCHARGE REQUIREMENTS FOR THE DISCHARGE OF BIOSOLIDS TO LAND FOR USE AS A SOIL AMENDMENT IN AGRICULTURAL, SILVICULTURAL, HORTICULTURAL, AND LAND RECLAMATION ACTIVITIES; DENALI WATER SOLUTIONS, LLC AND MERCED PROPERTY, LLC; DIAMOND J CUSTOM FARM; MERCED COUNTY

On 8 May 2019, Denali Water Solutions, LLC submitted a Notice of Intent (NOI) for coverage under State Water Resources Control Board's Water Quality Order 2004-0012-DWQ, *General Waste Discharge Requirements for the Discharge of Biosolids to Land for use as a Soil Amendment in Agricultural, Silvicultural, Horticultural, and Land Reclamation Activities* (or General Order). According to the NOI, Denali Water Solutions, LLC plans to apply Class "B" biosolids from various wastewater treatment facilities throughout California, to approximately 1,110 acres of farmland, known as Diamond J Custom Farm, owned by Merced Property, LLC in Merced County. Both Denali Water Solutions, LLC and Merced Property, LLC are collectively and jointly referred to as "Discharger" for the purposes of this Notice of Applicability (NOA). Additional information to complete the NOI was submitted on 29 May, 18 June, and 15 July 2019.

Based on the information provided in the NOI and supplemental information, this project meets the conditions for approval under the enclosed General Order. All the requirements contained within the General Order described as applicable to Sewage Sludge – Class "B" biosolids apply to your application. The discharge is hereby covered under **enrollee number 2004-0012-DWQ-0023**. Please include this number on all correspondence related to this discharge.

PROJECT LOCATION

Diamond J Custom Farm is approximately seven miles southeast of Merced, south of Le Grand Avenue and west of Highway 99 in Merced County (Latitude 37.224319°, Longitude -120.380170°) as shown in **Attachment A**, Assessor’s Parcel Numbers 066-180-008, 066-190-002, 067-110-004, and 067-160-001. This portion of Merced County is within the Sacramento and San Joaquin River Basins.

The operative *Water Quality Control Plan for the Sacramento and San Joaquin River Basins* (hereafter Basin Plan), designates beneficial uses, establishes narrative and numerical water quality objectives, and contains implementation programs and policies to achieve water quality objectives for all waters within the basin.

PROJECT DESCRIPTION

This biosolids application site was previously regulated by Merced County under their biosolids application program. According to the NOI the Discharger receives Class “B” biosolids from various municipal wastewater treatment facilities (WWTF) within California (specifically: East Bay Municipal Utility District, City of Santa Cruz WWTF, City of San Mateo WWTF, Deer Creek WWTF, and El Dorado Hills WWTF). Biosolids are applied in early spring and/or late fall depending on the crop. For double cropped fields biosolids may be applied twice a year. According to the NOI, biosolids are applied to the fields at volumes of about five to 20 dry tons per acre depending on crop requirements. Crop nitrogen requirements range from about 175 to 480 pounds per acre per year (Western Fertilizer Handbook).

According to the Discharger, the biosolids are transported directly to Diamond J Custom Farm and then immediately applied to the fields. The fields are then planted with wheat, silage corn, and/or alfalfa. The permitted biosolids application area consists of 11 fields as shown in **Attachment A** and detailed in Table 1 below:

Table 1 - Biosolids Land Application Area

FIELD	ACREAGE
A14	70.3 acres
A15	59.7 acres
A16	130 acres
A16A	58 acres
A17	147.1 acres
A18	126.3 acres
A19	119 acres
A20	126.5 acres
A21	79.5 acres
A22	44.9 acres
A23	149 acres

The biosolids application area is relatively flat with slopes less than three percent and depth to groundwater is greater than 160 feet below site grade (based on Department of Water Resources interactive map plots from 2012 through 2018). Therefore, no erosion control plan or groundwater monitoring is required for the site. Soils consist primarily of Lewis loam and Lewis silty clay loam. Soil sampling results provided with the NOI shows that the cation-exchange capacity in the soils range from 14.9 to 23.4 meq/100g and the pH ranges from 7.7 to 8.6 indicating only a slight potential for degradation of soil and/or land productivity from biosolids applications.

A site map submitted as part of the NOI identified 10 irrigation supply wells in the vicinity of the biosolids application area. In addition, an ephemeral stream known as Deadman Creek runs along the southern boundary of the application area and the northern boundary of Field A23 as shown in **Attachment A**. The Discharger will maintain minimum setbacks from biosolids application areas of 500 feet from domestic or public water supply wells, 100 feet from any other supply wells, 100 feet from surface waters, and 25 feet from property lines; consistent with Merced County Ordinance and the conditions in the General Order.

MONITORING AND REPORTING PROGRAM

The General Order includes Monitoring and Reporting Program (MRP) 2004-0012-DWQ. MRP 2004-0012-DWQ requires submittal of an annual monitoring report by 15th February of each year identifying quantity of biosolids applied to the various fields and cumulative pollutant loading calculations. In addition, the General Order requires submittal of a pre-application report at least 30-days prior to the application of biosolids.

The Discharger submitted a pre-application report for 2019 along with the NOI. According to the pre-application report, biosolids from the East Bay Municipal Utility District, City of Santa Cruz WWTF, City of San Mateo WWTF, and El Dorado Hills WWTF will comply with Class B pathogen reduction requirements through use of anaerobic digesters in accordance with the specifications in 40 Code of Federal Regulations (CFR), Part 503D and vector attraction reduction through reduction in the mass of volatile solids by a minimum of 38 percent. Biosolids from Deer Creek WWTF will comply with 40 CFR, Part 503D pathogen reduction for Class B biosolids and vector attraction reduction by use of lime stabilization to maintain a pH of greater than 12 for a minimum of 12 hours. Analytical data submitted with the pre-application report shows that the biosolids will contain between 85 to 120 pounds per ton of nitrogen. Based on the information provided, with proper management of the biosolids application area, the Discharger should be able to comply with the applicable nitrogen requirements for crops.

SPECIFIC REQUIREMENTS

1. Application of biosolids at a location or in a manner different from that described in the NOI and this NOA is prohibited.
2. The application shall not cause or threaten to cause pollution as defined in California Water Code section 13050.
3. There shall be no discharge of biosolids or runoff from storage and/or application areas to adjacent lands not regulated by this General Order, surface waters, or surface water drainage courses.
4. The staging and application of biosolids shall comply with all applicable setbacks contained in the General Order as specified in Discharge Specifications B.11.
5. Biosolids with less than 75% moisture content shall not be applied during periods when surface wind speeds exceed 25 miles per hour as determined by the nearest calibrated regional weather station (e.g., airport or CIMIS).
6. The application of Class “B” biosolids containing a moisture content of less than 50% is prohibited.
7. The application of biosolids to water-saturated or frozen ground or during periods of precipitation that induces runoff from the permitted site is prohibited.
8. Application of biosolids at rates in excess of the nitrogen requirements of the crops or at rates that would degrade groundwater quality is prohibited.
9. In accordance with the General Order’s Monitoring and Reporting Program, the Discharger shall submit the required annual monitoring report by **15th of February of each year**.
10. The Discharger shall submit the required annual fee (as specified in the annual billing statement issued by the State Water Resources Control Board) until this NOA is officially terminated.
11. Failure to abide by the conditions of General Order 2004-0012-DWQ, including its monitoring and reporting requirements, and this NOA could result in enforcement actions, as authorized by provisions of the California Water Code.

The Central Valley Water Board is implementing a Paperless Office System to reduce paper use, increase efficiency, and provide a more effective way for our staff, the public, and interested parties to view documents in electronic form. All monitoring and technical reports required by the Provisions of the General Order and its Monitoring and Reporting Program must be submitted by email to our Electronic Content Management (ECM) system at: centralvalleyfresno@waterboards.ca.gov. Documents that are 50MB or larger should be transferred to a disk and mailed to the appropriate Regional Water Board office, in this case

1685 E Street, Fresno, CA 93706. To ensure that your submittals are routed to the appropriate staff, the following information block should be included in any email used to transmit documents to this office:

Program: Non-15;
Facility Name: Diamond J Custom Farm Biosolids Application;
Place ID: 858872;
Order: 2004-0012-DWQ-0023.

If you have any questions regarding this NOA, please contact Katie Carpenter at (559) 445-5551 or by email at katie.carpenter@waterboards.ca.gov.

Original Signed by Clay Rodgers for:

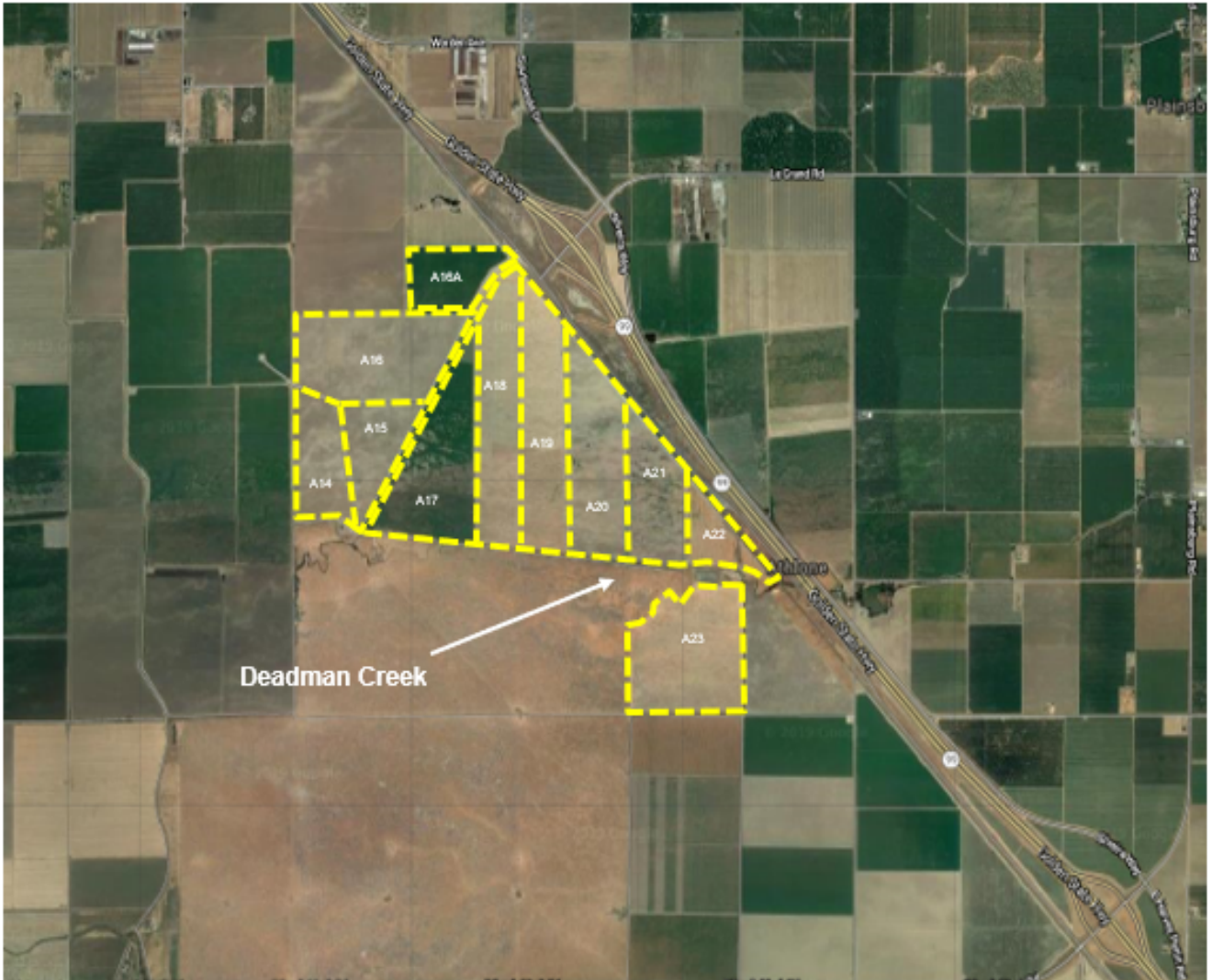
Patrick Pulupa
Executive Officer

Attachment: Attachment A – Site Map

Enclosure: General Order 2004-0012-DWQ

cc w/enclosure:

- Wiebren Jonkman, Diamond J Custom Farming, Inc.
602 E. Sandy Mush Road, Merced, CA 95341
- Esther Canal, Merced County Environmental Health, Merced (via email)
- Kassy Chauhan, State Water Board, Division of Drinking Water (via email)



Drawing Reference:
Google Earth Map Data © 2018



1 inch = 2,000 Feet
Approximate Scale

ATTACHMENT A - SITE MAP

NOTICE OF APPLICABILITY 2004-0012-DWQ-0023
DENALI WATER SOLUTIONS, LLC AND MERCED PROPERTY, LLC
DIAMOND J CUSTOM FARM BIOSOLIDS APPLICATION
MERCED COUNTY