



Central Valley Regional Water Quality Control Board

24 October 2019

Chris Marks
Denali Water Solutions, LLC
3031 Franklin Avenue
Riverside, CA 92507

CERTIFIED MAIL
7018 1830 0001 0015 2225

Scott Wickstrom
N & W Land Co., LLC
5638 Columbus Avenue
Hilmar, Merced CA 95324

CERTIFIED MAIL
7018 1830 0001 2775 3665

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 N & W LAND CO., LLC; N&W LAND CO. BIOSOLIDS APPLICATION AREA; MERCED COUNTY

On 9 September 2019, Denali Water Solutions, LLC (Denali or Discharger) 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 Discharge of Biosolids to Land for use as a Soil Amendment, in Agricultural, Silvicultural, Horticultural, and Land Reclamation Activities* (General Order). According to the NOI, Denali plans to apply Class "B" biosolids from various wastewater treatment facilities in California to approximately 340 acres of farmland known as N&W Land Co. Biosolids Application Area and owned by N & W Land Co., LLC in Merced County. Additional information to support the NOI was submitted on 27 September and 7 October 2019.

Based on the information provided, 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-0024**. Please include this number on all correspondence related to this discharge.

KARL E. LONGLEY ScD, P.E., CHAIR | PATRICK PULUPA, ESQ., EXECUTIVE OFFICER

1685 E Street, Fresno, CA 93706 | www.waterboards.ca.gov/centralvalley

PROJECT LOCATION

The N&W Land Co. Biosolids Application Area is approximately 7.5 miles north and east of Dos Palos at Highway 152 and Flannagan Road in Merced County (Latitude 37° 3' 40.42"N, Longitude 120° 32' 1.38"W) as shown on **Attachment A** (Assessor's Parcel Numbers 074-170-024, 074-170-018, and 074-170-019). 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

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). According to the NOI, biosolids will be applied in early spring or late fall depending on the crop. For double cropped fields biosolids may be applied twice a year. Biosolids will be applied to the fields at volumes of about 5 to 20 dry tons per acre depending on the crop. Crops to be grown within the biosolids application area include winter wheat, silage corn, and alfalfa. Nitrogen requirements for these crops range between 175 to 480 pounds per acre per year (Western Fertilizer Handbook).

The Agronomist's Report prepared and signed by Curtis Pate (CCA, PCA) with Agtegrity, Inc. stated that the heavy metal concentrations in the soils and biosolids were well below allowable pollutant concentrations and should present no phytotoxicity issues to feed and fiber crops. In addition, the application of biosolids should improve the availability of phosphorus to the crops, though over application of nitrogen may occur if biosolids are applied above agronomic rates.

According to the Discharger, biosolids will be transported directly from the wastewater treatment facilities to the N&W Land Co. Biosolids Application Area and immediately applied to the fields. The fields will then be planted with winter wheat, silage corn, or alfalfa. The permitted biosolids application area consists of eight fields as shown in **Attachment A**.

The biosolids application area is relatively flat with slopes less than 10 percent and depth to groundwater greater than 30 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. Soils consist primarily of Pozo Clay loam, and Fresno loam. These soils are moderately well drained with a low water storage capacity. Soil sampling results provided with the NOI shows that the cation exchange capacity in the soils range from 21.4 and 26.9 meq/100g and the pH ranges from 7.6 to 7.9 indicating only a slight potential for degradation of soil and or land productivity from biosolids applications.

A site map, submitted with the NOI, depicts an on-site residence on the eastern boundary of the property along Flanagan Road, and an off-site residence at the adjacent Antonio Brasil

Dairy just east of Flanagan Road as shown in **Attachment A**. In addition, the Fresno River runs adjacent to the biosolids application area just west of the site. According to the NOI, the Discharger will maintain minimum setbacks from biosolids application areas of 50 feet from public roads, 500 feet from domestic or public water supply wells, 100 feet from any other supply wells, 500 feet from occupied on-site and off-site residences, and 100 feet from surface waters.

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 for metals and nutrients. 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 application of biosolids between October and December 2019 and again between March 2020 and June 2020 along with the NOI. According to the pre-application report, biosolids from the East Bay Municipal District, City of Santa Cruz WWTF, City of San Mateo WWTF, and El Dorado Hills WWTF will comply with 40 Code of Federal Regulations (CFR), Part 503D for Class B pathogen reduction requirements and vector attraction reduction through use of anaerobic digesters in accordance with Table 5-7 in Appendix B of 40 CFR 503D, and by reduction in the mass of volatile dissolved solids a minimum of 38 percent. Biosolids from Deer Creek WWTF will comply with 40 CFR 503D pathogen reduction and vector attraction reduction by use of lime stabilization to maintain a pH greater than 12 for a minimum of 12 hours.

Analytical data submitted with the pre-application report shows that the biosolids will contain between 84 to 134 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 the crops. However, loading rates at less than 5 tons per acre may be required in some fields to ensure application of biosolids does not exceed agronomic rates for nitrogen.

SPECIFIC REQUIREMENTS

1. Application of biosolids at a location or in a manner different from that described in the NOI and this Notice of Applicability (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 land 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 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 a pre-application report at least 30 days prior to the application of biosolids for the year. In addition, the required annual monitoring report shall be submitted to this office by **15 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.

DOCUMENT SUBMITTALS

All monitoring reports and other correspondence should be converted to a searchable Portable Document Format (PDF) and submitted electronically. Documents that are less than 50 MB should be emailed to centralvalleyfresno@waterboards.ca.gov.

To ensure that your submittal is routed to the appropriate staff person, the following information should be included in the body of the email or any documentation submitted to the mailing address for this office:

Program: N-15
Facility Name: N&W Land Co. Biosolids Application Area
Place ID: 861652
Order: 2004-0012-DWQ-0024

Documents that are 50MB or larger should be transferred to a CD, DVD, or flash drive and mailed to the appropriate Regional Water Board office, in this case:

Central Valley Regional Water Quality Control Board - Fresno Office
1685 E Street,
Fresno CA 93706.

All documents, including responses to inspections and written notifications, submitted to comply with this General Order shall be directed, via the paperless office system, to the Compliance and Enforcement Unit, attention to Russell Walls. Mr. Walls can be reached at (559) 488-4392 or russell.walls@waterboards.ca.gov. Questions regarding the permitting aspects of the General Order and notification for termination of coverage under the General Order, shall be directed, via the paperless office system, to the WDR Permitting Unit, attention to Katie Carpenter.

Any person aggrieved by this action of the Central Valley Water Board may petition the State Water Resources Control Board to review the action in accordance with California Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Resources Control Board must receive the petition by 5:00 p.m., 30 days after the date of this NOA, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Resources Control Board by 5:00 p.m. on the next business day. [Copies of the law and regulations applicable to filing petitions](http://www.waterboards.ca.gov/public_notices/petitions/water_quality) may be found on the internet (http://www.waterboards.ca.gov/public_notices/petitions/water_quality) or will be provided upon request.

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

Original Signed by Scott Hatton for:
Patrick Pulupa
Executive Officer

Attachment: Attachment A – Site Map

Enclosure: General Order 2004-0012-DWQ

cc w/o encl.:

- Daniel Boyd, P.O. Box 117 El Nido, Merced, CA 95317
- Tricia Wathen, State Water Board, Division of Drinking Water, Fresno (via email)
- Russell Walls, Central Valley Water Board, Fresno (via email)
- Esther Canal, Merced County Environmental Health, Merced (via email)



ATTACHMENT A – SITE MAP

NOTICE OF APPLICABILITY 2004-0012-DWQ-0024
DENALI WATER SOLUTIONS, LLC AND N & W LAND CO., LLC
N&W LAND CO. BIOSOLIDS APPLICATION AREA
MERCED COUNTY