
Central Valley Regional Water Quality Control Board

29 June 2021

Kevin Bertrand
Nutrien Ag Solutions, Inc.
5296 Harvest Lake Drive
Loveland, CO 80538

***NOTICE OF APPLICABILITY OF GENERAL ORDER NO. R5-2015-0012-068 IN-SITU
REMEDICATION AND DISCHARGE OF TREATED GROUNDWATER TO LAND, NUTRIEN
AG SOLUTIONS INC., 3348 CLAUS ROAD, MODESTO, STANISLAUS COUNTY***

Nutrien Ag Solutions Inc. (Nutrien) submitted a Notice of Intent (NOI), dated 16 February 2021, requesting coverage General Order No. R5-2015-0012, *General Waste Discharge Requirements for In-situ Groundwater Remediation and Discharge of Treated Groundwater to Land* (General Order) for the facility located at 3348 Claus Road in Modesto (the Site). The NOI was submitted to receive regulatory coverage to implement the scope of work described in the *Pilot Test Work Plan* (Workplan). Central Valley Regional Water Quality Control Board (Central Valley Water Board) staff concurred with the Workplan on 21 July 2020.

Upon review of the Workplan and NOI, staff has concluded that this project qualifies for coverage under the General Order. Therefore, the Central Valley Water Board issues this Notice of Applicability, and Monitoring and Reporting Program, Order No. R5-2015-0012-068 (the MRP) for the Site. MRP No. R5-2015-0012-068 is attached.

All of the requirements contained in the General Order and those listed in the General Information section below are applicable to your project. You are assigned Order No. R5-2015-0012-068.

Project Location:

The project is at 3348 Claus Road, Modesto as shown in Figure 1 (Site). The Stanislaus County Assessor's Parcel Number (APN) is 014-014-015-000, and is within Township 3S, Range 10E, Mount Diablo Baseline and Meridian.

Project Description:

Nutrien has been monitoring fertilizers and pesticide-related compounds in the soil and groundwater at the Site located along the urban-rural fringe of Modesto. Nutrien and its predecessors have been operating at the Site since 1993 and monitoring groundwater conditions since about 2010. Other owners had similar business operations at the Site between 1949 and 1993, prior to Nutrien's ownership. The primary Chemicals of Concern (COCs) are 1,2,3-Trichloropropane (1,2,3-TCP), 1,2-Dichloropropane (1,2-DCP), and Nitrate. The pilot test is proposed to assess the feasibility of in-situ remediation of the COCs, specifically 1,2,3-TCP. As evident by substantial monitoring data, groundwater in monitoring wells MW-24A and MW-27A consistently have 1,2,3-TCP detections above the Maximum Contaminant Limit (MCL) and serve as suitable locations to conduct a pilot test.

As described in the April 2020 Workplan, this pilot test proposes injecting 6,400 pounds of 3-D Microemulsion (3-DME) into the subsurface across four injection wells, equally, to reduce concentrations of Nitrate and 1,2,3-TCP. The pilot test is intended to be one-time injection to determine feasibility of this remedial strategy. The four injection wells will be constructed to a depth of 90 feet below ground surface (bgs) and screened below 70 feet bgs, which places the screened interval in the first water-bearing zone. In addition, two additional monitoring wells will be constructed to allow for closer monitoring of the pilot test. Two injection wells will be installed upgradient of MW-24A and MW-17A, each.

Contingency Plan:

The contingency plan described in the Notice of Intent identifies six monitoring parameters in the compliance wells which could be affected by sub-surface injections: Dissolved Iron, Dissolved Manganese, Alkalinity, pH, Total Organic Carbon, and Total Dissolved Solids (collectively, Contingency Parameters). Nutrien proposes enacting the contingency plan if either concentration of a Contingency Parameter exceeds background by more than 20 percent, or if a Contingency Parameter exceeds the water quality objective. Should the Contingency Plan be triggered, Nutrien shall notify Central Valley Water Board staff as soon as practicable and resample the well that had the exceedance within 30 days. Should the resampling event confirm the initial exceedance, Nutrien will evaluate the risk and hazard the exceedance poses to potential receptors and sample the well for at least three consecutive quarters to evaluate the trend.

If corrective action is needed to restore a Contingency Parameter to acceptable levels, Nutrien initially suggests the following actions: additional sampling to determine the extent of the issue, aeration of groundwater to modify the groundwater conditions, and/or removal of carbon product. Furthermore, performance monitoring will take place after any selected remedy is enacted. Should the Contingency Parameters remain above the response level after taking corrective action, Nutrien shall coordinate with Central Valley Water Board staff to further address the exceedance.

On 6 April 2021, Nutrien circulated a fact sheet describing the project and providing interested parties with 30 days to submit comments or questions. No comments were received by 6 May 2021, or as of the date of this letter.

General Information:

1. The project will be operated in accordance with the requirements contained in the General Order and in accordance with the information submitted in the Notice of Intent.
2. The required annual fee (as specified in the annual billing you will receive from the State Water Resources Control Board) shall be submitted until this Notice of Applicability is officially revoked.
3. Injection of materials other than 3-DME into the subsurface is prohibited.
4. Failure to abide by the conditions of the General Order could result in an enforcement action as authorized by provisions of the California Water Code.
5. The project will implement the final contingency plan included as summarized above, within 30 days of it being triggered.
6. The Discharger shall comply with the attached Monitoring and Reporting Program, Order No. R5-2015-0012-068 (MRP), and any revisions thereto as ordered by the Executive Officer.

If you have any questions regarding this matter, please contact Mr. Jeff Tierney at (916) 464-4680 or at Jeff.Tierney@Waterboards.ca.gov.



PATRICK E. PULUPA
Executive Officer

Attachments: Monitoring and Reporting Program No. R5-2015-0012-068

cc: Vicki Jones, Stanislaus County Dept. of Environmental Resources, Modesto
Steve Meninger, Rubik Environmental, Santa Cruz

Figure 1: Site Vicinity Map

