

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING ORDER NO. R5-2019-0897

CALIFORNIA WATER CODE SECTION 13267

FOR

NUTRIEN AG SOLUTIONS, CLAUS ROAD MODESTO FACILITY
STANISLAUS COUNTY

This Order is issued to Nutrien Ag Solutions (hereafter Nutrien, or Discharger) pursuant to California Water Code section 13267, which authorizes the Executive Officer of the California Regional Water Quality Control Board, Central Valley Region (hereafter Central Valley Water Board) to issue a Monitoring and Reporting Order (Order).

The Executive Officer finds:

INTRODUCTION

1. Nutrien, formerly Crop Production Services, owns and operates a retail fertilizer facility at 3348 Claus Road in Modesto (Site), Stanislaus County.
2. Poor housekeeping practices occurring in the past placed products on exposed earth and allowed stormwater to enter drywells. This resulted in the release of nitrogen, fumigants, and pesticides to groundwater, which is encountered between about 35 and 55 feet below ground surface. This pollution has impaired the beneficial use of groundwater resources at the Site.
3. In 2004 and 2006, Nutrien removed soil source areas containing pollutants, and in 2006 Nutrien graded the site, installed stormwater basins, and underlaid the operations areas with an engineered liner and asphaltic cap.
4. This Monitoring and Reporting Order (Order) is issued by the Central Valley Water Board, pursuant to California Water Code (CWC) section 13267 and is necessary to delineate groundwater pollutant plumes and to determine whether remediation efforts are effective.
5. Existing data and information about the Site show the presence of various chemicals, including nitrate, 1,2-dichloropropane, and 1,2,3 trichloropropane emanating from the property resulting from the Discharger's past operation. The Discharger is responsible for the discharge because it owns and operates a retail agricultural chemical facility at this Site.
6. The Discharger shall not implement any changes to this Order unless and until a revised Order is issued by the Executive Officer. This Monitoring and Reporting Order replaces the requirements listed in Order No. R5-2010-0833, which was issued on 30 November 2010.
7. Prior to construction of any new groundwater monitoring or extraction wells, and prior to destruction of any groundwater monitoring or extraction wells, the Discharger shall submit plans and specifications to the Central Valley Water Board for review and approval. Once installed, all new monitoring wells shall be added to the monitoring program and shall be sampled and analyzed according to the schedule provided under the 'Required Actions' section of this Order.

LEGAL PROVISIONS

8. CWC section 13267 states, in part:
 - a. (1) In conducting an investigation, the Regional Board may require that any person who has discharged, discharges, or is suspected of having discharged or, discharging, or who proposes to discharge waste within its region . . . shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.
9. The reports required herein are necessary for the reasons described in this Order, to assure protection of waters of the state, and to protect public health and the environment.
10. CWC section 13268 states, in part:
 - a. (1) Any person failing or refusing to furnish technical or monitoring program reports as required by subdivision (b) of Section 13267 . . . or falsifying any information provided therein, is guilty of a misdemeanor and may be liable civilly in accordance with subdivision (b).
 - b. (1) Civil liability may be administratively imposed by a regional board in accordance with Article 2.5 (commencing with Section 13323) of Chapter 5 for a violation of subdivision (a) in an amount which shall not exceed one thousand dollars (\$1,000) for each day in which the violation occurs.
11. Failure to submit the required reports to the Central Valley Water Board according to the schedule detailed herein may result in enforcement action(s) being taken against you, which may include the imposition of administrative civil liability pursuant to CWC section 13268. Administrative civil liability of up to \$1,000 per violation per day may be imposed for non-compliance with the directives contained herein.

REQUIRED ACTIONS

IT IS HEREBY ORDERED that Monitoring and Reporting Order No. R5-2010-0833 is rescinded and, pursuant to California Water Code section 1326, Nutrien Ag Solutions shall conduct monitoring and reporting in compliance with new Monitoring and Reporting Order No. R5-2019-0897 according to the following:

Monitoring Specifications

1. The Discharger shall implement monitoring according to the schedule shown in Tables 1a, 1b, and 1c. As shown in Figure 1, there are twelve A-zone monitoring wells, three B zone monitoring wells, one C-zone monitoring well, and five domestic supply wells which shall be sampled per this monitoring program. This Monitoring Order applies to these 16 monitoring wells, five domestic supply wells, and any monitoring wells installed subsequent to the issuance of this Order. The Discharger shall purge wells and collect samples using standard Environmental Protection Agency (EPA) protocol.

2. General Key to Table symbols. S is Semi-Annually in the 1st and 3rd quarters (January-March, and July-September). A is Annually in the 3rd quarter (July-September). B is biennially in the 3rd quarter of odd numbered years. NS is No Sample required. Additional designations specific to a particular table are found beneath the table heading.

Table 1a. Groundwater Monitoring Schedule A-zone wells

Wells marked with A-1 refers to annual sampling with the provision that if atrazine is not detected above 3 ug/L for two consecutive sample events in a particular monitoring well, the triazine suite may be removed from the monitoring requirements for that particular well.

A-zone wells	Water Surface Elevation	Nitrate-as-Nitrogen	Ammonium	Volatile Organic Compounds	Fumigants	Triazines	1,2,3-Trichloropropane
MMW-01A	S	S	NS	A	S	A-1	S
MMW-02A	S	S	S	NS	A	A-1	S
MMW-03A	S	S	NS	NS	NS	A-1	NS
MMW-14A	S	S	NS	NS	NS	A-1	S
MMW-16A	S	S	NS	B	B	NS	B
MMW-18A	S	S	S	A	NS	NS	S
MMW-21A	S	S	NS	B	NS	NS	S
MMW-24A	S	S	NS	A	NS	A-1	S
MMW-25A	S	S	NS	NS	NS	A-1	A
MMW-26	A	A	NS	NS	NS	NS	B
MMW-27A	S	S	S	A	NS	NS	S
MMW-28A	S	S	NS	S	S	NS	S

Table 1b. Groundwater Monitoring Schedule B and C-zone wells

B/C-zone wells	Water Surface Elevation	Nitrate-as-Nitrogen	Volatile Organic Compounds	1,2,3-Trichloro-propane
MMW-20	S	B	B	B
MMW-22	S	B	B	B
MMW-23	S	B	B	B
MMW-15 (C-zone)	B	B	NS	NS

Table 1c. Groundwater Monitoring Schedule for Domestic Water Supply Wells

Wells marked A-2 signifies that if either nitrate-n is not detected above 10 mg/L or 1,2,3-trichloropropane is not detected above 0.005 ug/L in a domestic well for two consecutive events, that constituent may be removed from the monitoring program for that domestic well.

Domestic wells	Nitrate-as-Nitrogen	Volatile Organic Compounds	1,2,3-Trichloro-propane
3217 Claus Rd (MDW-12)	A-2	B	A-2
3342 Claus Rd (MDW-06)	A	B	A
3361 Claus Rd (MDW-11)	A	B	A
3401 Claus Rd (MDW-13)	A	B	A
3429 Claus Rd (MDW-10)	A-2	B	A-2

- The Discharger shall analyze samples according to standard Environmental Protection Agency (EPA) protocol using the methods shown in Table 2. Method substitutions may be made, provided the method achieves the Maximum Practical Quantitation Limit. All concentrations between the Method Detection Limit and the Practical Quantitation Limit shall be reported as trace.

Table 2. Analytical Methods

Constituents	Analytical Method	Max. Practical Quantitation Limit
Nitrate-as-N	EPA 353	1 mg/L
Ammonium	EPA 300	1 mg/L
Volatile Organic Compounds	EPA 8260B	0.5 ug/L
Fumigants	EPA 504.1	0.05 ug/L
Triazine Compounds	EPA 507	1 ug/L
1,2,3-Trichloropropane	524.2 Low Level	0.005 ug/L

Reporting Specifications

1. When reporting data, the Discharger shall arrange the information in tabular form so that the date, the constituents, and the concentrations are readily discernible and shall summarize the data in such a manner as to illustrate clearly the compliance with this Order.
2. As required by the California Business and Professions Code sections 6735, 7835, and 7835.1, all reports shall be prepared by a registered professional Civil Engineer or Geologist or their subordinate and shall be signed by the registered professional.
3. **Semi-annual** electronic reports, which conform to the requirements of the California Code of Regulations, Title 23, Division 3, Chapter 30, shall be submitted electronically over the internet to the State Water Resources Control Board Geotracker database system by **1 May and 1 November**, or otherwise indicated by Central Valley Water Board staff, until such time as the Executive Officer determines that the reports are no longer necessary. A paper report shall be provided as requested by Central Valley Water Board staff. Each report shall include the following minimum information:
 - a. A description and discussion of the groundwater sampling event and results, including trends in the concentrations of pollutants and groundwater elevations in the wells, how and when samples were collected, and whether the pollutant plume(s) is delineated.
 - b. Field logs that contain, at a minimum, water quality parameters measured before, during, and after purging, method of purging, depth of water, volume of water purged, etc.
 - c. Groundwater contour maps for all groundwater zones, if applicable.
 - d. A figure illustrating monitoring well locations, domestic well locations, and monitoring results.
 - e. A table showing well construction details such as well number, groundwater zone being monitored, coordinates (longitude and latitude), ground surface elevation, reference elevation, elevation of screen, elevation of bentonite, elevation of filter pack, and elevation of well bottom, and domestic supply well depths, if known.

- f. A table showing historical lateral and vertical (if applicable) flow directions and gradients.
 - g. Cumulative data tables for all major constituents of concern containing the water quality analytical results and depth to groundwater for all monitoring wells for the past five years, if applicable. Older data may be provided on electronic media, or provided in hardcopy in a requested paper report. The Central Valley Water Board may request additional data as necessary.
 - h. A copy of the laboratory analytical data report, which may be provided on electronic media and included in a requested paper report
 - i. If applicable, the status of any ongoing remediation, system operating time, the effectiveness of the remediation system, and any field notes pertaining to the operation and maintenance of the system.
 - j. If applicable, the reasons for and duration of all interruptions in the operation of any remediation system, and actions planned or taken to correct and prevent interruptions.
4. An Annual Report shall be submitted to the Central Valley Water Board by 1 May of each year. This report shall contain an evaluation of the effectiveness and progress of the investigation and remediation, and may be substituted for the second semi-annual monitoring report provided that all information that must be submitted in the semi-annual report is included along with the following minimum information:
- k) A cumulative table of domestic well sampling data, including address, well identification number, well depth and date of installation (if known), sampling dates and pollutant concentrations.
 - l) Both tabular and graphical summaries of all data obtained during the year.
 - m) A discussion of the long-term trends in the concentrations of the pollutants in the groundwater monitoring wells.
 - n) A description of all remedial activities conducted during the year, an analysis of their effectiveness in removing the pollutants, and plans to improve remediation system effectiveness.
 - o) A cumulative summary of pollutant mass removed from the subsurface, including elimination of pollutant mass through in-situ remedial methods or natural attenuation.
 - p) An identification of any data gaps and potential deficiencies/redundancies in the monitoring system or reporting program.
 - q) If applicable, a proposal and rationale for any revisions to the groundwater sampling plan frequency and/or list of analytes.
 - r) A discussion of actions to be taken in the upcoming year.
5. The results of any monitoring done more frequently than required at the locations specified in the Monitoring and Reporting Order also shall be reported to the Central Valley Water Board.

6. The Discharger shall implement the above monitoring program as of the effective date of the Order.

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 CWC 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 Order, 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 Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at: [waterboards petition](#) or will be provided upon request.

This Order is effective upon the date of signature.

Ordered by:

ANDREW ALTEVOGT, Assistant Executive Officer

(Date)

Figure 1 Monitoring Well and Domestic Well Locations

