CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO. R5-2021-0821 CALIFORNIA WATER CODE SECTION 13267 FOR

GROW WEST DIXON WHOLESALE,
MILLER SPRINGS REMEDIATION MANAGEMENT INC., AND
J.R. SIMPLOT COMPANY
SOLANO COUNTY

This Monitoring and Reporting Order, R5-2021-0821 (MRP) is issued by the Central Valley Regional Water Quality Control Board's (Central Valley Water Board) Executive Officer pursuant to Section 13267 of the California Water Code for the investigation and remediation at 7235 Tremont Road in Dixon (Site). This MRP supersedes existing MRP No. R5-2007-0806 and, as of the date of this MRP, MRP No. R5-2007-0806 is terminated.

Grow West Dixon Wholesale (formerly known as Tremont Supply Inc. [TSI]), Miller Springs Remediation Management Inc., and J.R. Simplot Company (collectively referred to as Discharger), operates or operated an agricultural chemical distribution facility at the Site. As a result of these operations, volatile organic compounds (VOCs), nitrate, and ammonium are found in groundwater beneath the Site. This pollution has impaired the beneficial use of groundwater resources at the Site.

This MRP is necessary to delineate groundwater pollutants and determine whether remediation efforts are effective. Existing data and information about the Site show the presence of various chemicals, including 1,2-dichloropropane (1,2-DCP), 1,2,3-trichloropropane (1,2,3-TCP), nitrate, and ammonium, emanating from the property as a result of the Discharger's current or past operation. The burden, including costs, of the required reports bears a reasonable relationship to the need for and benefits to be obtained thereby.

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 wells shall be added to the monitoring program and shall be sampled and analyzed according to the schedule below.

GROUNDWATER MONITORING

As shown on Figure 1, there are seven (7) monitoring wells in the first water-bearing zone (MW-1, MW-2S, MW-3 through MW-7), eleven (11) monitoring wells in the second water-bearing zone (MW-1D, MW-2D, MW-3D, MW-4D, MW-5D, MW-6D, MW-8D, MW-9D, MW-10D, MW-11D, and MW-12D), and an on-site water supply well associated with this Site. The groundwater monitoring program for the eighteen (18) monitoring wells, the supply well, and any wells installed subsequent to the issuance of this MRP, shall follow the schedule provided in Table 1 and meet the testing requirements 1-7 below Table 1, using the analytical methods listed in Table 2 and meet the testing requirements 1-4 below Table 2.

Table 1 lists the sampling locations and the sampling frequency. Table 2 lists the sampling constituents, analytical methods, and maximum practical quantitation limits. Sample collection and analysis shall follow standard Environmental Protection Agency (EPA) protocol. If necessary, equivalent analytical methods may be used with the concurrence of Central Valley Water Board staff.

Table 1. SAMPLING LOCATIONS, FREQUENCY AND CONSTITUENT SUITE

Abbreviations used in the following table:

- S: Semi-Annual samples shall be obtained in the first and third quarters (January-March and July-September).
- A: Annual samples shall be obtained in the third quarter (July-September).
- B: Biennial samples shall be obtained in even numbered years during the third quarter (July-September).

Monitoring Location	VOCs EPA 8260B (see testing requirements 1 & 2 below)	Fumigants EDB and DBCP EPA 504.1 (see testing requirements 1, 2 & 3 below)	1,2,3-TCP Low-Level EPA 8260 SIM (see testing requirements 1 & 2 below)	Chlorinated Herbicides EPA 8151 (see testing requirements 1, 2 & 3 below)	Carbamate/ Urea Compounds EPA 8321 (see testing requirements 1, 2, & 3 below)	Nitrate-N EPA 300.0 (see testing requirements 1 & 2 below)	Ammonium- N EPA 350.1 (see testing requirement 1, 2 & 3 below)
MW-1	А		Α			Α	
MW-1D			A			Α	
MW-2S			S			S	
MW-2D			S			S	
MW-3			S			S	
MW-3D			S			S	
MW-4	S		S			S	А
MW-4D	S		S			S	А
MW-5	А		S			S	А
MW-5D	S		S			S	А

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Monitoring Location	VOCs EPA 8260B (see testing requirements 1 & 2 below)	Fumigants EDB and DBCP EPA 504.1 (see testing requirements 1, 2 & 3 below)	1,2,3-TCP Low-Level EPA 8260 SIM (see testing requirements 1 & 2 below)	Chlorinated Herbicides EPA 8151 (see testing requirements 1, 2 & 3 below)	Carbamate/ Urea Compounds EPA 8321 (see testing requirements 1, 2, & 3 below)	Nitrate-N EPA 300.0 (see testing requirements 1 & 2 below)	Ammonium- N EPA 350.1 (see testing requirement 1, 2 & 3 below)
MW-6	S		S			S	
MW-6D	Α		S			S	
MW-7			S			S	
MW-8D			S			Α	
MW-9D		S	S			S	
MW-10D			S			S	
MW-11D		S	S			S	
MW-12D			S			S	
Supply Well	В		S			В	
New Wells	S	S	S	S	S	S	Α

Table 1. Testing Requirements:

- 1. Sample collection and analysis shall follow standard Environmental Protection Agency (EPA) protocols. If necessary, equivalent analytical methods may be used with Central Valley Water Board staff concurrence.
- 2. If the chemical of concern is not detected above laboratory detection limits for two consecutive sampling events, the sampling frequency may be reduced to annual for these well(s) with Central Valley Water Board staff concurrence. If the chemical of concern is detected above laboratory detection limits for two consecutive sampling events, the sampling frequency shall be semi-annual. However, the frequency may revert to annual, with Central Valley Water Board staff concurrence, if the chemical of concern is not detected above laboratory detection limits for two consecutive sampling events.
- If a chemical of concern is not detected above laboratory detection limits for four consecutive sampling events, this chemical of concern may be removed from the analytical suite for these well(s) with Central Valley Water Board staff concurrence.

Table 2.
CONSTITUENTS, ANALYTICAL METHODS AND PRACTICAL QUANTITATION
LIMITS

	Analytical Method				
	(see testing	Practical Quantification Limit			
Constituents	requirement 1 below)	(see testing requirement 2 below)			
Depth to groundwater	Field meter	0.01 foot or feet (ft)			
рН	Field meter	0.01 units			
		50 micro siemens per centimeter			
Electrical conductivity	Field meter	squared (µs/cm²)			
Temperature	Field meter	degrees celsius (°C)			
Purge rate	Field meter	gallons per minute (GPM)			
Turbidity	Field meter	nephelometric turbidity unit (NTU)			
Total gallons pumped	Field meter	gallons			
		feet above mean sea level (Ft			
Water level	Field meter	MSL)			
Nitrate (reported as					
nitrogen)	EPA 300.0	0.5 milligram per liter (mg/L)			
Ammonium as nitrogen	EPA 350.1	0.5 mg/L			
Volatile organic					
compounds (VOCs)	EPA 8260B	0.5 microgram per liter (µg/L)			
Fumigants EDB and DBCP	EPA 504.1	0.02 μg/L			
1,2,3-Trichloropropane					
(see testing requirement 3					
below)	EPA 8260 SIM	0.005 μg/L			

Table 2. Testing Requirements:

- 1. Sample collection and analysis shall follow standard Environmental Protection Agency (EPA) protocol. If necessary, equivalent analytical methods may be used with the concurrence of the Central Valley Water Board staff.
- 2. All concentrations between the Method Detection Limit (MDL) and the Practical Quantitation Limits (PQL) shall be reported and reported as an estimated value.
- 3. The best currently approved analytical methods for 1,2,3-TCP have detection levels of 0.005 μ g/L, which is above the Office of Environmental Health Hazard Assessment (OEHHA)'s public health goal of 0.0007 μ g/L. If new methods are developed and found to be acceptable that improve on the MDL and PQL, then that new method shall be used.

REPORTING

When reporting the data, the Discharger shall arrange the information in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized in such a manner as to clearly illustrate compliance with this Order. The results of any monitoring done more frequently than required at the locations specified in the Monitoring and Reporting Program shall also be reported to Central Valley Water Board staff and in the following monitoring report.

As required by the California Business and Professions Code Sections 6735, 7835, and 7835.1, all reports shall be prepared by a licensed professional engineer or geologist or their subordinate and signed by the licensed professional.

The Discharger shall submit semi-annual electronic data reports that conform to the requirements of the California Code of Regulations, Title 23, Division 3, Chapter 30.

Semi-annual reports shall be submitted electronically (on Geotracker website) by the 1st day of the second month following the end of each appropriate calendar quarter (i.e., by 1 May and 1 November) until such time as the Executive Officer determines that the reports are no longer necessary.

Each semi-annual 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, sampling method, water quality parameters measured before, during, and after purging (if purging is necessary for the sample method), purging method, depth of water, volume of water purged, etc.;
- (c) groundwater potentiometric contour maps for all groundwater zones, if applicable;

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- (d) isocontour pollutant concentration maps for all wells included in the semi-annual event for all groundwater zones, if applicable;
- (e) a table showing well construction details such as well number, date of construction, 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;
- (f) a table showing historical lateral and vertical (if applicable) flow directions and gradients;
- (g) cumulative data tables containing the water quality analytical results and depth to groundwater;
- (h) a copy of the laboratory analytical data report, which may be submitted on electronic media;
- (i) if applicable, a description of remedial and system optimization activities and the status of any ongoing remediation, including cumulative information on the mass of pollutant removed from the subsurface, system operating time, the effectiveness of the remediation system, and any field notes pertaining to the operation and maintenance of the system; and
- (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.

An Annual Report shall be submitted to the Central Valley Water Board by **1 November** 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 concurrent semi-annual monitoring report. The Annual Report shall contain the following minimum information:

- (a) both tabular and graphical summaries of all data obtained during the year;
- (b) groundwater contour maps and pollutant concentration maps containing all data obtained during the previous year;
- (c) a discussion of the long-term trends in the concentrations of the pollutants in the groundwater monitoring wells;
- (d) an analysis of plume stability and/or whether the pollutant plume is being captured by an extraction system (if applicable) or is continuing to spread;
- (e) 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;
- (f) an identification of any data gaps and potential deficiencies/redundancies in the monitoring system or reporting program; and

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(g) if desired, a proposal and rationale for any revisions to the groundwater sampling plan frequency and/or list of analytes.

The results of any monitoring done more frequently than required at the locations specified in the MRP also shall be reported to the Central Valley Water Board and also in the following monitoring report. The Discharger shall implement the above monitoring program as of the date of the Order. The Discharger shall implement the above monitoring program as of the effective date of the Order. This Order is effective upon the date of signature.

Ordered by:

PATRICK PULUPA, Executive Officer

25 March 2022 (Date)

