01 February 2022

Jose Valencia
Synagro West LLC
3110 Gold Canal Dr., Suite E
Rancho Cordova, CA 95670

email: jvalencia@synagro.com

Dexter Mayhood III
Mayhood Ranch
P.O. Box 155
Rio Vista, CA 94571

Certified Mail
7020-1810-0002-0569-1361

REVISED NOTICE OF APPLICABILITY

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

SYNAGRO WEST LLC AND DEXTER MAYHOOD III, MAYHOOD RANCH
ORDER 2004-0012-DWQ-0028
SOLANO COUNTY

On 6 August 2020, Synagro West LLC submitted a Notice of Intent (NOI) and application fee for coverage under the State Water Resources Control Board's Water Quality Order No. 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* (General Order). The August 2020 NOI was signed by Dexter Mayhood III, landowner, with Michael Kotelec and Jose Valencia of Synagro West LLC.

According to the NOI, Synagro West, LLC plans to apply biosolids from various municipal generators throughout California, to approximately 949.6 acres of farmland (Mayhood Ranch) owned by Dexter Mayhood III in Solano County. Both Synagro West, LLC and Dexter Mayhood III are collectively and jointly referred to as "Dischargers" for the purpose of this Notice of Applicability (NOA). Supplemental information was provided between August 2020 and March 2021 to complete the NOI. On 2 December 2021 the Dischargers informed Central Valley Regional Water Quality Control Board staff of an error of omission in the regional location of fields presented in the Project Location section of this NOA. The missing field, SO-23-01, has been added in this revised NOA.

Based on the information provided in the NOI and supporting documents, this project meets the conditions of the General Order. This discharge has been assigned enrollee number 2004-0012-DWQ-0028. Please include this number on all correspondence related to this discharge.

You should familiarize yourself with the entire General Order and its attachments, which describe mandatory discharge and monitoring requirements. The discharge must be managed in accordance with the requirements contained in the General Order, the information submitted in the NOI, and the requirements contained in this Notice of Applicability (NOA). A copy of the General Order is enclosed for the Discharger; it may also be viewed on the Central Valley Regional Water Board's Adopted Orders website (https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2004/wqo/wqo2004-0012.pdf).

PROJECT LOCATION

The Mayhood Ranch property is located in the southeastern portion of Solano County in section 16 of Township 4N, Range 1E, Mount Diablo Base & Meridian on Little Honker Bay Road and Olsen Road near State Highway 12 as shown in Attachment A.

The biosolids application areas described in this NOA, with the exception of fields SO-23-01, SO-23-02, and part of field SO-23-03, are within the Sacramento and San Joaquin River Basins. Fields SO-23-01, SO-23-02 and part of field SO-23-03 are located in an area under the jurisdiction of the San Francisco Bay Regional Water Quality Control Board (San Francisco Water Board) with the San Francisco Bay Basin Plan (SFB Basin Plan) being the operative Water Quality Control Plan. For all the remaining lands of Mayhood Ranch, the Sacramento and San Joaquin River Basin (SSJR Basin Plan) is the operative Water Quality Control Plan. Both the SFB and SSJR Basin Plans designate beneficial uses, establish water quality objectives, and contain implementation programs and policies for protecting waters of the basins and incorporate by reference State Water Board plans and policies.

There are four groundwater supply wells within the Mayhood Ranch boundaries. All of these are used solely to provide water for livestock pastured on the ranch.

This NOA and its requirements applies to all the lands described herein and as shown on the site map (Attachment B).

PROJECT DESCRIPTION

The Discharger receives biosolids from various municipal wastewater treatment facilities within California. These can vary from year to year but typically include the following:

Calera Creek Water Recycling Plant
Calistoga Wastewater Treatment Plant
Central Marin Sanitation Agency
City of Burlingame
City of Eureka
City of Fort Bragg
City of Millbrae
City of Petaluma WRF
City of Windsor
Daly City
Delta Diablo Sanitation District
East Bay Municipal Utility District
San Francisco Public Utilities Commission
    Oceanside Plant
    Southeast Plant
Silicon Valley Clean Water
Union Sanitation District

Biosolids application areas (fields SO-23-01, -02, -03, -04, -05, -06A, -06B, and SO-23-07) are used as native pasture for grazing. Pasture nitrogen agronomic uptake is approximately 200 pounds per acre per year. Biosolids will only be applied between 15 April and 15 October each year, in compliance with Solano County requirements, and will be incorporated into the soil via discing within 24 hours after delivery. Biosolids are not applied during precipitation events as required by Solano County Ordinance. Setbacks and buffer zones for land application and staging that comply with the General Order and Solano County Ordinance will be marked prior to each application.

Land application areas are summarized in Table 1. The total net area for land application of biosolids is 949.6 acres. The net application area excludes buffer zones between land application areas and property lines, public roadways, surface waters, water supply wells, residences, surface water supply intakes, and city limits, where such things exist.

Table 1. Biosolids Land Application Area Summary

Field ID	Township-Range-Section	Assessor's Parcel Number	Gross Field Area (acres)	Net Application Area (acres)
SO-23-01	4N – 1E – 9	0048-02-022, 0048-04-008	101.6	61.9
SO-23-02	4N – 1E – 16	0048-02-022, 0048-04-008	372.0	288.4
SO-23-03	4N – 1E – 15	0048-05-016, 0048-04-008	280.5	144.2
SO-23-04	4N – 1E – 15	0048-05-027	70.2	58.5
SO-23-05	4N – 1E – 14	0048-05-026	192.1	176
SO-23-06A	4N – 1E – 14	0048-05-026, 0048-05-027	51.0	19.1
SO-23-06B	4N – 1E – 14	0048-05-026	125.9	95.5
SO-23-07	4N – 1E – 14	0048-05-026	154.5	106
		Totals	1347.9	949.6

The terrain is basically flat with gently rolling slopes ranging from 0 to 9 percent. Surface water drainage is to intermittent streams that traverse the site generally from east to west. Site soils are typically mixtures of clay, clayey loam, and sandy loam.

The site receives approximately 16 to 23 inches of precipitation per year and is not irrigated.

GROUNDWATER CONDITIONS

The General Order requires groundwater monitoring for biosolids application operations where minimum depth to first encountered groundwater is less than 25 feet below ground surface (ft bgs). No previous soil or groundwater investigations have been conducted at the site, but data from shallow monitoring wells on adjacent land indicate that the minimum depth to groundwater may be less than 20 ft bgs.

A groundwater assessment of the proposed Mayhood Ranch biosolids application area was described in the *Monitoring Well Installation Plan*, dated 25 February 2021. The *Monitoring Well Installation Plan* included four proposed monitoring well installation locations, and a Sampling and Analysis Plan. The *Monitoring Well Installation Plan* was approved on 19 March 2021.

A *Groundwater Monitoring Well Installation Report* (Report) was submitted on 16 July 2021. The Report detailed groundwater assessment activities that took place in May 2021. Based on field conditions, four direct push borings were completed to depths of between 25 and 35 ft bgs and represented differing elevations with special focus on low areas near streams or seasonal surface water within the application fields. Direct push borings were not completed in Fields SO-23-04, SO-23-06A/B, and SO-23-07 based on their surface elevations being general higher than the fields where borings were advanced. Temporary wells were constructed to collect groundwater grab samples in Fields SO-23-01, SO-23-02 (southern portion), SO-23-03, and the northern section of SO-23-05. All except the well in SO-23-03 were backfilled and abandoned after the completion of the assessment. The eastern part of Field SO-23-03 is located just across Little Honker Bay Road (approximately 150 feet north) and directly downgradient hydrologically of the former Montezuma Hills Landfill, which is regulated under Title 27 Waste Discharge Requirements for Operation of Class II Surface Impoundment and Post-Closure Maintenance of Class I Landfills. All investigated well locations are shown in Attachment B.

The May 2021 study concluded that first encountered groundwater at Fields SO-23-01 and SO-23-02 was at depths greater than 25 ft bgs, and at Field SO-23-05 was at a depth greater than 35 ft bgs. Groundwater was encountered at a depth of 24.7 ft bgs in Field SO-23-03. Because groundwater was encountered approximately 25 feet bgs at Field SO-23-03, and the General Order prescribes groundwater monitoring in areas where groundwater is encountered at depths less than 25 feet bgs, the well in Field SO-23-03 was drilled to a total depth of 35 feet bgs and completed as monitoring well MW-2. For the other fields where groundwater was not encountered at depths less than 25 ft bgs, the Discharger is not required to conduct groundwater monitoring or demonstrate that biosolids application activities have impacted first encountered groundwater.

Analytical results for groundwater collected from MW-2 are presented below, in Table 2, with comparison to the target maximum contaminant limits (MCLs) for drinking water per the operative Basin Plans. Although the data in Table 2, below, is from a single sample, it indicates that the groundwater at MW-2 is of poor quality, likely showing influence from the upgradient former landfill.

Table 2. MW-2 Groundwater Quality

Constituent	Units	Value	Target	Target Basis
Chloride	mg/L	480	250	Secondary MCL
Sodium	mg/L	380	69	Agricultural Water Quality Goal
Total dissolved solids (TDS)	mg/L	1,310	500	Secondary MCL
Turbidity	NTU	16.0	5	Secondary MCL
Electrical conductivity (EC)	µS/cm	2740	900	Primary MCL
Total nitrogen	mg/L	4.21	10	Primary MCL (note 1)
pH	s.u.	11.5	6 – 8	Secondary MCL
Lead	mg/L	0.018	0.015	Primary MCL

note 1: Target given is for nitrate nitrogen because there is no MCL for total nitrogen.

Based on the initial groundwater results detailed in the Report indicating that the well is impacted from the former Montezuma Hills Landfill, and is upgradient of the land application areas, groundwater monitoring is not required at this time. However, MW-2 should be maintained for future monitoring.

MONITORING AND REPORTING

The General Order includes Monitoring and Reporting Program (MRP) 2004-0012-DWQ. This MRP requires submittal of an annual monitoring report by **15 FEBRUARY** of each year identifying the quantity of biosolids applied to the various fields and cumulative pollutant loading calculations for metals and nutrients for the previous year. In addition, the General Order requires submittal of an initial Pre-Application report at least 30 days prior to the first-time application of biosolids when a new application area is introduced. The Pre-Application Report shall include groundwater data and biosolids analytical data, and will specify loading that will be used to determine the rate at which biosolids will be applied.

Until coverage under the General Order is formally terminated, monitoring reports must be submitted even if there is no biosolids land application during the reporting period.

CONDITIONS OF DISCHARGE

1. The General Order requires submittal of a Pre-application Report at least 30 days prior to the application of biosolids for each field which has not previously received biosolids. Fields to the west of Highway 12 (SO-23-01, SO-23-02 and SO-23-03) have received biosolids in the past under the authority of the San Francisco Bay Regional Water Quality

Control Board, so Pre-application Report requirement has already been satisfied for those three fields. Therefore, the Pre-application Report is required only for fields SO-23-04, SO-23-05, SO-23-06A, SO-23-06B, and SO-23-07.

2. **Every 4 years beginning in 2025**, the Discharger shall submit a statement describing the depth to groundwater. The statement shall include an evaluation of the depth to first encountered groundwater at MW-2 in comparison to the previous assessment(s).

GENERAL INFORMATION AND REQUIREMENTS

Provision D.1.a of the General Order requires that after the NOA is issued no discharge shall occur until 15 days after submission of the Pre-Application Report. A pre-application report was not submitted with the NOI.

Prior to implementing any discharge changes, a new NOI must be submitted for continued coverage under the General Order. Alternatively, a Report of Waste Discharge may be submitted for coverage under individual Waste Discharge Requirements.

SITE-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 by California Water Code section 13050.

3. There shall be no discharge of biosolids from the storage or application areas to adjacent land areas no regulated by this NOA, to surface water, or to surface water drainage courses.

4. The staging and application of biosolids shall comply with all applicable setbacks described in the General order as specified in Discharge Specification B.11 including from domestic water supply wells (500 feet) and non-domestic water supply wells (100 feet).

5. Biosolids with less than 75% moisture shall not be applied during periods when the surface wind speed exceeds 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 with 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 includes 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. In addition, the required annual monitoring report shall be submitted to this office by **15 February 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

The Central Valley Water Board is the agency responsible for permitting and for compliance and enforcement with respect to this Order, under a memorandum of understanding with the San Francisco Bay Water Board. Therefore, all monitoring reports shall be submitted to the Central Valley Water Board's Sacramento office, located in Rancho Cordova.

All monitoring reports and other correspondence should be converted to searchable Portable Document Format (PDF) and submitted electronically. Documents that are less than 50 MB should be emailed to: centralvalleysacramento@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:	Non-15 Compliance
Facility Name:	Mayhood Ranch
County:	Solano
Order:	2004-0012-DWQ-0028
CIWQS Place ID:	768187

Documents that are 50 MB or larger should be transferred to a CD, DVD, or flash drive and mailed to:

Central Valley Regional Water Quality Control Board
ECM Mailroom
11020 Sun Center Drive, Suite 200
Rancho Cordova, CA 95670

Now that the NOA has been issued, the Board's Compliance and Enforcement section will take over management of your case. Kenny Croyle is your point of contact for any questions about compliance with the General Order. If you find it necessary to make a change to your permitted operations, Kenny will direct you to the appropriate permitting staff. You may contact Kenny at (916) 464-4676 or kenny.croyle@waterboards.ca.gov.

John J. Baum Digitally signed by John J. Baum Date: 2022.02.01 18:22:01 -08'00'

for Patrick Pulupa
Executive Officer

Attachments: Attachment A, Location Map
Attachment B, Site Map
Attachment C, CV-SALTS Notice to Comply

Enclosure: State Water Board Water Quality Order No. 2004-0012-DWQ

cc w/ out enc: Jeffrey Bell, Solano County Environmental Health Department, Fairfield
Howard Hold, Central Valley Water Board, Rancho Cordova
Melissa Gunter, San Francisco Water Board, Oakland
Margaret Monahan, San Francisco Water Board, Oakland
CV-SALTS, Central Valley Water Board, Rancho Cordova