
Central Valley Regional Water Quality Control Board

2 November 2022

Eric Zetz, Director
Merced County Regional Waste Management Authority
7040 North State Highway 59
Merced, CA. 95348

NOTICE OF APPLICABILITY

WATER QUALITY ORDER 2020-0012-DWQ GENERAL WASTE DISCHARGE REQUIREMENTS FOR COMPOSTING OPERATIONS HIGHWAY 59 COMPOST FACILITY MERCED COUNTY

On 29 September 2022, the Merced County Regional Waste Management Authority (hereafter Discharger) submitted a revised *Notice of Intent* (NOI) and technical report for its composting facility (Facility) to obtain coverage under *Water Quality Order 2020-0012-DWQ, General Waste Discharge Requirements for Composting Operations* (hereafter General Order), for composting operations at the above-referenced site. [The complete General Order](#) can be accessed at: (https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2020/wqo2020_0012_dwq.pdf)

This *Notice of Applicability* (NOA) was developed after the review of the NOI and technical report as described in the attached *Staff Memorandum*, which is a part of this NOA. Based on staff's review, the proposed Facility will meet the conditions of the General Order and is hereby covered under General Order **2020-0012-DWQ-R5F007** as a **Tier I** composting operation. The Discharger must comply with all Tier I requirements of the General Order.

The filing fee for the Facility is based on a Threat to Water Quality and Complexity rating of 3C. The submitted filing fee covers the first year permitted by this NOA. The Discharger shall submit the required annual fee (as specified in the annual billing issued by the State Water Resources Control Board) until the NOA is officially terminated.

To fully comply with this NOA, please read the contents of the enclosed *Staff Memorandum* and all of the requirements of the General Order. The Discharger is responsible for implementing all operations in a manner that complies with the General Order. Any noncompliance with this General Order constitutes a violation of the Water Code and is grounds for enforcement action, and/or termination of enrollment under this General Order.

Conditions of this General Order include but are not limited to:

1. Prior to any facility expansion, a technical report with design information will have to be submitted **at least 90 days prior** to new construction of working surfaces, detention ponds, berms, ditches, or any other water quality protection containment structure for approval by Central Valley Water Board staff.
2. A post-construction report must be submitted **within 60 days** of completing all construction activities associated with all applicable containment and monitoring structures, as required for compliance with this General Order and the MRP.
3. A revised NOI is required to be submitted for review and approval **at least 90 days prior** to:
 - Adding a new feedstock, additive, or amendment;
 - Changing material or construction specifications;
 - Changing a monitoring program; or
 - Changing an operation or activity not described in the approved NOI and technical report.

Attachment B of the General Order includes specific monitoring and reporting requirements that must be complied with, including routine monitoring and reporting to the Central Valley Regional Water Control Board. The first year *Annual Monitoring and Maintenance Report* as identified in the General Order must be submitted to the Central Valley Water Board no later than **1 April 2023** and then annually by 1 April each year.

All reports and other correspondence must be converted to searchable Portable Document Format (PDF) and submitted electronically to our Geotracker database. Confirmation of Geotracker upload is to 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:

Attention:	Title 27 Unit
Discharger Name:	Merced County Regional Waste Management Authority
Facility Name:	Highway 59 Compost Facility
County:	Merced
CIWQS Place ID:	884034
Geotracker Global ID:	T1000000204090

If you have any questions regarding this letter or the attached *Staff Memorandum*, please contact Elizabeth Welch at (559) 445-6127 or Elizabeth.Welch@waterboards.ca.gov.

Original Signed by Clay L. Rodgers for:
Patrick Pulupa
Executive Officer

Enclosure: Staff Memorandum

cc: CalRecycle, WCMPDivision@CalRecycle.ca.gov
Vicki Jones, VJones@co.merced.ca.us
Esther Canal, ECanal@co.merced.ca.us
Env.compliance@mcrwma.org
Eric Zetz eric.zetz@mcrwma.org
Patrick Womble pwomble@mcrwma.org

Central Valley Regional Water Quality Control Board

TO: Kristen S. Gomes
Senior Water Resource Control Engineer

Scott J. Hatton
Supervising Water Resource Control Engineer

Clay L. Rodgers
Assistant Executive Officer

FROM: Elizabeth A.M. Welch
Water Resource Control Engineer

DATE: 2 November 2022

SUBJECT: APPLICABILITY OF COVERAGE UNDER STATE WATER RESOURCES CONTROL BOARD WATER QUALITY ORDER 2020-0012-DWQ, HIGHWAY 59 SOLID WASTE LANDFILL COMPOSTING OPERATION, MERCED COUNTY

REPORT OF WASTE DISCHARGE

On 29 September 2022, the Merced County Regional Waste Management Authority (Discharger) submitted a Notice of Intent (NOI) and technical report for the Highway 59 Compost Facility (Facility). The technical report, NOI, and filing fee were submitted to obtain coverage under *Water Quality 2020-0012-DWQ, General Waste Discharge Requirements for Composting Operations* (General Order) for composting operations at the Facility. The technical report, dated September 2022, was titled *General Waste Discharge Requirements for Composting Operations Technical Report Order WQ 2020-0012-DWQ, Highway 59 Compost Facility* (Technical Report) and was prepared on behalf of the Discharger by Tetra Tech BAS. The Technical Report was signed and stamped by Greg E. Saul (RCE 60600).

SITE CONDITIONS

The Facility is located at 7040 North Highway 59 (APN 052-150-05, 052-070-04, 052-160-033, 052-160-035, and 052-070-05) within the property boundary of the Highway 59 Solid Waste Landfill in Merced County. The 9.5-acre Facility is owned by the Discharger.

The Technical Report describes the groundwater flow direction being generally to the west in the northern and central portions of the site with a hydraulic gradient of approximately 0.001 ft/ft or less. As for the southern portion of the site, the conditions

are generally similar to those described. Site lithologic data suggests that groundwater beneath the site occurs under unconfined conditions in loose silty sands and gravels.

The Technical Report provided the average annual precipitation at the site is about 12 inches. The maximum average monthly precipitation of 2.07 inches occurs in January, and the minimum average monthly precipitation of 0.03 inches occurs in June. Evaporation data recorded between 1960 and 1990 at the Merced Municipal Airport station, presented a mean annual Pan Y evaporation of 69 inches. The minimum mean monthly evaporation of one inch occurs in December and the maximum of 12 inches in July. The Facility is located on the property of the Highway 59 Solid Waste Landfill. The design storm event for the landfill's drainage system is a 100-year 24-hour storm event, and the site drains into the landfill's drainage system. The rainfall depth for a 100-year, 24-hour storm event is 2.97 inches.

Land uses within one mile of the Facility include pastureland and agriculture. The Highway 59 Compost Facility has two industrial water wells that it shares with the Highway 59 Solid Waste Landfill. One is located at the existing entrance, and the other is a 1,000 gpm well located at the north boundary of the site and piped to a pressure tank and fire hydrant system adjacent to the composting area. Composting operations are prohibited within 100 feet of the well. The nearest surface water body to the Facility is the Henderson Canal, which is located approximately 200 feet to the nearest property boundary. The Facility is located on the central part of the property, which is approximately 2,200 feet from the Henderson Canal. Surface drainage from the Facility flows into the storm drains located below the southwestern corner of the Facility. The drain conveys water along the eastern edge of the landfill entrance road where it then flows to the storm water basin, which is at the southwest corner of the landfill. This basin is oversized, exceeding the 100-year, 24-hour design storm capacity and has never discharged off-site. However, if a large enough storm occurred it would drain into the Caltrans drainage, which is a tributary to Fahrens Creek. Fahrens Creek is tributary to Bear Creek and the San Joaquin River, in the Merced Hydrologic Area of the San Joaquin Basin.

Data from the on-site borings indicated that soils beneath the site consist primarily of poorly sorted gravels, medium to coarse grained sands, silts, and clays. The predominant soil types are coarse-grained sands and gravels. However, a thin layer of fine-grained soils (silts and clays) was found near the surface around one monitoring well and in a 10-foot thick lens encountered throughout most of the site at a depth of approximately 40-feet below grade.

While there has not been any formal testing of the soils in the area of compost operations. Soils near the compost facility were tested for suitability of a leach field for a septic system, and the site was deemed unsuitable due to the low infiltration rate. Based on the data available, the soils that comprise the operations deck are estimated to have a hydraulic conductivity of 1×10^{-5} cm/sec or more. Nevertheless, the Highway 59 Landfill has a groundwater monitoring program that will be relied upon in lieu of a specific hydraulic conductivity or percolation rate of the operations deck.

COMPOSTING OPERATIONS

The operational capacity of the Facility is 12,500 cubic yards, which includes storage capacity of the receiving facility, windrows, final curing areas, and commodity storage areas. The working surfaces of the operations area is constructed of compacted on-site soils.

Feedstocks at the Facility consist of green materials only. Green materials mean any plant material that is separated at the point of generation. Green materials include but are not limited to yard trimmings, untreated wood wastes, natural fiber products, and construction and demolitions wood waste. The Facility handles a maximum of 25,000 tons of compost per year. The green material is received from local source separated green waste curbside collection programs, landscapers, and construction sites. Treated/painted wood waste will not be utilized as a feedstock. The Facility does not currently use additives or amendments as part of its composting process.

The Facility utilizes the open windrow composting technique. The green material pre-processing consists of chipping and grinding of the material and/or running it through a trommel screen to recover fine material. Approximately three quarters of the processed material is comprised of fines, which are directly placed in compost windrows. Brush (e.g., tree trimmings) are ground and processed through a trommel screen and then placed in compost windrows.

A truck delivers the feedstocks from stockpiles in the pre-processing area to the composting area. Feedstocks are formed into windrows roughly 18 feet wide and seven feet high, with side slopes approximately 1:1 (vertical: horizontal). Compost residence time is typically eight to 12 weeks for stabilization. To maintain oxygen content, the compost is mixed and aerated by using a mechanical windrow turner or a front loader. Turning frequency varies between one to three times per week. Windrows are watered by a water truck to maintain adequate moisture content in the compost.

The Facility has a berm along the western edge of the site to generally direct runoff from the operations area toward the southwest corner of the site. There is also a berm along the southern edge of the Facility as well as a drainage ditch between the berm and the landfill access road to prevent run-on from off-site entering the Facility.

MONITORING AND REPORTING

The Highway 59 Compost Facility will conduct a monitoring program as prescribed in the applicable portion of Attachment B of General Order Monitoring and Reporting requirements. Results of monitoring will be reported annually in the *Annual Monitoring and Maintenance Report*, which will be submitted by **1 April** of each year as long as the *Notice of Applicability* is in effect.

SITE CLOSURE

At least 90 days prior to ceasing composting operations, the Highway 59 Compost Facility shall submit a *Site Closure Plan* to the Central Valley Water Board for approval. The site restoration shall include work necessary to protect public health, safety, and the environment.

RECOMMENDATIONS

The Facility was inspected on 27 October 2022 to verify facility operations. Based on staff review of the Technical Report, it is anticipated that the Discharger can meet the requirements of the General Order. It is anticipated that the Facility may change/expand in the future, at that time the Discharger will need to submit a revised *Notice of Intent* and technical report. The *Notice of Applicability* can be issued and stay in effect as long as the Discharger implements all operations in a manner that complies with the requirements of the General Order.

The Highway 59 Compost Facility must comply with the following items:

1. Prior to any facility expansion, a technical report with design information shall be submitted **at least 90 days prior** to the new construction of working surfaces, detention ponds, berms, ditches, or any other water quality protection containment structure for approval by Central Valley Water Board staff.
2. A post-construction report must be submitted to the Central Valley Water Board **within 60 days** of completing all construction activities associated with all applicable containment and monitoring structures, as required for compliance with this General Order and MRP.
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ATTACHMENT A

