
Central Valley Regional Water Quality Control Board

24 September 2021

Dave Lee
Kern County Public Works Department
2700 M Street, Suite 450
Bakersfield, CA 93301

CERTIFIED MAIL
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NOTICE OF APPLICABILITY

**WATER QUALITY ORDER 2020-0012-DWQ
GENERAL WASTE DISCHARGE REQUIREMENTS FOR COMPOSTING
OPERATIONS
SHAFTER-WASCO RECYCLING AND SANITARY LANDFILL
KERN COUNTY**

On 29 July 2021, the County of Kern (Discharger) submitted a Notice of Intent (NOI), technical report and filing fee for the Shafter-Wasco Recycling and Sanitary Landfill (Facility) 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 30 July 2021, was titled *Notice of Intent & Technical Report for Composting Operations at Shafter-Wasco Recycling & Sanitary Landfill* (Technical Report) and was prepared by the Discharger.

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 Facility meets the conditions of the General Order and is hereby covered under General Order **2020-0012-DWQ-R5F002** as a **Tier II** composting operation. The Discharger must comply with all Tier II requirements of the General Order.

The filing fee for the Facility is based on Threat to Water Quality and Complexity rating of 3B. The submitted \$6,409 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 familiarize yourself with 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 Composting General Order include but are not limited to:

1. Submit a post-construction certification report 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 the MRP.
2. Prior to any facility expansion, a technical report with design information will need to be submitted for approval by the Central Valley Water Board at least 90 days prior to new construction of working surfaces, stormwater (detention) basins, berms, ditches, or any other water quality protection containment structure. The design information must include water balance calculations for detention basins and wastewater conveyance features.
3. Any expansion of facility operation must meet the requirements of the General Order prior to commencement of composting operations in any new area.

Attachment B of the General Order includes specific monitoring and reporting requirements that you must comply 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 2022**, 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. Documents that are less than 50 MB are to be emailed to: centralvalleyfresno@waterboards.ca.gov. Documents that are 50 MB or larger are to be transferred to a portable data storage device and mailed to this office at the address provided on the cover page.

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:	County of Kern
Facility Name:	Shafter-Wasco Recycling and Sanitary Landfill
County:	Kern County
CIWQS Place ID:	876507

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Composting General Order 2020-0012-DWQ
Shafter-Wasco Recycling and Sanitary Landfill
Kern County

24 September 2021

If you have any questions, please contact Carlos Cervantez at (559) 445-5978 or carlos.cervantez@waterboards.ca.gov.

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

Enclosure: Staff Memorandum

cc: Dave Lee Leed@kerncounty.com

Central Valley Regional Water Quality Control Board

TO: Scott J. Hatton
Supervising Water Resource Control Engineer

Clay L. Rodgers
Assistant Executive Officer

FROM: Kristen S. Gomes
Senior Water Resource Control Engineer

Carlos Cervantez
Engineer Geologist

DATE: 24 September 2021

**SUBJECT: APPLICABILITY OF COVERAGE UNDER STATE WATER
RESOURCES CONTROL BOARD WATER QUALITY ORDER 2020-
0012-DWQ, SHAFTER-WASCO RECYCLING AND SANITARY
LANDFILL, KERN COUNTY**

REPORT OF WASTE DISCHARGE

On 29 July 2021, the County of Kern (Discharger) submitted a Notice of Intent (NOI) and technical report for the Shafter-Wasco Recycling and Sanitary Landfill (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 30 July 2021, was titled *Notice of Intent & Technical Report for Composting Operations at Shafter-Wasco Recycling & Sanitary Landfill* (Technical Report) and was prepared by the Discharger.

SITE CONDITIONS

The Facility is owned and will be operated by the Discharger. The Facility is located at 17621 Scofield Avenue in Kern County on approximately 20 acres.

The Facility will compost a mix of green material, food material, vegetative food material, manure, agricultural material, and other related organic materials, as defined in Title 14 CCR and SB 1383. The Technical Report states that no additives or amendments will be used. After the composting is complete, the finished compost will be stockpiled and covered until it is sold to customers.

The total permitted operational capacity by other agencies is 100,000 cubic yards for all materials received, processed, and stored on site at any given time. Leachate generated will be collected via in-ground floor drains into four tanks, where it will be recirculated into the composting process. If excess compost leachate is accumulated and cannot be used on-site in the composting process, it may be pumped into a pump truck and tank and transported to a public-owned treatment works.

According to the Technical Report, data from the Western Regional Climate Center indicate the average annual precipitation is 6.06 inches. The average rainfall varies from a minimum of 1.87 inches (1959) to a maximum of 13.32 inches (1998). The average mean evaporation is 59.2 inches per year, as reported by the California Irrigation Management Information System (CIMIS), Station 5 in Shafter, CA. The magnitude of the 24-hour 25-year design storm was estimated to be 2.30 inches based on the data provided from the National Oceanic and Atmospheric Research Administration. According to the Federal Emergency Management Agency (FEMA), a review of the map index sheets (Number 06029C1250E) for FEMA's Flood Insurance Rate Maps for Kern County Unincorporated Areas indicate that no map (i.e., panel) has been prepared for the area in which the project site lies since, according to FEMA, no special flood hazard areas exist in this panel (FEMA, 2020).

Land use within one mile of the site is exclusive agriculture. The Technical Report states there are five water supply wells within 1,500 feet of the property boundaries of the Facility. The nearest water supply well (agricultural well) is approximately 250 feet north of the northern property line of the Facility. Groundwater flow is generally towards the east-northeast, the generalized gradient is 0.0025 ft/ft, and the generalized velocity is 23 ft/year.

The Facility is located in the southern San Joaquin Basin, which is a structural trough filled marine and non-marine sediments originating from the surrounding mountain ranges during the Mesozoic and Cenozoic eras. The predominant soils beneath the Facility and surrounding lands are the Milham sandy-loam, which is a deep, well-drained soil developed on alluvial fans, plains, and low terraces. According to the Technical Report, there are no identified active or potentially active faults underlying the Facility or adjacent areas. The nearest active fault is the Kern Front Fault, approximately 19 miles east of the Facility.

According to the Technical Report, the Facility is underlain by unconsolidated fluvial and lacustrine sediments of Quaternary alluvium and the Plio-Pleistocene Tulare Formation. The principal hydro-stratigraphic units beneath the Facility include the perched aquifer, the perching aquitard, and the regional unconfined aquifer. The saturated and unsaturated zones of the perched aquifer are comprised of predominantly laterally discontinuous beds of poorly graded sands and silty sands. Perched groundwater is encountered at depths of 46 to 60 feet below ground surface (bgs). The perching aquitard unit separates saturated sediments of the perched

aquifer from unsaturated sediments and is approximately 11 to 34 feet thick and consists of low permeability clays. The unconfined aquifer is an extensive regional aquifer occurring at approximately 240 feet bgs. It is the primary production aquifer for irrigation supplies in this part of the valley.

COMPOSTING OPERATIONS

According to the Technical Report, the Facility complies with allowable feedstock requirements identified in the General Order. The proposed composting method is a covered aerated static pile forced aeration system with utilization of an engineered membrane fabric technology (GORE® covers). It will consist of 32 concrete bunkers each measuring 165 feet long, 27 feet wide with 4-foot-high sidewalls, a 4-foot-high rear push wall, and a 1% grade. Each bunker is spaced 10 feet apart. Two 40-foot breaks are established separating bunkers from the first phase of composting to the second phase and the second phase to the third phase. There will be two in-concrete aeration / liquids collection drain trenches in each bunker floor, for forced positive aeration to the compost pile and collection of leachates generated by the active composting process. The leachate will be recirculated and reintroduced into the composting process. Each compost pile, once constructed, is covered with a GORE® cover that allows air from inside the pile to breath while controlling the release of emissions and restrict the intrusion of stormwater.

The computerized environmental monitoring system is activated once new compostable feedstocks are placed in one of the first sixteen bunker and covered (Phase 1). The feedstock is allowed to compost for four to eight weeks, depending on type of feedstocks, seasonal climate, and other factors. At the end of this initial composting period, the material is moved to another bunker. Once in place, a cover is again fastened over the bunker and the system is turned on. The materials remain in this bunker for two to six weeks (Phase 2). At the end of the second phase, material is moved one final time into another set of bunkers. It remains in bunkers for two to four weeks (Phase 3) but with no cover. The monitoring and aeration system will remain on and the temperature probe would stay in the pile to monitor temperature. The final stage involves the placement of the finished compost in the dedicated screening and finished compost area west of the compost pad. It is allowed to further cure prior to screening. When curing is complete, the finished compost is screened to remove any large woody pieces too large for end use or large pieces that did not breakdown) and re-introduced into the composting process. Finished compost is also screened to remove any non-compostable residual materials and disposed of on-site at the landfill. Screened and finished compost is piled in the finished product area until transported offsite to or picked up by end users.

The hydraulic conductivity values of the native soils range from 1×10^{-4} to 1×10^{-6} cm/s. However, the actual hydraulic conductivity of the working surfaces has not yet been determined. If, during construction, the hydraulic conductivity of the working surfaces is does not meet the requirements of the General Order, the Discharger would implement

a groundwater monitoring protection program. The groundwater monitoring protection program sampling and reporting would be concurrent with the monitoring conducted in accordance with the Shafter-Wasco Recycling and Sanitary Landfill monitoring and reporting program.

TIMELINE FOR COMPLIANCE

Composting activities and operations at the Shafter-Wasco Recycling and Sanitary Landfill are being proposed and is not an existing composting operation or facility. Therefore, the required compliance schedule does not apply.

MONITORING AND REPORTING

According to the Technical Report, in addition to the design specifications as required by the General Order, the Shafter-Wasco Recycling and Sanitary Landfill has an existing environmental monitoring plan per the requirements of Title 27 CCR and the approved WDRs. Therefore, the Discharger does not propose a specific groundwater protection monitoring program for the proposed composting operations. All monitoring and plan specifics are detailed in the Shafter-Wasco Recycling and Sanitary Landfill WDRs, including but not limited to sampling and analysis procedures, sample preservation, chain of custody control, and QA/QC procedures.

SITE CLOSURE

The Discharger will notify the Central Valley Regional Water Quality Control Board (Central Valley Water Board) in writing within 60 days of the conclusion of site closure activities that describes closure in accordance with the site closure plan and Central Valley Water Board requirements. The Technical Reports indicates in the event that the compost facility ceases operation, the site will be properly restored, in accordance with Title 14 CCR Sections 17870 and 17896.

RECOMMENDATIONS

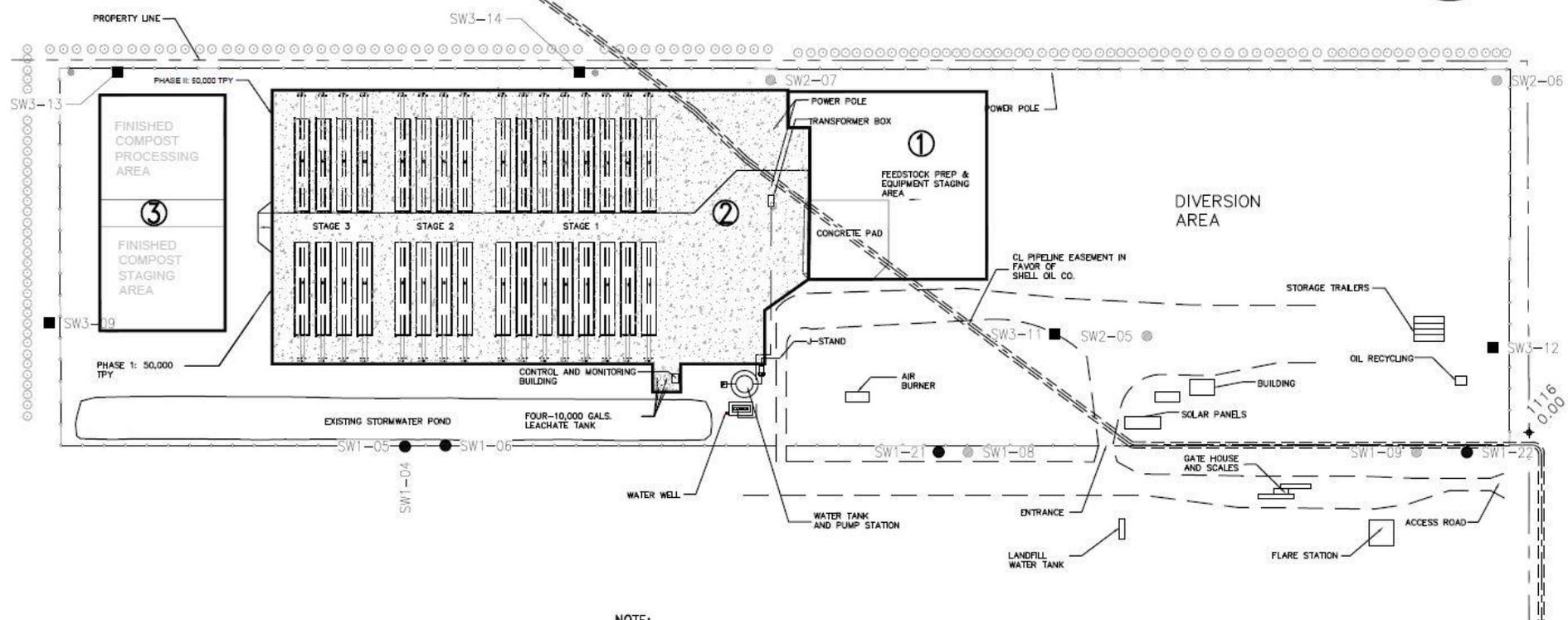
Based on staff review of the Technical Report, it is anticipated that the Discharger can meet the requirements of the General Order. The Notice of Applicability can be issued and stay in effect as long as the Discharger implements all operations in a manner that complies with the requirements of the General Order.

The Discharger must comply with the following items:

1. Submit a post-construction certification report 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 the MRP.
2. Prior to any facility expansion, a technical report with design information will need to be submitted for approval by the Central Valley Water Board at least 90 days

prior to new construction of working surfaces, stormwater (detention) basins, berms, ditches, or any other water quality protection containment structure. The design information must include water balance calculations for detention basins and wastewater conveyance features.

3. Any expansion of facility operation must meet the requirements of the General Order prior to commencement of composting operations in any new area.



LEGEND

-  PROPERTY BOUNDARY
-  CONCRETE/ACTIVE COMPOSTING AREA
-  TREES
-  EXISTING CHAIN LINK FENCE
-  LANDFILL GAS MONITORING WELL
-  GROUNDWATER MONITORING WELL
-  COMPOST BUNKERS
-  ACCESS ROADS

NOTE:

1. FEED STOCK & EQUIPMENT AREA INCLUDES LOADING, UNLOADING, AND PRE-PROCESSING ACTIVITIES.
2. STAGE 1 - ACTIVE COMPOSTING; STAGE 2 - MATURATION & CURING COMPOSTING; STAGE 3 - FINISHING.

WORKING SURFACES:

1. RECEIVING AREA - 2.45 ACRES
2. ACTIVE/CURING COMPOSTING AREA - 10.36 ACRES
3. FINISHED PRODUCT AREA - 2.12 ACRES

FOR ILLUSTRATION PURPOSES ONLY

KERN COUNTY PUBLIC WORKS DEPARTMENT BAKERSFIELD, CALIFORNIA	APPROVED BY:	SHAFTER-WASCO RECYCLING AND SANITARY LANDFILL	FIGURE	
	DRAWN BY:		CONCEPTUAL COMPOSTING FACILITY SITE PLAN	1
	SCALE:			
	FILE NO.:			