
Central Valley Regional Water Quality Control Board

13 September 2018

Mr. Paul Stone
Kenneth Stone & Family Spreading Service, LLC
5175 Shaw Ave
Winton, CA. 95388

NOTICE OF APPLICABILITY

WATER QUALITY ORDER 2015-0121-DWQ GENERAL WASTE DISCHARGE REQUIREMENTS FOR COMPOSTING OPERATIONS EL NIDO SITE 1 MERCED COUNTY

On 10 July 2017, Kenneth Stone & Family Spreading Service, LLC., (hereafter Discharger) submitted a Notice of Intent (NOI), Technical Report, and filing fee for the El Nido Site 1 Composting Facility (Facility) to obtain coverage under Water Quality Order 2015-0121-DWQ, General Waste Discharge Requirements for Composting Operations (hereafter General Order). The Technical Report was submitted in response to Central Valley Regional Water Quality Control Board (Central Valley Water Board) 13260 letter dated 13 September 2016. The complete General Order can be accessed at:
http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2015/wqo2015_0121_dwq.pdf

This Notice of Applicability (NOA) was developed after the review of your 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 **2015-0121-DWQ-R5F012** as a **Tier II** composting operation. The Discharger must comply with all Tier II requirements of the General Order.

The filing fee for the El Nido Site 1 Composting Facility is based on Threat to Water Quality and Complexity rating of 3B. The submitted \$4,699 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:

- Provide additional information, calculations, and maps indicating and verifying the drainage pattern, wastewater volumes, presence of berms and/or ditches at the facility by 31 December 2018. The report indicates that the volume of wastewater calculated being routed via sheet flow to the detention pond was from only certain areas of the facility and not the entire facility. Based on the information provided, it is not appropriate to assume only certain areas of the composting facility will runoff to the (detention) pond without the presence of berms to separate the individual areas.
- Provide a Water and Wastewater Management Plan describing how water and wastewaters will be managed, including the 25-year 24-hour storage calculations for the (detention) pond, water re-use in composting operations, and a water balance demonstrating compliance with the Design, Construction and Operation Requirements section of the General Order by 31 December 2018.
- Provide a process flow diagram showing the movement of the material from received to final product by 31 December 2018. Include average amount of time the material remains in each part of the process.
- Provide site conditions such as mean evaporation in inches/year by 31 December 2018.
- The existing facility needs to be graded so that all surface runoff drains to the drainage conveyance system/detention pond by 30 August 2019.
- Expand existing (detention) pond to meet the design storm storage requirements by 30 August 2021.
- Install a liner system and pan lysimeter, which meets the requirements of the General Order, by 30 August 2021.
- Address any flood protection deficiencies by 30 August 2021.
- 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.
- 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 ponds and wastewater conveyance features.
- Any expansion of facility operation must meet the requirements of the General Order prior to commencement of composting operations in any new area.

- A revised NOI is required at least 90 days prior to:
 - adding a new feedstock, additive, or amendment;
 - changing construction 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 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 2019**, 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:	Kenneth Stone & Family Spreading Service
Facility Name:	El Nido Site 1
County:	Merced County
CIWQS Place ID:	846252

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.

Sincerely,

Original signed by Scott J. Hatton for:

Patrick Pulupa
Executive Officer

Enclosures: Staff Memorandum

cc: Brianna St.Pierre, State Water Resources Control Board, Sacramento
Ray Kablanow II, PhD, Ground Zero Analysis, Inc., Modesto
Merced County Environmental Health Department, Merced



Central Valley Regional Water Quality Control Board

STAFF MEMORANDUM

TO: DANIEL L. CARLSON
Senior Engineering Geologist

SCOTT J. HATTON
Supervising Water Resource Control Engineer

FROM: KRISTEN S. GOMES
Water Resource Control Engineer
PE No. 79025

ELIZABETH A.M. WELCH
Water Resource Control Engineer

DATE: 13 September 2018

SUBJECT: APPLICABILITY OF COVERAGE UNDER STATE WATER RESOURCES CONTROL BOARD WATER QUALITY ORDER 2015-0121-DWQ, EL NIDO SITE 1, MERCED COUNTY

REPORT OF WASTE DISCHARGE

On 10 July 2017, Kenneth Stone and Family Spreading Service, LLC. (El Nido Site 1) submitted a Notice of Intent (NOI) and Technical Report for the El Nido Site 1 (Composting Facility) (facility). The Technical Report, NOI, and filing Fee were submitted to obtain coverage under Water Quality 2015-0121-DWQ, General Waste Discharge Requirements for Composting Operations (hereinafter General Order) for composting operations at the above referenced site. The Technical Report dated 10 July 2017 was titled *Report of Waste Discharge – Kenneth Stone & Family Spreading Service, LLC, El Nido Facility*, and was prepared by Ground Zero Analysis, Inc.

SITE CONDITIONS

The El Nido Site 1 Composting Facility is owned and operated by Kenneth Stone & Family Spreading, LLC (Discharger), and is located at 1510 West Washington Road in El Nido, about 2 miles southwest of El Nido and 11 miles south of the City of Merced. The facility is 36 acres and is operated in two halves. Compost rows are constructed on the western portion of the facility, while the eastern portion of the facility is used for stockpiling the finished product and preparing it for transport. The area between these two portions is used as an operations yard with a field office and equipment storage. The facility composts manure obtained from various dairies. After composting is complete, the finished compost is stockpiled and then sold, hauled and spread on orchards and other crops. According to the NOI for the facility, the total facility

KARL E. LONGLEY ScD, P.E., CHAIR | PATRICK PULUPA, ESQ., EXECUTIVE OFFICER

capacity is 12,500 cubic yards, and the current processing capacity is 9,000 cubic yards. All wastewater generated when stormwater contacts composting materials flows via sheet flow and discharges into the stormwater detention pond in the northwest corner of the facility.

The average annual precipitation in Merced is 12.27 inches. The average rainfall varies from a minimum of 5.50 inches (1947) to a maximum of 21.66 inches (1998). The average annual pan evaporation was not included. The magnitude of the 24-hour 25-year design storm was estimated to be 2.63 inches based on the data provided from the National Oceanic and Atmospheric Research Administration. According to the Federal Emergency Management Agency's (FEMA) Floodplain Map No. 06047C0900G, the facility is located in a Special Flood Hazard Area subject to inundation by 1% annual chance flood. The facility is classed as Zone A, meaning No Base Flood Elevation has been determined.

Land use within one mile of the facility is rural agriculture. Depth to groundwater in an offsite production well was 106 feet below ground surface at the time of installation in June 2015. The Technical Report did not include anticipated highest groundwater elevation as the Department of Water Resources groundwater library did not have data for the depth to groundwater or elevation of groundwater for the subject area in Merced County. The regional groundwater flow direction is to the southwest. An offsite well located approximately 1,100 feet north of the northern boundary of the compost facility supplies water to the facility. The closest surface water bodies include an irrigation canal 0.25 miles to the north of the facility; the Chowchilla River that flows into the Diversion Canal that is 0.65 miles south of the facility; the Eastside Bypass, which is located 1.5 miles southwest of the facility; and the San Joaquin River located 2 miles southwest of the facility.

According to *Soil Survey, Merced Area*, issued July 1962, reissued March 1991, USDA & CAES, the surface geology is characterized as Pachappa sandy loam (PeA). PeA is a member of the Oachappa Series that occur chiefly on the Chowchilla River alluvial fan. It is slightly saline-alkali with 0 to 1 percent slope, has good drainage and overlies the older Fresno soils described as Fresno Loam (FsA). FsA is strongly saline-alkali with 0-1 percent slopes. This soil contains so much salt and alkali it is purported to be nearly impermeable.

COMPOSTING OPERATIONS

According to the Technical Report, the facility complies with allowable feedstock requirements identified in the General Order. El Nido Site 1 Facility composts manure obtained from various dairies. Depending on the time of year and the supply of manure, the amount of compost material will change. The compost duration is generally about six weeks and the finished composted material is stockpiled in preparation for transport to farms for application.

Of the 36 acres, approximately four acres in the center are used as the operation yard; three acres are used as periphery road and one acre for the pond, and the remaining 28 acres for compost material. The compost material is placed in windrows oriented east-west. In the area containing the windrows, 50% of the land is used for the windrows, while the other 50% is access areas to work the compost windrows. At any given time, up to 14 acres are used for composting and 14 acres are open ground.

The working surface is essentially flat, with a slight slope to the west (0.002%). The working surface is very hard packed fine-grained soil. The facility currently has one unlined detention pond located in the northwest corner of the facility. The detention pond is approximately 18 feet

deep, 150 feet long, and 50 feet wide. The capacity of the pond is approximately 113,000 cubic feet or approximately 842,000 gallons. Based on the information provided, it is not appropriate to assume only certain areas of the entire composting facility will runoff to the detention pond without the presence of berms to separate the individual areas. The current pond is significantly undersized. The Discharger proposes to expand the current pond to increase the holding capacity closer to at least two million gallons with an approved liner and pan lysimeter in accordance with the Tier II requirements of the General Order.

In order to determine the hydraulic conductivity of the working surface at the facility, four boreholes were drilled in March 2017. Samples were collected at the surface, 1 foot and 5 feet bgs in all four boreholes. One borehole, next to the storm water detention pond, was drilled to 20 feet so that the samples could be located in the horizon of the pond walls and below the pond bottom. The Report states that hydraulic conductivity testing of the drainage ditches was not made since storm water is by sheet flow between rows and not by ditch conveyance.

The surface soils were characterized as silty, clayey matrix to a fine to very fine-grained sand. The hydraulic conductivities of the upper five feet of working surface soils ranged from 4.6×10^{-4} to 3.9×10^{-8} cm/s, with the average values of 8.0×10^{-5} cm/s. The hydraulic conductivity for boring B-4 is slightly higher than the General Order hydraulic conductivity requirement, however the deeper boring results meet the General Order hydraulic conductivity requirements of 1×10^{-5} cm/s. The Discharger does not propose to alter the working surfaces.

TIMELINE FOR COMPLIANCE

Full compliance with the General Order must be completed by 4 August 2022 for existing facility operations. Any expansion of facility operation must meet the requirements of the General Order prior to commencement of composting operations in any new area. The Discharger proposes the following:

Improvement	Completion Date
Submit Engineered Plan	30 June 2020
Installation of Pond Liner & Monitoring Devices	30 August 2021

The Discharger must 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.

MONITORING AND REPORTING

The Discharger will regularly inspect and maintain all containment, control, monitoring structure, and monitoring systems pursuant to the submitted Technical Report and Attachment B of the General Order Monitoring and Reporting requirements. The frequency of inspections should be sufficient to prevent discharges of feedstocks, compost (active, curing, or final product), or wastewater from creating, threatening to create, or contributing to conditions of contamination, pollution, or nuisance.

The Discharger is required to conduct a monitoring program as prescribed in the applicable portions of Attachment B of General Order Monitoring and Reporting requirements. Sections

that apply are A.1., A.2., and B. 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

The Report states that the closure plan would include removal of any composting material, and the cleanout and back filling of the surface impoundment. A Site Closure Plan shall be submitted for RWQCB approval at least 90 days prior to ceasing composting operations.

DISCUSSION

The facility was inspected on 5 June 2018. Current composting operations are on native surfaces. The on-site stormwater basin is unlined and inadequately sized for the 25-year 24-hour storm event. The Discharger intends to meet the requirements of the General Order.

RECOMMENDATION

Based on staff review of the Technical Report, it is anticipated that El Nido Site 1 can meet the requirements of the General Order. The Notice of Applicability can be issued and stay in effect as long as El Nido Site 1 implements all operations in a manner that complies with the requirements of the General Order.

El Nido Site 1 must comply with the following items:

1. Provide additional information, calculations, and maps indicating and verifying the drainage pattern, wastewater volumes, presence of berms and/or ditches at the facility by 31 December 2018. The report indicates that the volume of wastewater calculated being routed via sheet flow to the detention pond was from only certain areas of the facility and not the entire facility. Based on the information provided, it is not appropriate to assume only certain areas of the composting facility will runoff to the (detention) pond without the presence of berms to separate the individual areas.
2. Provide a Water and Wastewater Management Plan describing how water and wastewaters will be managed, including the 25-year 24-hour storage calculations for the (detention) pond, water re-use in composting operations, and a water balance demonstrating compliance with the Design, Construction and Operation Requirements section of the General Order by 31 December 2018.
3. Provide a process flow diagram showing the movement of the material from received to final product by 31 December 2018. Include average amount of time the material remains in each part of the process.
4. Provide site conditions such as mean evaporation in inches/year by 31 December 2018.
5. The existing facility needs to be graded so that all surface runoff drains to the drainage conveyance system/detention pond by 30 August 2019.
6. Expand existing (detention) pond to meet the design storm storage requirements by 30 August 2021.
7. Install a liner system and pan lysimeter, which meets the requirements of the General Order, by 30 August 2021.

8. Address any flood protection deficiencies by 30 August 2021.
9. 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.
10. 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 ponds and wastewater conveyance features.
11. Any expansion of facility operation must meet the requirements of the General Order prior to commencement of composting operations in any new area.