5 May 2023

Dan Allen
Lost Hills Environmental, LLC
2019 Westwind Dr., Suite B
Bakersfield, CA 93301

CERTIFIED MAIL
7021 1970 0001 5446 4672

NOTICE OF APPLICABILITY

WATER QUALITY ORDER 2020-0012-DWQ
GENERAL WASTE DISCHARGE REQUIREMENTS FOR COMPOSTING OPERATIONS
LOST HILLS ENVIRONMENTAL WASTE FACILITY
KERN COUNTY

On 5 July 2022, the County of Kern (Discharger) submitted a *Notice of Intent* (NOI), technical report, and filing fee for the Lost Hills Environmental Waste Facility (Facility) to obtain coverage under *Water Quality 2020-0012-DWQ, General Waste Discharge Requirements for Commercial Composting Operations* (General Order) for composting operations at the Facility. The technical report, dated 5 July 2022 and later revised on 19 July 2022, is titled *Attachment D – Technical Report* (Technical Report) and was prepared by the Discharger. In response to Central Valley Regional Water Quality Control Board (Central Valley Water Board) staff comments, the Discharger subsequently submitted the following documents:

1. *Technical Report, Equivalent Engineered Alternative Evaluation and Detection Monitoring System Design, Phase I Compost Facility Stormwater Retention Basins* (Equivalency Report), dated 31 January 2023 and prepared by Padre Associates, Inc. (Padre).

2. *Addendum Letter – Additional Information Submittal, Phase I Compost Facility Storm Water Retention Basins* (Addendum Letter), dated 10 April 2023 and prepared by Padre.

This *Notice of Applicability* (NOA) was developed after the review of the NOI and submitted reports 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 as a **Tier II** composting operation. The enrollee identification number is Order **2020-0012-DWQ-R5F009**. The Discharger must comply with all Tier II requirements of the General Order.

The filing fee for the Facility is based on the Threat to Water Quality and Complexity rating of 3B. The submitted $7,486 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 for review and approval 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. The post-construction certification report must be approved by the Central Valley Water Board prior to the acceptance of feedstock and/or the commencement of composting operations at the Facility.

3. 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 the 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.

4. Any expansion of facility operation must meet the requirements of the General Order and be approved by the Central Valley Water Board 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 Quality 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 2024**, 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 website.

Confirmation of Geotracker upload is to be emailed to: centralvalleyfresno@waterboards.ca.gov. To ensure that your email 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:

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Attention:	Title 27 Unit
Discharger Name:	Lost Hills Environmental, LLC
Facility Name:	Lost Hills Environmental Waste Facility
County:	Kern County
Global ID:	T10000021016

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

Original Signed by Scott J. Hatton for:
PATRICK PULUPA
Executive Officer

Enclosure: Staff Memorandum

cc: CalRecycle WPCMDivision@CalRecycle.ca.gov
Dan Allen dallen@hmholloway.com
Jeremy Bowman jbowman@hmholloway.com
Chad San Juan sanjuanc@kerncouty.com

Central Valley Regional Water Quality Control Board

TO: Scott J. Hatton
Supervising Water Resource Control Engineer

FROM: Kristen S. Gomes
Senior Water Resource Control Engineer

Carlos Cervantez
Engineering Geologist

DATE: 5 May 2023

SUBJECT: **APPLICABILITY OF COVERAGE UNDER STATE WATER RESOURCES CONTROL BOARD WATER QUALITY ORDER 2020-0012-DWQ, LOST HILLS ENVIRONMENTAL WASTE FACILITY, KERN COUNTY**

REPORT OF WASTE DISCHARGE

On 5 July 2022, the Lost Hills Environmental, LLC (Discharger) submitted a *Notice of Intent* (NOI) and technical report for the Lost Hills Environmental Waste 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 Commercial Composting Operations* (General Order) for composting operations at the Facility. The NOI and technical report, dated 5 July 2022, were titled *Attachment C – Notice of Intent* and *Attachment D – Technical Report* (Technical Report) and were prepared by the Discharger. The Discharger provided additional information to the Technical Report in email correspondence dated 19 July 2022.

In response to Central Valley Regional Water Quality Control Board (Central Valley Water Board) staff comments, the Discharger submitted the following documents:

1. *Technical Report, Equivalent Engineered Alternative Evaluation And Detection Monitoring System Design, Phase I Compost Facility Stormwater Retention Basins* (Equivalency Report), dated 31 January 2023, prepared by Padre Associates, Inc. (Padre).

2. *Addendum Letter – Additional Information Submittal, Phase I Compost Facility Storm Water Retention Basins* (Addendum Letter), dated 10 April 2023, prepared by Padre.

SITE CONDITIONS

On 21 December 2022, the Kern County Public Health Services Department Environmental Health Services, issued *Solid Waste Facility Permit 15-AA-0308* (Permit), which authorizes the Discharger to operate the Facility. The Facility is owned and will be operated by the Discharger and is located at 14045 Holloway Road in Kern County on approximately 136.2 acres. The Permit allows for the handling of up to approximately 640,000 tons (1,505,504 cubic yards) annually. The maximum permitted daily tonnage for the Facility is 3,753 tons per day. The Facility will compost the following material:

- Class A and B Biosolids
- Cannabis/marijuana/ hemp discards
- Woody biomass
- Excess green matter
- Fats, Oils, and Greases (FOG)
- Dimensional lumber
- Pistachio and almond hulls
- Food
- Grass, branches, and leaves
- Paper and cardboard
- Other plant matter
- Poultry manure and processing material
- Anaerobic digestate
- Cattle/livestock manure
- Winery pulp
- Crop residue

Incoming feedstock material will primarily come from locations within a 150-mile radius of the project site. According to the Technical Report, biosolids and manure will be accepted from various producers within a 200-mile radius. The Technical Report states that no additives will be used at this time, Central Valley Water Board staff will be notified if changes are proposed.

According to the Technical Report, data from the Western Regional Climate Center indicate the average annual precipitation is 4.63 inches. The average rainfall varies from a minimum of 1.52 inches to a maximum of 16.29 inches. The average mean evaporation is 65 inches per year, as reported by the California Irrigation Management Information System (CIMIS), Station 54 in Blackwells Corner, CA. The magnitude of the 24-hour, 25-year design storm was estimated to be 2.24 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 06029C0625E), the Facility is not located within a 100-year flood plain. The land use within the area is classified as “exclusive agriculture.” There a three water supply wells (agriculture wells) less than two miles east of the Facility.

The Facility is located within the Kern County Subbasin, which is within the San Joaquin Valley Groundwater Basin. Most of the usable groundwater in the basin occurs in the unconsolidated deposits of late Tertiary and Quaternary age. Confined and unconfined aquifers in the region are generally limited to the eastern portion of

the Lost Hills anticline (LHA), approximately three miles east of the Facility. The Technical Report indicates five aquifer systems have reportedly been encountered in the vicinity of the Facility. They include a perched aquifer in the alluvium northeast of the LHA at depths as shallow as five feet; a perched aquifer in portions of the alluvium southwest of the LHA; an unconfined aquifer in the alluvium northeast and southwest of the LHA; an unconfined to semiconfined aquifer in the upper Tulare Formation; and a confined aquifer in the lower Tulare Formation.

COMPOSTING OPERATIONS

According to the Technical Report, a 50/50 mixture by volume of woody biomass to organic feedstock will be mixed together by a mechanical windrow turner before being moved to an active, aerated composting pile. Aeration zones using positive air blowers and perforated pipes and a thin plenum layer of wood chips or trommel overs are laid out ahead of active pile placement. After the pile has been mixed and formed, the pile is covered with a 1-foot-deep layer of cured compost or compost trommel overs, which functions as a biofilter. After the pile has been covered, the biofilter layer is kept moist via a sprinkler system placed along the top of the pile or a water truck sprayer. The active aerated piles are kept undisturbed for a minimum of 22 days. Active phase piles temperatures are logged to achieve required minimum temperatures of 131°F for three consecutive days for pathogen reduction. After completion of the 22-day minimum active phase, compost piles are physically relocated into the curing phase. The curing phase lasts a minimum of 40 days, as required by the San Joaquin Valley Air Pollution Control District. During the curing phase, compost piles are relocated once every 22 to 28 days. After the composting is complete, the finished compost will be stockpiled until it is sold to customers.

According to the Technical Report, measured hydraulic conductivity of the native soil ranges between $1x10^{-6}$ and $1x10^{-10}$ centimeters per second, which meets the hydraulic conductivity requirements of the General Order for working surfaces. Leachate generated will sheet flow to onsite detention ponds, via swales and berms. The Discharger submitted an equivalency demonstration for proposing a liner system not consistent with the prescribed standard in the General Order, as the Discharger is proposing to use the native soil for the detention ponds. According to the Equivalency Report, the hydraulic conductivity results for the underlying soils (collected at depths between 11 feet bgs and 26 feet bgs) ranged from 2.3×10^{-7} cm/sec to 9.6×10^{-7} cm/sec. According to the Addendum Letter, the Discharger will install porous cup lysimeters to detect early migration of surface water below the ponds. The lysimeters will be installed in the lowest points of the ponds.

TIMELINE FOR COMPLIANCE

Composting activities and operations at the Facility are being proposed, and there is not an existing composting operation or facility. Therefore, full compliance with the

General Order is required prior to the commencement of composting operations after the proposed facility is constructed.

MONITORING AND REPORTING

According to the Technical Report, the Discharger will conduct a monitoring program as prescribed in the applicable portion of Attachment B of the General Order's Monitoring and Reporting Program (MRP). In addition to the design specifications as required by the General Order, the Discharger will continue groundwater monitoring under MRP No. R5-2010-0123 for the Lost Hills Environmental Waste Facility, in which the Facility is located within. 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 2024** and then annually by 1 April each year.

SITE CLOSURE

The Discharger will notify the Central Valley Water Board in writing within 90 days of the conclusion of site closure. A *Site Closure Plan* will be submitted to the Central Valley Water Control Board for review and approval.

RECOMMENDATIONS

Based on staff review of the Technical Report, Equivalency Report and Addendum Letter, 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. The post-construction certification report must be approved by the Central Valley Water Board prior to the acceptance of feedstock and/or the commencement of composting operations at the Facility.

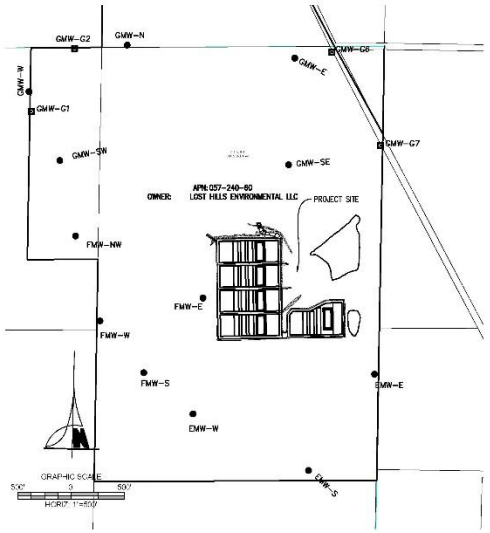
3. Prior to any facility expansion, a technical report with design information will need to be submitted for approval by the Central Valley Water Board at least 90 days prior to new construction of working surfaces, stormwater (detention) basins, berms, ditches, or any other water quality protection containment structure. The

design information must include water balance calculations for detention basins and wastewater conveyance features.

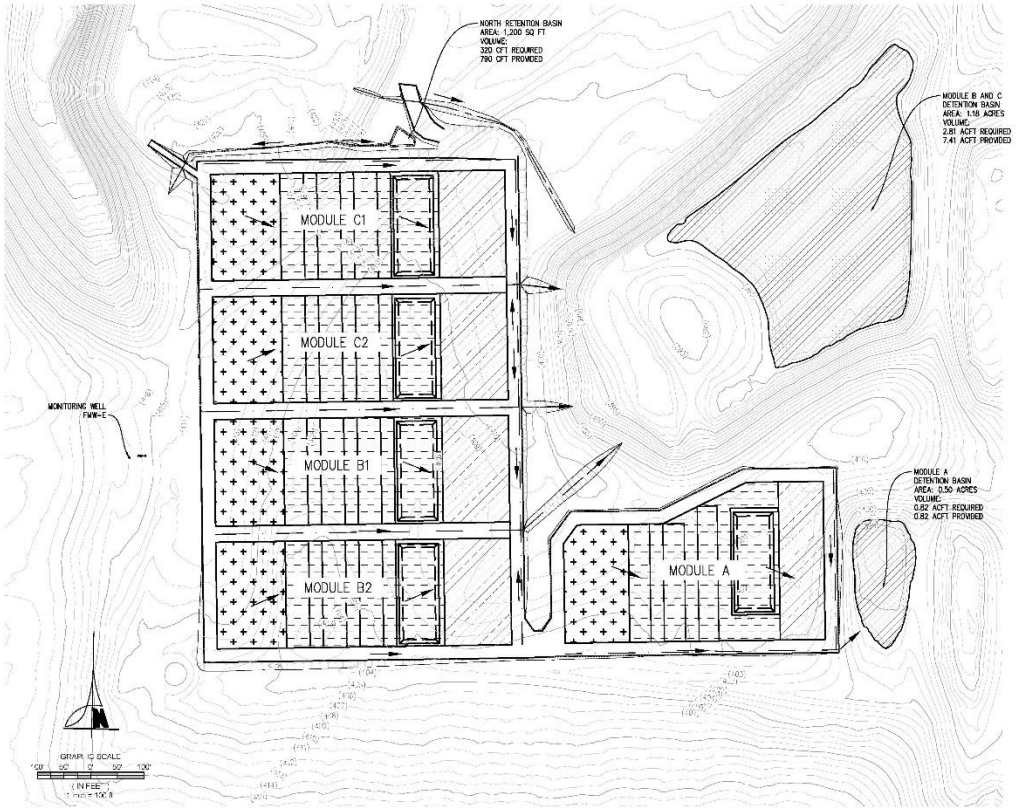
4. A revised NOI is required to be submitted for review and approval at least 90 days prior to:

    - 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

FIGURE #2



LOCAL MONITORING WELLS



DRAINAGE PATTERNS AND WORKING AREAS

LEGEND
- DIRECTION OF DRAINAGE
- PROTECTIVE CHANNEL FLOW LINE
- DRAINAGE FLOW LINES
- RECEIVING AREAS
- ACTIVE AND CURING AREAS
- STORED PRODUCT AREA
- RETENTION BASIN

MODULE WORKING AREA SUMMARY

MODULE	RECEIVING AREA	ACTIVE AND CURING AREA	STORED PRODUCT AREA
A	0.57 ACRES	1.67 ACRES	0.61 ACRES
B1	0.57 ACRES	1.36 ACRES	0.60 ACRES
B2	0.57 ACRES	1.36 ACRES	0.60 ACRES
C1	0.57 ACRES	1.36 ACRES	0.60 ACRES
C2	0.57 ACRES	1.36 ACRES	0.60 ACRES
TOTAL	2.85 ACRES	7.12 ACRES	3.01 ACRES

NO. DATE: REVISION: BY:

REGISTERED PROFESSIONAL ENGINEER CLAUDE A. WHITTEN No. C-63332 CIVIL STATE OF CALIFORNIA

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DEVELOPMENT BY:
HM HOLLOWAY
14046 HOLLOWAY ROAD, LOST HILLS, CA
APN: 057-220-16

LOST HILLS ENVIRONMENTAL
COMPOST FACILITY
KERN COUNTY, CALIFORNIA
WATER MANAGEMENT PLAN
EXHIBIT 1

DESIGNER:	JEM
CHECKED BY:	CAW
DATE:	7/01/2022
DRAFTER	REY
SCALE:	AS SHOWN
COMP. NO:	602D100_WTR
JOB NO.:	602-01-00

C-1.0