

MICHAEL P. VICTORINO
Mayor

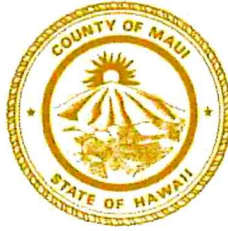
ERIC A. NAKAGAWA, P.E.
Director

SHAYNE R. AGAWA, P.E.
Deputy Director

MICHAEL KEHANO, P.E.
Solid Waste Division

SCOTT R. ROLLINS, P.E.
Wastewater Reclamation Division

TAMARA L. FARNSWORTH
Environmental Protection &
Sustainability Division



**COUNTY OF MAUI
DEPARTMENT OF
ENVIRONMENTAL MANAGEMENT**

2145 KAOHU STREET, SUITE 102
WAILUKU, MAUI, HAWAII 96793



January 26, 2022

Mr. Daniel E. Orodenker, Executive Officer
State of Hawaii Land Use Commission
Department of Business, Economic Development, and Tourism
P.O. Box 2359
Honolulu, HI 96804-2359

Dear Mr. Orodenker:

SUBJECT: FY 2021 ANNUAL REPORTS FOR MAUI COUNTY LANDFILLS

Enclosed are the FY 2021 annual reports for the following landfills in Maui County:

SP86-359 Central Maui Landfill
SP93-383 Molokai Integrated Solid Waste Facility
SP94-386 Lanai Landfill
SP97-390 Central Maui Landfill Expansion
SP08-402 Hana Landfill

An electronic copy of each report was sent to Riley.K.Hakoda@hawaii.gov for e time-stamping. One original and one copy of the e time-stamped reports are enclosed. Copies have also been routed to the County Planning Department.

If you have any questions, please contact Elaine Baker at 808-270-7872.

Sincerely,

A handwritten signature in black ink that appears to read "Eric A. Nakagawa".

Digitally signed by Shayne R. Agawa
DN: cn=Shayne R. Agawa, o=Deputy Director,
ou=Department of Environmental Management,
email=shayne.agawa@co.maui.hi.us, c=US
Date: 2022.02.03 14:17:18 -10'00'

for Eric A. Nakagawa, P.E.
Director of Environmental Management

Encl:

cc: Michele McLean, Director of Planning, County of Maui
Michael Kehano, Chief, Solid Waste Division, County of Maui

**CENTRAL MAUI LANDFILL
STATE LAND USE COMMISSION
FY2021 ANNUAL REPORT
SP86-359**

Part 1: Project Summary

Premixing Biosolids, Greenwaste, Fats, Oil, and Grease

Co-composting ended on March 1, 2020 with subsequently received greenwaste ground and mixed with biosolids and grease trap waste and hauled to the landfill for disposal. For FY 2021 approximately 13,285 tons of commercial greenwaste were received with 19,120 tons of County biosolids, 320 tons of private biosolids, and 6,690 tons of grease trap waste for a subtotal of 26,130 tons. 74,030 tons of mix was placed at the working face with the balance of 34,615 tons comprised of unweighed residential greenwaste.

Organics Processing (OP) Facility Construction

A portion of the Phase III site operates as an organics processing facility where a low permeable soil surface was placed for greenwaste receiving and grinding and mixing with biosolids and grease trap waste. Rojac Construction was contracted for the surface placement work for \$875,177 early in FY 2021 and finished by December 2021. The Environmental Protection and Sustainability Division contracted with A-Mehr in FY 2020 for \$88,855 for relocation services. A-Mehr provided construction quality assurance services for \$182,865 with \$26,430 added in FY 2021.

Phase III-A Construction

Phase III design and permitting was contracted to A-Mehr Inc. for \$250,000 in FY 2019 with \$268,310 added in FY 2020. The project was bid in July 2020 and Alpha Hawaii was contracted for \$6,913,040.67 in December 2020 with construction commencing in March 2021 and substantially complete by November 2021. Prior to construction soil sampling and testing was done by Element Environmental for \$55,912 with a report made to the Department of Health (DOH). Public notification of the operating permit issued by DOH was made in July 2021. Filling with the fluff layer commenced in December 2021. Additional contractor work totaled \$1,462,052.07 for a total price of \$8,375,092.74. Construction work continued with lining the bottom portion of the Phase II slope. Construction quality assurance (CQA) monitoring and reporting was done by A-Mehr for \$430,925 with \$198,000 added in FY 2021.

Phase III-B Design

Phase III-B design was contracted to A-Mehr for \$250,000 using FY 2021 funds. Phase III-B will replace the OP facility in July 2023.

Gas Collection and Control System (GCCS) Design and Construction

Tetrattech was contracted with FY 2021 funds for \$111,899 for design and CQA work to cut and cap gas wells and/or place remote well heads on the Phase II slope. This work was included in the Alpha contract for \$1,568,060 using FY 2021 funds for landfill gas well drilling and installation on Phases IV and V. The work began in November 2021.

Part 2: Project Compliance

Condition 1: That the adjacent Kalialinui Gulch shall not be disturbed by the activities of the sanitary landfill with the exception of drainage from storm generated runoff.

Report: The Gulch was cleared of any remaining litter due to landfill operations when Phases I and II were closed in 2006. No further landfill activity directly abuts the Gulch. The fenced and paved perimeter road buffers the Gulch from the grass covered landfill.

Condition 2: That appropriate monitoring of the quality of water to be discharged into Kalialinui Gulch from drainage basins shall be undertaken to assure that toxic wastes are not part of the discharge.

Report: Any stormwater discharged into Kalialinui Gulch is tested for parameters required by NPDES permits. Detention ponds have had adequate storage capacity to hold run-off from both the composting facility and closed landfill during storm events. Capacity for Phase III operations is achieved by routing stormwater to the CML basin.

Condition 3: That in the preparation of the sanitary landfill, the landfill floor shall be further compacted and be made relatively impervious to water in order to contain leachate. Proper disposal methods of leachates shall be installed within the landfill.

Report: A riser pipe and perforated pipes running laterally from its base were placed at a low point in the landfill floor after excavation of waste to locate the original leachate collection pipe. Leachate has not been observed, due to the dryness and depth of waste, low rainfall, and warm temperatures. The landfill was constructed with a compacted floor and piped leachate collection system which was not located during the exploratory excavation at the low point conducted in 2004.

Condition 4: That a traffic assessment shall be developed to determine the impact on Pulehu Road once the sanitary landfill is operating. This assessment shall be completed no later than one year after said landfill is in operation. Findings of the assessment shall be submitted to the County of Maui's Department of Planning for review.

Report: This was completed by R. M. Towill as part of their original design work in 1986. HDR Engineering, Inc. was contracted in May 2019 to count traffic volumes at the landfill entrance and evaluate the need for a left-turn lane on Pulehu Rd.

Condition 5: That the Applicant shall stop work on the sanitary landfill and immediately contact the Department of Land and Natural Resources, Historic Sites Division, in the event that any previously unidentified historic, archaeological or cultural sites are encountered.

Central Maui Landfill FY2021 LUC Annual Report for SP86-359

Page 3

Report: No previously unidentified historic, archaeological, or cultural sites were found.

Condition 6: That appropriate internal vehicle circulation patterns shall be designed so as to not cause confusion and congestion within the sanitary landfill.

Report: Phases I and II are closed to all traffic except for monitoring and maintenance. Phase III roadways will be improved as part of the construction of the new III-A landfill.

Condition 7: That full compliance with the requirements of the State's Department of Health for sanitary landfill operation shall be rendered.

Report: Phases I and II were closed according to Department of Health (DOH) rules and regulations. Phase III will operate with a DOH permit.

Condition 8: That appropriate rules shall be established to prohibit scavenging within the sanitary landfill.

Report: Phases I and II are closed to the public and capped according to regulations. Phase III will have controlled access.

Condition 9: That appropriate mitigative measures to control excessive dust generation shall be implemented.

Report: Phases I and II are covered with drought-resistant grass and has paved roads. There are no areas with exposed soil which would generate dust. Periodic rainfall replenishes vegetated cover. Operations in Phase III will control dust with water trucks.

Condition 10: That provisions shall be enacted to ensure emergency access to the sanitary landfill in case of fire or any other disaster.

Report: The Fire Dept. on Dairy Road has keys to the landfill in case of a problem.

Condition 11: That warning signs shall be clearly posted near all entry points of the landfill to indicate any blasting activity on the adjacent rock quarry.

Report: Blasting contractors post signs and restrict traffic during blasting activities; the active quarrying is on the other side of Phase I and II from the public access side.

Condition 12: That full compliance with any other applicable government requirements shall be met.

Report: New Source Performance Standards (NSPS) are followed for landfill gas measurement, for wells within the landfill, surface emissions from the cover, and

Central Maui Landfill FY2021 LUC Annual Report for SP86-359

Page 4

perimeter gas probes. Sampling and metering of perimeter probes are done quarterly and reports are made to the Department of Health, Solid Waste Branch. Landfill gas is piped to the flare at Phase IV, which is monitored according to its Clean Air permits.

Condition 13: Petitioner will submit to the Commission a letter from Ameron HC&D requesting an amendment to the Special Permit issued under docket No. SP77-271 to delete a portion of land consisting of the Property, currently approved for quarrying purposes, for the establishment of the Project, pursuant to Section 205-6, Hawaii Revised Statutes.

Report: This was completed at that time.

Condition 14: Permitted activities shall include the processing of special waste into marketable materials, such as biodiesel and compost, as an additional use under the special permit.

Report: Marketable materials are no longer produced on the Phase III site.

Condition 15: That the Applicant shall satisfy the County of Maui Department of Water Supply standards for fire protection.

Report: There are two fire hydrants connected to an on-site water tank with a constant minimum volume of water, which meets the County standards for fire protection at the OP facility.

Condition 16: That security safety measures including, but not limited to, the methanol tanks, onsite catalyst, and lab container shall be implemented due to the type of products used and produced onsite.

Report: As biodiesel production has been discontinued, these no longer apply.

Condition 17: That a combustible liquid tank permit shall be acquired and maintained, as necessary.

Report: This is no longer needed.

Condition 18: That the Applicant shall timely provide without any prior notice, annual reports to the Commission and the County of Maui Department of Planning in connection with the status of the uses approved under the special use permit and the Applicant's progress in complying with the conditions imposed herein. The annual report shall be submitted in a form prescribed by the Executive Officer of the Commission.

Report: Filing of this FY 2021 annual report complies with this condition.