

**CENTRAL MAUI LANDFILL  
STATE LAND USE COMMISSION  
FY2019 ANNUAL REPORT  
SP86-359**



## **Part 1: Project Summary**

### **Landfill Gas**

Landfill gas wells were monitored by the County's contractor, Cornerstone Environmental Group LLC, and reports submitted to the Department of Health (DOH), Clean Air Branch. Landfill gas is collected and piped to the flare installed near Phase IV of the Central Maui Landfill. The flare is routinely maintained with notifications sent to DOH when it is shut down for maintenance. Notifications are also made when any non-compliant event occurs. Landfill gas probes were also monitored to detect any lateral migration of landfill gas offsite and quarterly reports are submitted to DOH.

### **Co-composting and Fats, Oil & Grease (FOG)**

At Phase III of Central Maui Landfill, Maui EKO Systems continued co-composting greenwaste and biosolids in FY2019 for \$3,425,000 with \$30,000 added before the end of the fiscal year. Fats, oil, and grease (FOG) collection is subcontracted to Pacific Biodiesel for processing off-island. FOG is collected on-site for transport off-island for processing. Water from the de-watered FOG is piped into the biosolids bay.

## **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. Two separate detention ponds have had adequate storage capacity to hold run-off from both the composting facility and closed landfill during storm events.

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.

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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.

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. Traffic to the greenwaste receiving area, sludge bay and fats, oil, and grease (FOG) collection tanks goes through the Phase IV landfill entrance, across the Gulch, and directly to the receiving area for the particular materials. Traffic includes green waste disposers, sludge trucks, fats, oil, and grease trucks, compost customers, Maui EKO trucks, PacBio container trucks, employees.

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 regulations.

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.

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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 the vegetated cover so that it regenerates itself.

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: There is no public entrance to Phases I and II. Blasting contractor posts signs and restricts traffic during blasting activities.

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 perimeter gas probes. Sampling and metering are done quarterly and reports are made to the Department of Health, Clean Air Branch and Solid Waste Branch. Landfill gas is piped to the flare at Phase IV, which is monitored and maintained with notifications of down time made to the DOH.

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: For FY2019 County contractor Maui EKO Systems produced compost from 24,684.88 tons of County biosolids and related materials such as grit and lift station pumpings; 306.11 tons from private biosolids plants; 23,838.70 tons of greenwaste,

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pallets, and wood chips. Greenwaste quantities are estimated because residential customers are not scaled. Their subcontractor, Pacific Biodiesel, received 7,561.75 tons of commercial fats, oil, and grease (FOG). In FY2013 biodiesel production was transferred from Maui to Big Island. FOG is screened and dewatered before transport to the Big Island plant for processing into bunker fuel or biodiesel.

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

Report: There are two fire hoses connected to the on-site water tank, which meets the County standards for fire protection at the compost 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, the only materials stored on-site at Pacific Biodiesel are the fats, oil, and grease collected for transport to the Big Island plant.

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

Report: Permits issued by the County Fire Prevention Bureau are current.

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 FY2019 annual report complies with this condition.