### CENTRAL MAUI LANDFILL PHASE III

### SOLID WASTE FACILITY PERMIT APPLICATION

SUBMITTED TO
HAWAII DEPARTMENT OF HEALTH
PURSUANT TO
HAWAII ADMINISTRATIVE RULES,
CHAPTER 58.1

BY

#### **County of Maui**

Department of Environmental Management Solid Waste Division 2200 Main Street, Suite 225 Wailuku, Hawaii 96793



**SEPTEMBER 2019** 

#### CENTRAL MAUI LANDFILL PHASE III SOLID WASTE FACILITY PERMIT APPLICATION

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(COVERED SOURCE PERMIT NO. 0652-01-C)

# PART I APPLICATION FORM

### STATE OF HAWAII DEPARTMENT OF HEALTH ENVIRONMENTAL MANAGEMENT DIVISION SOLID AND HAZARDOUS WASTE BRANCH

#### PERMIT APPLICATION FOR SOLID WASTE FACILITY (NOT FOR PERMIT BY RULE)

This permit application was developed in accordance with the requirements of Hawaii Administrative Rules (HAR), Title 11, Chapter 58.1. In order for this application to be considered complete, completed Attachments P-1 through P-6 and filing fee must accompany this application form. Please read the general instructions before completing.

l.	Type of Application (check all that apply
	A Permit to establish a new facility BX Permit to modify an existing facility C Permit renewal with no modification D Permit renewal with modification E Change in Ownership F Other. Describe
II.	Existing pollution control permits and/or variance issued to facility:  LF-0074-13, Issued February 26, 2018  Cavared Source Permit 0652 01 C
	Covered Source Permit 0652-01-C
III.	General Information
	A. Name and address of the owner of the solid waste facility:  Department of Environmental Management  2050 Main St, Suite 2B, Wailuku, Hawaii 96793  Telephone: (808) 270- 8230  B. Name and address of the operator of the solid waste facility:
	Department of Environmental Management
	2050 Main St, Suite 2B, Wailuku, Hawaii Telephone: (808) 270-8230
	C. Name and address of individual authorized to act for the owner and operator: <u>Eric Nakagawa, Director, Department of Environmental Management</u>
	2050 Main St, Suite 2B
	<u>Wailuku, Hawaii 96793</u> <u>Telephone: (808) 270-8230</u>
	D. Name and address of landowner (If landowner is other than the owner/operato of the solid waste facility, include Attachment P-6):  Not Applicable
	Telephone:

Name and address of lessee, if appropriate

E.

Days per week: 6 days per week

Weeks per year: <u>52 weeks per year</u>

Operation is seasonal or irregular, describe:

Operation is continuous.

B.

C.

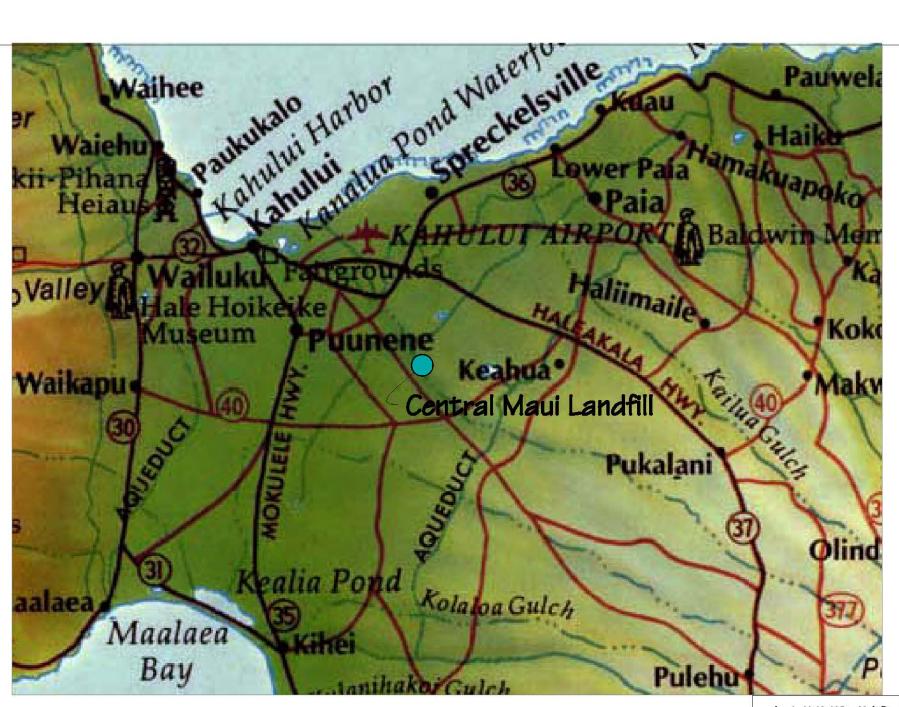
D.

V	Revised Statutes (	HRS) 8.1, "9		the existing facility in compliance with Hav 42I; and Hawaii Administrative Rules (HAF ement Control''?	
	11, Chapter 58.1, plan as an attachm not limited to area	"Solid nent to s of no	Waste Managemer the application. The Incompliance, reason	th HRS 342G, H and/or I; and/or HAR, Tit at Control", provide a detailed implementa the implementation plan should include but on for noncompliance, proposed actions tentation schedule, as an attachment to the	tion t is
VI.	Certification by o	wner	and operator:		4
We, _	Eric Nakagawa (name)		,	<u>Director, Environmental Management</u> (title)	(owner)
and _	(same) (name)	***************************************		(title)	perator)
and co as cor We fur operat Hawai Chapt share	orrect to the best of nfidential in nature rther state that we tion, maintenance ii Revised Statute er 58.1, and any p	of our shall will a closure, 342 permit	knowledge and b be treated by the issume responsib ure and post-closu G, H and I; and H issued thereof.	eby submitted and that the same are to elief, and that all information not identified. Department of Health as public recordility for the construction, modification, are of the facility in accordance with lawaii Administrative Rules, Title 11, as co-permittees, we understand that with aforementioned statutes, regulation	ified d. we
indivic corpoi an aut	lual who is a mem ration or a county, thorized represent	ber of	f the group shall s ficer of the corpo	other than a corporation or a county, or ign the application. If the applicant is ration, general manager of the facility, all sign the application.	а
Date:_	9130119	_	Owner: Signature:		
		fir		County of Maui, Department of Envi	
Date:_	11.77.27.27.27.27.27.27.27.27.27.27.27.27.	_	Address: Telephone: Operator: Title: Company Name:		96793

# PART II ATTACHMENTS P-1 - P-6

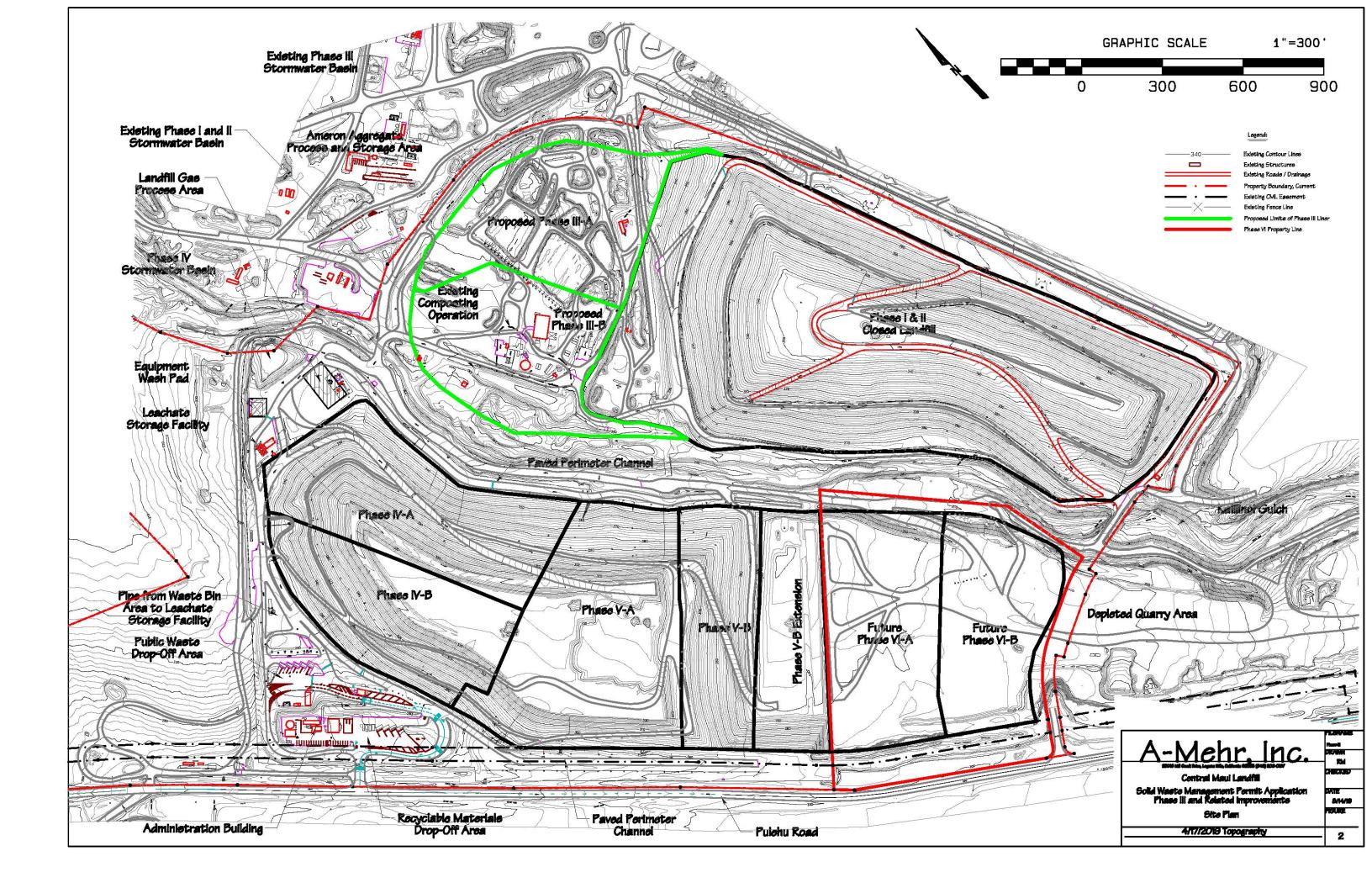
## ATTACHMENT P-1 LOCATION DRAWINGS

- 1. Vicinity Map
- 2. Site Plan



Location Drawing

	FIL
A-MEHR, INC 23016 MIII Creek Prive, Legura MIIIe, CA 92665 (949) 206-0157 (949) 206-9157 FAX Central Mayu Landfill	r⊷ DR.
Solid Waste Management Permit Application Phase III and Related Improvements	DA 7/2 FIG
Location Drawing	



# ATTACHMENT P-2 STATEMENT OF PUBLIC INTEREST

#### STATEMENT OF PUBLIC INTEREST

#### A. PURPOSE

This section addresses the requirements set forth by the Department of Health under Hawaii Revised Statutes, Chapter 342H, Section 4(c), which requires the Director of Health to determine that approving an application for a solid waste facility will "be in the public interest." The information contained in part (C) below addresses topics required by DOH to be addressed in order to determine whether approving the permit is in the public interest, based on considerations listed in HRS 342H, Section 4(c).

The following description of the Central Maui Landfill is incorporated in this section in order to provide a context for the discussion of public interest.

#### **B. PROJECT DESCRIPTION**

#### Introduction

Central Maui Landfill (CML) is the primary solid waste disposal facility for Maui. The permitted disposal area presently consists of approximately 83 acres, including approximately 42 acres of closed landfill in Phases I and II, and approximately 41 acres in the currently active areas of Phase IV, Phase V, and Phase V-B Extension.

Phase III is currently the location of a sludge and green waste co-composting operation, and a receiving and storage facility for fats, oils, and grease (FOG) which operates under a separate permit issued to Maui EKO Systems, Inc. (EKO), the 3<sup>rd</sup> party contractor responsible for its operation. The County plans to develop this area, located immediately to the north of the closed Phase I/II landfill, as intended in the original site development plan, as the Phase III disposal area of the CML landfill. The proposed Phase III disposal area, consisting of approximately 16.8 acres, will be constructed in two sub-phases: Phase III-A (approximately 8.3 acres) and Phase III-B (approximately 8.5 acres).

The County is projecting the current constructed disposal capacity in Phase IV, Phase V, and Phase V-B Extension will be depleted in 2021. Therefore, to ensure uninterrupted landfill operations, the Phase III-A area construction is projected to commence no later than the 2nd guarter of 2020.

Prior to commencement of the Phase III-A area construction, the County and EKO plan to reconfigure the co-composting operation into the 8.5 acres of the Phase III-B area. This reconfiguration will permit the removal of all composting-related operational activities from the Phase III-A area, permit commencement of construction of Phase III-A, and enable on-going operation of the compost facility. The reconfigured composting facility will operate at a capacity of approximately 1/3 of the current facility with the balance of the materials being landfilled. Also,

receiving/storage of FOG materials associated with off-site bio-diesel production will be discontinued due to space constraints.

In anticipation of the eventual construction of the Phase III-B area, the County is currently evaluating other locations to site the composting facility. Locations being considered will provide area adequate to develop operational capacity to process 100% of the on-island wastewater treatment sludge and 100% of the available green waste materials. The County intends to complete the siting selection, permitting, and construction of the relocated facility prior to commencement of Phase III-B construction currently projected for 2023.

As the composting facility is permitted under its own SWMP, the facility reconfiguration and relocation activities, described above, will be addressed separately from the Phase III disposal area.

This Application for a modified Solid Waste Management Permit is submitted to provide the County of Maui authority to construct and operate Phase III, as described above, and continue waste disposal operations in Phase IV, Phase V, and Phase V-B Extension.

#### C. PUBLIC INTEREST CONSIDERATIONS

#### 1. Environmental Impact

A Final Environmental Impact Statement (EIS) was prepared and certified in March 1986 for the establishment of CML, which included Phases I, II and III.

A Final Environmental Impact Statement was prepared and certified in April 1996 for the expansion of CML to include Phases IV, V and VI. It identified beneficial impacts of the project consisting of continuing long-term operation of a central landfill without need to establish a new site, and protection of public health by providing a new facility that would prevent other landfills from exceeding their design capacity. Potential adverse impacts related to groundwater, surface water, litter, traffic and other issues were considered and determined to be minimized or mitigated by facility design and operational procedures. The overall assessment of the EIS was that the benefits significantly surpass the adverse impacts.

Table P2-1 summarizes the potential impacts of the project in relation to the environmental impact significance criteria of HAR 11-200-12(b).

#### 2. Unavoidable Adverse Impacts

The initial landfill EIS and the EIS for the CML expansion addressed the following unavoidable impacts and corresponding mitigation measures:

- Leachate production and water quality drainage control, liner system, leachate management system and operating procedures to minimize leachate production and prevent its release to the environment.
- Erosion grading, effective application of cover soil, and drainage controls.
- Flora and fauna daily cover procedures to minimize attraction of birds and animals to the landfill.
- Visual impact cover application on the active landfill, fencing and vegetative screening along Pulehu Road.
- Air quality and odors effective application and maintenance of daily cover, dust control measures, and control of landfill gas.
- Litter effective compaction and covering of waste, portable and permanent litter control fencing, litter collection program.
- Economy managing capital expenditures by constructing the landfill in phases.
- Archaeological and historic sites none expected since the site was previously disturbed for quarry activities and prior to that utilized for sugar cane cultivation, but caution is to be taken during landfill construction to identify and manage any remains or historic sites that may be unearthed.

#### 3. Alternatives to the Proposed Action

The expansion EIS evaluated alternatives to expanding the existing landfill, including: alternative locations, waste disposal by incineration, waste shredding prior to disposal, composting, pyrolysis, and recycling. It concluded that recycling and composting were appropriate technologies that would be implemented to reduce the volume of waste requiring disposal, and that the proposed expansion at the CML site was the most favorable alternative for disposal of the remaining waste stream.

The County's Integrated Solid Waste Management Plan (ISWMP) establishes enhanced goals for waste diversion, and proposes future development of a waste-to-energy facility to manage a portion of the waste stream. It recognizes however the continued need for development and operation of CML both for short and intermediate term disposal, until alternative management options are fully developed, and for long-term management of waste that is unsuitable for processing and for disposal of residuals from a waste-to-energy facility or other alternative technology facility.

4. Relationship Between Short Term Uses and Long-Term Productivity

The expansion EIS addressed this topic and concluded as follows:

"The implementation of the proposed project will not result in a significant loss of environmental resources. Although the landfill project would permanently limit the use of the land, the project would aid in the enhancement and maintenance of the Island of Maui in the long term. This project is essential in sustaining the island's population, social and economic growth. There does not appear to be an economical and feasible alternative to the proposed action."

Irreversible and Irretrievable Commitments of Resources

Both the initial EIS and the expansion EIS identified the commitment of land as the major irreversible commitment of resources for development of Phases I through VI, while noting that its previous use as a quarry has rendered it unsuitable for other uses. It also noted the expenditure of financial resources for construction of the landfill and related facilities.

6. Optimum Balance Between Economic Development and Environmental Quality

As the only existing municipal solid waste disposal facility serving the island of Maui (other than the remote Hana area), CML is essential to the ongoing economic and environmental health of the island. Although other alternative means of disposal may be developed in the future, the proposed development of Phase III is necessary to provide continued safe and reliable management of solid waste after 2021 when the capacity of the existing permitted area is projected to be exhausted.

7. Consistency with the State Integrated Solid Waste Management Act (HRS 342G) and the County's Approved Integrated Solid Waste Management Plan (ISWMP)

In addition to the disposal areas, CML contains facilities for residents to drop off recyclable materials, and houses the primary facilities for managing green waste and sludge on the island of Maui. The CML is designated in the County's ISWMP as the primary disposal site for the foreseeable future.

8. Public Input Relating to the Impact of the Facility on Public Health and the Environment

The County of Maui will hold one or more public hearings on the amended Special Use Permit as required by law. Records of public comments received at hearings will be submitted as an amendment to this Application.

#### **Table P2-1 (continued)**

Table P2-1
Evaluation of Environmental Impact Significance Criteria of HAR 11-200-12(b)

No.	Criteria Description	Evaluation of Central Maui Landfill Phase Phase III
1	Involves an irrevocable commitment to loss or destruction of any natural or cultural resource	The Phase III area has been the location of a composting operation since 1993. The site has previously been disturbed via the operation of an aggregate quarry to extract the only known natural resource, rock and aggregate. The previously landfilled Phase I & II were excavated to a depth of approximately 40 to 50 feet below original ground surface. Most portions of the Phase III area were not mined as significantly but were largely disturbed through use of the area for quarry operational support functions. Prior to the quarry operations, the entire CML property had been utilized for agriculture with the associated disturbance of the upper soil layers. There are no known cultural resources on any portion of the CML site.
2	Curtails the range of beneficial uses of the environment	The site is a portion of a former aggregate quarry operation. It will be returned to use as passive open space at the end of the useful life of the proposed landfill.
3	Conflicts with the state's long-term environmental policies or goals and guidelines	The development of environmentally secure solid waste disposal facilities is a significant and stated component of the state's long-term planning goals.
4	Substantially affects the economic welfare, social welfare, and cultural practices of the community or State	The landfill will continue to provide employment opportunities for local residents, and maintain the current operation of a solid waste disposal facility at the site.
5	Substantially affects public health	Environmental controls relative to air emissions, leachate and surface water management, and control of vectors will ensure no adverse impacts on public health.
6	Involves substantial secondary impacts, such as population changes or effects on public facilities	The project is a continuation of landfill development and operation at the site since 1987. Incremental impacts of the Phase III development are not significant.

#### **Table P2-1 (continued)**

7	Involves a substantial degradation of environmental quality	Construction and operation of state-mandated controls relative to stormwater, litter control, air emissions and groundwater protection will prevent significant environmental degradation.
8	Is individually limited but cumulatively has considerable effect upon the environment or involves a commitment for larger actions	There are no cumulative impacts. The proposed landfill will provide essential environmental infrastructure meeting the needs of the Island of Maui.
9	Substantially affects a rare, threatened, or endangered species, or its habitat	There are no known threatened or endangered species in the vicinity.
10	Detrimentally affects air or water quality or ambient noise levels	Construction and operation of state-mandated controls relative to stormwater, litter control, air emissions and groundwater protection will prevent significant environmental degradation.
11	Affects or is likely to suffer damage by being located in an environmentally sensitive area such as a flood plain, tsunami zone, beach, erosion prone area, geologically hazardous land, estuary, fresh water, or coastal waters	The site is adjacent to the flood plain of the Kalialinui Gulch. A flood plain study has been conducted and appropriate mitigation measures have been implemented. The site is not located in a tsunami zone, an erosion prone area, a geologically hazardous area, an estuary, fresh water, or coastal waters.
12	Substantially affects scenic vistas and viewplanes identified in county or state plans or studies	The area is not identified as a scenic vista or viewplane.
13	Requires substantial energy consumption	Energy consumption requirements of landfills are nominal, generally limited to diesel fuel required for operating equipment and electrical power required for a modest compliment of administrative and support facilities.

#### **ATTACHMENT P-3**

# SITE ANALYSYS, FACILITY DESIGN, OPERATIONS PLAN AND GROUNDWATER MONITORING PLAN

Please see separately bound volume titled: Operations Plan for Central Maui Landfill

#### **ATTACHMENT P-4**

## CLOSURE AND POST-CLOSURE PLAN

Please see separately bound volume titled: Closure and Post-Closure Plan, Central Maui Landfill

# ATTACHMENT P-5 ZONING CLEARANCE FORM



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### ATTACHMENT P-5 ZONING CLEARANCE FORM SOLID WASTE PERMIT APPLICATION

COUNTY OF MAUI DEPT. OF PLANNING

#### TO THE APPLICANT:

Please be advised that a requirement for the issuance of a solid waste management permit in Hawaii is that the facility meets local ordinances and zoning requirements, including the recording of its disposal facility with the Bureau of Conveyances.

In order that the SHWB may determine whether the facility is in compliance with local land use policy, we require that this attachment be completed and signed by the appropriate county land use/planning agency (on Oahu, contact the Department of Planning and Permitting). No permit will be issued unless this form has been properly completed and returned. If a Use Permit or SMA Permit is required, submit a copy of said permit with this form.

Name of Applicant: Cou	nty of Maui. Department of Environmental Management
Name and phone number Eric Nakagawa, Dire	er of primary contact for applicant: ctor (808) 270-8230
Address of proposed fac Pulehu Road, Puune	
Tax Map Key: TMK (2	) 3-8-0-03: 4,19, 20, 25
	facility [e.g., waste processing, waste storage (indoor or outdoor), waste disposal, etc.): Municipal Solid Waste Disposal
COUNTY AGENCY AP	PROVAL:
The Current Zoning of	the Proposed site for the Proposed Activity / Facility / Operation is:
Allowed	Identify Approved Use Permit/SMA, other Restrictions/Limitations:LUC Docket No. SP97-390; CUP 2008/0003; SUP1 960009
Not Allowed	Reason (ex: Use Permit/SMA required, application pending, etc.):
Name: Jay A	ratawa
Title: Zonia	luspector
Agency: County of M	aui Planning
Signature:	M
1/ /	

Rev. 1/2005

### ATTACHMENT P-6 PROPERTY OWNER APPROVAL FORM SOLID WASTE PERMIT APPLICATION

#### TO THE APPLICANT:

In order that the SHWB may determine whether the property owner and/or master lessee is knowingly allowing the proposed solid waste activity, we require that this attachment be completed and signed by the property owner and the master lessee, if appropriate. No permit will be issued unless this form has been properly completed and returned.

Name of Applicant: County of Maui, Department of Environmental Management
Name and phone number of primary contact for applicant:  Eric Nakagawa, Director (808) 270-8230
Address of proposed facility: 1 Pulehu Road, Wailuku, Maui, Hawaii 96784
Tax Map Key: <u>TMK (2) 3-8-03: 19</u>
Description of proposed facility [e.g., waste processing, waste storage (indoor or outdoor), recycling, composting, waste disposal, etc.): Municipal Solid Waste Landfill
PROPERTY OWNER / MASTER LESSEE APPROVAL:
I/We certify that I/we have knowledge and approve of the applicant's proposed solid waste management facility for the subject location. I/We further certify that I/we fully understand the requirements under HAR Chapter 11-58.1, Subchapter 6, such that I/we am/are also responsible for the aesthetic, nonhazardous sanitary storage, and removal of solid waste to approved solid waste management facilities.
If the property owner/master lessee is a partnership or group other than a corporation, a county or state entity, one individual who is a member of the group shall sign this form. If the property owner/master lessee is a corporation, a county, or a state entity, an officer of the corporation, or an authorized representative of the county or state shall sign this form.
Property Owner:  Name of Authorized Representative:
Master Lessee: Name of Authorized Representative: Not applicable – property owned by Applicant Signature: Date: Title: Title: Company Name: Address: I ease/approval:

## PART III DESIGN REPORT

Please see separately bound volume titled: <u>Design Report, Central Maui Landfill, Phase III</u>

## PART IV DETAILED DESIGN DRAWINGS

Please See Attachment P-3 (Operations Plan, Appendix A) for Design Plans for Existing Facilities

Please See Part III (Design Report, Appendix A) for Design Plans for Phase III Disposal Area

#### **PART V**

## TECHNICAL SPECIFICATIONS AND CONSTRUCTION QUALITY ASSURANCE PLAN

Please See Part III (Design Report, Appendix B) for Technical Specifications and Construction Quality Assurance for Phase III Disposal Area

# PART VI AMENDED DESIGN CAPACITY REPORT

#### **CENTRAL MAUI LANDFILL**

#### AMENDED DESIGN CAPACITY REPORT

SUBMITTED TO
HAWAII DEPARTMENT OF HEALTH
PURSUANT TO
COVERED SOURCE PERMIT,
NO. 0652-01-C

BY

#### **County of Maui**

Department of Environmental Management Solid Waste Division 2200 Main Street, Suite 225 Wailuku, Hawaii 96793



**SEPTEMBER 2019** 

#### SUPPLEMENTAL REPORT FORM MODIFICATION/RECONSTRUCTION OF MSW LANDFILL **COVERED SOURCE PERMIT NO. 0652-01-C**

For	(Make copies for Future Use) Period: Date: 9-20-2019
	lity Name: Central Maui Landfill
	lity Location: Pulehu Road, Puunene, Maui, Hawaii
	I certify that I have knowledge of the facts herein set forth, that the same are true, accurate and complete to the best of my knowledge and belief, and that all information not identified by me as confidential in nature shall be treated by the Department of Health as public record.  I certify that no air pollution equipment will be added to the facility and operational methods will remain similar as permitted under this Covered Source Permit.
	I certify to comply with each applicable requirement of this Covered Source Permit.
	ponsible Official (Print): Eric Nakagawa, P.E.
	Director, Department of Environmental Management, County of Maui
	ponsible Official (Signature): Slayne R. Jana Date: 9180/19
1.	Current design capacity of the landfill (m³ and Mg): 9,786,302 m^3; 8,318,357 Mg
2.	Current site-specific density (Mg/m³): 0.85 MG/m^3
3.	Description of the reconstruction or modification:
	See attached Part III: Design Report, Phase III
4.	Current lateral dimensions of the landfill (meters): 915 meters by 550 meters
TT -	Proposed lateral dimensions of the landfill (meters): 915 meters by 550 meters
	Current vertical limit of the landfill (meters): 119 meters
_	Proposed vertical limit of the landfill (meters): no change
5.	Projected date of construction commencement: 2020
6. -	Projected waste acceptance rate (Mg/yr): 217,942 Mg/year
7.	Include a site map of the landfill containing the following information: See attached Part III, Att
	a) Location of the landfill and area of proposed modification or reconstruction;

- b) Current lateral boundaries of the existing landfill;
- c) Proposed lateral boundaries of the expansion; and
- d) Current and proposed vertical dimensions of the landfill.