

**ECONOMIC DEVELOPMENT AND BUDGET COMMITTEE**  
**DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**  
**SOLID WASTE DIVISION**  
**FEBRUARY 6, 2020**



**SOLID WASTE DIVISION**

A DEDICATED TEAM  
 WHO PROUDLY MALAMA  
 OUR HEALTH, AIR, WATER & AINA

ADMIN • ENGINEERING • FISCAL • SAFETY

“Got Opala?  
 Just Holla!”

“We Get Ur Opala  
 Covered!”

COLLECTION • LANDFILL

County of Maui Environmental Management



RECEIVED AT EDB MEETING ON 02-06-2020  
 SAGE KIMONAGA; EDB-48

# SOLID WASTE DIVISION MANAGEMENT PRIORITIES AND OBJECTIVES

## SOLID WASTE DIVISION MISSION AND GOALS

*“To provide Public Health, Safety and Environmental Protection of Maui County’s Air, Land and Water, Through Effective and Sustainable Solid Waste Management Practices, Resources and Dedicated Team”*

<p><b>1) SAFETY</b> Employee safety Public and Environmental safety Facility, Equipment &amp; Infrastructure safety</p> <p><b>2) REGULATORY COMPLIANCE ENVIRONMENTAL PROTECTION</b> Meet all State, Federal &amp; County regulatory requirements, permits, mandates, &amp; procedures to maintain compliance</p>	<p><b>3) RESOURCE MANAGEMENT</b> Meet resource management needs for personnel, budget, equipment &amp; Infrastructure to build &amp; maintain: Reliability, Sustainability &amp; Efficiency</p> <p><b>4) NON-SAFETY, NON-COMPLIANCE RELATED SERVICES / PROGRAMS</b> Expansion of community services, refuse collections on non-County roads, beautification, grounds keeping, non-critical programs</p>
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County of Maui  
Fiscal Year 2020-2025 Capital Improvement Program



CBS No: CBS-5019

Project Name: Central Maui Landfill Expansion  
 Department: Department of Environmental Management  
 District: Wailuku-Kahului  
 Project Type: Sanitation  
 Anticipated Life: 20 years



Prior Years	Appr	Ensuing	Subsequent Years					Total
Expend/Encb	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	6-Year
0	0	12,500,000	0	0	0	0	0	12,500,000

**PROJECT DESCRIPTION**

Design, permitting (Hawaii Department of Health, Solid Waste Branch), and construction for Phase III at the Central Maui Landfill Facility. The Phase III expansion is expected to provide approximately 10 years of disposal capacity.

**PROJECT JUSTIFICATION**

Existing landfill capacity is anticipated to be exhausted in FY2022. Since the proposed Phase VI property is currently privately owned, it is imperative that Phase III be developed immediately in order to ensure continued landfill capacity beyond 2022.

**STRATEGIC PLAN ALIGNMENT**

**Department's Strategic Plan**

**Countywide Priority Results**

Ensure continuity of solid waste services for the Maui community. Responsibly manage solid waste in accordance with State and Federal regulations. Minimize risk to human health and the environment.

- A Suitable Public Infrastructure
- An Efficient, Effective, and Responsive Government
- A Prepared, Safe, and Liveable County
- A Healthy and Sustainable Community

**Operating Impact Narrative**

Additional access roads, drainage channels and landfill cover will need to be maintained. Leachate and landfill gas generated in Phase III will also need to be controlled, collected and monitored.

**FUNDING DETAILS**

Phase Description	Fund Code	Appr	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
New Construction	GB	0	12,500,000	0	0	0	0	0

**Schedule of Activities**

Activity	Start	End	Amount
Design	07/01/2018	01/01/2020	0
New Construction	07/01/2019	01/01/2020	12,500,000
<b>Total Capital Project Costs</b>			<b>12,500,000</b>
Total O&M Costs			75,000
<b>Total Capital &amp; Operating Costs</b>			<b>12,575,000</b>

**Methods of Financing (Ensuing + 5 Years)**

Funding Source	Amount
General Obligation Fund	12,500,000
<b>Total Funding Requirements</b>	<b>12,500,000</b>

**ECONOMIC DEVELOPMENT AND BUDGET COMMITTEE**  
**FEBRUARY 6, 2020 AMENDING FISCAL YEAR 2020 BUDGET**

**CENTRAL MAUI LANDFILL EXPANSION (EDB-48)**

(ALSO REFER TO ATTACHED CIP PROJECT DESCRIPTION SUBMITTED TO COUNTY COUNCIL DURING FY 20 BUDGET DELIBERATIONS)

**BACKGROUND:**

- **Construction expansion of Central Maui Landfill (CML)**
  - Our CML receives > 700 tons of trash every day
  - Just 2.5 years of airspace left. Immediate construction of additional landfill space is critical to ensure continuity of community services
  - Disposal of trash on any unpermitted land is illegal and will result in state violations and fines.

**PROJECT CURRENT STATUS:**

- Design and engineering studies completed.
- The Solid Waste Facility Application is completed and submitted to the Hawaii Department of Health (DOH) for Review.
- Construction specifications and bid documents are 95% complete and awaiting funding for construction contacting.

**ENCUMBRANCE PROJECTIONS UPON BOND FUNDING:**

- Once funding is released, the construction will be out for bid within 2-3 months.
- Soil sampling (required by the DOH) prior to constructing the new landfill. This work will be contracted upon release of funds.
- The timing of funding approval is critical. If released in February, all funds will be encumbered and in contract without any lapsing of funds

**FUNDING NEEDED:**

**\$12,500,000**

**County of Maui**  
**Fiscal Year 2020-2025 Capital Improvement Program**



CBS No: CBS-3567

Project Name: Central Maui Landfill Land Purchase

Department: Department of Environmental Management

District: Wailuku-Kahului

Project Type: Drainage

Anticipated Life:

Prior Years Expend/Encb	Appr FY 2019	Ensuing FY 2020	Subsequent Years					Total 6-Year
			FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	
0	0	200,000	2,000,000	0	0	0	0	2,200,000

**PROJECT DESCRIPTION**

The acquisition of this 17 acres completes the Central Maui Landfill subdivision parcel, approved by the County Development Services Agency in 2009. The additional land will allow for the development of a dedicated Emergency Debris Sorting and Recovery site and other ancillary facilities.

**PROJECT JUSTIFICATION**

The County does not currently have sufficient land for FEMA approved emergency debris management. A permanent solution with larger land area is needed to be prepared for future emergencies, as well as other landfill and refuse related infrastructure facilities. The land is currently available, as sugar cane cultivation has ceased in these fields adjacent to the Central Maui Landfill.

**STRATEGIC PLAN ALIGNMENT**

**Department's Strategic Plan**

**Countywide Priority Results**

This land acquisition meets the Departmental strategy of planning and implementing the necessary infrastructure investments to support a healthy and sustainable community. This land will allow the division to develop a FEMA approved debris management site to manage future disaster debris on a larger scale as well as have land available to handle construction and demolition reclamation responsibilities.

- A Suitable Public Infrastructure
- A Strong, Diversified Economy
- An Efficient, Effective, and Responsive Government
- A Prepared, Safe, and Liveable County
- A Healthy and Sustainable Community

**Operating Impact Narrative**

Operation impact will be defined by the permitted uses approved for the land by the County and State, and the staff tasked to perform them, whether contracted or hired.

**FUNDING DETAILS**

Phase Description	Fund Code	Appr	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Acquisition	GB	0	200,000	2,000,000	0	0	0	0

**Schedule of Activities**

Activity	Start	End	Amount
Acquisition	07/01/2019	12/31/2021	2,200,000
Planning	07/01/2018	12/31/2019	0
Total Capital Project Costs			2,200,000
Total O&M Costs			0
Total Capital & Operating Costs			2,200,000

**Methods of Financing (Ensuing + 5 Years)**

Funding Source	Amount
General Obligation Fund	2,200,000
Total Funding Requirements	2,200,000

Department: Department of Environmental Management

District: Wailuku-Kahului

**ECONOMIC DEVELOPMENT AND BUDGET COMMITTEE**  
**FEBRUARY 6, 2020 AMENDING FISCAL YEAR 2020 BUDGET**

**CENTRAL MAUI LANDFILL LAND PURCHASE (EDB-48)**

**(ALSO REFER TO ATTACHED CIP PROJECT DESCRIPTION SUBMITTED TO COUNTY COUNCIL DURING FY 20 BUDGET DELIBERATIONS)**

**BACKGROUND:**

- Acquisition of property adjacent to the Central Maui Landfill will provide the following needs and requirements:
  - FEMA approved emergency debris management in the event of a hurricane, tsunami or other disaster.
  - Decrease expenses associated with double handling, transport and processing of disaster debris and maximize FEMA reimbursement by having an approved site designated.
  - Provide a location for the diversion & management of abandoned vehicles, greenwaste, biosolids, and fats, oils and grease.
  - Location for future waste-to-energy and/or waste reduction projects.

**PROJECT CURRENT STATUS:**

- Appraisal for the proposed property has been completed.
- Contract for the Environmental Assessment has been executed.
- Scope of work for Environmental Assessment engineering services complete and awaiting funding for contacting.

**ENCUMBRANCE PROJECTIONS UPON BOND FUNDING:**

- Once funding is released engineering services for the Environmental Assessment will be contracted within a month.
- The timing of funding approval is critical. If released in February, all funds will be encumbered and in contract without any lapsing of funds

**FUNDING NEEDED:**

**\$200,000**

**County of Maui  
Fiscal Year 2020-2025 Capital Improvement Program**



CBS No: CBS-5495

Project Name: CML Phase VB Extension Leachate Recirculation System

Department: Department of Environmental Management

District: Wailuku-Kahului

Project Type: Sanitation

Anticipated Life: 20 Years



Prior Years	Appr	Ensuing	Subsequent Years					Total
Expend/Encb	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	6-Year
0	0	650,000	0	0	0	0	0	650,000

**PROJECT DESCRIPTION**

Any liquid that is contained within or come into contact with waste is leachate. Currently the Facility is permitted to dispose of leachate in one of three ways: 1) Disposal at a Wastewater treatment facility. 2) Sprayed on the open work face, and 3) to recirculate it back into the waste mass. This project proposes to provide the infrastructure to expand recirculation of leachate into the Phase VB Extension waste mass.

**PROJECT JUSTIFICATION**

The primary benefits to leachate recirculation are enhanced decomposition of waste, increasing landfill gas production & methane quality, and reduced personnel expenses associated with leachate disposal. Both disposal options 1 and 2 above require personnel to transfer leachate to tanker trucks and deliver to final disposal locations. The recirculation system will be automated, pumping leachate back into the landfill as required. Hydrogen contained in the liquids will be anaerobically converted into methane gas for incineration or other beneficial use. Furthermore, this project will reduce the potential for accidental discharges related to leachate transfer and transport.

**STRATEGIC PLAN ALIGNMENT**

**Department's Strategic Plan**

**Countywide Priority Results**

The project will provide a more responsive, effective and efficient government service.

An Efficient, Effective, and Responsive Government

**Operating Impact Narrative**

The project is expected to reduce operational burdens associated with leachate management.

**FUNDING DETAILS**

Phase Description	Fund Code	Appr	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Design	GB	0	150,000	0	0	0	0	0
New Construction	GB	0	500,000	0	0	0	0	0

**Schedule of Activities**

Activity	Start	End	Amount
Design	07/01/2019	12/31/2020	150,000
New Construction	01/01/2020	12/31/2020	500,000

**Methods of Financing (Ensuing + 5 Years)**

Funding Source	Amount
General Obligation Fund	650,000
<b>Total Funding Requirements</b>	<b>650,000</b>

**ECONOMIC DEVELOPMENT AND BUDGET COMMITTEE**  
**FEBRUARY 6, 2020 AMENDING FISCAL YEAR 2020 BUDGET**

**CENTRAL MAUI LANDFILL PHASE VB EXT. LEACHATE RECIRCULATION SYSTEM (EDB-68)**

**(ALSO REFER TO ATTACHED CIP PROJECT DESCRIPTION SUBMITTED TO COUNTY COUNCIL DURING FY 20 BUDGET DELIBERATIONS)**

**BACKGROUND:**

- The proposed project is for the installation of leachate piping (and associated infrastructure) in the landfill waste mass.
- The recirculation system automatically pumps leachate back into the landfill as required.
- Benefits to leachate recirculation include:
  - Reduced chance for accidental discharges and higher costs involved with transporting leachate to waste water treatment plants for disposal.
  - Enhanced decomposition of waste (reclaiming landfill capacity through settlement).
  - Increased landfill gas production & improved methane quality for future waste conversion projects.

**PROJECT CURRENT STATUS:**

- Preliminary design and engineering analysis have been completed.
- Leachate recirculation plans have been submitted to the Hawaii Department of Health (DOH) for Review.
- Scope of work for completion of bid documents and construction administration is complete.

**ENCUMBRANCE PROJECTIONS UPON BOND FUNDING:**

- Assuming funding is released in February, it will take 1-2 months for construction bid documents to be contracted.
  - The project can be bid out in 4<sup>th</sup> quarter of FY2020

**FUNDING NEEDED:**

**\$650,000**



**County of Maui  
Fiscal Year 2020-2025 Capital Improvement Program**



CBS No: CBS-5494

Project Name: CML Extension of Primary Litter Screen and Drainage Improvements

Department: Department of Environmental Management

District: Wailuku-Kahului

Project Type: Sanitation

Anticipated Life: 20 Years



Prior Years Expend/Encb	Appr FY 2019	Ensuing FY 2020	Subsequent Years					Total 6-Year
			FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	
0	0	500,000	0	0	0	0	0	500,000

**PROJECT DESCRIPTION**

Extension of the 50-foot tall litter screen along Pulehu Road property line to service the new Phase VB Extension disposal cell.

**PROJECT JUSTIFICATION**

In accordance with the Facility Solid Waste Management Permit, the operator shall "minimize free litter in the landfill and prevent its occurrence beyond the property line of the facility".

**STRATEGIC PLAN ALIGNMENT**

**Department's Strategic Plan**

**Countywide Priority Results**

This project will provide a safe and liveable County and a healthy and sustainable community.

A Prepared, Safe, and Liveable County  
A Healthy and Sustainable Community

**Operating Impact Narrative**

No impacts to operations are expected. Facility personnel will continue to erect primary, secondary and tertiary litter control structures and conduct regular fugitive litter collection.

**FUNDING DETAILS**

Phase Description	Fund Code	Appr	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Design	GB	0	150,000	0	0	0	0	0
New Construction	GB	0	350,000	0	0	0	0	0

**Schedule of Activities**

Activity	Start	End	Amount
Design			150,000
New Construction	01/01/2020	12/31/2020	350,000
Total Capital Project Costs			500,000
Total O&M Costs			0
Total Capital & Operating Costs			500,000

**Methods of Financing (Ensuing + 5 Years)**

Funding Source	Amount
General Obligation Fund	500,000
Total Funding Requirements	500,000

**ECONOMIC DEVELOPMENT AND BUDGET COMMITTEE**  
**FEBRUARY 6, 2020 AMENDING FISCAL YEAR 2020 BUDGET**

**CENTRAL MAUI LANDFILL EXTENSION OF PRIMARY LITTER SCREEN AND DRAINAGE  
IMPROVEMENTS (EDB-69)**

**(ALSO REFER TO ATTACHED CIP PROJECT DESCRIPTION SUBMITTED TO COUNTY COUNCIL DURING FY 20  
BUDGET DELIBERATIONS)**

**BACKGROUND:**

- This project will extend our 30-foot tall litter screen horizontally along Pulehu Rd. to service Phase VB Extension recently completed in April, 2019 as required by State Permit.
- The litter screen will capture fugitive litter from the site.
- Drainage improvements include construction of a paved perimeter channel around the new Phase to convey stormwater to retention basins while minimizing site erosion.

**PROJECT CURRENT STATUS:**

- Preliminary design and engineering analysis have been completed.
- Scope of work for completion of bid documents and construction administration is complete.

**ENCUMBRANCE PROJECTIONS UPON BOND FUNDING:**

- Once funding is released, it will take a month for construction bid documents and administration to be contracted.
- This project is expected to be bid out in 4<sup>th</sup> quarter of FY2020.

**FUNDING REQUESTED:**

**\$500,000**

**CENTRAL MAUI  
LANDFILL**

**EDB-48**

Additional property to properly manage disaster debris and support waste-to-energy and/or waste reduction projects.

**CENTRAL MAUI  
LANDFILL EXPANSION  
EDB-48**

Next lateral expansion to provide approximately 10 years of landfill airspace.

**CENTRAL MAUI LANDFILL  
LEACHATE RECIRCULATION  
SYSTEM**

**EDB-68**

Installation of piping to reintroduce collected leachate back into landfilled waste.

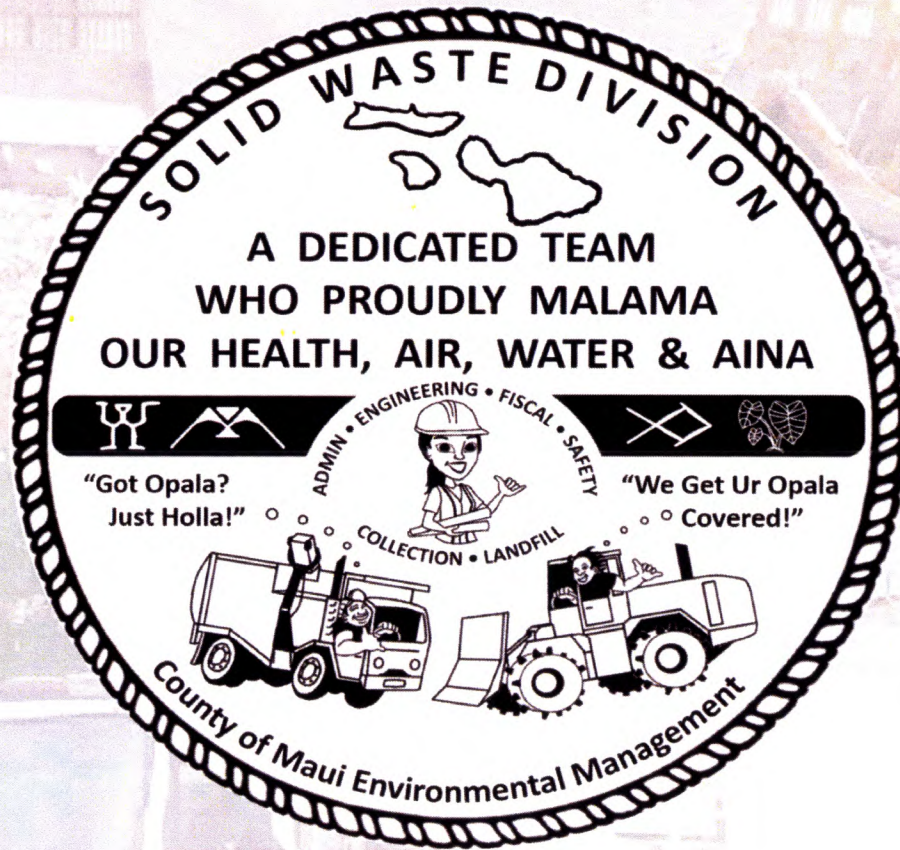
**CENTRAL MAUI LANDFILL  
EXTENSION OF PRIMARY  
LITTER SCREEN**

**EDB-69**

250 foot horizontal extension of the tall litter screen along Pulehu Rd.



Continued success is ensured through the sustained commitment from all stake holders, including our County Council, the Community, Administration, Department and Division.



MAHALO FOR YOUR SUPPORT

