

MICHAEL P. VICTORINO  
Mayor

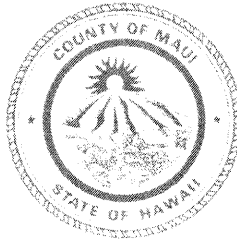
ERIC A. NAKAGAWA, P.E.  
Acting Director

SHAYNE R. AGAWA, P.E.  
Deputy Director

MICHAEL P. RATTE  
Solid Waste Division

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

TAMARA FARNSWORTH  
Environmental Protection &  
Sustainability Division



**COUNTY OF MAUI  
DEPARTMENT OF  
ENVIRONMENTAL MANAGEMENT**

2050 MAIN STREET, SUITE 2B  
WAILUKU, MAUI, HAWAII 96793

April 16, 2019

Ms. Michele M. Yoshimura *My*  
Budget Director, County of Maui  
200 S. High Street  
Wailuku, HI 96793

Honorable Michael P. Victorino  
Mayor, County of Maui  
200 S. High Street  
Wailuku, HI 96793

For Transmittal to:

Honorable Keani Rawlins-Fernandez  
Chair, Economic Development and Budget Committee  
Maui County Council  
200 S. High Street  
Wailuku, HI 96793

Dear Chair Rawlins-Fernandez:

**SUBJECT: REQUESTS/QUESTIONS FROM THE APRIL 11, 2019 MEETING  
(EM-14) (EDB-1)**

The County is in receipt of the above Economic Development and Budget (EDB) Committee requested information dated April 15, 2019. Your request and the corresponding answer is provided below by the Department of Environmental Management (DEM).

**1. Why is the responsibility of trash pickup on Molokai the responsibility of the Department of Public Works, rather than your Department's? (KK)**

Historically, solid waste management was a Division under Public Works. In 2002, the Department of Environmental Management was created, and Solid Waste and Waste Water Divisions were moved to DEM. Refuse (collection) Section went with SWD to DEM, and as a start, began providing services to heavily populated areas within the

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APPROVED FOR TRANSMITTAL

*Michael P. Victorino*

Mayor

Date

County. Due to the refuse pick up services just 2 days/week it's been determined most efficient to allow DPW to continue this support in that part time basis, rather than expanding staff at the Landfill.

**2. How many staffers does the Department of Environmental Management have on Molokai? (KK)**

Currently in the Wastewater Reclamation Division there are three (3) positions on the island of Molokai. Of the three positions, two (2) are filled and one (1) is vacant. The new employee is scheduled to start work on April 22, 2019, filling the vacant position.

Solid Waste Division has 5 positions on Molokai. This staff is fully utilized and needed full time and not able to add on refuse collection tasks. (Currently down to 2 staff due to long term sick and family leave however).

**3. Relating to CBS-5504 Hana Landfill Office Trailer and PV Expansion (page 671, Program Budget), provide a cost breakdown of how the \$450,000 in funds will be used. (KK/KRF)**

**HANA OFFICE TRAILER COST ESTIMATE**

The Hana location does increase the cost – and is factored in.

No MECO electricity is available on site. PV existing is currently undersized and needs expansion, including battery backup system. This adds significantly to the cost.

Currently office does not provide basic accommodations. No toilet, no sink, no shower/sanitary area, no space for staff, break room, meeting area, etc. Staff currently uses an outhouse and make shift hose/sink outside. The project scope has been kept to a minimum to meet these basic needs.

<b>Item No.</b>	<b>Description</b>	<b>Est. Cost</b>
1	24'x40' Office Trailer - Double wide office trailer, w/ office, conference room/break room, AC, and required ADA compliant restrooms, and lockers and shower for safety purposes. Interconnects to integrated PV system. Est. is based upon recent office trailer design/build price	\$265,000
2	Engineering design - Electrical and structural engineering for additional PV, structural supports, and battery backup system.	\$25,000
3	Photovoltaic System Expansion – Construction / installation of the PV system	\$110,000
4	Contingency to cover bid fluctuation and unknowns due to incorporation into existing electrical PV system	\$50,000
<b>TOTAL</b>		<b>\$450,000</b>

Any contingency and/or cost savings we can manage throughout the project we will certainly disencumber any remaining amounts in project.

**4. Relating to CBS-5019 Central Maui Landfill Expansion (page 686, Program Budget):**

**a. What impact does the Anaergia contract have on this project? (TP)**

Very little impact. There seems to be misunderstandings as to Anaergia's contract. With or without Anaergia, landfill capacity will always be needed. The only condition that may change is how long landfill airspace will last in the future.

**b. Why is the entire \$12.5 million required in FY 20? Can the work be completed in phases and funding appropriated over several fiscal years? (TP)**

Yes the project could be broken up into phases, however completing all at one time is far cheaper.

The nature of the design of a landfill is most efficiently constructed in one phase due to all the infrastructure that goes into the construction (tying in new land fill to existing closed landfills #1 &2, Lining systems, storm water retention basins, leachate piping and storage, gas collection systems, piping and pump system and related infrastructure). Phasing this would add roughly \$600k - \$1,000,000 to the overall cost.

Additional construction management and quality assurance	\$500,000
Additional Bid docs, bidding, contracting	\$150,000
Mobilization/demobilization	\$100,000
Materials, shipping, inefficiencies, etc.	\$ 50,000
Unknown construction industry pricing in future, etc.	<u>      ?</u>
	\$800,000

**c. What is the capacity of the current landfill, and what is the estimated timeframe for reaching that capacity? (YS)**

We will be out of landfill space est. 1st quarter 2022. Either Phase VI purchase OR existing County land on Phase III (displacing EKO composting) has to be turned into landfill space.

Our latest capacity calculations of remaining airspace as of mid-2018 is 1,100,000 cubic yards (cy). At 300,000 cy est. airspace consumed/year, capacity will be reached in early 2022.

Certainly increasing landfill diversion and recycling increases landfill life, however the current Anaergia project status and progress will not affect our existing capacity timeline. Responsible planning requires that the next lateral landfill expansion be available one year prior to exhausting capacity. It is imperative to start permitting and construct new landfill space immediately.

**d. Is the design for the landfill expansion already completed? (YS)**

Due to unknown land acquisition issues with Phase VI, the Department has to plan for both possible options. As discussed the options are Phase III OR Phase VI.

Phase III design is 95% completed, and has been submitted to the Department of Health for review and approval.

Phase VI design is 90% complete and could be submitted to DOH for review within 2 months.

**e. What is the anticipated timeframe for project completion? (YS)**

Phase III option: Assuming the CIP is approved by Council, and no DOH permitting delays, construction of Phase III could be completed March 2021.

Phase VI option: Assuming the CIP is approved by Council, the land acquisition plan is completed/committed to by both parties within the next month, and no DOH permitting delays, construction of Phase VI could be completed by December 2020.

**5. Relating to CBS-5019 Central Maui Landfill Expansion (page 686, Program Budget):**

**a. What impact does the Anaergia contract have on this project? (TP)**

Please see the response for question 4.a. above for CBS-5019.

**If Council was actually referring to CBS-3567:**

The proposed 17-acre acquisition proposed in CBS-3567 has nothing to do with Anaergia or any landfill expansion needs.

**b. Why is the County looking to purchase another parcel to expand the Central Maui Landfill? How is this purchase different from the Phase VI expansion plan? (KK)**

This project is unrelated to landfill capacity expansion.

The 17-acres is for FEMA emergency debris receiving, stockpiling and processing and to provide for other landfill and refuse related infrastructure facilities such as site access, drainage, storage and stockpiling.

**c. Is the Department working on a land swap to acquire land for Central Maui Landfill operations? (KK)**

SWD has no current land available for swap.

**d. Please provide more detail on the Central Maui Landfill Phase VI expansion plan. (KK)**

See above responses also. The County is preparing concurrent designs for Phase III & VI. Phase III is on currently owned land. Phase VI is on private land. Like previous phases IV and V, follow the previously quarried area adjacent to Pulehu Road. Most modern landfills follow this model, where landfilling follows quarrying, filling the cavity left behind, and is a more cost effective option.

**e. Is this project an attempt to improve debris management as a result of lessons learned from the Iao Valley flood in 2016? (KK)**

CBS-5019 provide additional landfill capacity.

CBS-3567 will address urgent County of Maui land requirements to provide for environmental emergency debris management. It is not an attempt to address lessons learned from the Iao Flood, although that flood did require the County to react and respond with setting up an emergency debris site. That site constituted land that the County used temporarily via an emergency lease from A&B (on this very property that we wish to purchase now). If not purchased by the County, it will most likely be sold to another party for other uses. And again the County would lose out on lands needed for environmental protection and disaster management.

**f. What is the Department's emergency debris management plan? (TP)**

The County of Maui has a Disaster Debris Plan (not the Department per se.), in accordance with FEMA. Each County Department has responsibilities under the plan. The Solid Waste Division is required to receive, process and recycle potentially massive tonnages of debris delivered by other departments, agencies, including State, Federal, Army Core of Engineers, National Guard, etc.

The plan is intended to provide minimum resources and action items to respond to the numerous natural and technological hazards including tsunamis, hurricanes, high winds, earthquakes, large scale fires and other

disruptive and/or major domestic crises. The Disaster Debris Plan will also allow the County to qualify for FEMA reimbursements.

**6. Regarding CBS-5034, the Wailuku-Kahului Recycled Water Pump Station:**

**a. Is the treated effluent pumped by the pump station R-1 water? (KK)**

Initially the water will be R-2 quality and will be sent to soil aquifer treatment basins (CBS-5033) for disposal instead of using the onsite injection wells. Ultimately, the water will be of R-1 quality once an upgrade to the Wailuku/Kahului Wastewater Reclamation Facility is completed in 2028 (CBS-1169 Wailuku/Kahului WWRF R-1 Upgrade).

**b. Who are the potential users of the treated effluent, and will they pay for the water? (KK)**

Once R-1 water is available users could include the diversified agriculture farmers on former sugar cane fields, the Maui Lani Golf Course, and possibly the future County Regional Park in the Waikapu area.

**7. Relating to CBS-1124 West Maui Recycled Water System Expansion (page 708, Program Budget), please provide a detailed plan for this project, and an estimate of what percentage of the project has been completed. (TP)**

The project scope has shifted from simply expanding reuse to instead accommodating the County's goal to reduce/eliminate injection well usage. In order to accomplish this, the County must reliably produce safe useable recycled water on a daily basis, pump it to large storage facilities and then distribute it to large volume customers that require it on a consistent (daily) basis. This approach will require a redundant and dependable process to produce R-1 quality water, new infrastructure to distribute it and agreements with willing end users to take and use the water.

Phase 1A - Expanded the ultraviolet (UV) disinfection process to have the capacity to treat all current flows to R-1 quality. (Completed)

Phase 1B - (FY2020) is to create a pressurized distribution system that makes water available 24 hours a day, 7 days a week for current and potential customers in the Kaanapali/Honokawai area. This includes:

- (1) either the construction of a tank (200' elevation), or conversion of an existing reservoir for storage (300' elevation),
- (2) upgrade of the current R-1 pump station,
- (3) construction of a force main/pressure reducing station, and

- (4) other minor system modifications to accommodate conversion of the current pipe network .

This phase of the project is approximately 40% designed.

Phase 2 - (FY2022) Construction of a pump station to send water to the existing County 700' elevation reservoir, reservoir modifications, force main, siphon rehabilitation, ditch improvements. (Planning stage)

Phase 3 - (Design FY2020, Construction FY2022) CBS-3576 - Lahaina WWRF R-1 Process Expansion. This includes expansion of UV capabilities to handle increasing peak flows, flow equalization basin construction, filter process expansion and associated plant improvements.

Phase 4 - (Design FY 2023, Construction FY2025) CBS-3201 Lahaina WWRF Onsite Recycled Water Storage. Construction of additional in-plant storage to handle larger flows and optimize pumping efficiency.

**8. Relating to CBS-5548 Lahaina Wastewater Reclamation Facility Emergency Generator (page 714, Program Budget):**

**a. What is the source of the grant for this project? (KK)**

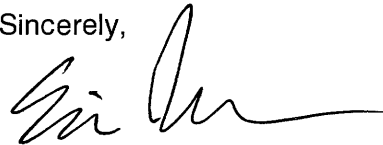
State of Hawaii - Hawaii Emergency Management Agency (State of Hawaii - HEMA)

**b. What is the size of the generator? (KK)**

This is a 500KW emergency generator

Thank you for the opportunity to provide you with information on this matter. Should you have any questions or concerns, please feel free to transmit them to the Department of Environmental Management via transmittal through the Office of the Mayor.

Sincerely,



ERIC A. NAKAGAWA, Acting Director  
Department of Environmental Management