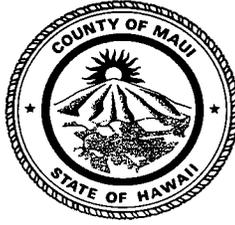


ALAN M. ARAKAWA  
Mayor  
STEWART STANT  
Director  
MICHAEL M. MIYAMOTO  
Deputy Director



MICHAEL P. RATTE  
Solid Waste Division  
ERIC NAKAGAWA, P.E.  
Wastewater Reclamation Division

**COUNTY OF MAUI  
DEPARTMENT OF  
ENVIRONMENTAL MANAGEMENT**

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

April 13, 2018

Mr. Sananda Baz *SB*  
Budget Director, County of Maui  
200 South High Street  
Wailuku, Hawaii 96793

Honorable Alan M. Arakawa  
Mayor, County of Maui  
200 South High Street  
Wailuku, Hawaii 96793

APPROVED FOR TRANSMITTAL

*Alan Arakawa* *4/12/18*  
\_\_\_\_\_  
Mayor Date

For Transmittal to:

Honorable Riki Hokama  
Chair, Budget and Finance Committee  
Maui County Council  
200 South High Street  
Wailuku, Hawaii 96793

Dear Chair Hokama:

**SUBJECT: REQUESTS/QUESTIONS FROM THE APRIL 3, 2018 MEETING  
(EM-5) (BF-1)**

The County is in receipt of the above Budget and Finance (BF) Committee requested information dated April 6, 2018. Your request and the corresponding answer is provided below by the Department of Environmental Management (DEM).

1. *Provide the initial cost for the wastewater treatment system pilot project. Include a breakdown of costs by project phase.*

The pilot system will process 100 gallons/day (GPD). The pilot project is intended to last 4 months, testing the UV, R1, R2 & RO systems. The effluent from the system will be sample and tested. The remainder will be disposed of back into the existing tank & pumped out. Here is a breakdown of the estimated costs:

Engineering Final Report: \$ 75,000.00

Furnish Rental Pilot System: \$ 150,000.00

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Installation: \$ 12,000.00

Operations: \$ 8,000.00

Total estimated Budget: **\$245,000** with tax and freight

2. *Provide the cost for a full capacity system for the Helene Hall facility. Include a breakdown of costs by project phase.*

The full system should process an average of 1,000 GPD. The system should also be able to accommodate a weekend peak of 2,000 GPD. The design will provide additional capacity to 2,500 GPD. The system must be National Science Foundation (NSF) approved which then becomes HDOH approved. The disposal of the effluent will depend on the system selected and accepted by the community. Here is a breakdown of the estimated costs:

Equipment Cost:	\$300,000
Engineering and Permitting:	\$200,000
Electrical Install:	\$20,000
Civil, Excavation, Structural Pad:	\$130,000
Mechanical Install:	\$70,000 (includes trenching)
Startup commissioning, training, water quality testing, DOH report/inspect:	\$20,000
Taxes:	\$30,000
<b>Total estimated Budget:</b>	<b>\$835,000</b> (with tax and freight)

Currently the tank is pumped out once a week at a cost of \$1,000. The full system will be monitored every other month for effluent quality and system functionality. There will be regular 6 month maintenance and once a year pump out at a cost of \$1,000. This will reduce the pump out costs by \$51,000. The estimated monthly electrical costs for the full system is \$100. The estimated annual operational and maintenance cost is \$3,000 ± per year.

The anticipated project development process will be:

- Contract consultant to select three individual wastewater treatment systems currently in operation and NSF approved
- Reach out to Hana Community to share selected system

- If community agrees, move on to design
- If community disagrees, discuss other systems
- Contract design consultant and land use entitlement consultant for permits
- Contract construction contractor to install selected system
- Contract testing/monitoring consultant for data collection relative to wastewater effluent (sampling and testing)

3. *Provide a timeline for the proposed pilot project.*

The anticipated timeline for the Pilot Project is as follows:

- |  |          |
|--|----------|
| • Evaluation of Existing Technologies/Engineering Report and meet with community | 8 weeks  |
| • Select Pilot System Manufacturing and Delivery to Site                         | 16 weeks |
| • Install Pilot Unit   | 3 weeks  |
| • Testing Operations   | 120 days |
| • Final Report   | 8 weeks  |

Should you have any questions, please contact me at ext. 8230.

Sincerely,



Stewart Stant  
Director of Environmental Management