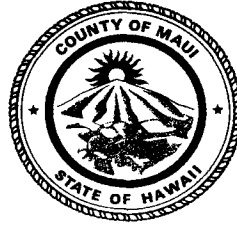


ALAN M. ARAKAWA
Mayor
STEWART STANT
Director
MICHAEL M. MIYAMOTO
Deputy Director



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 21, 2016

Mr. Sananda K. Baz
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 4/21/16
Mayor

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: FISCAL YEAR ("FY") 2017 BUDGET (EM-4) (BF-1)

The County is in receipt of the above Budget and Finance (BF) Committee requested information dated April 14, 2016. Your questions and the corresponding answers are provided below by the Department of Environmental Management (DEM).

1. *Provide the projected revenue impact for every \$1.00 change in the cost per load for Solid Waste Fees – Special Handling. (MW)*

The revenue impact for each \$1.00 change in Special Handling cost per load is minimal as the average number of loads requiring a Special Handling fee is less than 10/month. The projected revenue increase is less than \$1,000.00 per year per \$1.00 increased.

2. *Provide the projected cost of drying sludge to allow disposal in the landfill. Include the details on the cost of the source of heat, whether it is propane gas, electricity, or another option. Also include the electrical, handling, and any other anticipated costs. (MW)*

The specifics with drying sludge have not been fully developed at this time. Attached is a process diagram of what we are looking into. Also attached are the projected results from the sludge drying process. With a 6 to 1 reduction in the volume of sludge disposal, for one plant disposing of 8,000 tons of sludge per year, that would result in over \$500,000 savings per year.

We do not have the infrastructure and operational costs at this time. The recommendation is to use propane to generate the heat for the dehydrator and electricity to power the remainder of the equipment.

We do have the RFP out for the turbine power system with sludge dryer system. This system would use renewable gas to power the turbine to generate electricity for the wastewater plant. A byproduct of the turbine system is the heat needed for the sludge drying process. We should see proposals in May 2016.

3. *Explain how the current charge for solid waste disposal of \$76 per ton was determined and how that compares to your actual costs. (MW)*

- Solid Waste rates are countywide in the budget ordinance.
- Below chart shows the cost/ton by district.
- The weighted average cost of landfilling at all landfills is \$114/ton.
- The current \$76/ton tip fee is what the Department felt was a tolerable increase.
- The current rate is \$38/ton less than the true cost for all four landfills. (\$114-\$76).

Please note:

- Currently only Commercial Accounts are charged a tipping fee at landfills. Residential disposal at the landfill is not currently charged a fee.
- A Countywide tipping fee of \$114/ton * would cover the cost of landfilling IF all incoming tons were charged a tip fee.
- Approximately 60% of the tonnage received at landfills is from commercial users and 40% of the tonnage is from residents.

AVERAGE OPERATING COST, DEVELOPMENT, CLOSURE & POST CLOSURE COST/TON		PERCENT OF TONNAGE	WEIGHTED AVERAGE COST PER TON USING FY16 ESTIMATES
DISTRICT	EST. FY16 COST		
CENTRAL MAUI LF	\$79	94.0%	\$74.46
HANA LF	\$634	0.9%	\$5.73
MOLOKAI LF	\$714	2.8%	\$20.20
LANAI LF	\$599	2.3%	\$13.55
		100.0%	\$114 *

4. *Provide the actual cost of solid waste disposal. Compare the actual cost to revenue charged in a year for all tonnage received at the central landfill. (MW)*

CENTRAL MAUI LANDFILL ONLY	FY 16 TONNAGE	TOTAL COST/TON	YEAR TO DATE THRU 3/16	PROJECTED YEAR END
COST TO LANDFILL	128,732	\$79	(\$10,169,845)	(\$13,560,000)
REVENUE	79,950	\$76	\$6,076,199	\$8,102,000
SHORTFALL			(\$4,093,645)	(\$5,458,000)

Note:

- "Solid waste disposal" does not include the cost of collecting refuse from residents. Part of the cost for residential refuse collection and landfilling are subsidized by the County, as well as residential refuse dropped off at landfills. Refer to note in question #3.
 - A \$5 flat fee for residential drop off at the landfills would generate approximately \$850,000 per year in revenue.
 - A \$4 flat fee for residential drop off at the landfills would generate approximately \$680,000 per year in revenue.
5. *Provide the amount of revenue projected to be generated in FY 2017 by the refuse collection fees. (MW)*

Based on the proposed FY17 rate increases and the average number of open accounts, the projected revenue from refuse collection fees in FY17 is \$7,550,000.

If refuse collection rates do not change, then the annual revenue for FY17 would be projected at \$6,864,000.

6. *Provide an updated breakdown of the recycling program costs. (RH)*

Please refer to Attachment EM-4 #6.

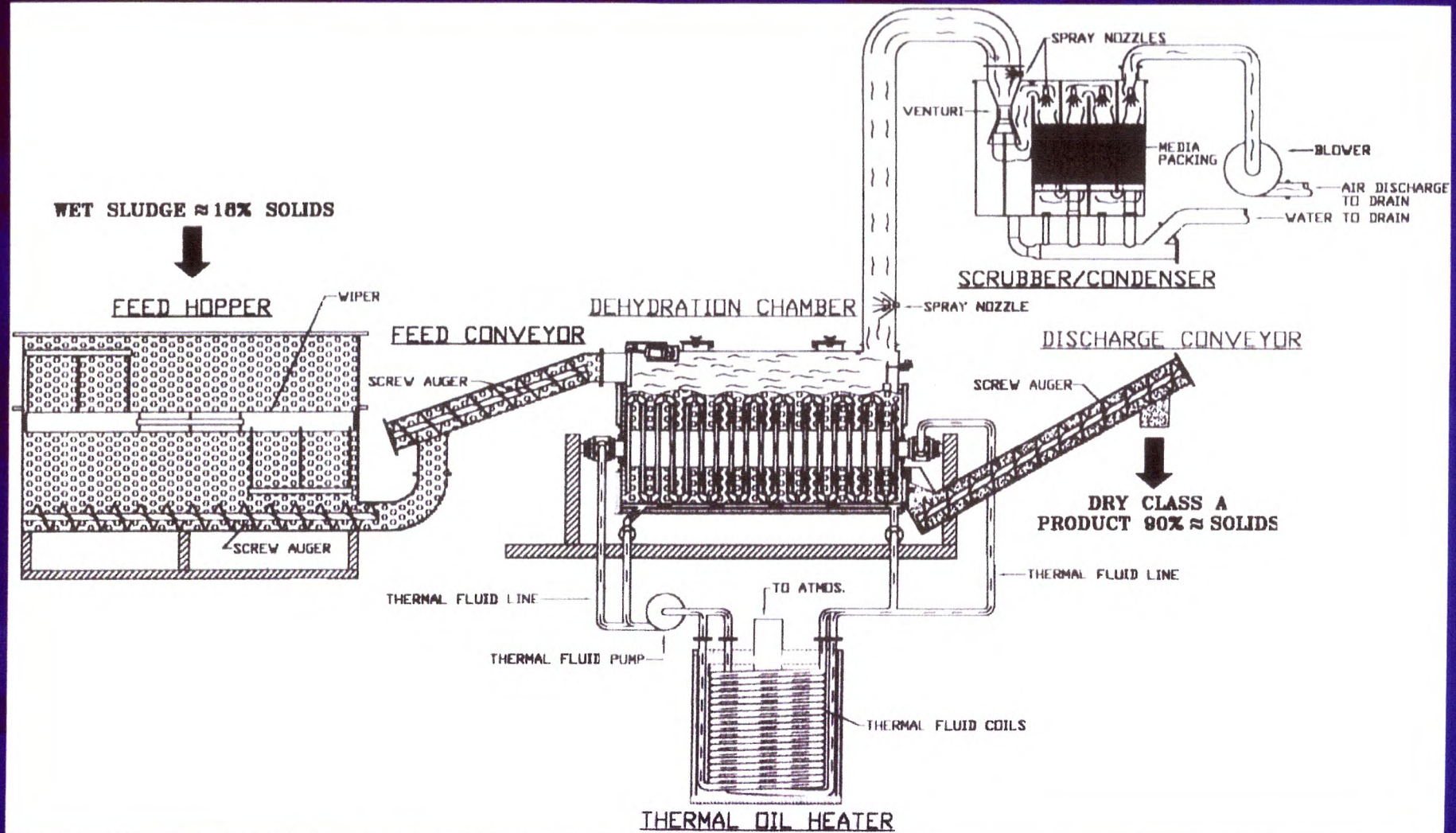
Sincerely,

STEWART STANT, Director
Department of Environmental Management

Attachments

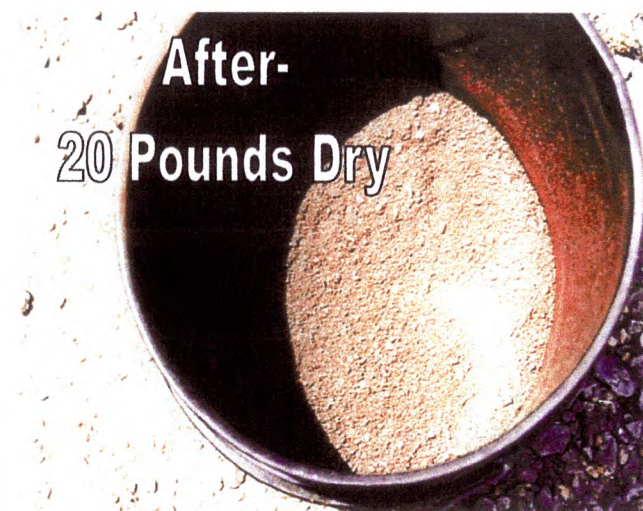
cc: Eric Nakagawa
Michael Ratte
James Peat

Process Diagram



The Result

Drying Sludge Means Big Volume Reduction



Fenton Environmental
Technologies, Inc.

COUNTY COUNCIL REQUEST EM-4 ATTACHMENT 6

EP&S (A,B,C,) ACTUAL EXPENSES FY2016

SUBJECT	DESCRIPTION	BUDGET	AMEND	FEB YTD
5101	Regular Wages	209,364	1,572	94,956
5204	Night differential			16
5205	Overtime			3,514
5207	Temporary assignment			2,448
5215	Premium pay	5,000		0
6005	Auto Parts			194
6023	Gas/dies/oil interfund	1,566		155
6035	Miscellaneous Supplies	16,700		33
6037	Office Supplies	300		41
6040	Postage	20,000		2,282
6060	Small Equipment - under \$1000			361
6101	Advertisement	1,000		0
6112	Contractual Service	3,735,500		1,911,384
6122	Freight and Hauling	14,000		17
6128	Operating power - warning siren			421
6129	Other Services	118,476		14,756
6130	Printing & Binding	4,000		0
6132	Professional Services	17,500		917
6138	R & M - Services/Contracts			750
6120	Electricity			1,746
6152	Cellular telephone	1,000		1,098
6178	Water delivery charges	2,620		771
6201	Airfare, Transportation	3,500		251
6204	Mileage & Allow Rptble Non-Tax	478		0
6222	Per Diem Non-Reportable	300		0
6226	Per Diem S/D/T Taxable	200		40
6212	Dues	500		0
6218	Meal Allowance	200		200
6221	Miscellaneous Other Costs	2,000		0
6225	Publications & Subscriptions	250		112
6230	Registration/Training Fees	3,000		0
6235	Rentals	38,460		21,562
6240	Retirement & Service Awards			(47)
6317	County grant subsidy	239,500		206,375