MICHAEL P. VICTORINO Mayor

> HELENE KAU Director

SHAYNE R. AGAWA, P.E. Deputy Director





DEPARTMENT OF WATER SUPPLY COUNTY OF MAUI 200 SOUTH HIGH STREET WAILUKU, MAUI, HAWAI'I 96793 http://www.mauicounty.gov/water

September 15, 2022

APPROVED FOR TRANSMITTAL

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Honorable Michael P. Victorino Mayor, County of Maui 200 South High Street Wailuku, Hawaii 96793

For Transmittal to:

Shane M. Sinenci, Chair Agriculture and Public Trust Committee 200 South High Street Wailuku, Hawaii 96793

Dear Chair Sinenci,

SUBJECT: BILL 79 (2022), EXEMPTIONS FOR AGRICULTURAL WATER CONSUMERS FROM RESTRICTIONS OR MANDATES DURING WATER SHORTAGES (APT-60)

Thank you for your letter dated September 2, 2022. Department of Water Supply responds as follows:

1. What are the Department's plans for using the Hamakuapoko Wells during water shortages? Please provide any cost analysis data available.

Response:

- a. Hamakuapoko (H'Poko) Wells serve as backup and are used during dry, drought conditions.
- b. H'Poko Wells can function in two ways, to feed Kamole WTP (Water Treatment Plant) or into the Hamakua Ditch to provide water for Kula Ag Park.
- c. See attached electric cost and rough breakdown of cost per 1,000 gallons. (ATTACHMENT 1)

2. What are the Department's plans for using the Po'okela Well during water shortages? Please provide any cost analysis data available.

Response:

- a. Po'okela Well is used as backup to supplement Piiholo or Kamole WTPs to feed the Makawao and Lower Kula areas.
- b. In times of drought, Pookela Well will assist and supply water to the Makawao and Lower Kula areas and to Piiholo WTP.
- c. See attached electric cost and rough breakdown of cost per 1000 gallons. (ATTACHMENT 1)
- 3. What are the Department's plans for working with the Department of Agriculture to address water shortages and related issues?

Response:

The Department intends to discuss appropriate cost saving measures and drought relief including individual farmer catchment and water storage tanks.

4. Please provide a summary of various options the Department has considered or is currently evaluating to address water shortages, such as water source development, reservoirs, storage tanks, and hydropower or other renewable energy sources.

Response:

The Department intends to pursue source development as described in the Water Use and Development Plan. The Department has completed an engineering report for a new raw water reservoir at the Kamole Water Treatment Facility, however this project is contingent upon the Department of Water Supply securing additional source at the Kamole Water Treatment Plant from East Maui Irrigation Company and other entities with interest in the Wailoa Ditch.

5. You mentioned the Department evaluated solar power as a possible option to pump and deliver water to water systems. Please provide a summary of findings, including land requirements for the necessary infrastructure.

Response:

- a. The Department has evaluated, reviewed and considered a few Power Purchase Agreements (proposals) from private companies to provide partial power for purchase at three of our well sites.
- b. Proposals were not accepted because as written, the contracts had the County assuming many risks in the form of liability/penalties

Shane M. Sinenci, Chair Agriculture and Public Trust Committee September 15, 2022 Page 3

> from Maui Electric such as higher demand charges from drawing power during peak demand hours which would cost the county more in the event of PV system failures or non-operation.

> The Department also encountered challenges in power generation and transmission crossing TMKs.

- c. Land requirements for Solar PV would have been leased by the private company and solar farm built next to our pumping stations.
- 6. How does the Department keep the public informed on its plans to address water shortages in the County?

Response:

Projects that address water shortage for a particular area are included in the Department's annual Capital Improvement Program.

7. Please provide a current copy of Johnson Controls' Analysis of Energy Saving Performance for Countywide facilities. If the report is not yet available, please confirm when the Department will be able to provide a copy.

Response:

The Department will be discussing feasibility with Johnson Controls. We have corresponded with the Department of Management regarding providing a copy of the final report. It is our understanding that Council will receive a copy when it is finalized.

If you have additional questions, please do not hesitate to contact me.

Sincerely,

HELENE KAU DIRECTOR

HK:lkk Attachment

ELECTRICAL COST

'Poko Well #1	Feb-22	Mar-22
Gallons pumped	5,543,000	10,998,000
Electrical cost	\$7,989.56	\$15,282.13
Cost per 1000 gallons	\$1.44	\$1.39
H'Poko Well #2	Feb-22	Mar-22
Gallons pumped	6,362,000	7,597,000
Electrical cost	\$20,344.40	\$25,813.81
Cost per 1000 gallons	\$3.20	\$3.40
Note this includes the booster pumps to move water up to Kamole plant / Hamakua ditch		
Pookela Well	Feb-22	Mar-22
Gallons pumped	34,058,000	38,202,000
Electrical cost	\$106,388.94	\$94,633.28
Cost per 1000	\$3.12	\$2.48

Note, gallons are totalized midnight to midnight on the calendar month MECO reads their meters at different times and days and are not exact to calendar days.

ATTACHMENT 1

"By Water All Things Find Life"

APT Committee

From: Michelle Santos < Michelle.Santos@co.maui.hi.us>

Sent: Thursday, September 15, 2022 3:11 PM

To: APT Committee

Cc: Helene Kau; Josiah Nishita; Kayla Ueshiro; Linda Kimura; Michele Sakuma; Michele Yoshimura; Sandy

Baz; Shayne Agawa; Stacy Takahashi; Tyson Miyake; Zeke Kalua

Subject: MT#9877 Bill 79 Exemptions for Agricultural Water Consumers From Restrictions or Mandates

During Water Shortages

Attachments: MT#9877-APT Committee.pdf

NOTE: PLEASE DO NOT FORWARD MY EMAIL TO ANYONE OUTSIDE OF THE COUNTY OF MAUI. YOU MAY CLICK ON THE ATTACHMENT ITSELF AND CREATE YOUR OWN EMAIL TO FORWARD THE DOCUMENT TO ANOTHER PERSON OUTSIDE OF THE COUNTY.

Michelle L. Santos

Office Operations Assistant

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