DAVID Y. IGE
GOVERNOR OF HAWAII

SUZANNE D. CASE
CHAIRPERSON

MICHAEL G. BUCK
ELIZABETH A. CHAR, M.D.
NEIL J. HANNAHS
AURORA KAGAWA-VIVIANI, PH.D.
WAYNE K. KATAYAMA
PAUL J. MEYER

M. KALEO MANUEL
DEPUTY DIRECTOR

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
P.O. BOX 621
HONOLULU, HAWAII 96809

November 29, 2021

Honorable Mayor Michael P. Victorino
County of Maui
200 S. High Street
Kalana O Maui Bldg., 9th Fl.
Wailuku, Hawai'i 96793

Aloha e Mayor Victorino,

Subject: Consultation on Chairperson's Recommendation to Designate the Lahaina Aquifer Sector, Maui as Surface Water and Ground Water Management Area

The Chairperson of the Commission on Water Resource Management ("Commission") is recommending initiating the designation process of the entire Lahaina Aquifer Sector on Maui as both a Surface Water and Ground Water Management Area based on threats to water resources by existing and proposed withdrawals and serious disputes respecting the use of water resources. This currently includes the Honokōhau, Honolua, Honokōwai, Launiupoko, Olowalu, and Ukumehame Ground Water Hydrologic Units, as well as Honokōhau, Honolua, Honokahua, Kahana, Honokōwai, Wahikuli, Kahoma, Kaua'ula, Launiupoko, Olowalu, and Ukumehame Surface Water Hydrologic Units. (see attached map).

Commission data indicates that there is harm to ground water quantity and quality by saltwater intrusion, serious historic and ongoing disputes over current and planned water uses, and climate uncertainty which has resulted in a decline in rainfall, low stream flows, and prolonged drought. Designation of the Lahaina Aquifer Sector will provide the Commission with enhanced and integrated management to ensure protection of both surface and ground water resources and uses.

Following the designation process outlined in the State Water Code, we are consulting with the Maui County Council, Maui Mayor, and Maui Board of Water supply (HRS § 174C-41 (b)). **We would appreciate any comments by December 31, 2021.** We anticipate taking a submittal to the Commission in January 2022 with a recommendation to continue the designation process and to hold a public hearing (HRS § 174C-42).

If there are any questions, please contact me at kaleo.l.manuel@hawaii.gov or via phone at 808-587-0214.

Ola i ka wai,

M. KALEO MANUEL
Deputy Director

Attachment

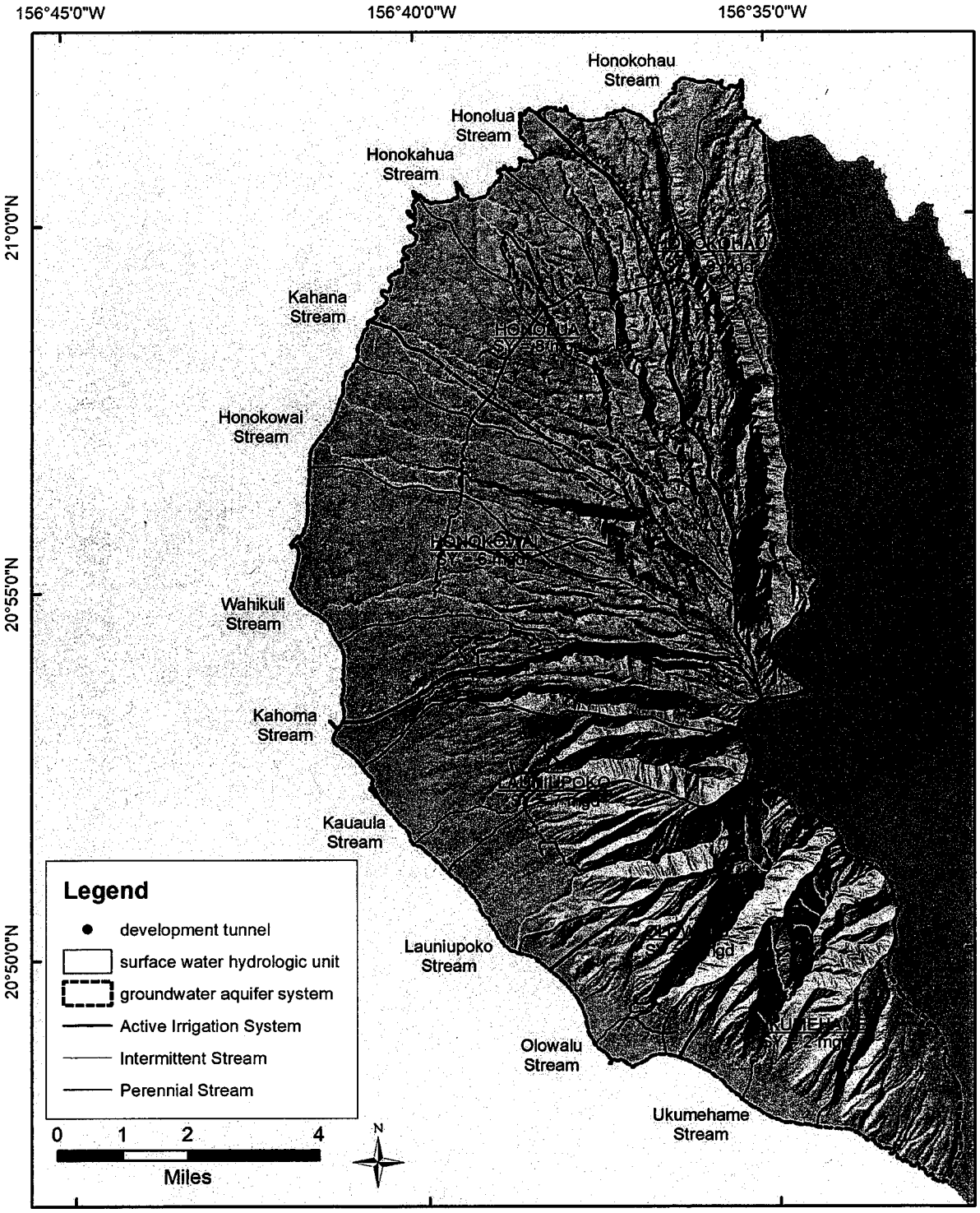

Figure 1: Lahaina Aquifer System Area including both Surface and Ground Water Hydrologic Units

DAVID Y. IGE
GOVERNOR OF HAWAII

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STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
P.O. BOX 621
HONOLULU, HAWAII 96809

November 29, 2021

Honorable Chair Alice L. Lee and Councilmembers
Maui County Council
Kalana O Maui Building, Eighth Floor
200 South High St.
Wailuku, Hawai'i 96793

Aloha e Chair Lee and Councilmembers,

Subject: Consultation on Chairperson's Recommendation to Designate the Lahaina Aquifer Sector, Maui as Surface Water and Ground Water Management Area

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If there are any questions, please contact me at kaleo.l.manuel@hawaii.gov or via phone at 808-587-0214.

Ola i ka wai,

M. KALEO MANUEL
Deputy Director

cc: Councilmember Keani Rawlins-Fernandez
Councilmember Gabe Johnson
Councilmember Tasha Kama
Councilmember Kelly Takaya King
Councilmember Mike Molina
Councilmember Tamara Paltin
Councilmember Shane Sinenci
Councilmember Yuki Lei Sugimura

Attachment

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DEPARTMENT OF LAND AND NATURAL RESOURCES
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P.O. BOX 621
HONOLULU, HAWAII 96809

November 29, 2021

Honorable Chair Dean Frampton
Maui County Board of Water Supply
Kalana O Maui Building, Fifth Floor
200 South High Street
Wailuku, Hawai'i 96793

Aloha e Chair Frampton,

Subject: Consultation on Chairperson's Recommendation to Designate the Lahaina Aquifer Sector, Maui as Surface Water and Ground Water Management Area

The Chairperson of the Commission on Water Resource Management ("Commission") is recommending initiating the designation process of the entire Lahaina Aquifer Sector on Maui as both a Surface Water and Ground Water Management Area based on threats to water resources by existing and proposed withdrawals and serious disputes respecting the use of water resources. This currently includes the Honokōhau, Honolua, Honokōwai, Launiupoko, Olowalu, and Ukumehame Ground Water Hydrologic Units, as well as Honokōhau, Honolua, Honokahua, Kahana, Honokōwai, Wahikuli, Kahoma, Kaua'ula, Launiupoko, Olowalu, and Ukumehame Surface Water Hydrologic Units. (see attached map).

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Following the designation process outlined in the State Water Code, we are consulting with the Maui County Council, Maui Mayor, and Maui Board of Water supply (HRS § 174C-41 (b)). **We would appreciate any comments by December 31, 2021.** We anticipate taking a submittal to the Commission in January 2022 with a recommendation to continue the designation process and to hold a public hearing (HRS § 174C-42).

If there are any questions, please contact me at kaleo.l.manuel@hawaii.gov or via phone at 808-587-0214.

Ola i ka wai,

M. KALEO MANUEL
Deputy Director

cc: Jeff Pearson, Maui Dept. of Water Supply

Attachment

Council Chair
Alice L. Lee

Vice-Chair
Keani N.W. Rawlins-Fernandez

Presiding Officer Pro Tempore
Tasha Kama

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David M. Raatz, Jr., Esq.

COUNTY COUNCIL
COUNTY OF MAUI
200 S. HIGH STREET
WAILUKU, MAUI, HAWAII 96793
www.MauiCounty.us

December 7, 2021

M. Kaleo Manuel, Deputy Director
Commission on Water Resource Management
Department of Land and Natural Resources
State of Hawaii
P.O. Box 621
Honolulu, Hawaii 96809

kaleo.l.manuel@hawaii.gov

Dear Mr. Manuel:

SUBJECT: **CONSULTATION ON RECOMMENDATION TO DESIGNATE THE LAHAINA AQUIFER SECTOR AS SURFACE WATER AND GROUND WATER MANAGEMENT AREA** (PAF 21-358)

Thank you for your correspondence dated November 29, 2021, relating to the designation of the Lahaina Aquifer Sector on Maui as a Surface Water and Ground Water Management Area. Without supporting factual data on the proposed designation, it is difficult to provide comments. Respectfully, I note the request merely characterizes factual data without sharing it, which appears contrary to the consultation requirements of Section 174C-41(b), Hawaii Revised Statutes.

May I please request a response to the following questions:

1. Can the Commission share with the Maui County Council the relevant factual data indicating "there is harm to ground water quantity and quality"?

2. Would the Chairperson be willing to appear before the Council or one of its committees to provide a presentation and answer questions regarding the proposal?

3. If the consultation finds the factual data supports the recommended designation, what would be the process and anticipated timeline, including opportunities for stakeholder and public engagement?

Please email your response to paige.greco@mauicounty.us. To ensure efficient processing, please include the relevant PAF number in the subject line of your response.

Should you have any questions, please contact me, Legislative Analyst Paige Greco at (808) 270-7660, or Legislative Analyst Alison Stewart at (808) 270-7661.

Sincerely,

ALICE L. LEE, Chair
Maui County Council

paf:pmg:21-358a

Council Chair
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Vice-Chair
Keani N.W. Rawlins-Fernandez

Presiding Officer Pro Tempore
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David M. Raatz, Jr., Esq.

COUNTY COUNCIL
COUNTY OF MAUI
200 S. HIGH STREET
WAILUKU, MAUI, HAWAII 96793
www.MauiCounty.us

December 16, 2021

Mr. M. Kaleo Manuel, Deputy Director
Commission on Water Resource Management
Department of Land and Natural Resources
State of Hawaii
P.O. Box 621
Honolulu, Hawaii 96809

kaleo.1.manuel@hawaii.gov

Dear Mr. Manuel:

SUBJECT: **CONSULTATION ON RECOMMENDATION TO DESIGNATE THE LAHAINA AQUIFER SECTOR AS SURFACE WATER AND GROUND WATER MANAGEMENT AREA** (PAF 21-358)

May I kindly request a response to my attached correspondence, dated December 7, 2021, by December 20, 2021. This will allow adequate time for me to respond with my comments by your December 30, 2021, deadline.

Please email your response to county.council@mauicounty.us and paige.greco@mauicounty.us. To ensure efficient processing, please include the relevant PAF number in the subject line of your response.

Should you have any questions, please contact me, Legislative Analyst Paige Greco at (808) 270-7660, or Legislative Analyst Alison Stewart at (808) 270-7661.

Sincerely,

ALICE L. LEE, Chair
Maui County Council

paf:pmg:21-358b

Attachment

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STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
P.O. BOX 621
HONOLULU, HAWAII 96809

December 17, 2021

Honorable Chair Alice L. Lee and Councilmembers
Maui County Council
Kalana O Maui Building, Eighth Floor
200 South High St.
Wailuku, Hawai‘i 96793

Aloha e Honorable Chair Alice L. Lee,

Subject: Response to Council Letters Dated December 7 and December 16, 2021

Mahalo for your two letters dated December 7 and December 16, 2021 in response to the Commission on Water Resource Management's (Commission) letter dated November 29, 2021 related to the designation of the Lahaina Aquifer Sector on Maui as a Surface Water and Ground Water Management Area. Please see our responses to your questions below:

1. *Can the Commission share with the Maui County Council the relevant factual data indicating "there is harm to ground water quantity and quality"?*

   Please see the attached figures and tables with data on water resource availability, infrastructure, pumpage, reporting, permitted use, and chloride data.

2. *Would the Chairperson be willing to appear before the Council or one of its committees to provide a presentation and answer questions regarding the proposal?*

   There will be a presentation to the Commission at its January 18, 2021 meeting on this matter and the Commission would encourage the Council and public to participate and attend. If the Council has any additional questions after review of the attached data and the presentation on January 18, 2021, Commission staff and I can appear before the Council or one of its committees to provide a presentation and answer additional questions.

3. *If the consultation finds the factual data supports the recommended designation, what would be the process and anticipated timeline, including opportunities for stakeholder and public engagement?*

   The Designation process is governed by Hawaii Revised Statutes (HRS), Sections 174C-41 to 46 and a summary of that process is identified below.

(1) Recommendation to designate by the Chairperson or by written petition for initiation or continuation of investigation of the situation in the proposed management area; HRS § 174C-41(a).
(2) Consultation with county council, county mayor, and county water board concerning the recommendation or petition; HRS §174C-41(b).
(3) Commission action to accept recommendation regarding designation of water management area and to hold public hearing; HRS §174C-42.
(4) Notice for and Conduct of Public Hearing; HRS §174C-42.
(5) Commission action to accept, deny, or defer recommendation to designate a water management area; HRS §174C-46.

As mentioned above, the Commission staff will be doing a presentation to the Commission in January 2022. Based on that presentation, we anticipate an action item in February to continue the designation process. As the next step the Commission would conduct a Public Hearing. Both of those Commission meetings provide an opportunity for stakeholders and the public to engage and provide comment and testimony. The Public Hearing is planned for March 2022. Pending that Public Hearing, a final recommendation on designation would be presented to the Commission in April or May. These are all the opportunities for stakeholder and public engagement.

If there are any additional questions, please contact me at (808) 587-0214 or via email at kaleo.l.manuel@hawaii.gov.

Ola i ka wai,

M. Kaleo Manuel
Deputy Director

Attachment

cc: Councilmember Keani Rawlins-Fernandez
Councilmember Gabe Johnson
Councilmember Tasha Kama
Councilmember Kelly Takaya King
Councilmember Mike Molina
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Councilmember Shane Sinenci
Councilmember Yuki Lei Sugimura
Mayor Michael P. Victorino
Chair Dean Frampton, Maui Board of Water Supply
Director Jeff Pearson, Maui Dept. of Water Supply

Figure 1. Ground Water Aquifer System Areas and their sustainable yields (SY) for the Lahaina Aquifer Sector with overlaying surface water hydrologic units and their perennial and intermittent streams with development tunnels and active irrigation ditch systems.

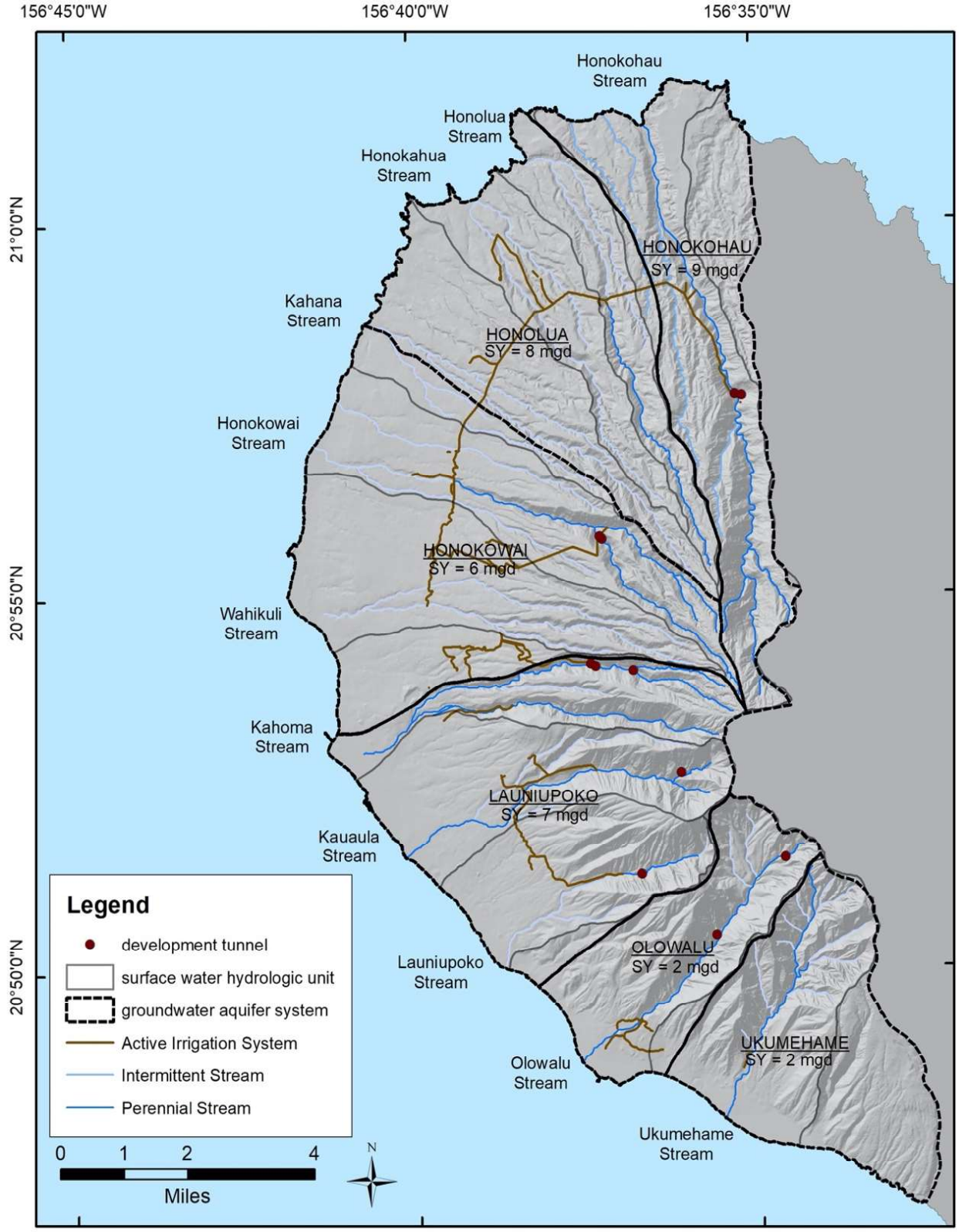


Figure 2. Distribution of regional aquifer hydraulic conductivity in central and West Maui, Hawai'i (Gingerich and Engott, 2012)

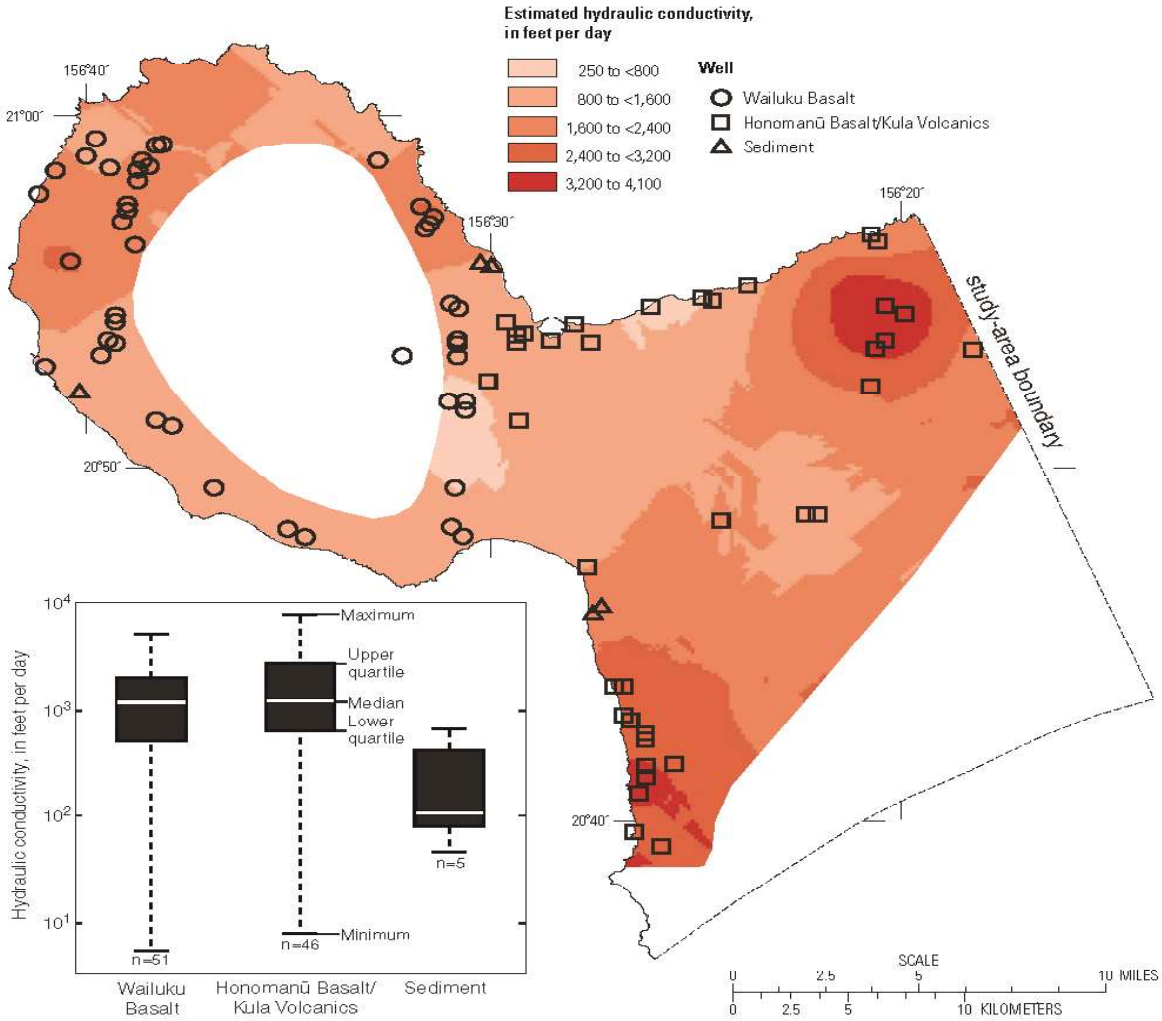


Table 1. Existing interim IFS for surface water hydrologic units in the Lahaina Aquifer Sector. [n/a = not applicable]

surface water hydrologic unit	stream name	Q_{50} (mgd)	Q_{90} (mgd)	interim IFS (mgd)	interim IFS elevation (ft)	estimated flow available for non-instream use at Q_{50} (mgd)
Honokōhau	Honokōhau	19.4	11.0	n/a	825	n/a
Honolua	Honolua	2.46	0.00	n/a	750	0.0
Honokōwai	Amalu	--		n/a	1600	n/a
Honokōwai	Kapaloa	--		n/a	1560	n/a
Honokōwai	Honokōwai	3.49	2.32	n/a	1480	n/a
Kahoma	Kahoma	3.75	1.87	3.49	2100	0.26
Kahoma	Kanahā	3.17	2.65	0.50	1100	2.67
Kaua'ula	Kaua'ula	6.14	3.36	3.36	1540	2.78
Launiupoko	Launiupoko	0.30	0.23	0.00	1340	0.30
Olowalu	Olowalu	3.23	2.20	2.65	130	0.58
Ukumehame	Ukumehame	3.23	2.07	2.90	220	0.33

Table 2. Current (August 2021) 12-month moving average (MAV) reported pumpage and for aquifer systems in the Lahaina Aquifer Sector. development tunnel discharge and existing entitled/authorized planned use [million gallons per day, mgd]

System	SY (mgd)	2020 12-month MAV (mgd)	2021 12-month MAV (mgd)	maximum monthly pumpage (mgd)	development tunnel discharge (mgd)	entitled/ authorized planned use[a] (mgd)	other permitted well capacity (mgd)	total existing and authorized planned use (mgd)	percentage of SY
Ukumehame	2.0	0.034	0.049	0.045	0.00	1.080	0.000	1.42	71%
Olowalu	2.0	0.100	0.074	0.150	0.10	0.003	0.000	0.203	10%
Launiupoko	**7.0**	**1.625**	**1.434**	**2.638**	**4.01**	**1.036**	**1.777**	**8.448**	**121%**
Honokōwai	**6.0**	**3.626**	**3.777**	**4.778**	**2.50**	**2.533**	**1.150**	**9.809**	**163%**
Honolua	8.0	2.103	2.450	2.331	0.00	1.969	1.150	5.222	65%
Honokōhau	9.0	0.000	0.000	0.000	3.75	0.001	0.000	3.751	42%

Table 3. Water Use Reporting by Aquifer System Area

Aquifer System Area	Total # of Wells (including OBS and UNU)	# Wells Reporting Water Use	Compliance Rate
Ukumehame	5	4	80%
Olowalu	4	3	75%
Launiupoko	32	22	68.8%
Honokōwai	42	29	69%
Honolua	16	10	62.5%
Honokōhau	4	0	0%

Table 4. Maximum Permitted Pump Capacity by Aquifer System Area

Aquifer System Area	Maximum Pump Capacity (mgd)	SY (mgd)
Ukumehame	4.954	2
Olowalu	8.553	2
Launiupoko	42.302	7
Honokōwai	43.369	6
Honolua	7.752	8
Honokōhau	0.012	9

Figure 3. Current monthly pumpage (blue line) and 12-month moving average (green line) from the Honokowai Aquifer System, including ground water development tunnel discharge, in million gallons per day (mgd).

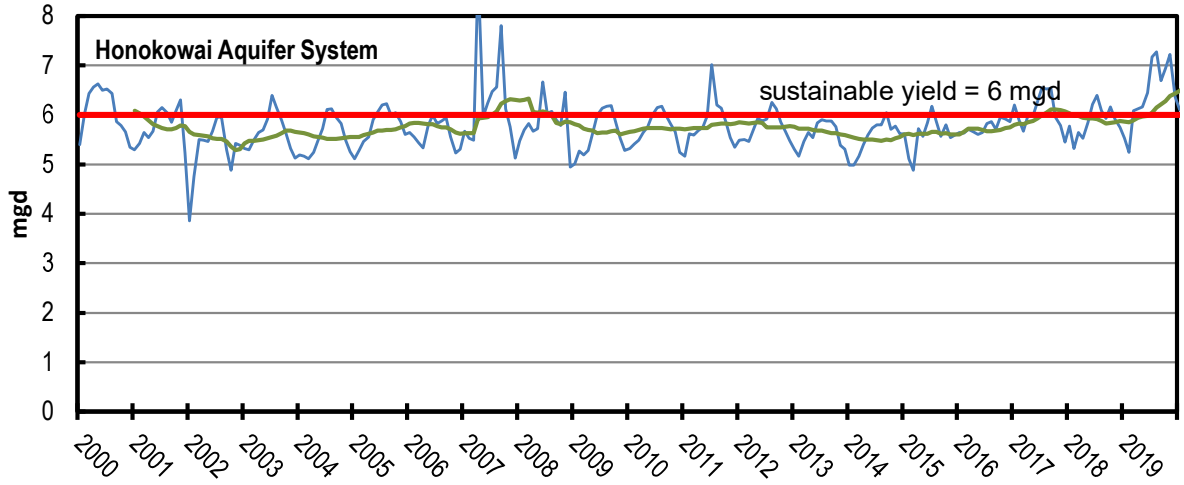


Table 5. Current (2018-2020) well applications pending completion in the Lahaina Aquifer Sector.

Aquifer System	Well Name	Well Number	Proposed Pump Capacity (mgd)	Proposed Daily Amount (mgd)
Launiupoko	Jackson Rancheria	6-5037-001	0.187	0.075
Launiupoko	Maria Lynn Moyer Memorial	6-5137-002	0.006	0.005
Launiupoko	Makila Kai	6-5138-002	0.504	0.150
Launiupoko	Rogers	6-5139-004	--	--
Launiupoko	Kuiʻa Estate	6-5239-001	0.360	0.270
Launiupoko	LIC 1B	6-5139-005	0.720	0.700
		total	1.777	1.200

Figure 4. Monthly pumpage (mgd), 12-month moving average (12MAV) and chloride (ppm) for Honokōwai B (5638-003), operated by Hawaii Water Service, West Maui.

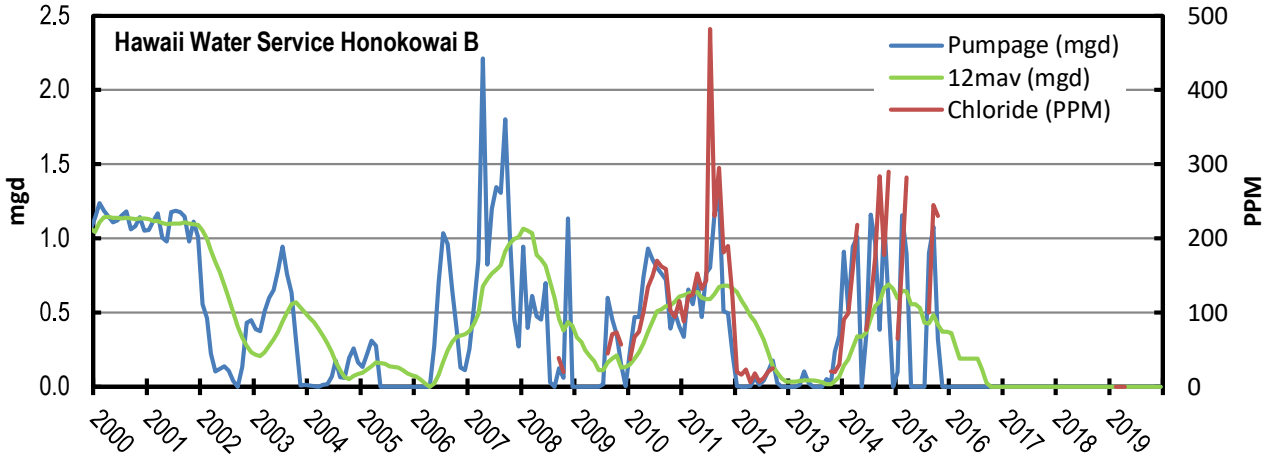
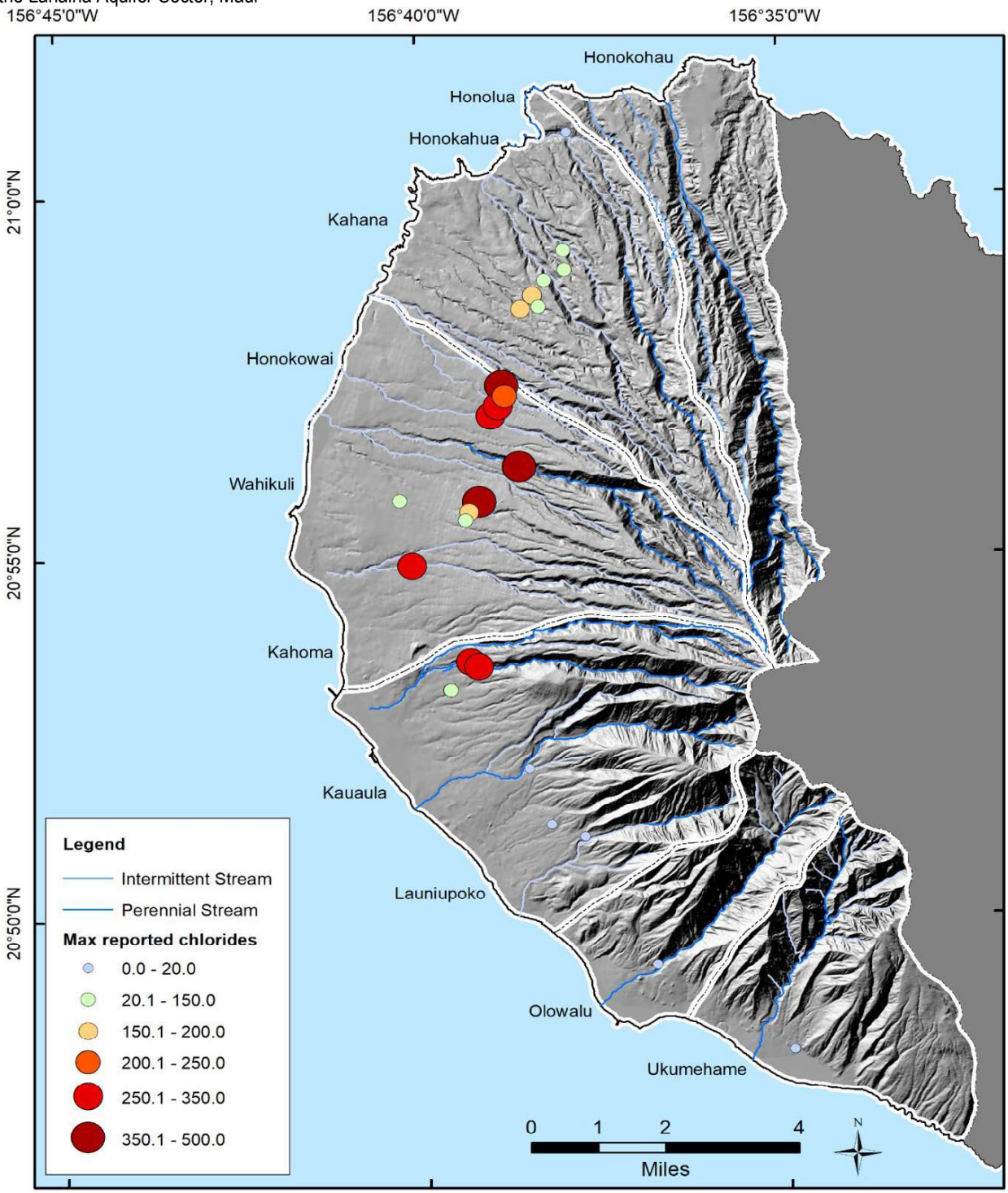


Figure 5. Maximum reported chloride content (parts per million, ppm) since 2010 for potable water supply production wells in the Lahaina Aquifer Sector, Maui



Council Chair
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Director of Council Services
Traci N. T. Fujita, Esq.

Deputy Director of Council Services
David M. Raatz, Jr., Esq.

December 29, 2021

M. Kaleo Manuel, Deputy Director
Commission on Water Resource Management
Department of Land and Natural Resources
State of Hawaii
P.O. Box 621
Honolulu, Hawaii 96809

Via email only: kaleo.l.manuel@hawaii.gov

Dear Mr. Manuel:

SUBJECT: **CONSULTATION ON RECOMMENDATION TO DESIGNATE THE LAHAINA AQUIFER SECTOR AS SURFACE WATER AND GROUND WATER MANAGEMENT AREA** (PAF 21-358)

Thank you for your responsive correspondence dated December 17, 2021, on the designation of the Lahaina Aquifer Sector on Maui as a Surface Water and Ground Water Management Area. Copies of our earlier correspondence are attached for ease of reference.

Unfortunately, much of the information provided is difficult to understand. To provide an informed policy response, it would be beneficial to receive a summary and justification of the technical tables and charts.

Because the Maui County Council is required to make land-use and fiscal decisions on the entire County's water resources and delivery systems, I respectfully suggest a comprehensive presentation is needed to fulfill the consultation requirements of Section 174C-41(b), Hawaii Revised Statutes. For this reason, I remain unable to provide substantive comments by the December 31, 2021, deadline. Instead, I will attend the Commission on Water Resource Management's January 18, 2022, meeting to learn more and perhaps ask questions.

If you have any further comments or questions, please email your response to paige.greco@mauicounty.us and county.council@mauicounty.us. To ensure efficient processing, please include the relevant PAF number in the subject line of your response.

Should you have any questions, please contact me, Legislative Analyst Paige Greco at (808) 270-7660, or Legislative Analyst Alison Stewart at (808) 270-7661.

Sincerely,

ALICE L. LEE, Chair
Maui County Council

paf:pmg:21-358c

Attachments