

**COUNCIL OF THE COUNTY OF MAUI**  
**WATER AND INFRASTRUCTURE**  
**COMMITTEE**

October 18, 2019

**Committee**  
**Report No.** \_\_\_\_\_

Honorable Chair and Members  
of the County Council  
County of Maui  
Wailuku, Maui, Hawaii

Chair and Members:

Your Water and Infrastructure Committee, having met on September 30, 2019, makes reference to County Communication 19-375, from the Director of Water Supply, transmitting a proposed bill entitled “A BILL FOR AN ORDINANCE AUTHORIZING THE MAYOR OF THE COUNTY OF MAUI TO ENTER INTO AN INTERGOVERNMENTAL AGREEMENT WITH U.S. GEOLOGICAL SURVEY, PACIFIC ISLANDS WATER SCIENCE CENTER, UNITED STATES DEPARTMENT OF THE INTERIOR (COOPERATIVE WATER-RESOURCE MONITORING PROGRAM).”

The purpose of the proposed bill is to authorize the Mayor to enter into an intergovernmental agreement with the United States Geological Survey, Pacific Islands Water Science Center, United States Department of the Interior (“USGS”), to continue the Cooperative Water-Resource Monitoring Program (“Program”), in a joint funding agreement with the Department of Water Supply (“Department”), for the time period of October 1, 2019 to September 30, 2020, at a cost to the County of \$91,440. Continuation of the Program is necessary to collect data needed to evaluate the status and trends of surface water and groundwater resources in the County.

Your Committee notes Section 2.20.020, Maui County Code, provides that the “mayor shall not enter into any intergovernmental agreement or any amendment thereto which places a financial obligation upon the County or any department or agency thereof,” unless authorized by ordinance.

A representative from the Department provided an overview of the Program. The Program has collected water resource data since the 1980s

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**WATER AND INFRASTRUCTURE**  
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from selected rainfall, streamflow, and groundwater monitoring stations throughout the county, and provides important long-term data to understand trends on the status of surface stream water, rainfall patterns, and groundwater aquifer levels over time.

Your Committee notes the total cost of the Program is \$130,690 of which \$91,440 will be contributed by the Department, and the remaining \$39,250 will be contributed by the USGS.

Your Committee expressed support for the Program and recommended further expansion in order to collect additional data from more watersheds in the County. Your Committee noted additional data is essential to guide future decisions about water resource allocation, smart growth, and appropriate development due to the uncertainties associated with climate change.

Your Committee voted 7-0 to recommend passage of the proposed bill on first reading and filing of the communication. Committee Chair Lee, Vice-Chair Paltin, and members Hokama, Kama, Molina, Rawlins-Fernandez, and Sinenci voted “aye.”

Your Water and Infrastructure Committee RECOMMENDS the following:

1. That Bill \_\_\_\_\_ (2019), attached hereto, entitled “A BILL FOR AN ORDINANCE AUTHORIZING THE MAYOR OF THE COUNTY OF MAUI TO ENTER INTO AN INTERGOVERNMENTAL AGREEMENT WITH U.S. GEOLOGICAL SURVEY, PACIFIC ISLANDS WATER SCIENCE CENTER, UNITED STATES DEPARTMENT OF THE INTERIOR (COOPERATIVE WATER-RESOURCE MONITORING PROGRAM),” be PASSED ON FIRST READING and be ORDERED TO PRINT; and
2. That County Communication 19-375 be FILED.

COUNCIL OF THE COUNTY OF MAUI  
**WATER AND INFRASTRUCTURE  
COMMITTEE**

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**Committee  
Report No.** \_\_\_\_\_

This report is submitted in accordance with Rule 8 of the Rules of the Council.



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ALICE L. LEE, Chair

wai:cr:19056aa:wac

ORDINANCE NO. \_\_\_\_\_

BILL NO. \_\_\_\_\_ (2019)

A BILL FOR AN ORDINANCE AUTHORIZING THE MAYOR  
OF THE COUNTY OF MAUI TO ENTER INTO AN INTERGOVERNMENTAL  
AGREEMENT WITH U.S. GEOLOGICAL SURVEY, PACIFIC ISLANDS WATER  
SCIENCE CENTER, UNITED STATES DEPARTMENT OF THE INTERIOR  
(COOPERATIVE WATER-RESOURCE MONITORING PROGRAM)

BE IT ORDAINED BY THE PEOPLE OF THE COUNTY OF MAUI:

SECTION 1. Purpose. The U.S. Geological Survey, Pacific Islands Water Science Center, United States Department of the Interior ("USGS") desires to enter into a Joint Funding Agreement for Water Resource Investigations ("Joint Funding Agreement" or "Agreement") with the County of Maui Department of Water Supply ("MDWS") to continue its cooperative water-resource monitoring program, during the period of October 1, 2019 to September 30, 2020. The total cost of the Agreement is \$130,690 of which \$91,440 would be contributed by the MDWS and \$39,250 would be contributed by the USGS.

The purpose of the water-resource monitoring program is to collect data needed to evaluate the status and trends of surface-water and groundwater resources in the County of Maui. Since the 1980s, water-resource data have been collected at selected rainfall, streamflow, and groundwater monitoring stations. The Joint Funding Agreement is attached hereto and incorporated herein as Exhibit "1".

Section 2.20.020, Maui County Code, provides that, unless authorized by ordinance, the Mayor shall not enter into any intergovernmental agreement or any amendment thereto which places a financial obligation upon the County or any department or agency thereof.

SECTION 2. Authorization. The Council of the County of Maui hereby authorizes the Mayor or his authorized representative to execute the Agreement, all other necessary documents relating to the Agreement, and any amendments thereto.

SECTION 3. Effective date. This ordinance shall take effect upon its approval.

APPROVED AS TO FORM  
AND LEGALITY:



JENNIFER M.P.E. OANA  
Deputy Corporation Counsel  
County of Maui

2019-1354

JFA w USGS for Cooperative Water Resource  
Monitoring Program (2019-08-14)



# United States Department of the Interior

U.S. GEOLOGICAL SURVEY  
Pacific Islands Water Science Center  
1845 Wasp Boulevard, Building 176  
Honolulu, Hawaii 96818

Phone: (808) 690-9600/Fax: (808) 690-9599

July 5, 2019

Mr. Jeffrey T. Pearson, Director  
Department of Water Supply  
County of Maui  
200 South High Street  
Wailuku, Hawaii 96793-2155

Attention: Eva Blumenstein, Robert DeRobles

Dear Mr. Pearson:

Subject: Joint Funding Agreement to continue our cooperative water-resource monitoring program during the period October 1, 2019 to September 30, 2020

Enclosed is a Joint Funding Agreement (JFA) between the County of Maui Department of Water Supply (MDWS) and the U.S. Geological Survey (USGS) to continue our cooperative water-resource monitoring program during the period October 1, 2019 to September 30, 2020. The total cost of the agreement is \$130,690 of which \$91,440 will be contributed by the MDWS and \$39,250 will be contributed by the USGS.

The purpose of the water-resource monitoring program is to collect data needed to evaluate the status and trends of surface-water and groundwater resources in the County of Maui. Since the 1980's, water-resource data have been collected at selected rainfall, streamflow, and groundwater monitoring stations as part of this cooperative program between the MDWS and USGS. Data are collected by the USGS in accordance with well-documented techniques and quality-assurance procedures. Data are stored in the USGS National Water Information System database and are publicly available on the internet website (<http://hi.water.usgs.gov>). The number and type of monitoring stations is periodically adjusted to meet current priorities and available funds.

The number and type of monitoring stations is periodically adjusted to meet current priorities and available funds. A complete list of monitoring stations and associated costs for the period October 1, 2019 to September 30, 2020 (Federal Fiscal Year 2020) is attached to the JFA. As requested, two new monitoring stations on Kanaha Stream and diversion were added to the program to monitor compliance with interim instream flow standards recently established by the Commission on Water Resource Management. Because of additional sample collection and processing requirements, we have increased costs associated with the collection of discrete samples for chloride analysis from the Waiehu Deep Monitor Well. The chloride results for samples collected at discrete depths are important for tracking long-term changes in chloride concentration at selected depths within the water column and for comparison with quarterly salinity profiles collected by the CWRM.

EXHIBIT "1"

If you are in agreement with this program, please sign and return a copy of the enclosed JFA as soon as possible.

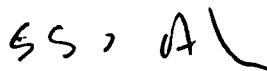
The legal authority for the USGS to enter into this agreement is 43 USC 36C, 43 USC 50, and 43 USC 50b. Work performed with funds from the agreement will be conducted on a fixed price basis. Your agency will be billed using form DI-1040, according to the terms of the agreement.

The results of the work under this agreement will be available to the USGS for publication and use in connection with related work. In addition, the USGS may provide unpublished USGS data or information to your office for review during the course of this jointly planned activity and partnership. Guidance concerning the U.S. Geological Survey's non-disclosure policy will be provided with any review material and is further explained in USGS Circular 1367, Fundamental Science Practices, available at <http://pubs.usgs.gov/circ/1367/pdf/C1367.pdf>.

If you have any questions, or would like more information about this program, please feel free to contact Brian Loving of my staff at (808) 690-9603 or by e-mail at [bloving@usgs.gov](mailto:bloving@usgs.gov).

Thank you for your continued interest in working with the USGS to provide water-resource information for the County of Maui.

Sincerely,

Handwritten signature of Stephen S. Anthony in black ink, consisting of stylized initials 'SSA' followed by a flourish.

Stephen S. Anthony  
Center Director

Enclosure/Attachment

Fixed Cost Agreement YES[ X ] NO[ ]

THIS AGREEMENT is entered into as of the October 1, 2019, by the U.S. GEOLOGICAL SURVEY, Pacific Islands Water Science Center, UNITED STATES DEPARTMENT OF THE INTERIOR, party of the first part, and the COUNTY OF MAUI DEPARTMENT OF WATER SUPPLY party of the second part.

1. The parties hereto agree that subject to the availability of appropriations and in accordance with their respective authorities there shall be maintained in cooperation a water-resource monitoring program according to the list of stations provided in Attachment 1, herein called the program. The USGS legal authority is 43 USC 36C; 43 USC 50, and 43 USC 50b.

2. The following amounts shall be contributed to cover all of the cost of the necessary field and analytical work directly related to this program. 2(b) include In-Kind-Services in the amount of \$0.00

- (a) \$39,250 by the party of the first part during the period October 1, 2019 to September 30, 2020
- (b) \$91,440 by the party of the second part during the period October 1, 2019 to September 30, 2020
- (c) Contributions are provided by the party of the first part through other USGS regional or national programs, in the amount of: \$0

Description of the USGS regional/national program:

- (d) Additional or reduced amounts by each party during the above period or succeeding periods as may be determined by mutual agreement and set forth in an exchange of letters between the parties.
- (e) The performance period may be changed by mutual agreement and set forth in an exchange of letters between the parties.

3. The costs of this program may be paid by either party in conformity with the laws and regulations respectively governing each party.

4. The field and analytical work pertaining to this program shall be under the direction of or subject to periodic review by an authorized representative of the party of the first part.

5. The areas to be included in the program shall be determined by mutual agreement between the parties hereto or their authorized representatives. The methods employed in the field and office shall be those adopted by the party of the first part to insure the required standards of accuracy subject to modification by mutual agreement.

6. During the course of this program, all field and analytical work of either party pertaining to this program shall be open to the inspection of the other party, and if the work is not being carried on in a mutually satisfactory manner, either party may terminate this agreement upon 60 days written notice to the other party.

7. The original records resulting from this program will be deposited in the office of origin of those records. Upon request, copies of the original records will be provided to the office of the other party.

8. The maps, records or reports resulting from this program shall be made available to the public as promptly as possible. The maps, records or reports normally will be published by the party of the first part. However, the party of the second part reserves the right to publish the results of this program, and if already published by the party of the first part shall, upon request, be furnished by the party of the first part, at cost, impressions suitable for purposes of reproduction similar to that for which the original copy was prepared. The maps, records or reports published by either party shall contain a statement of the cooperative relations between the parties. The Parties acknowledge that scientific information and data developed as a result of the Scope of Work (SOW) are subject to applicable USGS review, approval, and release requirements, which are available on the USGS Fundamental Science Practices website (<https://www.usgs.gov/about/organization/science-support/science-quality-and-integrity/fundamental-science-practices>).



U.S. Department of the Interior  
U.S. Geological Survey  
Joint Funding Agreement  
FOR  
Water Resource Investigations

Customer #: 6000001187  
Agreement #: 20ZHJFA00000011  
Project #: ZH00GSN  
TIN #: 99-6000618

9. Billing for this agreement will be rendered quarterly. Invoices not paid within 60 days from the billing date will bear Interest, Penalties, and Administrative cost at the annual rate pursuant the Debt Collection Act of 1982, (codified at 31 U.S.C. § 3717) established by the U.S. Treasury.

**USGS Technical Point of Contact**

Name: Brian Loving  
Assistant Center Director  
Address: USGS – PIWSC  
1845 Wasp Boulevard  
Honolulu, HI 96818  
Telephone: (808) 690-9603  
Fax: (808) 690-9599  
Email: bloving@usgs.gov

**Customer Technical Point of Contact**

Name: Eva Blumenstein  
Address: Maui Department of Water Supply  
200 South High Street  
Wailuku, Hawaii 96793-2155  
Telephone: (808) 463-3102  
Fax:  
Email: eva.blumenstein@co.maui.hi.us

**USGS Billing Point of Contact**

Name: Leanne Kitano  
Budget Analyst  
Address: USGS – PIWSC  
1845 Wasp Boulevard  
Honolulu, HI 96818  
Telephone: (808) 690-9562  
Fax: (808) 690-9599  
Email: lrkitano@usgs.gov

**Customer Billing Point of Contact**

Name: Eva Blumenstein  
Address: Maui Department of Water Supply  
200 South High Street  
Wailuku, Hawaii 96793-2155  
Telephone: (808) 463-3102  
Fax:  
Email: eva.blumenstein@co.maui.hi.us

U.S. Geological Survey  
United States  
Department of Interior

County of Maui  
Department of Water Supply

Signature

Signatures

By SSA Date: 07/05/2019  
Name: Stephen S. Anthony  
Title: Center Director

By \_\_\_\_\_ Date: \_\_\_\_\_  
Name  
Title:

By \_\_\_\_\_ Date: \_\_\_\_\_  
Name:  
Title:

By \_\_\_\_\_ Date: \_\_\_\_\_  
Name:  
Title:

## SCOPE OF INVESTIGATIONS

## WATER-RESOURCE MONITORING PROGRAM, COUNTY OF MAUI

The purpose of the water-resource monitoring program is to collect data needed to evaluate the status and trends of surface and groundwater resources in the County of Maui. Since the 1980's, water-resource data have been collected at selected rainfall, streamflow, and ground-water monitoring stations as part of Joint Funding Agreements between the U.S. Geological Survey (USGS) and the County of Maui Department of Water Supply (MDWS). Data are collected by the USGS in accordance with well-documented techniques and quality-assurance procedures. Data are stored in the USGS National Water Information System database and are publicly available on the internet website (<http://hi.water.usgs.gov>). The number and type of monitoring stations is periodically adjusted to meet current priorities and available funds. The monitoring stations and associated costs for the period October 1, 2019 to September 30, 2020 are as follows:

MONITORING STATIONS	MDWS	USGS	TOTAL
<b>Groundwater Monitoring</b>			
<ul style="list-style-type: none"> <li>• <u>Kanoa Ridge Test Hole, Maui</u> <ul style="list-style-type: none"> <li>○ Groundwater-level monitoring site in an important drinking-water aquifer</li> <li>○ Site equipped with continuous water-level recorder and satellite telemetry to provide real-time data</li> <li>○ Data used to assess ground-water resources in the Waihee Aquifer</li> </ul> </li> </ul>	4,343	2,397	6,740
<ul style="list-style-type: none"> <li>• <u>Test Hole B, Maui</u> <ul style="list-style-type: none"> <li>○ Groundwater-level monitoring site in an important drinking-water aquifer</li> <li>○ Site equipped with continuous water-level recorder and satellite telemetry to provide real-time data</li> <li>○ Data used to assess groundwater resources in the Iao Aquifer</li> </ul> </li> </ul>	4,343	2,397	6,740
<ul style="list-style-type: none"> <li>• <u>Waikapu 2, Maui</u> <ul style="list-style-type: none"> <li>○ Groundwater-level monitoring site in an important drinking-water aquifer</li> <li>○ Site equipped with a continuous water-level recorder</li> <li>○ Data used to assess ground-water resources in the Iao Aquifer</li> </ul> </li> </ul>	3,410	3,330	6,740
<ul style="list-style-type: none"> <li>• <u>Waiehu Deep Monitor Well, Maui</u> <ul style="list-style-type: none"> <li>○ Groundwater-level and salinity monitoring site in an important drinking-water aquifer</li> <li>○ Samples collected quarterly from discrete depths for chloride analysis</li> <li>○ Continuous water-level monitoring in cooperation with the CWRM</li> <li>○ Data used to assess ground-water resources in the Iao Aquifer</li> </ul> </li> </ul>	11,768	2,632	14,400
<ul style="list-style-type: none"> <li>• <u>Kualapuu Deep Monitor Well, Molokai</u> <ul style="list-style-type: none"> <li>○ Groundwater-level and salinity monitoring site in an important drinking-water aquifer</li> <li>○ Site equipped with a continuous water-level recorder</li> <li>○ Salinity profiles collected twice per year in cooperation with the CWRM</li> <li>○ Data used to assess ground-water resources in the Kualapuu Aquifer</li> </ul> </li> </ul>	4,343	2,397	6,740

<b>Streamflow Monitoring – Real-time continuous-record stations</b>			
<ul style="list-style-type: none"> <li>• <u>Halawa Stream, Molokai</u> <ul style="list-style-type: none"> <li>○ Long-term streamflow monitoring station in a watershed unaffected by human activity</li> <li>○ Site equipped with continuous stage recorder and satellite telemetry to provide real-time data</li> <li>○ Data used to assess effects of climate change on surface-water and groundwater resources</li> </ul> </li> </ul>	14,690	8,110	22,800
<ul style="list-style-type: none"> <li>• <u>Waikamoi Stream, Maui</u> <ul style="list-style-type: none"> <li>○ Streamflow monitoring station in upcountry Maui</li> <li>○ Site equipped with continuous stage recorder and satellite telemetry to provide real-time data</li> <li>○ Data used to assess inflow to the Kula Reservoir</li> </ul> </li> </ul>	14,690	8,110	22,800
<ul style="list-style-type: none"> <li>• Kanaha Stream below Pipeline Intake near Lahaina, Maui <ul style="list-style-type: none"> <li>○ Streamflow monitoring station in West Maui</li> <li>○ Site equipped with continuous stage recorder and satellite telemetry to provide real-time data</li> <li>○ Data used to monitor compliance with interim instream flow standards</li> <li>○ Hawaii Department of Transportation contributes funding for this station</li> </ul> </li> </ul>	9,665	5,335	15,000
<ul style="list-style-type: none"> <li>• Kanaha Stream Pipeline Diversion near Lahaina, Maui <ul style="list-style-type: none"> <li>○ Streamflow monitoring station on diversion ditch in West Maui</li> <li>○ Site equipped with continuous stage recorder and satellite telemetry to provide real-time data</li> <li>○ Data used to monitor compliance with interim instream flow standards</li> </ul> </li> </ul>	15,960	0	15,960
<b>Rainfall Monitoring – Real-time continuous-record stations</b>			
<ul style="list-style-type: none"> <li>• <u>Puu Kukui Rain Gage, Maui</u> <ul style="list-style-type: none"> <li>○ Long-term rainfall station at the summit of the West Maui Mountain</li> <li>○ Site equipped with continuous recording rain gage and satellite telemetry to provide real-time data</li> <li>○ Data used to estimate ground-water recharge and determine existence and severity of drought conditions</li> </ul> </li> </ul>	8,228	4,542	12,770
<b>Total</b>	<b>91,440</b>	<b>39,250</b>	<b>130,690</b>