



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

STAFF SUBMITTAL
for the meeting of the
COMMISSION ON WATER RESOURCE MANAGEMENT

May 20, 2009
Honolulu, Oahu

Request to Amend the Cooperative Agreements with U.S. Geological Survey
For Hydrologic Data Collection for
East Maui Interim Instream Flow Standards

SUMMARY OF REQUEST:

Staff is requesting that the Commission on Water Resource Management (Commission) amend the Chairperson's authorization to enter into cooperative agreements with the U.S. Geological Survey (USGS) to conduct hydrologic data collection for established interim instream flow standard sites in east Maui, to provide flexibility in the source of funding from General Funds, Special Funds, or a combination of both.

BACKGROUND:

In September 2008, the Commission approved the establishment of measurable interim instream flow standards (interim IFS) for five surface water hydrologic units in east Maui.

In response, the Commission staff is seeking to establish a standardized methodology for the measurement and monitoring of streamflow in east Maui, in accordance with the adaptive management strategies associated with the approved interim IFS values in east Maui.

On March 18, 2009, the Commission was presented with a staff submittal that sought to authorize the Chairperson to enter into cooperative agreements with the U.S. Geological Survey to conduct hydrologic data collection for established interim IFS sites in east Maui. The scope of services calls for gage installation and rating development at five priority sites in east Maui (referred to as Phase I). The USGS would select suitable locations, install staff plates and reference marks, establish gage datum, and develop a low-water stage-discharge rating curve at each site.

In the same May, 18, 2009 submittal, the Commission staff also asked that the Commission authorize the Chairperson to enter into subsequent agreements between the Commission and the USGS to undertake specified gage installation, rating development and operation and maintenance activities at up to ten new streams sites (referred to as Phase II).

Both staff recommendations were approved by the Commission at its May 18, 2009 meeting, providing for project funding through the Department's Special Land Maintenance Fund. However, in light of the State's current fiscal situation, the Commission staff is seeking greater flexibility to fund Phases I and II from General Fund sources, Special Fund sources, or a combination of both. This will enable staff to allocate funding towards this project which is fiscally advantageous in consideration of funding other Commission programs and activities.

RECOMMENDATION:

1. Staff recommends that the Commission amend the Chairperson's authorization to enter into cooperative agreements with the U.S. Geological Survey (USGS) to conduct hydrologic data collection for established interim IFS sites in east Maui, to provide greater flexibility in the source of funding from General Funds, Special Funds, or a combination of both.

Respectfully submitted,



KEN C. KAWAHARA, P.E.
Deputy Director

- Exhibit(s) 1. May 18, 2009 Staff Submittal to Request to Enter into Cooperative Agreements with U.S. Geological Survey for Hydrologic Data Collection for East Maui Interim Instream Flow Standards

APPROVED FOR SUBMITTAL:



LAURA H. THIELEN
Chairperson



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

STAFF SUBMITTAL

for the meeting of the
COMMISSION ON WATER RESOURCE MANAGEMENT

March 18, 2009
Honolulu, Oahu

Request to Enter into Cooperative Agreements with U.S. Geological Survey
For Hydrologic Data Collection for
East Maui Interim Instream Flow Standards

SUMMARY OF REQUEST:

Staff is requesting that the Commission on Water Resource Management (Commission) authorize the Chairperson to enter into cooperative agreements with the U.S. Geological Survey to conduct hydrologic data collection for established interim instream flow standard sites in east Maui.

BACKGROUND:

The State Water Code mandates that the Commission establish a statewide instream use protection program (State Water Code, Hawaii Revised Statutes, chapter 174C, section 71). The principle mechanism that the Commission has for protection of instream uses is to establish instream flow standards. "Each instream flow standard shall describe the flows necessary to protect the public interest in the particular stream. Flows shall be expressed in terms of variable flows of water necessary to protect adequately fishery, wildlife, recreational, aesthetic, scenic, or other beneficial instream uses in the stream in light of existing and potential water developments including the economic impact of restriction of such use" (State Water Code, section 174C-71(1)(C)). The State Water Code defines instream uses as beneficial uses of stream water for significant purposes which are located in the stream and which are achieved by leaving the water in the stream. Instream uses include, but are not limited to: (1) maintenance of fish and wildlife habitats; (2) outdoor recreational activities; (3) maintenance of ecosystems such as estuaries, wetlands, and stream vegetation; (4) aesthetic values such as waterfalls and scenic waterways; (5) navigation; (6) instream hydropower generation; (7) maintenance of water quality; (8) the conveyance of irrigation and domestic water supplies to downstream points of diversion; and (9) the protection of traditional and customary Hawaiian rights.

In September 2008, the Commission approved the establishment of measurable interim instream flow standards (interim IFS) for five surface water hydrologic units in east Maui as outlined below:

Honopou (6034)

- **Interim IFS A:** An interim IFS of 2.00 cubic feet per second (1.29 million gallons per day) at the lower reach of Honopou Stream near the inactive USGS stream gaging station 16595000 at 383 feet elevation, downstream of Haiku Ditch.
- **Interim IFS B:** An interim IFS of 0.72 cubic feet per second (0.47 million gallons per day) at the lower reach of Honopou Stream near 40 feet elevation. This location is upstream of the confluence of Puniawa Stream and Honopou Stream, and downstream of the lowest registered diversion on Honopou Stream.

Hanehoi (6037)

- **Interim IFS A:** An interim IFS of 0.89 cubic feet per second (0.57 million gallons per day) at the lower reach of Huelo (Puolua) Stream near 420 feet elevation, downstream of Haiku Ditch. This is the location of the ungaged site, station HuelL.
- **Interim IFS B:** An interim IFS of 0.63 cubic feet per second (0.41 million gallons per day) at the lower reach of Hanehoi Stream near 420 feet elevation, downstream of Haiku Ditch.
- **Interim IFS C:** An interim IFS of 1.15 cubic feet per second (0.74 million gallons per day) at the lower reach of Hanehoi Stream, upstream of Lowrie Ditch and the diversion of water for domestic use in the Huelo community.

Piinaau (6053)

- **Interim IFS B:** An interim IFS of 5.50 cubic feet per second (3.56 million gallons per day) at the lower reach of Palauhulu Stream near 80 feet elevation, upstream from the confluence of Piinaau and Palauhulu Streams. This is the location of the USGS ungaged site, station PhL.

Waiokamilo (6055)

- **Interim IFS A:** An interim IFS of 4.9 cubic feet per second (3.17 million gallons per day) at the lower reach of Waiokamilo Stream at the location of the USGS gaging station 16521300 near Dam 3. This location is downstream of Koolau Ditch, but upstream of the confluence of Waiokamilo and Kualani (Hamau) Streams.

Wailuanui (6056)

- **Interim IFS:** An interim IFS of 3.05 cubic feet per second (1.97 million gallons per day) at the lower reach of Wailuanui Stream near the inactive USGS gaging station 16521000 at 620 feet elevation. This location is downstream of Koolau Ditch, below the confluence of the tributaries, East and West Wailuanui Streams.

The Commission staff is seeking to establish a standardized methodology for the measurement and monitoring of streamflow in east Maui, in accordance with the adaptive management strategies associated with the approved interim IFS values above. The methods, developed in coordination with the USGS, will be incorporated as part of a long-term management framework for the implementation of measurable IFS statewide.

SCOPE OF SERVICES:

The proposed scope of work for the Federal FY 09 calls for gage installation and rating development at five priority stream sites in east Maui. The USGS will select suitable locations, install staff plates and reference marks, establish gage datum, and develop a low-water stage-discharge rating curve at each site. The period of performance is May 1, 2009 through September 30, 2009. The total cost of the work will be \$50,500, of which the Commission's share will be \$25,500 and the remaining \$25,000 to be provided by the USGS as Federal matching funds. The stream sites and associated costs for the program in Federal FY 09 are identified below:

CWRM Priority Stream Site	Reconnaissance and Installation	Rating curve development	Total
Honopou Site A (6034)	\$ 4,700	\$ 5,400	\$ 10,100
Honopou Site B (6034)	\$ 4,700	\$ 5,400	\$ 10,100
Hanehoi Site C (6037)	\$ 4,700	\$ 5,400	\$ 10,100
Palauhulu Site B (6053)	\$ 4,700	\$ 5,400	\$ 10,100
Wailuanui Site (6056)	\$ 4,700	\$ 5,400	\$ 10,100
TOTAL	\$ 23,500	\$ 27,000	\$ 50,500

For planning purposes, the Commission intends to enter into subsequent joint funding cooperative agreements in Federal FY 2010 and 2011. The estimated cost to continue operation and maintenance for the first five priority stream sites (identified above) in Federal FY 2010 is \$21,000 (\$4,200 per site).

While the Commission staff is currently working to address the remaining 19 petitions to amend interim IFS in east Maui, preliminary discussions with USGS have provided for the addition of up to 10 new stream sites in Federal FY 2010 at a cost of \$10,100 per site (referred to as Phase II). The USGS can contribute \$25,000 pending the availability of Federal matching funds.

The Commission staff intends to assume the operation and maintenance of the first five priority stream sites starting October 2010, while the operation and maintenance of the Phase II stream sites would be continued by USGS through Federal FY 2011. The tentative schedule and associated costs are outlined below:

CWRM Priority Stream Site	Reconnaissance and Installation	Rating curve development	Operation and maintenance	Total
Federal FY 2009 (May 1, 2009 to September 30, 2009)				
Five Priority Stream Sites	\$ 23,500	\$ 27,000		\$ 50,500
Federal FY 2010 (October 1, 2009 to September 30, 2010)				
Five Priority Stream Sites			\$ 21,000*	\$ 21,000*
Ten Phase II Stream Sites	\$ 47,000*	\$ 54,000*		\$ 101,000*
Federal FY 2011 (October 1, 2010 to September 30, 2011)				
Five Priority Stream Sites	**CWRM Staff will assume operation and maintenance of these gage sites			
Ten Phase II Stream Sites			\$ 42,000*	\$ 42,000*
TOTAL	\$ 70,500*	\$ 81,000*	\$ 63,000*	\$ 214,500*

* Cost estimates for Federal FY 2010 and 2011 are subject to change pending USGS fee structure and availability of State and/or Federal matching funds.

FUNDING:

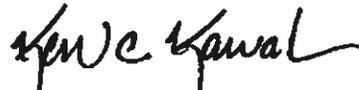
Funding through the Department's Special Land Maintenance Fund is currently available for project implementation.

RECOMMENDATION:

1. Staff recommends that the Commission authorize the Chairperson to enter into a cooperative agreement between the Commission and the U.S. Geological Survey to undertake specified gage installation, rating development and operation and maintenance activities at five priority stream sites in east Maui.
2. Staff also recommends that the Commission authorize the Chairperson to enter into subsequent agreements between the Commission and the U.S. Geological Survey to undertake specified gage installation, rating development and operation and maintenance activities at up to ten new stream sites (Phase II).

The terms of these agreements will be subject to the availability of funding and the approval of the Chairperson and the Department's Deputy Attorney General.

Respectfully submitted,



KEN C. KAWAHARA, P.E.
Deputy Director

- Exhibit(s) 1. USGS Letter presenting Scope of Work for Cooperative Hydrologic Data-Collection for East Maui Instream Flow Standards, Federal Fiscal Year 2009

APPROVED FOR SUBMITTAL:



LAURA H. THIELEN
Chairperson



United States Department of the Interior RECEIVED

U.S. GEOLOGICAL SURVEY
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COMMISSION ON WATER
RESOURCE MANAGEMENT

February 27, 2009

Mr. Ken C. Kawahara, Deputy Director
State of Hawaii
Department of Land and Natural Resources
Commission on Water Resource Management
P.O. Box 621
Honolulu, HI 96809

Dear Mr. Kawahara:

Subject: Cooperative hydrologic data-collection for East Maui instream flow standards, Federal fiscal year 2009

This letter presents the scope of work and costs for gage installation and rating development at five sites in east Maui, following discussions with your staff. We will select suitable locations, install staff plates and reference marks, establish gage datum, and develop a low-water stage-discharge rating curve at each site. The period of performance is May 1, 2009 through September 30, 2009. The total cost of the work will be \$50,500, of which \$25,500 will be provided by the State Commission on Water Resource Management (CWRM) and \$25,000 will be provided by the U.S. Geological Survey (USGS). The stream sites and associated costs for the program in Federal fiscal year 2009 are provided below:

CWRM Priority Stream Site	Reconnaissance and installation	Rating curve development	Total
Honopou Site A (6034)	\$ 4,700	\$ 5,400	\$10,100
Honopou Site B (6034)	\$ 4,700	\$ 5,400	\$10,100
Hanehoi Site C (6037)	\$ 4,700	\$ 5,400	\$10,100
Palauhulu Site B (6053)	\$ 4,700	\$ 5,400	\$10,100
Wailuanui Site (6056)	\$ 4,700	\$ 5,400	\$10,100
TOTAL	\$23,500	\$27,000	\$50,500

EXHIBIT 1

Mr. Ken C. Kawahara, Deputy Director

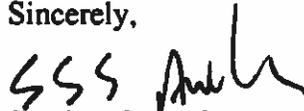
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For planning purposes, operation and maintenance cost for these five sites in Federal fiscal year 2010 is \$21,000 (\$4,200 per site). Costs to add up to 10 new sites in FY 2010 is \$10,100 per site. The USGS can contribute \$25,000 pending the availability of Federal matching funds.

The legal authority for the USGS to enter into this program is 43 USC 36C, 43 USC 50, and 43 USC 50b. Work performed with funds from this program will be conducted on a fixed-cost basis. This means that invoices will be based on agreed-upon amount, rather than actual expenses. Your agency will be billed using Form DI-1040. The results of all work under this program will be available for publication by the USGS. Staff plates will become the property of the Commission.

If you are in agreement with this program, please submit an updated Memorandum of Agreement by May 1, 2009, or at your earliest convenience. If you have any questions concerning this program, please feel free to contact me at 587-2405 or Ron Rickman of my staff at 587-2407.

Sincerely,

A handwritten signature in black ink, appearing to read 'SSS Anthony', written over the typed name.

Stephen S. Anthony
Acting Center Director