



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

STAFF SUBMITTAL

COMMISSION ON WATER RESOURCE MANAGEMENT

August 11, 2015
Honolulu, Hawaii

Request to Enter into a Joint Funding Agreement with U.S. Geological Survey
For Statewide Hydrologic Data Collection and
Water Resource Monitoring for Federal Fiscal Year (FFY) 2016

SUMMARY OF REQUEST

Staff recommends that the Commission on Water Resource Management ("Commission") enter into a Joint Funding Agreement ("Agreement") with the U.S. Geological Survey (USGS) for the inventory and investigation of Hawaii's water resources.

BACKGROUND

The cooperative monitoring of Hawaii's hydrologic resources began in 1909 when the USGS entered into an Agreement with the Territory of Hawaii. Initially, monitoring focused mainly on surface water. Only 12 streams were gaged continuously. By 1914 there were 87 continuous-record stations. The program continued to grow. It reached a peak in 1966 when 197 gages were operational. Over the years, gages were discontinued for a variety of reasons. There was a shift in fiscal priorities, economic realities, completed data acquisition objectives, and reduced partnership engagement in monitoring and data collection.

In 1972, groundwater data collection became an integral part of the Agreement. Baseline data throughout the State covered 170 observation wells. But like surface water gages, observation well data recording steadily declined over the years. Only 14 well sites now remain to provide data continuity in FFY 2016.

Beginning in 1998, the Commission streamlined the cooperative agreement by transferring the crest-stage stream-gaging program to civil defense agencies where this data (e.g. flooding issues) are more relevant to disaster response rather than sustainability issues, and by eliminating duplication of groundwater data collection efforts in wells. Groundwater data gathering changed and expanded to incorporate data provided by water system purveyors and well owners, who were required by law and rule to report their water-use and groundwater and chloride levels. The Waiahole Trust Fund continues to help defray the cost of monitoring the Waiahole Ditch system and its sources.

The cost for operating and maintaining each type of rainfall, stream, and groundwater monitoring station has been standardized. Exhibit 1 provides a summary of changes to the program, including the operational cost, since FFY 2007.

The cooperative monitoring of Hawaii's hydrologic resources is part of the Commission's mandate to "maintain an inventory of all water uses and water resources." Haw. Rev. Stat. §174C-5(14). The program also helps the Commission to assess how climate variability affects water resources, changing land use, and increasing water demands. Maintaining a long-term hydrologic monitoring program with the USGS is an essential component of the Commission's mission to manage Hawaii's water resources.

CURRENT AGREEMENT

The nature of the Agreement and relationship of the parties remains the same as FFY 2015, the total number of stream gaging stations increases by one to 27, the number of rain gages also increases by one to 17, and the number of wells remains at 14.

Exhibit 2 outlines the proposed scope of services. The Agreement covers FFY 2016 (October 1, 2015 to September 30, 2016).

Exhibit 3 lists the stations to be funded in the FFY 2016 Agreement. The total cost of the Agreement will not exceed \$749,069. The Commission's share will not exceed \$486,933.

Under the FFY 2016 Agreement, the USGS will collect basic hydrologic data and provide data summary reports on water resources throughout the State of Hawaii.

The table below summarizes the annual changes in funding requirements for this Agreement.

COST	FFY2014	FFY2015	FFY2016
Total Joint Funding Requirement	\$702,650	\$717,381	\$749,069
Expected (full-year) CWRM cost-share not to exceed	\$433,218	\$444,700	\$486,933
Percentage CWRM cost-share	62%	62%	65%
DOFAW Watershed Management Grant	\$0	\$0	\$0
Waiahole Ditch Monitoring Fund	\$41,650	\$41,650	\$41,650
Ground water well continuous monitoring	\$7,230	\$7,015	\$7,015
Rain gage continuous recording	\$9,670	\$9,370	\$9,420
Continuous recording stream gage	\$20,090	\$20,090	\$20,143

OTHER

I. Chapter 343 – Environmental Assessment (EA) Compliance

Environmental Assessment ("EA") Triggers

Under Hawaii Revised Statutes §343-5(a), the use of state funds triggers the need for an environmental assessment EA.

EA Exemption

The proposed action is exempt from an EA based on Hawaii Administrative Rule §11-200-8(a)(5) and the Exemption List for the Department of Land and Natural Resources approved by the Environmental Council on June 5, 2015 that states “basic data collection, research, experimental management and resource evaluation activities that do not result in a serious or major disturbance to an environmental resource”.


RECOMMENDATIONS

Staff recommends that the Commission:

- 1) Authorize the Chairperson to enter into a Joint Funding Agreement with the U.S. Geological Survey for FFY 2016 to undertake the specified monitoring activities;
- 2) Delegate authority to the Chairperson to modify the list of monitoring stations, provided that there is no increase in cost to the Commission, and
- 3) Find and determine that this Joint Funding Agreement is exempt from preparing an EA.

The terms of this Agreement are subject to the approval of the Attorney General's Office. Contract execution will be done in accordance with Hawaii Revised Statute Chapter 103D and Hawaii Administrative Rules, Chapter 3-122,

Respectively,


W. ROY HARDY
Acting Deputy Director

Exhibits:

1. Summary of Changes to the Cooperative Program: 2007-2016
2. Proposed Scope of Services
3. Monitoring Stations to be Operated
4. 343 Exemption Notification

APPROVED FOR SUBMITTAL:

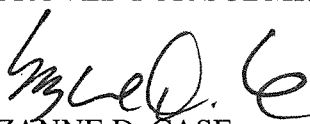

SUZANNE D. CASE
Chairperson

EXHIBIT 1**SUMMARY OF CHANGES TO THE COOPERATIVE PROGRAM: 2007 to 2016**

Federal Fiscal Year	No. of Stream Gages	No. of Wells Ground Water	No. of Rain Gages	CWRM Contribution \$	<u>Changes and Comments</u>
2007	32	31	22	\$459,020	<ol style="list-style-type: none"> 1. USGS monitoring costs increased by 31% 2. Addition of \$132,000 from the Watershed Management Grant Program 3. Waiahole Trust Fund provided \$42,713 for Waiahole gages
2008	32	34	21	\$526,600	<ol style="list-style-type: none"> 1. Addition of \$118,175 from the Watershed Management Grant Program 2. Waiahole Trust Fund provided \$41,040 for Waiahole stations
2009	27	26	18	\$504,000	<ol style="list-style-type: none"> 1. Watershed Management Grant Program support was reduced to \$48,896 2. Waiahole Trust Fund provided \$48,000 for Waiahole stations
2010	25	17	14	\$405,500	<ol style="list-style-type: none"> 1. Quarterly implementation of the agreement 2. Watershed Management Grant Program withdraws support 3. Waiahole Trust Fund provided \$50,500 for Waiahole stations
2011	28	20	14	\$404,900	<ol style="list-style-type: none"> 1. USGS cost share increases to 50% 2. Additional Federal match used to reinstate monitoring stations 3. Waiahole Trust Fund provided \$35,495 for Waiahole stations
2012	27	18	14	Not to exceed \$487,760	<ol style="list-style-type: none"> 1. CWRM cost share increases to 57% 2. Waiahole Trust Fund to provide \$41,850 for Waiahole stations 3. USGS monitoring costs increased by about 10%
2013	28	18	14	\$417,650	<ol style="list-style-type: none"> 1. Waiahole Trust Fund to provide \$39,850 for Waiahole stations 2. Moanalua Stream station added to support Rain Follows the Forest Initiative
2014	25	14	15	\$433,218	<ol style="list-style-type: none"> 1. Waiahole Trust Fund to provide \$41,650 for Waiahole stations
2015	26	14	16	\$444,700	<ol style="list-style-type: none"> 1. Mt. Waialeale Rain Gage added 2. South Fork Kaukonahua stream gage added 3. Waiahole Trust Fund to provide \$41,650 for Waiahole stations
2016	26	14	16	\$486,933	<ol style="list-style-type: none"> 1. CWRM cost share increases to 65% 2. Waiahole Trust Fund to provide \$41,650 for Waiahole stations

[EXHIBIT 2]

PROPOSED SCOPE OF SERVICES

1. This Joint Funding Agreement (“Agreement”) is a continuation of the joint funding agreement for the collection of hydrological data in the State of Hawaii between the U.S. Geological Survey, United States Department of the Interior and the Commission on Water Resource Management, Department of Land and Natural Resources, State of Hawaii (“Commission”).
2. The scope of services involves the collection and computation of data on water resources collected in multiple locations throughout the State of Hawaii.
3. U.S. Geological Survey shall collect data at an agreed upon list of surface water stations, ground water monitoring stations, and rainfall stations, as set forth in Exhibit 3 which is attached hereto and incorporated by reference.
4. U.S. Geological Survey shall provide data summary reports and review of historical data sets.
5. U.S. Geological Survey shall host the maps, data, and reports resulting from this program in a publicly-accessible website, and shall provide the Commission staff direct and easy access to acquire, download, or transfer the data and report from a USGS server. The parties shall use good faith efforts to resolve any disagreements in the scope and validation of data acquisition and the contents of the report.
6. U.S. Geological Survey shall provide a readable statement of cooperative relations and visually identifiable symbol of the Commission as a cooperator in print, digital, and online publications of the data and reports of the monitoring stations that are included in the current cooperative program, and as well as the stations that were historically supported and funded by the Commission.
7. At least quarterly and upon request by the Commission on Water Resource Management, the U.S. Geological Survey will update the Commission on the progress of its work on this Joint Funding Agreement.
8. The Commission on Water Resource Management shall assist the U.S. Geological Survey in its work under the Joint Funding Agreement to the extent feasible and practicable under existing resources of the Commission.

MONITORING STATIONS TO BE OPERATED

[EXHIBIT 3]

Monitoring Stations to be operated as part of the cooperative water-resource monitoring program between the State of Hawaii Department of Land and Natural Resources Commission on Water resource Management and the U.S. Geological Survey during the period October 1, 2015 to September 30, 2016.

[RT, real-time telemetry to make data accessible over the internet through the USGS National Water Information System]

<u>USGS Station No.</u>	<u>Island</u>	<u>USGS Station Name</u>	<u>Station Type</u>	<u>Frequency</u>	<u>CWRM</u>	<u>USGS</u>	<u>Total</u>
215607159344301	Kauai	2-5634-01 Hanapepe Ridge	Groundwater level	Quarterly	2,615	1,000	3,615
212154158015201	Oahu	3-2101-03 Honouliuli	Groundwater level	Quarterly	2,615	1,000	3,615
212738158034301	Oahu	3-2703-02 Kunia Basal Monitor Well	Groundwater level	Quarterly	2,615	1,000	3,615
213438158091101	Oahu	3-3409-16 Mokuleia	Groundwater level	Quarterly	2,615	1,000	3,615
211832157515501	Oahu	3-1851-19 Halekauwila Street, Pipe A	Groundwater level + Chloride	Quarterly	4,460	980	5,440
211832157515502	Oahu	3-1851-19 Halekauwila Street, Pipe B	Groundwater level + Chloride	Quarterly	4,460	980	5,440
212238157561101	Oahu	3-2256-10 Aiea US Navy, (187-B)	Groundwater level	6 times per year	3,410	780	4,190
210402156495801	Molokai	4-0449-01 Ualapue	Groundwater level	Quarterly	2,605	1,010	3,615
210825157004301	Molokai	4-0800-01 Kualapuu Deep Monitor Well	Salinity profile	2 times per year	2,780	1,230	4,010
205140156304501	Maui	6-5130-01 Waikapu 1	Groundwater level	Quarterly	2,605	1,010	3,615
205405156305401	Maui	6-5430-05 Waiehu Deep Monitor Well	Groundwater level	Continuous	4,935	2,080	7,015
194327156002301	Hawaii	8-4360-01 Kalaoa N Kona (W12-11)	Groundwater level	Continuous	4,935	2,080	7,015
190423155371501	Hawaii	8-0437-01 Waiohinu*	Groundwater level	Quarterly	1,430	340	1,770
200132155471101	Hawaii	8-6147-01 Kawaihae W-3	Groundwater level	Quarterly	2,605	1,010	3,615
220356159281401	Kauai	1051.0 N. Wailua Ditch near Lihue	Rainfall	Continuous - RT	6,586	2,834	9,420
220427159300291	Kauai	1047.0 Mt. Waialeale Rain Gage near Lihue	Rainfall	Continuous - RT	6,586	2,834	9,420
220713159361201	Kauai	1083.0 Mohihi Crossing near Waimea	Rainfall	Continuous - RT	6,586	2,834	9,420
220739159373001	Kauai	1082.0 Waiakoali near Waimea	Rainfall	Continuous - RT	6,586	2,834	9,420
220927159355001	Kauai	1084.0 Kilohana near Hanalei	Rainfall	Continuous - RT	6,586	2,834	9,420
220523159341201	Kauai	1042.0 Waialae near Waimea	Rainfall	Continuous - RT	6,586	2,834	9,420
212359157502601	Oahu	772.3 Moanalua No. 1 at alt. 1,000 ft	Rainfall	Continuous - RT	6,586	2,834	9,420
212855157504501	Oahu	837.0 Waiahole at Kamehameha Hwy.	Rainfall	Continuous - RT	6,586	2,834	9,420
213215157552800	Oahu	883.12 Poamoho No. 1, nr Wahiawa	Rainfall	Continuous - RT	6,586	2,834	9,420
213237157530701	Oahu	886.4 Kahana at alt. 95 ft.	Rainfall	Continuous - RT	6,586	2,834	9,420
213608158011101	Oahu	897.9 Pupukea at alt. 1,160 ft.	Rainfall	Continuous - RT	6,586	2,834	9,420
213732158010201	Oahu	897.11 Kamananui at alt. 720 ft.	Rainfall	Continuous - RT	6,586	2,834	9,420
203721156151601	Maui	255.0 Kepuni Gulch	Rainfall	Continuous - RT	6,586	2,834	9,420
194117155174801	Hawaii	83.0 Quarry at Saddle Road	Rainfall	Continuous - RT	6,586	2,834	9,420
194945155534402	Hawaii	92.5 Kiholo	Rainfall	Continuous - RT	6,586	2,834	9,420
200518155405801	Hawaii	185.7 Kawainui near Kamuela	Rainfall	Continuous - RT	6,586	2,834	9,420
204916156083701	Maui	348.5 West Wailuku Rain Gage near Keanae	Rainfall	Continuous - RT	6,586	2,834	9,420

<u>USGS Station No.</u>	<u>Island</u>	<u>USGS Station Name</u>	<u>Station Type</u>	<u>Frequency</u>	<u>CWRM</u>	<u>USGS</u>	<u>Total</u>
16031000	Kauai	Waimea River at Waimea	Streamflow	Continuous – RT	12,510	7,633	20,143
16049000	Kauai	Hanapepe Riv below Manuahi Str nr Eleele	Streamflow	Continuous - RT	12,510	7,633	20,143
16060000	Kauai	SF Wailua River near Lihue	Streamflow	Continuous - RT	12,510	7,633	20,143
16068000	Kauai	East Branch of North Fork Wailua River nr Lihue	Streamflow	Continuous - RT	12,510	7,633	20,143
16071500	Kauai	Left Branch Opaekaa Stream near Kapaa	Streamflow	Continuous - RT	12,510	7,633	20,143
16097500	Kauai	Halaulani Stream at alt 400 ft. near Kilauea	Streamflow	Continuous - RT	12,510	7,633	20,143
16103000	Kauai	Hanalei River near Hanalei	Streamflow	Continuous - RT	12,510	7,633	20,143
16208000	Oahu	SF Kaukonahua at E. Pump nr Wahaiwa	Streamflow	Continuous – RT	12,510	7,633	20,143
16227500	Oahu	Moanalua Stream near Kaneohe	Streamflow	Continuous – RT	12,510	7,633	20,143
16229000	Oahu	Kalihi Stream near Honolulu	Streamflow	Continuous - RT	12,510	7,633	20,143
16240500	Oahu	Waiakeakua Stream at Honolulu	Streamflow	Continuous - RT	12,510	7,633	20,143
16294900	Oahu	Waikane Stream at alt. 75 ft. at Waikane	Streamflow	Continuous - RT	12,510	7,633	20,143
16345000	Oahu	Opaekula Stream near Wahiawa	Streamflow	Continuous - RT	12,510	7,633	20,143
16294100	Oahu	Waiahole Stream above Kamehameha Hwy.	Streamflow	Continuous - RT	12,510	7,633	20,143
16296500	Oahu	Kahana Stream at alt. 30 ft. nr Kahana	Streamflow	Continuous - RT	12,510	7,633	20,143
16301050	Oahu	Punaluu Stream above Diversion near Punaluu	Streamflow	Continuous - RT	12,510	7,633	20,143
16508000	Maui	Hanawi Stream near Nahiku	Streamflow	Continuous - RT	12,510	7,633	20,143
16604500	Maui	Iao Stream at Kepaniwai Park near Wailuku	Streamflow	Continuous - RT	12,510	7,633	20,143
16614000	Maui	Waihee River abv Waihee Ditch Intake nr Waihee	Streamflow	Continuous - RT	12,510	7,633	20,143
16620000	Maui	Honokohau Stream near Honokohau	Streamflow	Continuous - RT	12,510	7,633	20,143
16518000	Maui	West Wailuaiki Stream near Keanae**	Streamflow	Continuous - RT	5,026	-	5,026
16587000	Maui	Honopou Stream near Huelo	Streamflow	Continuous - RT	12,510	7,633	20,143
16704000	Hawaii	Wailuku River at Piihonua	Streamflow	Continuous - RT	12,510	7,633	20,143
16720000	Hawaii	Kawainui Stream nr Kamuela	Streamflow	Continuous - RT	12,510	7,633	20,143
16770500	Hawaii	Paaauu Gulch at Pahala	Streamflow	Continuous - RT	12,510	7,633	20,143
16717000	Hawaii	Honolii Stream nr Papaikou	Streamflow	Continuous - RT	12,510	7,633	20,143
16725000	Hawaii	Alakahi Stream near Kamuela	Streamflow	Continuous - RT	12,510	7,633	20,143

Total = 486,933 262,136 749,069

* partially funded by the USGS CBR program

** partially funded by the USGS National Streamflow Information Program

EXEMPTION NOTIFICATION

Regarding the preparation of an environmental assessment pursuant to Chapter 343, HRS and Chapter 11-200, HAR

Project Title: FY 2016 CWRM USGS Cooperative Agreement

Project / Reference No.: Not applicable

Project Location: State-wide


Project Description: Collection of Rainfall, Stream, and Groundwater Data

Chap. 343 Trigger(s): Use of State Land and Funds

Exemption Class No.: In accordance with Hawaii Administrative Rule Section 11-200-8(a)(5)(1), the subject request is exempt from the preparation of an environmental assessment pursuant to Exemption Class No. 5, that states, "Basic data collection, research, experimental management, and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource. 1. Conduct surveys or collect data on existing environmental conditions (e.g, noise, air quality, water flow, water quality, etc.)"

Consulted Parties: Not applicable.

Recommendation: It is recommended that the Board find that this project will probably have minimal or no significant effect on the environment and is presumed to be exempt from the preparation of an environmental assessment.



Suzanne D. Case, Chairperson
Date 8/3/15