



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
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STAFF SUBMITTAL

for the meeting of the
COMMISSION ON WATER RESOURCE MANAGEMENT

June 21, 2006
Honolulu, Oahu

Request to Enter Into a Contract for Professional Services to Conduct Statewide
Field Investigations to Verify and Inventory Surface-Water Uses and Stream Diversions, and
Update Existing Surface-Water Information

SUMMARY OF REQUEST:

Staff is requesting that the Commission authorize the Chairperson to enter into a contract or contracts for professional services to conduct statewide field investigations to verify and inventory surface-water uses and stream diversions, and update existing surface-water information.

LOCATION: Statewide application

BACKGROUND:

The State Water Code mandates that the Commission on Water Resource Management (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 order to establish instream flow standards to protect instream uses, the State Water Code provides that the Commission “shall weigh the importance of the present or potential uses of water from the stream for noninstream purposes, including the economic impact of restriction of such uses.” To adequately “weigh the importance” of leaving water in the streams for instream uses versus allowing the water to be diverted from the streams for offstream uses, an inventory of offstream uses is required.

The State Water Code, Section 174C-26, provided procedures for all water users statewide to file a declaration of their uses with the Commission within one year from the date the administrative rules for the State Water Code were adopted, effectively, May 30, 1989. As of September 1992, there were 2,387 water use declarant files, of which, 2,175 were deemed complete. The data obtained from the declaration process were not adequately verified or confirmed through field inspections by Commission staff.

Beginning in the summer of 1990, field crews of the Commission undertook limited verification of water sources and uses that had been registered and declared to the Commission in accordance with requirements of the State Water Code. By June 1992, the field crews had conducted only initial inspections of water sources and uses on Oahu in tax map zones 4,5,6,7, and 8. Progress was slow due to staffing/resource limitations and difficulties in contacting declarants to schedule inspections. In subsequent years, the Commission has hired private contractors to conduct further limited field verifications, but has been similarly constrained by the lack of appropriate resources.

Recognizing the importance and continuing need for this information, the department included a funding request as part of its FY '07 Supplemental Budget to undertake and continue the required statewide field verification of stream diversions. The State Legislature approved and appropriated \$650,000 to the Commission for this project.

SCOPE OF SERVICES:

This proposed Investigation calls for prioritized and phased field verification and documentation of existing surface-water diversions statewide. The investigation would include: (1) global positioning system (GPS) derived location of each surface-water diversion in terms of latitude and longitude coordinates and tax map key number plotted on U.S. Geological Survey quadrangle and tax maps; (2) photographs and schematic drawings of the diversion captioned with appropriate descriptions; (3) a written descriptive summary identifying the withdrawal capacity of the diversion, the time, manner, and quantity of taking, the user of the water from the source, and the nature of the water use; (4) identification and description of the size and/or capacity of any infrastructure, such as pipes or ditches used to transport the water from the source to the area of use; and any other information that may be useful to the establishment of IFS; and (5) development of a standardized field investigation methodology.

The \$650,000 is an estimated amount based on approximately 1,260 registered and/or permitted diversions, at a projected cost of about \$500 per diversion (1300 X \$500 = \$650,000). The final

costs per diversion inspected will be dependent upon accessibility and actual field conditions. It is anticipated that the final costs for inspecting all stream diversions statewide may be higher since some stream diversions will be more difficult to access and measure flows. Phasing of the field verification may be required, including additional funding to complete this effort.

It should be clearly understood that any field measurements of quantities of surface water diverted are, at best, a snapshot in time. The amounts diverted from a stream will be dependent on the weather and seasonal considerations. Unless there is a flow meter installed at some point in the water system, that is properly placed and constantly maintained, or there is a continuous recording stream gage with long-term records (twenty-plus years), a single flow measurement during a field inspection will only be an indication of the flow at the time it is taken. The amount of flow may vary considerably depending on the rainfall in the watershed, other diversions upstream, or other factors at the time of the investigation. However, even with these limitations the documentation of the existing conditions and data from these field investigations are considered a necessary foundational step in the process of establishing both interim and permanent instream flow standards. Effective management of the data collected will also require development of a comprehensive data base to store and access the diversion information along with other stream-related data.

FUNDING:

The funds from the Department's LNR 404, Water Resources Program FY '07 Budget will be available for project implementation on July 1, 2006.

RECOMMENDATION:

Staff recommends that the Commission authorize the Chairperson to enter into a contract or contracts for professional services to conduct the statewide field investigations to verify and inventory surface-water uses and stream diversions, and update existing surface-water information. The terms of this contract(s) will be subject to the approval of the Chairperson and the Department's Deputy Attorney General. Contract execution will be done in accordance with Chapter 103D, HRS, and Chapter 3-122, Hawaii Administrative Rules.

Respectfully submitted,



DEAN A. NAKANO
Acting Deputy Director

APPROVED FOR SUBMITTAL:



PETER T. YOUNG
Chairperson