



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 24, 2006
Honolulu, Oahu

Request to Provide State Cost-Share Towards a Project Proposal To
Update and Publish Climatological Rainfall Stations for Oahu

BACKGROUND

The Department of Land and Natural Resources, Division of Water and Land Development, completed a report of climate stations in Hawaii in January 1973 with the publication of Report R42 *Climatologic Stations in Hawaii*. Since this time, there has been no comprehensive update of Hawaii's climate station index or location maps.

There is a need to update the climate station index and mapping across the state, especially for those stations not associated with the National Weather Service Cooperative Observer Program as it has been over 33 years since the last statewide review. This basic information on station location, elevation, period of record, elements observed, etc., is essential for any type of climate data analysis. Such information is required in utilizing and analyzing precipitation data, which is used by the Commission staff, county water departments, and others – including engineers, architects, planners, attorneys, farmers, ranchers, resource managers, and the like. Presently, information on current and historical rainfall stations is very difficult to find and an individual may need to refer to several different publications and/or consult with experts to obtain current and accurate information.

Dr. Pao Shin Chu, professor of meteorology and State Climatologist at the University of Hawaii State Climate Office, has approached the City and County of Honolulu Board of Water Supply (BWS) with a project proposal to update the climate station index for Oahu. BWS has requested that the Commission cost-share in the proposed project. The total cost for the project is \$20,000, including the Commission's cost-share of \$5,000.

With current technology and software, a much improved climate station index and mapping can be developed. Dr. Chu has nearly completed a similar project to update the climatological station index and maps for the County of Kauai. The Commission has provided a similar \$5,000 cost-share toward this effort. Dr. Chu is also working with the County of Maui Department of Water Supply and the County of Hawaii Department of Water Supply to update their respective County's rainfall station index and maps.

PROJECT PROPOSAL

The project to update and publish Climatological Rainfall Stations for Oahu, consists of three main components (see Exhibit 1):

1. Updating the station location maps with geographic information system maps.
2. Updating the rainfall station index and station characteristics.
3. Updating the mean annual rainfall map for Oahu.

Copies of the published report will be provided to the Commission and posted online at the Hawaii State Climate Office's web page (<http://lumahai.soest.hawaii.edu/Hsco/index.html>).

The results from this project will directly benefit Commission staff by providing updated Oahu climate station information and location maps in order to facilitate precipitation data analyses such as drought assessments, water budgets, ground and surface water complaint determinations, ground water recharge, and water use analysis.

The BWS would administer the project under a contract with the University of Hawaii. The Commission's role as a cost-sharing partner would be formalized through a Memorandum of Agreement between the Commission and BWS, which would outline the terms and conditions of the Commission's participation.

RECOMMENDATION

That the Commission authorizes the Chairperson to enter into a memorandum of agreement with the BWS to update and publish climatological rainfall stations for Oahu.

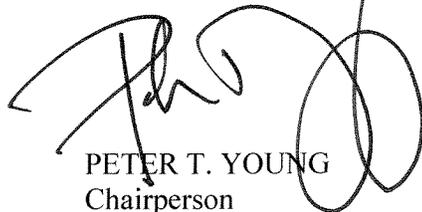
Respectfully Submitted,



DEAN A. NAKANO
Acting Deputy Director

Exhibit: 1 Letter proposal from Dr. Pao Shin Chu to Mr. Clifford P. Lum, Manager Chief Engineer, BWS

APPROVED FOR SUBMITTAL:



PETER T. YOUNG
Chairperson