NEIL ABERCROMBIE



WILLIAM J. AILA, JR. CHAIRFERSON WILLIAM D. BALFOUR, JR. KAMANA BEAMER LORETTA J. FUDDY, A.C.S.W., M.P.H.

> TED YAMAMURA WILLIAM M. TAM DEPUTY DIRECTOR

MILTON PAVAO JONATHAN STARR

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

# COMMISSION ON WATER RESOURCE MANAGEMENT

July 17, 2013 Honolulu, Hawaii

# STAFF SUBMITTAL

## Authorize the Chairperson to Enter into a Contract with a Consultant to Conduct Aquifer Analyses on Selected Aquifer Areas on Islands of Hawaii, Maui, and Oahu

### SUMMARY OF REQUEST:

That the Commission on Water Resource Management (CWRM) authorize the Chairperson to enter into a contract with a consultant to conduct aquifer analyses. The analysis will include consolidating critical aquifer system area spreadsheets and databases for pumpage, chlorides, water levels, spring flow, deep monitor well data, data graphing, and interpretation. The critical areas are: 1) Hawaii Island - Kiholo, Keauhou, and Kealakekua Aquifers; 2) Maui-Iao and Waihee Aquifers; and 3) Oahu-Waimalu, Waipahu-Waiawa, and Ewa-Kunia Aquifers of the Pearl Harbor Sector Area.

#### **BACKGROUND**:

The CWRM staff is currently updating the 2008 Water Resources Protection Plan (WRRP). To comprehensively and accurately update the WRRP, A trend analysis of historical and current hydrologic data must be done to comprehensively and accurately update the WRRP. This is particularly important in areas where pumping close to sustainable yield and/or aquifer behavior alone has led to concern. This contract is for work the CWRM staff believes necessary to provide a timely aquifer area analyses a) for selected aquifers on Hawaii, and b) Ground Water Management areas of Maui and Oahu. These analyses will provide critical data and interpretation.

### ANALYSIS / ISSUES:

The aquifer analyses will include data from separate Excel spreadsheets and Access databases located at CWRM, Board of Water Supply (BWS), United States Geological Society (USGS), and the USGS National Water Information System (NWIS) website.

The consultant will deliver the following:

- (1) The analyses will combine data from all related spreadsheets and data bases into one Excel spreadsheet for each of the following aquifers or Sectors: Iao, Waihee, Kiholo, Keauhou, Kalakekua, and Pearl Harbor Sector.
- (2) Graphs displaying historical hydrological data and trends for each of the six analyzed aquifers or sectors.
- (3) A written two to five page summary of hydrological trends displayed by the generated graphics for each of the six analyzed aquifers or sectors.

The exact format of the delivered Excel spreadsheets and graphs will be discussed, and agreed upon by all parties, between the consultant and CWRM staff before the consultant commences the work. The format is important. CWRM staff have additional objectives in facilitating data transfer from this project into the new Water Resource Management Information System WRIMS) to provide a complete historical background in these areas. This will help the overall organization and simplification of ground water data storage and retrieval. This will also help updating the CWRM website to inform the public at large about the data history status of these, and other aquifer system areas.

## **FUNDING:**

Staff requests that the Commission allow up to \$35,000 to contract with a consultant to conduct the aquifer analyses. Funds will be provided through the Commission's general fund, special fund, or a combination of both, subject to available funding balances.

## **RECOMMENDATION:**

That the Commission authorizes the Chairperson to enter into contract, not to exceed \$35,000, with a consultant to conduct aquifer analyses on a) selected aquifers on the Island of Hawaii, and b) selected aquifers in Ground Water Management Areas on the Islands of Maui and Oahu.

Respectfully submitted,

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WILLIAM M. TAM Deputy Director

APPROVED FOR SUBMITTAL:

WILLIAM J. AILA, JR., Chairperson