



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 a Planning Assistance to States Agreement  
with U.S. Army Corps of Engineers to Conduct a Molokai Water Resource Study

SUMMARY OF REQUEST:

Staff is requesting that the Commission authorize the Chairperson to enter into an agreement with the U.S. Army Corps of Engineers (USACE) under its planning assistance to states program. The purpose of this agreement is to conduct a Molokai Water Resource Study (Study). The Study shall involve the development of a water resource information system to enable more comprehensive management of water resources on the Island of Molokai.

BACKGROUND:

The State Water Code, Chapter 174C, Hawaii Revised Statutes (HRS), mandates that the Commission on Water Resource Management (CWRM) "shall plan and coordinate programs for the development, conservation, protection, control, and regulation of water resources based upon the best available information" and "shall catalog and maintain an inventory of all water uses and water resources" ((§174C-5 (14) and (15), HRS).

Recognizing that sound management decisions are based upon good information, but also that good information may not always be available, the State Water Code has embraced the precept of management decisions based upon best available information. Since the inception of the State Water Code, the Commission has developed various databases to store this information and service various needs. The problem now faced by staff is the lack of connectivity and interoperability between these databases, which inhibits the ability to comprehensively and simultaneously manage water resources, both ground water (aquifers) and surface water (streams).

The effort to modernize the Commission's information system was first proposed for the Surface Water Information Management (SWIM) System. The Stream Protection and Management (SPAM) Branch initiated development of the SWIM System to better integrate various aspects of the surface water program including, but not limited to, stream diversions, stream channel alterations, and complaints. The SWIM System was developed by staff and fulfills basic data needs to search and manage surface water information. However, staff realizes the greater potential for improved data management through the application of state-of-the-art technologies, the integration of geographical information systems (GIS), and improving the interconnectivity with ground water data. There is an obvious hydrologic connection between ground and surface water, and the Commission's information system should reflect such.

The development of a water resource information system for the island of Molokai will be a test bed for comprehensive water resource management that staff has long sought to establish statewide. For the island of Molokai, staff plans to develop a comprehensive water resource information system that will manage basic data on stream diversions, well construction, water use reporting, water resource monitoring, complaints, registered water users, water use permits, field investigations, etc.; provide for GIS integration; and improve accessibility to and analysis of stored data. The expected result will not only provide more comprehensive management of all water resources on the island of Molokai, but eventually will serve as a scalable template for the State surface and ground water information system. Molokai serves as an ideal model due to its size and the complete range of data that the Commission is mandated to maintain.

#### SCOPE OF SERVICES:

Provisions of Section 22 of the Water Resources Development Act of 1974, as amended, provide authority for the USACE to assist states in the preparation of comprehensive plans for the development, utilization, and conservation of water and related land resources. This assistance is provided on a 50/50 cost-share basis.

Under this authority, Deputy Kawahara submitted a draft Statement of Objectives to the USACE for consideration. USACE responded with a revised Statement of Objectives (Exhibit 1) of which the Commission staff is acceptable to. In addition, preliminary discussions have been held with USACE to discuss project scope of services and estimated cost. Based on these discussions, the total cost of this Study will be \$400,000, of which the Commission will provide a cost-share of no more than \$200,000 for this project. USACE has submitted a tentative draft Planning Assistance to States Agreement (Exhibit 2) for review and comment.

This proposed Study calls for the development of a comprehensive information system that consolidates and relates data from all of the Commission's existing databases, utilizes an efficient reporting system with analytical capabilities, integrates GIS for spatial representation of data, and provides for connectivity with third-party software systems for the storage and maintenance of time-series data. Detailed requirements for system development and overall deliverable expectations are outlined in Exhibit 1.

The USACE will be responsible for contractor selection, financial management, and technical review. Commission staff will likely be responsible for contract management and project management to help reduce overhead costs, while retaining the ability to have input into all

aspects of the Study. The USACE shall prepare a detailed project scope of services, fee proposal, and completion schedule, which will be made part of the agreement subject to Chairperson's approval.

FUNDING:

The Commission plans to fund its share of this project with available Fiscal Year 2009 funds, while USACE funding is currently pending a Congressional appropriation.

RECOMMENDATION:

Staff recommends that the Commission authorize the Chairperson to enter into a Planning Assistance to States Agreement between the Commission and the U.S. Army Corps of Engineers to provide cost-share funding for the Commission's portion not to exceed \$200,000 for a Molokai Water Resource Study. The terms of this agreement will be subject to the approval of the Chairperson and the Department's Deputy Attorney General.

Respectfully submitted,



KEN C. KAWAHARA, P.E.  
Deputy Director

- Exhibit(s)
1. Statement of Objectives – Molokai Water Resource Study, Development of a Water Resource Information System for Comprehensive Water Resource Management
  2. Planning Assistance to States Agreement Between the Department of the Army and State of Hawaii, Department of Land and Natural Resources for the Molokai Water Resources, Section 22 Study

APPROVED FOR SUBMITTAL:



LAURA H. THIELEN  
Chairperson

February 19, 2009

## STATEMENT OF OBJECTIVES

### **MOLOKAI WATER RESOURCE STUDY DEVELOPMENT OF A WATER RESOURCE INFORMATION SYSTEM FOR COMPREHENSIVE WATER RESOURCE MANAGEMENT**

#### **BACKGROUND**

The State Water Code, Chapter 174C, Hawaii Revised Statutes (HRS), mandates that the Commission on Water Resource Management (CWRM) “shall plan and coordinate programs for the development, conservation, protection, control, and regulation of water resources based upon the best available information” and “shall catalog and maintain an inventory of all water uses and water resources” ((§174C-5 (14) and (15), HRS).

CWRM recognizes that sound management decisions are based upon good information; however, good information may not always be available. For this reason, the State Water Code has embraced the precept of management decisions based upon best available information. Since the inception of the State Water Code, CWRM has developed various databases to store this information and service various needs. The problem now faced by CWRM staff is the lack of connectivity and interoperability between these databases, which inhibits the ability to comprehensively and simultaneously manage water resources, both ground water (aquifers) and surface water (streams).

The effort to modernize CWRM’s information system was first proposed for the Surface Water Information Management (SWIM) System. CWRM’s Stream Protection and Management (SPAM) Branch initiated development of the SWIM System to better integrate various aspects of the surface water program including, but not limited to, stream diversions, stream channel alterations, and complaints. The SWIM System was developed by CWRM staff and fulfills basic data needs to search and manage surface water information. However, staff realizes the greater potential for improved data management through the application of state-of-the-art technologies, the integration of geographical information systems (GIS), and improving the interconnectivity with ground water data. There is an obvious hydrologic connection between ground and surface water, and CWRM’s information system should reflect such.

The development of a water resource information system for the island of Molokai will be a test bed for comprehensive water resource management that CWRM has long sought to establish statewide. For the island of Molokai, CWRM plans to develop a comprehensive water resource information system that will manage basic data on stream diversions, well construction, water use reporting, water resource monitoring, complaints, registered water users, water use permits, field investigations, etc.; provide for GIS integration; and improve accessibility to and analysis of stored data. The expected result will not only provide more comprehensive management of all water resources on the island of Molokai, but eventually will serve as a scalable template for the State surface and ground water information system. Molokai serves as an ideal model due to its size and the complete range of data that CWRM is mandated to maintain.

EXHIBIT 1

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## **OVERALL REQUIREMENT**

The Study will develop a comprehensive information system that consolidates and relates data from all of CWRM's existing databases, utilizes an efficient reporting system with analytical capabilities, integrates GIS for spatial representation of data, and provides for connectivity with third-party software systems for the storage and maintenance of time-series data. Detailed requirements for system development, overall deliverable and schedule expectations, and coordination contact information are outlined in the following sections.

## **SPECIFIC REQUIREMENTS AND CONSIDERATIONS**

The Study shall:

1. Communicate and coordinate with CWRM and State information technology staff to determine the data models, schema, instances, relationships between databases, the functionality of queries, analytical functions, and reports within the overall system design and server architecture.
2. Conduct a basic workflow analysis to identify problems with current processes and propose ways to integrate the workflow into the system design.
3. Expand the core asset and contact management system to include the storage and management of events such as site inspections, field investigations, complaints, violations, requests for determination, registration and certification updates, as-built reports, etc. In all, the system should provide for an unlimited number of events, an unlimited number of assets (e.g., diversions, wells, etc.), data related to those assets and events (e.g., date permit received, date permit issued, type of diversion, date complaint filed, etc.), and contact information for all assets and events (e.g., applicant, landowner, permit holder, complainant, etc.).
4. Integrate the functionality of a hydrological data management system (WISKI by KISTERS) for the storage, maintenance, and analysis of time-series hydrologic data.
5. Develop a complete reporting system that allows users to customize search results (e.g., date ranges, TMKs, island, etc.) and produces reports in different formats as needed (e.g., tabular reports, graphical reports, notification letters, etc.).
6. Integrate data extraction functions that will allow data to be filtered and extracted from the database system by CWRM staff for the purpose of analysis in other software programs.
7. Integrate an electronic document management system to allow the storage and organization of various electronic files such as Acrobat PDF or Microsoft Word/Excel files. File tagging should be utilized to relate each file to specific assets or events.

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8. Integrate an electronic image library, similar to the document management system, which should allow for the storage and organization of various image files that can be related to specific assets or events.
9. Develop web-based GIS interfaces based upon ESRI's ArcGIS architecture to provide for querying, map production, and analytical capabilities. The GIS system should reflect real-time updates to the location of assets and events stored in the core system tables.
10. Develop external web-based data entry forms to facilitate water use reporting by well and stream diversion owners, in coordination with the State's Information and Communication Services Division (ICSD) and the Department's Information Technology Services (ITS) staff. Web-based forms should offer secure access for users, with user-entered data being sent to a staging area for CWRM staff review prior to importing to the primary data system.
11. Integrate an automated activity audit trail as data is created or updated in the management system. The audit trail, at a minimum, should identify what was edited, who did the editing, and when the edits were performed. This should also be applied to external web-based data entry.
12. Enable and integrate the State email system to automate communication (e.g., the creation, modification, and emailing of notices) with diversion owners and well owners, and develop a water use report tracking system for improved compliance for water use reporting.
13. Migrate geospatial data to geodatabase format in SQL environment and in conformity with the spatial data standards of the National Hydrography Dataset for Hawaii.
14. Develop capability for web mapping applications and geoprocessing services for data visualization, analysis, and queries using ArcGIS Server
15. Provide implementation services including, but not limited to, server set-up and configuration, software installation, importing of all Molokai water resource data, on-site testing, training, and follow-up support for an agreed-upon time period as the system is employed and tested by CWRM staff.

## **OVERALL SCHEDULES/DELIVERABLES**

1. Schedule  
12 months
2. Deliverables  
A complete and comprehensive water resource information management system containing and integrating all of the desired elements as identified in the Specific Requirements and Considerations Section above.

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Provide the source code for all components of the complete information system to CWRM upon project completion.

Training provided by the Study:

- A minimum of 8 hours of core database training.
- A minimum of 20 hours of core database application users training
- A minimum of 16 hours of database administration training

Monthly progress reports describing the work accomplished during the month will be provided. A minimum of two project briefings may also be scheduled to provide project updates to CWRM members.

### **CONTACT INFORMATION**

Dean Uyeno  
State of Hawaii  
Commission on Water Resource Management  
Department of Land and Natural Resources  
P.O. Box 621  
Honolulu, Hawaii 96809  
Phone: 808-587-0249  
Fax: 808-587-0219  
E-mail: dean.d.uyeno@hawaii.gov

**PACIFIC OCEAN DIVISION SECTION 22 MODEL AGREEMENT**

PLANNING ASSISTANCE TO STATES AGREEMENT

BETWEEN

THE DEPARTMENT OF THE ARMY

AND

STATE OF HAWAII, DEPARTMENT OF LAND AND NATURAL RESOURCES

FOR THE MOLOKAI WATER RESOURCES, SECTION 22 STUDY

THIS AGREEMENT is entered into this \_\_\_\_\_ day, of \_\_\_\_\_, 20\_\_\_, by and between the Department of the Army (hereinafter the "Government"), represented by the District Engineer executing this Agreement, and the State of Hawaii, Department of Land and Natural Resources (hereinafter the "Sponsor"),

WITNESSETH, that

WHEREAS, Section 22 of the Water Resources Development Act (WRDA) of 1974 (Public Law 93-251), as amended, authorizes the Secretary of the Army, acting through the Chief of Engineers, to cooperate with any State, as therein defined, in the preparation of comprehensive plans for the development, utilization and conservation of water and related resources of drainage basins, watersheds, or ecosystems located within the boundaries of such State and to submit to Congress reports and recommendation with respect to appropriate Federal participation in carrying out such plans;

WHEREAS, Section 319 of the Water Resources Development Act of 1990 (Public Law 101-640) authorizes the Secretary of the Army to collect from non-Federal entities fees for the purpose of recovering 50 percent of the cost of the program established by Section 22 of the 1974 WRDA;

WHEREAS, the Sponsor may provide up to 100 percent of its required contribution of Study Costs through the provision of services, materials, supplies or other in-kind-services necessary to prepare the plan.

WHEREAS, the Sponsor has reviewed the State's comprehensive water plans and identified the need for planning assistance as described in the Scope of Studies incorporated into this agreement; and

WHEREAS, the Sponsor has the authority and capability to furnish the cooperation hereinafter set forth and is willing to participate in the study cost-sharing and financing in accordance with the terms of this Agreement;

NOW THEREFORE, the parties agree as follows:

EXHIBIT 2

ARTICLE I - DEFINITIONS

For the purposes of this Agreement:

A. The term "Study Costs" shall mean all disbursements by the Government pursuant to this Agreement, from Federal appropriations or from funds made available to the Government by the Sponsor and all negotiated costs of work performed by the Sponsor pursuant to this Agreement. Study Costs shall include, but not be limited to: labor charges; direct costs; overhead expenses; supervision and administration costs; the costs of participation in Study Management and Coordination in accordance with Article IV of this Agreement; the costs of contracts with third parties, including termination or suspension charges; and any termination or suspension costs (ordinarily defined as those costs necessary to terminate ongoing contracts or obligations and to properly safeguard the work already accomplished) associated with this Agreement.

B. The term "estimated Study Costs" shall mean the estimated cost of performing the Study as of the effective date of this Agreement, as specified in Article III.A. of this Agreement.

C. The term "study period" shall mean the time period for conducting the Study, commencing with the release to the U.S. Army Corps of Engineers, Honolulu District of initial Federal funds following the execution of this Agreement and ending when the Honolulu District provides the planning report to the Sponsor.

D. The term "SOW" shall mean the Scope of Work, which is attached to this Agreement and which shall not be considered binding on either party and is subject to change by the Government, in consultation with the Sponsor.

E. The term "fiscal year" shall mean one fiscal year of the Government. The Government fiscal year begins on October 1 and ends on September 30.

F. The term "negotiated costs" shall mean the costs of in-kind services to be provided by the Sponsor in accordance with the SOW.

## ARTICLE II - OBLIGATIONS OF PARTIES

A. Subject to the availability of funds appropriated by the Congress of the United States (Congress), the Government, using funds and in-kind services provided by the Sponsor and Congressionally appropriated funds, shall expeditiously prosecute and complete the Study, in accordance with the provisions of this Agreement and Federal laws, regulations, and policies.

B. In accordance with this Article and Article III. of this Agreement, the Sponsor shall contribute cash or in-kind services equal to fifty (50) percent of Study Costs. If agreeable to all parties, in-kind services may comprise 100 percent of the Sponsor's contributions. The in-kind services to be provided by the Sponsor, the estimated negotiated costs for those services, and estimated schedule under which those services are to be prepared are specified in the Scope of Work. Negotiated costs shall be subject to an audit by the Government to determine reasonableness, allocability and allowability.

C. The Sponsor understands that the schedule of work may require the Sponsor to provide cash or in-kind services at a rate that may result in the Sponsor temporarily diverging

from the obligations concerning cash and in-kind services specified in paragraph B. of this Article. Such temporary divergences shall be identified in the quarterly reports provided for in Article III.A. of this Agreement and shall not alter the obligations concerning payment specified in paragraph B. of this Article or the obligations concerning payment specified in Article III of this Agreement.

D. If, upon the award of any contract or the performance of any in-house work for the Study by the Government, cumulative financial obligations of the Government and the Sponsor would exceed \$400,000, the Government and the Sponsor agree to defer award of that and all subsequent contracts, and performance of that and all subsequent in-house work, for the Study until the Government and the Sponsor agree to proceed. Should the Government and the Sponsor require time to arrive at a decision, the Agreement will be suspended in accordance with Article X., for a period of not to exceed six months. In the event the Government and the Sponsor have not reached an agreement to proceed by the end of their 6-month period, the Agreement may be subject to termination in accordance with Article X.

E. No Federal funds may be expended or obligated by the Sponsor to meet the Sponsor's share of Study costs under this Agreement unless the expenditure or obligation of such funds is expressly authorized by statute for such purposes and the Federal granting agency verifies in writing that the expenditure of such funds is expressly authorized by statute.

F. The award and management of any contract with a third party in furtherance of this Agreement which obligates Federal appropriations shall be exclusively within the control of the Government. The award and management of any contract by the Sponsor with a third party in furtherance of the Agreement which obligates funds of the Sponsor and does not obligate Federal appropriations shall be exclusively within the control of the Sponsor, but shall be subject to applicable Federal laws and regulations.

G. Notwithstanding any provision of this Agreement, this Agreement and the Government's obligations hereunder shall not be effective and will not commence until Federal funds have been appropriated and allocated to the District Engineer, U.S. Army Corps of Engineers Honolulu District for the implementation of this study. In the event that Federal funds are allocated to the District Engineer for this study after the date that the parties hereto execute this Agreement, the effective date of this Agreement shall be the date that funding approval is provided to the District Engineer.

H. In the event that any one or more of the provisions of this Agreement is found to be invalid, illegal, or unenforceable, by a court of competent jurisdiction, the validity of the remaining provisions shall not in any way be affected or impaired and shall continue in effect until the Agreement is completed.

### ARTICLE III - METHOD OF PAYMENT

A. The Government shall maintain current records of contributions provided by the parties, current projections of Study Costs, current projections of each party's share of Study Costs. At least quarterly, the Government shall provide the Sponsor a report setting forth this information. As of the effective date of this Agreement, estimated Study Costs are \$400,000 and the Sponsor's share of estimated Study Costs is \$200,000. The dollar amounts set forth in

this Article are based upon the Government's best estimates, which reflect the scope of the study described in the SOW, projected costs, price-level changes, and anticipated inflation. Such cost estimates are subject to adjustment by the Government and are not to be construed as the total financial responsibilities of the Government and the Sponsor.

B. The Sponsor shall provide its cash contribution required under Article II.B. of this Agreement in accordance with the following provisions:

1. No later than 60 days prior to the scheduled date for the Government's issuance of the solicitation for the first contract for the Study or for the Government's anticipated first significant in-house expenditure for the Study, the Government shall notify the Sponsor in writing of the funds the Government determines to be required from the Sponsor to meet its share of Study Costs. No later than 30 days thereafter, the Sponsor shall provide the Government the full amount of the required funds by delivering a check payable to "FAO, USAED, HONOLULU" to the District Engineer or an Electronic Funds Transfer in accordance with procedures established by the Government.

2. The Government shall draw from the funds provided by the Sponsor such sums as the Government deems necessary to cover the Sponsor's share of contractual and in-house financial obligations attributable to the Study as they are incurred.

3. In the event the Government determines that the Sponsor must provide additional funds to meet its share of Study Costs, the Government shall so notify the Sponsor in writing. No later than 60 days after receipt of such notice, the Sponsor shall provide the Government with a check or an Electronic Funds Transfer for the full amount of the additional required funds.

C. Within 90 days after the conclusion of the Study Period or termination of this Agreement, the Government shall conduct a final accounting of Study Costs, including disbursements by the Government of Federal funds, cash contributions by the Sponsor and credits for the negotiated costs of the Sponsor's in-kind services, and shall furnish the Sponsor with the results of this accounting. Within 30 days thereafter, the Government, subject to the availability of funds, shall reimburse the Sponsor for the excess, if any, of cash contributions and credits given over its required share of Study Costs, or the Sponsor shall provide the Government any cash contributions required for the Sponsor to meet its required share of Study Costs.

#### ARTICLE IV - STUDY MANAGEMENT AND COORDINATION

To provide for consistent and effective communication, the Government's Project Manager for the Study and the Sponsor's designated representative shall communicate regularly until the end of the Study Period.

#### ARTICLE V - DISPUTES

As a condition precedent to a party bringing any suit for breach of this Agreement, that party must first notify the other party in writing of the nature of the purported breach and seek in good faith to resolve the dispute through negotiation. If the parties cannot resolve the dispute through negotiation, they may agree to a mutually acceptable method of non-binding alternative dispute resolution with a qualified third party acceptable to both parties. The

parties shall each pay 50 percent of any costs for the services provided by such a third party as such costs are incurred. Such costs shall not be included in Study Costs. The existence of a dispute shall not excuse the parties from performance pursuant to this Agreement.

#### ARTICLE VI - MAINTENANCE OF RECORDS AND AUDIT

A. Within 60 days of the effective date of this Agreement, the Government and the Sponsor shall develop procedures for keeping books, records, documents, and other evidence pertaining to costs and expenses incurred pursuant to this Agreement. These procedures shall incorporate, and apply as appropriate, the standards for financial management systems set forth in the Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments at 32 C.F.R. Section 33.20. The Government and the Sponsor shall maintain such books, records, documents, and other evidence in accordance with these procedures and for a minimum of three years after the period of design and resolution of all relevant claims arising therefrom. To the extent permitted under applicable Federal laws and regulations, the Government and the Sponsor shall each allow the other to inspect such books, documents, records, and other evidence.

B. In accordance with 31 U.S.C. Section 7503, the Government may conduct audits in addition to any audit that the Sponsor is required to conduct under the Single Audit Act. Any such Government audits shall be conducted in accordance with Government Auditing Standards and the cost principles in OMB Circular No. A-87 and other applicable cost principles and regulations. The costs of Government audits shall be included in total Study Costs and cost shared in accordance with the provisions of this Agreement.

#### ARTICLE VII - RELATIONSHIP OF PARTIES

The Government and the Sponsor act in independent capacities in the performance of their respective rights and obligations under this Agreement, and neither is to be considered the officer, agent, or employee of the other.

#### ARTICLE VIII - OFFICIALS NOT TO BENEFIT

No member of or delegate to the Congress, nor any resident commissioner, shall be admitted to any share or part of this Agreement, or to any benefit that may arise therefrom.

#### ARTICLE IX - FEDERAL AND STATE LAWS

In the exercise of the Sponsor's rights and obligations under this Agreement, the Sponsor agrees to comply with all applicable Federal and State laws and regulations, including Section 601 of Title VI of the Civil Rights Act of 1964 (Public Law 88-352) and Department of Defense Directive 5500.11 issued pursuant thereto and published in 32 C.F.R. Part 195, as well as Army Regulations 600-7, entitled "Nondiscrimination on the Basis of Handicap in Programs and Activities Assisted or Conducted by the Department of the Army."

#### ARTICLE X - TERMINATION OR SUSPENSION

A. This Agreement shall terminate at the conclusion of the Study Period, and neither

the Government nor the Sponsor shall have any further obligations hereunder, except as provided in Article III.C.; provided, that prior to such time and upon 30 days written notice, either party may terminate or suspend this Agreement. In addition, the Government shall terminate this Agreement immediately upon the failure of the parties to extend the study under Article II.D. of the Agreement, or upon failure of the Sponsor to fulfill its obligation under Article III. of this Agreement. In the event that either party elects to terminate this Agreement, both parties shall conclude their activities relating to the Study and proceed to a final accounting in accordance with Article III.C. of this Agreement. Upon termination of this Agreement, all data and information generated as part of the Study shall be made available to both parties.

B. Any termination of this Agreement shall not relieve the parties of liability for any obligations previously incurred, including the costs of closing out or transferring any existing contracts.

#### ARTICLE XI – LIMITATION ON GOVERNMENT EXPENDITURE

In accordance with Section 22 of WRDA 1974, as amended, Government financial participation in the cooperative preparation of comprehensive plans for development, utilization, and conservation of water and related resources pursuant to said authority shall be limited to the expenditure of not more than \$2,000,000 in any one year in any one State.

IN WITNESS WHEREOF, the parties hereto shall have executed this Agreement upon the date it is signed by both the parties. It shall become effective pursuant to the provisions of Article II. G. of the Agreement.

#### STATE OF HAWAII, DEPARTMENT OF LAND AND NATURAL RESOURCES

BY: \_\_\_\_\_  
Laura H. Thielen  
Chairperson

DATE: \_\_\_\_\_

#### DEPARTMENT OF THE ARMY

BY: \_\_\_\_\_  
Jon J. Chytka  
Lieutenant Colonel, Corps of Engineers  
District Engineer  
Honolulu District

DATE: \_\_\_\_\_

Attachment - Scope of Work, Budget Estimate

CERTIFICATE OF AUTHORITY

I, \_\_\_\_\_, do hereby certify that I am the principal legal officer for the State of Hawaii, Department of Land and Natural Resources and that it is a legally constituted public body with full authority and legal capability to perform the terms of the Agreement between the Department of the Army and the State of Hawaii, Department of Land and Natural Resources in connection with the Molokai Water Resources Section 22 Study, and that the person who has executed this Agreement on behalf of the State of Hawaii, Department of Land and Natural Resources has acted within her statutory authority.

IN WITNESS WHEREOF, I have made and executed this certification this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

Signature: **[PRINCIPAL LEGAL OFFICER]** \_\_\_\_\_

Typed Name: \_\_\_\_\_

Title in Full: \_\_\_\_\_

**NON-FEDERAL SPONSOR'S  
SELF-CERTIFICATION OF FINANCIAL CAPABILITY  
FOR AGREEMENTS**

I, \_\_\_\_\_, do hereby certify that I am the Chief Financial officer **[OR  
TITLE OF EQUIVALENT OFFICIAL]** of the State of Hawaii, Department of Land and Natural Resources ("Non-Federal Sponsor"); that I am aware of the financial obligations of the Non-Federal Sponsor for the Molokai Water Resources Study; and that the Non-Federal Sponsor has the financial capability to satisfy the Non-Federal Sponsor's obligations under the Molokai Water Resources Section 22 Study.

IN WITNESS WHEREOF, I have made and executed this certification this \_\_\_\_ day of \_\_\_\_\_, 20\_\_.

BY: \_\_\_\_\_

TYPED NAME: \_\_\_\_\_

TITLE: \_\_\_\_\_

DATE: \_\_\_\_\_