



**DEPARTMENT OF THE ARMY**  
FORT WORTH DISTRICT, CORPS OF ENGINEERS  
P. O. BOX 17300  
FORT WORTH, TEXAS 76102-0300

6 Feb 2015

**REQUEST FOR STATEMENTS OF INTEREST**

**NUMBER W9126G-15-2-SOI-0013**

**PROJECT TO BE INITIATED IN 2015**

**Project Title:** An Assessment of Water Security Vulnerabilities for Marine Corps Installations West

Responses to this Request for Statements of Interest will be used to identify potential investigators for a project to be funded by SPAWAR Systems Center Pacific (SSC\_PAC), which provides professional and technical support for its Environmental Program in order to facilitate successful implementation of the Authority. Approximately \$ 94,000 is expected to be available to support this project. Additional funding may be available for follow on work in subsequent fiscal years to the successful Recipient/Awardee.

**Background:**

The Marine Corps Installations West (MCIW) has a need for a comprehensive assessment of current and future water security vulnerabilities to support development of a strategy that will assure water security for MCIW installations today and in the future. The scope of this agreement is for developing a detailed understanding of potential water security vulnerability at these installations through activities including:

- Compilation, review and synthesis of available climate information for the region
- Support for conceptual model development and information gap identification
- Definition and development of methods for regional climate modeling incorporating soil-atmosphere interactions
- Evaluation of regional climate models against historical data

**Type of Award:**

In accordance with section 6305 – *Using cooperative agreements* of the *Federal Grant and Cooperative Agreements Act of 1977* (31 U.S.C. § 6301 et seq.), all CESU projects must carry out a public purpose of support or stimulation, instead of acquiring goods or services for the exclusive direct benefit of the United States Government.

In accordance with section 6305 – *Using cooperative agreements* of the *Federal Grant and Cooperative Agreements Act of 1977* (31 U.S.C. § 6301 et seq.), substantial involvement is expected between the federal partner and the nonfederal partner when carrying out the

activities specified in the project agreement. The exact nature of the government's involvement will be defined in the statement of objectives, issued with a request for full proposal.

As a result, it is anticipated that a cooperative agreement through the CESU program will be awarded. Such awards may be administered through a CESU only upon mutual agreement and official authorization by both parties of the acceptance of the application of the CESU Network IDC rate (17.5%).

Note: Must be a non-federal partner in the CESU Unit to be qualified to be considered.

**Brief Description of Anticipated Work:**

This research focuses on the following objectives:

This project has 5 main tasking elements; each one with substantive government collaboration.

- 1) Task- Review of MCIW and Regional Water Management: Characterize the historical and current status of MCIW installations in terms of water use, water supply sources and applicable policies and plans that regulate the management of water on these installations in the context of the Southwest US water supply network. The Navy will research, compile and summarize existing literature and seek out existing/available data from MCIW and develop conceptual model, compile inputs and identify gaps. The CESU cooperator will research and supply existing information, and compile, review and summarize available climate information. In addition, the cooperator will support the Navy in the conceptual model development and gap identification of this task. The Navy will prepare and interim report and the cooperator will provide data relevant to the completion of that report.
- 2) Task- Regional Water Supply: Establish a regional water yield and supply modeling capability that accounts for water supplies both internal and external to MCIW installations. The Navy will develop water supply network model. The cooperator will provide input into supply network model. The cooperator will lead evaluation of regional climate trends and variability model development along with defining/developing methods for incorporating soil-atmosphere interactions into supply model. The Navy will test run water supply network modeling tools and evaluate against historical data along with evaluate internal source models against historical data. The cooperator will evaluate regional climate models against historical data.
- 3) Task-Regional Water Demand Develop tools for projecting a range of potential future demand signals both on a regional basis and for key installations within MCIW. The Navy will develop the demand model tools. The cooperator will review demand tool development and provide input relevant to climate trends and variability.
- 4) Task - Future Scenario Development: The Navy and the Cooperator will develop supply scenarios. The Navy will develop demand scenarios and the cooperator will review scenarios. The cooperators will participate in a team meeting to help combine the supply

and demand scenarios to create a plausible range of future water scenarios for MCIW installations.

- 5) Task -Vulnerability Assessment: Assess vulnerability across the range of defined scenarios and time intervals and evaluate water security implications for key MCIW installations. The cooperator will review relevant plans and provide input on assessment approach and support implementation. The Navy will develop vulnerability assessment approach and implement for defined scenarios.

**Period of Performance.** The base year of agreement will extend one year from award. Two option periods extending for one year are anticipated pending funds.

**Materials Requested for Statement of Interest/Qualifications:**

Please provide the following via e-mail attachment to: [angela.zahid@usace.army.mil](mailto:angela.zahid@usace.army.mil)  
(Maximum length: 2 pages, single-spaced 12 pt. font).

1. Name, Organization and Contact Information
2. Brief Statement of Qualifications (including):
  - a. Biographical Sketch,
  - b. Relevant past projects and clients with brief descriptions of these projects,
  - c. Staff, faculty or students available to work on this project and their areas of expertise,
  - d. Any brief description of capabilities to successfully complete the project you may wish to add (e.g. equipment, laboratory facilities, greenhouse facilities, field facilities, etc.).

**Note:** A full study proposal and proposed budget are NOT requested at this time.

**Review of Statements Received:** All statements of interest received will be evaluated by a board comprised of one or more people at the receiving installation or activity, who will determine which statement(s) best meet the program objectives. Based on a review of the Statements of Interest received, an investigator or investigators will be invited to prepare a full study proposal. Statements will be evaluated based on the investigator's specific experience and capabilities in areas related to the study requirements.

**Please send responses or direct questions to:**

USACE  
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**Timeline for Review of Statements of Interest:** The RSOI are required to be out for a minimum of 10 working days. Review of Statements of Interest will begin **27 April 2015**.