

**U.S. Department of the Interior
U.S. Geological Survey
NATIONAL WATER CENSUS
FOCUS AREA STUDY
FISCAL YEAR 2015 REQUEST FOR PROPOSALS
GENERAL INFORMATION AND INSTRUCTIONS**

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Focus Area Study Request for Proposal Timelines:

1. Question and Answer Conference Session for Interested Parties:
June 10, 2014, 11:00 am, EDT
1-703-648-4848
51857#
2. Deadline for submission of Statements of Interest (SOI) — **June 20, 2014**
3. Applicants Notified and Full Proposals Requested — **June 30, 2014**
4. Deadline for Invited Full Proposals — **August 29, 2014**
5. Applicants Notified of Intent to Award — **September 30, 2014**

Note: Submission deadlines for Statements of Interest are 5:00 PM Eastern Daylight Time.

“Intent to Award” means the NWC has selected the project for funding, pending completion of all administrative reviews and processing to complete formal awards.

Focus Area Study Request for Proposal Details

Background: This document provides information about the USGS National Water Census (NWC) solicitation of proposals for selecting the next round of Geographic Focus-Area Studies (FAS) for assessing “water availability and use” for the Nation. The NWC FAS are one component of the NWC designed to address the need for scientific understanding regarding water availability and use in areas of the country with known conflicts over, or shortages of, water. For additional information on the USGS National Water Census,

please visit <http://water.usgs.gov/watercensus/>. This web site provides expanded information about the NWC, details of work being done in the first round of FASs, as well as information regarding the NWC topical studies being carried out at nationally that could influence the scope of work being proposed at the Focus-Area scale. For more information about the intent and purpose of the FASs, please see Appendix B.

The process for selecting the next three Focus-Area Studies will include requesting a prioritized set of 2-page pre-proposal submissions (not including maps and figures) from each of the 7 USGS Regional Offices. It is also requested that the Regional offices prioritize their submission and provide a short justification for this prioritization. This will assist the NWC Leadership Team by providing Regional insight into localized issues and conflicts over water. Please recognize that only 3 new Focus-Areas will be funded nationwide during the next cycle of studies (FY16-FY18).

Estimated Available Funds: This document invites Statements of Interest (SOI) for projects to be initiated in **Fiscal Year (FY) 2015** for the next round of NWC FASs. These projects will be funded at the \$500,000 level for a three-year period, FY16-FY18. FY15 funding will be limited to \$40,000 for the development of a project Work Plan in consultation with the NWC Leadership and the selected Basins' Stakeholder groups. Final funding is subject to the availability of funds and passage of a full Fiscal Year budget for the years 2015-2018.

Funding Timetable

All technical and administrative reviews of projects will be completed and awards will be announced by approximately September 30, 2014, with funding released at the beginning of FY15. **However, delays in Congressional budget action have in the past and may again in this year delay receipt of funds.** Investigators should take this into account when planning activities. Changes of Allocation should be expected no sooner than January 1, 2015. If Congressional budget action is delayed, there will be a delay in funding of a minimum of 60 days after passage of a full year budget.

Funding Process: All project funds will be transferred annually to the Center of the Project Chief for each Focus Area Study. The Project Chief will be responsible for allocating funding to all project participants.

Submission and Selection Process

- 1. Submission of Statements of Interest.** All parties interested in responding to this Funding Opportunity must first submit a Statement of Interest (SOI). An SOI application outline is available in Appendix A. SOIs must be submitted online at <http://water.usgs.gov/watercensus/php/upload.html>.

Submissions must be received by 5:00 p.m. ET on June 20, 2014. Failure to meet the deadline and follow all submission guidelines will result in an SOI being removed from consideration.

- 2. Evaluation of Statements of Interest.** SOIs will be reviewed by the NWC Leadership Team with input from technical specialists. Applicants may be contacted to provide additional or clarifying information. SOIs will be considered according to the following general criteria.

- **Goals of the USGS National Water Census:** Submissions must identify how proposed research will meet each of the water availability and water use goals of the NWC and the SECURE Water Act. These include: (1) contribute to ongoing assessments of *water availability and use* in large watersheds or aquifers with potential water-use conflicts, (2) provide opportunities to test and improve approaches to water-availability and use assessments, and (3) inform and “ground truth” the nationally generated Water Census data with local information.
- **Engagement of stakeholders, decision makers, and other research entities:** The project identified in the SOI should directly address a science need identified by NWC and local Basin stakeholders. The SOI should clearly articulate the water resource management and/or availability issues being evaluated and how the project will bring added value to the decision making process. Preference will be given to investigators with either a strong history of partner engagement, or those demonstrating significant capacity for developing and maintaining these relationships, particularly as they may extend beyond the duration of project funding. The SOI should identify how partners will be engaged in project planning; collaboration with partners should build upon existing work and capacity where possible.
- **HUC-based Water Use Data:** NWC Stakeholders have identified reporting water use/budget data in respect to HUC as a major priority, as such the NWC is focused on reporting all water use/water budget data at a HUC-8 and HUC-12 scale when possible. The SOI must include detail on reporting data at the HUC scale.
- **Scientific merit and quality of the research:** SOI objectives should be robust and clearly delineated. The SOI should demonstrate sound scientific methodology, study design, and data management, and indicate how results have regional application or scientific inference.
- **Internal Coordination among USGS Centers:** Preference will be given to those submissions that integrate researchers from multiple Centers and Mission Areas.

- 3. Request for Full Proposal.** The NWC Leadership Team will notify applicants on June 30, 2014 that their SOI has been selected (or not selected) for development of a full proposal. Applicants will be invited to develop full proposals (including a budget, staffing plan, and

outline of a data management plan). Proposals will not be accepted from investigators other than those invited as part of this process. The full proposal format will be provided with the selection notification.

Additional Considerations

Multiple Project Submissions:

- 1) Proposers may submit multiple SOIs for different basins.
- 2) The NWC will not accept multiple proposals from a single basin (monitored by Regional offices).
- 3) Projects incorporating multiple Science Centers and Regions are encouraged, and applicants considering such proposals should coordinate with Regional staff on such SOIs.

Matching / Leveraging: While matching funds are not required, projects providing matching funds or leveraging other funding sources will be viewed favorably. Formal cost share is NOT required, however.

Collaboration: Proposals with involvement from multiple Science Centers are encouraged and will be evaluated more favorably. Likewise, proposals involving collaborations with other organizations (Federal, State, Tribal, or other), demonstrating the involvement and benefits of a collaborative effort will be evaluated more favorably.

Data Management Plan: If a proposal is selected for funding, a Data Management Plan *must* be included as part of the Project Workplan. Project DMPs will be reviewed periodically until project completion. The NWC Data Steward will work with teams to answer any questions and assist in the development and review of the Data Management Plan throughout the project cycle. Please see <http://water.usgs.gov/watercensus/internal> for guidance and instructions on how to develop the required Data Management Plan (DMP). The Data Management Plan will be submitted via a web-form, *PDF documents will not be accepted for the DMP*.

Annual and Final Project Reports: All funded projects are required to participate in bi-annual progress reports and a final project review. Annual progress reports will take place in January and July of project years, and final project reviews will take place no later than ninety (90) days after the project completion date. The NWC Coordinator may require additional/more frequent reporting at any time during project funding.

Manuscripts Intended for Publication: All funded researchers are required to provide *advanced* notification to the NWC Coordinator of all anticipated manuscripts intended for publication that have been produced through the FAS. All manuscripts should also include appropriate funding acknowledgements.

APPENDIX A

FORMAT for *STATEMENTS OF INTEREST*

STATEMENT OF INTERESTS must contain the following information in a single .pdf document:

Project title: Brief but descriptive title of proposed project

Project Chief (PI): List the name and contact information of the Project Chief. All communications and notifications will be directed to this individual. Other key participants (if known) should be listed and their Science Center identified.

Project Summary (max. 2 pages): The project summary should include the following information:

Study Area

- Describe extent and physiographic setting of the proposed study area (provide map if possible)
- What are the primary sources and uses of water in proposed study area?
- Discuss nature of conflict over, or shortages of, water in proposed study area
- Can a “basin-wide” or aquifer-wide assessment be completed? [Basin/Aquifer wide assessments should be plausible for most proposed study components however some local or site specific studies will be considered (studies that can be scaled up...)]

Science Needs and Expected Major Activities

- List envisioned major study components or project activities; HUC-based water use data compilation is a common request from NWC Stakeholders and must be included as part of any FAS.
- Explain how these major project components meet the science needs of the stakeholder community
- Explain how these major project components meet the objectives of the National Water Census and the SECURE Water Act (i.e. Water Availability and Use Assessments)
- Describe any expected scientific advances and the relevance of these to partners and/or stakeholders
- Describe expected major outcomes or products

Leverage or Collaboration Opportunities

- List expected study-area partners or stakeholder groups
- Indicate ongoing activities or stakeholder communities that encompass most or all of the proposed study area
- Describe opportunities to leverage National Water Census funding with other projects or programs

Appendix B. USGS Geographic Focus Area Studies under the Bureau's National Water Census: Purpose and Intent

Competition for water resources has reached a level of national attention and concern in a number of areas throughout the United States. The competing interests may arise from multiple human needs (water demands for drinking, irrigation, energy, industrial processes, aesthetic and recreational streamflow, etc.), from competition between human and ecosystem needs, or both. The SECURE Water Act of 2009 (subtitle F, Public Law 111-11) acknowledged areas where these types of competition have resulted in “significant water use conflicts or shortages that have occurred or are occurring”. The USGS National Water Census includes studies that address the scientific needs of these areas of conflict and shortage.

To achieve the requirements of the [SECURE Water Act](#) (Subtitle F of the Omnibus Public Land Management Act of 2009 [Public Law (P.L.) 111-1]), the National Water Census developed the concept of a “geographic focus-area study” (focus-area study). In large geographic areas where conflicts or shortages over water are known to exist, the USGS will study water use and other factors affecting the regional hydrology that lead to these conflicts or shortages. These Geographic Focus Area Studies serve several purposes. They (1) contribute to ongoing assessments of water availability in large watersheds with potential water-use conflicts, (2) provide opportunities to test and improve approaches to water-availability assessment, and (3) inform and “ground truth” the nationally generated Water Census data with local information. The first three river basins selected for geographic focus area studies were identified at the Department of Interior level and included the Apalachicola-Chattahoochee-Flint (ACF) River Basin in Alabama, Florida, and Georgia, the Delaware River Basin in Delaware, New York, New Jersey, and Pennsylvania and the entire Colorado River Basin (AZ, CA, CO, NM, NV, UT, and WY). In each of these study areas, the USGS met with stakeholders to identify the water availability issues to be studied. Watershed stakeholders in each Geographic Focus Area were seeking a comprehensive technical assessment of water availability using the best available tools. The Water Census strives to be responsive to these needs, within the resources available to the Program. Geographic Focus Area Studies under the USGS Water Census are three year, high intensity studies, funded at \$500K per year. The focus area studies provide four direct benefits to the Water Census:

1. Focus area studies fulfill the requirements of the SECURE Water Act, to the extent that USGS is capable of doing so within its mission and financial resources. That is, the focus-area studies fall within the *Water Availability and Use Assessment* component of SECURE and provide a means to report out on significant water-use conflicts or shortages that have occurred, or are occurring, and the primary factors that have caused, or are causing, a conflict or shortage. The USGS achieves this by selecting areas throughout the Nation where conflict over and/or shortage of water is readily apparent. We work with the area stakeholders to identify the outstanding technical questions that are most important to them – questions which must be answered for the conflicts and shortages to be addressed. In these studies, the USGS is not taking the role of merely reporting where conflicts and/or shortages of water occur, as we believe this would be not make optimal

use of our resources and capabilities as an earth science agency. Instead, we identify areas of conflict and/or shortage, we work with the area stakeholders to identify their science needs, and we bring the resources of our agency to bear on answering those science needs.

2. Focus-area studies serve as test-beds for the Water Census to try new tools, methods, and models that can be used throughout the Nation by the Water Census. Methods for estimating flows at ungaged locations or evapotranspiration from the landscape need to be tested and proven before they are utilized at a National scale. This type of testing is a prudent measure in science, where the methodology is proven to work at a smaller scale before resources are devoted to implement it at the larger scale. The existing three geographic focus area studies have already served as test-beds for estimating flows and evapotranspiration, for evaluating regional groundwater discharge to streams, for tracking water use, for large-scale rainfall-runoff modeling, for ecological flow science, and for estimation of irrigation consumptive use.
3. Focus-area studies serve as a means of relating water-availability science to the actual needs of area stakeholders. This maintains and “ground-truths” the relevance of the Water Census. An extremely important part of the focus-area-study process is the initial interaction with area stakeholders. The start of each focus-area study includes identification of and communication with the stakeholders in the area who have a significant stake in water availability. The initial communication has usually occurred in a workshop scheduled as part of the focus-area process. Stakeholders assist the USGS focus-area leader in identifying the key technical questions that remain unanswered relative to water resources of the area. The USGS focus-area leader then uses this information in developing a workplan that relates both to the needs of the stakeholders as well as the requirements of the SECURE Water Act and the Water Census. Focus area studies allow the Water Census to examine more closely common themes or “threads” between different areas of the country and to use these threads to tell a National story. The common “thread” which has emerged from the three existing focus area studies, as well as the pilot study conducted in the Great Lakes Basin from 2005 – 2009, is the need for better water use information and, particularly the need for water use information reported on a watershed (HUC-8 digit) basis. Every focus area and the pilot study has heard the need expressed by stakeholders to have water use estimated and reported on a watershed basis, as opposed to reporting by political boundaries as has been the recent approach. Indeed, a 2002 National Research Council review of the USGS National Water Use Information Program (NWUIP) further expressed the need for better water-use data and issued a call for developing enhanced water-use science that echoed the stakeholder desire for renewed effort on this topic. The focus area studies are giving the Water Census the ability to gauge this interest and to develop a path for reinstating science-based watershed reporting of water use information in the USGS.

Focus-Area Studies allow the flexibility to address local water availability and use concerns while deriving data and information that will inform an effort to assess the Nation’s water resources. Though the Focus-Area Studies key in on areas with known conflict or shortage over water, these areas can be either watersheds or aquifers, and the conflicts or shortages

can result from any combination of competing interests over water. However, conflict or shortage is often the result of competing demands and uses so it is expected that each Focus-Area Study would incorporate an assessment of water-use as a component of the project.