## Cooperative Funding Program to Support National Ground-Water Monitoring Network Data Providers Announcement for Fiscal Years 2016-2017

## CFDA 15.980

The Groundwater and Streamflow Information Program of the USGS is offering a two-year cooperative agreement opportunity to multi-state, State, Tribal, and local agencies or other groups who collect groundwater data to participate in the National Ground-Water Monitoring Network. The USGS is working with the Federal Advisory Committee on Water Information (ACWI) and its Subcommittee on Ground Water (SOGW) to develop and administer a National Ground-Water Monitoring Network (NGWMN). The Network will consist of selected wells from existing Federal, State, Tribal, and local groundwater monitoring networks. This funding opportunity is to support data providers for the National Ground-Water Monitoring Network.

Legal authority for this opportunity is provided under Public Law 111-11, Subtitle F—Secure Water: Section 9507 "Water Data Enhancement by the United States Geological Survey". Funds to support new data providers will be used to work with the USGS to select and classify wells or springs in an existing monitoring program using the requirements in the NGWMN Framework Document, to provide background data on sites, to set up web services that will provide ongoing connection to the NGWMN Portal, and to produce a report describing this process. Funds also will be provided to existing data providers to maintain NGWMN participation.

# 1. Application Submission Closing Date: October 31, 2015, at 6 pm, Eastern Daylight Time

#### 2. Electronic Application Requirement

For the FY 2016 funding cycle all proposals shall be submitted electronically via Grants.gov (http://www.grants.gov). Hard/paper submissions will NOT be accepted. Electronic copies submitted via e-mail will NOT be accepted under any circumstances. All proposals must be submitted electronically through Grants.gov on or before:

#### October 31, 2015, at 6 pm, Eastern Daylight Time

Please be aware that the electronic submission process requires first time users to register using an e-Authentication process. This registration process can be somewhat complex and can take up to 3 weeks to complete. Be advised that it is virtually impossible to begin the process of electronic submission for the first time if you start just a few days before the due date. If you are from a university, contact your Office of

# Sponsored Programs. They may already have completed the registration process and should work with you to submit the application.

Once at the website, click "Get Registered" under the "For Applications" heading and follow the instructions provided. In order to complete the SF 424 forms, everyone must use the Adobe Reader version which is available for download from the grants.gov site at: http://www.grants.gov/help/download\_software.jsp#adobe811. To ensure that you have the correct version of Adobe Reader, you can use the versioning test located at: http://www.grants.gov/applicants/AdobeVersioningTestOnly.jsp. Any and all edits made to the application package must be made with the Adobe Reader version specified on Grants.gov. Grants.gov does not guarantee to support other versions of Adobe Reader released prior to version 8.1.1. For more information on Adobe Reader, please see: http://www.grants.gov/applicants/applicant\_faqs.jsp#adobe-reader-error. Please note that there is an underscore between "applicant" and "FAQs" in the URL. If you have any questions regarding the registration process, please contact the Grants.gov help desk at 1-800-518-4726.

In the Grants.gov forms, floating your mouse over a field will provide instructions for completing that field. You can also click on the Check Package for Errors button to check the entire application for validation errors (incomplete fields, etc.)

There are several steps of the submission process that require careful attention by applicants in order to assure that the application has been fully accepted. It is suggested that applicants read the document available at

http://www.grants.gov/assets/TrackingYourApplicationPackage.pdf.

Briefly, when you submit a grant application package to Grants.gov, you will receive a confirmation screen as well as three additional emails over two business days from Grants.gov informing you of your application processing status:

- 1. Confirmation screen
- 2. Submission Receipt (with "Track My Application" link)
- 3. Submission Validation (or Rejection with Errors)
- 4. Agency Retrieval

CONFIRMATION: Submission Confirmation Screen.

After you submit your grant application package, a confirmation screen will appear on your computer screen. This screen confirms that you have submitted an application to Grants.gov.

NOTIFICATION 1: Submission Receipt Email

Within two business days after your application package has been received by the Grants.gov system, you will receive a submission receipt email which indicates that your submission has entered the Grants.gov system and is ready for validation. This email also contains a tracking number for use while tracking the status of the submission as well as a "Track My Application" link, to use to see the progress of your submission.

#### NOTIFICATION 2: Submission Validation Receipt Email – This is the important one!

After you receive the submission receipt email, the next email you will receive will be a message validating or rejecting your submitted application package with errors. The Grants.gov system is designed to check for technical errors within the submitted application package. Grants.gov does not review application content for award determination. Grants.gov will not post the application if there are errors. Failure to correct errors and submit by the date and time for closing shall not be a reason for accepting a late application.

#### NOTIFICATION 3: Grantor Agency Retrieval Email

Once your application package has passed validation it is delivered to the grantor for award determination and further approval. After the grantor has confirmed receipt of your application, you will be sent a **third and final email** from Grants.gov. The grantor may also assign your application package an agency specific tracking number for use within their internal system. IF YOU HAVE NOT RECEIVED THIS E-MAIL WITHIN FOUR DAYS OF THE CLOSING DATE, PLEASE CONTACT THE CONTRACTING OFFICER.

If you need help entering your proposal, you can reach the **Grants.gov Contact Center at:** 1-800-518-4726. Their hours of operation are Monday-Friday, 7:00 a.m. to 9:00 p.m., Eastern Time, and they are closed on Federal Holidays.

For more information on the Grants.gov registration and submission process, please see http://www.usgs.gov/contracts/grants/grantsgov.html

During the application period an applicant may submit a revised or corrected proposal through grants.gov. Include a cover letter as the first page of the proposal stating that the proposal is revised and indicating that the previous submittal is to be withdrawn from consideration. Such submissions must be completed by October 31, 2015 at 6:00 pm Eastern Daylight Time.

See Section 8, Application Preparation Instructions, which describes requirements for the proposal and other application components.

Please allow sufficient time for the proposal to be submitted electronically through Grants.gov and allow time for possible computer delays. Applicants are strongly advised not to wait until the last minute for submission. A proposal received after the closing date and time will not be considered for award. If the USGS determines that a proposal will not be considered for award due to lateness, the applicant will be notified immediately.

#### **Questions?**

For Grants.gov issues, see <u>http://www.grants.gov/applicants/app\_help\_reso.jso</u> or <u>http://www.usgs.gov.contracts/grants/grantsgov.html</u>, or contact: Laura Mahoney (703) 648-7344

#### lmahoney@usgs.gov

For Contracting Officer issues, contact: Maggie Eastman (703) 648-7366, <u>mrussell@usgs.gov</u>

For National Ground-Water Monitoring Network Program issues contact: Daryll Pope (609) 771-3933 <u>dpope@usgs.gov</u>

#### 3. Award Description

The total amount of funding available for this Program Announcement is expected to be up to \$4,000,000 for years FY2016 and FY2017. Individual applications are restricted to a maximum annual funding level of \$90,000 for work to fund new data providers. Applications to fund ongoing maintenance will be limited to a maximum of \$30,000 (\$15,000 for each project year). These estimates do not bind the USGS to a specific number of awards or to the amount of any award. Congress has yet authorized FY2016 funds for the National Ground-Water Monitoring Network. Work performance under these awards must be completed within the two-year cycle from the start date. However, new data providers will need to complete objectives required to connect to the NGWMN and select and classify sites by the end of the first project year. New data providers may apply for funds for ongoing maintenance (\$15,000) for the second year of the project. The start date will be determined by the timing of funds availability and the signing of the award. Substantial involvement of the USGS is anticipated to aid in well selection and classification to meet National Network goals, to provide guidance in setting up web services, and to map data elements to the NGWMN Portal. Therefore, these awards will be in the form of cooperative agreements.

#### 4. Eligibility Information

#### A. <u>Applicant eligibility</u>

Applicants can be state or local governmental agencies which collect groundwater data. Discussion and coordination with the NGWMN staff is encouraged; however, USGS personnel are prohibited from helping an external organization prepare its application for competitive funding.

Application announcement date: August 30th, 2015 Applications must be submitted by the closing date of October 31st, 2015

#### B. <u>Topic eligibility</u>

The design for the National Ground-Water Monitoring Network is presented in the document 'A National Framework for Ground-Water Monitoring in the United States' and is available at: http://acwi.gov/sogw/ngwmn\_framework\_report\_july2013.pdf

The National Ground-Water Monitoring Network (NGWMN) is designed to be a compilation of selected wells and springs from existing monitoring efforts to create a network to assess long-term water-level and water-quality trends at a National scale. The network will focus on monitoring groundwater in the Nation's most productive aquifers. The network will be built primarily to help answer questions of groundwater availability at a Principal or major aquifer scale (as defined by the USGS). However, other regionally important aquifers also may be included. In order to create a unified network, field and data management techniques need to be as consistent as possible and sites need to be selected and classified in a common manner. In addition, well density in the network should be consistent at a Principal aquifer scale.

Data from the NGWMN is served from a Network Portal that links to data from all of the data providers various databases. In order to accomplish this, the data providers must set up and maintain web services for their databases. The data elements from these web services will be mapped to the Data Portal so that data can be retrieved to answer questions at a scale that crosses agency boundaries.

The focus of the Network will be on long-term data collected at a sufficient frequency to determine seasonal and long-term effects. These sites will be considered the 'key' wells in the network. Water-level and water-quality data from both wells and springs will be included in the NGWMN.

The current priority is to add as many new data providers as possible to build a robust network. USGS staff will assist with web services and will create the necessary data mapping to translate data from data providers into the common NGWMN format. It is also a priority of the NGWMN to maintain a relationship with existing data providers. For this reason funding will be provided to existing data providers to maintain web services and the associated network portal connections. After we have developed the Network by bringing in existing data sources, spatial and temporal gaps will be identified at the Principal and major aquifer scale. These gaps may be in terms of locations and/or density of sites or in terms of insufficient monitoring frequency. Funding through a future announcement may available to enhance the network by adding wells or increasing monitoring frequency at important sites.

Proposals will be considered that:

Add new data providers to the network Support continued operations of existing data- providers web services Support keeping the list of network site and supporting data elements up to date

The following objectives are not eligible for funding under this announcement:

Data collection (water-level or water-quality data)

Use of GPS to update location or land-surface elevation of sites

New database development

Drilling and installation of new wells

Applicants that submit proposals that include these ineligible objectives will be informed. If possible, the ineligible objectives will be removed from the budget and allowable objectives will be funded. If it is not possible to separate out and remove the ineligible objectives, the applicant will be informed that the proposal will not be considered for funding.

#### 5. Network Policies, Standards and Procedures

The requirements for the National Ground-Water Monitoring network are described in the National Ground-Water Management Framework Document which is available online at: <u>http://acwi.gov/sogw/ngwmn\_framework\_report\_july2013.pdf</u>

More information on the National Ground-Water Monitoring Network can be found on the web page for the Subcommittee on Ground-Water (SOGW) of the Advisory Committee on Water Information (ACWI) available at: <u>http://acwi.gov/sogw/index.html</u>

Appendix D provides an updated list of required data elements for the National Ground-Water Monitoring Network. All fields listed should be available to be populated either through web services that are established as part of the project or through the NGWMN Well Registry Application. If data for a particular site is currently missing, the site may still qualify if the data can be populated in the future or if extenuating circumstances exist.

#### 6. Multi-year proposals

All agreements will be for a maximum period of two years. Proposals to become a new data provider to the NGWMN should have all tasks associated with this planned for the first year of the project. The applicant can then apply for maintenance funding for the network for the second year. Current data providers can submit an application for maintenance funding for two years. All work must be completed by the end of the two-year cycle (dependent upon actual project period of performance) and final reports generated within 90 days of completion.

#### 7. Unsuitable Proposals

The following proposals are ineligible for consideration under this Announcement at this time:

- Proposals from U.S. Government Agencies or U.S. Government employees.
- Proposals from Federally Funded Research and Development Centers (FFRDC).
- Proposals principally involving the direct procurement of a product, equipment, or service.
- Proposals funding data collection efforts (water-level or water-quality data).
- Proposals to upgrade sites in the network.
- Proposals to use GPS to update location or land-surface elevation of sites.
- Proposals with a significant component of new database development.
- Proposals to drilling and installation new wells.
- Proposals with significant tasks related to 'filling gaps' in the NGWMN.

#### 8. Application Preparation Instructions

Your electronic submission shall consist of forms SF-424, SF-424a, and SF-424b, plus the items described below. Not additional documents or materials may be submitted. Failure to comply with the required application components listed below may result in the proposal being rejected.

Items A through D as described below shall be **combined together in one document, in the order noted below**, and submitted through Grants.gov in either MS Word or Adobe PDF format. The application shall not exceed 35 single-spaced pages (including figures , tables, references, appendices, etc.), and the type size shall not be smaller than 11 point. All pages of the application shall be numbered. All text, figures, and tables shall be sized to fit on 8<sup>1</sup>/<sub>2</sub>" by 11" paper. The SF forms, negotiated rate agreement, required tables do **not** count toward the page limit.

In the Grants.gov forms, floating your mouse over a field will provide instructions for completing that field. You can also click on the 'Check Package for Errors' button to check the entire application for validation errors (incomplete fields, etc.)

The application submitted through Grants.gov as the 'Project Narrative Attachment Form' (in MS Word or Adobe PDF format) shall be assembled in the following order:

- A. Proposal Information Summary
- B. Proposal
- C. Budget Summary
- D. Detailed Budget

#### A. <u>Proposal Information Summary</u>.

This summary is mandatory for all proposals and shall follow the same format as show in Attachment A.

## B. <u>Proposal</u>

The proposal should be submitted as a Word or PDF document printed on letter-size paper, with 1-inch margins and a font size no smaller than 12 points.

Please include the following sections:

- a) <u>Project Summary</u>. Provide an overall summary of the project including physical area monitored, Principal Aquifers monitored, type of data available (water level and/or water quality), and numbers of wells/springs monitored. Describe briefly the work to be accomplished on the project.
- b) Project Description

- a. <u>New Data providers.</u> Support is provided for projects that will select and classify wells for inclusion in the NGWMN and for connection of the agency databases to the NGWMN Data Portal.
  - i. <u>Description of Agency and purpose of monitoring</u>. Give a brief description of your agency, its role, and the purpose for which the monitoring data are being collected.
  - ii. <u>Identification of USGS principal or other major aquifers.</u> List Principal Aquifers that are monitored. List major aquifers within each PA (as defined by the Groundwater Atlas of the United States; http://water.usgs.gov/ogw/aquifer/atlas.html) that are being monitored. List other local aquifers that are monitored and a description of importance of the aquifer at a National scale.
  - iii. <u>Description of the Agency's existing monitoring networks</u>. Provide a detailed description of existing monitoring networks with wells or springs that may be considered for inclusion in the National Ground-Water Monitoring Network. (Data Providers may describe water-level networks, water-quality networks, or both).
    - 1. For water-level Networks
      - Network Goals and Objectives
      - Map of Network Wells
      - Monitoring frequencies
      - Number of wells (by monitoring frequency, and Principal aquifer)
      - Briefly discuss water-level measurement techniques in regards to the standards in Appendix 5 of the Framework Document. Are techniques documented?
    - 2. For water-quality Networks
      - Network Goals and Objectives
      - Map of Network Wells
      - Monitoring frequencies
      - Number of wells (by monitoring frequency, and Principal aquifer)
      - List of water-quality properties and constituents analyzed
      - Briefly discuss water-quality sampling techniques in regards to the standards in Appendix 5 of the Framework Document. Are techniques documented?
      - List of laboratories conducting water-quality analyses
  - iv. <u>Project tasks. Provide a list of project tasks to be undertaken</u>. Agencies that are applying to be new data providers will be performing very similar tasks. The task list should include the following tasks. The tasks can be further subdivided to provide more detail, if desired. Describe your approach to each task and the approximate percentage of the total project budget expected to be used on each task. The NGWMN Framework Document and a set of Tip Sheets are resources that can be

used to provide guidance for some of these tasks. These Tip Sheets are available at http://cida.usgs.gov/ngwmn/learnmore.jsp.

- Evaluate monitoring points for potential inclusion in the network. Evaluation will be based on the Framework document and "tip sheets". Work with NGWMN staff to determine expected density of monitoring locations in each principal aquifer.
- Provide required data elements for all selected sites as described in Appendix B. Document any sites or group of sites which may be missing required data elements. These may be able to be addressed as a 'gap filling' task in a future proposal.
- Classify candidate wells into Subnetworks and Monitoring Categories using guidelines from Framework Document and Tip Sheets.
- Populate NGWMN Well Registry with sites and network information (Tip Sheet Available).
- Establish connections between agency databases and the NGWMN using Web Services for the data to be shared, as necessary.
  - 0 Water-level data
  - Water-quality data (for water-quality networks)
  - o Lithologic data
  - Well Construction data
- Make available through database connections or the Well Registry table all fields listed in Appendix B.
- Review field and data management practices for compliance with the Framework document.
- Prepare a brief report documenting outcomes.
  - Describe site selection process and well classification criteria
  - Describe web services used to supply data to network
- Perform ongoing maintenance. This will be for year two only for new data providers.
  - Keep list of sites in network current
  - Populate data elements for new sites
  - Ensure that the NGWMN Portal connection to the databases are operational
- Coordinate with NGWMN staff on conference calls, as needed. Will generally involve a monthly status call or report.
- v. <u>Work Plan</u>. Identify the approach to be used, the personnel involved (if necessary), and the timeline to accomplish the project tasks listed in this section. The tasks (with the exception of ongoing maintenance) should be planned to be completed in the first year of the project.
- b. <u>Existing Data Providers.</u> Support is provided for agencies that are already providing data to the National Ground-Water Monitoring Network to support ongoing maintenance.
  - i. <u>Project tasks</u>. Provide a list of project tasks to be undertaken. The task list should include the tasks below.

- Perform ongoing maintenance. The cooperative agreement can be for up to two years.
  - Keep list of sites in network current
  - Populate data elements for new sites
  - Ensure that the NGWMN Portal connection to the databases are operational
- Describe any other proposed work to be done to enhance the National Ground-Water Monitoring Network.
  - These tasks must be within the scope of the funding described in the 'Topic Eligibility' section above.
  - Please separate these costs from the ongoing maintenance portion of the project. This will allow funding for maintenance to be provided even if supplemental parts of the proposal are not funded.
- ii. <u>Work Plan</u>. Identify the approach to be used, the personnel involved (if necessary), and the timeline to accomplish the tasks listed above.

## C. <u>Budget Summary</u>

The proposed budget shall be presented in two parts; a one-page summary, which shall be in the format shown in Attachment B. The detailed is described in item C below.

## D. <u>Detailed Budget</u>

The detailed budget shall be keyed to the Budget Summary included as Attachment A.

A budget sheet for each year is required that provides more detail than what is entered under the SF-424A form. In this budget breakdown sheet please separate federal from cost-sharing funds (see 'In-kind Resource Match' section below). A set cost-sharing percentage for the recipient is not mandated, but a 50-50 match of in-kind services is encouraged and should be denoted within the budget as cost sharing. Applicants should include the following categories for both federal and in-kind services:

- a. <u>Salaries and Wages</u>. List names, titles of positions, and rate of compensation of personnel. If contract employees are hired, include their total time, rate of compensation, job titles, and roles.
- b. <u>Fringe benefits/labor overhead</u>. Indicate the rates/amounts in conformance with normal accounting procedures. Explain what costs are covered in this category, the basis of the rate computations and audit agency if rates are audit-approved.
- c. <u>Supplies</u>. Enter the cost for all tangible property less than \$5,000 acquisition cost. Separate the cost of office, laboratory, and computing supplies.
- d. <u>Other direct costs</u>. Itemize the different types of costs not included elsewhere; such as, shipping, computing, equipment-use charges, or other services.
- e. <u>Total Direct Charges</u>. Total of direct charges (a through j) for federal and costsharing.
- f. <u>Indirect Charges (Overhead</u>). Indirect cost/general and administrative (G&A) cost. Show the proposed rate, cost base, and proposed amount for indirect costs based on the cost principles applicable to the Applicant's organization. If the Applicant has

separate rates for recovery of labor overhead and G&A costs, each charge should be shown. A copy of the negotiated indirect cost rate agreement should be included. Be sure that indirect charges apply only to those direct cost items allowable under the negotiated cost rate agreement. Usually, sub-contract direct costs are either excluded from indirect charges, or there is a cap on the amount of subcontract costs eligible for indirect charges.

- g. <u>Amount proposed</u>. Total direct and indirect costs to be requested of the USGS and those that are cost-sharing.
- h. <u>Multi-year projects</u>. The Applicant shall provide a detailed budget for each of the two years. Future years will depend on availability of funds.
- i. In-kind services: Present split of in-kind services and show amounts funded by USGS contribution and agency in-kind services.

#### In-Kind Resource Match

- Examples of in-kind resource match are: salaries, contract support, student assistance fees, travel expenses, software purchase, equipment dedicated to the project, production of outreach materials, and indirect costs or overhead charges. All contributions, including cash and third party in-kind, will be accepted as part of the recipient's in-kind match when such contributions meet all of the following criteria:
  - verifiable from the recipients' records.
  - not included as contributions for any other federally-assisted project or program.
  - necessary and reasonable for proper and efficient accomplishment of project or program objectives.
  - allowable under the applicable cost principles.
  - <u>not paid by the Federal Government under another award</u>, except where authorized by Federal statute to be used for cost matching.
  - provided for in the approved budget when required by the Federal awarding agency.
  - Conform to the provision of the appropriate OMB Circular, as applicable.
- Volunteer services furnished by professional and technical personnel, consultants, and other skilled and unskilled labor may be counted as in-kind match if the service is an integral and necessary part of the project. Rates for volunteer services shall be consistent with those paid for similar work in the recipient's organization. In those instances in which the required skills are not found in the recipient organization, rates shall be consistent with those paid for similar work in the labor market in which the recipient competes for the kind of services involved. In either case, paid fringe benefits that are reasonable, allowable, and allocable may be included in the valuation.
- Match calculation: For example, with a request for an award of \$5,000 of Federal assistance, a 50-50 cost share contribution by the applicant would be \$5,000 in value for a total of \$10,000 value committed to the project (\$5,000 and \$5,000 Federal and applicant, respectively).

• Applicant must document the amount and type of in-kind resource that will be contributed to the fulfillment of the project and include this information in the detail budget breakdown.

#### 9. Application Evaluation Procedure and Criteria

Applications will be reviewed by the USGS NGWMN program staff, the Subcommittee on Ground-Water, and the NGWMN Program Board.

All applications will be considered in accordance with the criteria written below:

#### A. Availability of groundwater data

- 1. Number of groundwater-level and groundwater-quality sites eligible for NGWMN (priority given to networks with more sites).
- 2. Data collection frequencies which already meet guidelines in Framework Document will be given priority.
- 3. Data which are already stored in an accessible database will be given priority.
- 4. Networks in which all of the minimum data elements in Appendix C of the Program Announcement available are populated with be given priority.

#### B. Geographic area and Principal aquifers monitored

- 1. Geographic areas which have been identified as priority areas by the NGWMN Program Board are given priority.
- 2. Principal or major aquifers monitored which have been identified as priority aquifers by the NGWMN program board are given priority.

## C. Compliance with NGWMN Framework document

- 1. Networks for which water-level data measurement methods already meet the standards in Appendix 5 of the Framework Document are given priority.
- 2. Networks for which water-quality sampling methods already meet the standards in Appendix 5 of the Framework Document are given priority.
- 3. Priority will be given to networks which exceed the minimum list of constituents for water-quality analysis documented in Table 4.6.1 of the Framework Document?
- 4. Priority will be given to proposals where data-management guidelines already meet the standards in the Framework Document?
- **E. <u>Project Proposal</u>:** Priority will be given to the proposals prepared in compliance with guidelines in this Program Announcement and which are presented and reasonable and attainable.\_
  - 1. Did the Project Proposal adequately address the elements required in the Program Announcement?
  - 2. Are project tasks reasonable and attainable?
  - 3. Is the project timeline reasonable?
  - 4. Is the project budget realistic? Does it conform with costs that the Pilot Studies (http://acwi.gov/sogw/pubs/tr/pilot\_results/index.html) reported for similar tasks?

- 5. Is the cost-sharing proposed? Is it proposed at a 50-50 match of in-kind services or is it at a lower level?
- 6. Are in-kind services listed in the project budget sheets?
- F. **Products:** Priority will be given to the proposals for which the deliverables are in line with the requirements of this Program Announcement.
  - 1. Is the completion of a document describing project tasks present in the work plan?
  - 2. Is the agency willing to set up and maintain web services to make the data available to the NGMWN Portal?
  - 3. Is the applicant willing to enter necessary data for potential sites into the Portal Well Registry Management Application?

#### **10. Reporting Requirements and Instructions**

Final Technical Reports shall describe in detail the work performed and results obtained during the grant period. Final Technical Reports are due 90 days after the conclusion of the project period. Any information contained in a previously submitted progress report shall be repeated or restated in the Final Technical Report.

(a) Submit the Final Technical Report as an Adobe Acrobat PDF file. Submit the report as an e-mail attachment to both:

| Daryll Pope     | dpope@usgs.gov    |
|-----------------|-------------------|
| Bill Cunningham | wcunning@usgs.gov |

(b) The Final Technical report should consist of the following sections:

#### (1) **Cover page**

The cover page should include the following information:

- Award Number
- Agency Name
- Title
- Author(s) and Affiliation(s) with address and zip code
- Author's Telephone numbers and email address
- Term covered by award (start and end dates)
- Date of final report

## (2) Main body of the report

For new data providers

- Overview of work
- Description of existing water-level and/or water-quality networks including the objectives of the networks
- Description of site selection criteria and process
- Description of process used to assign Subnetworks and Monitoring Categories for both water-level and water-quality networks (as appropriate for your Network)

- Description or link to Field techniques for water-level measurement and water-quality sample collection (as appropriate for your network)
- Description of data quality and quality assurance processes
- List of Minimum Data elements and how they are provided to the Data Portal (via the Well Registry or web services)
- Notes on any sites that have missing required data elements
- Note any sites that do not meet requirements in Table 4.5.1.1 and/or 4.5.2.1 of the Framework Document.
- A description of the web services used or installed for this project
- Analyte list used for sampling networks
- List of laboratories and their accreditation for analyzing properties and constituents included in the monitoring program

For existing data providers

- Description of work done to support the NGWMN as a data provider
- Description of any updates made to web services during period of award
- Description of any problems encountered in serving data to the NGWMN data portal
- Notice of any changes in databases or web services that are being planned that would impact future integration of the web services with the NGWMN data portal.

## **11. Involvement of Federal Employees**

Federal employees, including USGS employees, are prohibited from serving in any capacity (paid or unpaid) on any application submitted under this Announcement; federal employees **may** not assist in the development of proposals. Proposals that have a real or apparent conflict of interest related to Federal employees will not be processed for evaluation. This does not prohibit cooperation or collaboration between USGS and non-USGS scientists once a grant or cooperative agreement is in place.

#### 12. Award Terms and Conditions

Award Recipient must comply with award Terms and Conditions (Attachment C). <u>Submittal</u> of an application constitutes the applicant's acceptance of the terms and conditions for inclusion on any award resulting from their application. Any concerns with the requirements of the Special Terms and Conditions shall be presented to the Contracting Officer at least three (3) days prior to the closing date of the Announcement.

- A. No pre-award costs are authorized
- B. No-Cost extensions to the project period are discouraged. New Data providers should have tasks involved in establishing connection to the network in year 1 of a 2-year project. No-Cost extensions should not be necessary for maintenance funding.
- C. Project Report. A final technical report must be completed and submitted to the USGS with 90-days of the end date of the project.

## Attachment A

### USGS National Ground-Water Monitoring Network Cooperative Agreement Proposal Information Summary

Use the format below for the **required** Proposal Information Summary

| 1. | Project Title:                              | The title of the proposal should include the agency name, the geographic area, and the type of network. Also include a brief statement of the work to be accomplished: 'Funding for New data Provider' or 'Current Data Provider Maintenance funding'. |
|----|---|--|
| 2. | Technical Contact (s):                      | List technical contacts and contact information here<br>(Name)<br>(Institute/Organization Name)<br>(Street Address/P.O. Box)<br>(City, State, Zip Code)  |
|    |   | (Telephone Number), (FAX Number), (E-mail Address)   |
| 3. | Authorized Institutional<br>Representative: | Provide name of Institutional/Financial contact here<br>(Name)<br>(Institute/Organization Name)<br>(Organizational Unit)<br>(Street Address/P.O. Box)<br>(City, State, Zip Code)<br>(Telephone Number), (FAX Number), (E-mail Address*)                |
| 4. | Amount Requested:                           | (List amount requested for Fiscal Year 2016 support)<br>(Two year projects: list requests for FY 2016 and 2017 separately)   |
| 5. | Proposed Start Date:                        | (The date you would like to start work; between March 1, 2016 and September 1, 2016)   |
| 6. | Proposed Duration:                          | (12 or 24 months, No awards are issued for less than 12 months)  |
| 8. | Data Provider Status:                       | Indicate status as 'New' or 'Existing' data provider. Existing data providers, please provide start date with NGWMN and date and title of last proposal.   |

## Attachment B

#### Minimum Data Requirements for NGWMN Candidate sites

A minimum set of data elements are listed in the NGWMN Framework Document. Some are fields are stored in agency databases and others are entered directly into a table in the Portal database that contains site information called the 'Well Registry'. In the list of data elements, the parenthesis after the field specifies where the data reside.

(R) Populated in NGWMN Well Registry

(C) Construction database, linked to using web services

(WL) Water-Level database, linked to using web services

(WQ) Water-quality database, linked to using web services or from EPA Storet

(L) Lithology database, linked to using web services

#### All Sites

- Name of Agency that collects data (R)
- Site Number (R,C, WL, WQ, L) This is the database key
- Site Name (R) (reviewed so that no Personally Identifiable Information (PII) is present
- Country (R)
- State (R)
- County (R)
- Latitude and Longitude with Metadata
  - **o** Latitude (decimal degrees) (R)
  - O Longitude (decimal degrees) (R)
  - 0 Horizontal Datum (R)
  - 0 Horizontal Location method (R)
  - 0 Horizontal Location Accuracy (R)
- National Aquifer Code (R)
- Local Aquifer Code (R)
- Type of site; Well/Spring (R)
- Confinement Status; Confined/unconfined (R)
- Lithology (L)
  - 0 Lithology ID (L)
  - 0 Description of Lithology of the unit (L)
  - 0 Observation Method (L)
  - **o** Beginning depth of lithologic unit (L)
  - **o** Ending depth of lithologic unit (L)
- Well Construction Information
  - 0 Well Depth (R)
  - 0 Well Depth Units (R)
  - Beginning depth of Screen interval (C)

- **o** Ending depth of Screen interval (C)
- **o** Screen depth unit of measure (C)
- 0 Screen interval material( C)
- **o** Casing interval (C)
- **o** Casing depth unit of measure (C)
- **o** Casing material (C)

#### Water-level Sites

- Land surface altitude with Metadata (R)
  - 0 Land Surface Altitude (R)
  - 0 Vertical Datum (R)
  - o Altitude Units (R)
  - o Altitude Accuracy (R)
  - **o** Method of altitude measurement (R)
- Water-Level data
  - o Date/Time of water-level measurement (WL)
  - 0 Depth to Water (WL)
  - 0 Water-level units (WL)
  - o Method of water-level measurement (WL)
  - Accuracy of water-level measurement (WL)

#### Water-Quality Sites

- Water-Quality data
  - 0 Date/Time of sample (WQ)
  - Analyte Name (WQ)
  - o Analyte value (WQ)
  - Parameter unit (WQ)
  - o Sample Fraction (WQ)
  - Chemical Identification Number (WQ)
  - o Chemical Classification System (WQ)
  - 0 Method (WQ)
  - o Analytical Method System (WQ)

## Attachment C

Terms and Conditions

To be added by contracting officer