



National Ground-Water Monitoring Network

National Ground-Water Monitoring Network (NGWMN) Cooperative funding opportunity - 2026

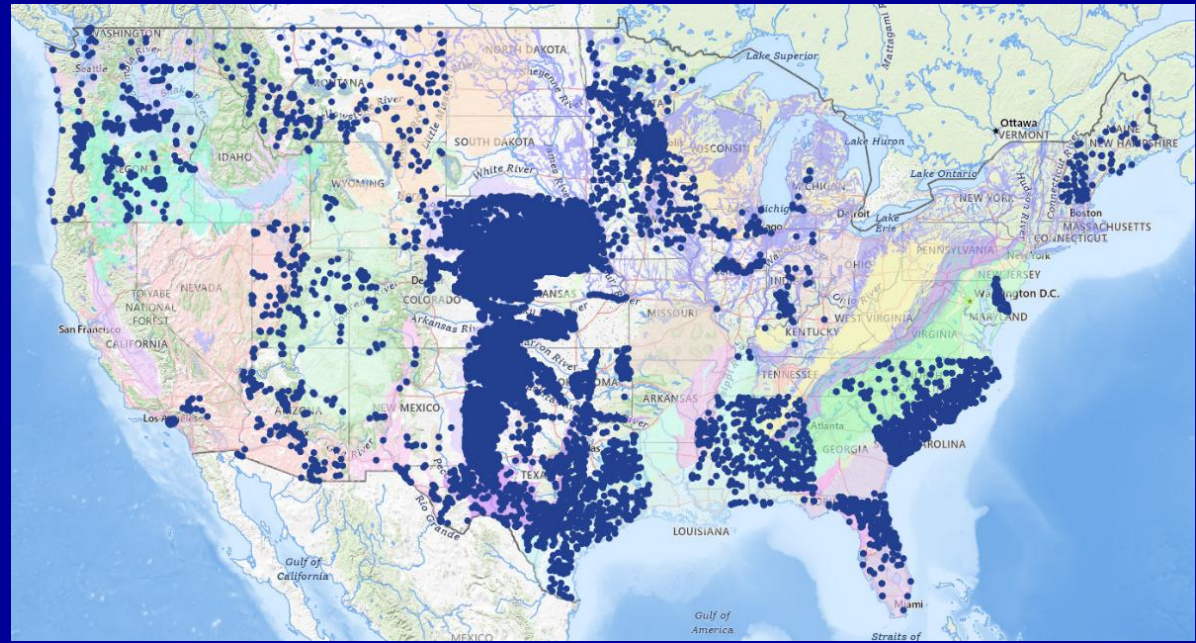
*Rodney Caldwell, Hydrologist
caldwell@usgs.gov, (406) 461-6931
USGS WY-MT Water Science Center
3162 Bozeman Ave
Helena, MT 59601*

*Candice Hopkins, Physical Scientist
chopkins@usgs.gov, (208) 387-1320
USGS Water Mission Area
230 Collins Road
Boise, Idaho 83702*



Overview

- Brief background on NGWMN
- Information on FY2026 Funding Opportunity
- Review of FY2026 Program Announcement Application
 - Format
 - Objectives
 - Examples of funded work under each objective
- Proposal Checklist
 - Review sections
 - Examples
- Additional reminders



National Ground-Water Monitoring Network

- The Subcommittee on Ground Water (SOGW) of the Advisory Committee on Water Information (ACWI) worked to establish the National Ground-Water Monitoring Network (NGWMN)
- Recognized the need for data to assess groundwater conditions nationally and regionally
- Network currently serves data from over 45 contributing agencies
 - Nearly 18,000 water-level sites
 - Nearly 4,200 water-quality sites

CURRENT STATUS

20840 Sites mapped

20843 Sites matching filter

17872 Water-level network wells

4167 Water-quality network wells

National Ground-Water Monitoring Network: Benefits of participation

as shared by existing data providers

- Consistent data for shared interstate groundwater resources
- Identification of 'gaps'
- Opportunity for review of field and data management procedures
- "Community of Practice"
- Data Portal provides tools to access data
- Increased visibility of our work and data
- Funding available to improve networks
- Improved data management
- Caused us to evaluate our field practices

- Analyze big picture data
- Transboundary issues identified
- Help to prioritize high-quality wells
- Upgrade internal metadata
- Data collection field app
- Creating consistency among field crews
- Developing web services that can be repurposed
- Funding to centralize data
- Incentivized us to also share our data with the Water Quality Exchange

Framework Document

- Design for a collaborative National Ground-Water Monitoring Network
- Subnetworks
- Guidance for Field Methods
- Guidance for Minimum Data Elements, Standards, and Management
- Implementation Plan and Recommendations
- Initial version in 2009. Revised in 2013 after pilot phase was completed



NGWMN Design Elements

- Focus on principal and major aquifer scales
- Emphasis on groundwater (GW) levels and quality, particularly regarding availability
- Participation from willing data providers, including Federal, State, and local water-resource agencies that gather groundwater data
- Priority given to active sites with long-term records
- Designed as a Network rather than a Warehouse or Master Database
- Data providers serve as the authoritative sources for their data
- Site selection and classification are conducted by local experts and data providers
- Sites are maintained in the NGWMN Well Registry
 - An application allowing data providers to input and update site information within the network, such as locations and metadata
 - Actual water level and quality data remain stored in the data providers' own databases
 - Data providers retain full control over their data
 - Data is accessed from the provider databases through web services

Cooperative Funding Agreements to Support NGWMN Data Providers

- Authorized as part of Secure Water Act of 2009 (P.L. 111-11 SECURE Water Act 2009) and Reauthorized in 2024
- Established under CFDA 15.980
- Funding opportunity available to State, Native American tribal governments (Federally recognized), and local groundwater resource agencies
 - Federal agencies, institutions, and companies may contribute data, but are not eligible for funding
- Funded annually through Congressional appropriations
- Now available through Grants.gov
- Applications reviewed by NGWMN Program Board

NGWMN Web Page

- Data portal and information
- Links to information sessions.
- [NGWMN Cooperative Agreements page](#)
 - Summaries of past projects

National Ground-Water Monitoring Network Cooperative Agreements

The NGWMN is designed as a cooperative groundwater data collection, management, and reporting system that aggregates data from selected wells and springs in existing Federal, State, Tribal, and local groundwater monitoring networks. The Network is envisioned as a long-term collaborative partnership among Federal and non-Federal data providers that will help address present and future groundwater management questions facing the Nation.

The USGS National Ground-Water Monitoring Network (NGWMN) has been offering funding to agencies to participate in the NGWMN since Federal Fiscal Year 2015. Documents describing the projects funded through the NGWMN Cooperative Agreements for each year are listed below:

Fiscal Year	Document
2015	NGWMN_FY15_ProjectSummary.pdf
2016	NGWMN_FY16_ProjectSummary.pdf
2017	NGWMN_FY17_ProjectSummary.pdf
2018	NGWMN_FY18_ProjectSummary.pdf
2019	NGWMN_FY19_ProjectSummary.pdf
2020	NGWMN_FY20_ProjectSummary.pdf
2021	NGWMN_FY21_ProjectSummary.pdf
2022	NGWMN_FY22_ProjectSummary.pdf
2023	NGWMN_FY23_ProjectSummary.pdf
2024	NGWMN_FY24_ProjectSummary.pdf
2025	NGWMN_FY25_ProjectSummary.pdf



National Ground-Water Monitoring Network

The National Ground-Water Monitoring Network (NGWMN) activities are conducted under the authority of the Omnibus Public Land Management Act of 2009 ([Secure Water Act](#)), reauthorized in 2024. This Network is a product of the Subcommittee on Ground Water of the Federal Advisory Committee on Water Information (ACWI). The NGWMN is a compilation of selected groundwater monitoring wells from Federal, State, and local groundwater monitoring networks across the nation. 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’](#).

CURRENT NETWORK:
17874 water-level wells
4179 water-quality wells
10 subnetworks
38 contributing agencies
53 administrative units
65 principal aquifers

The [NGWMN Data Portal](#) provides access to groundwater data from multiple, dispersed databases in a web-based mapping application. The portal contains current and historical data including water levels, water quality, lithology, and well construction. The NGWMN is currently in the process of adding new data providers to the Network. Agencies or organizations collecting groundwater data can [find out more about becoming a data provider for the Network](#).

Funding to support data providers to the National Ground-Water Monitoring Network is provided through USGS Cooperative Agreements. Agencies can also find information about the status of the [USGS cooperative agreements](#).

New (1/30/2026): The USGS National Groundwater Monitoring Network (NGWMN) Cooperative Funding Opportunity for 2026 to support the NGWMN will be open from January 30, 2026, through March 26, 2026.

Interested agencies may apply online at [Grants.gov](#) under funding opportunity number [G26AS00002](#). More information about the funding opportunity is available on the NGWMN Portal under the Program Announcement tab. Applications will be accepted until 4PM EST on March 26, 2026. Applications will only be accepted electronically through [Grants.gov](#); paper copies will not be accepted. The [Program Announcement](#) contains the requirements and other guidance for submitting proposals.

Three webinars are scheduled to provide information to **all potential applicants**:

[February 3, 2026 at 2:00 pm EST](#)

[February 5, 2026 at 3:00 pm EST](#)

[February 9, 2026 at 11:00 am EST](#)

One webinar is scheduled to provide specific information for applicants interested in participating as **new data providers**.

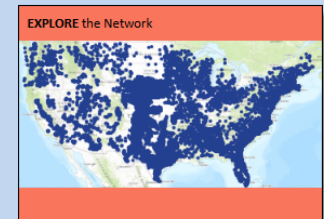
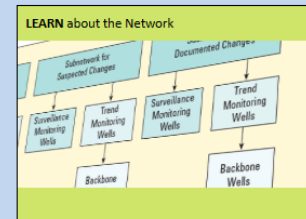
[February 4, 2026 at 12:00 pm EST](#)

Please click the desired date to access webinar information.

If you have questions about the National Ground-Water Monitoring Network Program, please contact:

Rod Caldwell

caldwell@usgs.gov



Learn about the Network

Includes:

About the Network

- Background

Program Announcement

- Link to the program announcement
- PDF of program announcement
- Tip Sheet to download Network sites
- Proposal Checklist

Resources

- Several tip sheets

National Ground-Water Monitoring Network

The National Ground-Water Monitoring Network (NGWMN) activities are conducted under the authority of the Omnibus Public Land Management Act of 2009 (Secure Water Act), reauthorized in 2024. This Network is a product of the Subcommittee on Ground Water of the Federal Advisory Committee on Water Information (ACWI). The NGWMN is a compilation of selected groundwater monitoring wells from Federal, State, and local groundwater monitoring networks across the nation. 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'.

The NGWMN Data Portal provides access to groundwater data from multiple, dispersed databases in a web-based mapping application. The portal contains current and historical data including water levels, water quality, lithology, and well construction. The NGWMN is currently in the process of adding new data providers to the Network. Agencies or organizations collecting groundwater data can find out more about becoming a data provider for the Network.

Funding to support data providers to the National Ground-Water Monitoring Network is provided through USGS Cooperative Agreements. Agencies can also find information about the status of the USGS cooperative agreements.

New (11/17/2025): The USGS National Groundwater Monitoring Network (NGWMN) Cooperative Funding Opportunity for 2025 is now closed and grants have been awarded. The 2026 Funding Opportunity will potentially open soon pending Department of Interior approval. The deadline to apply for the 2026 funding opportunity will likely be extended.

If you have questions about the National Ground-Water Monitoring Network Program, please contact:
Rod Caldwell
caldwell@usgs.gov

LEARN about the Network

EXPLORE the Network

<https://www.usgs.gov/apps/ngwmn/learnmore.jsp>

ABOUT THE NETWORK	THE DATA PORTAL	DATA PROVIDERS	
GET INVOLVED	RESOURCES	PROGRAM ANNOUNCEMENT	
STATE WATERLEVEL DOWNLOAD			

Funding Opportunity for 2026

- Application period is open from January 30, 2026, through March 26, 2026, 4:00 ET
- Six objectives are supported
 1. Support to become a new data provider
 2. Support persistent data service from existing data providers
 3. Filling gaps in information at NGWMN sites
 4. Well Maintenance
 5. Well Drilling
 6. Purchase equipment for continuous water-level data collection
- The last three objectives are only available to current data providers

Reminders and Changes for 2026

Revised Timeline:

- Opportunity released about 3 months later than usual
- Open period is shorter than normal
- Notice of awards anticipated by August 1, 2026

Reminders:

- USGS cannot award funds if budget details are lacking
- Objectives 3, 4, 5, and 6: Any proposed work related to existing NGWMN sites are required to be in the NGWMN Monitoring Location Registry on the closing date of the funding opportunity

Equipment

- A quote is required for any piece of equipment (single item) that costs more than \$10,000

Budget tables

- Please no screen shots

Reminders and Changes for 2026

Eligibility Change:

- Native American tribal governments (Federally recognized) can now apply

Objective 6 Change:

- Now a \$4,000 limit per site regardless if real-time or not
 - Includes pressure transducers, cable, and real-time equipment
- Travel and salary costs are not supported under objective 6. In-kind can only be the purchase of equipment.

Grants.gov Application Package



[Help](#) | [Register](#) | [Login](#)

Search site content

[Home](#) | [Learn Grants](#) | [Search Grants](#) | [Applicants](#) | [Grantors](#) | [System-To-System](#) | [Forms](#) | [Connect](#) | [Support](#)

VIEW GRANT OPPORTUNITY

G26AS00002

Groundwater and Streamflow Information Program, National Ground-Water Monitoring Network

Department of the Interior

Geological Survey



[View similar opportunities](#)

[Apply](#)

[Subscribe](#)

SYNOPSIS

VERSION HISTORY

RELATED DOCUMENTS

PACKAGE

General Information

Document Type:	Grants Notice	Version:	Synopsis 1
Funding Opportunity Number:	G26AS00002	Posted Date:	Jan 30, 2026
Funding Opportunity Title:	Groundwater and Streamflow Information Program, National Ground-Water Monitoring Network	Last Updated Date:	Jan 30, 2026
Opportunity Category:	Discretionary	Original Closing Date for Applications:	Mar 26, 2026 Electronically submitted applications must be submitted no later than 4:00 p.m., ET, on the listed application due date.
Opportunity Category Explanation:		Current Closing Date for Applications:	Mar 26, 2026 Electronically submitted applications must be submitted no later than 4:00 p.m., ET, on the listed application due date.
Funding Instrument Type:	Cooperative Agreement	Archive Date:	Apr 25, 2026
Category of Funding Activity:	Natural Resources	Estimated Total Program Funding:	\$ 900,000
Category Explanation:		Award Ceiling:	\$300,000
Expected Number of Awards:	20	Award Floor:	\$5,000
Assistance Listings:	15.980 -- National Ground-Water Monitoring Network		
Cost Sharing or Matching Requirement:	No		



Attachments: Related Documents



[Help](#) | [Register](#) | [Login](#)

[Home](#) [Learn Grants](#) [Search Grants](#) [Applicants](#) [Grantors](#) [System-To-System](#) [Forms](#) [Connect](#) [Support](#)

VIEW GRANT OPPORTUNITY

[View similar opportunities](#)

G26AS00002

Groundwater and Streamflow Information Program, National Ground-Water Monitoring Network

Department of the Interior

Geological Survey

[Apply](#) [Subscribe](#)

- [SYNOPSIS](#)
- [VERSION HISTORY](#)
- [RELATED DOCUMENTS](#)
- [PACKAGE](#)

Click on the following file link(s) to download the related document(s):

File Description	File Name	Last Updated Date/Time	File Size
Folder: Full Announcement - Full Announcement	G26AS00002-Full Announcement - Full Announcement.zip	Jan 30, 2026 12:11:42 PM EST	228.6 KB
Folder: Other Supporting Documents - Other Supporting Documents	G26AS00002-Other Supporting Documents - Other Supporting Documents.zip	Jan 30, 2026 12:15:03 PM EST	2.2 MB



Application Process

- Applications need to be submitted electronically on [Grants.gov](https://www.Grants.gov) under funding opportunity number [G26AS00002](https://www.Grants.gov)
- Application needs to be submitted by someone with appropriate authority
- Need to be registered with Grants.gov (**do as soon as possible**)
 - Note: Registration of new users can take up to three weeks
- Program Announcement contains details on the Electronic Application Requirement



Application Package Components – Proposal Information Summary

A one-page proposal summary for the project:

- Be sure to use the format shown in **Attachment A** of Program Announcement.
- Project title should be same as that used in Form SF-424
- Only list one Principal Investigator
- **New DOI grants system requires very specific information. If you change the Proposal Information Summary format, you may not be providing the information we require which could slow down or disqualify your proposal**
- Make sure proposed start and end dates match those in Program Announcement
- **A table that shows funding, match, and total funding for each objective in the proposal**

Attachment A - Proposal Information Summary Template

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

Use the format below for the Proposal Information Summary

1. Project Title: The title of the proposal. Should be a short title and should match that used in the title box of Form SF-424.
2. Principal Investigator: **List one Principal Investigator/Technical Contact Name and contact information here**
(Name)
(Institute/Organization Name)
(Street Address/P.O. Box)
(City, State, Zip Code)
(Telephone Number), (E-mail Address)
3. Authorized Institutional Representative: **Provide name of Institutional/Financial contact here**
(Name)
(Institute/Organization Name)
(Organizational Unit)
(Street Address/P.O. Box)
(City, State, Zip Code)
(Telephone Number), (E-mail Address)
4. Amount Requested: List amount of Federal funding requested for the project.
5. Proposed Start Date: (The date you would like to start work; between September 1st, 2026, and September 30th, 2026)
6. Proposed Duration: (12 or 24 months)
7. Data Provider Status: Indicate if you are applying as an existing data provider or if the proposal is to become a new NGWMN Data Provider.
8. Objectives included in proposal: Provide a table showing the Federal funding, match, and total funding for each Objective included in the proposal.

Objective	Federal Funding	Match	Total Funding
9. Indirect rate used in proposal budgets: Show indirect rate used in the proposal. If the indirect rate is greater than 15%, then a Negotiated Rate Agreement needs to be included in the proposal submission.

Application Package Components: Background and Project Summary

- Background information
 - Description of Agency and purpose of monitoring
 - Description of the Agency's existing monitoring networks
 - Describe previous projects with the NGWMN. Include a table of funds awarded by Objective
 - Describe your IT Infrastructure
- Project Summary
 - Statement of overall purpose of the project. List objectives.
 - Brief description of the work proposed under each objective (1-2 sentences per objective)
 - Briefly describe the project deliverables and expected outcomes (one paragraph)
 - Describe any work that will be done by contractors or performed by another agency

Application Package Components: Project Description

- **Provide a workplan for each objective**
 - Describe the need for the work
 - State the benefits of the work to the NGWMN
 - Provide a detailed list of tasks
 - Should include details on staffing, travel, contracts, etc. to support items in the detailed budget
 - List of tasks should be the same as that in the detailed budget and timeline
 - Include table of sites for which the work will be done
- Other requirements for the work plan are specific to the objective and are described below

Application Package Components - Continued

- Overall Project Budget
 - Use format shown in Attachment B of Program Announcement
- Detailed Budget for each objective
 - Use formats shown in Attachment B of the Program Announcement.
- Timeline for each objective
- Data Management Plan (DMP)
 - Describe data collection, data management, and quality assurance methods for all objectives.
- Staff Qualifications
- Supporting Letters
 - USGS Cooperative Projects
 - Projects working with other agencies
 - Other letters of support to show need (not required)
- NGWMN Proposal Checklist

Objective 1:

Support to become a new data provider

- Perform work necessary to become a data provider to the NGWMN
- Federal funding typically ranges from \$30,000 to \$60,000
- Specific workplan elements
 - Select and classify sites for the NGWMN
 - Provide required data elements for selected sites
 - Populate the NGWMN Well Registry with site Network information
 - Identify gaps in required data elements for selected sites
 - Connect databases to portal using web services
 - Water Level, Water Quality, Lithology, Well Construction
 - Document field and data management practices
 - Prepare a brief report documenting project. This report will be used to populate the data provider page elements.

Examples of Funded Objective 1 work

- Setting up new web services
 - Can include software or licenses to help facilitate serving data
- Selecting sites for network
- Classifying sites for network
- Entering sites into the NGWMN Registry
- Documenting field and data management practices
- Documenting work in project final report
 - All objectives

Objective 2: Support persistent data service from existing data providers

- Part A
 - Perform activities necessary to maintain persistent data services from agency databases to the NGWMN Portal
 - Generally, from \$5,000 to \$20,000, but can be a maximum of \$40,000 if you have more than 500 sites in the Network and you justify the need.
- Part B
 - Occasional work needed to upgrade/add services for large number of new sites
- Specific workplan elements
 - Maintain list of sites in Well Registry (Part A)
 - Keep site information updated (Part A)
 - Populate data elements for new sites (Part A)
 - Maintain web services connection to Portal (Part A)
 - Routine updates to metadata (Part A)
 - Describe additional work (Part B)
 - Example: update web services because of database changes
 - Document work in report (Due 120-days after each project)

Examples of Funded Objective 2 work

- Persistent data services to keep sites up to data and data flowing to NGWMN
- Adding new sites to fill NGWMN gaps
- Adding new web services
- Updating web services
 - New databases
 - Update services to use established XML data standards (WaterML2, GWML2, WQX)

Objective 3: Filling gaps in information at NGWMN sites

- Perform work necessary to fill metadata gaps in the required data elements listed in the NGWMN Framework Document.
- Allowable work includes
 - Data collection to fill metadata gaps (logging, GPS, sounding)
 - Data entry to fill metadata gaps (entry of lithology from logs)
 - Data entry to fill NGWMN data gaps (entry of historic data)
- Specific workplan elements
 - Description of the information gap
 - Planned approach to fill the gap
 - Description of field techniques, provide references
 - Include a table of sites
 - Include a map of sites
 - Describe plan to quality assure any new data
 - Document gap filling activities in the final report for the project

Examples of Funded Objective 3 work

- Data entry to fill gaps
 - Entry of historic data
 - Lithologic log data entry
 - Metadata updates
 - Well construction details
- Data collection to fill gaps
 - Lithology or well construction logging
 - Borehole camera logging
 - GPS updates
 - well location
 - land surface elevation

Objective 4: Well Maintenance

- Perform maintenance of wells in the NGWMN to ensure that data are of high quality.
- Specific workplan elements
 - Describe the need for the maintenance
 - List the proposed activity at each well, describe approach
 - Include a table of sites
 - Include a map of sites
 - Include paragraph for each well describing need for work and planned approach
 - Document activities in the final report for the project

Examples of Funded Objective 4 Work

- Well integrity testing
- Periodic pumping
- Costs of software to analyze data
- Borehole video investigation of well issues
- Well redevelopment
- Site repairs
 - Reconstruction
 - Rehabilitation
 - Well head repairs
- Secure site
 - Surface casing installation or repair
 - Fencing to secure site

Objective 5: Well Drilling

- Install wells to enhance or maintain the NGWMN.
- Specific workplan elements
 - Provide justification for each well.
 - Include a paragraph for each well describing its need and how it fills a gap
 - Describe proposed drilling methods and include references
 - Include drilling cost for each well and justify expensive methods
 - Provide a table of proposed wells
 - If the well is to be a replacement well for an existing NGWMN site, please list the existing site name and NGWMN number
 - Describe who will be drilling and that you they meet state guidelines
 - Document well drilling activities in the final report for the project
 - Suggest including a well construction diagram for proposed wells
 - Continuous water-level data collection is required at all wells that will be added to the network

Examples of Funded Objective 5 Work

- Drill new wells to fill gaps in NGWMN water-level or water-quality monitoring networks
- Drill replacement wells for current NGWMN sites
- Collection of minimum data elements at new wells
 - Geophysical logging
 - GPS surveys
 - Well Integrity testing
- Installation of continuous monitoring equipment at new wells

Objective 6: Equipment Purchase

- Purchase equipment to support continuous water-level monitoring
- Allowable work includes:
 - Cost to purchase equipment for continuous water-level monitoring. (pressure transducers, data loggers, cables, barologgers to support non-vented transducers, etc.)
 - Subject to \$4,000 per well limit for equipment
 - New: Does not include salary and travel
 - Costs above the limits above can be used as in-kind match
- Specific workplan elements
 - Description of need for equipment purchase
 - Description of how equipment fills gaps
 - Provide a table of equipment that will be purchased
 - Provide a table listing each well for which equipment will be purchased
 - Document equipment purchase work in final report

Examples of Funded Objective 6 Work

- Upgrade sites to continuous water-level monitoring
 - Upgrade periodic wells to continuous monitoring
 - Add continuous water-level monitoring to water-quality network sites
- Replace continuous monitoring equipment at current NGWMN sites
 - Replace wells using shaft encoders to use pressure transducers
 - Replace aging equipment

Project Report Requirements:

Summarize work done for the project

- Described in Attachment D of Program Announcement (Terms and Conditions)
- New Data Providers:
 - Provide background information and describe your networks
 - Site selection approach
 - Site classification approach
 - Describe data collection techniques
 - Describe methods for quality assurance of data
 - Description of web services
- Existing Data Providers:
 - Describe work to provide persistent data service
 - Web service status
 - Planned upgrades in databases that could affect portal
 - Document any work done under Part B
 - Describe any work done for the last 4 objectives
 - Site information gap filling, site maintenance, well drilling, and equipment

Project Reporting Deadlines

- Described in Program Announcement and in Attachment D (Terms and Conditions)
 - Final project reports and Final financial reports are both due 120 days after end date of project
 - For multi-year projects, a project update report is required each year (60 days after first year of project)
 - Requests for project extensions must be submitted 30 days prior to end date of project

Proposal Evaluation

Each objective proposed will be evaluated and ranked by the NGWMN Program Board using the following criteria:

1. Proposal quality: Considers the overall quality of the proposal
2. Relevance: Considers relevance and importance of the activity as it relates to the USGS NGWMN Program goals
3. Technical quality: Considers the merit of the proposed approach, chance of success, attentions to NGWMN requirements, and completion of previous project
4. Budget:
 - Considers whether the proposed budget reflects the level of effort required to accomplish the work
 - Considers whether the budget used the prescribed formats and contain adequate detail on tasks

Application Review Information section of the Program Announcement lists the criteria and specific considerations for review. **These match up with items in the NGWMN Proposal Checklist.**

Proposal Checklist

A proposal checklist must be submitted along with the proposal. This checklist contains items that should be verified prior to submission of the proposal. The checklist must be completed by the Principal Investigator listed for the proposal.

- Categories
 - General Requirements
 - Maps and Tables
 - Budgets
 - New Data Provider Project Requirements
 - Objective requirements
 - Requirements for specific objectives

Checklist Header

- Header includes state, agency, and principal investigator name
- Gives instructions for checklist, submission deadlines, and eligibility guidelines
- Objectives that do not have a detailed budget will not be reviewed

NGWMN Proposal Checklist							
State							
Agency							
Principal Investigator Name							
Checklist items (Enter 'Y' or 'NA' in each light grey box)	Overall Proposal	Objectives included in Proposal					
		1	2A	2B	3	4	5
Reminders							
Proposal must be submitted by 4 pm EST on the proposal due date. Late proposals will not be considered for funding							
Check applicant eligibility requirements in Eligibility section of the Program Announcement to be sure you are eligible for funding							
Proposals that do not include a detailed budget for each Objective applied for will not be reviewed							

General Requirements

Checklist items (Enter 'Y' or 'NA' in each light grey box)	Overall Proposal	Objectives included in Proposal					
		1	2A	2B	3	4	5
Reminders							
Proposal must be submitted by 4 pm EST on the proposal due date. Late proposals will not be considered for funding							
Check applicant eligibility requirements in Eligibility section of the Program Announcement to be sure you are eligible for funding							
Proposals that do not include a detailed budget for each Objective applied for will not be reviewed							
General Requirements							
Proposal has been proofread							
Budgets have been checked for accuracy and use of the suggested format							
Proposed project start and end dates are within range							
Federal funding is less than \$150,000 per year							
Proposal is less than 20 pages excluding figures and tables. Font size is at least 12 pt (even on tables)							
Proposal is in PDF Format and includes all tables, figures, budgets, the Data Management Plan, and letters of support.							
Adequate background information is provided							
Agencies that provide data to the NGWMN through another agencies database must describe the delivery in the Background Information section							
Includes table of recent NGWMN projects							
Framework document or Tip Sheets are referenced							
References NGWMN Well Density guidelines when proposing gap filling activities							
Letter of support from local USGS WSC if monitoring is part of a USGS Cooperative Matching Funds project							
Letter of support from other agencies that will be participating in the project							
Staff qualifications are shown for staff listed in budgets							
Data Management plan is included							
If requesting indirect costs, current Negotiated Rate Agreement is included, unless de minimis rate applied							

Boxes in light gray should be completed. 'Y' or 'NA' are allowed responses

General Requirements - Continued

- Make sure to proofread your proposal
- Carefully check over your detailed budgets
- Proposed start and end dates are within range
- Federal funding less than \$150,000 per year
- Proposal is less than 20 pages at 12 pt font. Excludes figures, tables, budgets, timelines, and data management plan
- Adequate background information is provided
 - We have new members to the Program Board each year who need this background information
 - Returning Board members do not have access to previous proposals
- Includes table of active projects

Checklist items (Enter 'Y' or 'NA' in each light grey box)	Overall Proposal	Objectives included in Proposal					
		1	2A	2B	3	4	5
Reminders							
Proposal must be submitted by 4 pm EST on the proposal due date. Late proposals will not be considered for funding							
Check applicant eligibility requirements in Eligibility section of the Program Announcement to be sure you are eligible for funding							
Proposals that do not include a detailed budget for each Objective applied for will not be reviewed							
General Requirements							
Proposal has been proofread							
Budgets have been checked for accuracy and use of the suggested format							
Proposed project start and end dates are within range							
Federal funding is less than \$150,000 per year							
Proposal is less than 20 pages excluding figures and tables. Font size is at least 12 pt (even on tables)							
Proposal is in PDF Format and includes all tables, figures, budgets, the Data Management Plan, and letters of support.							
Adequate background information is provided							
Agencies that provide data to the NGWMN through another agencies database must describe the delivery in the Background Information section							
Includes table of recent NGWMN projects							
Framework document or Tip Sheets are referenced							
References NGWMN Well Density guidelines when proposing gap filling activities							
Letter of support from local USGS WSC if monitoring is part of a USGS Cooperative Matching Funds project							
Letter of support from other agencies that will be participating in the project							
Staff qualifications are shown for staff listed in budgets							
Data Management plan is included							
If requesting indirect costs, current Negotiated Rate Agreement is included, unless de minimis rate applied							

General Requirements - Continued

- Reference well density guidelines when proposing gap filling activities
- Includes letter of support from USGS if monitoring is part of a USGS Cooperative Matching Funds project
- Includes letter of support from any other agency that will be working on the project
- Staff qualifications are included for all staff shown in budgets
- Data Management plan is included
 - Documents data collection and quality assurance for routine work
 - Also documents work done to support objectives
- A current Negotiated Rate Agreement is required if requesting funds for indirect costs. If the de minimis rate is applied, please indicate use of this rate and the percentage applied, up to 15%.

Checklist Items (Enter "Y" or "NA" in each light grey box)	Overall Proposal	Objectives Included in Proposal					
		1	2A	2B	3	4	5
Reminders							
Proposal must be submitted by 4 pm EST on the proposal due date. Late proposals will not be considered for funding							
Check significant eligibility requirements in Eligibility section of the Program Announcement to be sure you are eligible for funding							
Proposals that do not include a detailed budget for each Objective applied for will not be reviewed							
General Requirements							
Proposal has been proofread							
Budgets have been checked for accuracy and use of the suggested format							
Proposed project start and end dates are within range							
Federal funding is less than \$150,000 per year							
Proposal is less than 200 pages excluding figures and tables. Font size is at least 12 pt (even on tables)							
Proposal is in PDF Format and includes all tables, figures, budgets, the Data Management Plan, and letters of support.							
Adequate background information is provided							
Agencies that provide data to the NGWMN through another agencies database must describe the delivery in the Background information section							
Includes table of recent NGWMN projects							
Framework document or Top Sheets are referenced							
References NGWMN Well Density guidelines when proposing gap filling activities							
Letter of support from local USGS WSC if monitoring is part of a USGS Cooperative Matching Funds project							
Letter of support from other agencies that will be participating in the project							
Staff qualifications are shown for staff listed in budgets							
Data Management plan is included							
If requesting indirect costs, current Negotiated Rate Agreement is included, unless de minimis rate applied							

Maps and Tables

- Include a table of sites for which work is proposed under Objectives 3 - 6
 - Example below
- Tables include the NGWMN-ID, the Principal aquifer, and the well depth
 - Example below
- Includes a map of all sites for which work is proposed
 - Example below
- If a map is zoomed in, make sure there is an inset box shown on a map of the state
- Maps should show the principal aquifers
- All maps should:
 - Have a scale bar
 - Have a north arrow
 - Have an explanation

Checklist items	Overall Proposal	Objectives					
		1	2A	2B	3	4	5
Maps and Tables							
Includes a table of sites for which work is proposed							
Tables of sites include the NGWMN ID, the Principal Aquifer, and the well depth							
Includes a map of all sites for which work is proposed							
Maps have a scale bar, north arrow, and explanation							
Maps include the Principal Aquifer							
Zoomed in maps include an inset map							

Boxes in light gray should be completed.
 'Y' or 'NA' are allowed responses

Objectives 3 through 6: Include a table of sites for which work is proposed

Site Name	NGWMN ID	Aquifer	Estimated cost to pump to maintain aquifer connection	Estimated cost of conducting slug test
Briggs Woods #2	54285	Mississippian		
Briggs Woods #3	50000	Mississippian		
FM1-2	56978	Devonian		
FM1-3	56979	Devonian		
FM1-4	56980	Devonian		
FM2-2	56983	Devonian		
FM2-3	56984	Devonian		
FM2-4	56985	Devonian		
FM3-2	56988	Devonian		
FM3-3	56989	Devonian		
FM3-4	56990	Devonian		
Rutland Marsh #3	55575	Mississippian		
Rutland Marsh #5	54830	Mississippian		

C
h
i
d
d
e
n
s
t
o
s

C
h
i
d
d
e
n
s
t
o
s

Example Map for Objective 4 Work

- Explanation
- Scale bar
- Principal aquifers
- Proposed sites
- Past and ongoing sites

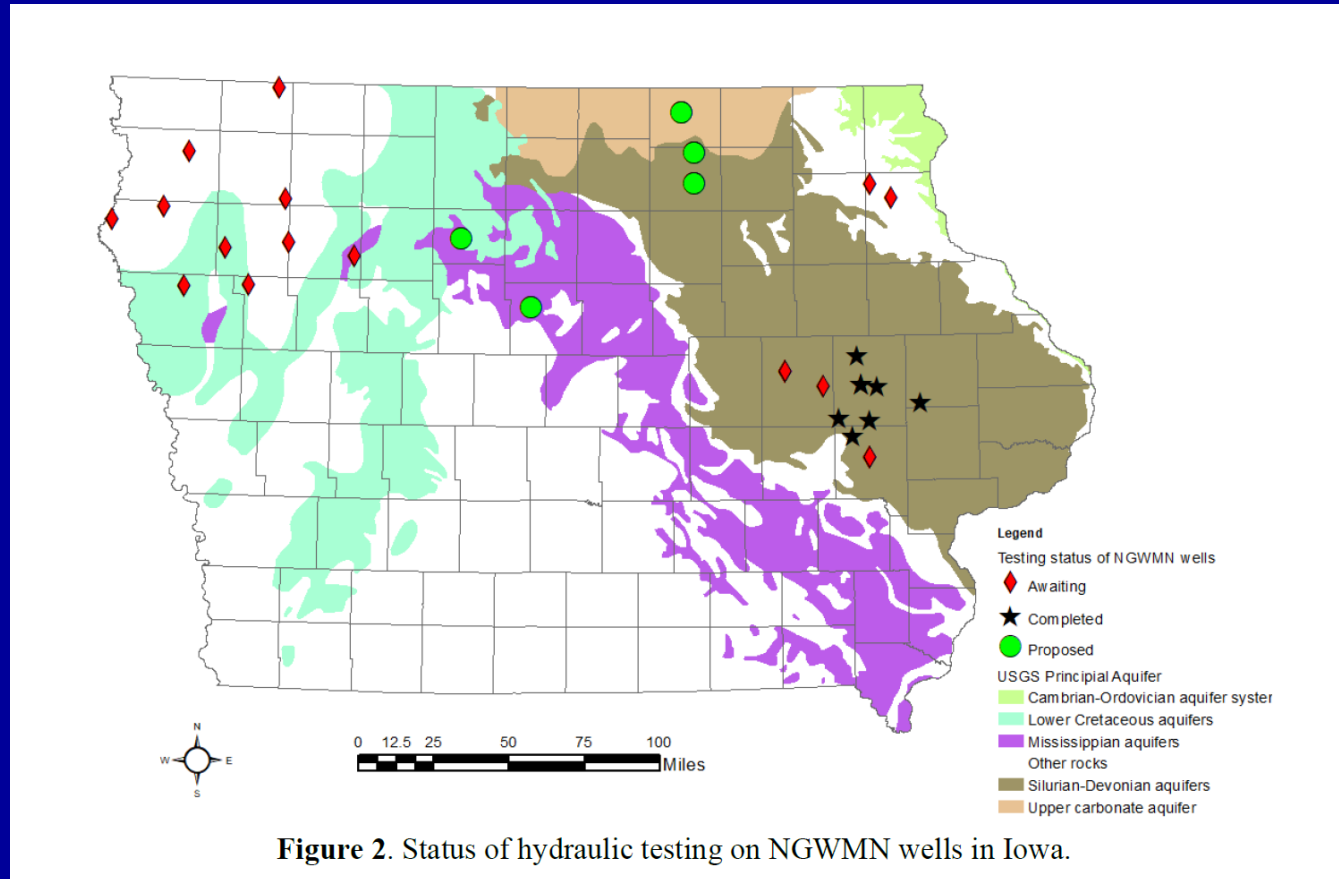


Figure 2. Status of hydraulic testing on NGWMN wells in Iowa.

Map courtesy of the Iowa Geological Survey

GIS Resources for Maps

- We have GIS data in our 'Resources' tab on the NGWMN Data Portal
 - <https://www.usgs.gov/apps/ngwmn/learnmore.jsp>
 - A zip file that contains Shapefiles of the 'Principal Aquifers of the United States' and 'Aquifers of Alluvial and Glacial Origin'
 - A zip file that contains a Shapefile of the sites in the NGWMN
 - These will be helpful in putting maps together for the funding opportunity.
 - Tip sheets are available

National Ground-Water Monitoring Network

The National Ground-Water Monitoring Network (NGWMN) is a compilation of selected wells monitoring groundwater aquifers all around the nation. The NGWMN Data Portal brings groundwater data together in one place to provide users with current and reliable information for the planning, management, and development of groundwater resources.

ABOUT THE NETWORK	THE DATA PORTAL	DATA PROVIDERS	
GET INVOLVED	RESOURCES	PROGRAM ANNOUNCEMENT	
STATE WATERLEVEL DOWNLOAD			

Resources

Resources for New Data Providers:

Information about USGS cooperative agreements to fund data providers is available [here](#).

The National Ground-Water Monitoring Network focuses on Principal Aquifers. Principal Aquifers are defined by the USGS in the Ground Water Atlas.

[Principal Aquifers of the United States](#)

[Map of the Principal Aquifers of the United States](#)

GIS Resources:

GIS layers in multiple formats of sites and the most-recent water level percentiles can be found on the [Geoserver page](#).

New Data Provider Tip Sheets:

[Tip Sheet on Well Selection Criteria for Water Levels](#)

[Tip Sheet on Well Selection Criteria for Water Quality](#)

[Tip Sheet on Defining the "Subnetwork"](#)

[Tip Sheet on Defining Monitoring Categories](#)

[Tip Sheet on Minimum Data Requirements for Candidate Sites](#)

[Tip Sheet on Web Service Development](#)

[Wyoming DEQ Tip Sheet on creating ARCGIS server web services](#)

[Tip Sheet on Standard Elements for Water-Quality web services](#)

[NGWMN Data Dictionary](#)

General Tip Sheets:

[How to Cite NGWMN Data](#)

[Monitoring Location Registry Documentation](#)

[Monitoring Location Registry Field Definitions](#)

[Creating Shapefiles of NGWMN sites](#)

[Viewing Water-Level Statistics in the NGWMN Data Portal](#)

[Well Density Table](#)

Other Resources:

The NGWMN Well Registry Management System can be accessed [here](#).

Budgets

- Include an overall budget for the project (**example**)
- Include a detailed budget for each objective
- Use budget formats shown in Program Announcement
 - These have the information we need to review the proposal
- Include the objective summary for the detailed budgets (**example**)
- Make sure costs and hours are reasonable
- Tasks in workplan are shown in detailed budget
- Budgets are separated out by individual task and staff member
- In-kind services work is itemized
- Costs for tasks done by contractors is itemized (**example**)

Checklist items	Overall Proposal	Objectives					
		1	2A	2B	3	4	5
Budgets							
Includes overall project budget							
Includes detailed budget for each objective							
Uses budget formats in the Program Announcement							
Detailed budgets include the Objective summary table							
Costs and hours for the work are reasonable							
Tasks in workplan are listed in detailed budget							
Budgets are separated out by individual task and by staff member (not lumped for each staff member)							
In-kind services work tasks are itemized							
Costs for tasks done by contractors are itemized							

Budget Checklist: Boxes in light gray should be completed. 'Y' or 'NA' are allowed responses

Overall Project Budget

Category	Federal Funding	Agency In-Kind Funding	Total Funding
1a. Salary	\$29,400.00	\$19,530.00	\$48,930.00
1b. Fringe	\$9,800.00	\$6,510.00	\$16,310.00
2. Supplies	\$3,470.00	\$525.00	\$3,995.00
3. Equipment	\$16,319.69	\$1,630.31	\$17,950.00
4. Travel	\$5,118.75	\$11,398.50	\$16,517.25
5. Contracts	\$10,981.00	\$7,900.00	\$18,881.00
6. Total Direct (sum of items 1-5)	\$75,089.44	\$47,493.81	\$122,583.25
7. Indirect cost	\$20,065.94	\$12,392.86	\$32,458.80
8. Total Cost (sum of 6 and 7)	\$95,155.38	\$59,886.68	\$155,042.05

Available in budget templates

Objective Summary

Example Budget 2

Objective 2A. Persistent Data Services Overhead/indirect rate: 31.3%

USGS funding Total: \$16,596.32

In-kind services Total: \$0.00

Objective Total: \$16,596.32

a) Salary										
1)	2)	3)	4)	5)	6)	7)	8)	9)	Source of funds	
Employee name	Task	Hourly rate of compensation	Hourly rate of fringe benefit	Total hourly rate (a3 + a4)	Number of hours	Salary cost (a5 x a6)	Indirect cost (a7 x indirect rate)	Total cost (a7 + a8)	10)	11)
									Federal	Agency in-kind
Employee 1	Oversee persistent data services work	\$30.00	\$10.00	\$40.00	120	\$4,800.00	\$1,502.40	\$6,302.40	\$6,302.40	\$0.00
Employee 2	Database programming support	\$30.00	\$10.00	\$40.00	120	\$4,800.00	\$1,502.40	\$6,302.40	\$6,302.40	\$0.00

- The summary budget is this little table at the top left that includes the federal funding total, the in-kind services total, and the objective total
- Included in all the budget templates

Example: Detailed budget for contracted portion of work

Contracts- Salary							
1)	2)	3)	4)	5)	6)	Source of funds	
Description of work	Hourly rate of compensation	Hourly rate of fringe benefit	Total hourly rate (col 2 + col 3)	Number of hours	Salary cost (col 4 x col 5)	7)	8)
						Federal	Agency in-kind
Well 1– Driller, Permits	\$30.00	\$10.00	\$40.00	4	\$160.00	\$160.00	\$0.00
Well 1- Driller, planning and prep	\$30.00	\$10.00	\$40.00	8	\$320.00	\$0.00	\$320.00
Well 1- Driller, Well development	\$30.00	\$10.00	\$40.00	8	\$320.00	\$160.00	\$160.00
Well 1- Driller Assistant, Well development	\$30.00	\$10.00	\$40.00	8	\$320.00	\$0.00	\$320.00
Well 2– Driller, Permits	\$30.00	\$10.00	\$40.00	4	\$160.00	\$160.00	\$0.00
Well 2- Driller, planning and prep	\$30.00	\$10.00	\$40.00	8	\$320.00	\$0.00	\$320.00
Well 2- Driller, Well development	\$30.00	\$10.00	\$40.00	8	\$320.00	\$160.00	\$160.00
Well 2- Driller Assistant, Well development	\$30.00	\$10.00	\$40.00	8	\$320.00	\$0.00	\$320.00
10 % contingency for salary contract costs	N/A	N/A	N/A	N/A	\$224.00	\$224.00	\$0.00
Totals				Total hours	Salary total	Federal total	Agency total
				56	\$2,464.00	\$864.00	\$1,600.00

Example: Detailed budget for supplies

Contract- Supplies						
1)	2)	3)	4)	5)	Source of funds	
Type	Unit Type (per foot or each)	Cost per unit	Number	Cost of supplies (col 3 x col 4)	6)	7)
					Federal	Agency in-kind
Well 1- PVC casing	per foot	\$2.00	200	\$400.00	\$0.00	\$400.00
Well 1- PVC screen	per foot	\$2.00	200	\$400.00	\$0.00	\$400.00
Well 1- grout	each	\$100.00	1	\$100.00	\$0.00	\$100.00
Well 1- sand pack	each	\$100.00	1	\$100.00	\$0.00	\$100.00
Well 1- Cap and protective top	each	\$50.00	1	\$50.00	\$0.00	\$50.00
Well 2- PVC casing	per foot	\$2.00	200	\$400.00	\$400.00	\$0.00
Well 2- PVC screen	per foot	\$2.00	200	\$400.00	\$400.00	\$0.00
Well 2- Grout	each	\$100.00	1	\$100.00	\$100.00	\$0.00
Well 2- Sand pack	each	\$100.00	1	\$100.00	\$100.00	\$0.00
Well 2- Cap and protective top	each	\$50.00	1	\$50.00	\$50.00	\$0.00
10 % contingency for supplies contract costs	N/A	N/A	N/A	\$210.00	\$210.00	\$0.00
Totals				Supplies total	Federal total	Agency total
				\$2,310.00	\$1,260.00	\$1,050.00

Example: Detailed budget for contract travel and well drilling

Contract- Travel											
1)	2)	3)	4)	5)	6)	7)	8)	9)	10)	Source of funds	
										13)	14)
Traveler name / reason for travel	Number of nights of lodging	Lodging cost per day	Number of days of meals	Meal cost per day	Meal and lodging ((col 2 x col 3) + (col 4 x col 5))	Miles traveled	Cost per mile	Mileage cost (col 7 x col 8)	Travel cost (col 6 + col 9)	Federal	Agency in-kind
Driller	6	\$93.00	8	\$51.00	\$966.00	500	\$0.625	\$312.50	\$1,278.50	\$1,278.50	\$0.00
Driller assistant	6	\$93.00	8	\$51.00	\$966.00	500	\$0.625	\$312.50	\$1,278.50	\$1,278.50	\$0.00
Totals									Travel total	Federal total	Agency total
									\$2,557.00	\$2,557.00	\$0.00

Contract- Well Drilling						
1)	2)	3)	4)	5)	Source of funds	
					6)	7)
Type	Unit Type (per foot or each)	Cost per unit	Number	Cost of supplies (col 3 x col 4)	Federal	Agency in-kind
Well Drilling- Well 1	per foot	\$30.00	75	\$2,250.00	\$1,125.00	\$1,125.00
Well Drilling- Well 2	per foot	\$30.00	125	\$3,750.00	\$1,875.00	\$1,875.00
Mobilization	each	\$1,000.00	2	\$2,000.00	\$1,000.00	\$1,000.00
Site Cleanup	each	\$750.00	2	\$1,500.00	\$750.00	\$750.00
Well development waste disposal	each	\$500.00	2	\$1,000.00	\$500.00	\$500.00
10 % contingency for Well drilling contract costs	N/A	N/A	N/A	\$1,050.00	\$1,050.00	\$0.00
Totals				Supplies total	Federal total	Agency total
				\$11,550.00	\$6,300.00	\$5,250.00

Contracts

- Need to provide specific costs for contract work
- Contract budgets should be similar to budgets for work proposed for your agency staff
- **Cannot provide a lump sum for contract work**
 - Will score lower in Budget category
 - This may delay your award
- Allow time in your objective timeline for establishing contracts
 - This always takes longer than expected.
 - We want to minimize requests for no-cost extensions.
 - These are often related to delays in the contracting process

New Data Provider Project requirement

- Describes existing monitoring networks
- Describes data storage and IT infrastructure
- Describes approach for developing web services
- Discusses how new sites will fill gaps in the NGWMN (considers well density guidelines)
- Includes map of potential sites. Includes sites already in the NGWMN from other agencies (**example**)
- References site selection and classification tip sheets (**example**)
- No work is proposed under Objectives 4, 5, or 6

Checklist items	Overall Proposal	Objectives					
		1	2A	2B	3	4	5
New Data Provider Project Requirements							
Describes existing monitoring networks							
Describes data storage and IT infrastructure							
Describes approach for developing web services							
Discusses how new sites will help fill gaps in NGWMN (references well density guidelines)							
Includes map of potential sites that includes existing NGWMN sites							
References site selection and classification tip sheets							
No work is proposed under Objectives 4, 5, or 6							

Boxes in light gray should be completed.
 'Y' or 'NA' are allowed responses

Example: Map for new data provider project

- Explanation
- Scale bar
- Principal aquifers
- Potential sites
- Current NGWMN sites (CRN)

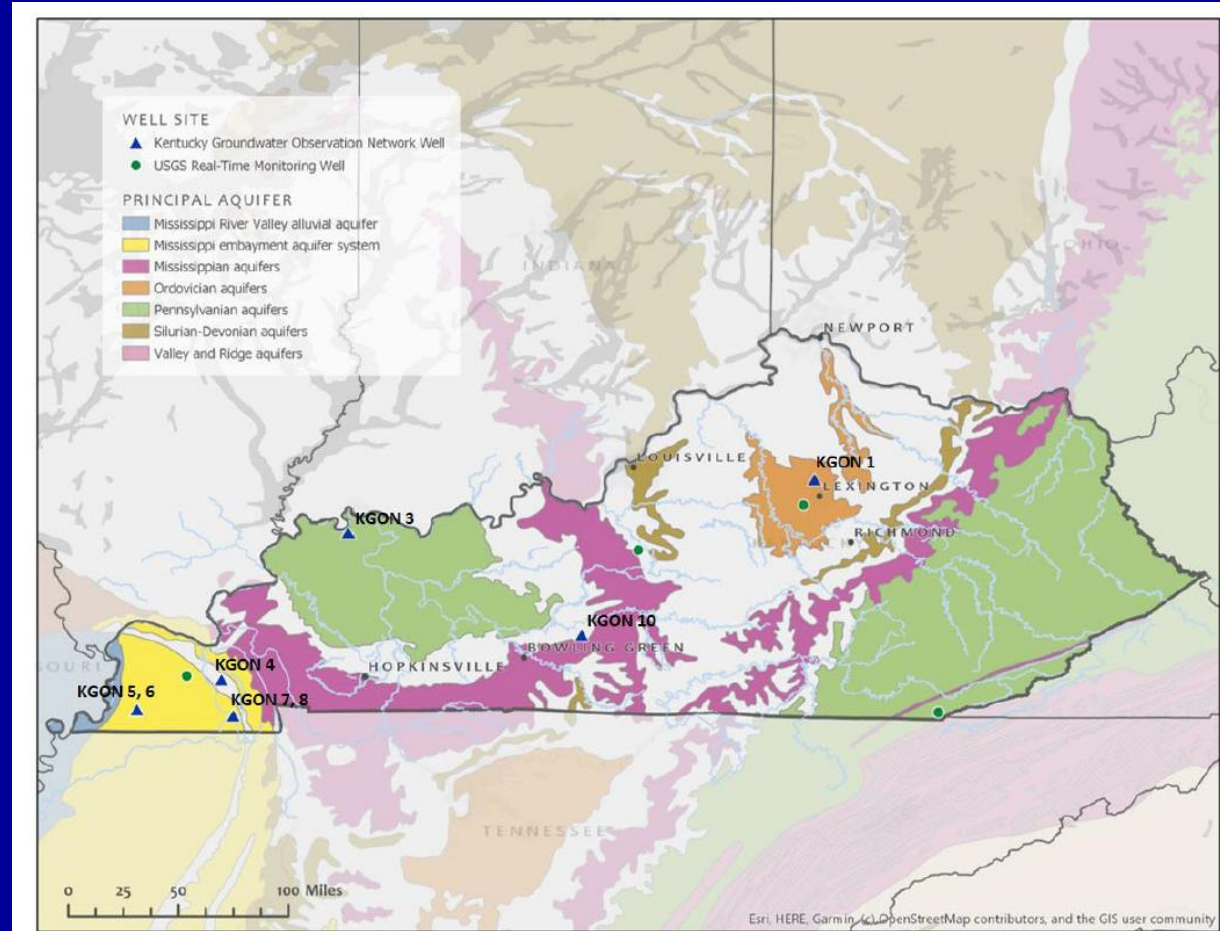


Fig. 2. Map showing locations of eight KGON well sites proposed for inclusion in the NGWMN in relation to nationally identified principal aquifer systems (U.S. Geological Survey, 2003), and locations of presently active USGS climate-response network wells.

Tip Sheets

- Available under the Resources tab
- Created to help data providers with common tasks related primarily to **New Data Provider projects** or Objective 2 work to upgrade services or add sites
- Tip sheets
 - NGWMN Subnetwork
 - NGWMN Monitoring Categories
 - NGWMN WL Criteria
 - NGWMN WQ Criteria
 - NGWMN Well Registry
 - NGWMN Minimum Data Elements
 - NGWMN Web services
 - Standard Elements for Water-Quality Web Services

ABOUT THE NETWORK	THE DATA PORTAL	DATA PROVIDERS
GET INVOLVED	RESOURCES	PROGRAM ANNOUNCEMENT
STATE WATERLEVEL DOWNLOAD		

General Objective Requirements

- No funds requested for routine data collection
- Need for work is justified
- Sites are in the NGWMN well registry
- Includes table and map of sites where work will be done
- Benefits of work to NGWMN is stated
- Workplan includes detailed tasks
- Tasks in workplan are in detailed budgets
- Includes timeline for each objective (except 2A)
- Data collection methods and quality assurance methods are described in the Data Management Plan (DMP)
- Workplan includes task to prepare final report

Checklist items	Overall Proposal	Objectives					
		1	2A	2B	3	4	5
Objective requirements							
No Federal funds are requested for data collection, data entry, or data management for routine data collection							
The need for the work is justified							
All sites for which work is proposed are in NGWMN Registry							
Includes a table of sites for which work will be done under the objective							
Includes a map of sites for which work will be done under the objective							
States the benefits of the work to the NGWMN							
Workplan for objective includes detailed tasks							
Tasks in workplan are in detailed budgets							
Includes timeline for each objective.							
Timelines include annual progress report (for multi-year projects) and the final project report							
Equipment with a single item cost of more than \$10,000 has a quote included in the proposal							
Data collection methods are described in the Data Management Plan							
Data collection quality assurance is described in the Data Management Plan							
Workplan includes task for final report							

Boxes in light gray should be completed. 'Y' or 'NA' are allowed responses

NGWMN Perspective

- The primary objective of the funding opportunity is to support the development and improvement of the NGWMN, focusing on a principal or regional aquifer approach.
- We aim for the projects we fund to provide value to your agency.
- Typically, proposed projects can align with both the NGWMN's objectives and your agency's goals.
- When submitting proposals, be sure to consider the NGWMN's perspective and objectives.
- Clearly demonstrate how the proposed work benefits the NGWMN in your submission.
 - Connect your work to the NGWMN Framework Document
 - Consult the Tip Sheets
 - Consider well density
 - Emphasize principal and major aquifer scales

Requirements for Specific Objectives

- Match requirements (next slide)
- No travel under objectives 1, 2, or 6.
- Objective 2A
 - Federal funds requested less than \$20,000 per year, unless more than 500 sites
- Objective 4
 - A paragraph for each well for which site maintenance is proposed (**example**)
 - Not required for well pumping or well integrity testing

Checklist items	Overall Proposal	Objectives					
		1	2A	2B	3	4	5
Requirements for specific objectives							
No match is required for Objectives 1, 2A, 2B, or 3							
Provides at least 25% in-kind services match for Objectives 4, 5, or 6							
No funding for travel under Objectives 1, 2A, 2B, or 6							
2A: Includes task to verify that data is flowing to the NGWMN							
2A: Funding is less than \$20,000 per year for agencies serving less than 500 sites							
2A: Agencies with more than 500 sites that are requesting more than \$20,000 under Objective 2A must justify the additional costs							
3-6: Data from agency is flowing to the NGWMN.							
4: A paragraph is included for each well for which well rehabilitation, redevelopment, or repair is proposed							
4-5: Equipment rental fees are reasonable and justified							
5: Includes a table of proposed wells to be drilled with the cost per well shown							
5: Map shows proposed new sites and all existing NGWMN sites							
5: A paragraph is included for each well for for which drilling is proposed							
5: Drilling costs are split out in budget table (mobilization, per foot cost, travel, casing, grout, etc)							
5: Construction Assurances Form (SF-424D) is attached							
5: Newly drilled wells that will be added to the Water-level Network are to be equipped with water-level monitoring equipment							
6: Make, model, and cost of proposed equipment is provided							
6: Per well limits are not exceeded							

Boxes in light gray should be completed. 'Y' or 'NA' are allowed responses

Requirements for Specific Objectives: Match

- No match is required for Objectives 1, 2, and 3
- For Objectives 4 - 6, You will get a reduced score if you fail to provide 25% agency match
- Include the match in your detailed budgets
- Include details on the match, not just a lump sum as match
- Describe match tasks in the same way as you describe USGS funded work

Requirements for Specific Objectives: Site Maintenance Descriptive Paragraphs

- For each site for which maintenance work is proposed, you need to have a paragraph describing:
 - the well identifier,
 - the need for the work,
 - the approach you are taking to do the work, and
 - benefits of doing the work (to the NGWMN)
- Is helpful to include cost estimates for each well so that funding decisions can be made on a per well basis if needed
- Still need a table showing all sites for which you will do work
- Not needed for slug testing or well pumping work

Example: Site maintenance paragraph

Objective 4 – Item A

Well 02000380 (Ashland County – WI)

Site Number: 463635090481101

Site Name: AS-48/20E/24-0380

WGNHS Well ID: 2000380 (aka: **AS-380**)

Principal Aquifer: S300CAMORD

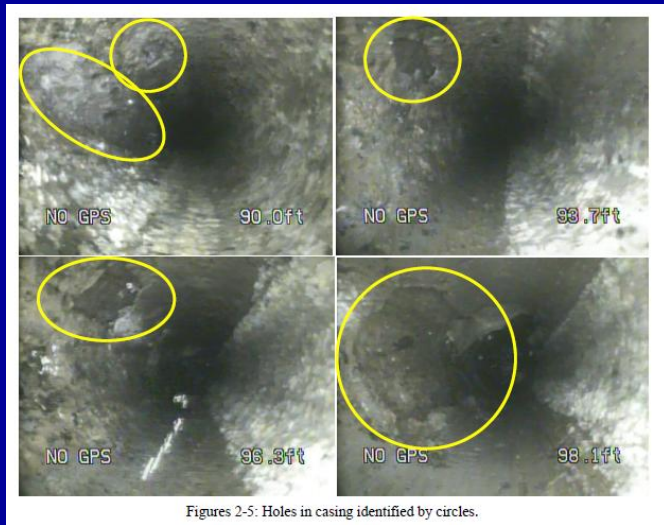
Description: This well was drilled to 217 feet below land surface (ft-bls), is located on the Bad River Indian Reservation, and has been monitored since 2011. The Well Construction Report (WCR) information is unknown. The recommended maintenance needs include a thorough review of all relevant historical well records, and a complete well evaluation. A full suite of borehole video and geophysical logs will be performed to fully characterize the well. A slug test will be performed to ensure proper well-aquifer response.

Party responsible for maintenance: The WGNHS will supervise all activities working in close coordination with the USGS-WIWSC.

Example courtesy of the Wisconsin
Geological and Natural History Survey

Site Maintenance Considerations

- Make sure you explain the need for the work, your proposed approach, and how the approach will meet the needs for the work
- Include references for methods you will be using (can be links). This should be for data collection, data analysis, well rehabilitation, etc.
- Pictures can be very helpful for well maintenance work



Figures 2-5: Holes in casing identified by circles.

Missouri Department of
Natural Resources



Montana Bureau of
Mines and Geology



Maryland Geological Survey

Requirements for Specific Objectives: Objective 5 - Well Drilling

- Objective 5
 - Include table of proposed wells with per well cost
 - Include map showing proposed wells and existing NGWMN sites
 - Includes paragraph for each well for which well drilling is proposed (**example**)
 - Drilling costs are itemized in budget
 - Mobilization, per foot cost, travel, casing, grout, etc.
 - **See examples in 'Budget' section above**
 - Construction Assurances form ([SF-425D](#)) is attached
 - New wells that will be used for water-level monitoring are equipped with continuous water-level monitoring equipment

Example Well Drilling Paragraph

Objective 5 – Item A

Well 41000118 (Milwaukee County – WI)

Site Number: 430706087583601

Site Name: ML-08/21E/35-0118

WGNHS Well ID: 41000118 (aka: **ML-118**)

Principal Aquifer: N400SLRDVN

Description: This well was drilled in 1941 to a depth of 135 ft-bls with a casing depth of 124 ft-bls and monitored since 1946. This well is located on private property in a difficult-to-access area that does not allow for regular maintenance and repairs. Recent site visits have identified an obstruction at 77 ft-bls. Recommended maintenance needs include a thorough review of all relevant historical well records, a complete borehole evaluation including borehole video and geophysical logging followed by abandonment and replacement with a new well nearby in the same aquifer. The replacement well (see sketch below) will be drilled and operated concurrently with ML-118, before abandonment, to establish an overlapping water-level record between the two wells. A complete well characterization of the newly drilled well will be performed including borehole video and geophysical logs and slug testing to establish the hydraulic connection to the surrounding aquifer. A geologic log will also be produced and the WGNHS will process and archive drillers' cuttings from the new well at our Research Collections and Education Center (Core Repository) in Mt. Horeb Wisconsin. Considering the current condition of ML-118, assistance by a well service company will be needed to remove the well blockage prior to abandonment.

Party responsible for maintenance: The WGNHS will supervise all activities working in close coordination with the USGS-WIWSC and contractors selected to drill the new well and abandon the existing well.

Example courtesy of the Wisconsin Geological and Natural History Survey

Drilling Considerations

- Well construction diagrams are very helpful and encouraged
 - Can use a generic one instead of needing one for each well
- Include a statement that you will meet your State's well drilling requirements
- Specify that new wells and wells drilled as in-kind services will be added to the NGWMN
- Describe wells drilled as in-kind services using the same paragraph format as for funded wells
- Justify any special drilling techniques proposed. Make sure that additional cost benefits the NGWMN

Example: Well construction diagrams

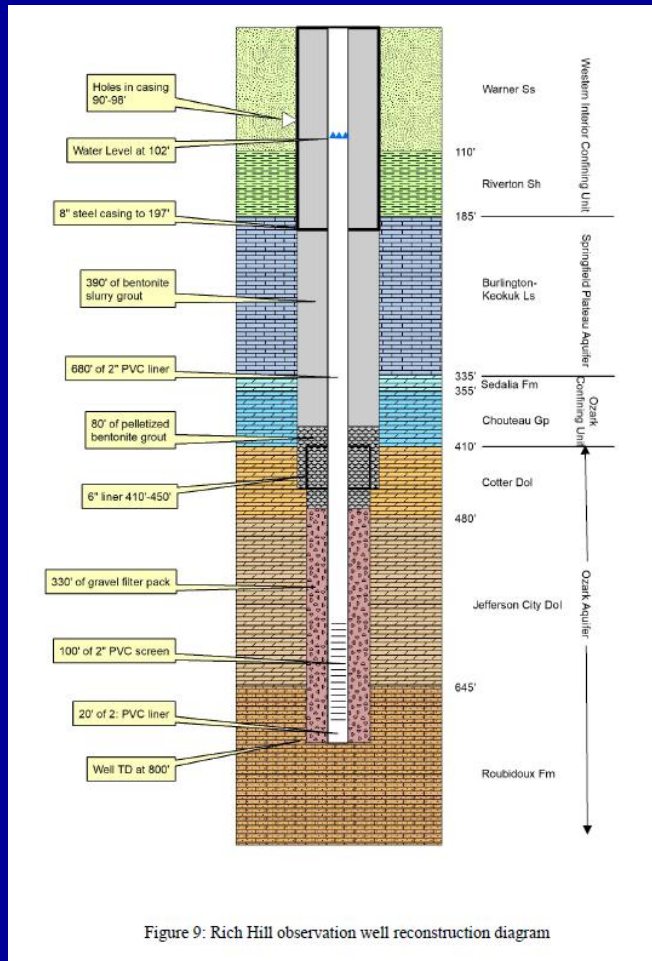


Diagram courtesy of the Missouri Department of Natural Resources

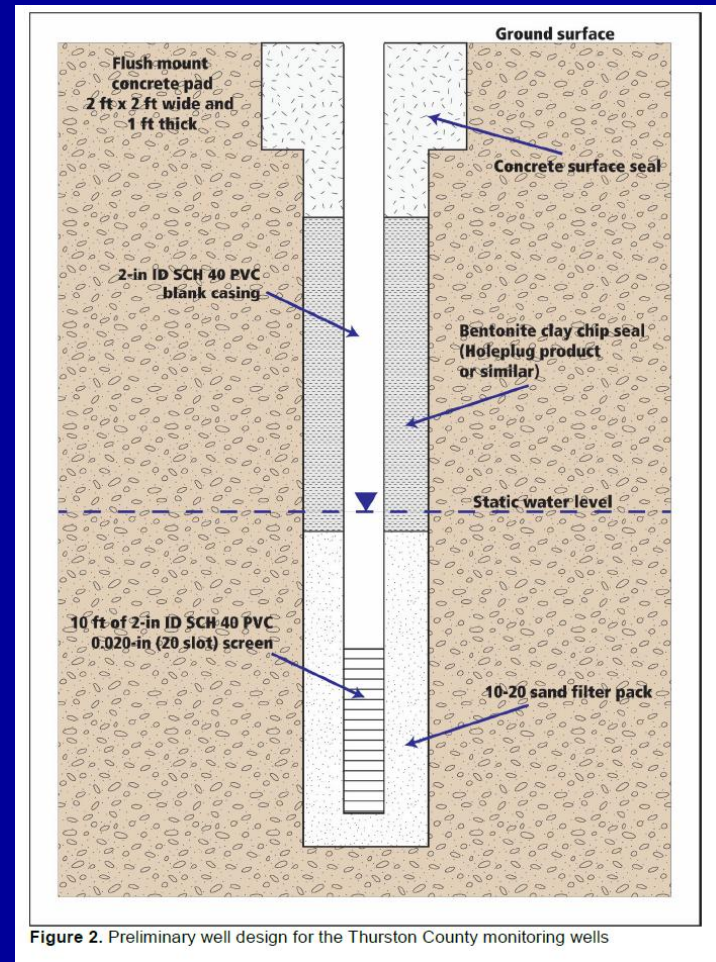


Diagram courtesy of the Washington Department of Natural Resources

Requirements for Specific Objectives:

Objective 6 - Equipment

- Make, model, and cost of proposed equipment is provided (**example**)
- Funding is subject to a \$4,000 per well limit for equipment only
- **Equipment costs above limits can be used as in-kind**
- Salary and travel costs are not supported under this objective

A	B	C	D	E	F	G	H	I	J	K	L	M	N
Site Number	Principal Aquifer	Current monitoring frequency	Equipment purchase type	Equipment	Expected range of water-level depth	Expected transducer placement depth	Transducer base	Cable length (ft)	Transducer base cost	Cable cost (length x \$5)	Base Cost/Federal funding	Telemetry base	Telemetry cost/in-kind services
HCOVA-1234 PT	Piedmont and Blue Ridge crystalline rock aquifers	Continuous	replace existing transducer upgrade	transducer /datalogger	105-140	150 ft	PT/DL base	150	\$1,675.00	\$750.00	\$2,425.00	none	\$0.00
HCOVA-5678 PT	Piedmont and Blue Ridge crystalline rock aquifers	Quarterly	upgrade quarterly site to continuous	Pressure transducer /datalogger	7-14 ft	20 ft	PT/DL base	20	\$1,675.00	\$100.00	\$1,775.00	none	\$0.00
HCOVA-2685 PT	Piedmont and Blue Ridge crystalline rock aquifers	Quarterly	upgrade quarterly site to continuous	Pressure transducer /datalogger	5-15 ft	20 ft	PT/DL base	20	\$1,675.00	\$100.00	\$1,775.00	see below	\$0.00
HCOVA-2685 cell telemetry			Add on cell telemetry	cell telemetry								Cell add on	\$1,000.00
HCOVA-9101 PT	Northern Atlantic Coastal Plain	Annually	Upgrade to continuous	transducer /datalogger for satellite	30-45	50 ft	Base for Satellite	50	\$1,075.00	\$250.00	\$1,325.00	see below	\$0.00
HCOVA-9101 satellite telemetry			add on satellite telemetry	satellite telemetry								Satellite	\$4,140.00

Contact Us

- Please reach out with any questions you have about your proposal
- We cannot see or review your proposal before it is submitted
- However, we can answer questions like the following:
 - We want to do ____, is this allowed?
 - What Objective would ____ best fit it?
 - Is ____ allowed under Objective ____?

Rodney Caldwell

caldwell@usgs.gov

Cell: (406) 461 - 6931

<https://www.usgs.gov/apps/ngwmn/splash.jsp>