



National Ground-Water Monitoring Network

Advisory Committee on Water Information—Subcommittee on Ground Water

National Ground-Water Monitoring Network Cooperative funding opportunity

NGWMN 2021 Round 2 Funding Opportunity

Daryll Pope, USGS



Outline

- Background on NGWMN
- Cooperative Funding Opportunities
- Application details
- Details on Objectives
- What makes a good proposal?

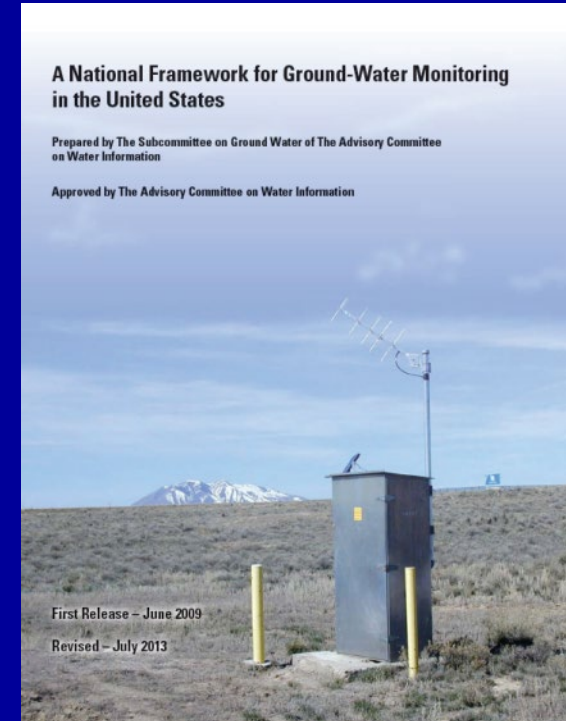
National Ground-Water Monitoring Network

- 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 need for data to assess groundwater conditions nationally and regionally
- Approach
 - Created the ‘Framework Document’ with network design
 - Began implementation in 2015
 - Established management structure that includes the SOGW, USGS, and the NGWMN Program Board



Framework Document

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



NGWMN Design Elements

- Principal and major aquifer scale
- GW levels and quality, focus on availability
- Willing data providers: State, Federal, Tribes, others
- Priority on sites with long-term data
- Network, not a Warehouse or Master Database
- Sites selected and classified by local experts/data providers
- Sites stored in NGWMN Well Registry
- Data provider is the authoritative data source



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
- Established under CFDA 15.980
- Funding opportunity available to State or Local groundwater resource agencies
 - Federal agencies, Tribes, institutions, and companies may contribute data, but are not eligible for funding
- Funded annually through Congressional appropriations

More Information

- NGWMN [Cooperative Agreements page](#) on Portal
 - Info on past projects
 - Link to application package
 - Information on changes
 - Links to Informational Sessions
 - April 14th
 - May 5th
 - Resources for Proposals
 - Spreadsheet with budget template
 - Spreadsheet with example budgets
 - Shapefile current NGWMN sites
 - Shapefiles of Principal Aquifers and Glacial aquifers
 - My contact information

National **Ground-Water** Monitoring Network

The National Ground-Water Monitoring Network (NGWMN) started as 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](#).

CURRENT NETWORK:
14378 water-level wells
3408 water-quality wells
10 subnetworks
32 contributing agencies
53 administrative units
62 principal aquifers

LEARN about the Network


EXPLORE the Network

Funding Opportunity for 2021 Round 2

- Application period is open from April 6, 2021 through May 24, 2021
- 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 available to current data providers only

Grants.gov Application Package

Grants.gov 2021 Round 2




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Groundwater and Streamflow Information Program, National Ground-Water Monitoring Network-
2021 Round 2
Department of the Interior
Geological Survey

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SYNOPSIS | VERSION HISTORY | RELATED DOCUMENTS | PACKAGE

Print Synopsis Details ?

General Information

Document Type: Grants Notice	Version: Synopsis 1
Funding Opportunity Number: G21AS00419	Posted Date: Apr 06, 2021
Funding Opportunity Title: Groundwater and Streamflow Information Program, National Ground-Water Monitoring Network- 2021 Round 2	Last Updated Date: Apr 06, 2021
Opportunity Category: Discretionary	Original Closing Date for Applications: May 24, 2021 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: May 24, 2021 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:
Category of Funding Activity: Natural Resources	Estimated Total Program Funding: \$700,000
Category Explanation:	Award Ceiling: \$300,000
Expected Number of Awards:	Award Floor: \$5,000
CFDA Number(s): 15.980 -- National Ground-Water Monitoring Network	
Cost Sharing or Matching Requirement: No	

Application package

- All Projects
 - Proposal Information Summary
 - Be sure to use the format shown in Attachment A of Program Announcement
 - 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
 - Proposal
 - Details on each objective
 - Budget Summary
 - Use format shown in Attachment B of Program Announcement
 - Detailed Budget
 - Make sure to use formats shown in Attachment B of the Program Announcement. These formats contain the information we need to evaluate your proposal
 - Timeline

Information required for all proposals

- Background information
 - Description of Agency and purpose of monitoring
 - Description of the Agency's existing monitoring networks
 - Water level
 - Water quality
 - Identification of USGS principal or other major aquifers monitored
 - Describe previous projects with the NGWMN. **Include a table of funds awarded by Objective that includes the current proposal**
 - Describe your IT Infrastructure
- Project Summary
 - Brief description of the project and objectives that will be included

Project Description

- For each objective:
 - Work plan
 - Describe overall work and benefits to NGWMN
 - List tasks involved in work
 - Identify personnel involved in work
 - Include table of sites for which the work will be done
 - Budget
 - Show each task in the work plan in detail
 - Total cost to accomplish objective
 - Include overhead
 - List the in-kind services that will be used to match the work if they are not a part of the objective
 - Use format example budgets in Attachment B
 - Timeline

Objective 1: Support to become a new data provider

- Perform work necessary to become a data provider to the NGWMN. Costs typically range from \$30,000 to \$60,000 of USGS funds
- Work plan elements
 - Select and classify sites for the NGWMN
 - Provide required data elements for selected sites.
 - Populate the NGWMN Well Registry with site Network information
 - 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

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
- Part B
 - Occasional work needed to upgrade services or add new services or large number of new sites
- Work plan 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

Long-term data collection is not supported

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)
- Work plan 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

Long-term data collection is not supported

Objective 4: Well Maintenance

- Perform maintenance of wells in the NGWMN to ensure that data are of high quality.
- Examples include:
 - Well redevelopment
 - Pumping to maintain connection
 - Well-integrity testing
 - Well rehabilitation
 - Install surface casing
- Work plan 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

Long-term data collection is not supported
Cannot be part of new data provider project

Objective 5: Well Drilling

- Install wells to enhance or maintain the NGWMN.
- Work plan elements
 - Provide justification for each well. Include paragraph for each well describing need for well and how it fills a gap
 - Describe proposed drilling methods. Include references
 - Include drilling cost for each proposed well. 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 the well and that you will meet state guidelines
 - Document well drilling activities in the final report for the project
 - Suggest including a well construction diagram for proposed wells

Long-term data collection is not supported
Cannot be part of new data provider project

Objective 6: Equipment Purchase

- Purchase equipment to support continuous water-level monitoring at NGWMN sites.
- Allowable work includes
 - Cost to purchase equipment for continuous water-level monitoring. Pressure transducers and data loggers
 - Cost to install equipment is not allowed, can be used as match
 - Telemetry equipment purchase cannot be funded, but can be used as match
- Work plan elements
 - Description of need for equipment purchase
 - Description of how equipment fills gaps
 - Include table of equipment that will be purchased
 - Include table showing each well for which equipment would be purchased
 - Document equipment purchase work in final report

Budgets

- SF 424 budget form
- Budget summary for project (Attachment B)
- Detailed Budget
 - For each objective
 - Include in-kind services
 - If data collection at network sites is used as match, need to include in budget tables
 - Specify Indirect Cost rate used and include in budgets
 - Include detailed costs for contracted work. As shown in examples in Attachment B
- Use specified format for detailed budgets
- Please proofread budgets and make sure they agree

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. Were requirements met? Is it clear?
 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 to accomplish the work. Also consider completeness and accuracy of detailed budgets.
- Objectives 1 and 2 are prioritized highest. **All other objectives are ranked by score**

Support

- Framework Document

https://cida.usgs.gov/ngwmn/doc/ngwmn_framework_report_july2013.pdf

- NGWMN Web Page

<http://cida.usgs.gov/ngwmn/>

- NGWMN Cooperative agreements page

<http://cida.usgs.gov/ngwmn/cooperativeagreements.jsp>

- Includes Frequently Asked Questions

<http://cida.usgs.gov/ngwmn/cooperativeagreementsfaq.jsp>

- This Presentation

Will be available on the Cooperative Agreements page shortly.

Tip Sheets

- Created to help data providers with common tasks
- Current 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

<https://cida.usgs.gov/ngwmn/learnmore.jsp#dataProviders>

What Makes a Good Proposal?

- Paying attention to the 'Points to Remember' section is the best way to ensure you have a good proposal
- We have condensed the most important factors to consider when putting a proposal together into this one page summary
- The rest of this section on 'What Makes a Good Proposal' is based on the 'Points to Remember' section and adds details to the points listed there

Most common issues with proposals

- Missing table of active and proposed projects
- Maps missing scale bar or explanation
- NGWMN sites and/or Principal Aquifer missing on map
- Missing table of sites for Objective 3-6 work
- Missing overall project budget
- Detailed budgets don't use requested format
- Lack of detail in budgets
- Missing details from contracts
- Missing paragraphs for well rehab or well drilling work
- Focus too much on local/state issues without considering NGMGWN needs
- Missing reference to NGWMN well densities
- Poorly proofread proposal

Points to Remember

New Data Provider Projects

- For Objective 1, make sure you include a map with your potential sites and any existing NGWMN sites in your state (including those from other data providers) that includes the Principal aquifers.
- Do not include work under Objectives 4, 5, or 6 in a new data provider proposal (Objective 1).

Maps and Tables

- Include a scale bar, north arrow, and an explanation for each map. If the map is zoomed in for detail, make sure to include an inset map showing the location on a statewide map.
- If you are proposing work at specific sites for Objectives 3-6, make sure you include a table of the sites you will be working on. The table must include the NGWMN ID, the principal aquifer, and the well depth. All sites for which work is proposed (except new wells proposed for drilling) must be in the NGWMN Well Registry by May 24, 2021.

Requirements for specific Objectives

- For Objectives 3-6, include a separate map for each objective that shows the sites where work is proposed and the Principal aquifers.
- For Objective 5, always show any existing NGWMN sites on the map in addition to any proposed new or replacement wells. Focus new wells on areas that fill NGWMN data gaps.
- For well rehabilitation and well drilling work, include a paragraph describing each well where work is proposed. This should include the need for the work, a description of the work, and how the work benefits or fills gaps in the NGWMN.
- Equipment for continuous water-level monitoring under Objective 6 cannot include funding for telemetry (cell or satellite). Costs for telemetry can be used as match. If the equipment you are purchasing includes telemetry built in, estimate the cost of the equipment without telemetry. Only request funding for that amount and use the rest of the cost for telemetry as in-kind services.

Benefits of proposed work to the NGWMN

- The goal of the NGWMN is to assess groundwater conditions (water-levels and water-quality) at the Principal aquifer or Regional scales and to address interstate or international groundwater conditions.
- Make sure you clearly state the benefits of the work to the NGWMN not just local benefits. Reference to the Framework Document and Tip Sheets can be helpful to show how the work will benefit the NGWMN.
- Reference NGWMN Well Density guidelines when proposing gap filling activities.

Budgets

- Use the budget formats described in the Program Announcement and depicted in the examples included in Attachment B.
- Always include in-kind services match for each objective for any work proposed under Objectives 3, 4,5, or 6. In-kind services work should be included in the detailed budget. Objectives that have at least 25% match will receive a bonus score during proposal evaluation.
- Providing costs for individual work tasks under an objective can help us partially fund work within an objective during proposal evaluation.
- Itemize costs for individual work tasks done by contractors.

Other Reminders

- Contact Daryll Pope (dpope@usgs.gov) if you have any questions about work you are proposing.
- Make sure to proofread your proposal before submitting.
- Include a table showing active, pending, and proposed NGWMN projects.

Topics

- New Data Provider Projects
- Maps and Tables
- Requirements for specific objectives
 - Drilling and Well Maintenance descriptive paragraphs
 - Drilling considerations
 - Well Maintenance considerations
 - Equipment Purchases
- Benefits of work to NGWMN
 - Goal of NGWMN
 - State benefits to NGWMN
 - Reference well density guidelines
- Budgets
 - Use budget formats
 - Include details on match
 - Details on Contracts
- Getting help
- Proofreading proposal
- Table of active and proposed projects

Map for new data provider project

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

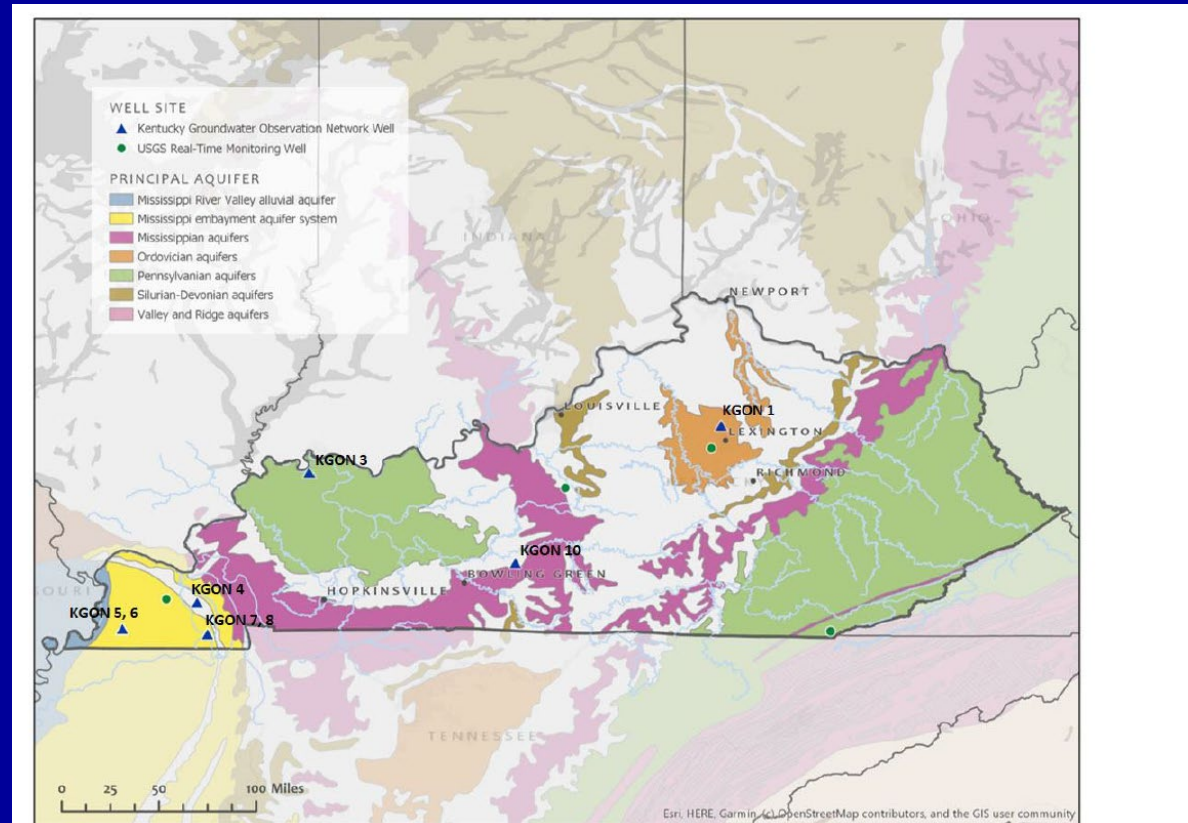


Fig. 2. Map showing locations of eight KGON well sites proposed for inclusion in the NGWMN in relation to nationally identified principal aquifer systems (U.S. Geological Survey, 2003), and locations of presently active USGS climate-response network wells.

Map courtesy of the Kentucky Geological Survey

Maps

- Maps help convey lots of information
 - New Data Provider proposals (Objective 1) should show **prospective sites** to include in the NGWMN, **existing current NGWMN sites** in the area, and **Principal aquifers**
 - Proposals for Objectives 2-6 should **show locations of all sites for which work is proposed** under that Objective. These should also include current NGWMN sites, prospective sites, and principal aquifers as appropriate
- All maps should:
 - Have a scale bar
 - Have a north arrow
 - Have an explanation
- If a map is zoomed in, make sure there is an inset box shown on a map of the state

GIS Resources for Maps

- We have recently added some GIS data to the 'Data Providers' tab on the NGWMN Data Portal
 - <https://cida.usgs.gov/ngwmn/learnmore.jsp#dataProviders>
- You can now download a zip file that contains Shapefiles of the 'Principal Aquifers of the United States' and 'Aquifers of Alluvial and Glacial Origin'
- You can also download a zip file that contains a Shapefile of the sites in the NGWMN as of April, 2021
- These will be helpful in putting maps together for the funding opportunity.

Tables

- Sites for which any work is proposed under objectives 3-6, should be presented in a table
- The table needs to include the NGWMN-ID (Site Number)
- Therefore the sites need to be in the Well Registry on the date that proposals are due (January 21, 2021)
- Sites can be in the Registry and have display turned off if they do not meet NGWMN criteria yet, but if the proposed work would fill NGWMN gaps
- Having an estimated cost per well in the table is often beneficial
- Please show the Principal aquifer
- Describing work proposed at each site can be helpful

Map for Objective 4 work

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

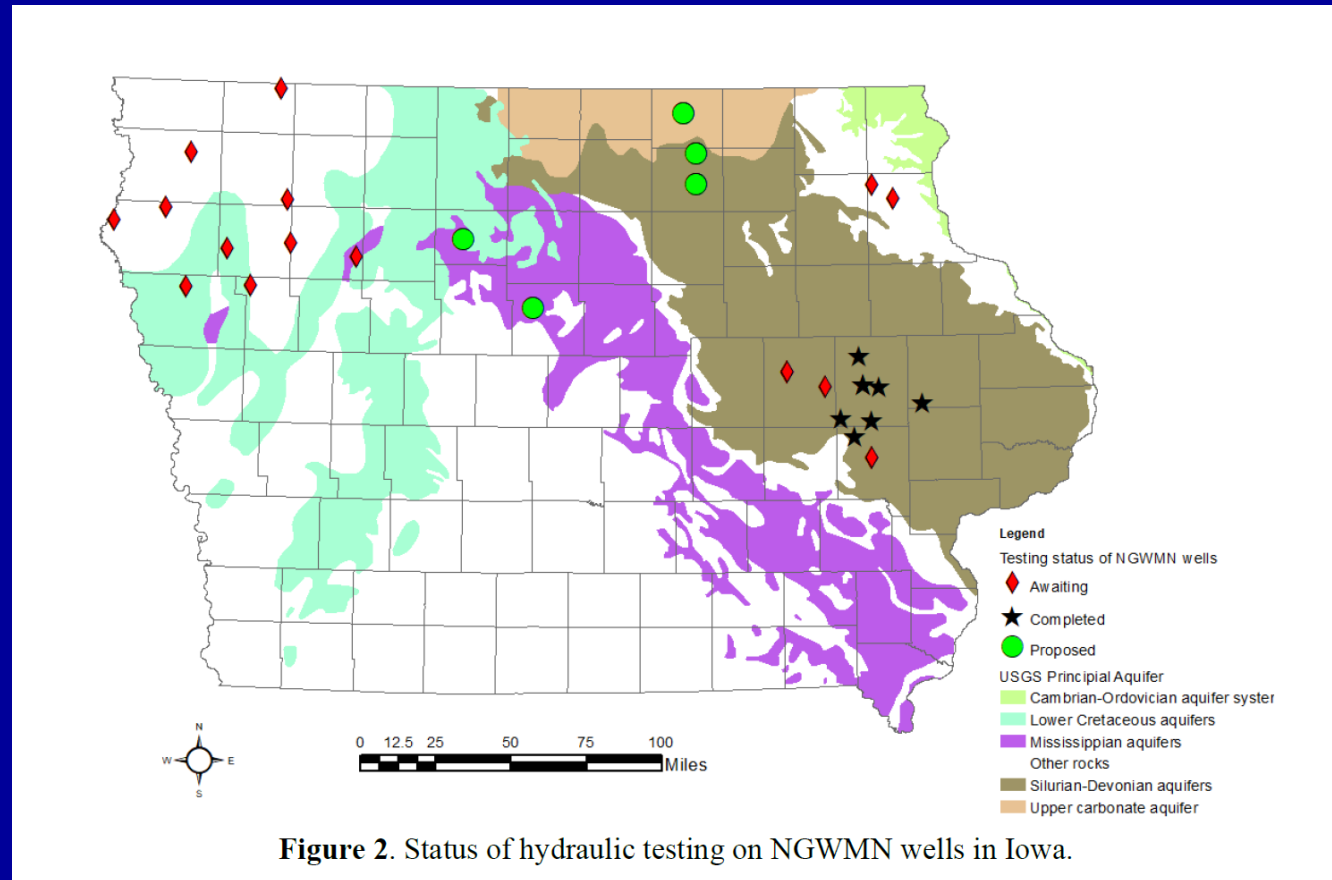


Figure 2. Status of hydraulic testing on NGWMN wells in Iowa.

Map courtesy of the Iowa Geological Survey

Example table of sites for well maintenance activities

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		

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Table courtesy of the Iowa Geological Survey

Drilling and Well Maintenance descriptive paragraphs

- For each site for which any well maintenance or well drilling 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 need for slug testing or well pumping work.

Example well 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

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
- Make sure you mention that you will meet your states 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 same paragraph format as for funded wells
- Justify any special drilling techniques proposed. Make sure additional cost benefits the NGWMN
- **Drilling is construction. Need form SF-424D (Assurances for Construction Programs)**

Example well construction diagrams

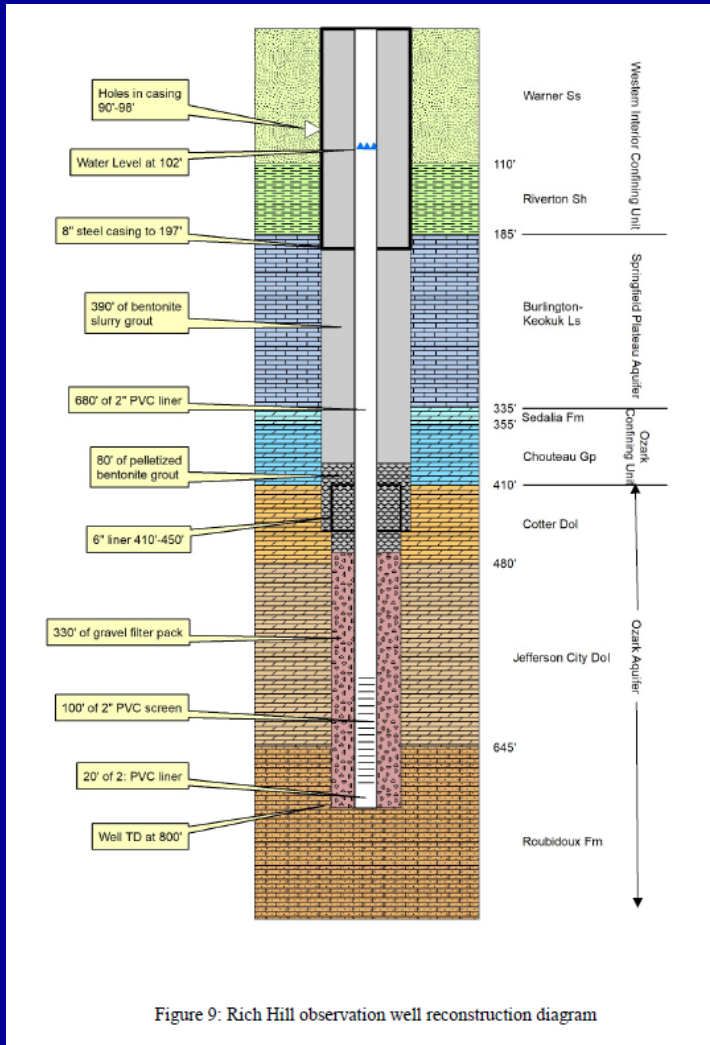


Diagram courtesy of the Missouri Department of Natural Resources

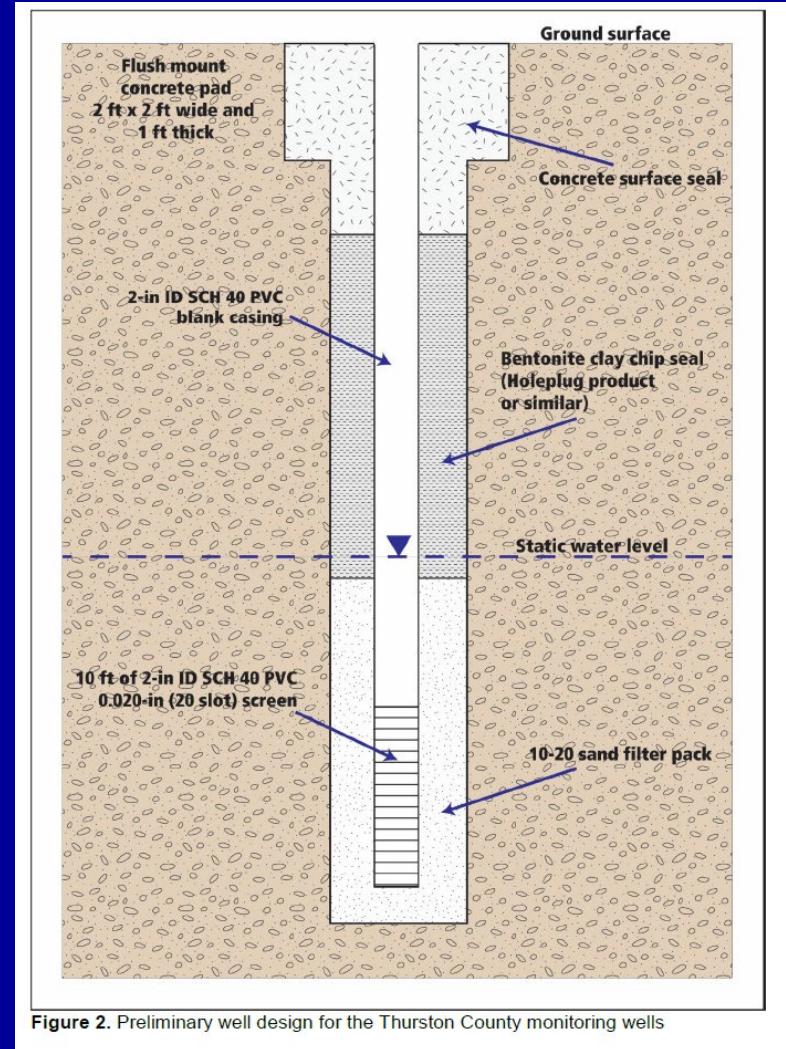
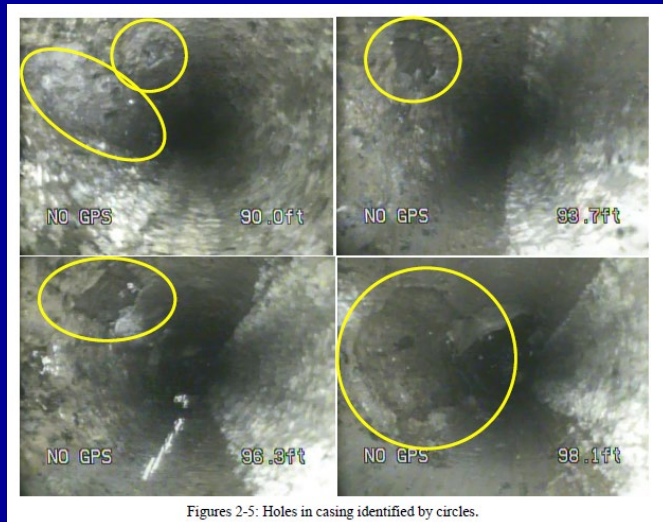


Diagram courtesy of the Washington Department of Natural Resources

Well 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



Missouri Department of Natural Resources



Montana Bureau of Mines and Geology



Maryland Geological Survey

Objective 6– Equipment purchase for continuous water-level monitoring

- Funding can only be used to purchase water-level monitoring equipment
- Salary to purchase or install equipment can only be used as in-kind services. Travel to install equipment can only be used as in-kind services
- Satellite telemetry equipment can only be used as in-kind services
- Requirements
 - Need table of equipment (Equipment Specs)
 - Need table of sites with equipment costs listed (Site List)
 - Include final cost in budget table (Objective 6 equipment budget)

Table of equipment

	Manufacturer	Model	Cost
Pressure Transducer/Datalogger (15 PSIG)	Transcorp	Model IV	\$1,300
Cable connector	Transcorp	Quickconnect	\$125
Desiccant			\$25
Cable bracket			\$25
Battery Pack	Transcorp		\$200
Total per basic well			\$1,675
Vented Cable	Transcorp	Tough vented	\$5/ft

Objective 6– Equipment Site List

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	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

Objective 6– Detailed budget equipment costs

c) Equipment							
1)	2)	3)	4)	5)	6)	Source of funds	
Description	Cost per unit	Number	Cost of equipment (c2 x c3)	cost (c4 x indirect rate)	Total cost (c4 + c5)	7)	8)
						Federal	Agency in-kind
HCOVA-1234 PT	\$2,425.00	1	\$2,425.00	\$242.50	\$2,667.50	\$2,667.50	\$0.00
HCOVA-5678 PT	\$1,775.00	1	\$1,775.00	\$177.50	\$1,952.50	\$1,952.50	\$0.00
HCOVA-2685 PT	\$1,775.00	1	\$1,775.00	\$177.50	\$1,952.50	\$1,952.50	\$0.00
HCOVA-2685 cell telemetry	\$1,000.00	1	\$1,000.00	\$100.00	\$1,100.00	\$0.00	\$1,100.00
HCOVA-9101 PT	\$1,325.00	1	\$1,325.00	\$132.50	\$1,457.50	\$1,457.50	\$0.00
HCOVA-9101 satellite telemetry	\$4,140.00	1	\$4,140.00	\$414.00	\$4,554.00	\$0.00	\$4,554.00
Totals			Direct cost total	Indirect total	Total cost	Federal total	Agency total
			\$12,440.00	\$1,244.00	\$13,684.00	\$8,030.00	\$5,654.00

NGWMN Perspective

- The main goal of the funding opportunity is to develop and enhance the NGWMN. This means a principal or regional aquifer approach
- We do want the work that we fund to be beneficial to your agency. In most cases, proposed work can benefit the NGWMN and still meet your agency goals too
- Keep the NGWMN perspective and goals in mind when proposing work
- Always make sure that the benefits of the work **to the NGWMN** are clear in your proposal
 - Tie work to the NGWMN Framework Document
 - Refer to Tip sheets
 - Reference well density when proposing gap filling work
 - Focus on Principal and Major aquifer scale

Budgets

- **Use the format provided** for the detailed budgets. These budgets contain the information we need to make decisions. If you leave any of this information out, it may affect the ranking of your proposal
- Proposals need: a budget summary for project, a detailed budget for each Objective applied for, and a SF-424 budget form. Make sure these budgets are consistent
- Include in-kind services in the detailed budget. List specific tasks
- Review new budget guidelines for contracts
- **Proofread/check your budgets**
- Make realistic budget estimates

Match

- No match is required for Objectives 1 or 2
- For Objectives 3-6, You will get the highest score if you demonstrate at least 50% agency match **FOR EACH OBJECTIVE** (can be in-kind services)
- 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
- Get 1 point bonus for 25% match, 2 points for 33% match, and 3 points bonus for 50% match in the budget criteria

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

Example detailed budget for contracted portion of work

e) 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 (e2 + e3)	Number of hours	Salary cost (e4 x e5)	7)	8)
						Federal	Agency in-kind
Driller- Permits	\$30.00	\$10.00	\$40.00	8	\$320.00	\$320.00	\$0.00
Driller- Planning and Preparation	\$30.00	\$10.00	\$40.00	16	\$640.00	\$0.00	\$640.00
Driller- Well Development	\$30.00	\$10.00	\$40.00	16	\$640.00	\$320.00	\$320.00
Driller Assistant- Well Development	\$30.00	\$10.00	\$40.00	16	\$640.00	\$0.00	\$640.00
Contracts- Salary Totals					Salary total	Federal total	Agency total
					\$2,240.00	\$640.00	\$1,600.00

e) Contract- Supplies						
1)	2)	3)	4)	5)	Source of funds	
Type	Unit Type (per foot or each)	Cost per unit	Number	Cost of supplies (b2 x b3)	6)	7)
					Federal	Agency in- kind
PVC Casing	Per foot	\$2.00	200	\$400.00	\$0.00	\$400.00
PVC Screen	Per foot	\$2.00	200	\$400.00	\$0.00	\$400.00
Grout	Each	\$50.00	2	\$100.00	\$0.00	\$100.00
Sand Pack	Each	\$50.00	2	\$100.00	\$0.00	\$100.00
Cap and Protective Top	Each	\$25.00	2	\$50.00	\$0.00	\$50.00
Contracts- Supplies Totals				Supplies Total	Federal total	Salary total
				\$1,050.00	\$0.00	\$1,050.00

e) Contract- Travel										
1)	2)	3)	4)	5)	6)	7)	8)	9)	Source of funds	
Traveler Name / Reason for travel	Number of days	Lodging cost per day	Meal cost per day	Meal and lodging ((d2 x d3) + (d2 x d4))	Miles traveled	Cost per mile	Mileage cost (d6 x d7)	Travel cost (d5 + d8)	10)	11)
									Federal	Agency in-kind
Driller	6	\$93.00	51	\$864.00	500	\$0.545	\$272.50	\$1,136.50	\$0.00	\$1,136.50
Driller Assistant	6	\$93.00	51	\$864.00	500	\$0.545	\$272.50	\$1,136.50	\$0.00	\$1,136.50
Contract- Travel Totals								Direct cost total	Federal total	Agency total
								\$2,273.00	\$0.00	\$2,273.00

e) Contract- Well Drilling						
1)	2)	3)	4)	5)	Source of funds	
Type	Unit Type (per foot or each)	Cost per unit	Number	Cost of supplies (b2 x b3)	6)	7)
					Federal	Agency in- kind
Well Drilling (cost per foot)- Well 1	Per foot	\$30.00	100	\$3,000.00	\$1,500.00	\$1,500.00
Well Drilling (cost per foot)- Well 2	Per foot	\$30.00	100	\$3,000.00	\$1,500.00	\$1,500.00
Mobilization (2 wells)	Each	\$1,000.00	2	\$2,000.00	\$0.00	\$2,000.00
Site Cleanup (2 wells)	Each	\$750.00	2	\$1,500.00	\$0.00	\$1,500.00
Well Development waste disposal (2 wells)	Each	\$500.00	2	\$1,000.00	\$0.00	\$1,000.00
Contracts- Well Drilling Totals				Supplies Total	Federal total	Salary total
				\$10,500.00	\$3,000.00	\$7,500.00

Contact me

- I can answer questions about your proposal. Please contact me with any questions you have
- I cannot see or review your proposal before it is submitted
- But if you have questions about:
 - We want to do ____, is this allowed?
 - What Objective would ____ best fit it?
 - Is ____ allowed under Objective ____?,Please contact me and we can discuss

Proofreading your proposal

- Make sure you allow adequate time to review your proposal
- Basic proofreading is a must
- Shortcoming will result in a lower score in our new 'Proposal Quality' Criteria
- Have someone else review the proposal before submitting it
- Make sure to review your budgets carefully. We are going to be paying much closer attention to them during the proposal review process

Table of active and proposed projects

- Make sure to include a table of active and proposed project funding by year.

Project period	Objective	Year	Award amount
7/15/19 – 7/14/21	2. Persistent Data Services	1	\$18,000
		2	\$18,000
	4. Well Maintenance	2	\$27,000
7/15/21 – 7/14/22 (proposed)	2. Persistent Data Services	1	\$18,000
	6. Water-level equipment purchase	1	\$28,000

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