

## NGWMN Fiscal Year 2016 Cooperative Agreements

- Alaska Department of Natural Resources (Round 1)  
This is a two-year project become a data provider to the NGWMN in the first year and provide persistent data support in the second year. They are proposing a network of 23 trend water-level network sites and 10 trend water-quality sites. The networks are centered primarily in South-Central Alaska at this time.
- Alaska Department of Natural Resources (Round 2)  
This is a one-year project to do well maintenance at an existing NGWMN site and to drill a replacement well for the network.
- Arizona Department of Natural Resources (Round 2)  
This is a two-year project to become a new data provider to the NGWMN. The project will add both real-time continuous and discrete water-level monitoring wells to the Network. NGWMN sites will be selected from a network of 85 real-time continuous candidate sites. They will also select sites from 100 wells measure annually and up to 100 wells measured at least quarterly. The wells will be in the Basin and Range basin-fill, Basin and Range Carbonate-rock, and the Colorado Plateaus Principal aquifers.
- Delaware Geological Survey (Round 1)  
This is a two-year project to support maintenance of connections to the NGWMN Portal. Support is also provided to keep site information up to date in agency databases and on the NGWMN Well Registry.
- Illinois State Water Survey (Round 1)  
This is a two-year project to support maintenance of connections to the NGWMN Portal. Support is also provided to keep site information up to date in agency databases and on the NGWMN Well Registry.
- Illinois State Water Survey (Round 2)  
This is a two-year project to do well maintenance activities at nineteen sites that will then be added to the NGWMN. Shallow wells with be redeveloped with compressed air or a submersible pump and will have slug tests conducted to evaluate well-integrity. Well integrity evaluation at the deep wells will involve comparison of water-levels from nearby wells. Three deep wells also will be monitored as part of aquifer tests conducted using nearby production wells.
- Indiana Geological Survey (Round 2)  
This is a two-year project to become a new data provider to the NGWMN. In the first year, twelve sites with continuous water-level data will be added to the Trend Network. In the second year, the project includes support for Persistent Data services, site information gap filling, and well maintenance. Site information gap filling will involve GPS work and searching for site information at 4 wells that were not installed by agency personnel. Well Maintenance work will involve redeveloping all wells using a submersible pump and evaluating connections to the aquifer after pumping.
- Kansas Geological Survey (Round 2)  
This is a one-year project to provide persistent data support to an existing NGWMN data provider.

- Maine Geological Survey (Round 1)  
This is a two-year project become a data provider to the NGWMN in the first year and provide persistent data support in the second year. They are proposing using data from the Maine DEP EGAD database that meet defined criteria. They will be selecting upgradient sites from EGAD sites. They will set up the web services to provide this data to the NGWMN. They expect to have a network of about 40-50 wells that have water-level data for more than 10 years. Site selection will be done with consideration of current USGS sites in the NGWMN in Maine.
- Massachusetts Department of Conservation and Recreation (Round 2)  
Massachusetts is a Data Provider through their cooperative network with the USGS. Data is provided using USGS NWIS. This is a two-year project to replace 39 existing steel-cased shallow monitoring wells in the NGWMN. Wells selected for replacement were determined by a multi-agency work group that prioritized well replacement work.
- Minnesota Pollution Control Agency (Round 1)  
This is a two-year project become a data provider to the NGWMN in the first year and provide persistent data support in the second year. The Minnesota PCA was a Pilot project participant with the Network; however, the web services they set up for the Pilot are no longer functional due to database upgrades. For this project, they will be updating their web services to serve data to the Portal again. Also, the pilot project only focused on the Cambrian-Ordovician aquifer. This project will expand their coverage to all Principal aquifers across the state.
- Mississippi Department of Environmental Quality (Round 2)  
This is a one-year project to provide persistent data support to an existing NGWMN data provider.
- Missouri Department of Natural Resources (Round 2)  
Missouri is a Data Provider through their cooperative network with the USGS. They collect the data and automatically load the real-time data into the USGS NWIS database. This is a two-year project that focuses on site-information gap filling. This involves field visits to all NGWMN wells to survey the sites and establishing benchmarks. Site information will also be updated by searching agency records and providing historic water-quality data for selected wells and well construction information on all available NGWMN sites to the USGS for entry into USGS databases that serve the NGWMN data portal.
- Montana Bureau of Mines and Geology (Round 1)  
This is a two-year project to support maintenance of connections to the NGWMN Portal. Support is also provided to keep site information up to date in agency databases and on the NGWMN Well Registry.
- Montana Bureau of Mines and Geology (Round 2)  
This is a two-year project to do site information gap filling and well maintenance activities at a subset NGWMN wells located in northeast Montana. Survey grade GPS locations and land surface elevations will be determined at 50 sites. The well maintenance work will be done when the sites are visited and will involve installation of steel protective casing at 15 wells with exposed PVC casing.
- Nebraska Conservation and Survey Division (Round 2)  
This is a one-year project to become a new data provider to the NGWMN. Up to 50 wells with continuous water-level data in the High Plains aquifer will be added to the Network. An additional 4 wells monitoring other Principal aquifers will also be added. More than half of the proposed wells have realtime data available. The wells were originally designed to monitor the effects of drought. The wells are distributed throughout the state.

- New Hampshire Geological Survey (Round 1)  
This is a two-year project become a data provider to the NGWMN in the first year and provide persistent data support in the second year. They are proposing a network of 29 trend water-level network sites. The wells will be selected to fill gaps in the current NGWMN in New Hampshire.
- Oklahoma Water Resources Board (Round 2)  
This is two-year project that includes completion of tasks to become a NGWMN data provider, persistent data support, and well drilling. Their initial project involved setting up web services for only their water-level data. This project will complete the new data provider work by adding Lithology and well construction web services and completing the classification of sites. Two years of persistent data support is also provided. Four wells will be drilled to fill gaps in the Ozark Plateau aquifer.
- South Carolina Department of Natural Resources (Round 2)  
This is a one-year project to fill site information data gaps. The first part of the work involves entering lithologic data, well-construction data, and historic water-level data at NGWMN sites. The second part of the work is to determine tidal corrections for thirty network surveillance monitoring wells completed in the Upper Floridan aquifer. Five pressure transducers will be installed on rotating short-term deployments to collect the water-level data needed for the corrections.
- Texas Water Development Board (Round 1)  
This is a one-year project to support maintenance of connections to the NGWMN Portal. Support is also provided to keep site information up to date in agency databases and on the NGWMN Well Registry.
- Utah Geological Survey (Round 1)  
This is a two-year project to support maintenance of connections to the NGWMN Portal. Support is also provided to keep site information up to date in agency databases and on the NGWMN Well Registry.
- Utah Geological Survey (Round 2)  
This is a two-year project that includes both site-information gap filling and well maintenance. Site information gap filling includes a GPS survey of all wells. During the GPS survey, well-construction details will also be collected at the wells. Gap filling will also include entry of historic water-quality data from paper files and spreadsheets into the agency database. Well Maintenance work will involve periodic pumping of 8 monitoring wells to verify the connection between the wells and the aquifer.
- Washington State Department of Ecology (Round 2)  
This is a two-year project. Work in the first year is become a data provider to the NGWMN. Water-level network sites will be selected from a state network of about 325 wells. Continuous data is collected at 66 of these sites. Work in year two includes support for persistent data services and site information gap filling. Site information gap filling will populate lithology information into the database and load past continuous water-level data into the database.
- Wisconsin Geological and Natural History Survey (Round 2)  
Wisconsin is a Data Provider through their cooperative network with the USGS. Data is provided using USGS NWIS. This is a one-year project to do well-maintenance and well drilling activities to support the NGWMN. Well maintenance involves installation of a new shelter at 1 well and redevelopment of three other wells. The redevelopment of the wells will be followed by slug-testing to confirm the well connection to the aquifer. Will drilling is proposed to replace an existing NGWMN site.