



# National Ground-Water Monitoring Network

Advisory Committee on Water Information—Subcommittee on Ground Water

## National Ground-Water Monitoring Network Cooperative funding agreements to support data providers

### Proposal preparation

*Daryll Pope, USGS*

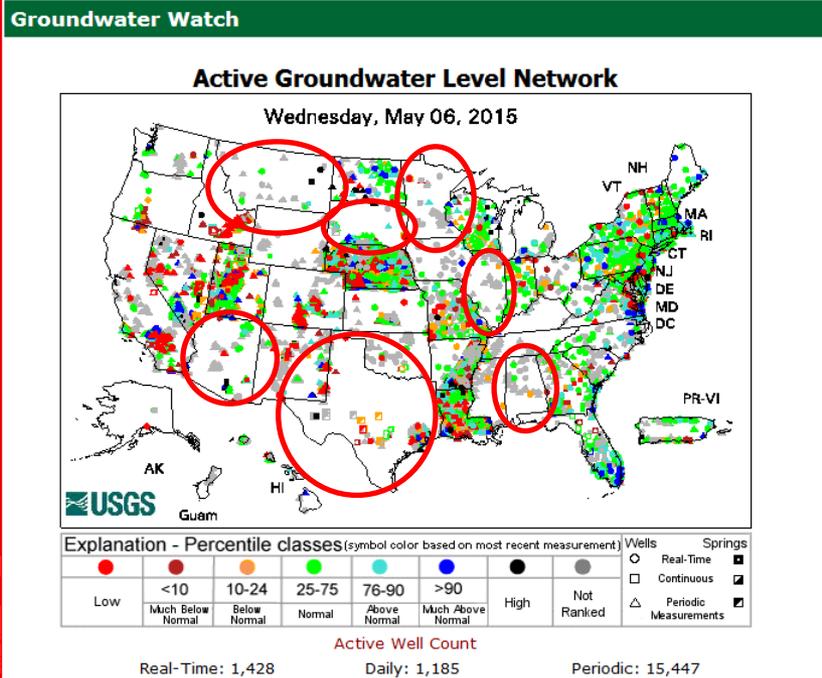
*Bill Cunningham, USGS, Chief Office of Groundwater*



# Subcommittee on Ground Water and the NGWMN

- The Subcommittee on Ground Water (SOGW) is part of the Advisory Committee on Water Information (ACWI)
- The purpose of the Subcommittee is to develop a National Ground-Water Monitoring Network (“NGWMN”)

## Wells operated by USGS



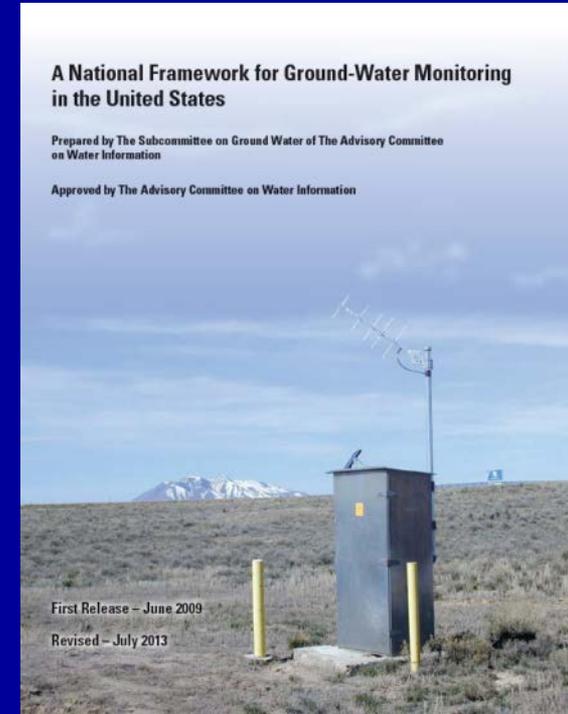
## Wells operated by States

Results from survey of State networks



# Framework Document

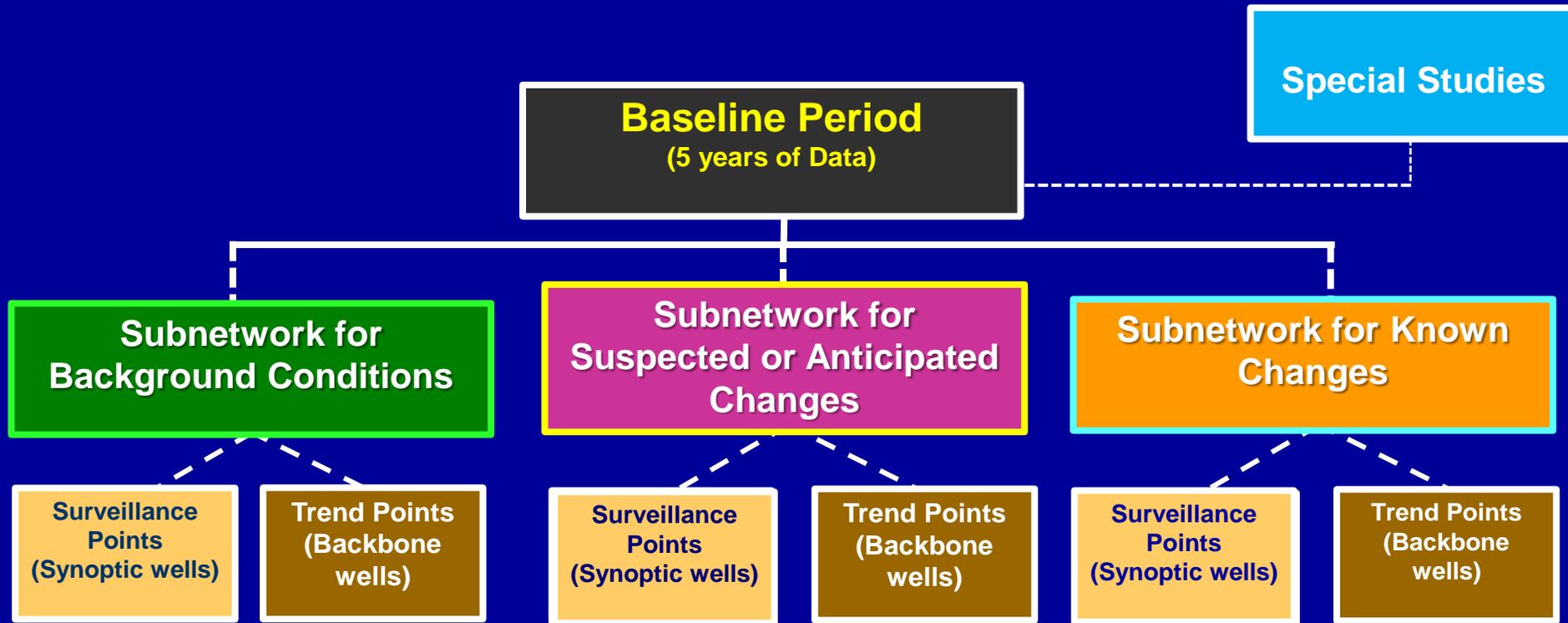
- Design for a collaborative National GW Monitoring Network
- Worked with NGWA to inventory Federal and State monitoring programs
- Guidance for Field Methods
- Guidance for Minimum Data Elements, Standards, & Management
- Implementation Plan and Recommendations
- Initial version in 2009. Revised in 2013 after pilot phase completed
- Factsheet available



# NGWMN Design Elements

- Principal and major aquifers
- GW levels and quality, focus on availability
- Priority on sites with long-term data
- Network, not a Warehouse or Master Database
- Willing data providers: State, Federal, Tribes, others
- Sites classified by local experts/data providers, and selected sites become part of the Network
- Data available to all without restriction or cost
- Data provider is the authoritative data source

# Network Design: Subnetworks



“Classified” based on water level or water quality change and on frequency of data collection

# NGWMN Data Portal

## National Ground-Water Monitoring Network

The **National Ground-Water Monitoring Network (NGWMN)** is a compilation of selected groundwater monitoring wells from Federal, State, and local groundwater monitoring networks across the nation.

The **NGWMN** is a product of the [Subcommittee on Ground Water](#) of the Federal Advisory Committee on Water Information ([ACWI](#)).

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 transitioning from a pilot phase into full implementation. In the future we will be adding additional data providers to the network.

### CURRENT NETWORK:

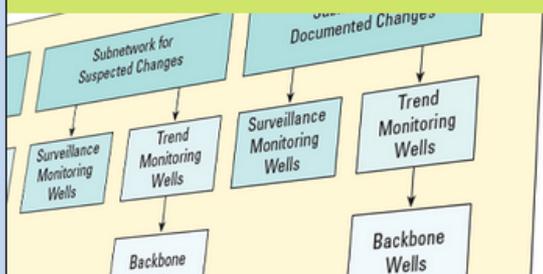
3560 water-level wells
578 water-quality wells
10 subnetworks
8 contributing agencies
43 states
53 principal aquifers

### GET INVOLVED WITH THE NATIONAL GROUND-WATER MONITORING NETWORK!

The network is made up of selected wells from existing monitoring networks across the nation. Agencies or organizations collecting groundwater data can become data providers for the Network. [Learn about contributing data from your network.](#)

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

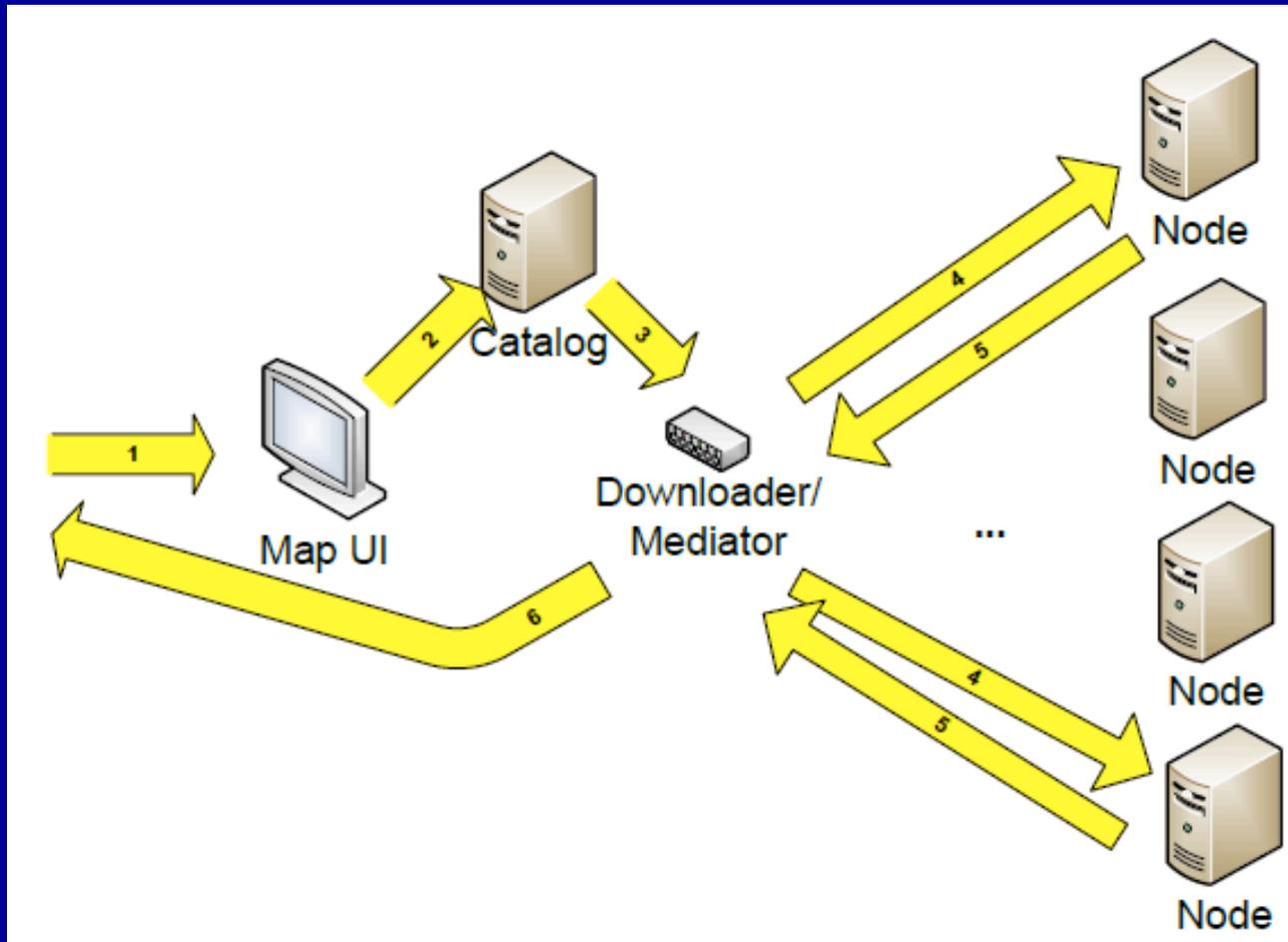
### LEARN about the Network



### EXPLORE the Network



# Network Portal Data Model



# Authorization and Funding

- **P.L. 111-11 SECURE Water Act 2009**

Required USGS to work with ACWI and State/Local water agencies to:

- (i) Assess the current scope of GW monitoring
  - (ii) Develop and carry out a Monitoring Plan for major aquifers
  - (iii) Consult and coordinate with the local water resource agencies
- 
- **NGWMN Appropriation (FY15)**
    - Funding appropriated as part of USGS FY 2015 Budget
    - Directed to provide cooperative agreements to States to incorporate wells into the NGWMN.

# Cooperative funding agreements to support NGWMN data providers (CFDA 15.980)

- Authority under Secure Water Act
- Funding opportunity available to State or Local groundwater resource agencies
  - Federal agencies, Tribes, Institutions, Universities, and Companies may contribute data, but are not eligible for funding
- Application period will be open from November 16<sup>th</sup>, 2015 through January 19<sup>th</sup>, 2016
- Requires cost sharing in the form of in-kind services

# Application Process

- Applications need to be submitted electronically on Grants.gov under funding opportunity number G16AS00008  
<http://cida.usgs.gov/ngwmn/cooperativeagreements.jsp>
- Application needs to be submitted by someone with appropriate authority
- Need to be registered with Grants.gov
- Note that registration of new users can take up to three weeks. Suggest starting this process as soon as possible
- Program Announcement contains details on the Electronic Application Requirement

# Initial Focus of the NGWMN

- The initial focus of the NGWMN will be to add new data providers and build the network with existing sites from those data providers
- Main tasks will be:
  - Connecting agency databases to the NGWMN data portal
  - Select and classify sites
  - Document Field Techniques
  - Produce summary report
- During this process, agencies will identify ‘gaps’
  - Sites, frequency, metadata
- Future funding opportunities may allow ‘gap filling’. Will not be funded in this first round.

# Project objectives

- Proposals will be considered that address the following objectives:
  - Add new data providers to the network
  - Support continued operations of existing data providers
- The following objectives are not eligible for funding under this announcement:
  - Data collection (water-level or water-quality data)
  - Use of GPS to update location or land-surface elevation of sites
  - New database development
  - Drilling and installation of new wells

**Applications that contain these ineligible objectives will not be funded**

# Projects

- Projects must include USGS funding and agency in-kind services
  - In-kind services must be related to Program Announcement Objectives
- Projects can be for up to 2-years
- New data providers are funded the first year for the new data provider objectives. They can apply for data portal maintenance funding for the 2<sup>nd</sup> year
- Current data providers can apply for data portal maintenance funding for both years
- Report is required at end of project
- New data provider projects are expected to range between \$20,000-\$50,000 in USGS funding

# Application package

- All Projects
  - Proposal Information Summary
    - Use format shown in Attachment B
  - Proposal
  - Budget Summary
    - Attachment C
  - Detailed Budget
- Application must contain information above in a single document that is no longer than 20 pages
- Will be added to Grants.gov application along with required Standard Forms SF-424, etc.

# New data provider projects

- Description of Agency and purpose of monitoring
- Identification of USGS principal or other major aquifers monitored
- Description of the Agency's existing monitoring networks
  - Water level
  - Water quality
- IT Infrastructure
- Work Plan
  - More details on next slide
- Personnel/Timeline

# Work plan elements for New data providers

- Evaluate monitoring sites
- Classify sites into subnetworks and monitoring categories
- Provide data for required data elements
  - Attachment A lists required data elements
- Populate NGWMN Well Registry with site information and Network classifications
- Set up web services to provide data to NGWMN portal
  - Water Level, Water Quality, Lithology, Well Construction
- Document field and data management practices
- Prepare a brief report documenting project
- Data portal maintenance funding for year 2

# Work plan elements for existing data providers

- Funding available to support existing data providers covers maintaining connection to Data Portal
  - Ensuring that the web services continue to provide data to NGWMN Portal
  - Keep NGWMN Well Registry up to date with changes in Network
  - Populate data elements for sites as needed

# Project Report

- New Projects
  - Generally summarize work done for the Project
    - Describe networks
    - Selection and classification approach
    - Describe data collection techniques
    - Description of web services
    - Analyte list for water-quality sampling
    - List of laboratories
    - Notes on any sites that have special issues
- Maintenance Funding
  - Describe work done during year
    - Updates to web services
    - Problems encountered
    - Notice of planned changes or updates

# Budget

- SF 424 budget form
- Budget summary for each year
- Detailed Budget
  - By element in work plan
  - Include in-kind services
  - Specify Indirect Cost rate used and include in budgets

# Support

- Framework Document
- NGWMN Web Page
  - <http://cida.usgs.gov/ngwmn/>
- Tip Sheets

# 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
- Available on the NGWMN page at:  
<http://cida.usgs.gov/ngwmn/learnmore.jsp> on the 'Data Provider' tab. Resources for New Data Providers

# Proposal Evaluation

- Proposals evaluated and ranked by the NGWMN Program Board
- Criteria
  - Availability of groundwater data (25%)
  - Geographic areas and Principal aquifers monitored (10%)
  - Compliance with Framework Document (20%)
  - Project Proposal (25%)
  - Products (10%)
  - Maintenance (10%)
- More details on criteria are included in the Program Announcement
- Applicants will be notified and receive feedback on their proposal

- Daryll Pope

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<http://acwi.gov/>

<http://acwi.gov/sogw/index.html>

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

# Questions