Slide 1

National Ground-Water Monitoring Network

Advisory Committee on Water Information—Subcommittee on Ground Water

The National Ground-Water Monitoring Network (NGWMN)
A Progress Report and an Invitation to Participate

Bob Schreiber, SOGW Co-Chair, CDM Smith, ASCE
Presenter – with acknowledgements to:
Bill Cunningham, SOGW Co-Chair, USGS
Daryll Pope, Liaison to Data Providers, USGS
Lauren Schapker, SOGW Executive Secretary, NGWA

NGWA Groundwater Summit
December 4th, 2017 – 10:50 to 11:10 AM
Room 102B – "Groundwater Monitoring"
Nashville, TN

ACWI – Advisory Committee on Water Information

Slide 2

Goals of Presentation

- Show Progress toward Full Implementation
- Encourage You to Participate
- Introduce Related Presentations

- Wearing 2 Hats:
  - Federal Advisory Committee
  - NGWA Volunteer

ACWI – Advisory Committee on Water Information
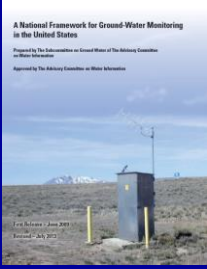
NGWA

Slide 3

Presentation Outline

- Network Definition and Purpose
- Network Development
  - Timeline
  - Participants
  - Design Criteria
  - Implementation
- Funding & Growth
- Invitation to Participate

ACWI – Advisory Committee on Water Information

Slide 4

Definition of "Network"

- Selected, Key:
  - Monitoring Points
  - Parameters
- Purposes in Design →
- NOT a "Repository"
- Can Access Repositories:
  - Federal: NWIS, STORET
  - States' and Other Entities'

A National Framework for Ground-Water Monitoring in the United States

Prepared by The Subcommittee on Ground Water of The Advisory Committee on Water Information

Approved by The Advisory Committee on Water Information

ACWI – Advisory Committee on Water Information

Slide 5

Why Do We Need the Network?

- Trend-Tracking
- Impacts-Identification
- Analysis & Assessment
- Planning & Management
- "Patchwork Quilt" →
  - Data Provider Differences
  - Interstate Contrasts
- Fill Data Gaps

ACWI – Advisory Committee on Water Information

Slide 6

Subcommittee on Groundwater (SOGW) within ACWI

- Sole Initial Purpose – NGWMN
- Co-Chairs – Federal & Non-Federal
- SOGW Members:
  - ACWI Representatives & Alternates
  - Interested Individuals
  - "Listeners"

ACWI – Advisory Committee on Water Information

Timeline

- **Long Process**
- **But, Worthwhile**
- **Leveraged:**
  - Prior Attempts
  - "GW Vacuum"

2005-6	NGWA White Paper
2007	SOGW formed by ACWI
2009	Framework Document
2009-11	Five pilot projects
2011	Web portal version 1
2013	Framework Document revisions
2013-17	Web portal updates
2014	WQ piloting – 2 States
2014	Federal Funding Approved
2015+	Formal Implementation

Initial Involvement

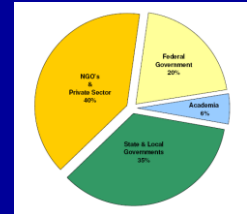- *All Sectors*
- *Significant Commitment*
- *Dedicated Volunteers*

- ASCE
- GWPC
- ICWP
- AASG
- NGWA
- TCEQ
- USGS
- USEPA
- ASDWA
- WEF
- USDA
- ASIWPCA
- And more….

>70 people from >54 organizations

Key NGWMN Design Criteria

- **Network**
  - Not a repository
- **Flexibility**
  - With basic requirements
- **Inclusivity**
  - Fostering partnerships
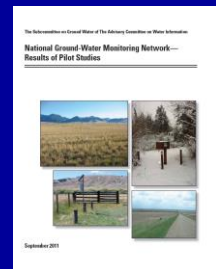- **Ownership**
  - By data providers
  - Not by federal agencies

Available at http://acwi.gov/sogw

A National Framework for Ground-Water Monitoring in the United States

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Approach

- **Framework Design**
- **Pilot Testing** →
- **Web Portal**
- **Operations**
  - By USGS
- **Oversight**
  - Program Board
  - ACWI-SOGW

Available at http://acwi.gov/sogw

National Ground-Water Monitoring Network—Results of Pilot Studies

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NGWMN User Interface

- **Web Portal Main Page**
- **Has Link to Info on Cooperative Agreements**

National Ground-Water Monitoring Network

Available at http://cida.usgs.gov/ngwmn
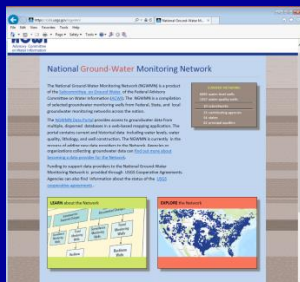
Funding History

- **Another (Very) Long Process**
- **Persistence**
- **NGWA Leadership**
- **Key Partner Organizations (GWPC, AASG, & Many Others)**

2007-9	Initial Congressional Visits
2009	SECURE Water Act Authorization
2009-14	Stalled Appropriation but Continued Congressional & Federal Agency Visits
FY2015	Initial Appropriation
FY2016+	Further Appropriations with Small Increases or Level Funding

Initial Growth of Network

- **Pilot studies – initial to completion**
- **USGS water-level and WQ sites**
- **New data provider projects**
- **Continuation projects**

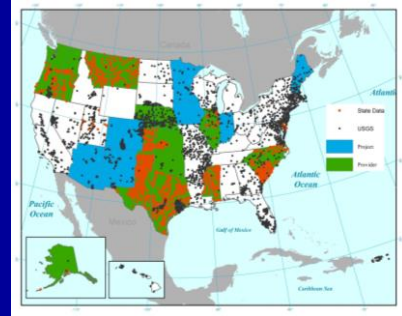**Annual Funding Opportunities for Cooperative Agreements to Support the Network**
(Unfunded Participation Can Also Be Arranged)

Water-Level Network
Data Providers & Current Projects

Note: Already out-of-date due to recent additions

Water-Quality Network
Data Providers & Current Projects
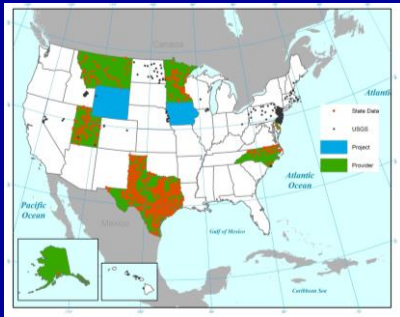
Note: Already out-of-date due to recent additions

Network Growth
(# of Sites)

- April 2015
- April 2016
- April 2017
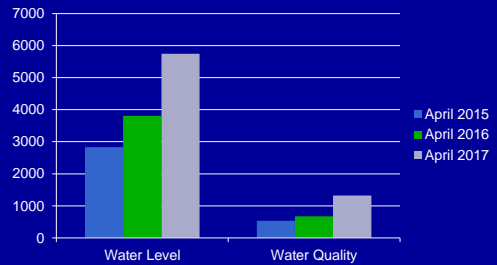
Network Growth
(# of Sites – USGS vs States)

- April 2015
- April 2016
- April 2017
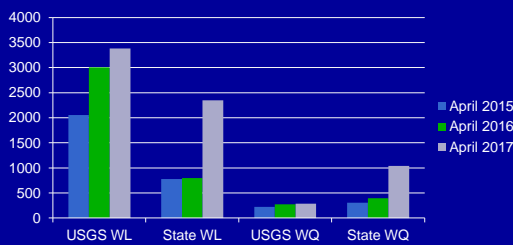
Cooperative Funding Opportunities

- **Priority**
  - **Bring in New Data Providers**
  - **Support Existing Data Providers**
- **Supported work**
  - **Fill gaps in Site Information**
  - **Well Maintenance**
    - **Redevelopment**
    - **Integrity testing**
    - **Period-pumping**
  - **Well Drilling**
    - **Replacement**
    - **New**

Other Benefits for Data Providers

- Consistent Data for Sharing (Interstate & Intrastate)
- Identification of Data Gaps
- "Community of Practice"
- Upgraded Procedures & Documentation
- Web Portal Advantages:
  - Tools for Accessing Data
  - Linking back to Data Providers' Websites
- Leveraging Opportunities:
  - Visibility & Recognition
  - Additional Justification for Monitoring

Primary Contact for Data Providers

- Daryll Pope – USGS Liaison
  dpope@usgs.gov
  (609) 771-3933

  http://acwi.gov/
  http://acwi.gov/sogw/index.html
  http://cida.usgs.gov/ngwmn/

Volunteers Welcome for ACWI-SOGW Efforts

- NGWMN – Still Our #1 Emphasis
- But: ACWI Just Approved Taking on More
- → You Can "Drive" New Activities/Tasks

GW Usage	GW Modeling	Innovative Techniques
Time Series Data	Public Supply Wells	Remote Sensing
Transboundary Issues	Regional Issues	Springs
GW-Surface Water Interaction	Infrastructure Rehab & Enhancement	Data from Well Logs

Volunteers Needed for NGWA Efforts

- NGWA's DC Fly-In & Home Office Visits
  - 2018 Fly-In → March 6th & 7th (register in January)
  - Legislative "Asks"
  - Executive Branch Agencies
- Assisting NGWA's ACWI Rep
- Govt Affairs Committee/Subcommittees

Benefits for Volunteers

- Influence Decision-Makers
- Understand Process / Re-Learn "Civics"
- Broaden Personal & Business Networks
- Participate on Dynamic Teams
- Learn About Latest in Data-Delivery
- Gain Satisfaction with Successes
- Enhance Recognition

Presenter's Memorable Accomplishments

- Team-Building & Successes
  - Wonderful Network Across USA & Beyond
  - Camaraderie during Ongoing Team Efforts
- Congressional Office Visits:
  - → 5 Senators, 1 Representative, Many Staffers
  - → Advice for Author of SECURE Water Act
  - → "Go-To" Expert for House Subcommittee
  - → "Info Session" – House & Senate Staffers
- Recognition of Team Successes:
  - Invited Speaker at Brazilian GW Conference
  - ASCE/BSCES Newsletter Articles
  - BSCES "2016 Citizen Engineer of Year"

Contact Persons for Volunteering

- **ACWI-SOGW:**
  - Lauren Schapker, Exec Secretary
    lschapker@ngwa.org
  - Bill Cunningham, Federal Co-Chair
    wcunning@usgs.gov
  - Bob Schreiber, Non-Federal Co-Chair
    schreiberrp@cdmsmith.com
- **NGWA:**
  - Lauren Schapker, Govt Affairs Director
  - David Langseth, NGWA's ACWI Rep
    dlangseth@gradientcorp.com

Conclusions and Q&A

- **You Can & Will Make a Difference**
- **Multiple Opportunities Exist**
- **Contact Persons Are Ready to Help You**

Questions?

Focus of Presentation

- **Example of Successful Cooperation:**
  - Federal
  - States
  - Other Govt
  - Private Sector
  - Academic
- **Continued Support:**
  - NGWA
  - Other Partner Orgs

Network Portal Data Model