

Monitoring Design Work Group

Version 3 – February 26, 2007

Overall Purpose of Subcommittee:

The overall goal of the SOGW is to develop and encourage implementation of a nationwide, long-term ground-water quantity and quality monitoring framework that would provide information necessary for the planning, management, and development of ground-water supplies to meet current and future water needs, and ecosystem requirements.ⁱ

Work Group Charge: Develop a draft national framework for ground-water monitoring and collaboration that will assist in assessments of the quantity of U.S. ground-water reserves, as constrained by ground water quality. In developing the draft, the work group will also consider ground-water-quality monitoring in order to help determine water-quality-related constraints on supply and use, and for helping assess potential ecological impacts caused by changes in ground-water quantity and quality. Additionally, the work group will develop recommendations for a monitoring design that can provide a status of the Nation's ground-water resource, how it has changed over time, and how it may change in the future. The work group will review products and activities of ACWI or ACWI subgroups and their predecessors relevant to ground-water monitoring.ⁱⁱ

Key Questions Work Group Should Answer:ⁱⁱⁱ

1. What are the priority questions related to planning, management and development of ground water supplies for which data are needed?
2. What is the priority of the various objectives of ground-water monitoring, including a balance between regionally important aquifers and locally important aquifers; responses to climate change and responses to ground-water use; monitoring confined and unconfined aquifers; monitoring wells open to different depths and within the context of the three-dimensional ground water flow system; monitoring among various land uses including areas undergoing transition; monitoring to determine impacts on surface water levels; and monitoring areas of ground water recharge?^{iv}
3. What is the role of a nationwide ground water monitoring network in answering these questions?
4. What are the benefits and barriers to a nationwide network?
5. How can we complement the NWQMN for Coastal areas to optimize our collective efforts?
6. How will quality be addressed?
7. What are the key water quality parameters needed for the monitoring network?
8. Will the indicator parameters be different for different aquifers/aquifer systems?

9. Who will implement a nationwide network?
10. How will collaboration among government and non-government entities be addressed?^v
11. Do we need to provide greater clarity possibly include discussing what is meant by: framework vs. design, are you working to develop a national or nation-wide network?
12. How should / can existing efforts be incorporated into the network?
13. Do we plan to design/propose a network by making the best fit of what exists out there, or will we use what valuable data and infrastructure that exists and further refine the design to focus resources on filling in the holes?
14. How should aquifers be defined – are they different in different areas of the country?
15. Do we need to evaluate models to optimize ground water monitoring?

Oversight: Reports to SOGW through monthly conference calls.

Work Product(s): Draft interim national ground water monitoring framework and design

Deadline: November, 2007

Approved as Draft for Work Group Review: Ad Hoc Steering Committee on Ground Water, February 26, 2007

ⁱ TOR Purpose Section

ⁱⁱ TOR Scope Section

ⁱⁱⁱ List of key questions developed for ACWI meeting, unless noted

^{iv} TOR Functions Section

^v TOR Functions Section