

THE NATIONAL GROUND-WATER MONITORING NETWORK

Rick Copeland* – Florida Geological Survey

Robert Schreiber – Camp Dresser and McKee Inc

Kevin Frederick – Wyoming Department of Environmental Quality

Thomas Patton – Montana Bureau of Mines and Geology

*903 W. Tennessee St

Tallahassee, FL 32304

ABSTRACT

The Advisory Committee on Water Information (ACWI), formed under a mandate by the U. S. Office of Management and Budget, is charged with improving the quality of and the accessibility to water information necessary to make natural-resource management and environmental protection decisions. In 2007, ACWI formed the Subcommittee on Ground Water (SOGW) to develop a nationwide, long-term, ground-water quantity and quality monitoring framework; with emphasis on quantity. The framework will be a data-collection/management plan that will provide data necessary to assess the quantity and quality of the nation's ground-water reserves. Issues addressed are: (1) data collection, (2) data quality and comparability, (3) data management, (4) network design, and (5) network implementation and operation. SOGW work groups have completed their draft chapters and SOGW has forwarded the framework document to ACWI.

The design of the National Ground-Water Monitoring Network (NGWMN) will address important ground-water-related questions hierarchically. At the highest level are core questions that must be addressed at statewide, regional, and national scales. Questions in descending levels address issues that require comparison of NGWMN data to increasing amounts of ancillary data.

The NGWMN will be a "network of networks" based on significant regional, state, and local aquifers. In conjunction with its own monitoring, each state or regional cooperator will submit qualified data to a central database, accessible via the internet. In that way data used to answer core questions will be aggregated upward to regional (multi-state) and national scales. States will also use data to address questions at statewide or local levels. The NGWMN will focus on three monitoring categories. An initial round of monitoring will establish baseline (ambient/background) conditions. Surveillance monitoring will assess long-term trends in natural conditions and the effects of human activities. Targeted monitoring will evaluate the status of ground water determined to be at risk from depletion or contamination.

KEYWORDS

network, national, ground water, design, monitoring