

Project No. WRI-81

Project Title: Systematic determination of water resource data & information management needs in West Virginia

Recipient: West Virginia University

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Funding:

USGS	10,332
Cost-Share	21,033
Total Project Value	31,365

Project Status Active

#### Abstract

Systematic determination of water resource data & information management needs in West Virginia

**Problem:** This project proposes to address the entire state of West Virginia as a critical region. The problem the project intends to address is two fold. The first problem is that of insufficient and unevenly distributed water resource monitoring data to support effective water resource assessment and management. The second associated problem is the inaccessibility of existing data stemming from the diversity of agencies and methods used to collect, store, and analyze water resource data and information. These problems have been identified by recent research by the WV WRI in fulfillment of the WV Water Resource Protection Act.

**Objectives:** The results of this project will include a statewide evaluation of existing water quantity and quality monitoring data sources; a participatory and a credible, interagency spatial analysis of critical monitoring data gaps prioritized by importance to state agencies such as the Department of Health, USGS, the Dept of Agriculture and other principal users. The final project report will supplement the WVDEP Water Resource Protection Act final report to the WV Legislature in December of 2006, part of an on-going comprehensive effort to evaluate state water resource balances.

Maps of prioritized quantity and quality-monitoring data needs will be accompanied by a data cost analysis. The report will include a description of limits imposed on government, academic, and private decision-makers resulting from the lack of monitoring data and absence of an integrated water data management system. The project will produce a detailed justification to the government and private donors interested in supporting the potential for better water resource management and research at local, watershed, and state levels.

While current water resource management efforts in the state are largely segregated into quality and quantity categories, water resource quality and quantity issues cannot be managed independent of one another. Informing the process to improve the states water data collection, integration, and analysis efforts is a vital part of all research priority area listed in the WVWRI Request for Proposals. Potential research in each of these areas is limited by lack of monitoring data.

Methods: We propose a credible interagency and participatory process to inform the state legislature about priority water resource data needs. A task force will be convened that includes DEP, USGS, DHHR, and Department of Agriculture among others to spatially and temporally evaluate existing data and evaluate it for convertibility and format. Each agency has a distinct agency-specific methodology for assessing agency needs, prioritizing them, and assessing projected costs. At least three task force meetings will be held to ensure adequate interagency participation in the process.

All information and data collected will be mapped using Geographical Information System (GIS). Where necessary geospatial analysis will be used to identify areas of the state that are particularly lacking gage/data coverage or require additional gage data due to regional geological, development, or land use characteristics.