

W A T E R R E S O U R C E S

# IMPACT

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DATA MANAGEMENT  
IN WATER RESOURCES

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## DATA MANAGEMENT IN WATER RESOURCES

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Good data management practices should integrate the delivery of data from different disciplines and external sources to facilitate assimilation and analysis. The six papers in this issue demonstrate maturity in the development of data and spatial based management systems. A remaining challenge is to develop delivery systems that incorporate a spectrum of tools (spatial, derivative, data, visualization, models ...) that produce knowledge in addition to synthesized data (information).

### 4 INTRODUCTION: Data Management Practices ... Trevor Campbell

#### FEATURE ARTICLES

### 5 Developing Scientific Data Management Policy and Procedures ... Brian Turcotte

Addresses the institution of scientific data management policy and procedures. This approach set the framework for data stewardship. The policy forms a lasting presence that ensures our data will be held in the same high regard as our capital, financial, and human resource assets.

### 10 An Integrated Approach to Managing Water Resources Data at the Southwest Florida Water Management District ... Steven Dicks

Comprehensively addresses resource data monitoring and permitting systems as a subset of an overall Water Management Information Systems effort. Changes in responsibilities, business processes, and information technology will always have significant impacts on the way agencies charged with natural resources management and regulation collect and manage data.

### 14 Management of a Large-Scale Environmental Database at a Department of Energy Site ... John Boylan, Mark Wood, and Ian Paton

During the decades of operation and environmental remediation activities at the site, millions of environmental data records were collected, including nearly 7 million electronic records input to the Soil and Water Database or its predecessor, the Rocky Flats Environmental Database System, from 1987 until the site closure in 2005.

### 18 Developing and Implementing Water Quality Information Management Systems in Montana for Improved Data Quality, Efficiency, and Public Outreach ... Staci Stolp

A significant source of inefficiency and error in the DEQ's legacy assessment process came from redundant data entry into DEQ spreadsheets and databases at various stages of the assessment process.

### 22 Managing the International BMP Database ... Renee Fitsik, Marcus Quigley, Eric Strecker, Jon Jones, Jane Clary, and John O'Brien

As the database continues to change and develop, the Project Team is looking ahead to providing more data for Low Impact Development (LID) practices. LID practices are becoming more popular as projects move towards providing "green" building including stormwater management.

### 25 Presenting Urban Stormwater BMP Performance Data to a Broad Audience ... John Kosco and Nikos Singelis

In order to effectively use the tool, stormwater professionals must have a basic understanding of the factors that influence BMP performance.

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