

## The Benefits of Web-Based Environmental Information Management

Chris Arneson & Derek Mitchum

Water resources projects typically involve many types of information that must be compiled and analyzed. This information can be stored in many locations. To facilitate managing the information, software systems are springing up to aid in managing these disparate data types. These systems range from libraries of spreadsheet files to huge custom enterprise-level applications.

The prospect of evaluating and choosing a tool to manage this data can be daunting. A recent entry into the market has been the availability of web-based tools. While each approach has advantages, a web-based system comes with many benefits including, easy access to information, allows team members to load, track, integrate, evaluate and report environmental compliance data and information in ways that are customized to fit the specific needs of the project and end users. Further, it keeps the information close to the people that know the information best, it increases project understanding through secure, one-stop, on-line access for team members to share up-to-date project records, documents, and information. Time spent searching for project specific information can be greatly reduced.

There are many tools that are part of available web-based systems that provide these benefits. Some of them include:

- laboratory data input forms and processes
- data validation
- constituent or analyte reporting
- fluid level monitoring and reporting
- GIS
- site administration
- project management

This presentation will explore the benefits of web-based environmental management by showcasing case studies of web-based environmental management tools and assess how they solve particular needs. Further, we will cover recommendations on how an organization should begin to evaluate and choose a system that will suit that needs.

## **BIO**

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Mr. Arneson is a Certified GIS Professional and serves as Trihydro's GIS coordinator. Mr. Arneson has over 15 years of experience as a professional GIS analyst and project manager. His experience includes managing groundwater mapping projects and projects dealing with petroleum remediation, drought, mining, geologic mapping, injection wells, and groundwater monitoring. He brings a broad background in water resources issues and an in-depth understanding of information technology application of the latest technologies to solve problems. Currently Mr. Arneson chairs the Wyoming State GIS Technical Advisory Group committee for the Governor.

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Mr. Mitchum has over 20 years working with and managing information technology projects and teams. He has over ten 10 years experience developing and managing environmental information management systems (EIMS). Currently, he manages a staff of over 20 IT professionals that develops and maintains software and hardware systems in support of environmental projects and business related application. He is in charge of the selection, implementation and management of Trihydro's portfolio of IT vendors and contractors.