

## **Produced Water Management and Beneficial Use/15549Colorado School of Mines**

### **FWP 15549csm**

#### **Goal**

This subcontract is designed to ensure that technology developed by the main project meshes with the regulatory requirements related to water issues under the U.S. Environmental Protection Agency (EPA) and various State agencies.

#### **Performers**

Argonne National Laboratory (ANL), Washington, D.C.  
Colorado School of Mines (CSM), Golden, CO

#### **Results**

This project is one piece of a large, coordinated produced-water research effort managed by the Colorado School of Mines. ANL's role in the project is to inform and advise the rest of the project team about produced-water regulatory requirements in effect at the start of the project and the directions in which water policy is moving throughout the duration of the project. ANL has accomplished this responsibility through several presentations at project team meetings and through regular distribution of relevant regulatory and technology information to team members.

#### **Benefits**

This ANL's participation in the project will ensure that all regulatory issues are correctly handled in the main project's overall assessment and implementation of coalbed natural gas (CBNG) produced-water treatment technologies and proposed beneficial uses for the Powder River Basin of Wyoming.

#### **Background**

This is one of several subcontracts to the CSM project, DE-FC26-05NT15549. The focus is management of produced water from oil and gas operations, specifically CBNG production. ANL's portion of the contract will be to provide team members with an overview on water regulation topics and a resource to ensure that any technical results are feasible in the context of the regulatory environment.

#### **Summary**

CSM is coordinating a large produced-water project with numerous technical researchers. Few of the researchers have experience with State and Federal regulatory issues that influence produced-water management. ANL's role in the project is to inform and advise the other researchers on the project team about relevant produced-water regulatory requirements. This will be accomplished by providing an initial briefing for the technology developers and following up with periodic written or oral updates as regulatory requirements evolve. ANL has given water regulatory updates and briefings at three project team meetings.

In order to keep abreast of evolving water regulatory requirements, ANL will interact with State and Federal agencies and maintain up-to-date expertise through regular review of State and EPA water regulations, periodic contacts with key agency officials, and participation in national and international water quality and produced-water management conferences and workshops. The project performer will communicate with State and Federal agencies that are likely to establish additional water-management controls to keep them informed of technology developments made by the other project team members and to watch for potential regulatory barriers.

ANL reviewed and commented on a Montana water quality proposal that would have severely curtailed coalbed methane production in Montana and Wyoming. Although this regulatory review work was done through a separate project, ANL informed the project team of the proposal and the agency outcome following the close of the comment period because of the relevance of the proposal to the work undertaken in this project.

**Current Status (January 2007)**

ANL received funds for this work in June 2005. It gave a preliminary briefing at a project team organizational meeting in January 2005 and provided a more detailed overview of water regulatory requirements during team meetings in October 2005 and April 2006. Periodically, news items of relevance to produced-water management are shared with the project team. In an upcoming March 2007 project team meeting, ANL will describe and demonstrate the new Produced Water Management Information System website it is developing for DOE under a different project. This resource will provide extensive information on produced water technologies and regulatory information.

**Funding**

The project was funded as a subcontract under CSM DE-FC26-0515549.

**Project Start:** June 19, 2005

**Project End:** April 28, 2007

**Anticipated DOE Contribution:** \$75,000

**Performer Contribution:** \$0

**Contact Information**

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Argonne - John Veil ([jveil@anl.gov](mailto:jveil@anl.gov) or 202-488-2450)

**Publications**

Veil, J.A., "Overview of Water Disposal Regulations," Produced-Water Project Meeting, Golden, CO, October 27-28, 2005.

Veil, J.A., "Environmental Policy and Regulatory Analysis Paves the Way for New Technology," Produced-Water Project Meeting, Golden, CO, January 5-6, 2005.

Veil, J.A., "What's New in Water Issues," Produced-Water Project Team Meeting, Golden, CO, April 3, 2006.



Water infiltration impoundment.

## Produced Water Management and Beneficial Use

The diagram shows a wellhead on the left with a pipe leading to a body of water. A colorful arrow points from the wellhead to a fenced-in area on the right where several people are standing, representing a beneficial use of the water.

The goal: Managing produced water optimally through beneficial uses.