

Ground Water  
**GWPC**  
Protection Council

# DOE Funded Initiatives

Focusing on Cost Effective  
Regulatory Approaches

# Federal/ State/ Industry Regulatory Relationship

## UIC Partial Primacy

Area of Review and use of Zone of  
Endangering Influence Calculation

# UIC Partial Primacy

Primary contractor: Shipley and  
Kellogg, Attorneys at Law

Principal Contact: Mike Nickolaus,  
Ground Water Protection Council

(405) 516-4972

# Contractors role

- To provide legal research into the possibility for states to acquire partial primary enforcement authority for underground injection control programs under the Safe Drinking Water Act.
- To develop a Memorandum of Agreement between a specific state and an EPA regional office to transfer control of one class or subclass of UIC well from EPA to state control.
- To develop a complete primacy application package for a state to obtain primacy for a single class or subclass of UIC well.

# Project goals

- To evaluate whether or not the Safe Drinking Water Act limits the authority of the EPA to delegate primacy programs to the states for a single class or specific group of classes of UIC wells.
- To transfer control of a class or subclass of UIC wells to state control.
- To demonstrate that partial primacy is a viable alternative to the structured primacy delegations currently allowed by EPA

# Scope and Approach

- The project will be conducted in 3 phases:
  - Phase I: Legal research into the primacy delegation limitations of the Safe Drinking Water Act.
  - Phase II: Development and negotiation of an MOA between the state of Montana and the Region 8 office of EPA
  - Phase III: Development, submission and negotiation of a partial primacy package for a single state (Not yet determined)

# Current status

- Phase I has been completed

# Schedule

- Phase II is underway and is expected to be completed within 6-12 months
- Phase III is not yet begun but may be started concurrently with Phase II

# Benefits to Oil and Gas Industry

- The industry will benefit from having to deal with a single regulatory entity in the permitting and operation of wells related to the production of oil and gas and the disposal of E&P waste products
- Consistent application of regulations by a single state agency will lower overall costs of operation through reductions in duplicative agency oversight and reporting requirements
- In some cases industry will realize a hard dollar cost savings from the ability to dispose of E&P wastes on-site in a manner that is currently not allowed because a state does not control a specific element of the UIC program

# Transfer of knowledge

- Direct notification of all GWPC states regarding the success of the project
- Solicitation of states to apply for partial primacy
- Dissemination of the projects results at the GWPC Annual Forum in 2006
- Posting of the project results on the GWPC website
- Development of a news release for publication in various media including trade publications and association newsletters.

# Estimated Funding

- Total funding: \$76,700
- DOE contribution: \$56,700
- Non DOE contribution: \$20,000

# Area of Review/ Zone of Endangering Influence

Primary contractor: Not yet chosen

Principal Contact: Mike Nickolaus,  
Ground Water Protection Council

(405) 516-4972

# Contractors role

- To evaluate the calculations used in ZEI for UIC wells
- To prepare a report that details the data needs for, assumptions and calculations used, and costs to the regulated community of establishing AOR's based on a ZEI calculation
- To evaluate whether or not a fixed radius AOR is sufficient to protect USDW's
- Prepare a report detailing findings and recommendations

# Project goals

- To determine if a ¼ mile fixed radius Area of Review is sufficient to protect USDW's
- To determine whether or not a ZEI calculation is necessary or feasible under current regulatory requirements
- To determine whether or not a ZEI calculation can be required of state programs that have already been granted primacy under the fixed radius AOR specification

# Scope and Approach

- The project will consist of:
  - An evaluation of the current regulatory requirements for AOR establishment
  - An evaluation of the success of current AOR requirements in protecting USDW's
  - An evaluation of the calculations for establishing a ZEI and a needs assessment related to its use in establishing AOR's

# Current status

- Development of an RFP for selecting a primary contractor is underway

# Schedule

- RFP should be on the street within 3 months
- Contractor selection should take place within 5 months
- Contractor report expected within 9-11 months

# Benefits to Oil and Gas Industry

- The industry will benefit from not being required to supply additional data to regulatory agencies for the purpose of running the ZEI calculations
- Also, in those cases where a ZEI would have expanded an AOR beyond a  $\frac{1}{4}$  mile radius, the industry will benefit financially from not having to perform remedial action on existing wells within the expanded AOR

# Transfer of knowledge

- Presentation of the project results at the GWPC Annual Forum in 2006
- Posting of the project results on the GWPC website
- Publication of a report for distribution to states, federal agencies and the regulated community

# Estimated Funding

- Total funding: \$70,875
- DOE contribution: \$67,500
- Non DOE contribution: \$3,375

# E-Commerce

Water Quality Data Module  
Electronic Permitting  
Electronic Reporting  
Electronic Data Mining

# Electronic Commerce

- Contractor
  - Ground Water Protection Council (Paul Jehn)
  - Subcontractors
    - ALL-LLC, VES, DDG, SCI, iSingleton
- Subcontractor's role
  - To develop electronic commerce modules to work with the RBDMS data management system
  - To install and test the modules in pilot states
  - To modify and install the module in other RBDMS user states

# Water Quality Data Module

- Project goals
  - Develop a comprehensive source water quality data tracking application
- Scope and approach
  - Develop application using .NET and XML technology in 3 phases
    - Phase 1A (Currently underway)- Develop the laboratory information management system, water quality, source water assessment components and links to other databases
    - Phase 1B- Build GIS spatial querying components and reporting system, import historical data, conduct sample collection and analysis
    - Phase 2- Programming of the electronic data system requiring compatibility with EPA schema such as OWWQZX and SDWIS

# Water Quality Data Module

- Benefits to oil and gas industry
  - Application will link directly to the RBDMS data system used by 21 state oil and gas agencies and provide a means for data exchange between agencies and laboratories.
  - Data sets would be made available directly to industry to help them lower risk profiles
  - Create ability for industry contract laboratories to directly submit data to the regulatory agency
  - Provide immediate/ automatic feedback to labs concerning data quality control

# Electronic Permitting, Reporting and Data mining

- Project goals
  - Develop comprehensive electronic commerce solutions for use by industry and regulatory agencies
- Scope and approach
  - Develop applications using .NET and XML technology that may be used by all state oil and gas regulatory agency's
    - Using XML technology, develop one schema for use by all oil and gas regulatory agencies. Industry can then map their database to regulatory agencies
    - Develop procedures for the batch submittal of permits and reports and the submittal of individual applications using web forms
    - Decrease the time it takes to issue a permit using techniques like automated permit approvals

# Electronic Permitting, reporting and data mining

- Benefits to oil and gas industry

- Significant savings in cost and time

For example, in North Dakota, more than 250 wells over the last 5 years have been re-entered and drilled horizontally. Before well information was readily available, many of these wells would have been plugged or shut in. The cost savings to drill a well horizontally from an existing well rather than grass-roots well is estimated to be at least \$300,000. By keeping these wells available, industry has saved in excess of \$75,000,000 in North Dakota alone.

- Increases Access to federal lands through on line data access

# Electronic Commerce

- Transfer of Knowledge
  - Dissemination of project information through joint industry and regulatory work group meetings
  - Presentation of module at GWPC meetings
  - Modification and installation in additional RBDMS user states

# Electronic Commerce Status

- Water Quality Module: Pilot testing in Ohio Spring 2006
- Electronic Data Mining: Currently available in many RBDMS States
- Electronic Data Reporting: Currently being tested in MT, AK, NE, UT, NY, PA.
- Electronic Permitting: Under development with test in 2006 in CO, KY and AL
- New features are being developed for all electronic commerce applications

# Electronic Commerce

- Funding ffy 2006
  - Total funding: \$2,000,000
  - DOE contribution: \$1,500,000
  - Non DOE contribution: \$500,000

# Other CEQA projects

- Brackish and marginal quality produced water usage
  - Purpose: Establish criteria for alternate uses of brackish water other than disposal
  - Benefits: Cost reductions to industry from more efficient and flexible water handling and disposal requirements and alternate use scenarios such as use by lessee's
  - Estimated funding
    - Total = \$27,720
    - DOE = \$26,400
    - Non DOE = \$1,320