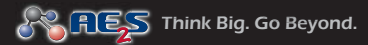


The Update

September 2008



Asset Management Tool for Small Utilities

Asset Management, defined by the United States Environmental Protection Agency (USEPA) as a "process for maintaining a desired level of customer service at the best appropriate cost," is a hot topic recently. The Government Accountability Office (GAO) states that "comprehensive asset management has the potential to help utilities better identify needs and plan future investments."

The USEPA's Office of Groundwater and Drinking Water has developed the Check Up Program for Small Systems (CUPSS) as a free, easy-to-use asset management tool for small drinking water and wastewater utilities. CUPSS is based on the USEPA's highly successful Simple Tools for Effective Performance (STEP) Guide series. CUPSS can assist utilities in developing:

- A record of your assets
- A schedule of required tasks
- An understanding of your financial situation
- A tailored asset management plan

CUPSS also can help utilities to:

- Make more informed decisions
- Save time by planning ahead
- Back up budget talks with solid facts
- Improve customer service
- Prepare an asset management plan in seven steps

For more information or to download CUPSS, go to www.epa.gov/cupss. ■

On October 1, the American Water Works Association (AWWA) will host a webcast entitled "Carbon Sequestration Rule: How Will It Affect Our Water Supply?" This discussion will be an introduction to the practice of geologic sequestration of carbon dioxide (CO₂) and the potential unintended effects of this practice. Geologic sequestration is the process of injecting CO₂ captured from an emission source (e.g., a power plant or industrial facility) into deep subsurface

Geologic Sequestration of Carbon and the Water Supply

rock formations for long-term storage. It is part of a process known as "carbon capture and storage" or CCS. To transport the captured CO₂, it is compressed from a gaseous state to that of a supercritical fluid prior to underground injection. The USEPA recently proposed a regulation related to this topic. Although the proposed regulatory requirements do not apply directly to water utilities, some have expressed concern that CO₂ sequestration has the potential to result in contamination of groundwater supplies, and thus is important for utilities to understand.

The goal of carbon sequestration is long-term storage of CO₂ to lessen the effects of climate change. Geologic formations that are targeted for injection of CO₂ in its supercritical state include deep saline formations, depleted oil and gas reservoirs, unmineable coal seams, and other porous rock formations. When appropriately injected into targeted geologic formations, CO₂ can be trapped physically and chemically. Physical immobilization occurs when upwardly migrating CO₂ reaches a rock formation that prohibits further upward migration or when CO₂ becomes trapped in pore spaces. Geochemical trapping can occur when dissolved CO₂ reacts with minerals in the geologic formation to result in the precipitation of solid carbonate materials. When completed properly, successful immobilization of CO₂ can occur. There is the potential, however, for unintended consequences of improperly managed geologic sequestration projects. Potential problematic results include CO₂ migration into underground drinking water supplies, causing the leaching and mobilization of contaminants (e.g., arsenic, lead, and organic compounds), changes in regional groundwater flow, and the movement of saltier formation fluids into underground water supplies, causing degradation of water quality.

The proposed rule will not require any facilities to practice geologic sequestration, but will regulate the practice by creating a new category of injection wells solely for long-term CO₂ storage. Requirements of the proposed rule will generally involve ensuring careful site characterization, monitoring, and long-term stewardship of geologic sequestration sites and activities. The USEPA is taking comments on the proposed rule until November 24, 2008, and expects to issue a final rule in late 2010 or early 2011. *The Update* staff will continue to follow this topic and provide further information on the potential effects to water utilities in upcoming issues of *The Update*. For more information on this topic, visit http://www.epa.gov/safewater/uic/wells_sequestration.html. ■

House Passes Sewer Overflow Notification Bill

In June, the House of Representatives passed a bill that would require public notification of sewer overflows from wastewater treatment plants. The Sewage Overflow Community Right-to-Know Act (HR 2452) would amend the Clean Water Act by providing a uniform, national standard for monitoring, reporting, and public notification of municipal and combined sanitary sewer overflows. A similar bill (S 2080) was presented in the Senate and then referred to the Committee on Environment and Public Works. No further action has been taken on the bill as of this time. ■

North Dakota Water and Pollution Control Conference

The 80th annual fall conference of the North Dakota Water and Pollution Control Conference (NDWPCC) will be held at the Ramkota Hotel in Bismarck, ND on October 8, 9, and 10, 2008. The conference provides operators, managers, equipment and product suppliers, technical assistance providers, and consulting engineers an opportunity to interact and learn about cutting-edge technology along with regulatory responsibilities. Presentations by AE2S staff include:

- “Small System Sewer Rehabilitation and Funding Strategies” - Richard Wagner, PE;
- “Bismarck Horizontal Collector Well” - Deon Stockert, PE;
- “Mandan Water Treatment Plant and Distribution System Master Plan” - Brett Jochim, PE;
- “PCCP Forcemain Inspections: A Grand Forks Case Study” - Judel Buls, PE; and
- “Bismarck Water Treatment Sludge Plant Case Study” - Russell Sorenson, PE.

Check out all the sessions at the fall conference. ■

Offices in:
Grand Forks, ND
Bismarck, ND
Williston, ND
Fargo, ND
Moorhead, MN
Minneapolis, MN
Great Falls, MT
www.ae2s.com

Advanced Engineering and
Environmental Services, Inc. (AE2S)
2016 Washington Street South
Grand Forks, ND 58201

TEMP--RETURN SERVICE REQUESTED

