

Governing Geologic Sequestration for Safe Drinking Water

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Two Energy, Environment, Agriculture and Natural Resources (EEANR) Fellows at the Environmental Protection Agency (EPA) found themselves working collaboratively intra-agency, and as part of a larger, interagency group responsible for drafting a proposed rule that would govern the injection of carbon dioxide underground, a process known as geologic sequestration. Developing such a rule is essential for companies building power plants whose carbon dioxide emissions will be captured and sequestered (stored) to limit the buildup of greenhouse gases – and to do it in a way that is secure and will not leach into drinking water or have other harmful impacts.

Stephen Fries is in EPA's Office of Research and Development (ORD), and Gregory Schnaar was in the Office of Water (OW). Steve has conducted research in public health microbiology and water quality. Greg has a background in soil and groundwater contamination. Their expertise was utilized well on the interagency team led by the Underground Injection Control Program (UIC), of the Office of Water, which was responsible for issuing the proposed rule.

Steve helped coordinate the regulation with the EPA Drinking Water Research Program and identify research and education needs to meet the challenge of large-scale U.S. geologic sequestration.

Greg worked within the UIC program to write and edit portions of the proposed rules and background documents; he was the principal author of a chapter that dealt with modeling.

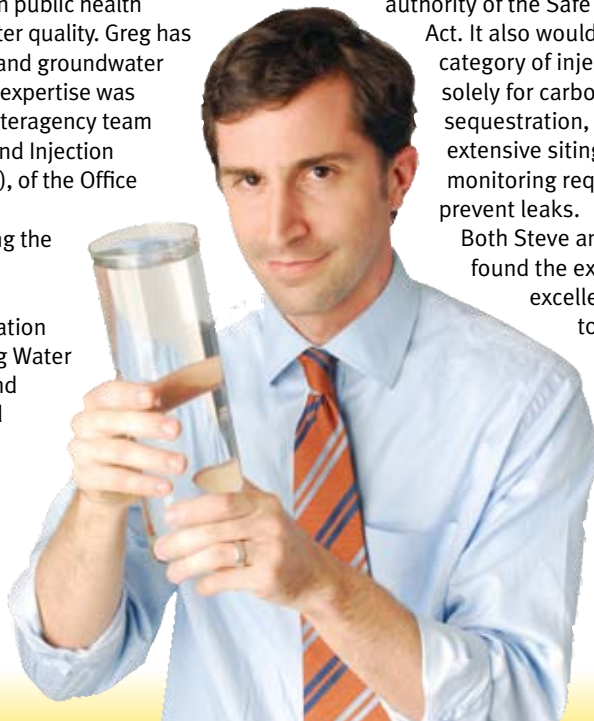
Steve and Greg worked collaboratively as well to develop calls for research proposals related to geologic sequestration. Also, they served on an interagency working group to produce a report for the White House Office of Science and Technology Policy, detailing the implications for water quality and availability of geologic sequestration.

The proposed rule was released in July 2008, paving the way for technologies to protect public health and reduce the effects of climate change. It would create a national framework for the injection of carbon dioxide underground with protection of underground

drinking water resources under the authority of the Safe Drinking Water

Act. It also would include a new category of injection wells solely for carbon dioxide sequestration, and create extensive siting, testing and monitoring requirements to prevent leaks.

Both Steve and Greg found the experience an excellent opportunity to learn while contributing to the federal policy process.



Gregory Schnaar, now a project scientist at DBS+A in California