

REGIONAL CARBON SEQUESTRATION PARTNERSHIP WATER WORKING GROUP

Ryan J. Klapperich,^{1*} Charles D. Gorecki,¹ Edward N. Steadman,¹ John A. Harju,¹ Andrea N. McNemar,² David V. Nakles³

¹Energy & Environmental Research Center
University of North Dakota
15 North 23rd Street, Stop 9018
Grand Forks, ND 58202-9018

²National Energy Technology Laboratory
3610 Collins Ferry Road
PO Box 880, MS P03D
Morgantown, WV 26507-0880

³The CETER Group, Inc.
4952 Oakhurst Avenue
Gibsonia, PA 15044

ABSTRACT

The U.S. Department of Energy's National Energy Technology Laboratory has been developing the technology, infrastructure, and experience to implement large-scale carbon capture and storage (CCS) from a regional perspective through its Regional Carbon Sequestration Partnership (RCSP) program, which consists of seven regional partnerships. Members of these partnerships have formed the Water Working Group (WWG), whose goal is to address the concerns of the public and industry regarding CCS technology and its potential relationships with water resources. Members of the WWG represent different regions of North America, and each region has its own unique set of opportunities and challenges related to water resources and CCS.

The mission of the WWG is provide a sounding board between researchers, industry, and public and private entities on the challenges and opportunities related to water and CCS. To this end, the group has produced a white paper, presentations, and a growing series of fact sheets on the interrelationships and issues related to the CCS and water nexus. These relationships include increased water use in industrial sources generating CO₂, additional water use for capture, compression and transportation processes, and interactions with water found in deep, confined formations targeted for storage. Other issues such as the development and application of new monitoring technologies, evolving regulatory policies, and changes in public perception contribute to the growing complexity of this nexus. WWG members will continue to provide valuable insight on these issues through continuing and new research efforts as part of the RCSP program.