Best Practices in CCS Communication and Outreach

Lessons from the Regional Carbon Sequestration Partnerships

Sarah Wade, AJW, Inc.

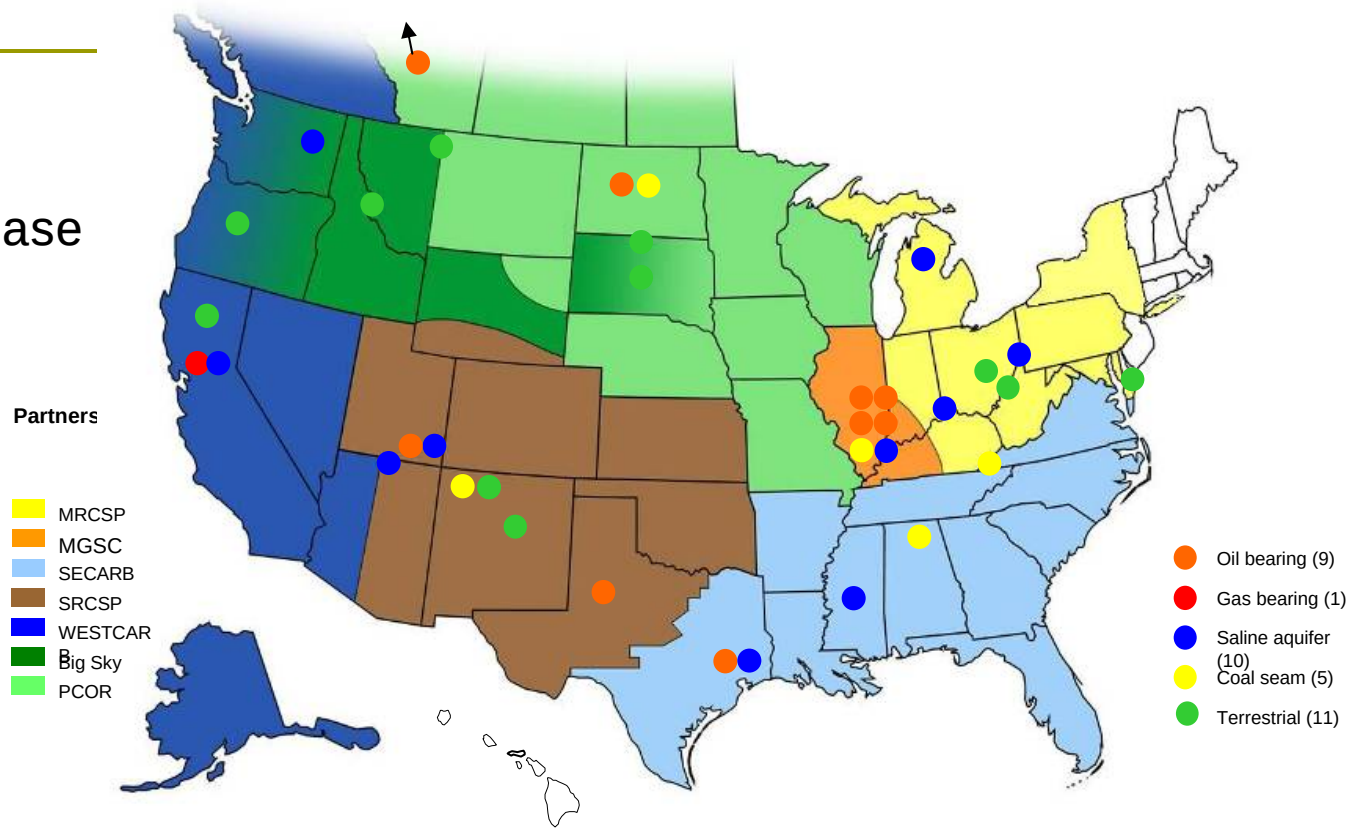
June 2, 2008

Regional Carbon Sequestration Partnerships

Three Phases:
Characterization Phase
Validation Phase
Deployment Phase

Representing:
>350 Org's
41 States
4 Canadian Prov's
3 Indian Nations

Addressing:
Permitting
Regulatory framework
Public Acceptance
Liability
Best Practices



Summary

- Public outreach and education an essential component of each RCSP mission
- Each RCSP has developed a team approach consisting of technology and communications experts
- Phase I and II provided significant “learning by doing” in approaches and materials
- Lessons for Phase III:
  - Learn about stakeholders’ concerns and perceptions
  - Develop materials that speak to the stakeholders (not just to the research team)
  - Trust – gained through openness and transparency key

Challenges in CS Public Outreach

- Small project size
- Complexity of sequestration and climate change
- General skepticism towards new technology
- Hornet's nest syndrome
- Negative experiences with or distrust in government institutions
- Perceived resource competition with renewable energy or energy efficiency
- Well publicized CO2 release incidents

Partnership Outreach Activities

- Research and Coordination:
  - Focus groups and interviews with stakeholders and partners
  - Mediated modeling
  - Outreach Working Group (OWG) calls
- General Outreach:
  - Websites
  - Information materials – Atlas, fact sheets, posters, videos, models
  - Briefings – civic groups, trade associations, policy makers, ENGOs
  - Media – television and print
  - Education – curricula for grades K-12
- Project Outreach:
  - Detailed project materials – geologic columns, well diagrams, photographs, “Dear Neighbor” packets
  - Targeted communication – neighbors, information open houses at the local level

“Public Outreach” an Imprecise Term

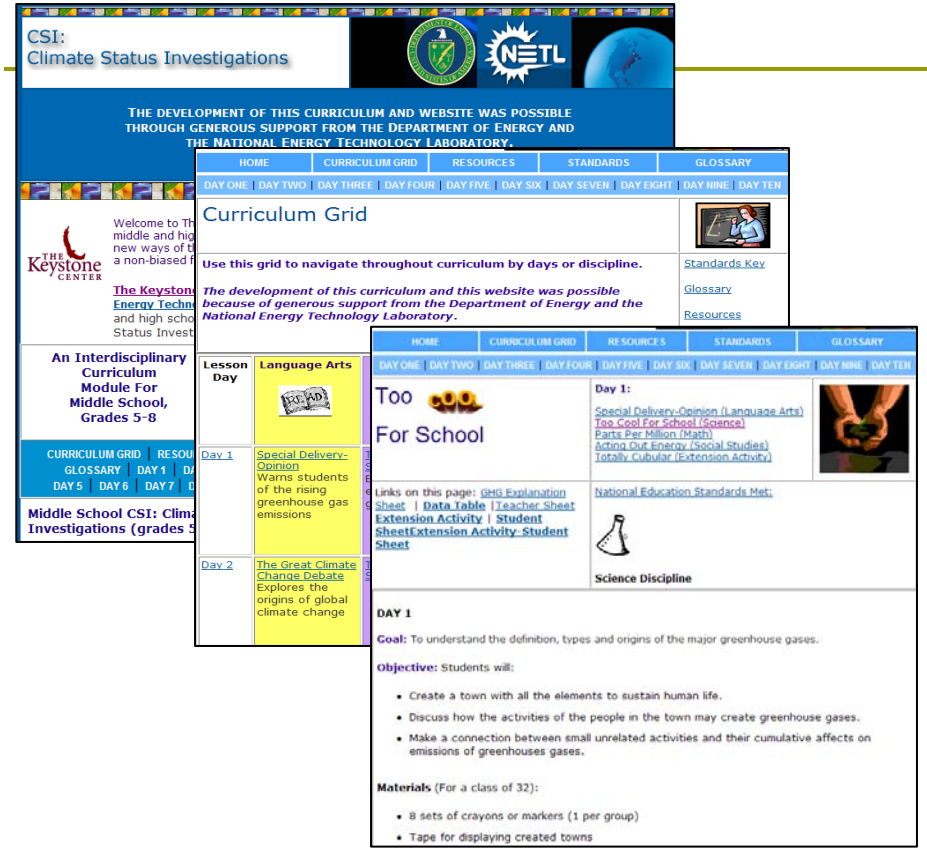
- What it is:
  - Outreach - extending services or assistance beyond current or usual limits
  - Engagement – involving people and seeking their commitment
  - Building Trust & Respect – developing confidence in the process through actions, openness and responsiveness
- What it is not:
  - Public Relations – inducing the public to have understanding for and goodwill toward a person, firm, or institution
  - Sales/Advocacy – persuading or influencing to a course of action or to the acceptance of something
  - Marketing - the process or technique of promoting, selling, and distributing a product or service

Websites

MRCSP
MIDWEST REGIONAL CARBON SEQUESTRATION PARTNERSHIP
Michigan Basin Project Update
Other recent updates
Managing Climate Change and Securing a Future for the Midwest's Industrial Base
Home
Join Our Mailing List
Learn about Climate Change and Carbon Sequestration
About MRCSP
In the News
Phase I Report
Phase II Geologic Demonstrations
Phase II Terrestrial Demonstrations
What's New
Contact Us
Fact Sheets
Links & Resources
Presentations
Members Area
Midwest Geological Sequestration Consortium
Phase III Project Awarded
The Midwest Geological Sequestration Consortium (MGSC), and the Illinois State Geological Survey (ISGS) have been awarded a $66.7 million contract from the U.S. Department of Energy to conduct a Phase III large-scale sequestration demonstration project in the Mt. Simon Sandstone. The MGSC, ISGS, and Archer Daniels Midland Company (ADM) will work together on this carbon sequestration project, which will involve the capture and storage of carbon dioxide from ADM's ethanol plant in Decatur, Illinois. The project is designed to confirm the ability of the Mt. Simon Sandstone, a major regional saline reservoir in Illinois, to accept and store 1 million metric tonnes of carbon dioxide over a period of three years. The carbon dioxide will be provided by ADM from its Decatur, Illinois, ethanol plant, and the project will be located on ADM's Decatur property. Carbon dioxide from ADM's
njected into wells drilled to depths exceeding 6,500 feet into the Mt. Simon Sandstone, where the compressed, liquid-like carbon in the pores of the rock formation, which is presently saturated with water that is several times saltier than sea water. The ess of the storage will be monitored by the MGSC through an extensive Monitoring, Mitigation and Verification (MMV) program. in spring 2008 with the drilling of the injection well. Environmental monitoring will begin in October 2008 to collect background ar's time. The sequestration and injection of carbon dioxide is scheduled to begin in October 2009 and should conclude in 2012. ect will be funded by $66.7 million from the U.S. Department of Energy over a period of seven years, supplemented by cofunding ger Carbon Services, and other corporate and state resources.
BIG SKY CARBON
SEQUESTRATION PARTNERSHIP
A NEW ENERGY FUTURE FOR MONTANA, IDAHO, WYOMING, SOUTH DAKOTA, THE PACIFIC NORTHWEST, AND THE NATION
Partner Log-In
Home
Overview
Carbon Atlas
Terrestrial
Geologic
GIS
Publications / Reports
Presentations
Partners
SWP
SOUTHWEST PARTNERSHIP
CO2 SEQUESTRATION
MEMBER LOGIN
How Does Carbon Dioxide Affect Global Climate Change?
When the Intergovernmental Panel on Climate Change (IPCC) released its Climate Change 2007 Report, it named carbon dioxide (CO2) the most important human produced greenhouse gas. The report confirmed that the high levels of CO2 in our atmosphere are caused by fossil fuel emissions and are a major contributor to global warming. The increased occurrence of extreme weather such as droughts, heavy precipitation, heat waves, and intensity of hurricanes and typhoons is a symptom of climate change.
Several options will be needed to moderate CO2 levels in our atmosphere. One approach to lowering atmospheric CO2 levels, called Terrestrial Carbon Sequestration, includes planting vegetation or enhancing an already present ecosystem to
logic Carbon Sequestration,
nd store it in rock formations
Southwest Carbon Partnership
Pioneers in the Carbon Economy
WEST COAST REGIONAL CARBON SEQUESTRATION PARTNERSHIP
westcarb.org
HOME
CONTACT US
PARTNER LOG-IN
Expand Menu | Collapse Menu
About WESTCARB
What Is Sequestration?
CO2 SEQUESTRATION
geologic transport
Sequestration: capture, transport, geologic, terrestrial
WESTCARB is a collaborative research project bringing together dedicated scientists and engineers at 70 public agencies, private companies, and nonprofits to identify and validate the best regional opportunities for keeping CO2 out of the atmosphere and thereby reducing mankind's impact on the climate.
PCOR Partnership
Plains CO2 Reduction Partnership
EERC
Home
EERC
Contact Us
Partners Only
About the Partnership
Carbon Sequestration, Climate Change, and CO2
Region
Publicly Available Products
Documentaries
Kids Only!
Links
What Can I Do?
Frequently Asked Questions
Events
Site Map
Sponsored in Part by the U.S. Department of Energy
What's New? 10/10/2007
PCOR Partnership Phase III Announced!
Phase II Field Validation Project Map with Links
DOE Streaming Video
Upcoming Events
CO2 sequestration, the capture and long-term storage of CO2, is emerging as a major strategy for addressing climate change concerns, but regional characteristics must be taken into account to ensure successful sequestration projects.
The Plains CO2 Reduction (PCOR) Partnership is a collaboration of over 65 U.S. and Canadian stakeholders that is laying the groundwork for practical and environmentally sound CO2 sequestration projects in the heartland of North America.
The PCOR Partnership is led by the Energy & Environmental Research Center at the University of North Dakota and is one of seven regional partnerships under the National Energy Technology Laboratory's
Sequestration in the News
Climate change bill heads for full Senate
Database revealing highest CO2 emitting power sources created
Southeast Regional Carbon Sequestration Partnership
SECarbon.org
about the partnership
partners
event schedule
about carbon dioxide and sequestration technologies
regional partnerships
partner area
contact us

Information Materials: Posters, Fact Sheets, Video

Educational Materials



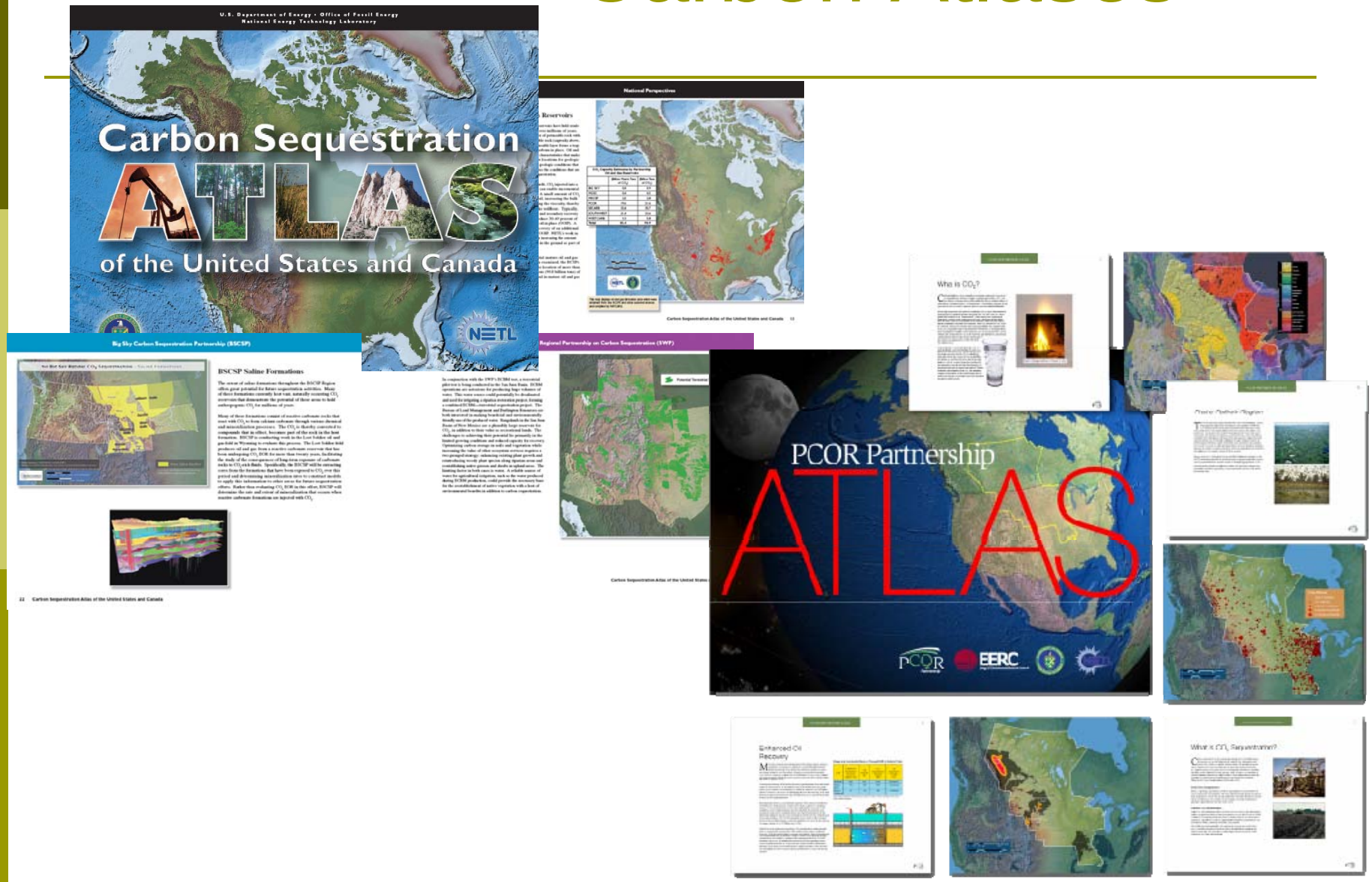
The Keystone Science School Curriculum trains teachers and gives detailed lesson plans and information: http://www.keystonecurriculum.org/

From the PCORP site, several links for educators including The Wisconsin materials http://www.uwsp.edu/cnr/wcee/keep/

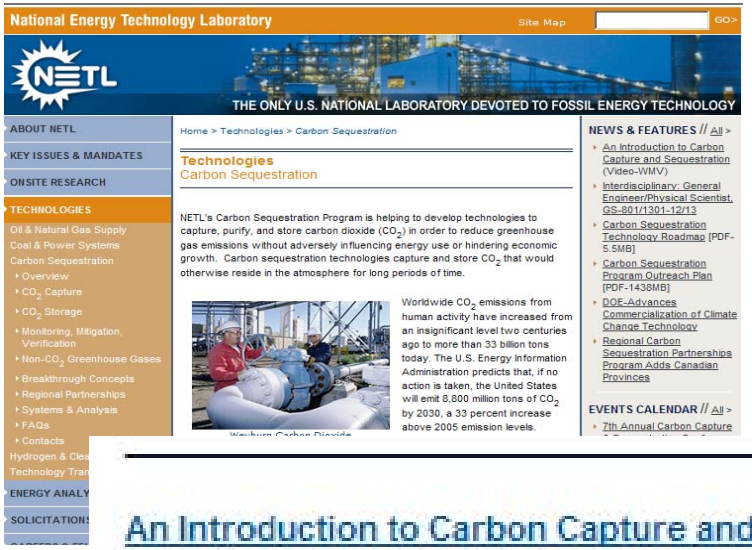
CCS Models

Where did the rock samples you are looking at come from?
How can we tell whether rocks are porous and/or permeable?
And... how can we tell if there is a layer of rock that is "tight" and would be a good cap or "seal" for a reservoir?
Do Rocks Have Holes?
Where do our underground natural resources like water, oil and gas reside?
What is porosity?
What is permeability?
Are all porous rocks permeable?

Carbon Atlases



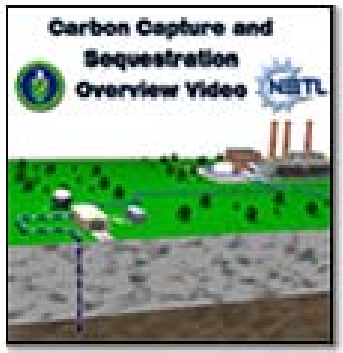
The NETL Carbon Sequestration Reference Shelf



NETL maintains a reference shelf on its carbon sequestration website. This contains materials such as the atlas, project portfolio descriptions, the sequestration newsletter, the carbon sequestration R&D roadmap and several other reports and links.

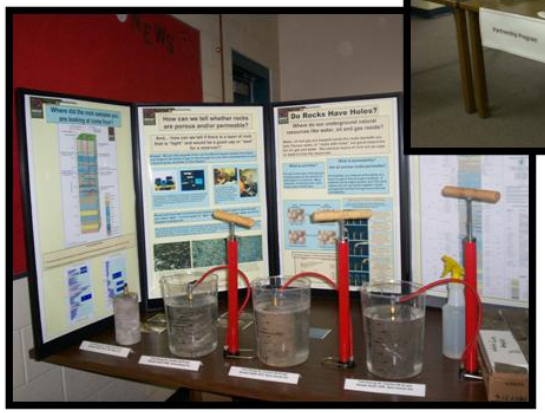
An Introduction to Carbon Capture and Sequestration (Video - WMV File)

This video was developed by NETL/DOE with significant input from the Regional Carbon Sequestration Partnerships' Outreach Working Group. It is intended to provide audiences with a general introduction to carbon sequestration. It also provides background information on climate change, the greenhouse effect and the role of carbon sequestration in an array of approaches for addressing climate change. In addition, the video describes the research initiatives of the Regional Partnerships.



http://www.netl.doe.gov/publications/carbon_seq/refshelf.html

Public Information Meetings



Hallmarks of Good Science Communication:

- Illustrates both the process and product of science
- Involves scientists in a substantial way
- Considers political climate and/or involves decision makers
- Uses multimedia/illustrations/interactivity
- Relates science to the everyday environment
- Avoids parochialism
- Views the topic from the audience's point of view
- Uses face-to-face methods
- Reaches out beyond the science attentive public
- Reaches out beyond the science attentive public
- Provides information in easily usable form
- Engages in research and performance evaluation

Source: NIST - http://www.nist.gov/public_affairs/bestpractices/conf_summary.htm.

Thank You!

- Sarah Wade – swade@ajwgroup.com
- Regional Carbon Sequestration Partnership Websites:

http://www.netl.doe.gov/technologies/carbon_seq/partnerships/partnerships.html