EERC Technology – Putting Research into Practice

Plains CO_2 Reduction (PCOR) Partnership

Third Annual Carbon Sequestration Conference
May 2004
Alexandria, Virginia

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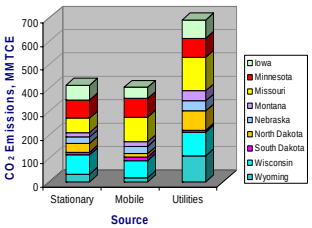
PCOR Partnership Region

Plains CO_2 Reduction Partnership – Partners

Regional Attributes

- **Nine states and two Canadian provinces**
- **Primary CO_2 sources in the PCOR Partnership region are coal-fired utilities**
- **Significant coal, oil, gas, coalbed methane, agriculture, and mineral-processing industries**
- **11% of the total U.S. CO_2 emissions**

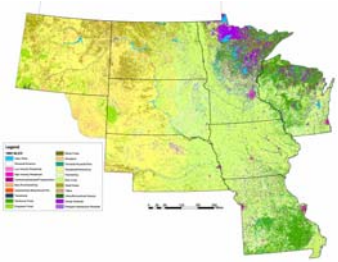


Geological Sequestration

- Great Plains Gasification – Weyburn CO_2 Utilization Project
- Other value-added sequestration options
  - Enhanced oil recovery
  - Enhanced coalbed methane
- Deep saline formations
- Lignite, subbituminous, and bituminous coals
- Depleted oil and gas reservoirs
- Coalbed methane production

Terrestrial Sequestration

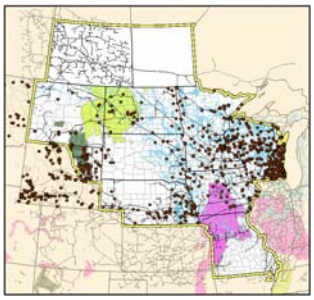
- North Dakota State University – low-moisture land management practices for carbon sequestration
- USGS – wetland carbon sequestration
- Regional assessment of land uses – an agricultural region



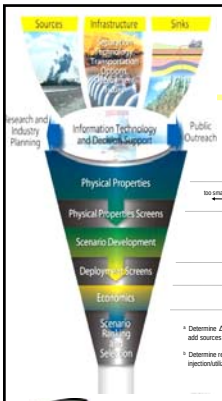
Sources – Sinks – Infrastructure

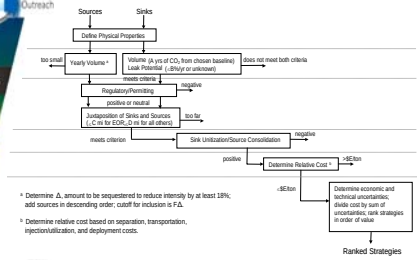
Interpretation of information is going to be extremely complex

Shown are:
- Natural gas pipelines
- Coal regions
- Alluvial and glacial aquifers
- CO_2 sources
- Political boundaries



PCOR Partnership Model Flowchart





Additional PCOR Partnership Products

- Investigation of advanced carbon sequestration technologies – mineralization, engineered swamps, …
- Planning for the future
  - FutureGen attributes
  - Emerging energy systems
  - Zero-emission technologies
- Strong focus on deployment issues
- 30-minute video introducing the public to CO_2 sequestration