U.S. Sequestration Program Activity Update

April 2006

CSLF Meeting

New Delhi, India

GOAL

Develop Technology Options for GHG Management That...

- **Are safe and environmentally acceptable**
- **Provide Cost-Effective Separation and Capture**
- **Sequestration/Storage R&D Goals**
  - Be able to predict CO_2 storage capacity with +/- 30% accuracy
  - Develop best practice reservoir management strategies that maximize CO_2 trapping
- **Monitoring, Mitigation & Verification – CO2 storage permanence**

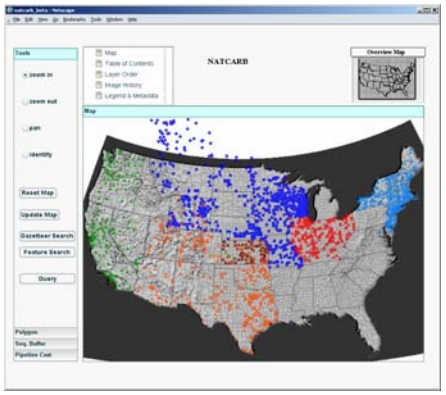
2006 Programmatic Highlights

- **National Research Council/National Academy of Sciences Review of Program (Sept - Dec 2005)**
- **U.S. Peer Review of Projects in the Sequestration Program (Sept-Oct 2005)**
- **EPA Engagement On Regulations for Sequestration**
  - Short-Term Underground Injection Class (UIC): Class V Experimental for projects
  - Long-Term UIC: New Well Class
- **Programmatic Environmental Impact Statement (PEIS)**
  - Draft and public meetings in 2006
  - Final PEIS 2Q07
  -
- **National Sequestration Conference**
  - Release of Annual Programmatic Roadmap
  - Release of Annual Portfolio Update

Regional Partnership Update
"Developing the Infrastructure for Wide Scale Deployment"

Phase I (Characterization)

- 7 Partnerships (40 states)
- 24 months (2003-2005)



Phase II (Field Validation)

- 4 years (2005 - 2009)
- All seven Phase I partnerships continued
- $100 million federal funds
- $45 million in cost share

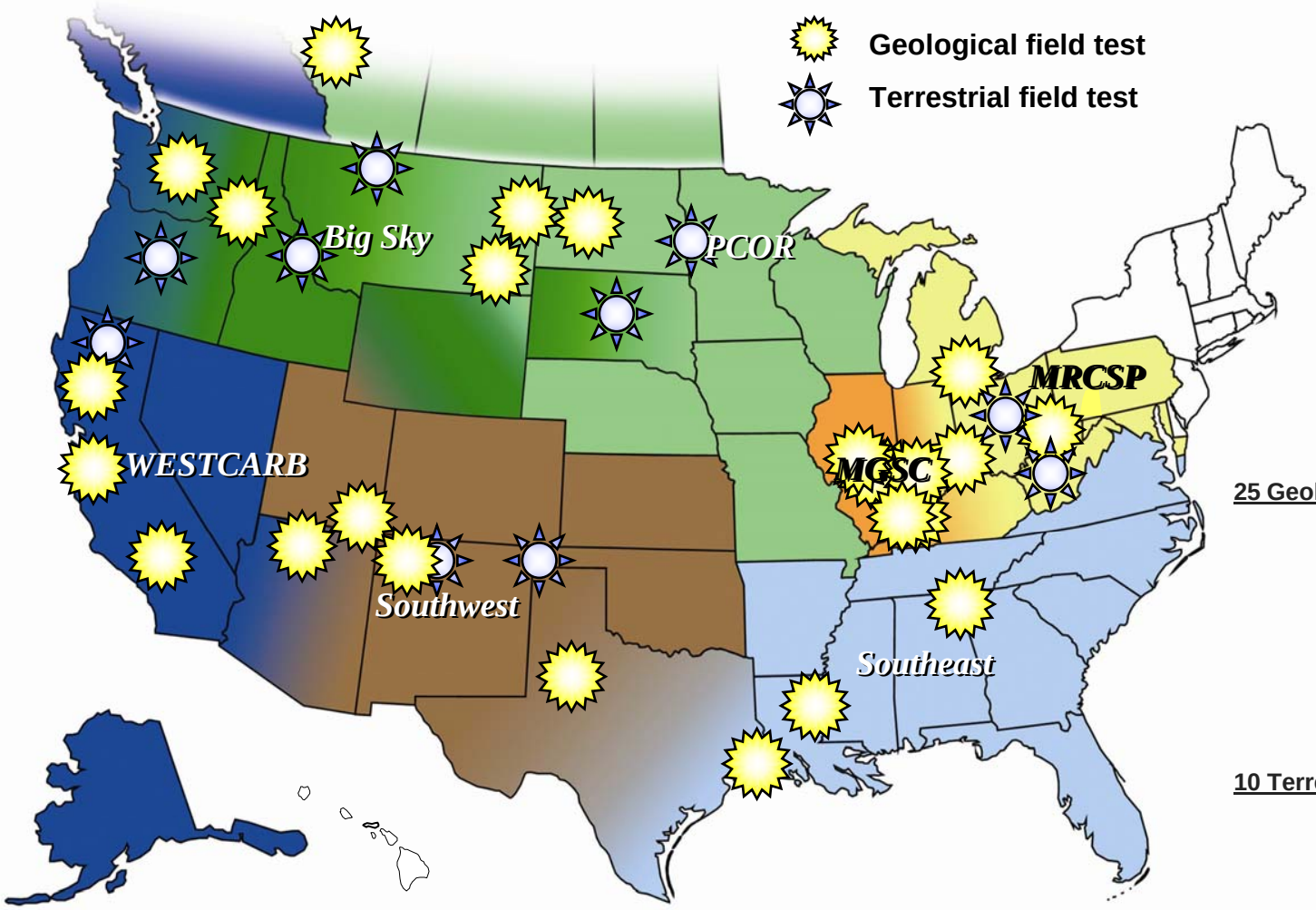
Phase III (Deployment)

- 4 years (2009-2013)
- Large Scale Injection Tests

Phase I Highlights

- **Thousands of Years of Storage Capacity Identified during Characterization Phase**
  - Coal Seams and Shales- ~ 18 GT
  - Oil and Gas Reservoirs - ~27 GT
  - Saline Formations - >5,000 GT
- **Value Added Products in Potential Sinks**
  - Oil – 16 billion barrels of oil during sequestration in favorable fields
  - Coal Seams – 126 TCF CBM during sequestration in unmineable coal seams
- **NATCARB and Regional Atlases Available Online**

Phase II Field Tests



25 Geologic Injection Tests

- 4 EOR/Saline
- 6 Saline reservoirs
- 7 ECBM/EGR
- 8 depleted oil field sequestration tests with EOR

Injecting between 1,000-525,000 tons of CO2

10 Terrestrial Tests

- 4 Forestry
- 4 Agriculture no-till
- 1 Mineland restoration
- 1 Westland/Prairie Restoration