



WESTERN GOVERNORS' ASSOCIATION

Public Perception of Carbon Sequestration:

Presentation to the University of
Wyoming

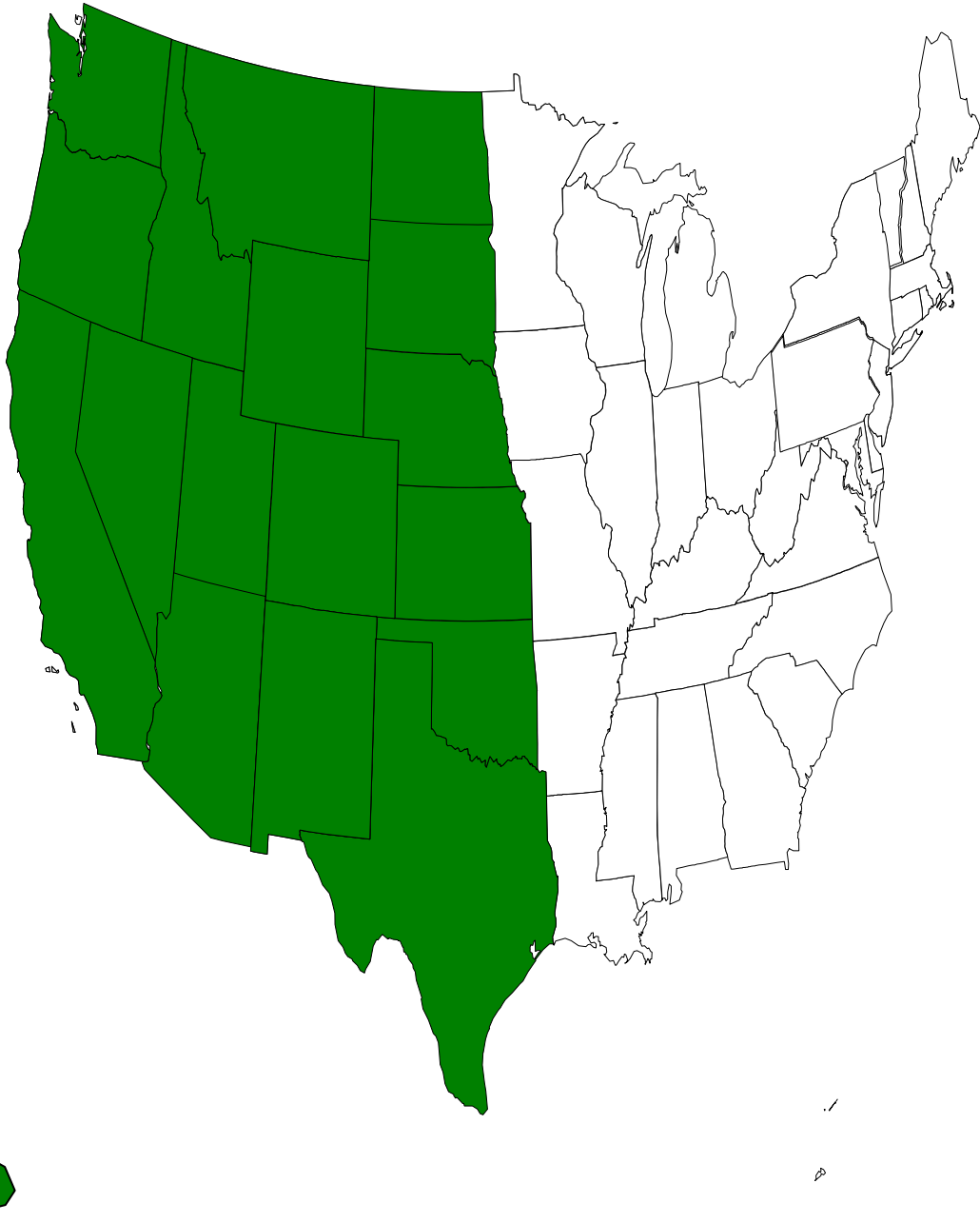
April 4, 2007

Cheyenne, Wyoming

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Western Governors' Association (WGA)



CDEi - Clean, Diversified Energy Initiative



Western Governors' Goals

1. Add 30,000 megawatts of clean energy by 2015
2. Increase energy efficiency 20% by 2020
3. Meet transmission needs over the next 25 years

CDEi

Advanced Coal



Coal is a key part of a clean energy future

Support technologies that will approach zero emissions in the future

The West must get multiple pilot facilities that demonstrate advanced technologies like IGCC located at high altitude and using Western coal

Support the demonstration of technologies for the capture and storage of carbon

Carbon Sequestration Activities

Western Partnerships - outreach

World Resources Institute – regulatory
and liability issues

Columbia University – Global
Roundtable on Climate Change and
Coal States Initiative

WGA's Transportation Fuels for the
Future – Coal to Liquids

Awareness Growing

Major Coverage of Climate Change and CCS in 2007

- IPCC Report
- MIT Report
- Carbon Atlas
- Congressional Hearings

Graphic: DENVER POST
 “Carbon dioxide research goes underground”
 2/17/2007

Out of sight, but not out of mind, buried carbon dioxide may unearth a new way to produce clean energy.

The Colorado Geological Survey is participating in a pilot program that will help reduce greenhouse gas by capturing it and injecting it deep underground for storage and enhanced recovery from depleted oil and gas fields. At one of these test sites, the 75,000 tons of CO₂ planned for the San Juan Basin pilot demonstration would be equivalent to removing about 15,000 cars from the road for one year. Here's a look at the three methods of use:

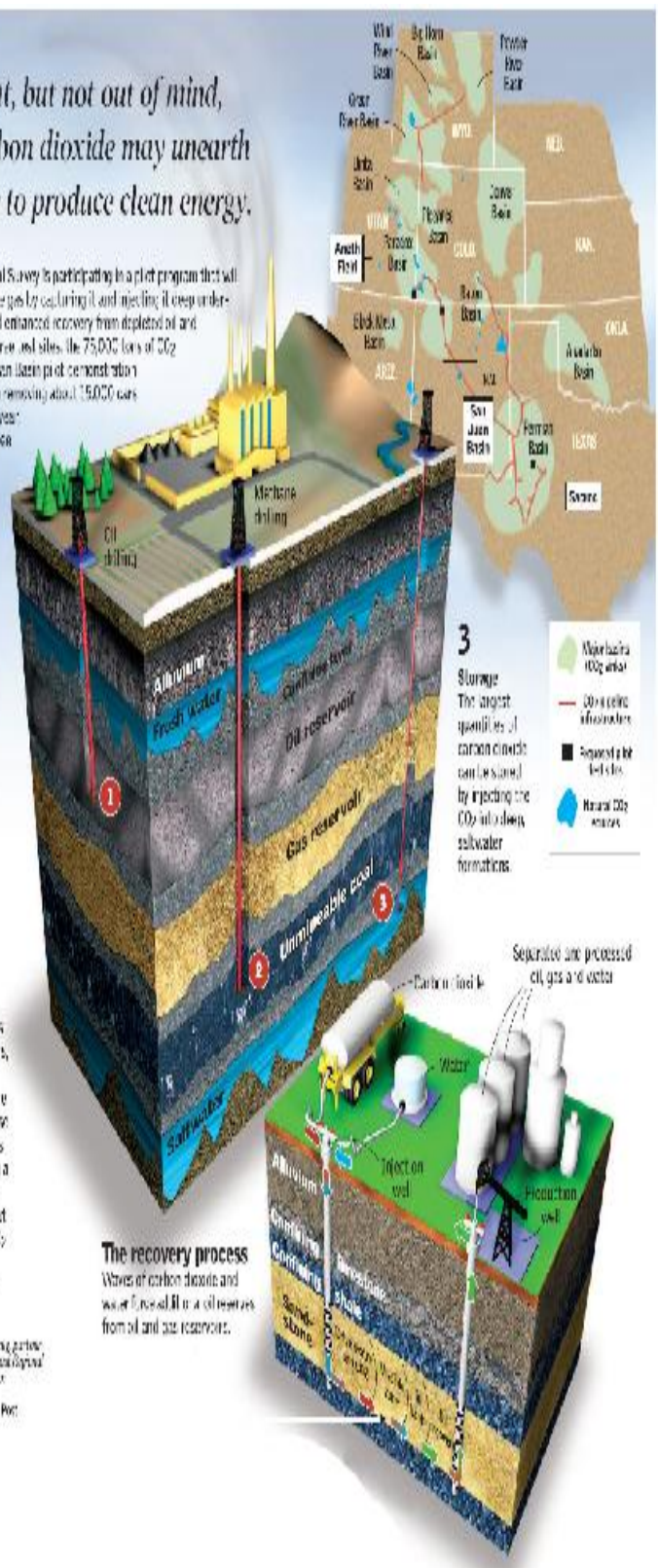
1
Oil recovery
 When carbon dioxide and water are injected into oil reservoirs, they help "push out" reserves of oil that would otherwise remain unrecovered. This can extend the life of an oil reservoir by years, in some cases producing many millions of barrels of extra oil.

2
Methane recovery
 When carbon dioxide is injected into coal seams, it binds to the coal, releasing more methane for recovery. A future use being studied by others would include injecting a mixture into the CO₂-enriched coal seam that would consume the CO₂ and produce new quantities of methane.

The recovery process
 Waves of carbon dioxide and water force oil in a oil reserves from oil and gas reservoirs.

Source: Colorado Geological Survey, part of the Government of Energy's Southwest Regional Technology and CO₂ Initiative.

Illustration: Marlene, The Denver Post.





Excerpt on Westcarb project to sequester 2,000 metric tons of CO₂ beneath tomato field.

The Good, The Bad The Mixed Message

*"Would that be safe? Carbon dioxide can be **lethal**, a fact **grimly illustrated** in 1986 when a giant surge of the stuff bubbled up from Lake Nyos in Cameroon, **asphyxiating 1,700 people** as they slept. Nonetheless, **investigators** involved in the Thornton project **insist there is little cause for worry.**" The fields held oil and gas for millennia," says Larry Myer, an earth scientist with Lawrence Berkeley National Laboratory in Berkeley, Calif., and the project's director, "so geologically **we know***



Common Questions— Geologic

- Is it safe?
- Why here?
- Will it work and make a difference?
- What's in it for us?

Know Your Audience

Effective outreach is designed around the information needs and perceptions of the recipients, not the proponents

You must build affinity/trust with your audience

Many pilots are in rural areas; history with particular industries, regulatory agencies, or natural events may evoke strong opinions

At a public meeting, your audience may be many audiences



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**For More
Information**

www.westgov.org

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