WESTCARB Annual Business Meeting

Public Outreach Lessons to Date

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WESTCARB's Public Outreach Committee

Name	Organization	Role
Sally Benson	LBNL	Committee Chair; Spokesperson (shared with WESTCARB Technical Director and others)
Martha Krebs	CA Energy Commission	Executive Guidance/Strategy; Federal Policymaker Contacts
Reid Edwards	LBNL	Strategy/Policy Advisor
Rich Myhre	BKi	Committee Coordinator; Presentation Materials, Website
Barry Biediger	Utah AGRC	GIS Data Management and Web Tools; NATCARB Liaison
Pilot Host Personnel	Pilot Hosts	Partners in Strategy Development and Implementation

"Carbon Sequestration" Is a Big Word

- "CO_2 capture and storage" is a bit more descriptive, but "sequestration" is in the established lexicon
- Although everyone has heard of global warming, not everyone understands the role of CO_2 (people sometimes confuse global warming with the ozone hole and think CFCs are the primary culprit)
- Many people recognize fossil fuel use contributes to climate change, but are not generally familiar with the carbon cycle and its timeframes
- Few people (<5%?) are familiar with carbon sequestration—public opinion largely unformed

Background—CO_2 in Our World

- Carbon dioxide (CO_2) is an essential part of nature's carbon cycle. Plants and plankton take up CO_2 for photosynthesis, and people and other animals exhale CO_2.
- CO_2 is widely used commercially; it puts the fizz in soda pop and the head on a glass of beer, and is also used in fire extinguishers and many industrial applications
- CO_2 is a primary product of combustion; it is released whenever fuel or waste is burned. CO_2 is also produced in manufacturing processes, such as the making of fertilizer or gasoline. We produce far more CO_2 than we need.
- Accordingly, human activities are increasing the amount of CO_2 in the atmosphere

Background—CO_2 and Climate Change

- CO_2 in the atmosphere limits the escape of heat from the Earth's surface to space, keeping the planet hospitable. Without this so-called "greenhouse effect," we would experience daily temperature swings of hundreds of degrees.
- Increased CO_2 concentrations in the atmosphere have been linked to warmer global average temperatures. Scientists call it "climate change" instead of "global warming" because higher CO_2 concentrations can change not only temperature, but also rainfall, storm intensity, and other aspects of climate.
- Scientists predict that climate changes in the Sierra and Cascades will include more winter rain and earlier mountain snowmelt

Background—CO_2 Capture and Storage

- Coal, oil, and natural gas represent CO_2 removed from the atmosphere millions of years ago by plants and plankton. Burning these fuels releases this "stored CO_2." If we could capture and "re-store" the CO_2 produced during combustion, we would curb atmospheric CO_2 buildup and climate change. This concept is called "carbon sequestration."
- With respect to CO_2 capture, techniques to separate CO_2 from other gases are available commercially, but need to be re-engineered to reduce costs before they can practically be applied to large industrial "sources" such as power plants
- For CO_2 storage, many secure geologic formations—such as the types that hold oil and gas—appear suitable for storing CO_2 for millennia. Field tests are needed to determine how to best use such formations for captured CO_2.

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

Public Perception Research

- Led by University of California–Berkeley; applies "social science" principles
- Coordinated activity with two other Regional Partnerships
- Will involve pilot community (Thornton, CA) and non-pilot/"control" communities
- Methods may include focus groups and surveys
- Results will guide public outreach strategies/materials

Common Questions—Geologic

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

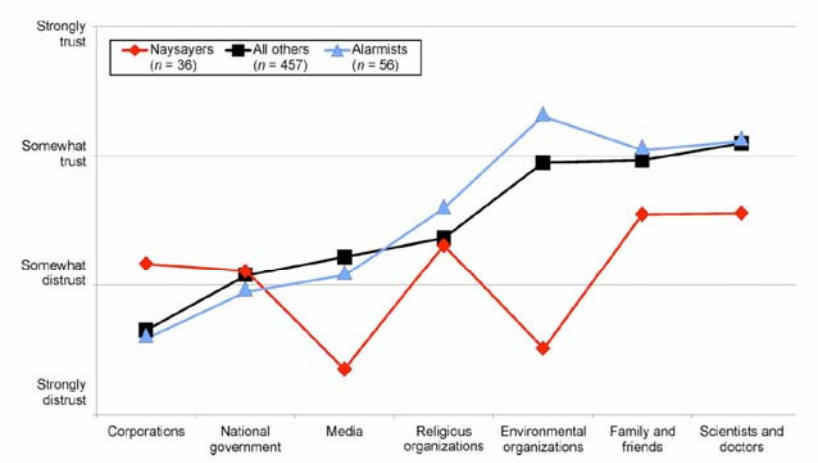
Common Questions—Terrestrial

- Will this add regulatory burden and/or restrict my land management options?
- What will it cost?
- What will I have to do to qualify for marketable carbon credits?
- Parallel set of questions for public land managers

Watch Your Analogies

- Injection wells will fall under USEPA/state UIC programs, and Class I (hazardous waste) wells may offer liability/insurance precedents, but avoid creating perception that CO_2 is a "waste" we're "dumping"
- CO_2 needs to be stored safely for a long time, and could in theory be extracted at some future time for re-use—like spent fuel rods—but any nuclear analogy is fraught with public perception risk
- We're recycling the fossil fuel after energy extraction

Who Does the Public Trust?



Source: Dr. Anthony Leiserowitz, Decision Research, ecotone@uoregon.edu

Third-Party Endorsements

- Especially valuable for non-technical audiences and those unfamiliar with carbon sequestration
- Assure third party is locally perceived as trustworthy
- Need them to speak on your behalf—you give up some control of the message
- Need to find mutual interests to generate enthusiasm

Public Meeting Experiences

- Rosetta geologic pilots (Thornton, CA)
- Shasta County terrestrial pilot (Anderson, CA)

Media Experiences

- Media inquiries can disrupt public outreach strategies; you don't always get attention when you want it
- The story will never be error-free; be satisfied if main messages come through accurately
- Your quotes will be balanced by someone who opposes or is skeptical about your project
- Headlines aren't written by reporters; they may end up more or less favorable than the story
- Broadcast media lives for sound bites
- Although you give up control, it is cost-effective and provides an element of third-party objectivity

WESTCARB Website Overview

- www.westcarb.org; mirror site maintained at www.bki.com/westcarb
- Project explanation in plain language; primer on carbon sequestration
- List of partners
- Information on Phase I results and Phase II activities
- Links to news stories on WESTCARB and carbon sequestration
- Library of WESTCARB papers and presentations

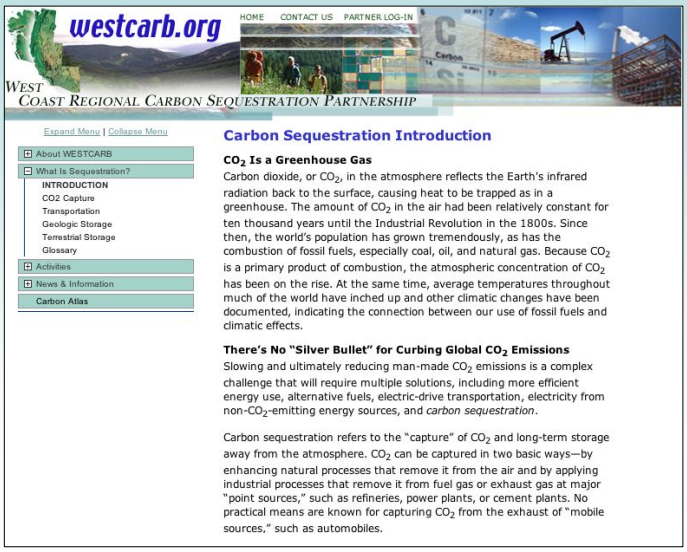
Website Overview (cont'd)

- Access to WESTCARB GIS "carbon atlas"
- Password-protected area for partners
  - Contact lists
  - Project documents, such as Phase I reports
  - Calendar of WESTCARB conference calls and meetings
  - Templates for PowerPoint presentations
  - Links to DOE resources and other Regional Partnerships

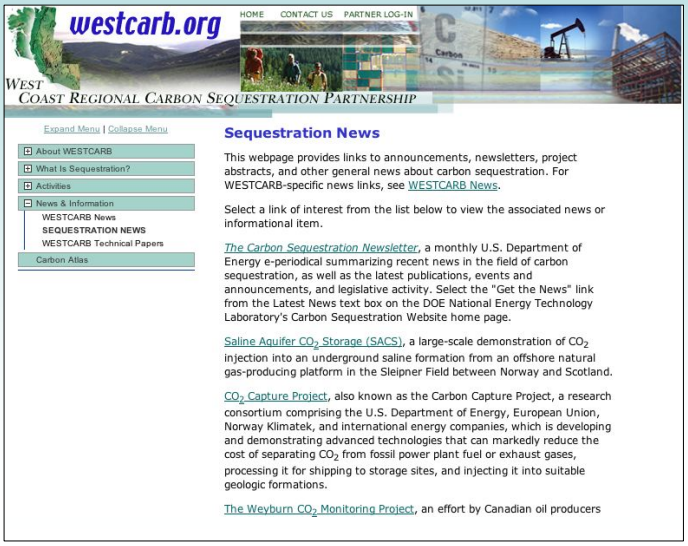
westcarb.org Home Page

westcarb.org Project Overview

westcarb.org Sequestration Primer



westcarb.org Sequestration News



westcarb.org Carbon Atlas Home Page