Sonoma Biochar Initiative

Growing Healthy Soils
Redirecting Carbon

SONOMA ECOLOGY CENTER

Fire, Water, & Carbon Sequestration

David Morell, PhD. & Raymond Baltar, MBA

Closing the Circle

Integrating Disparate Responses to California's Critical Environmental Challenges: Energizing the "Missing Link"

BIOCHAR

These interrelated problems can be better addressed together rather than separately. How can we best do this?

Collaboration

Forest to Farm

Farm to Forest:

- Natural Resource Management
- Renewable Energy Production
- Valuable Coproducts
- Agricultural & Industrial Benefits
- Job Creation
- Carbon Sequestration

66 Million Dead Trees

Save & Convert Existing Biomass Plants

Fast Track Use of Smaller Technologies

“Movable” thermal conversion systems

Mobile Air Curtain Burners

Fast Track Use of Smaller Technologies

Moxham Kiln

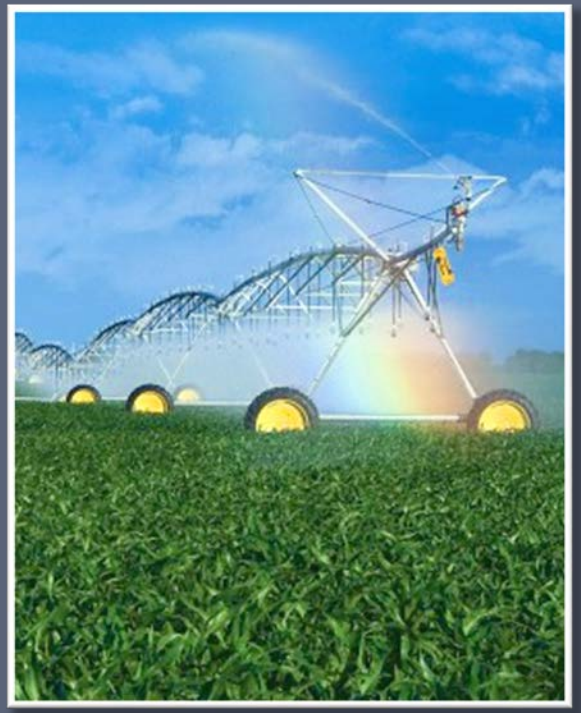
Kelpie's Flame-Cap Kiln

The Conservation Burn

“As I was driving over the hill from the fire station to watch the demonstration in person all I could see was the heat column—there was no smoke at all. I couldn’t believe it!”

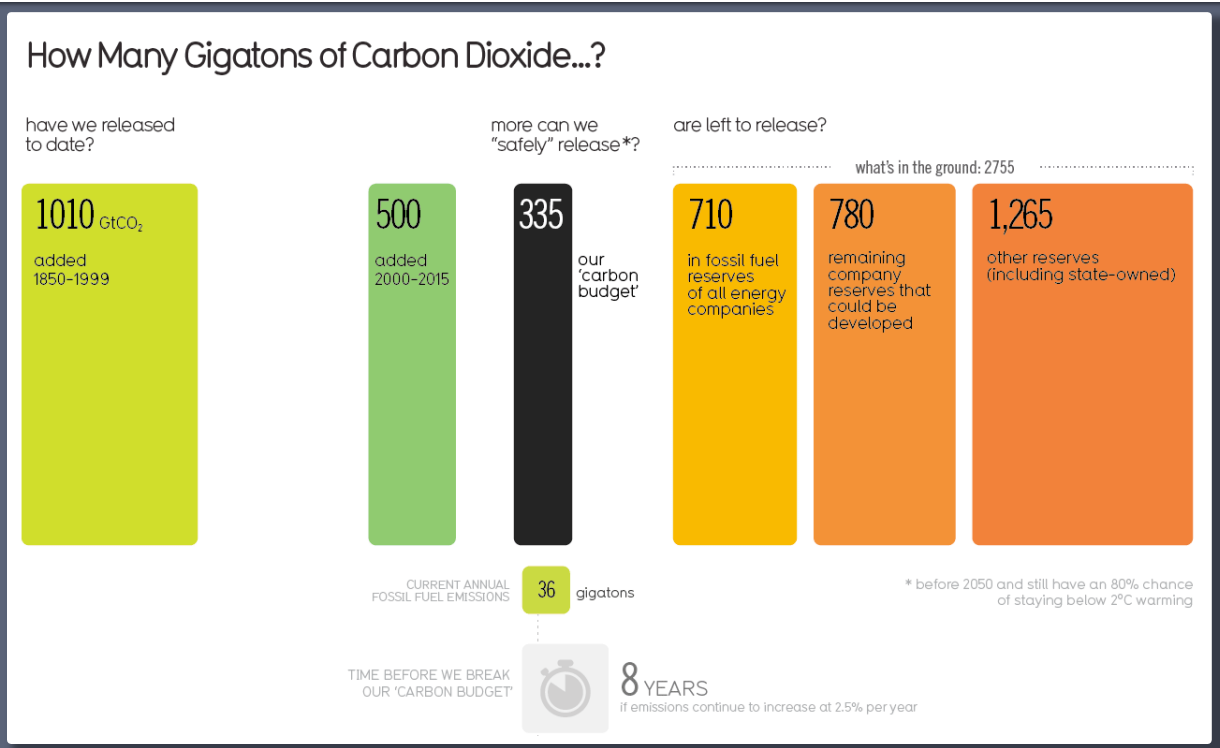
Schell-Vista Fire Chief Ray Mulas

Agricultural Water Crisis

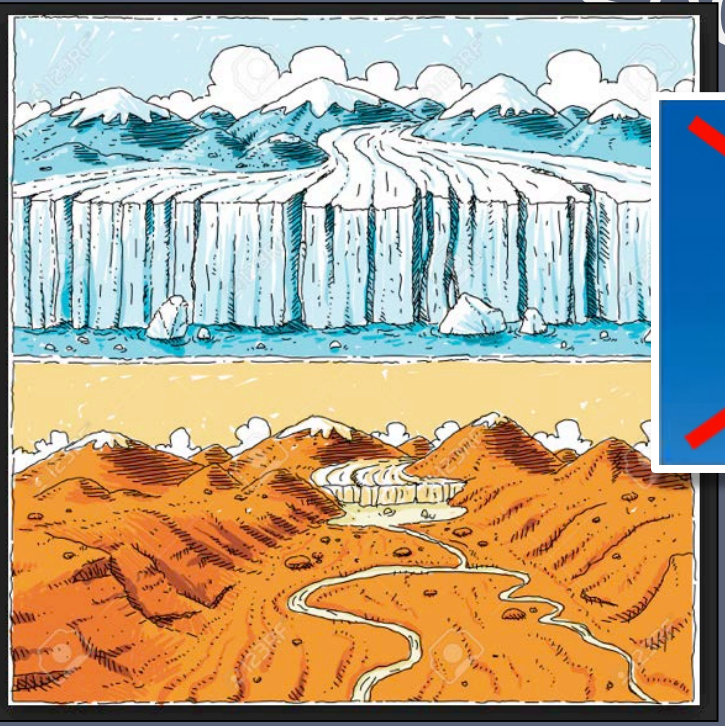


Agricultural Water Crisis

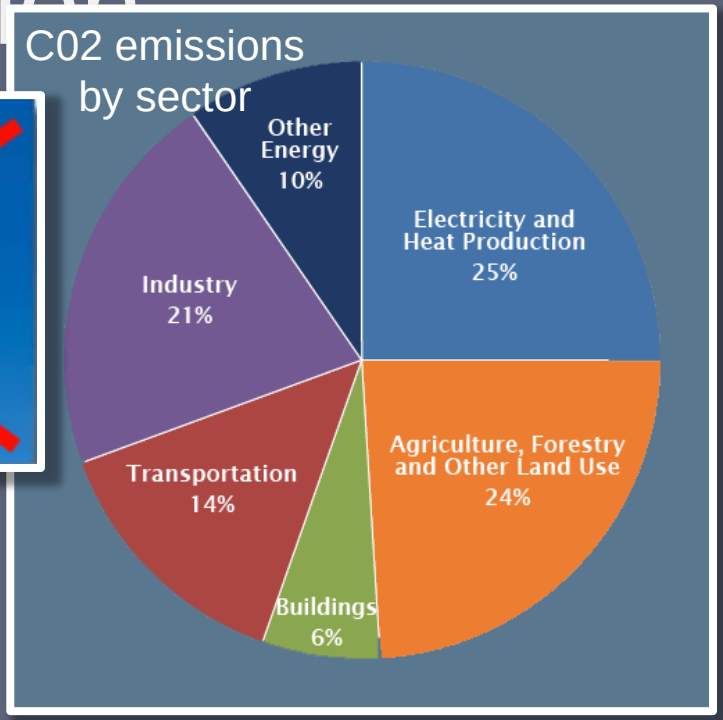
Climate Change/Carbon Sequestration



Climate Change/Carbon Sequestration



Glacers are receding at a record pace



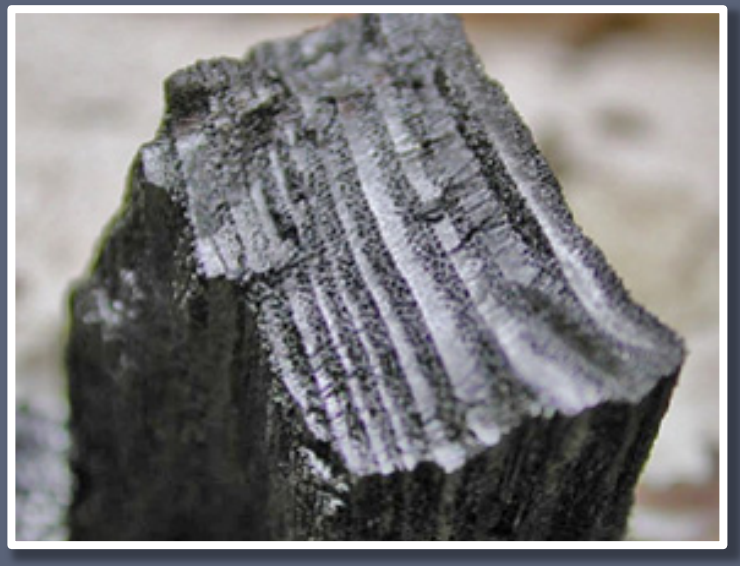
CALIFORNIA BIOCHAR ASSOCIATION

Call to Action: Strategies and Next Steps

* Support and advocate for efforts at the state level to keep most of the existing biomass to energy plants operational.
* Secure more funding from state agencies or private foundations for large-scale field trials to demonstrate biochar applications throughout California agriculture. Support current State efforts to prove biochar's efficacy in agriculture.
* Expand existing efforts to create a new California Biochar Association to share information
* Fast track funding and special permitting of promising innovative technologies that could be used to process dead trees without trucking them out of the forest
* Give presentations to stakeholders in high hazard zone and farming communities detailing the integrated and positive aspects of biochar production and use.

Call to Action: Strategies and Next Steps

- And most importantly, look at California's problems with tree mortality, water shortages, and climate change as problems (and opportunities) that are interrelated, and that biochar production and use offers one significant way we can address them all, helping to close one circle of sustainable actions that will have a positive ripple affect on our communities, our economy, and our environment.



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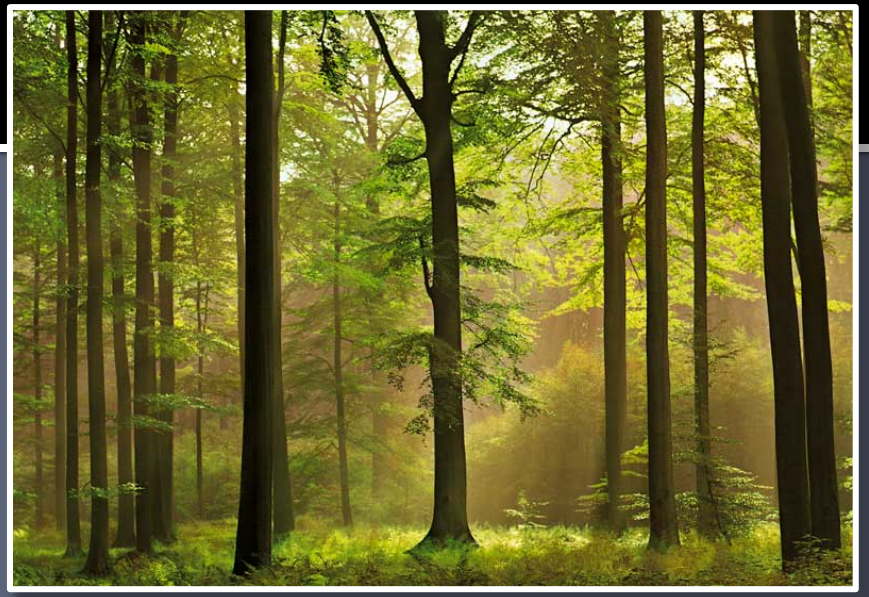

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Thank you!