

CDR: Policy Protections for Climate and Communities



Climate Risks of DAC and CCUS

- Use carbon for EOR (as the state's LCFS and federal 45Q incentivize)
- Opportunity cost—generally very expensive
 - DAC and CCS are unlikely to benefit much from economies of scale



Climate Risks of BECCS

- Bioenergy Carbon Capture and Storage
 - A shell game with unrealistic assumptions
 - Very expensive and inefficient
 - Phony “reductions” that hide real emissions
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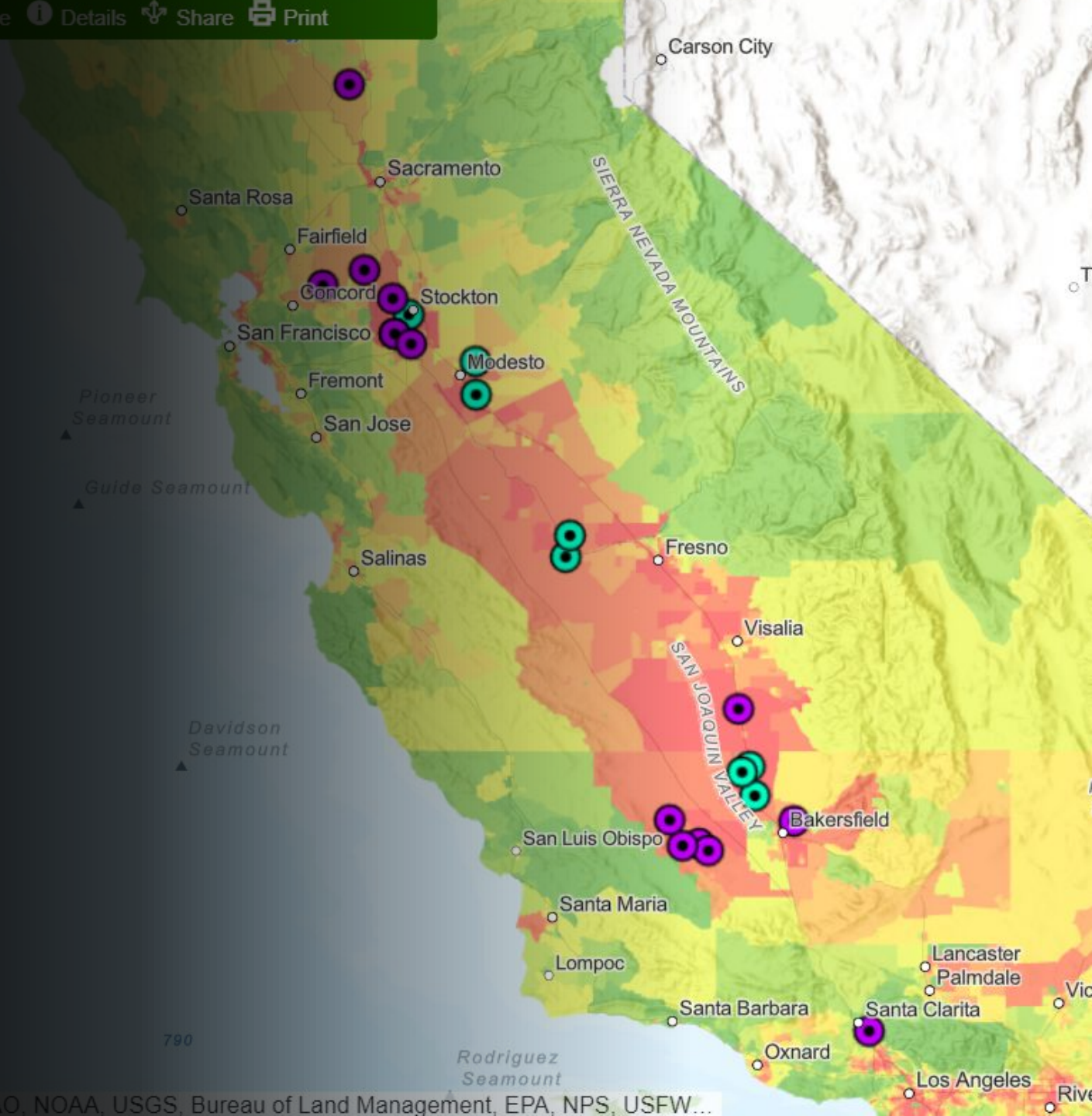
Climate Risks and Policy Protections

Risk	Protections
Moral hazard/mitigation deterrence	<ul style="list-style-type: none">• No offsets
Unless done with solar/wind and storage, most likely net positive; uses a <i>ton</i> of energy. At scale, would deny these resources to the grid.	<ul style="list-style-type: none">• Full lifecycle analysis to ensure net reductions in carbon• No EOR• Hydrogen's "three pillars" for DAC• Biomass is bogus and shouldn't be credited as CDR
Opportunity cost	Limit public spending



Ensure a Strong CARB SB 905 Rulemaking

- Communities need strong protections!
- Dozens of projects coming to the Valley and across the state
- No projects should proceed until rules are in place!



Per SB 905:

39741.1. (a) The state board shall...(3) **Ensure that all [CCUS/DAC] projects include the following, as appropriate:**

- (A) **Strategies to minimize, to the maximum extent technologically feasible, copollutant emissions** from [CCUS/DAC] facilities... to ensure that the use of [CCUS/DAC] does not have an adverse impact on local air quality and public health, particularly in low-income and disadvantaged communities.
- (B) Strategies to ensure that [CCUS/DAC] projects minimize, to the maximum extent technologically feasible, local water pollution or air pollution from construction- and transportation-related impacts...

...

(c) The state board shall adopt regulations to implement this section





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And yet...

- CARB has received \$7.2M to regulate CCUS and CDR, but has accomplished nothing meaningful.
- In a recent BCP, CARB requests millions more, but, in the BCP's three-year plan, CARB does not commit to initiating this mandated rulemaking.
- CARB admits to violating the law, blames lack of resources, requests additional resources, and then states that, even if they get those resources, they may not follow the law.

Instead...

- CARB must initiate the rulemaking under HSC 39741.1 ASAP.
- We are recommending the following language to the legislature:
 - 39741.1.(g) No state or local agency, including but not limited to air quality management districts, shall issue any permit for any carbon dioxide capture, removal, or sequestration project until rules are in effect to effectuate 39741.1(a)(3).
- Alternatively, we can turn to the courts.



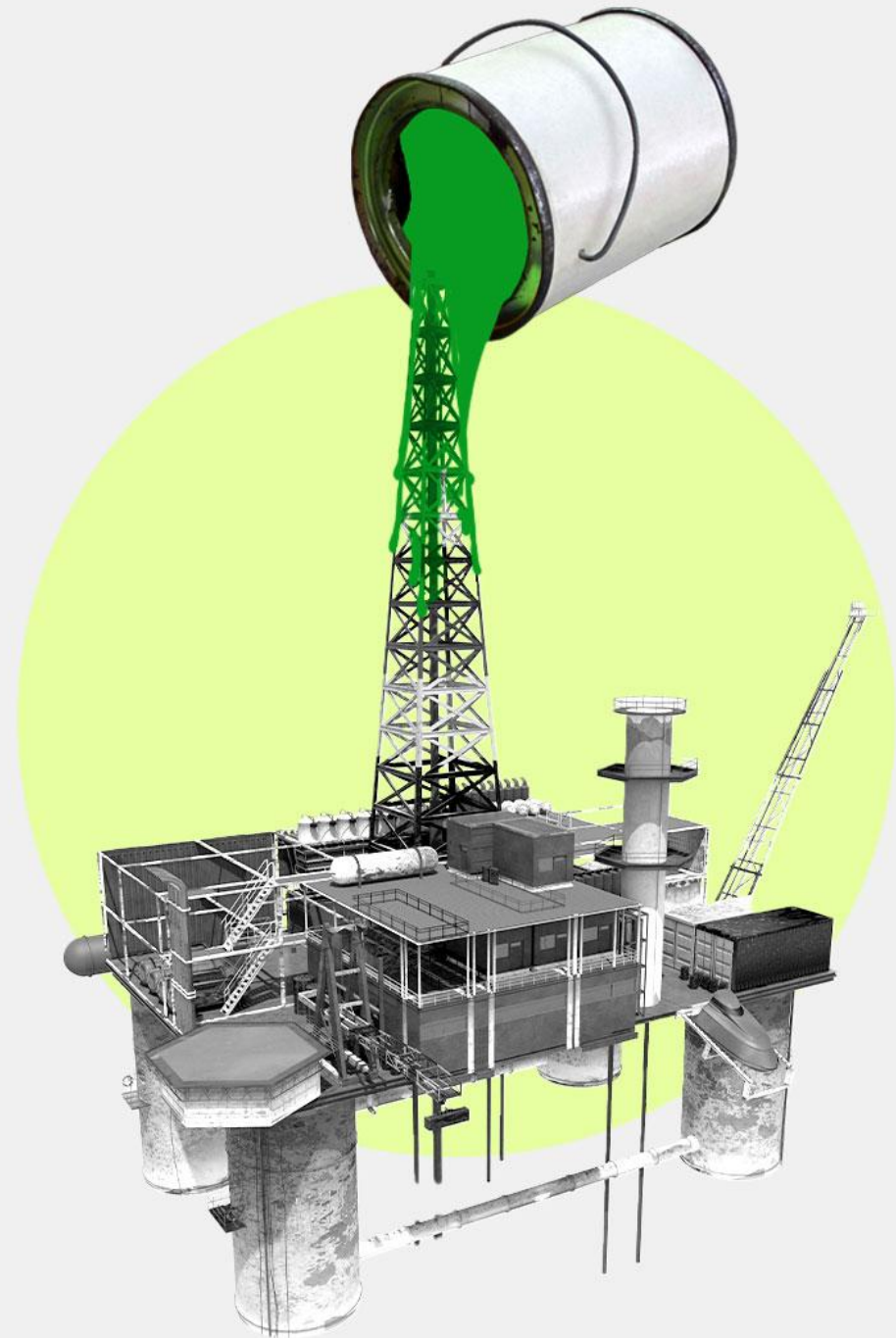
Protections Needed for CCUS and DAC

- Can't increase local air and water pollution
- At least 10 miles between homes and capture, storage, or pipelines
- Powered by excess, clean, renewable energy
- Financial assurances that do not count on a company maintaining strong fiscal health for over a century (bonds, 3rd party ins)
 - Responsive to continuous reevaluation of costs of closure, remediation, and leaks/other harms



Protections Needed for CCUS and DAC

- Government process
 - Ensure it's not used to drag our heels on direct emission reductions (e.g., no LCFS or other offset crediting)
 - Ensure additionality
 - Polluter pays, not consumers through increased utility rates or gas prices. **This is a serious affordability issue!**



Protections Needed for CCUS and DAC

- Informed consent and good process
 - Notify community members at least 6 months before permit application
 - At least 3 public workshops before gov decisions made
 - Community benefits required
 - Full EIR on all projects
 - Require worst-case scenario modeling

Protect
CEQA

STORAGE: E: Protections Needed for DAC and BECCS

- Study storage statewide before beginning (e.g., safe storage rates, minimizing leakage and seismicity, distance from homes and sensitive receptors, impacts on microbiota in rock formations, etc.)
- Assess and prove stable geology—no leak risk, cause no increase in geological risks
- Permanent—at least 1,000 years
- Ensure proper site characterization
- Monitoring, reporting, and verification
 - Pause injections if plume extends beyond projected storage area until all rights attained and all applicable law met for new area
- Certify that project is unlikely to harm groundwater supplies



TRANSPORTATION: Protections Needed for DAC and BECCS

- **Keep moratorium in place**
- Add odorant (or colorant)
- Community burdens and resources must be considered during siting
- Prove stable geology where projects are to be sited
- CO₂ regulatory definition must apply to all phases
- Do not convert old pipelines to CO₂
- Require pure CO₂ streams
- Don't use other modes of transportation



Opportunities

- Look for real co-benefits
 - Jobs are limited in most engineered capture and storage projects; very inefficient as a jobs program
 - Most money goes to investors and executives, not workers or communities
 - Healthy soils
 - Reduced fertilizer, pesticides, irrigation water; increased water retention and soil sustainability
- Precious tax dollars must go to solutions that work for climate and communities, like healthy soils, not to boondoggles like BECCS.