


# Carbon Capture & Sequestration (CCS) Projects in Kern County

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# Kern County: Buttonwillow, Lost Hills, Shafter, Arvin





# Proposed Carbon Capture & Sequestration (CCS) Projects

## Carbon TerraVault I (CTV I) CCS Project:

- Proposed by California Resources Corporation (CRC)
- Location: Elk Hills oil field
- 1.46 millions tons of CO<sub>2</sub> over 26 years
- CO<sub>2</sub> source: on-site gas plant; possible DAC & others in the future
- 13.2 miles of CO<sub>2</sub> pipelines
- 6 Class VI injections wells

## CarbonFrontier CCS Project:

- Proposed by Aera Energy LLC
- Location: North & South Belridge oil fields
- 3.3 million tons of CO<sub>2</sub> per year for 20 years,
- CO<sub>2</sub> source: on-site gas plant and steam generators; others possibly in the future
- 14.5 miles of CO<sub>2</sub> pipelines
- 9 Class VI injections wells (4 new, 5 repurposed)



# Community Outreach

- Outreach coming from CRC & Aera (project proposers) have focused on job benefits
  - Max 10 full-time jobs for each project, no long-term jobs
  - Specific skills required that community members DO NOT have
- Little to no education on CCS technology and health impacts
- CRC's Community Benefits Plan (CBP)
  - The CBP only includes special districts, no genuine representation of community members and no real benefits for communities

# Proximity to Vulnerable Communities

## Carbon TerraVault I

- 2.5 miles from McKittrick Elementary School
- 8 miles from community of Buttonwillow

Figure 1-1: Site Plan

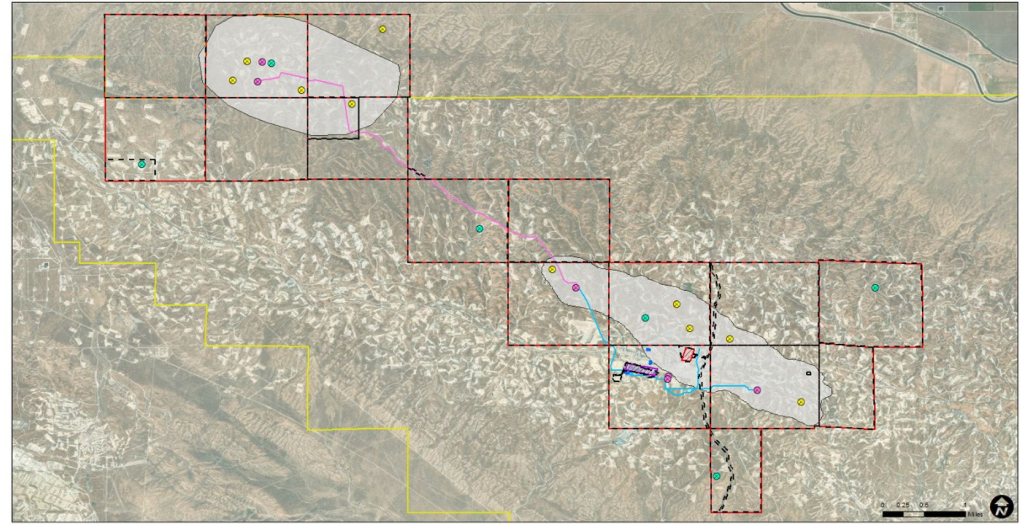
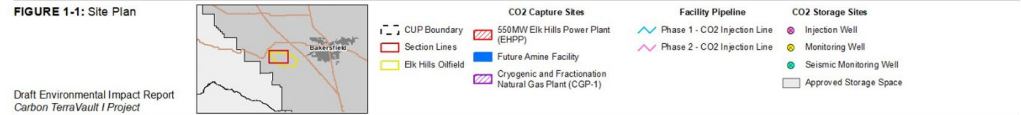
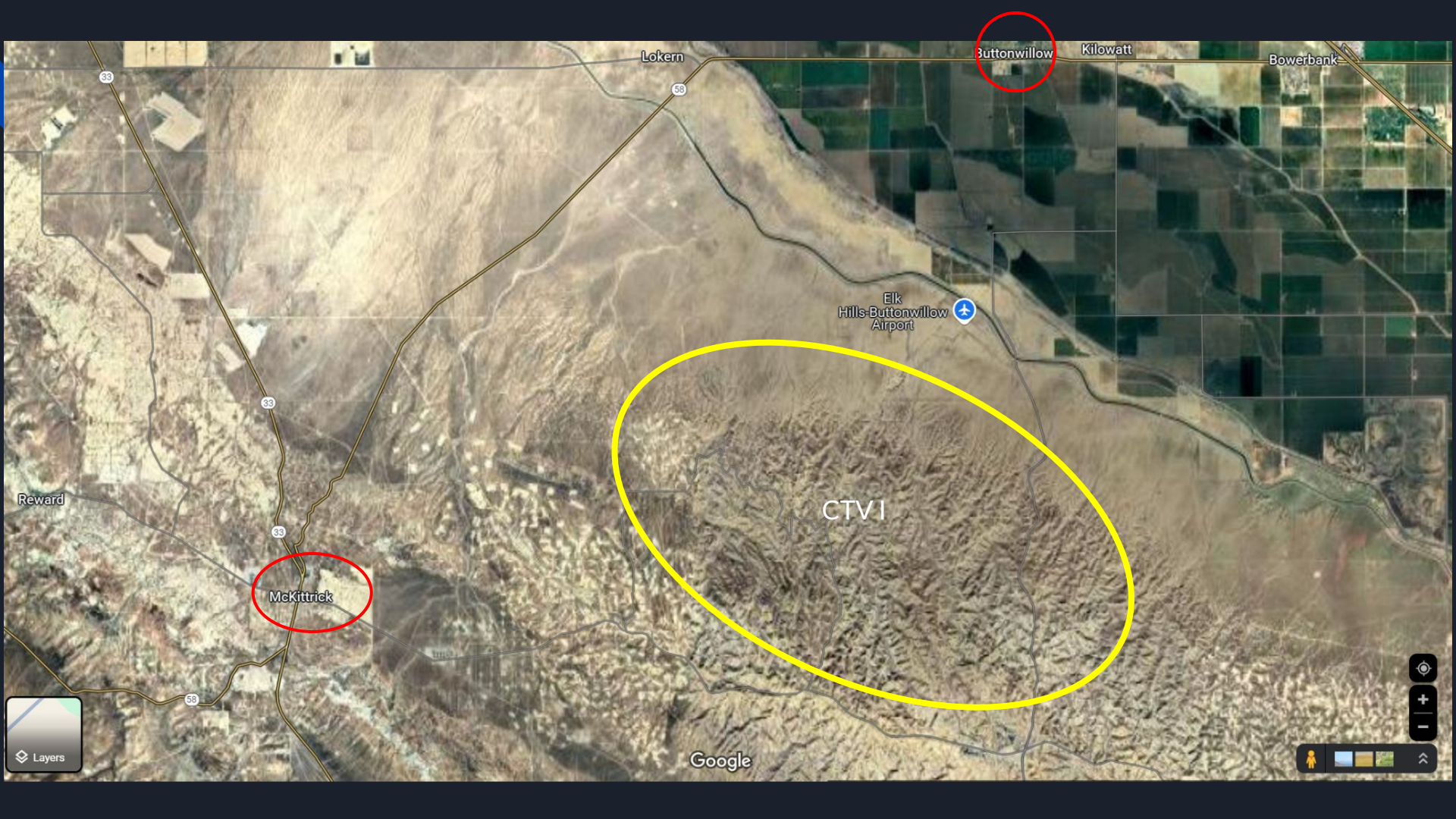


FIGURE 1-1: Site Plan



Draft Environmental Impact Report  
Carbon TerraVault I Project



Lokern

Buttonwillow

Kilowatt

Bowerbank

Elk Hills-Buttonwillow Airport

CTVI

McKittrick

Reward

Google

Layers

## CarbonFrontier

- 7 miles from Lost Hills
- 28 homes are 3.5 miles from project site
- 3 schools within 7-8 miles

Figure 3-2: Project Location Map

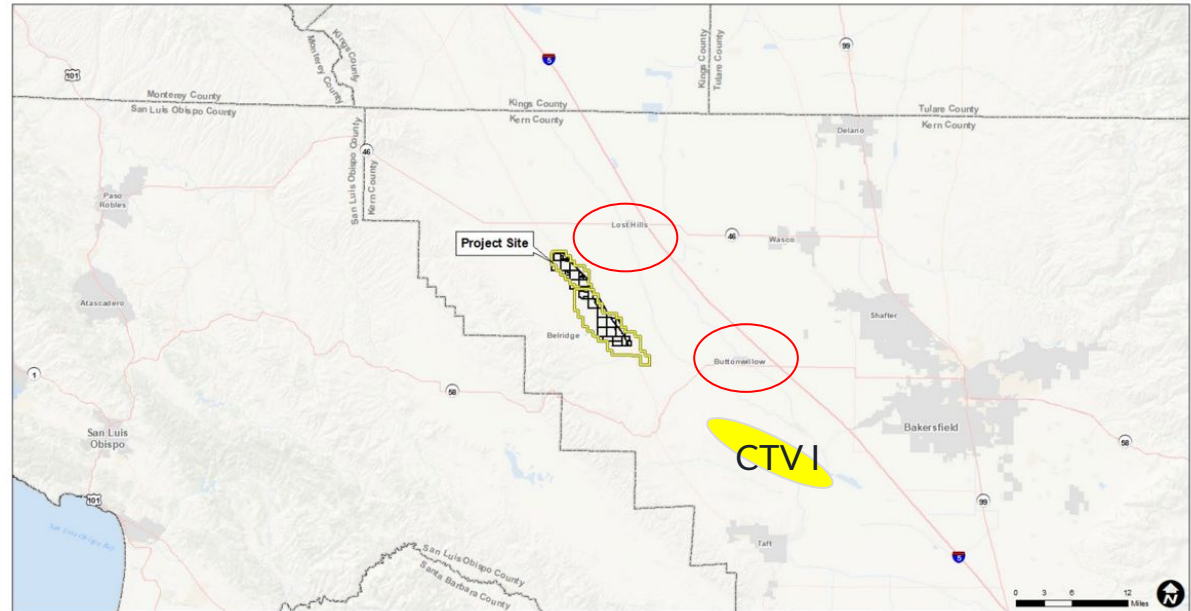


FIGURE 3-2  
Project Location Map



- San CUP Boundary
- Beidge Oilfields
- County Boundary
- City Limit
- Highway

Draft Environmental Impact Report  
Aera CarbonFrontier Project

# 28 miles of CO<sub>2</sub> Pipelines

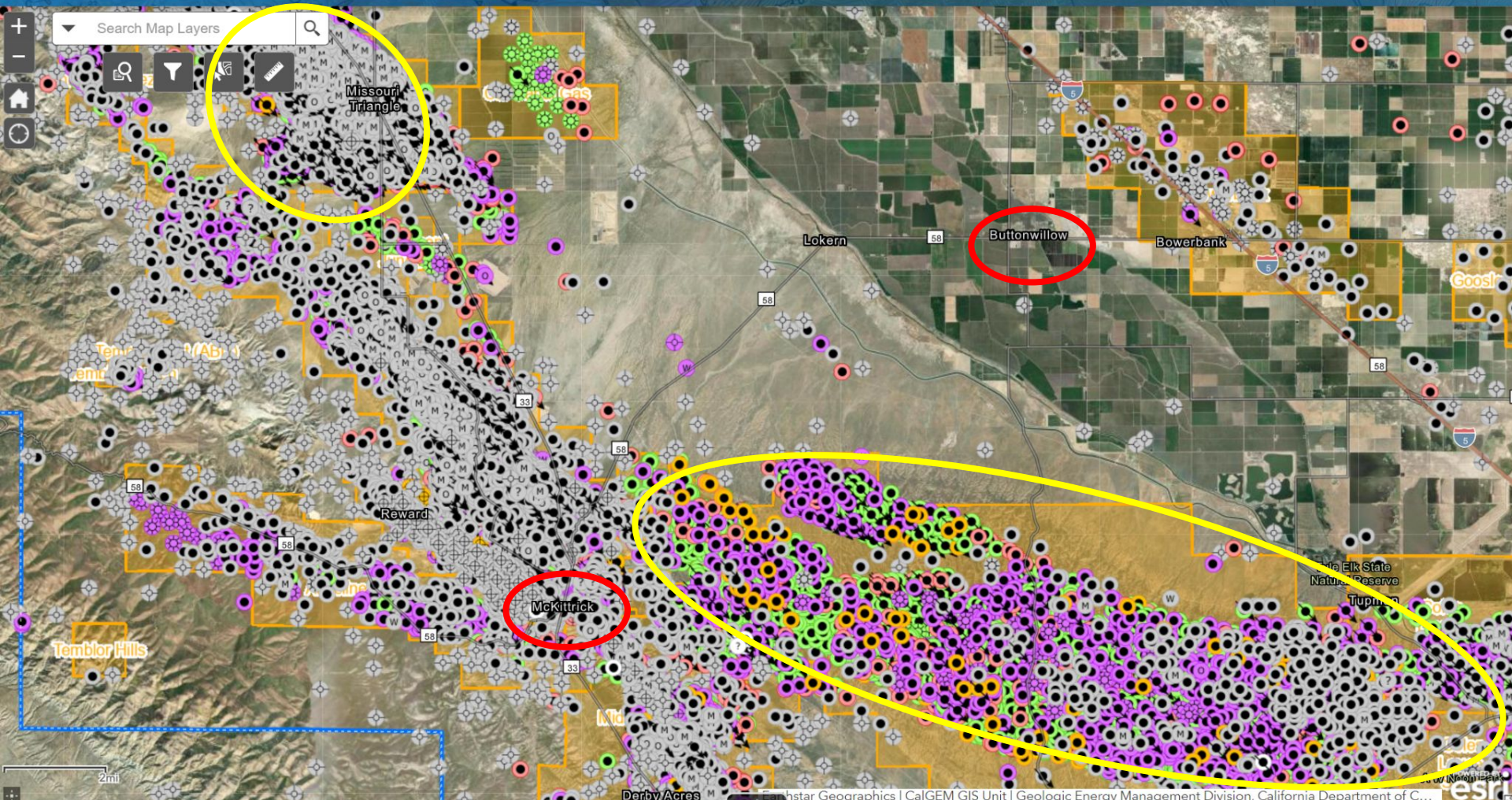
## *CO<sub>2</sub> Pipeline Transfer to Storage Sites*

The proposed CO<sub>2</sub> pipeline route runs parallel to SR 33, about 2,000 to 3,000 feet distance from the road in the closest areas. In the event of a large release, the cold dense cloud will initially spread laterally, then disperse downwind. With a southwesterly wind (blowing towards the northeast), the cloud may drift over the highway and into agricultural areas to the east of the highway. The concentration at the highway may be in the range of 1 percent to 2 percent CO<sub>2</sub>, with some areas up to 3 percent CO<sub>2</sub>. The maximum extent of the cloud will reduce within the first 10 minutes as the initial high CO<sub>2</sub> release rate from the pipeline rapidly decays.

Wonderful Nut Farms operates a solar panel area to the west of SR 33, in proximity to the proposed pipeline. Public personnel working in the area may be exposed to a concentration of CO<sub>2</sub> greater than 4 percent, which may result in fatalities. If the wind is directed towards the solar panel area during the day, concentrations may exceed 7 percent up to 1,200 feet from the release, with a crosswind width of 1,400 feet.

Oil field production workers in areas operated by Berry Petroleum and Team Operating may be exposed to CO<sub>2</sub> in the event of a large pipeline failure. Berry Petroleum, in Section 19 of South Belridge, may be exposed to a level of concern between 1 percent and 3 percent CO<sub>2</sub> if a failure occurs in the vicinity and the wind is blowing from the east or northeast. Workers within the Team Operating Area in North Belridge may be exposed to a concentration of 1 percent to 10 percent CO<sub>2</sub>, if a distribution pipeline failure occurs in the vicinity and the wind is directed towards the Team Operating area.







# Lack of Trust in Oil & Gas Companies

- CRC has an unreliable record on emission control
  - According to the California Governor's Office of Emergency Services (Cal OES), **113** confirmed spills and leaks from CRC infrastructure have occurred since 2014
    - June 11th, 2024: **5,460** gallons of oil water mix spilled
    - June 17th, 2024: Pipeline failed and **84** gallons of crude oil spilled into waterway
  - **36 OES** reports on behalf of CRC this year alone - over **1,600** barrels released



# Thank you!



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