Local Government Commission
California Adaptation Forum

Anne Coates, Executive Director
Cachuma Resource Conservation District

Russell Chamberlin, Rancher
Ted Chamberlin Ranch, Santa Barbara County

Sigrid Wright, CEO/Executive Director
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Aeron Arlin Genet, Air Pollution Control Officer
Santa Barbara County Air Pollution Control District

September 201

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Air Pollution Control District

Cachuma Resource Conservation District

- Who we are?
- What we do?
- Who we help?

Your Local Partner in Conservation

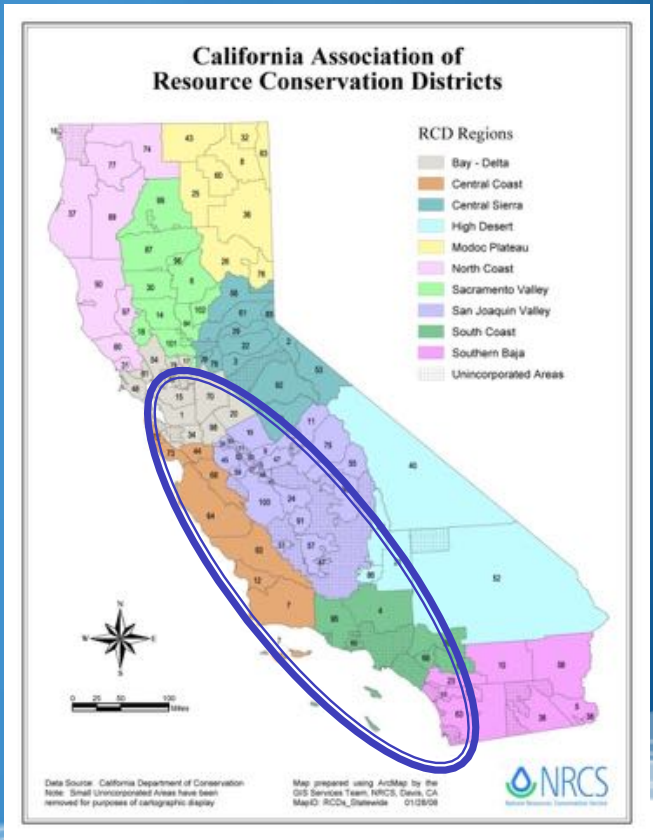
May 11,1934 - Dust Storm


An estimated ¼ million people
migrated to California from the Great
Plains during the Dust Bowl era

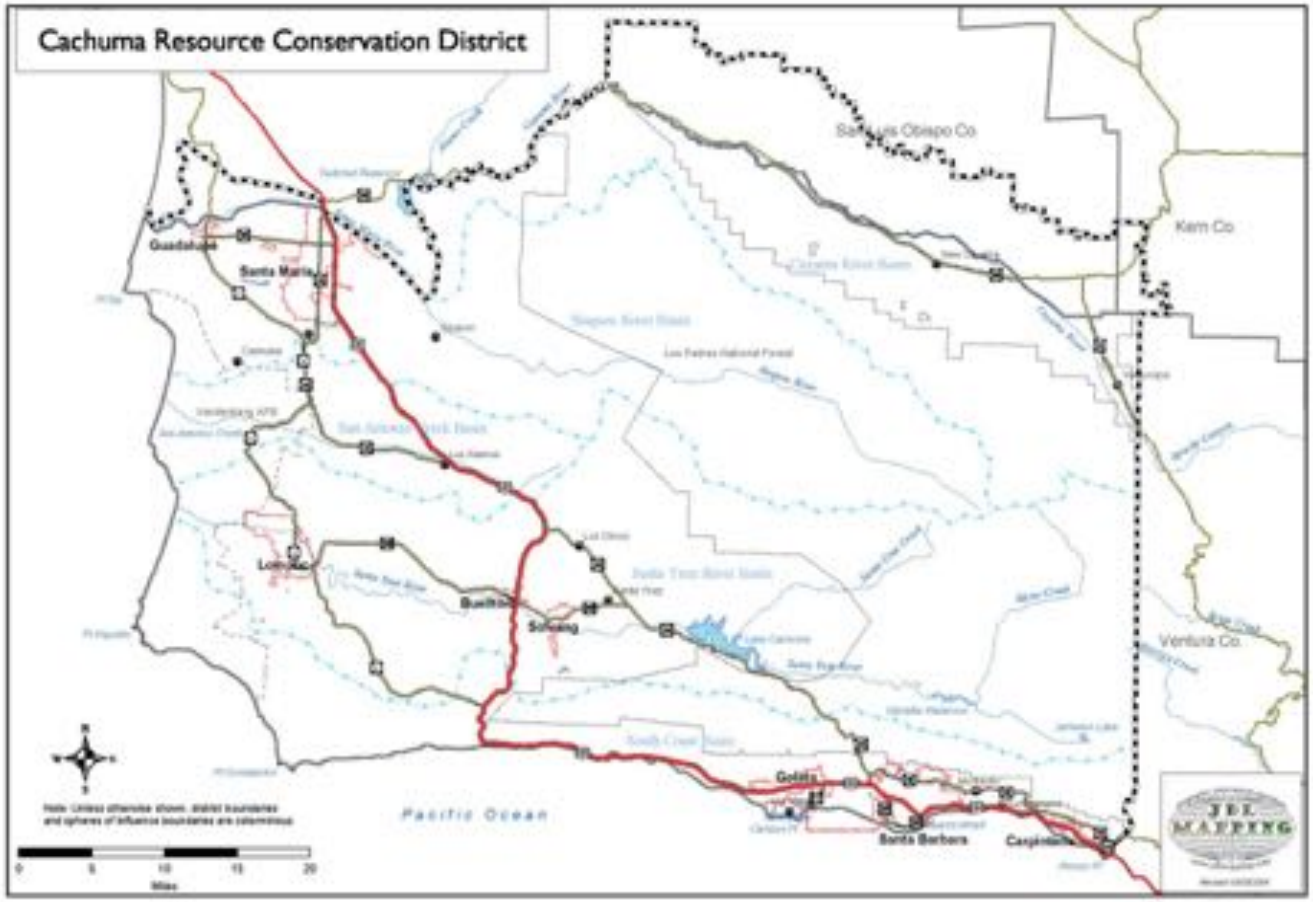
Standard State Soil Conservation District Law signed by FDR 1937

Resource Conservation Districts (RCDs), are <u>Local</u> "Special District" of the State of California, set up under Division 9 of the California Public Resources Code.

Statewide there are 96 RCDs authorized under Division 9.



The collective area is **1,941,700 acres**, 1,775,360 acres of which are in Santa Barbara County, 157,380 acres in San Luis Obispo County, and 8,960 acres in Kern County.



Mission Statement

The mission of the Cachuma Resource Conservation District (CRCD) is to promote land stewardship ethics that result in long-term, sustained use of natural resources while protecting and enhancing the environment.

Your Local Partner in Conservation

CRCD Programs and Services

Water Conservation

Habitat Restoration

Water Quality

Erosion Control

Pollinator Services

Carbon Sequestration

Biological Consulting and Monitoring

Rangeland Management

Coordinating Permitting

Voluntary Projects

Ecosystem Services

CEQA NEPA

Watershed Management Planning

Stream Management

Nutrient Management

Energy Use

Rainwater Harvesting

Mitigation and Monitoring

Stormwater Management

Fire Management Planning

Sediment Management

Climate Adaptability

Conservation Easements

Watershed Publications

Watershed Education

Rural Road Assessment and Design

The CRCD in partnership with regional RCDs and the NRCS, has a team of conservationists and engineers representing a broad spectrum of disciplines.

- ✓ Endangered Species Biologists
- ✓ Environmental Scientists
- ✓ Land Use Planners
- ✓ Certified Conservation Planners
- ✓ Climate Specialists
- ✓ Rangeland Management Specialists
- ✓ Agronomist and Certified Crop Advisors (CCA)
- ✓ Certified Professional Erosion & Sediment Control (CPESC)
- ✓ Cultural Resources Technicians (CRT)
- ✓ Engineers

- **The district is governed by a nine-member Board of Directors that are appointed by the Santa Barbara County Board of Supervisors.**

- **The CRCD Board also serves in the same advisory ca**
  Resources Conservation Service (NRCS)

Rancher to Rancher

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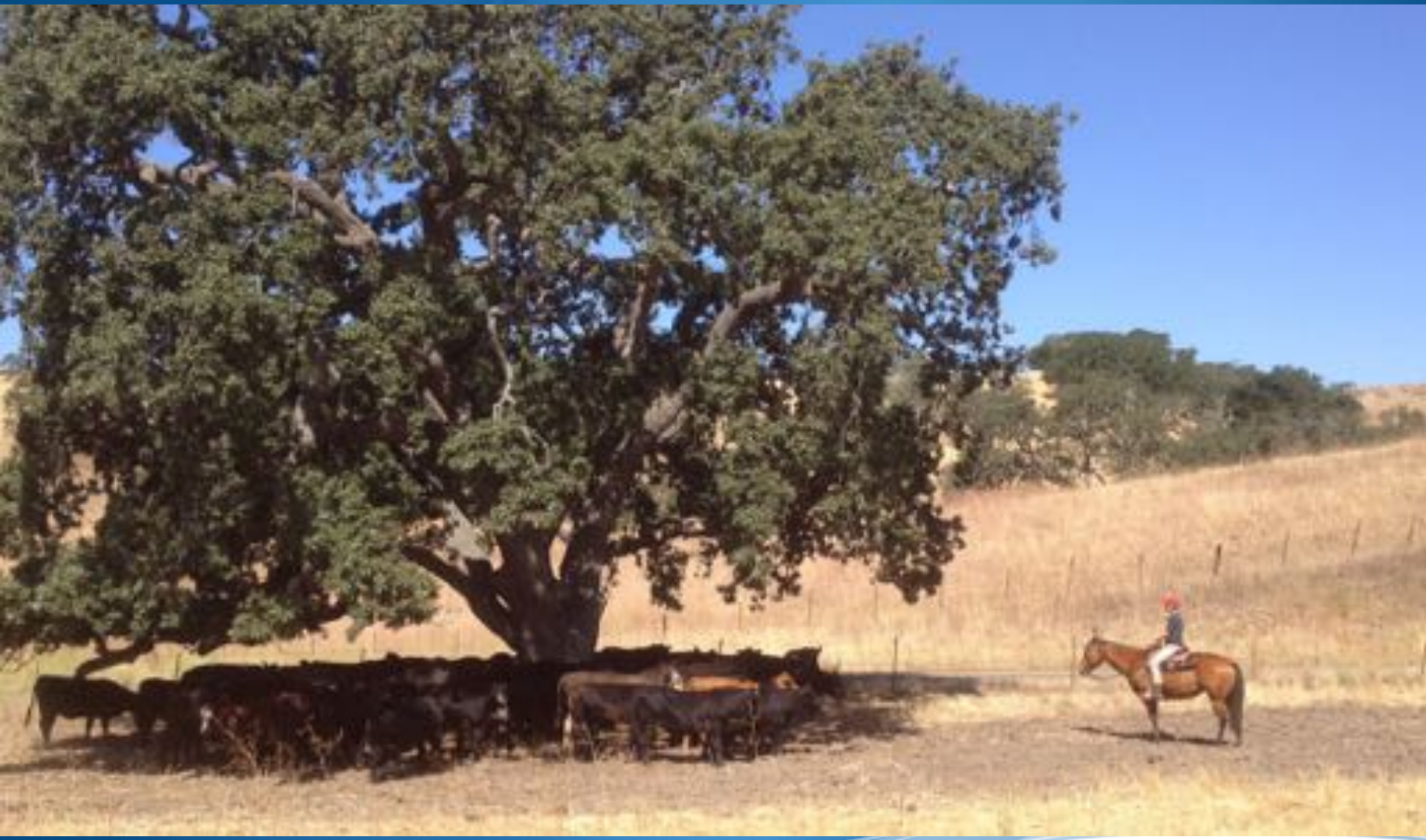
Ted Chamberlin Ranch , Los Olivos Santa Barbara County California

Ted Chamberlin Ranch , Los Olivos



Rancher to Rancher

Rancher to Rancher Trial Site

Management


Pre- Grazing 2016

Grazing the Trial Site in 2016

Post- Grazing 2016

Post- Grazing 2016

Monitoring

Collaboration 2016

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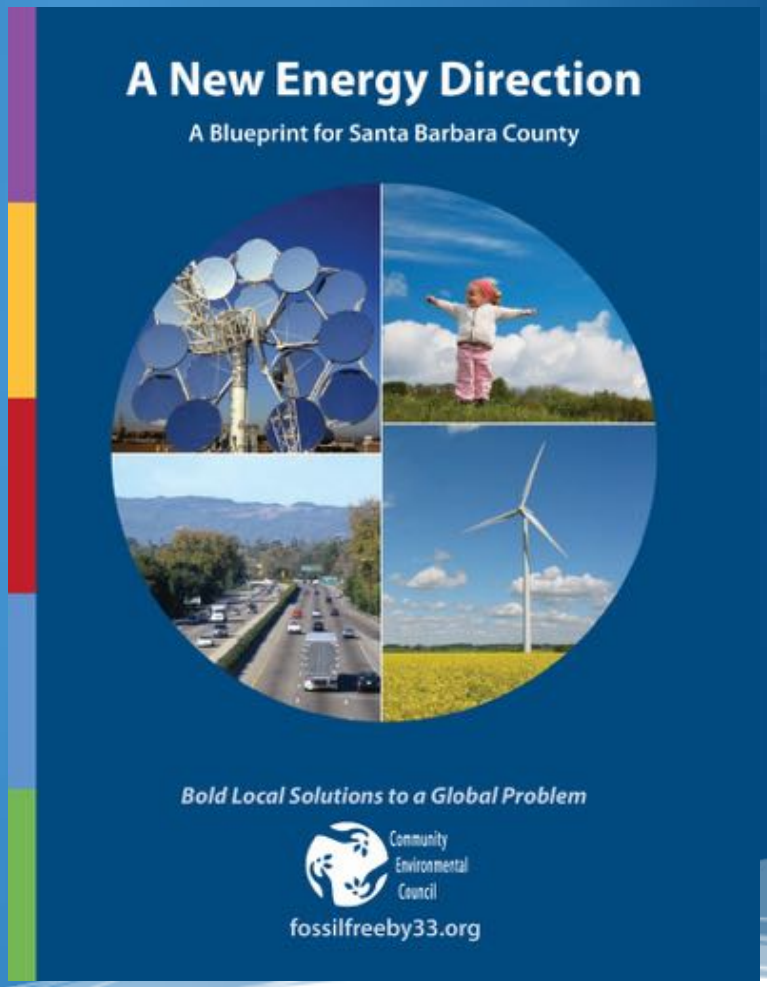
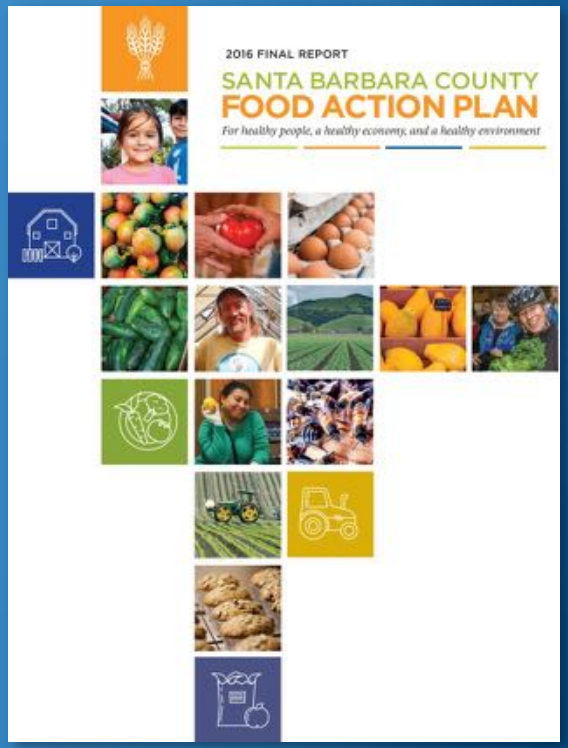
Potential for Santa Barbara County

- CECSB focuses on regional solutions to climate change
  - Produced one of first regional energy blueprints
  - Particularly adept at partnerships



Potential for Santa Barbara County

- Recently completed SB County Food Action Plan
  - Community driven led by NGOs
  - Multiple gov agencies involved
  - Co-chaired by 2 County Supervisors
  - 16 goals, 55 strategies
  - “Carbon Farming” emerged as one of top priorities
  - Food Action Plans can be an important tool for advocacy



Potential for Santa Barbara County

PRIORITY GOAL 13

Reduce the food system's contribution to greenhouse gas emissions, while strengthening its resilience and ability to adapt to long-term drought and future climate change scenarios.

STRATEGY 13.1

Engage the farming community, policy makers, government agencies and regulators in practices such as "carbon farming," which decrease and offset agriculture's contribution to Santa Barbara County's greenhouse gas emissions.

Sample Resource / Policy: **The Marin Carbon Project** establishes the basis for soil carbon sequestration for local rangelands and works with farms and ranches to establish an augmented U.S. Natural Resources Conservation Service plan to create and implement farm-scale GHG plans and Carbon Farm Plans. The focus is on increasing the capacity of the farm or ranch to capture carbon and store it beneficially as soil organic matter.

Potential for Santa Barbara County

- We then analyzed actual potential for carbon farming in our County.
- Partners included:
  - Cachuma Resource Conservation District
  - Carbon Cycle Institute
  - LegacyWorks
  - NRCS

NRCS GHG-Beneficial Conservation Practices
34 Climate-Beneficial Practices: COMET-Planner.com

- Cropland Management
- Conventional Tillage to No-Till
- Conventional Tillage to Reduced Till
- Improved Nutrient Management
- Conservation Crop Rotation
- Cover Crops
- Strip cropping

- Mulching

- Combustion System Improvement (Improved Fuel Efficiency of Farm Equipment)

- Cropland to Herbaceous Cover
- Conservation Cover
- Forage and Biomass Planting
- Herbaceous Wind Barriers
- Vegetative Barriers
- Riparian Herbaceous Cover

- Riparian Restoration

NRCS GHG-Beneficial Conservation Practices
34 Climate-Beneficial Practices: COMET-Planner.com

Contour Buffer Strips

- Field Border
- Filter Strip
- Grassed Waterway

- Cropland to Woody Cover
- Tree/Shrub Establishment
- Windbreak/Shelterbelt Establishment
- Windbreak/Shelterbelt Renovation
- Riparian Forest Buffer Establishment
- Hedgerow Planting
- Alley Cropping Multistory Cropping

- Grazing Lands
- Range Planting
- Silvopasture Establishment on Grazed Grasslands
- Restoring Degraded Rangeland with Compost Addition
- Prescribed Grazing

- Restoration of Disturbed Lands
- Land Reclamation – Abandoned Mine Land
- Land Reclamation – Currently Mined Land
- Land Reclamation – Landslide Treatment
- Critical Area Planting

●

Potential for Santa Barbara County

Potential Annual Increase of Soil Carbon Sequestration

with 1/4-inch compost application on private, federal, state and other working lands in Santa Barbara County

Ownership	Acres Suitable for Compost Application	% of Total	Potential $MTCO_2e$ Sequestered Annually*
Private	242,759	90%	356,370
Federal	19,546	7%	28,694
State	2,450	1%	3,597
Other	4,833	2%	7,095
Totals:	**269,588**	**100%**	**395,755**

*assumes 1.49 $MTCO_2e$/acre/year from photosynthetic capture as above; values increase significantly if compost C is included.

Potential for Santa Barbara County

Acres and Compost Required to Meet Targets

Goal	Emissions Reduction Goal $MTCO_2e$	Acres Required	Cubic Yards of Compost Required	Tons of Compost Required
Ag. Sector Offsets	62,110	42,309	1,480,824	740,412
"Gap" Target	166,950	113,726	3,980,416	1,990,208

Potential for Santa Barbara County

- Of the total acreage in the County, about 15% is suitable for compost application
  - Slopes less than 25%
  - At least 100’ from streams or wetlands
- Application of ¼” compost to just 15% of available lands could offset the Ag Sector emissions in the County
- Similar application to 40% of available lands could offset the gap in the County Climate Action Plan

Potential for Santa Barbara County

- We will need a lot of this:

Potential for Santa Barbara County

- Or actually more like this:

Potential for Santa Barbara County

- Opportunities and barriers to creating large amounts of high quality, low-cost compost
  - Opportunity: Regional vision supported by statewide policy (AB 1826 ban on organic material; Healthy Soils Initiative)
  - Barrier: new regulatory landscape (incl. Regional Water Quality Board regs)

Potential for Santa Barbara County

- Opportunities and barriers to creating large amounts of high quality, low-cost compost
  - Opportunity: County's planned Anaerobic Digester
  - Barrier: project timeline, potential quality of digestate

Potential for Santa Barbara County

- Opportunities and barriers to creating large amounts of high quality, low-cost compost
  - Opportunity: increase small-scale composting operations (<12,500 cy)
  - Barrier: education/training; identifying feedstock


A GOOD IDEA
IS NOW THE LAW.
COMPOSTABLES
NOW
REQUIRED
TRASH

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Legislative Drivers

- Governor's Climate Change Pillars — 2030 GHG Reduction Goals
- New GHG emission limits of 40% below 1990 levels by 2030 (SB 32)
- Banning organic waste from landfills (AB 1826 & SB 1383)
  - Creating new market for compost
  - 50% diversion of organic materials by 2020 / 75% by 2025
- Mitigation for local land use projects (SB 97) and Climate Action Plans
  - Desire for local mitigation versus purchasing credits from out of state, etc.
- CEQA thresholds used by lead agencies
  - Santa Barbara County's 1,000 MTCO2e/yr

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CALIFORNIA CLIMATE STRATEGY

An Integrated Plan for Addressing Climate Change

VISION

Reducing Greenhouse Gas Emissions to 40% Below 1990 Levels by 2030

GOALS

- 50% renewable electricity
- 50% reduction in petroleum use in vehicles
- Double energy efficiency savings at existing buildings
- Carbon sequestration in the land base
- Reduce short-lived climate pollutants
- Safeguard California

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State's Efforts in Land Sector

- Forest Carbon Plan
- Healthy Soils
- Bioenergy Action Plan
- Urban and Community Forestry Program
- Wetlands Restoration

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Local Air District's Role

- Provide assistance to local governments on the implementation of state law
  - Climate Action Plan development and implementation
  - Thresholds of Significance for GHG emissions

- Local mitigation programs to reduce GHG emissions
  - Work with lead agencies, project proponents to identify mitigation options

- CAPCOA GHG Rx

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CAPCOA's GHG Rx

- Statewide exchange
- Voluntary reduction projects in California
- Air districts validate credits
- Application to projects statewide, as well as Santa Barbara County
- Methodology for Compost Additions to Grazed Grasslands

http://ghgrx.org/

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Need for Local Mitigation

- Santa Barbara County's significance threshold for industrial sources
  - 1,000 MTCO2e/yr
  - Mitigate Cap-and-Trade "gap"

- 4 major projects in the pipeline
  - 701 wells
  - Up to 8 million MTCO2e (lifetime of projects)

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Importance of Collaboration

- Central Coast Climate Collaborative
  - 6-county region
  - Collaborating to achieve a resilient, low-carbon Central Coast

- Limited funding
- Cap-and-trade funding allocations (AB 1613)
  - Allocates **$903 million** in cap-and-trade funding
    - $65 million to the Department of Food and Agriculture
      - **$7.5 million for the Healthy Soils Program**

- CEQA mitigation
  - Demonstrate effectiveness of health soils projects

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Thank you!

www.OurAir.org
@OurAirSBC