

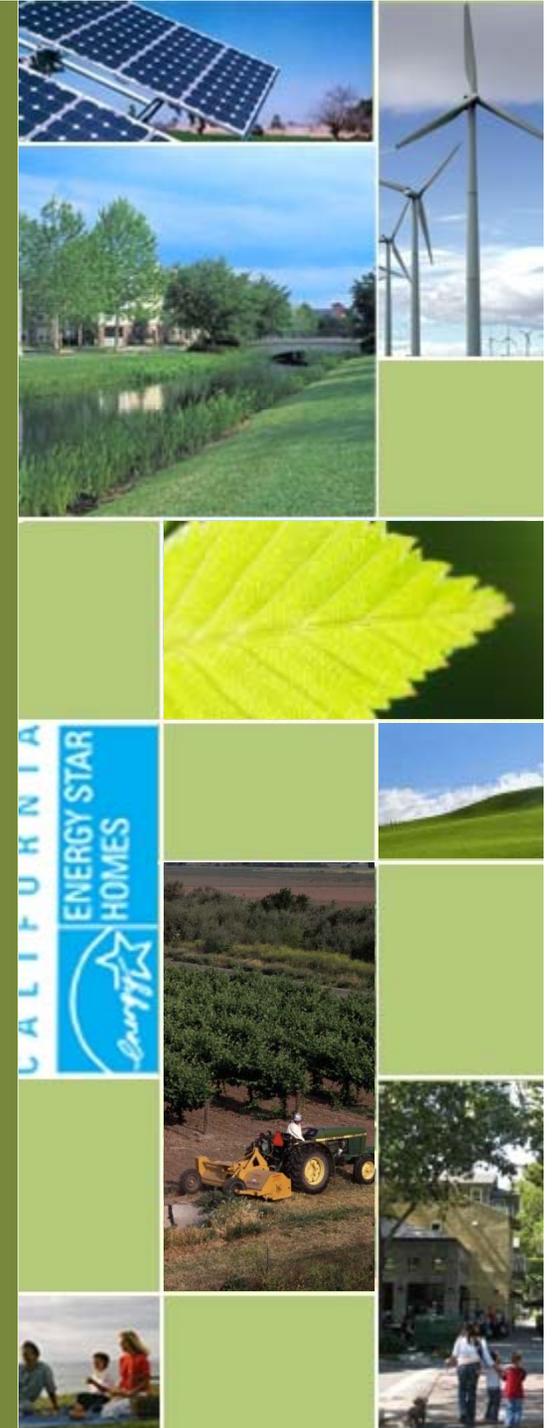


Solano County Climate Action Plan

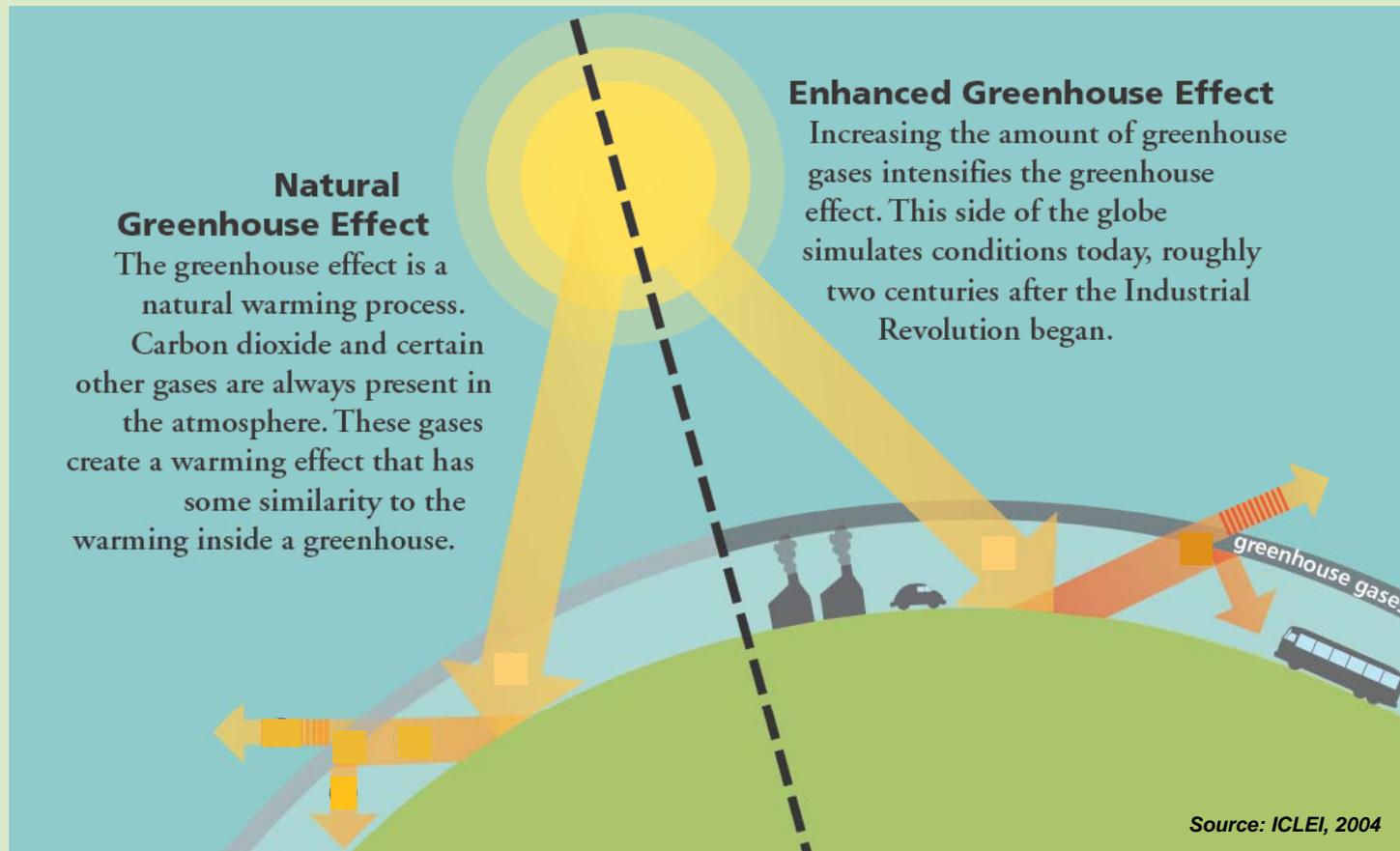
COMMUNITY TOOLKIT

February 8, 2010

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What is the greenhouse effect?



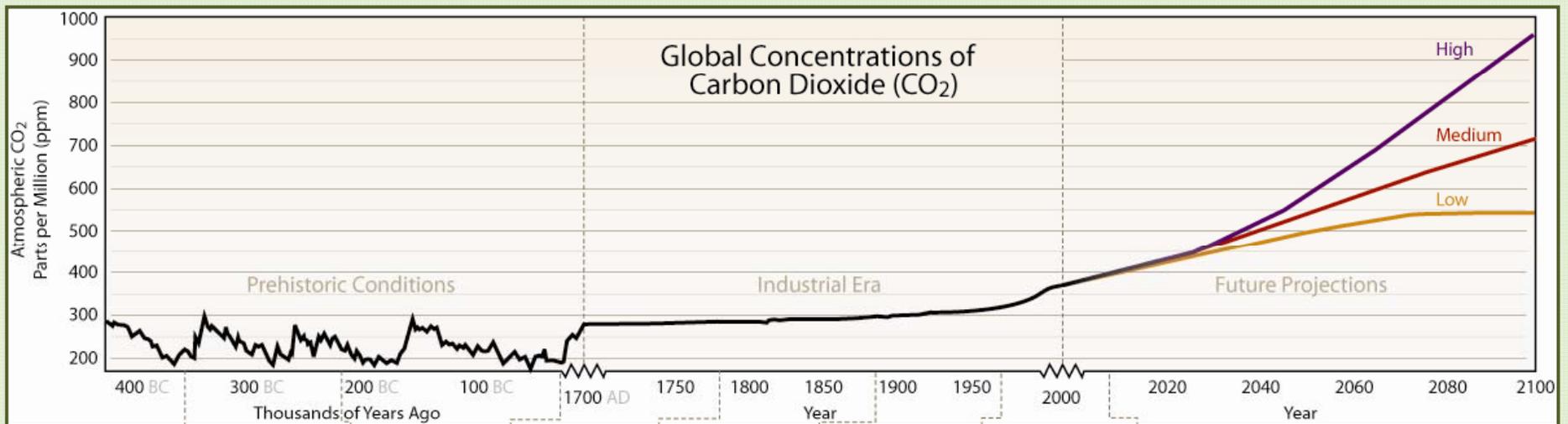
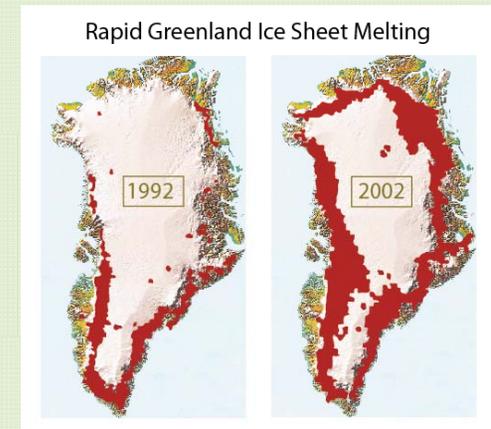
California law recognizes the need to reduce greenhouse gas (GHG) emissions through local planning decisions

Why it matters globally

Indicators – Destabilization of Climate

- Rising temperatures
- Sea level rise
- Extreme weather events (hurricanes)
- Acidification of oceans (loss of reefs & fisheries)

Global GHG emissions need to be reduced to avoid economic, ecological and political instability



Potential Impacts from Climate Change in CA

Water

- Reduced spring time snow-pack, increased frequency rain-on-snow events and flooding
- Reduced summer supplies
- Sea Level Rise
- Salt water intrusion

Agriculture

- Longer growing season
- More insect pests
- Reduction in winter chill hours
- Increased irrigation demand

Coastline

- Increased flooding due to sea level rise and storm surges

Forests

- More wildfires due to increased temperatures, dry conditions, wind
- Higher level of pest infestation and increased stresses (e.g. water)

Ecosystems

- Habitat loss, species migration, endangerment, and extinction



Why it matters locally – climate disruption

- If GHG emissions are not reduced globally, the effects of climate change on Solano County are likely to be:
 - Up to 2.5 times more critical dry years
 - **Sea level rise inundation of shoreline areas**
 - Loss of habitat for sensitive species
 - Up to 30% higher building energy use
 - **Increased irrigation demand from agriculture**
 - Changes to crop types grown in County



Drier Summers



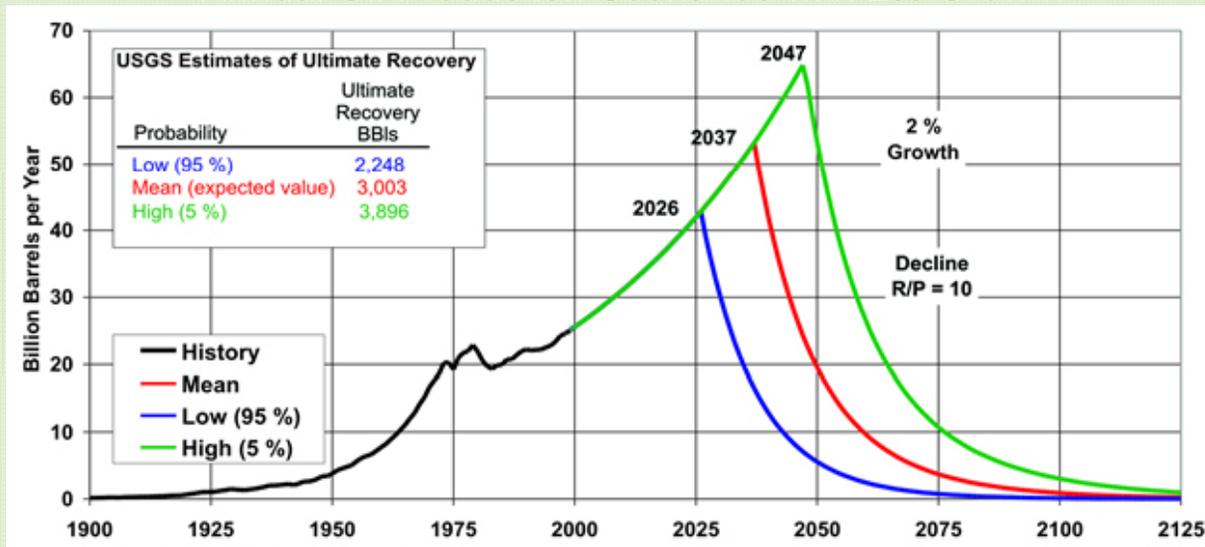
Crop Changes



Why it matters locally – energy security

- Implementing the Climate Action Plan will reduce GHG emissions
- It can also reduce our reliance on foreign fossil fuels and exposure to unpredictable energy prices/supplies

Annual Oil Production Scenarios with 2% Growth

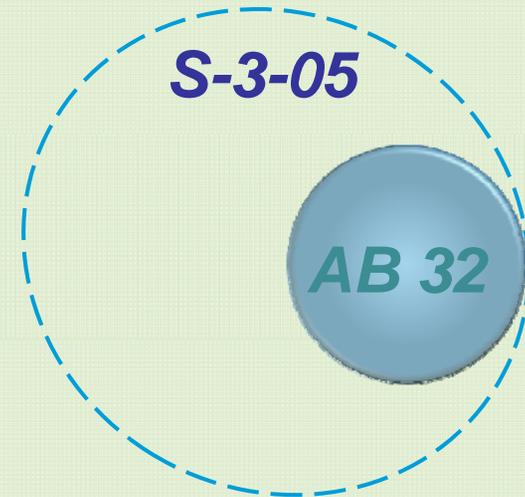


Source: US Department of Energy – Energy Information Administration 2000 – Based on US Geological Survey (USGS) Data



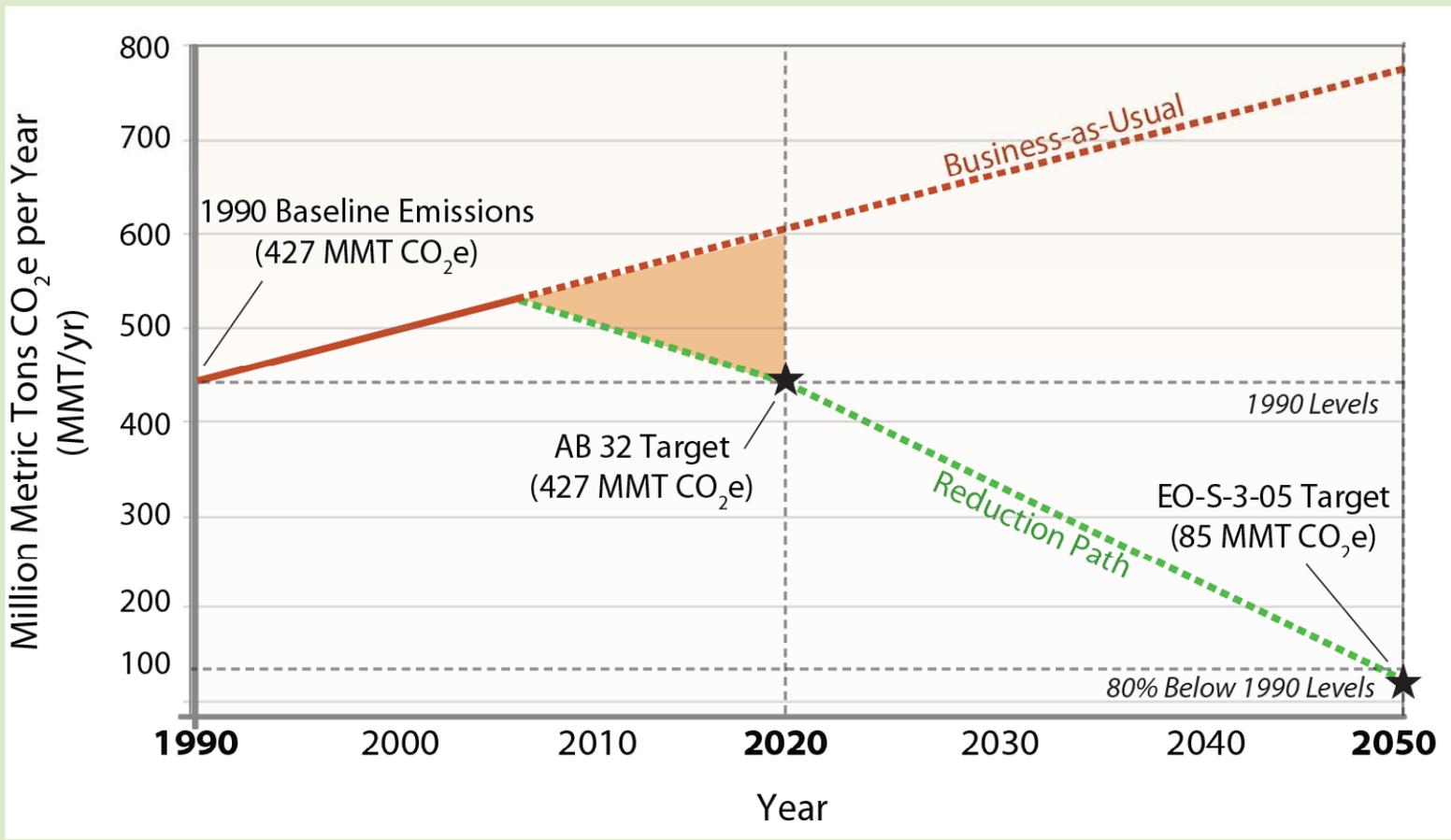
California's plan to combat GHG emissions

- Executive Order S-3-05 (2005)
- AB 32 Global Warming Solutions Act (2006)
 - Reduce GHGs to:
 - 1990 levels by 2020
 - 80% below 1990 levels by 2050
- Local governments
 - State recommends 15% below current levels by 2020
 - Attorney General recommendations



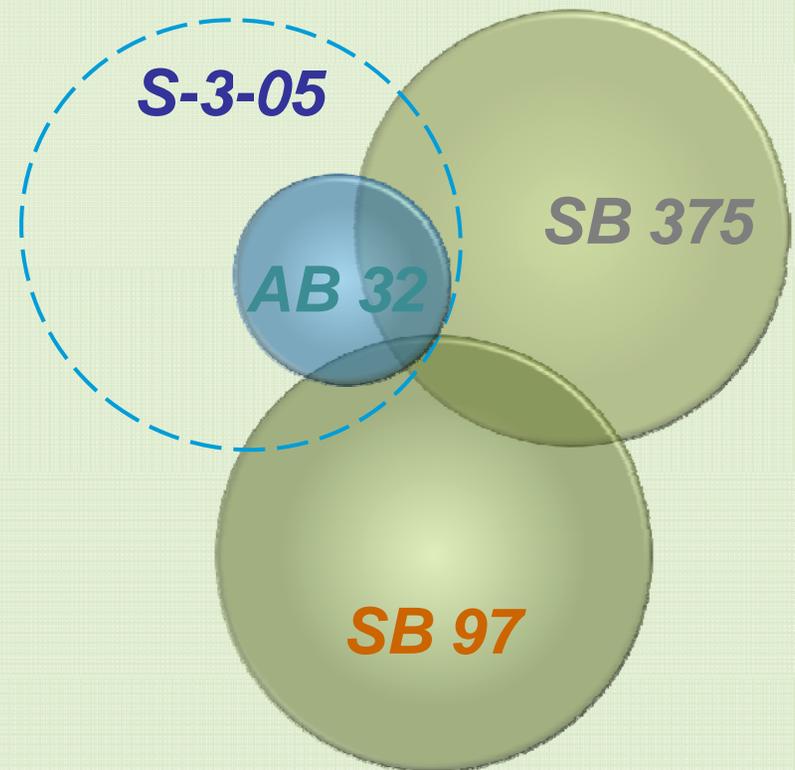
California's plan to combat GHG emissions

California Projected GHG Emissions 1990 - 2050



California's plan to combat GHG emissions

- Senate Bill 375 (2008)
 - State sets regional vehicle emissions targets
 - Land use and transportation
 - ABAG prepares regional plan to meet targets
 - Transportation funding requires consistency with the regional plan
- Senate Bill 97 (2008)
 - County can use Climate Action Plan to reduce impacts of individual projects



General Plan Update, CAP, and SLRSP

2008 General Plan Update

- Contains GHG reduction targets & strategies
- Calls for Preparation of Climate Action Plan (CAP)
 - *Near-term action plan to 2020*
 - *Implements General Plan's climate measures*
 - *Identifies additional measures necessary to achieve target*
- Calls for Preparation of Sea Level Rise Specific Plan (SLRSP)



Solano County's Climate Action Plan

- Purpose
 - Describe steps for County departments and agencies to reduce GHG emissions
 - Identify steps that will reduce emissions within the community
 - Propose strategies and actions designed to achieve target GHG reduction goal
 - Create a framework for monitoring progress towards goals



Building Energy - 4.1:

Develop a comprehensive renewable energy program that encourages residential property owners to install solar energy systems.

Measure Description:
The City will develop an outreach program that encourages residential owners to install solar photovoltaic and solar hot water systems. The program will aim to maximize participation of the community in renewable energy generation. As described in measure Building Energy 2.2, the City will partner with adjacent cities and ABAG to create an effective renewable energy and energy efficiency financing program. Renewable and Solar Technology program and will allow residential and commercial property owners to repay the cost of solar energy systems through a voluntary tax increment on their property tax bill. The City will pay the installation cost of a renewable energy system for approved applicants. In turn, the City will add a line item to the owners' property tax bill sufficient to repay the cost of the energy project plus interest over 20 years. If the property is sold, both the renewable energy system and the remaining debt stay with the property. Property owners will also be able to finance the renewable systems by using this program in conjunction with the California Solar Initiative rebate program.

Through AB 811, a City or County can adopt a voluntary community benefit district for this purpose. Stopwaste and ABAG are currently exploring the viability of setting up a program. Obtaining low-cost bond financing is critical. Current bond interest rates assume 7 percent. Under a 7 percent interest rate, property owners with excellent credit have access to lower-cost financing through traditional banks. The specific logistics of the program have yet to be determined, but its participation will be highly dependent on the availability of low-cost financing.

GHG Reduction Potential:
2,100
MT CO₂e

Community Co-Benefits:


Cost to City:
Low

Private Cost:
Yes

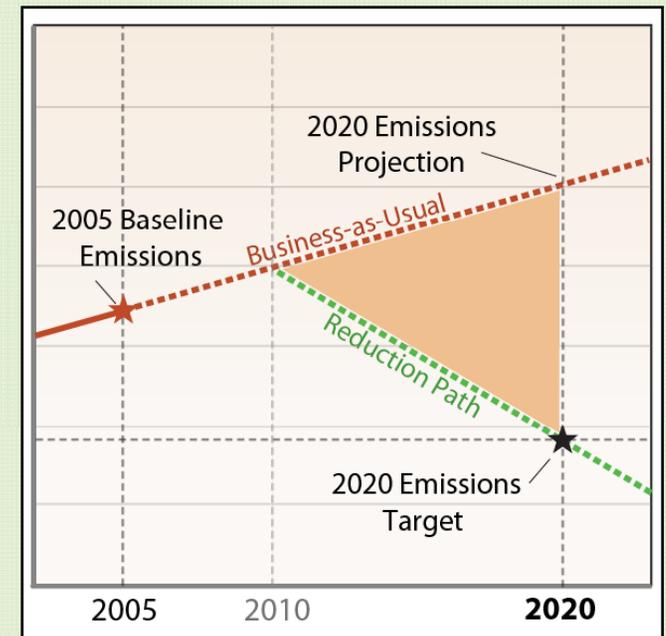
Potential Funding Sources:
City General Fund;
AB 811;
Utilities rebates

Implementation Action	Timetables	Responsibility
A Amend the Green Building Ordinance to incorporate the Tier 2 energy efficiency standards contained in Section 503.1.2 of the 2008 California Green Building Code as the required standards for energy efficiency for new construction.	Short Term (1-2 years)	City Supervisors; Building Department; Finance Department
Progress Indicators		Targets
i Percentage of residential buildings that have installed photovoltaic or solar hot water heaters	10% by 2015 20% by 2020	



Preparing the Climate Action Plan

- Key Steps
 - Inventory base year GHG emissions for County operations and community-wide activities
 - Propose a GHG reduction goal to be achieved by target year
 - Establish effective GHG reduction measures for major sources of emissions
 - Gather community input on the plan



Project Approach – Climate Action Plan

1. Collect Community Input and Evaluate Local Context



2. Update Greenhouse Gas Inventory, Projections, Target



3. Prepare Preliminary Climate Action Measures



4. Refine Climate Action Measures

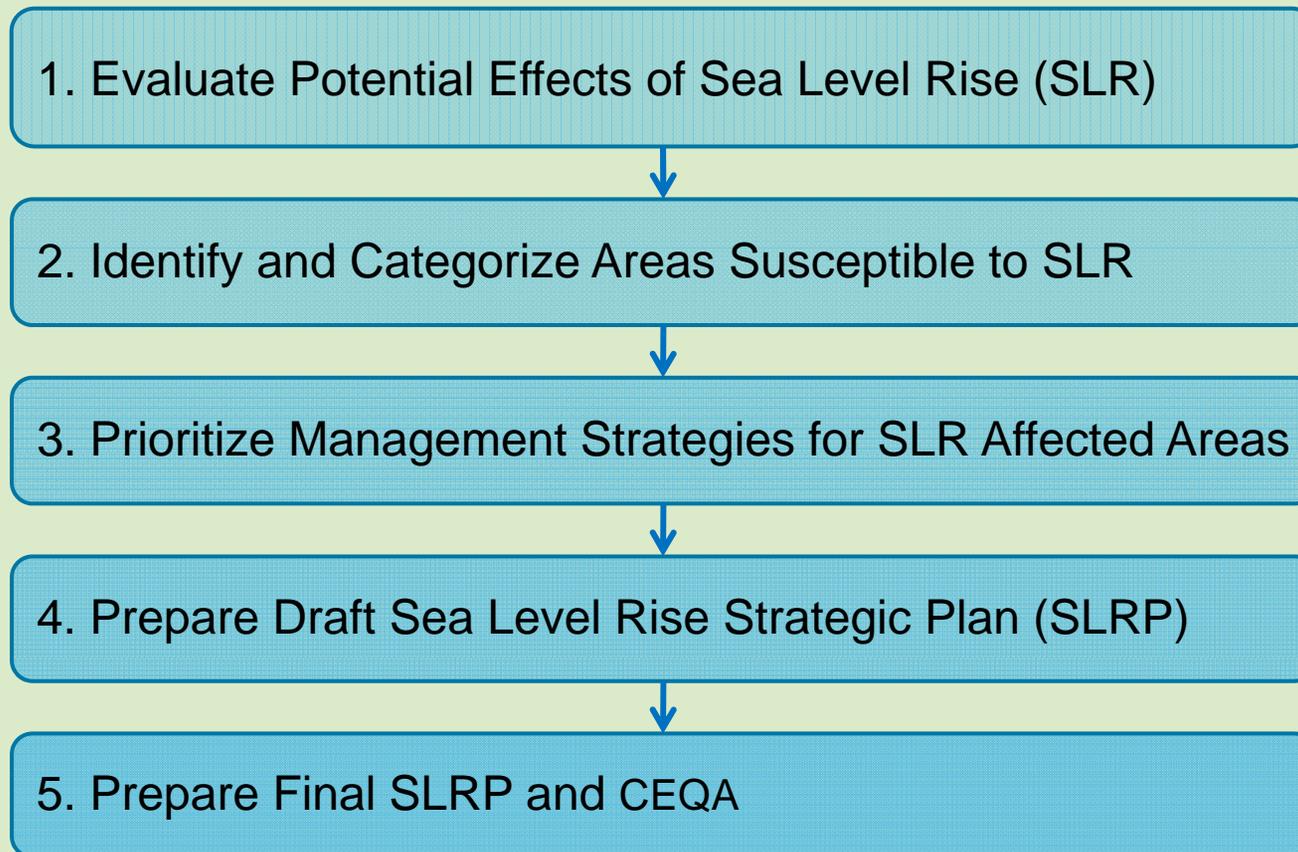


5. Prepare Draft Climate Action Plan



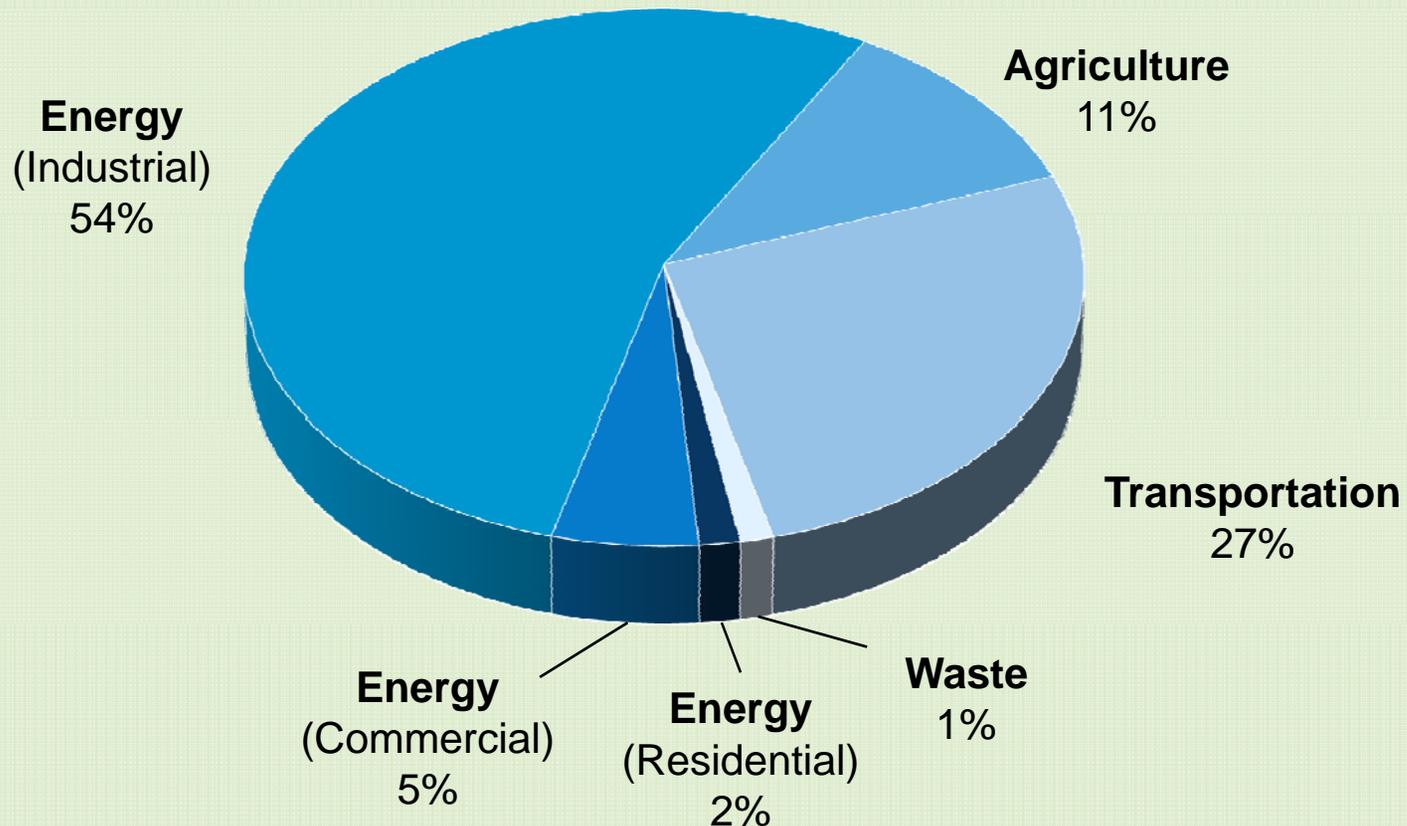
6. Prepare Final Climate Action Plan and CEQA

Project Approach – Sea Level Rise Strategic Plan



Overview: Existing GHG Emissions

Greenhouse Gas Emissions by Source in Solano County



Opportunities in Solano County

The Climate Action Plan must address the unique rural and agricultural context of Solano County.

Action Areas:



Energy



Agriculture



Transportation



Land Use



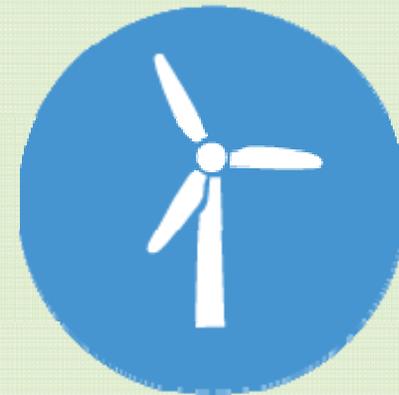
Waste



Opportunities in Solano County

- **Renewable Energy Generation**

- Wind
- Biomass
- Solar
- Biofuels



- **Building Energy Efficiency**

- Energy Efficiency Retrofits
- Energy Performance in New Construction



Opportunities in Solano County

- **Agricultural Emission Reductions**

- Carbon Sequestration
- Irrigation Efficiency
- Precision Fertilizer Application
- Alternative Crops



Opportunities in Solano County

- **Transportation Emission Reductions**

- Carpooling
- Biking & Walking
- Trip Consolidation



Opportunities in Solano County

- **Smart Land Use**

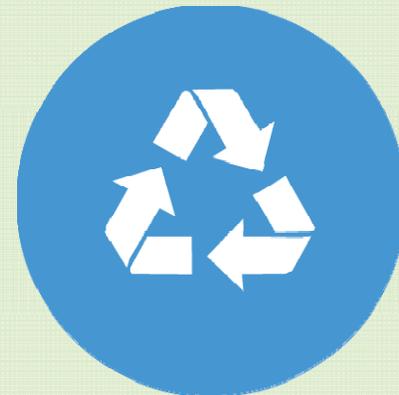
- Continue to Focus Growth in Cities
- Strengthen Rural Communities and Businesses
- Open Space Protection
- Habitat Restoration



Opportunities in Solano County

- **Waste Reduction and Diversion**

- Recycling
- Large-scale composting
- Producer Product Responsibility

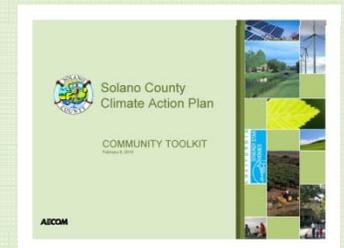


Your Ideas for the Climate Action Plan



Community input is critical to creating an effective Climate Action Plan

We appreciate your help in sharing this information with your constituents, families and friends





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