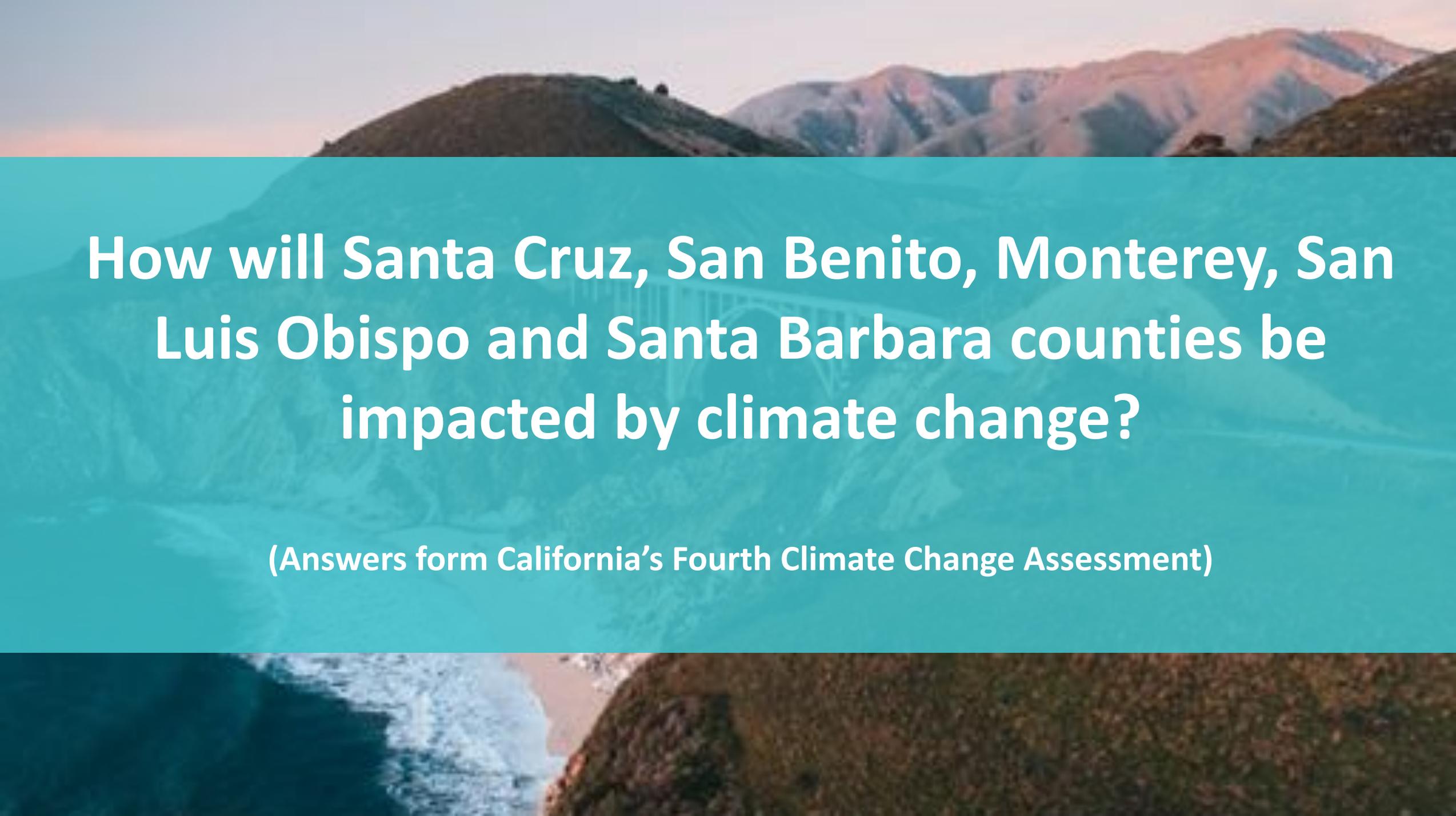


# CALIFORNIA REGIONAL CLIMATE ADAPTATION INITIATIVE

Understanding Climate Change in the  
Central Coast Region; What Your  
Organization Can Do About It

Presented by Jonathan Parfrey





# How will Santa Cruz, San Benito, Monterey, San Luis Obispo and Santa Barbara counties be impacted by climate change?

(Answers from California's Fourth Climate Change Assessment)

- **CENTRAL CALIFORNIA IS WARMING.** By mid-century (2041-2060) the region will likely warm by 4°F to 5°F above historic climatic temperatures. Inland areas will warm the most. By the end of this century, the region will be between 5°F to 8°F warmer, depending on future emissions.
- **OUR HEALTH IS IN THE BALANCE.** Longer and more frequent high-heat days will increase the number of heat-related illnesses, such as heat stroke, heat cramps, heat exhaustion and dehydration, as well as other illnesses and premature deaths. Mortality risk for those 65 or older could increase ten-fold by the 2090s.
- **EXTREME STORMS EVENTS ARE EXPECTED TO INCREASE.** Along the Central Coast, atmospheric rivers are the dominant drivers of locally-extreme rainfall events. They are associated with most major inland floods, such as the record flooding on the San Lorenzo River in the winter of 2016-17. Along with El Niño events, they are expected to increase in frequency and severity.
- **AT TIMES THERE WILL BE DROUGHT.** Droughts will become more severe due to rising temperatures, increasing evaporation and decreasing soil moisture. This may be exacerbated by increased water demand due to higher heat.
- **WE ANTICIPATE MORE DESTRUCTIVE WILDFIRES.** Projections indicate that wildfires will increase throughout Central California.
- **WATER WILL BECOME MORE ACIDIC.** Waters off the coast of California are acidifying twice as fast as the rest of the oceans around the world. The steady rise of carbon dioxide will lower the pH of freshwater streams, lakes, and rivers, which will affect marine species and ecosystems.
- **THE PACIFIC OCEAN WILL RISE.** Sea levels are projected to rise in the future. Roughly 1-2 ft of sea level rise is projected by mid-century, and the most extreme projections predict 8-10 feet of sea level rise by end-of-century. If nothing is done, 31-67% of California beaches may erode by 2100.
- **MEETING ELECTRICITY DEMAND WILL BE CHALLENGING.** Residential electricity demand is likely to grow due to bigger heat waves, and higher temperatures will likely affect electricity supply from gas-fired plants.
- **COASTAL ROADS ARE VULNERABLE TO CLIMATE-FUELED EROSION.** Sea level rise and storm surges will increase the vulnerabilities of coastal roads leading to a higher probability of erosion and landslides.

# WAIT — THERE'S GOOD NEWS!

Central California governments have made progress to reduce greenhouse gas emissions and make plans to adapt to climate change. Many municipalities are updating their General Plans to include strategies that address climate mitigation and adaptation.



# ACTION(S) TAKEN

Although the Central Coast will be impacted in many ways by a changing climate, the region already has specific plans in place to address those impacts with innovative solutions that will create more livable cities for everyone. Two pieces of legislation and two executive orders currently drive climate action in California.

- **SENATE BILL 32 (2016)** requires California Air Resources Board (CARB) to reduce greenhouse gas emissions to 40% below 1990 levels by 2030.
- **SENATE BILL 100 (2018)** commits California to achieving 100% renewable electricity by 2045.
- **EXECUTIVE ORDER B-55-18** commits California to achieving carbon neutrality in every sector by 2045.
- **EXECUTIVE ORDER N-82-20** sets aside 30 percent of California's land area to preserve wildlife habitat and protect against climate change.



†All citations are from Langridge, Ruth. (University of California, Santa Cruz). 2018. Central Coast Summary Report. California's Fourth Climate Change Assessment. Publication number: SUM-CCCA4-2018-006..

# ACTION(S) TAKEN REGIONALLY

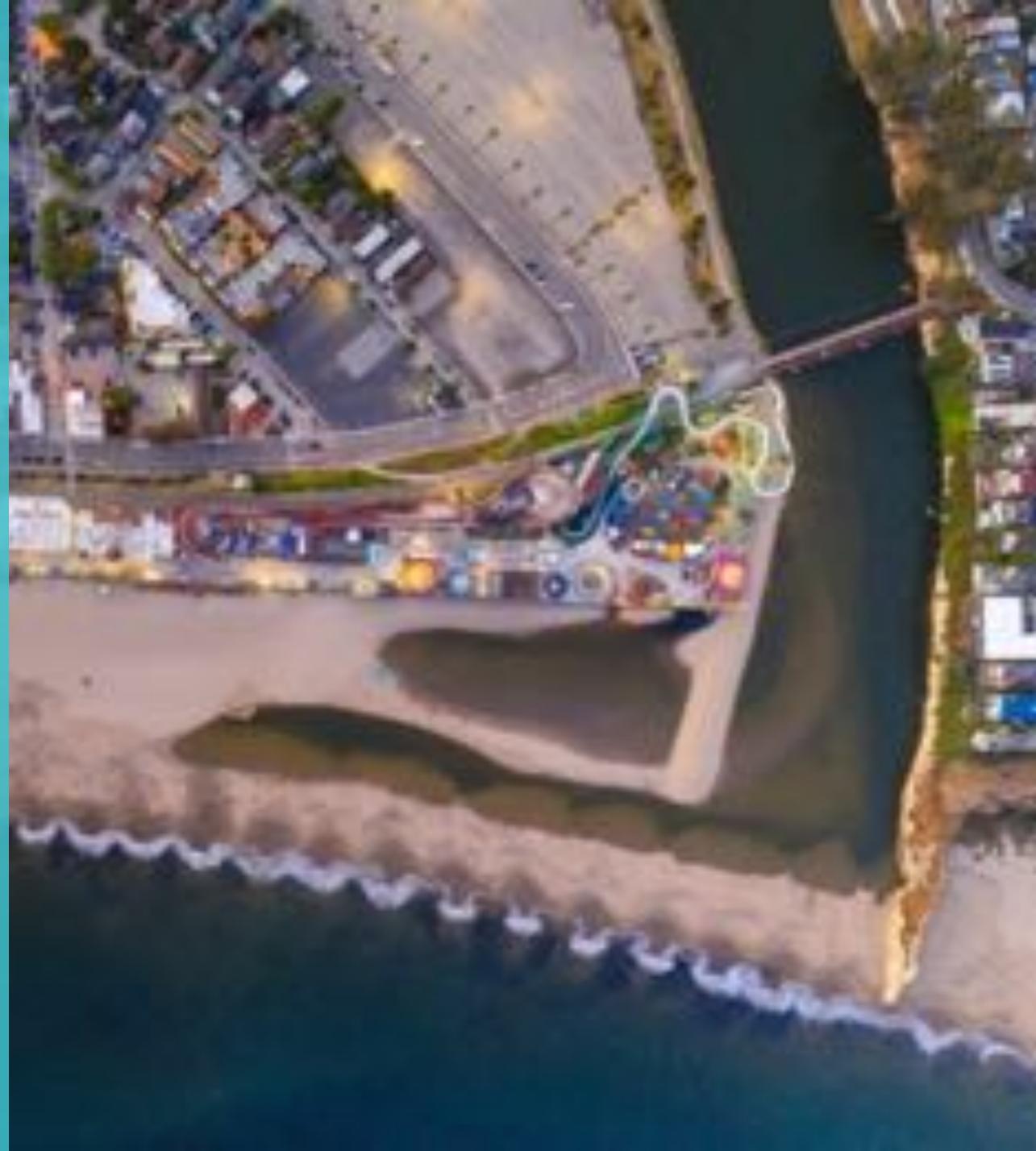
On the regional level, cities and counties have identified actions and set targets to reduce GHG emissions and address climate change impacts. Here are a few examples:



- **SANTA CRUZ AND MONTEREY COUNTIES** have incorporated projections of SLR and storm damages into their Integrated Regional Water Management (IWRM) plans, focusing on conservation, restoration and sustainable water management..
- **THE CITY OF ATASCADERO** expanded bike paths by 34 miles, reducing emissions by hundreds of MTCO<sub>2</sub>e since the project began in 2010.
- **THE CITY OF SANTA CRUZ** has surpassed its goal and halved community-wide GHG emissions since 1990, and is well on track to reduce emissions by 80% by 2050 (its current goal).
- **THE CITY OF SAN LUIS OBISPO** in 2017, set a net-zero carbon City target and implemented cost-effective measures, including hiring a Sustainability Coordinator and forming a Green Team..
- **THE CITIES OF ATASCADERO, ARROYO GRANDE, GROVER BEACH, MORRO BAY, PASO ROBLES, AND PISMO BEACH** prepared baseline inventories of emissions from community-wide and government operations through funding from the San Luis Obispo Air Pollution Control District.
- **THE NORTHERN CHUMASH TRIBAL COUNCIL** operates an all-natural farm using greenhouse aeroponics, which uses only 10% of the land and water of typical farms.
- **THE CITY OF GOLETA** has committed to 100% renewable energy by 2030 and set the goal for municipal facilities to reach 100% renewable energy by 2025.
- **CENTRAL COAST WETLANDS GROUP** builds infrastructure and coordinates actions with regional partners to achieve a “no net loss” of wetlands in the Central Coast region.

# DEFEND CLIMATE PROGRESS!

These climate action policies and others often come under attack from fossil fuel and other corporate interests. Above all else, the State's existing climate policies need to be defended.



# SO, WHAT'S NEXT?

## Here are a few actions your community can take to prepare for the impact of climate change.

- **THE MAIN PROBLEM . . . WELL, IT'S CARS.** The leading source of greenhouse gas emissions in California is from the transportation sector. How do we reduce those emissions? First, by building affordable housing near public transit corridors, and by creating neighborhoods that promote biking, scootering and walking. Another essential climate strategy is to encourage transition to electric and green-hydrogen fueled vehicles.
- **COMMUNITY CHOICE ENERGY.** New municipal programs allow households to choose how much of their energy comes from renewable resources, thereby lowering greenhouse gas emissions and ensuring electricity grid resilience. **See Central Coast Community Energy: <https://3cenergy.org/>**
- **COOL DOWN NOW.** Cool roofs cool-down buildings, protect the people indoors, reduce energy consumption and even reduce smog.

- **JOIN A CLIMATE COLLABORATIVE.** The Central Coast Climate Collaborative is a membership organization fostering a network of local and regional community leaders throughout six Central Coast counties to address climate change mitigation and adaptation.
- **WATER IS LIFE.** Take advantage of free water conservation initiatives provided by water utilities – these products not only lower water bills, they save greenhouse gas emissions and help communities become more resilient.
- **THIS AIN'T MARYLAND.** Convert grass lawns with California-friendly landscaping. Turf conversion programs are often provided by Metropolitan Water and other local water utilities.
- **COASTAL WETLANDS ARE YOUR FRIENDS.** Ensuring the protection and restoration of these ecosystems is vital. They are extremely effective carbon sinks and can absorb sea level rise and flooding
- **CHAMPION GOOD LEGISLATION.** Every year there are bills on climate matters. For example, Assembly Bill 585 (2021), will help coordinate state action on urban cooling. Groups can join ARCCA and track climate bills.

# THANK YOU!

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