California's Climate Change Policy – A "Race to the Top"

Dan Mazmanian

Professor of Public Policy
Sol Price School of Public Policy
University of Southern California
mazmania@usc.edu

Prepared for presentation at REFORM
August 25-30, 2013

Presentation Outline

I. The "Race to the Top" character of California's Climate Change Mitigation Policy

II. The "Puzzle" of Absence of an Adaptation Policy

III. A policy analysis of the puzzle

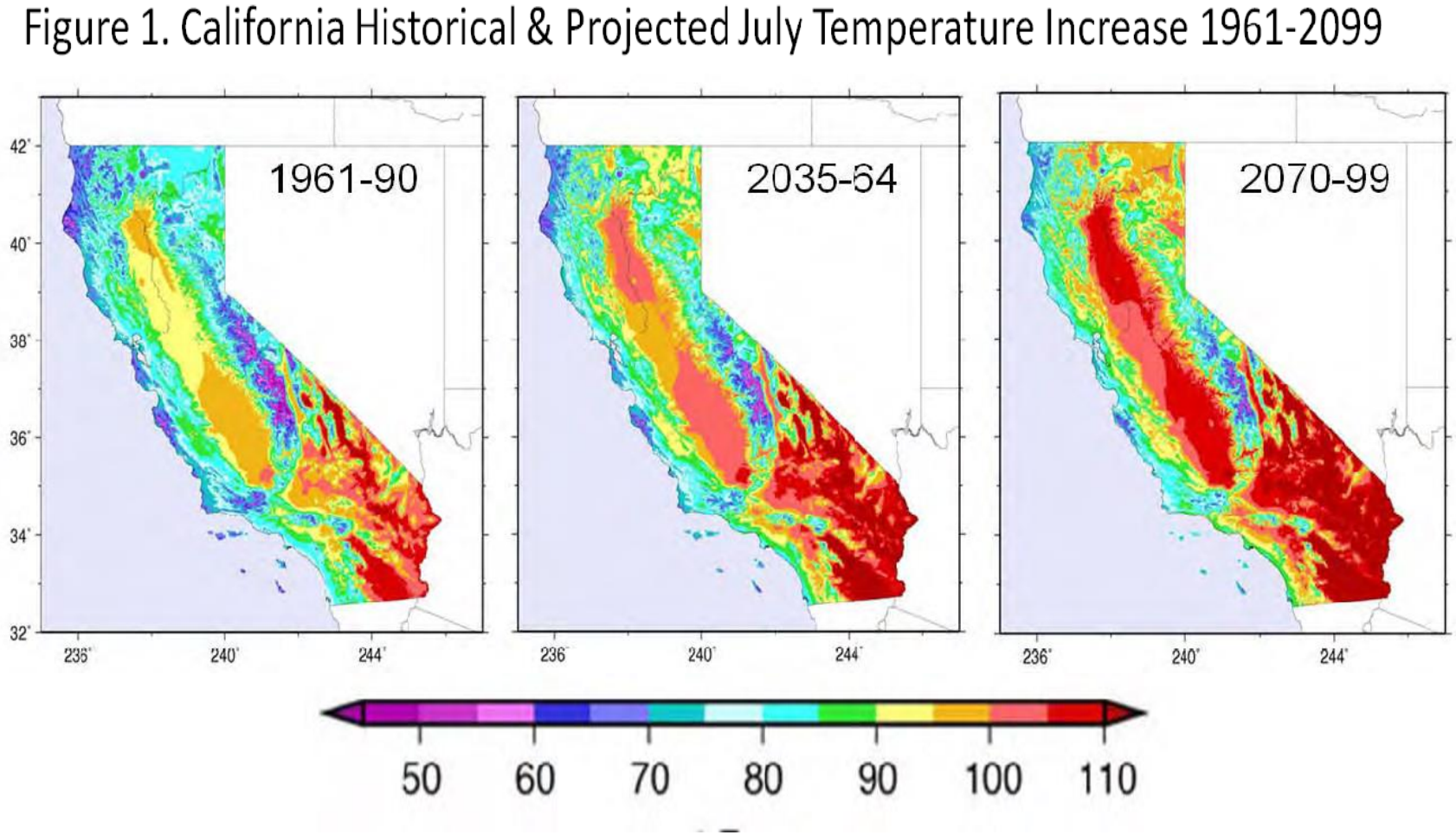
Questions are welcome at any time

Part I. California's Response to the IPPC Global Warming Challenge

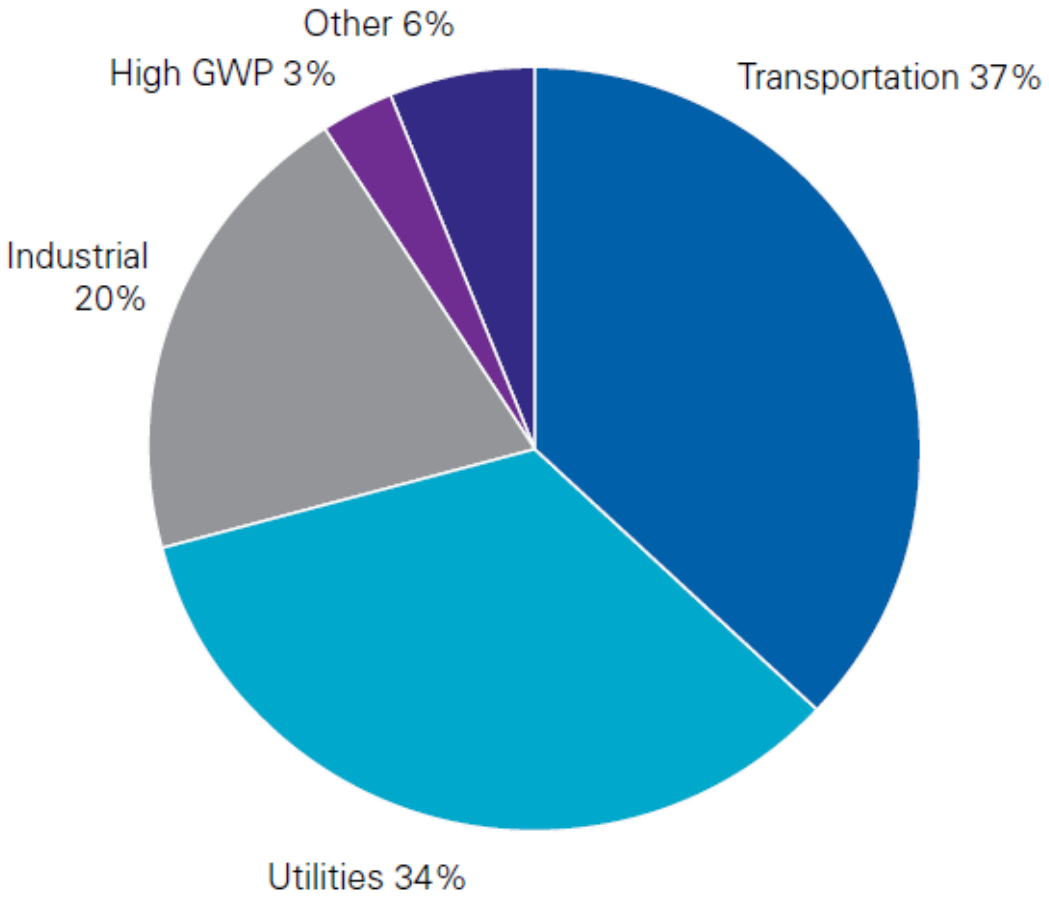
AB32, "The California's Global Warming Solutions Act of 2006"

- The Act was passed by Democratic legislature and signed into law by a Republican Governor.
- It is extraordinary in its comprehensive, economy-wide coverage calling for a multifaceted effort of greenhouse gas reductions by the business and people of California.
- It calls for reducing GHG emissions to 1990 levels by 2020 (a 25% reduction in emissions).

Projected Global Warming: 2+ Degrees Celsius

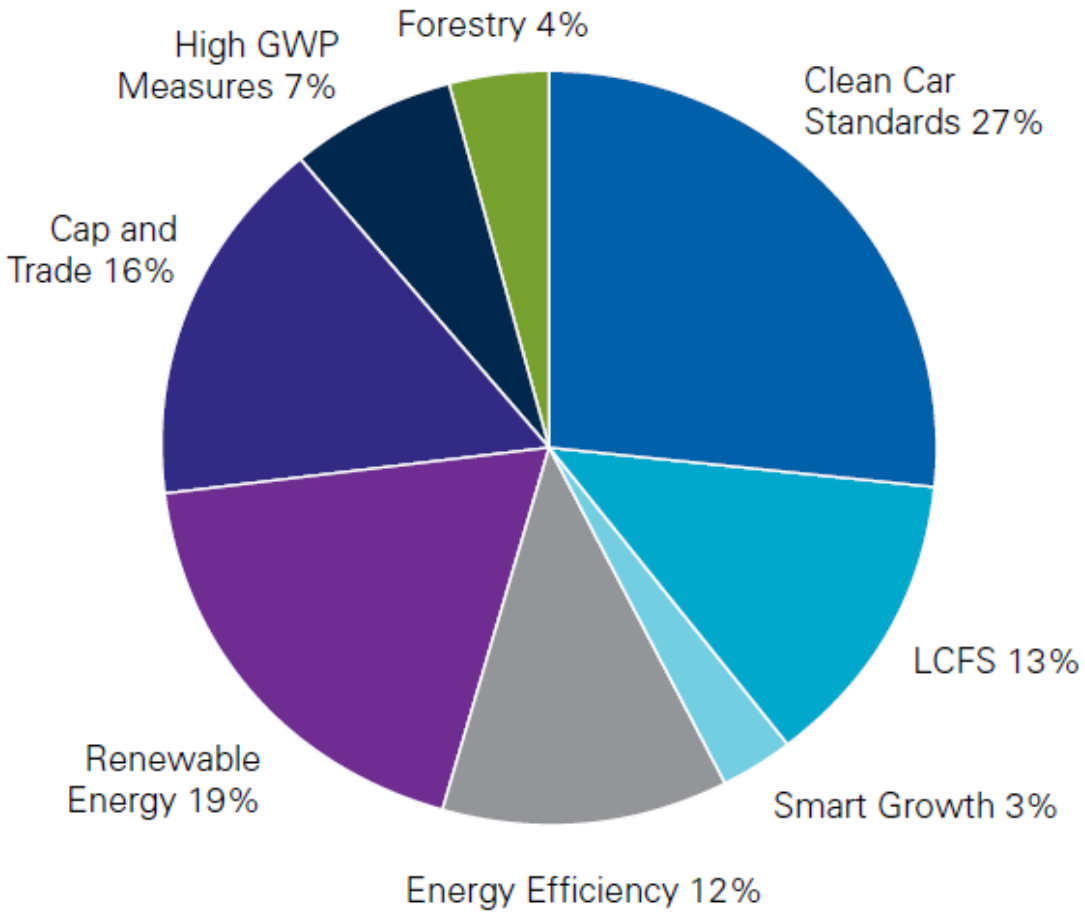


CA Emissions Sources 2000-2008



Source: ARB, California GHG Inventory for 2000 to 2008.

AB 32 Emissions Reduction Strategy



Source: ARB, Emissions Reductions from Scoping Plan Measures; 2020 GHG Emissions Forecast.

Climate Change Scoping Plan

a framework for change

DECEMBER 2008

Pursuant to AB 32
The California Global Warming Solutions Act of 2006

Prepared by
the California Air Resources Board
for the State of California

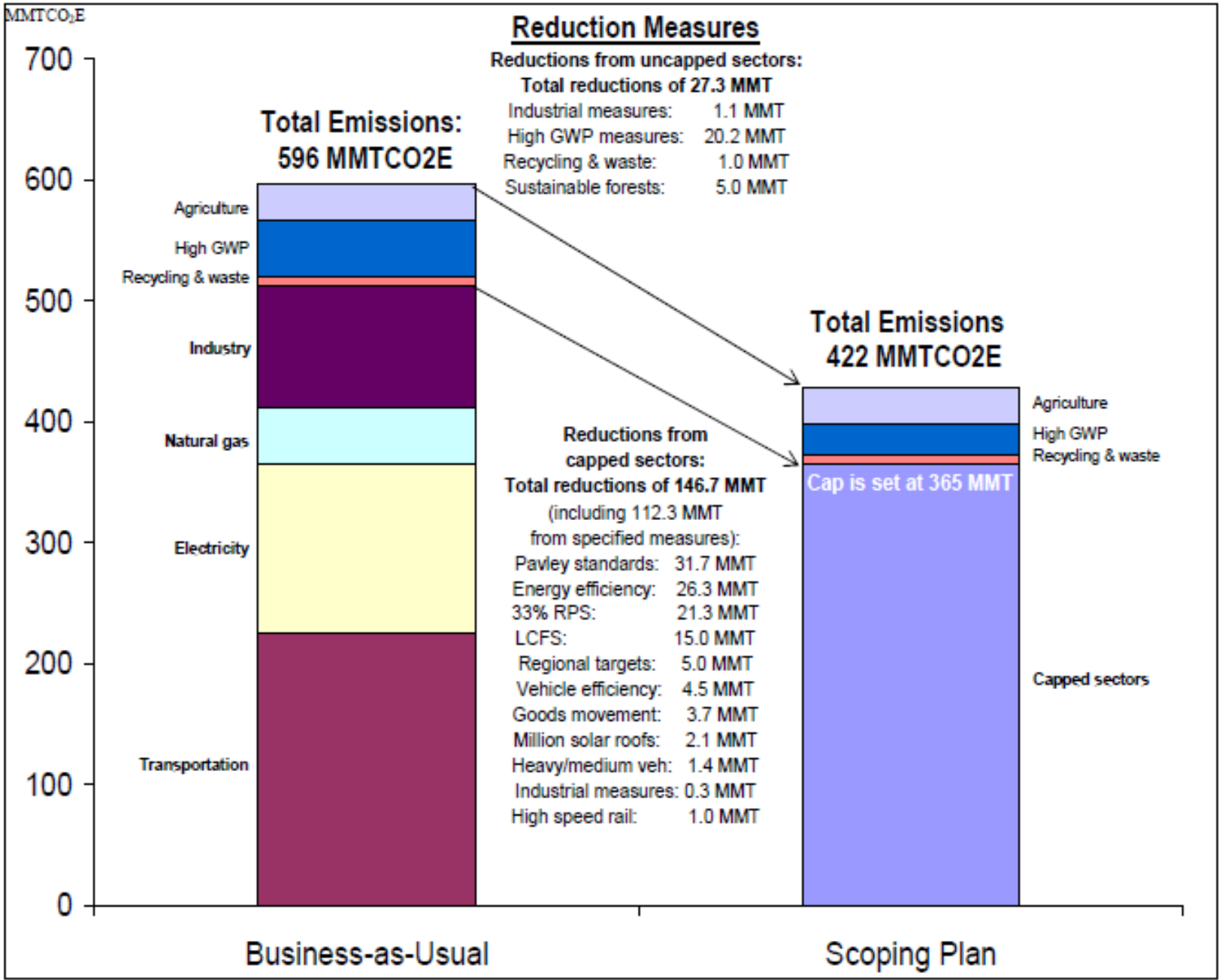
Arnold Schwarzenegger
Governor

Linda S. Adams
Secretary, California Environmental Protection Agency

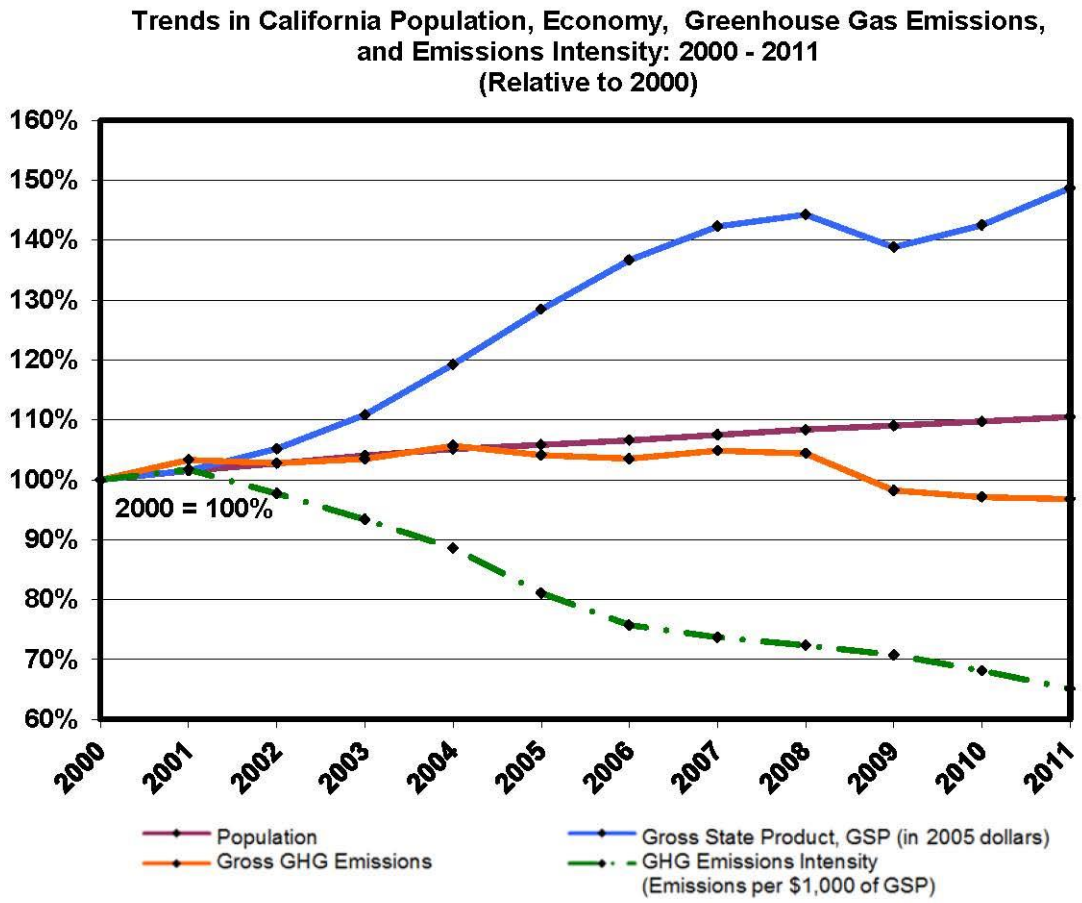
Mary D. Nichols
Chairman, Air Resources Board

James N. Goldstene
Executive Officer, Air Resources Board

Figure 3: California Greenhouse Gas Emissions in 2020 and Recommended Reduction Measures



TRENDS IN CALIFORNIA POPULATION, ECONOMY, AND GREENHOUSE GAS EMISSIONS



Source: ARB, 2013

Trends in GHG Emissions

CA emissions of GHGs did increase between 1990 and 2010

Since 2008 GHG emissions have declined by 7%

Since 2001, emissions intensity per $1,000 of gross state product has improved, during a period of 49% increase in economic output and a 10% increase in population

AB32 Large-Scale Measures: Electric Energy

A Renewable Portfolio Standards (RPS) applied to both IOU's and municipal (public) power generators

- 33% of energy procurement from alternatives by 2020 (excluding large scale hydro and nuclear power)

Four Approaches

- Large scale solar energy plants and wind farms
- Alternative 'loading orders': demand-side-management, conservation, distributed solar
- Feed-in tariffs: e.g., City of Los Angeles 2012
- Smart grids

AB 32 Large-Scale Measures: Cap-and-Trade

- Main features:
  - Market-based allowances and offsets for all large industires
  - Quebec Canada as exchange partner
  - First auction, covering utilities: 2012, $10+ per ton

- Looking ahead:
  - Projected 80% of emissions reductions to come from Cap-and-Trade by 2050
  - Importance of pricing carbon beyond CA
  - Effect of plentiful and cheaper natural gas

CA Public Opinion: Strong Support

- Two-thirds say global warming is a serious threat (**48% very serious, 31% somewhat serious**) to economy and quality of life in the future
- Most (**67%**) favor the state law requiring CA to reduce greenhouse gas emissions
- Most (**65%**) say steps need to be taken right away to counter the effects of global warming
- **60%** of Californians favor the state making its own policies, separate from the federal government
- However, with Cap and Trade provisions set to begin: **54%** heard nothing. Of those who have heard a lot: strong support (**62% - 35%** in favor)

- Compiled from: PPIC survey on environment, July 2013

AB 32 Implementation Considerations

Technical Feasibility: to make the changes in energy generation, transportation, urban patterns, and people's behavior in a timely manner

Economic Shock: an ongoing recession, 2007-present, undermining investments needed and business model for the green strategy embodied by the policy

Interest Group Opposition/Push Back:

- at the administrative level via CARB
- through the initiative process: Prop 23, defeated in the 2010 election with a 63% vote against

Urban Policy Companion Legislation

SB375, Sustainable Communities and Climate Protection Act of 2008

- The Act requires reductions in GHG and VMT (vehicles miles traveled) in exchange for expedited development permitting.
- It calls for linking CA's climate change strategy to future development through regional-based planning for transportation, jobs-housing balance, and urban design within the context of a growing state population.
- Incentives: relief from some CEQA (CA Env. Quality Act) provisions; federal transportation funding

Part II. California's Response to the Projected Effects of Climate Change

2009 – CA Natural Resources Agency, "California Climate Adaptation Strategy": http://www.climatechange.ca.gov/adaptation/index.html

2010 - California Adaptation Advisory Panel Report, "Preparing for the effects of climate change – a strategy for California": http://www.pacificcouncil.org/document.doc?id=185

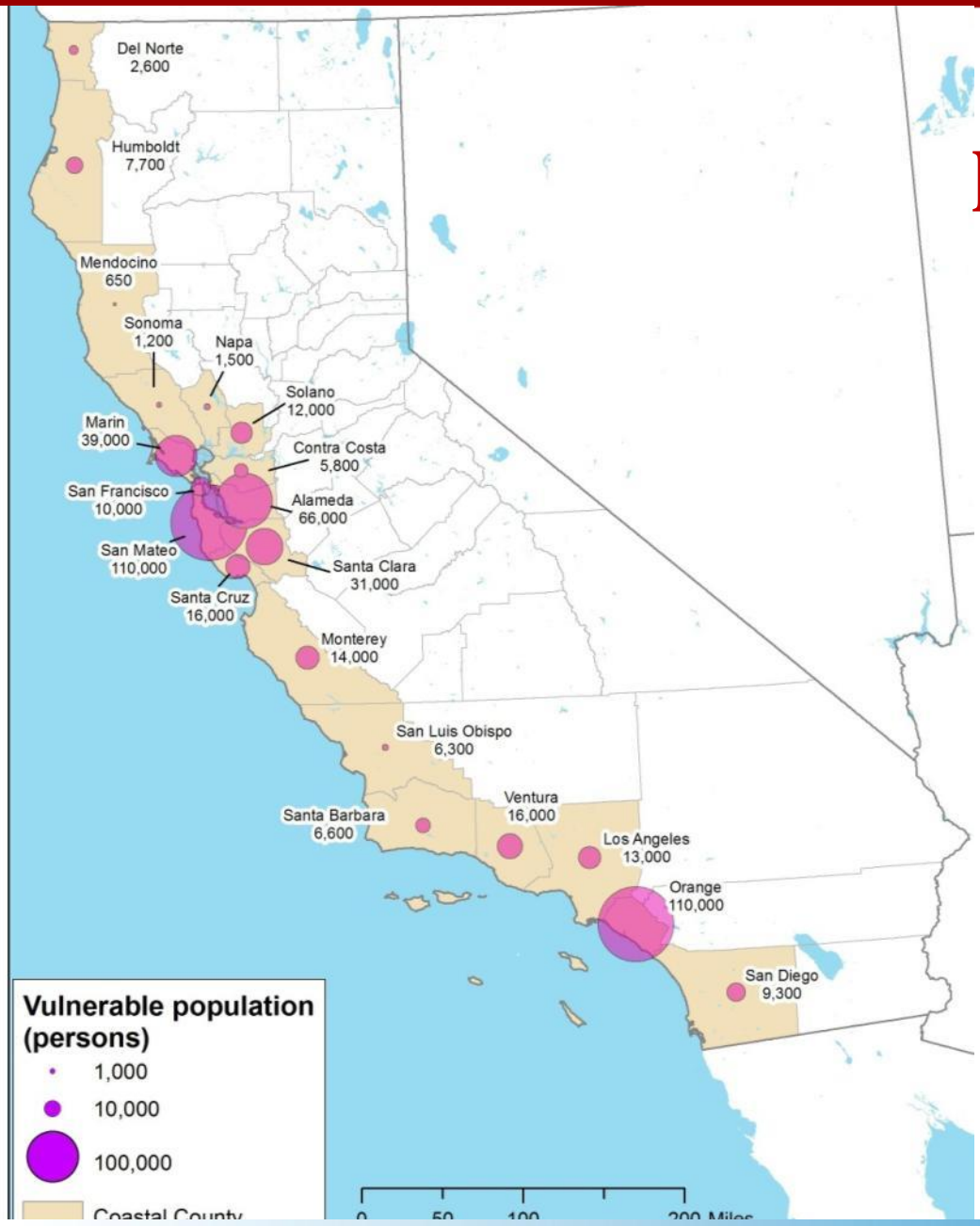
Three Climate change effects facing California

	Sea-level Rise/Flood	Forest Fires	Water Supply
Threat	• 1-2+ meter sea rise by 2100 • Inundation • Coastal erosion	• Forest infestation • Extreme fires	• Reduced snowpack • Precipitation variability • More rapid evaporation
Impacts	• Loss of communities, recreation, fresh water sources, wet land habitats	• More frequent and intense fires • More exposure at the urban-wild land interface	• Reduced storage capacity • Increased demand • More frequent flooding

Sea-Level Rise as a Prime Example of Climate Change Threat to California

Projected rise of 18” by 2050 and 55” by 2099 or higher depending on mitigation efforts

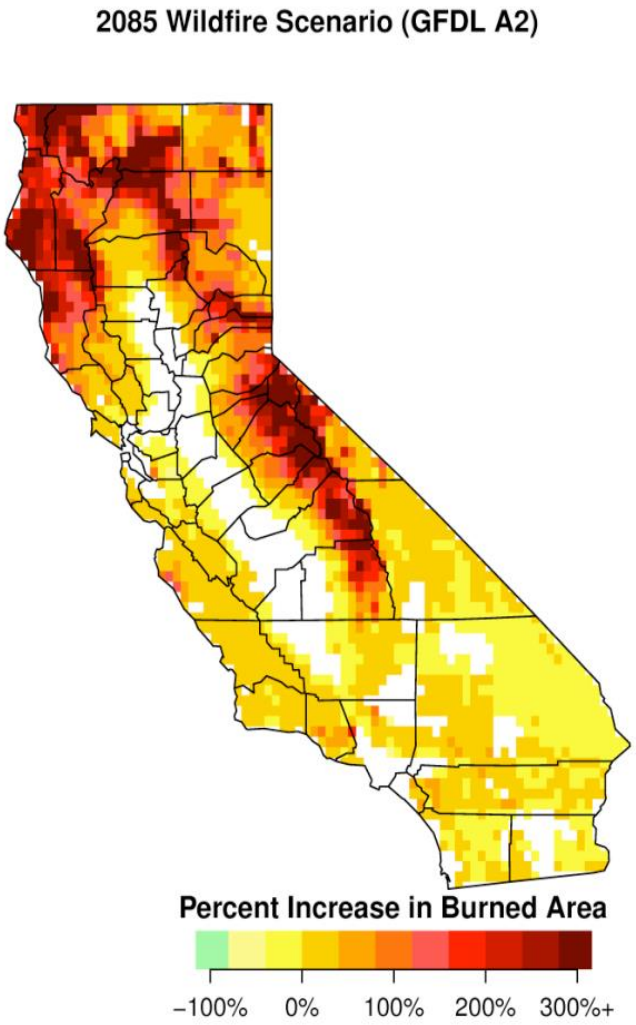
- Risks of coastal flooding to people, homes, and infrastructure in low-lying areas along 1100 miles of coastline, plus bays and inlets
- Increased erosion of beaches, cliffs and dunes
- Increased saltwater intrusion into coastal groundwater resources and San Francisco Bay Delta
- Coastal wetlands loss and replacement



SEA LEVEL RISE: Population at Risk

- 480,000 people
- 300,000 workers
- Large numbers of low-income people and communities of color

Pacific Institute



Source of fire slides: Anthony Westerling, 2009

Perceptions of Threats

	Concern level	
	Very high	Somewhat
Wildfires that are more severe	57%	25%
Droughts that are more severe	49	29
Increased flooding	28	28
Storms that are more severe	28	30

Source: PPIC Survey, July 2013

•Aligning incentives at the level of the individual, business and industry, community, regional and state level to result

6 Key Recommended Actions Under Consideration in CA

1. Enhanced data gathering and monitoring of climate change effects

2. Require intergovernmental and inter-sector coordination around climate change effects in planning and approving projects

3. Develop capacity at all levels of government in science-based climate change assessments and decision making

Cont.:

4. Develop extensive and continuous public education and on climate change and projected effects

5. Establish a California Risk Council in the office of the governor (CAAP only)

6. Align incentives at the level of the individual, business and industry, community, regional and state level to result in adaptation actions (CAAP only)

Part III. The Puzzle of California's Climate Policy—Acting Globally While Talking Locally

Precedent setting state mitigation policy on the "collective good" dimension of the climate change challenge, of benefit to the 7 billion people on the planet, i.e., AB32

Inaction on the "selective good" dimension of direct benefit to Californians, i.e., no comparable adaptation state policy on the collective needs of the state

A Provisional Explanation of the Puzzle

John Kingdon's three streams theory of policy adoption

- Problem recognition
- Available policy 'solutions'
- Political timing

[John Kingdon, Agendas, Alternatives, and Public Policies, 2003]

Problem stream – Has a 'condition' been defined as a public policy 'problem'?

- *Yes* for mitigation: IPCC, UN Framework Convention on Climate Change, the CEC series of reports, COP 15.
- *Nothing comparable* for adaptation (with the possible exception of the Weather Channel's dramatization of extreme weather events)

Policy stream – Are there plausible policy responses waiting in the wings?

- *Yes* for mitigation: IPCC GHG emissions reduction target for 2050; dovetailing of GHG reductions with local and state Clean Air goals; studies showing net jobs gains from green investment.

- *Nothing comparable* for adaptation: Absence of an IPCC or other goal or target for adaptation, e.g., holding sea-level rise to a tolerable level, for example, 1 -2 feet, as opposed to the far high model projection, up to even 8 feet.

Political stream – Is the convergence of political forces sufficient to place the problem on the political agenda?

- *Yes* for mitigation: a Governor willing to champion and expend political capital and a legislature sympathetic to the environmental community
- *No* for adaptation: not yet at least
- Proposed legislation on hold in the legislature
- Silence on the part of the governor
- The shifting political winds and partisan gridlock in the US between 2006 versus 2013

Nonetheless, the Rising Sea Won't Wait

Absent a state adaptation policy, those most likely to be affected are starting to pay attention:

- San Francisco Bay Area – BCDC, "Living with a Rising Bay", draft report, Sept. 2011
- Beach communities – Philip King, *et al*, "The Economic Costs of Sea Level Rise to California Beach Communities," Sept. 2011
- Fight over sea walls headed to court, Tony Perry, LA Times, May 12, 2013