

Climate Action Team

March Briefing
Air Resources Board

Executive Order Established Statewide GHG Targets

By 2010, Reduce to 2000 Emission Levels*

By 2020, Reduce to 1990 Emission Levels**

By 2050, Reduce to 80% Below 1990 Levels

* Equals 60 Million Tons Emission Reductions, 11% Below BAU

** Equals 175 Million Tons Emission Reductions, 30% Below BAU



Climate Action Team

- CalEPA Secretary Chairs the Team
- BT&H, CDFA, Resources, PUC, ARB, CIWMB, and CEC are Represented
- The CAT Report:
 - Key Recommendations
 - Emission Reduction Strategies
 - Cap and Trade
 - Scenario Analysis
 - Environmental Justice Considerations
 - Report to Governor and Legislature in February 2006 and Biennially Thereafter

Key Recommendations

- ❑ Coming Soon.....
- ❑ Build on December 8 Draft Report
- ❑ Modifications made as a Result of Public Comment
- ❑ 15,000+ Commenters, Few Hundred that Contributed Substantive Comments

Strategies Underway

- Motor Vehicle Regulations
- Efficiency Measures
- Renewable Portfolio Standard
- California Solar Initiative
- Hydrogen Highway
- Green Buildings
- Recycling and Waste Reduction

CAT Recommended Strategies

- The CAT Recommends a Broad Range of Strategies including:
 - HFC Reductions
 - Forest Management
 - Water Use Efficiency
 - Appliance and Building Efficiency, Including LSEs and Municipal Utilities
 - Smart Land Use
 - Conservation Tillage

Based on Best Available
Information to Date,
Implementation of These
Strategies will Achieve the
Governor's Targets

Market-Based Program

- ❑ Market-Based Program Integral To California's Strategy For Reducing Emissions
- ❑ National Approach To Capping Emissions Within An International Framework Most Effective
- ❑ In The Absence Of National Action, California Can Lead By Example By Developing A Market-Based Program As A Model For National Action

Market-Based Program Design

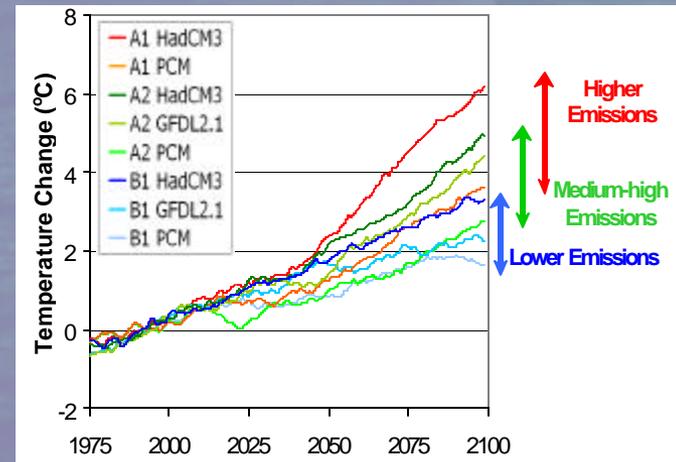
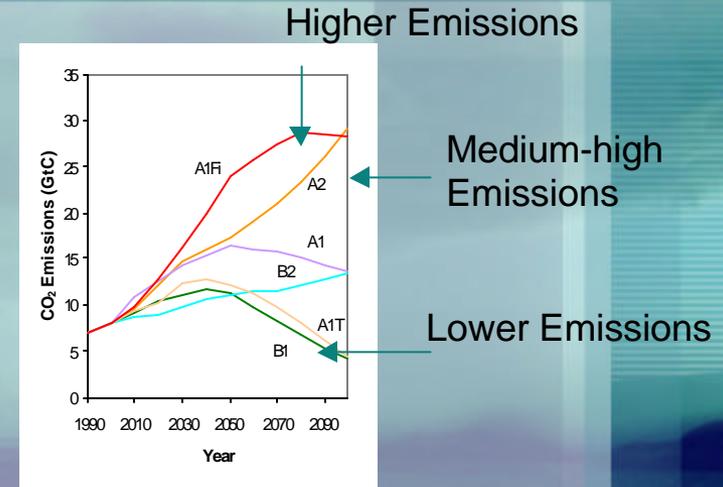
□ Design Options

- Scope: Which Sources To Cover
- Distribute of Emission Allowances
- Auction
- Emission Offsets
- Other: Banking; Compliance Tracking; Gases To Cover

□ Facility-Level Emissions Data Needed

Scenarios

- ❑ Global Emission Scenarios: A1fi, A2, And B1
- ❑ Global Climate Models: GFDL, PCM, And Hadley3
- ❑ Temperature And Precipitation Downscaled To California
- ❑ Use Of An Hydrological Model (VIC) To Produce The Needed Hydrological Products

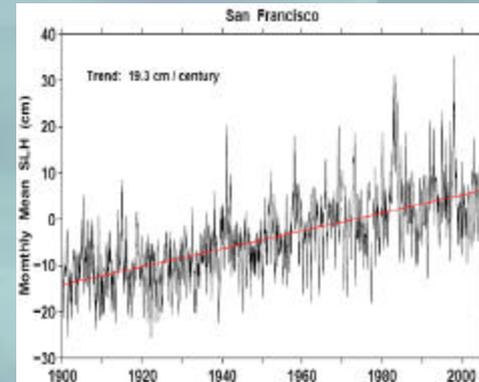


Projected Annual Mean Temperatures In California

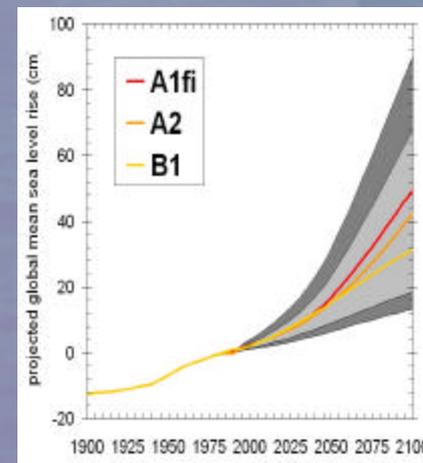
Coastal Sea Level

- Projections For The 2070-2099 Period
 - 5 To 24 Inches (B1)
 - 7 To 30 Inches (A2)
 - 8 To 35 Inches (A1fi)

- Salt Water Intrusion into Levees and Flooding Risks



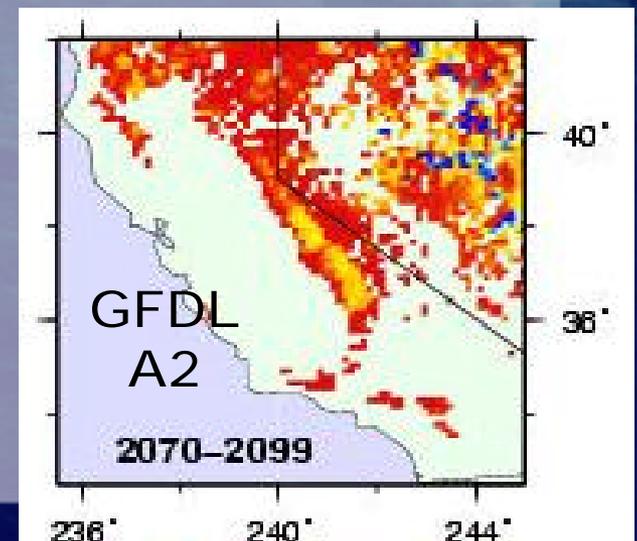
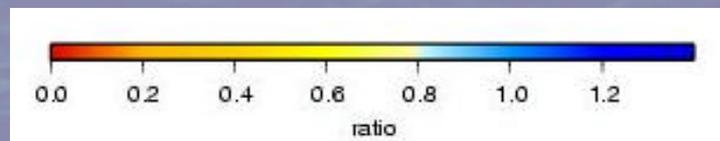
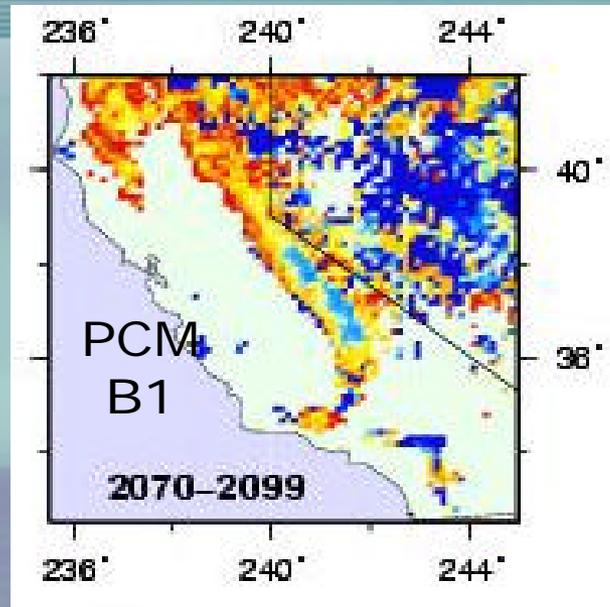
Observed Changes



Projections of global mean sea level rise

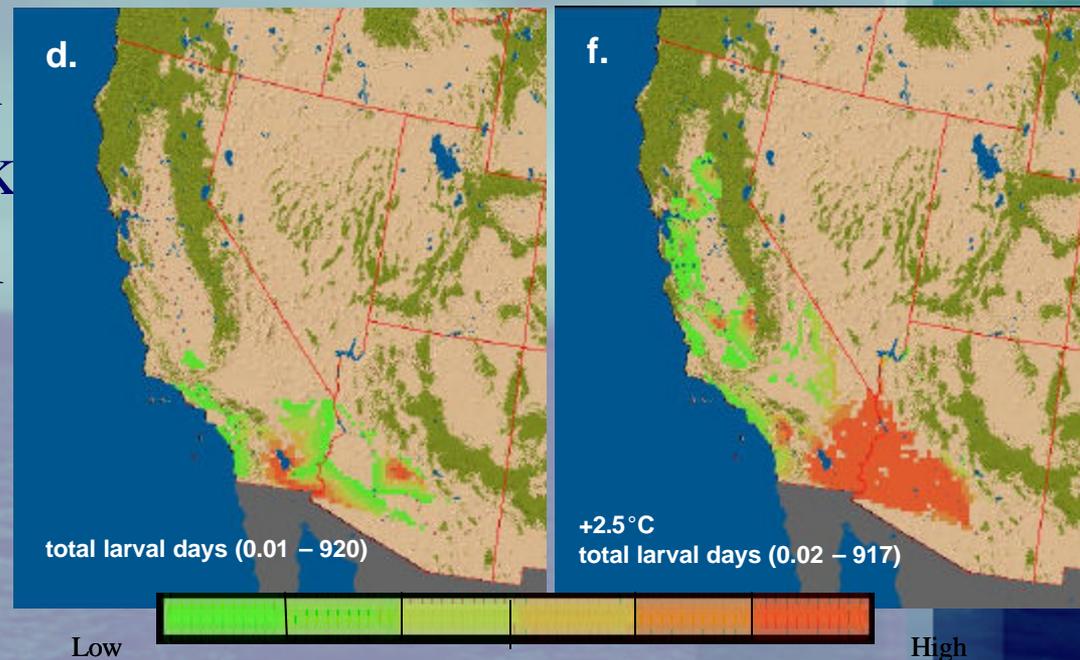
Water Resources

- ❑ Declining Snow Pack Will Aggravate The Already Overstretched Water Resources In The State
- ❑ Increased Flooding Risk
- ❑ Potential Up To 90 Percent Reductions Of April 1st Snow Levels



Agriculture

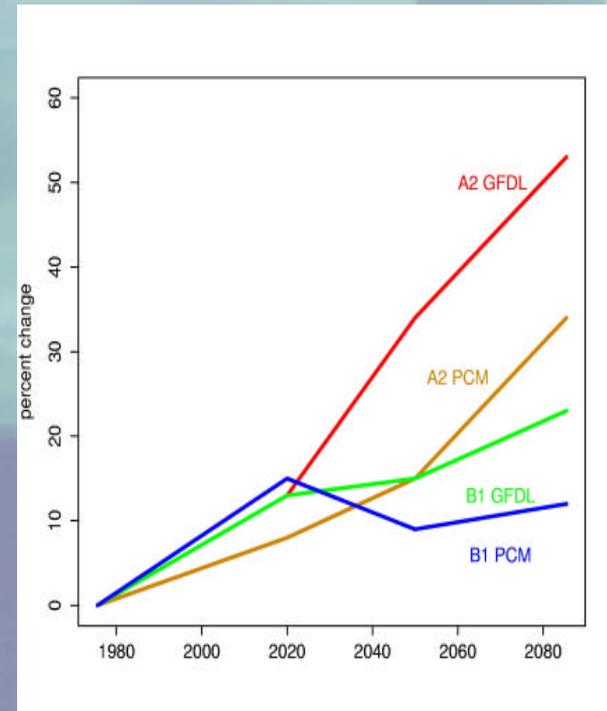
- ❑ Many Species Of Fruit Trees May Not Grow In The State Due The Lack Of Needed Winter Chill Hours
- ❑ Some Pests Such As The Cotton/Pink Bollworm (Pbw) Will Increase Their Ranges



The effect of total seasonal pest PBW larval densities (larval days) under current weather (d) and with 2.5 degrees C (f) increase in daily temperature

Forest and Natural Landscapes

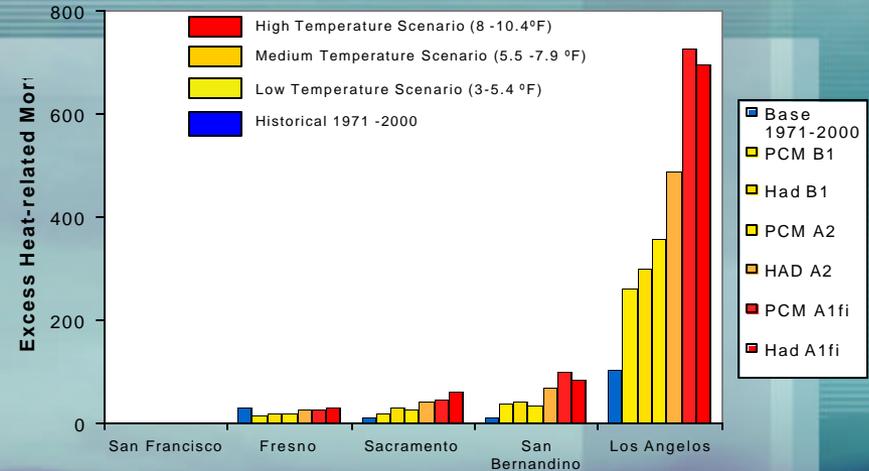
- ❑ Changes In Vegetation Patterns Will Occur
- ❑ The Alpine And Subalpine Ecosystems Are Most Susceptible
- ❑ Increases In The Number Of Large Fires Almost By 35% By Mid-century And 55% By The End Of This Century Under The A2 Scenario
- ❑ Fire Impacts Are Less Severe Under The B1 Scenario (Lower Global Emissions)



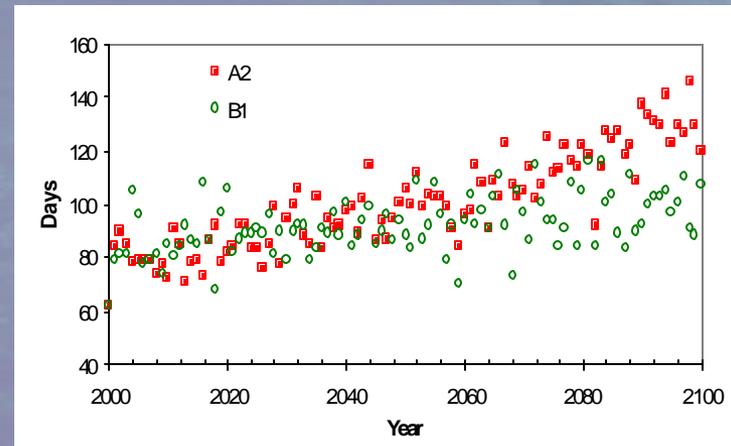
Percent change in the expected minimum Number of large fires per year in California

Public Health

- ❑ Increase Of Heat-related Mortality
- ❑ It Will Be More Difficult To Comply With Ambient Air Quality Standards For Ozone



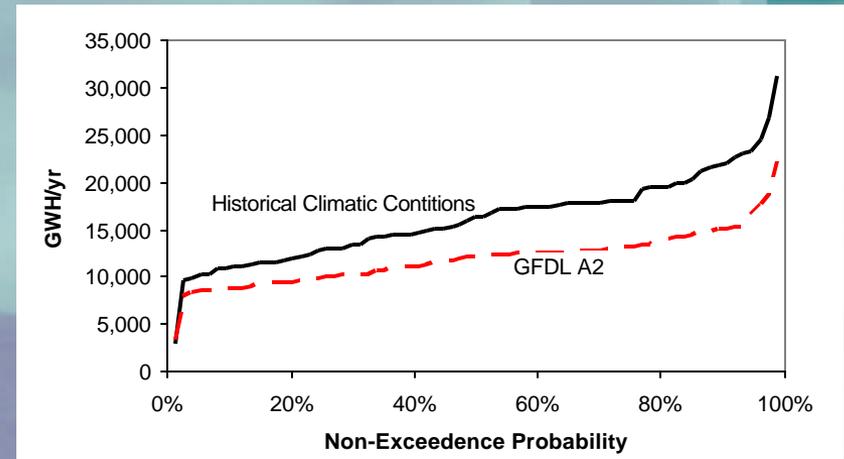
Projected annual heat-related mortality for 2070-2099 and historic mortality for 1971-200



Projected days with meteorology conducive to exceedances Of the 1-hour state ambient air quality standard for ozone

Electricity

- ❑ Annual Hydropower Generation Will Decrease If Climate Change Reduces Precipitation Levels
- ❑ Electricity Demand Will Increase With Temperature From 3 To 20 % By The End Of This Century



Next Two Years

- ❑ CAT Will Work Together to Implement Emission Reduction Strategies
- ❑ Market-Based Options Evaluated and Recommendations Made
- ❑ Refine Economic Analysis
- ❑ Continue Scenario Analysis including Adaptation Options