



Topics

- The Problem
- Importance of Land Use
- CEQA
- The Real Challenge



The Problem



Mathes photo, NPS Archives, 1900



Grinnell Glacier, 1900 (USGS) Grinnell Glacier, 1998 (USGS)

The Problem

In California:

- Shrinking Sierra snow pack
- Damage to agriculture and forestry
- Habitat and species loss
- Coastal erosion
- Increased wild fire risk
- Public health impacts (heat, ozone)
- Flooding and salt water intrusion
- Increased demand for electricity

The Problem

"If there's no action before 2012, that's too late. What we do in the next two to three years will determine our future. This is the defining moment."

– Dr. R.K. Pachauri,
Chairman, UN IPCC

What Americans Say

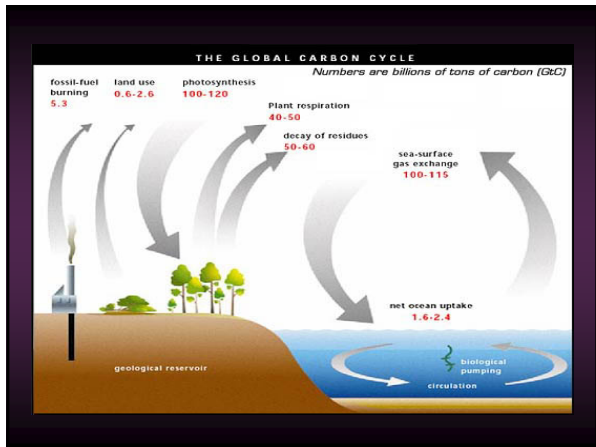
- 68% "Completely" or "Mostly Convinced" that global warming is occurring.
- 55% Believe individuals can make a difference.
- 74% Want their local govt to do more to reduce GHG.
- 68% Support zoning to decrease sprawl and concentrate development.

Executive Order S-3-05

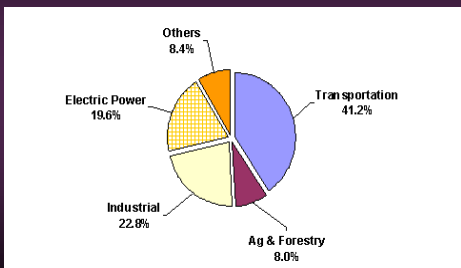
June 1, 2005

- CA will reduce Greenhouse Gases to:
2000 levels by 2010
1990 levels by 2020
80% below 1990 levels by 2050

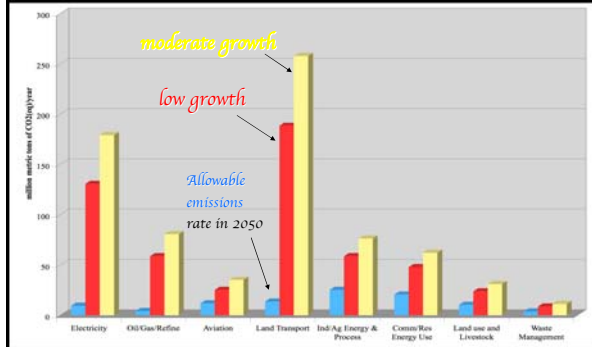




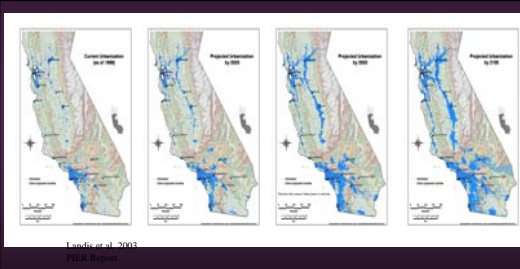
CO₂e Emissions by Sector in CA



Reductions Needed to Meet the Challenge



Urban Growth



Stating the obvious



Focus on Transportation

- Improve vehicle fuel efficiency
- Reduce carbon content of the fuel
- Reduce the miles of travel



Importance of Protecting Open Space and Reducing Sprawl



California Environmental Quality Act (CEQA)

- CEQA requires state and local agencies to identify and reduce significant, negative environmental impacts of land use decisions.
- Climate change a significant, negative impact!



What You Can Do

- Support Local Financing Programs for Energy and Water Retrofits
- Support Smart Infill/More Efficient Land Use
- Oppose Sprawl (CEQA, other)
- Support Open Space Protection
- Get Educated...

How much CO₂ do you emit per day?

Calculation Hints

- Transportation
 - Gas: 1 gallon = 20 lbs. CO₂
 - Diesel: 1 gallon = 22.5 lbs CO₂
 - Biodiesel from virgin vegetable oil: 11.2lbs
 - Biodiesel from recycled vegetable oil: 5.6 lbs
- Electricity
 - If produced by coal: = 2.3 lbs per kilowatt hour
 - 1.5 hours tv = 1 lb CO₂
 - 1 60 watt light bulb burning 24 hours/day = 3.3 lbs CO₂
- Heat
 - 1 cubic foot natural gas = 0.12 lbs CO₂ (+ methane)



Source: Copyright (c) 2008, Regents of the University of California, University of California, Berkeley <http://www.coolcalifornia.org/calculator.html>

What You Can Do

- Vote: Hold Elected Officials Accountable
- Choose and Efficient Vehicle
- Drive Smart
- Drive Less
- Buy Energy Efficient Appliances
- Replace Light Bulbs with Compact Fluorescents
- Choose renewable energy
- ...

Number of Earths

<http://www.footprintnetwork.org/webgraph/graphpage.php?country=usa>

Number of Earths Required if the World Population Equaled Orange County = Approximately 5 earths

Questions