

# California Clean Cars Campaign

Global Warming Solutions for a Healthy California

[www.calcleancars.org](http://www.calcleancars.org)

American Lung Association  
of California

Bluewater Network

California League of  
Conservation Voters

California Public Interest  
Research Group

Center for Energy Efficiency  
and Renewable  
Technologies

Coalition for Clean Air

Environment California

Environmental Defense

Natural Resources Defense  
Council

Physicians for Social  
Responsibility

Planning and  
Conservation League

Sierra Club

Steven and Michele Kirsch  
Foundation

Union of Concerned  
Scientists

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## Global Warming Effects on California

Global warming threatens California's health, environment, way of life and economy, especially key industries such as agriculture and tourism. The state faces threats of increased air pollution, wildfires, floods, drought and temperature swings, and local and state government face potentially significant emergency response and mitigation costs. These threats compelled the state to pass Assembly Bill 1493 to reduce global warming pollution from cars, and in 2002, (Pavley) established California as a national leader

### SCIENTISTS AGREE

The overwhelming majority of the world's climate scientists now agree that global warming is a real problem, and that most of the warming over the last 50 years is attributable to human activities that have increased greenhouse gas concentrations in the atmosphere. Furthermore, they predict that the pace of global warming will accelerate over the next century and affect ecosystems with increasingly dramatic results. Average global temperatures could increase by 2.5 to 10.4°F this century, a change unprecedented over the past 10,000 years.<sup>1</sup>

### CALIFORNIA EFFECTS

Recent scientific studies predict that without action to reduce global warming emissions, California's environment, air quality, water resources, and economy will suffer. For instance, global warming will drastically change rainfall patterns in California, resulting in less water during the critical dry months, and too much water during the rainy season.<sup>2</sup> This will make it nearly impossible for California's complex water delivery system to function. Too little spring runoff will reduce the reliability of flow for hydropower and critical freshwater habitats, and cause serious problems for the state's \$27 billion agriculture industry, and too much winter rain will increase the likelihood of flooding.

Other global warming effects predicted in California this century include:

- ◆ Adverse health impacts from increases in air pollution caused by higher temperatures. More than 95% of Californians live in areas that fail to meet federal or state air quality standards.<sup>3</sup> Recent gains in air quality could be threatened as rising temperatures cause an increase in ozone and smog, particularly affecting children, seniors, and those with existing illness.<sup>4</sup>

- ◆ Warm wet winters followed by dry summers, leading to higher rodent populations and an increased risk of outbreaks of hantavirus, a deadly pulmonary disease.<sup>5</sup>
- ◆ Diminished snowpack levels in the Sierra Nevada range and changes in the timing of spring runoff.<sup>6</sup>
- ◆ A doubling of catastrophic wildfires in some regions due to faster and more intense burning associated with warming, drying vegetation, and elevated wind speed.<sup>7</sup>
- ◆ Damage to the state's extensive coastline and ocean ecosystems due to an increase in storms and significant rise in sea level.<sup>8</sup>
- ◆ Agriculture crop losses caused by projected heavy precipitation and plant damage from excess soil moisture.<sup>9</sup>
- ◆ Significant effects on consumers, businesses, and the state's economy due to increased food, water, energy, and insurance costs, additional environmental losses, and demands upon the public health infrastructure.

## SOLUTIONS

New climate models demonstrate that taking immediate action to address global warming now can reduce the damaging effects later. Furthermore, preventing more warming by reducing greenhouse gas emissions is likely to be a much more cost-effective way to protect resources and wildlife species than trying to adapt to an uncontrolled level of global warming and its harshest effects.

As the fifth-largest economy in the world and a longtime national leader in environmental solutions, California is critical to controlling and reducing greenhouse gas emissions to slow the effects of global warming. The largest sources of global warming pollution in the state are passenger vehicles and light-duty trucks, which are responsible for approximately 40 percent of California's total greenhouse gas emissions. AB 1493 directs the California Air Resources Board to adopt regulations that achieve the maximum feasible cost-effective reduction of greenhouse gases emitted by passenger vehicles, and sets the stage for nationwide proliferation of clean vehicles.

In contrast with the federal government, which has failed to take decisive action on reducing greenhouse gas emissions, California is leading the nation and in step with scientists around the world. The time to act is now.

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<sup>1</sup> Intergovernmental Panel on Climate Change, 2001: "Summary for Policymakers, a Report of Working Group I of the Intergovernmental Panel on Climate Change."

<sup>2</sup> Knowles, N., and D.R. Cayan, 2002: "Potential Effects of Global Warming on the Sacramento/San Joaquin Watershed and the San Francisco Estuary," *Geophysical Research Letters*, 29(18), 1891.

<sup>3</sup> California Air Resources Board, Dec 6, 2001: Fact Sheet.

<sup>4</sup> Bloomfield, J., et al., 2001: "Hot Prospects: the Potential Impacts of Global Warming on Los Angeles and the Southland," Environmental Defense.

<sup>5</sup> Bloomfield, J., *ibid.*

<sup>6</sup> Knowles, N., *op. cit.*

<sup>7</sup> Torn, M.S, E. Mills, J. Fried, 1998: "Will Climate Change Spark More Wildfire Damage?" Lawrence Livermore National Laboratory Report No. LBNL-42592.

<sup>8</sup> U.S. EPA, Mar 3, 2003: "State Impacts – California,"

[http://yosemite.epa.gov/oar/globalwarming\\_nsf/content/ImpactsStateImpactsCA.html](http://yosemite.epa.gov/oar/globalwarming_nsf/content/ImpactsStateImpactsCA.html).

<sup>9</sup> Rosenzweig, C.E., et al., 2002: Increased Crop Damage in the U.S from Excess Precipitation under Climate Change," *Glob. Environ. Change* 12, 197-202.