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## State unprepared for effects of warming, report says

Jane Kay, Chronicle Environment Writer Tuesday, November 18, 2008



Despite its tough goals to reduce greenhouse gases, California is not prepared to deal with the flooding, coastal erosion and loss of wildlife habitat that scientists are predicting in the coming decades as a result of higher global temperatures, a new report says.

Inundation of the coastal shoreline from accelerating sea-level rise and storm surges threaten property, recreational activities and wildlife enclaves, yet agencies are just starting to assess these climate risks and inform local communities, said a study released Monday by the Public Policy Institute of California, a nonprofit research group.

The report examines the state's capability to provide water and electricity to the public as well as protecting coastal resources, air quality, public health and ecosystems in response to climate change and extreme weather events such as wildfires. It is based on previous studies done by Lawrence Berkeley National Laboratory, UC Davis and Scripps Institution of Oceanography, among other researchers.

"We need to help agencies get prepared to deal with climate change," said Louise Bedsworth, a research fellow at the institute and co-author of the report. "In some areas, we need to be acting now."

Providers of water and electricity are the furthest along in responding to the projections for changing weather patterns in California, according to the report.

Water managers are beginning to plan for the warmer winters that are expected to bring more rainfall and less snow, dramatically reducing - perhaps by half - the Sierra snowpack.

The mountain ice has provided free water storage that gets cities and farms through the dry summer months and supplies salmon and other wildlife with fresh water. Now water agencies are using tools of conservation, recycling water, desalination and groundwater banking.

Electricity providers are preparing for peak use in the summer months, particularly in inland areas, the report said. They are encouraging energy-efficient construction and lighting, and alerting customers to cut back during the peaks.

In recent years, water agency managers have become increasingly aware of how climate change will affect their agencies and consumers, said Peter Gleick, executive director of the Pacific Institute, a nonprofit research center in Oakland.

"But there's a big difference between awareness and action. I don't think enough is being done on the ground to reduce the vulnerability of our water supplies," Gleick said.

Scientists project that sea level could rise between 8 and 16 inches by mid-century, but efforts to control flooding are lagging, the report said. Flood managers haven't started to change land-use plans to ward off possible devastating floods, particularly in fast-growing parts of the Central Valley, the report added.

The state is also behind in protecting coastal resources, the report said. The California Coastal Commission and Bay Conservation and Development Commission have been urging communities and agencies to incorporate sea-level rise into development plans but the measures are in infancy stages, the report said.

In March, the BCDC is hosting an international symposium with Holland to tap into that nation's hundreds of years experience in dealing with rising seas and compare research on problems and solutions, said BCDC Executive Director Will Travis.

California's preparation to protect wildlife from climate change is also inadequate, the report said. As temperatures rise, plants and animals will begin to try to shift to cooler, higher elevations.

If conservation of habitat doesn't take climate into account, the wrong lands could be protected, the report said. The federal government has resisted considering climate change as a threat under the Endangered Species Act.

What happens in California is key, the report said, because other states and even nations have been looking to California for regulatory and technical ways to reduce carbon dioxide and other greenhouse gases.

California law requires an 80 percent reduction of carbon emissions below 1990 levels by 2050. The state Air Resources Board next month will release its latest plan on reductions from improved energy efficiency in buildings, increased renewable energy sources and more fuelefficient vehicles.

After President-elect Barack Obama takes office in January, the federal government is expected to grant waivers to the states to allow tougher regulations on greenhouses gases. California has been hampered by lawsuits from the auto industry, which has spent millions of dollars fighting state laws requiring cuts in tailpipe carbon emissions, a change that improves fuel efficiency.

On Monday, California Attorney General Jerry Brown, along with his counterparts in other states, sent a letter to House Speaker Nancy Pelosi urging a requirement in any proposed auto industry bailout measure to include provisions to combat global warming. The states want automakers to drop their opposition to California's greenhouse gas emission standards and produce energy-efficient vehicles that cut emissions by 30 percent by 2016.

The Public Policy Institute of California's study was paid for in part with funds from the Nature Conservancy, PG&E and Next Ten, a business group.

## Read the report online

View "Preparing California for a Changing Climate" at *links.sfgate.com/ZFJX*.

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