





Parched New Mexico gets a taste of climate change

By Patrick O'Driscoll, USA TODAY

New Mexico got a stark glimpse this year of what the future could be if steps aren't taken to curb climate change



The U.S. Geological Survey says glaciers in Montana's Glacier National Park could disappear in 25 years if temps increase at the present rate.

By Kate Patterson, USA TODAY

A state report last month predicted a possible rise of 8-12 degrees in New Mexico's average temperature by the end of this century. That would bring hotter summers and shorter, warmer winters with less snow, the 47-page study said. (**Related item:** The West takes lead on climate change)

New Mexico's chief environmental official says the forecast describes the state's plight already.

"In New Mexico this year, we have no ski areas operating on natural snow," says Ron Curry, secretary of the state's Environment Department. He notes the huge loss last year of pinyon pines — the state tree — because of a beetle infestation that was worsened by drought and warmth. "This just adds to the argument of what global warming is doing to the climate."

Climate scientists may debate whether severe drought in the Southwest is a sign that climate change is already here, but there is little dispute that drier, warmer conditions in the region are a taste of what life may be like if Earth's temperature continues to rise.

'Big ecological changes'

"The big ecological changes are really beginning ... in the West," says Tom Swetnam of the University of Arizona's Laboratory of Tree-Ring Research, which tracks climate change through tree growth. "We're seeing some of the effects already — massive forest die-offs, outbreaks of severe forest fires. Whatever affects the watershed is potentially devastating."

Earth's average temperature rose at least 1 degree in the 20th century, according to the World Meteorological Organization. But the rise has accelerated since 1976. Last year tied with 1998 for the warmest on record, and nine of the 10 warmest years have occurred since 1995.

Swetnam, who serves on Arizona's climate advisory group, says those who blame periodic drought, not global warming, for forest destruction in the Southwest cannot ignore even worse conditions in British Columbia. Almost 50 million acres of forest there are dead or dying from a bark-beetle infestation, as in the Southwest.

"It's tied to extraordinarily warm temperatures in that part of Canada, not drought," Swetnam says. "If that was happening in the northeastern U.S., maybe this would get some attention."

In New Mexico and several other Western states, it has.

When Gov. Bill Richardson ordered New Mexico's climate study last June, he also set targets for cutting "greenhouse gases," such as carbon dioxide from power plants and vehicle exhaust, which trap heat in the atmosphere. Nationally, those emissions have been growing an average of 1% a year since 1990. On Monday, the Environmental Protection Agency reported a 1.7% jump in carbon dioxide for 2004, the latest year data are available.



New Mexico's first goal is to curtail emissions in 2012 to year 2000 levels, when the state discharged 91.3 million tons of greenhouse gases. That reduction of about 10% would be the equivalent of removing about 150,000 vehicles from the state's roads. Subsequent cuts would aim for another 10% by the year 2020 and 75% less by 2050.

Richardson also named aclimate advisory group to recommend by the end of this year how to begin cutting emissions. Last fall, he made New Mexico the only state to join the Chicago Climate Exchange, an experimental market of companies, non-profit groups and local governments that earn and trade credits for cutting greenhouse emissions.



By Greg Sorber, The Albuquerque Journal via AP Theresa Jiron, left, gives a snowboarding lesson to Marie Barholdi on man-made snow at Sandia Peak Ski Area in New Mexico. Ski areas in the state have had to adjust to the lack of natural snow on the slopes this year.

— by 4% by year's end. If it can't, New Mexico must buy emission "allowances" from other members to offset what it fails to trim.

In December, *Business Week's* list of the world's top 20 "individual achievers" in cutting emissions named six Westerners, including Richardson and California Gov. Arnold Schwarzenegger.

Vickie Patton of Environmental Defense, says, "It's the classic American West ethic that we would step up and tackle global-warming pollution head-on. It's such a direct threat to our quality of life and our dependence on a fragile water supply."

New Mexico's climate-change report foresees less water for cities and towns, agriculture and other needs because less snow will accumulate in the mountains during shorter, warmer winters. New Mexico, like other states, relies on the annual melting of that snowpack for most of the state's water supply.

Extreme weather and more

The report predicted extreme weather that includes floods and longer droughts, wildfires, water loss from evaporation, extinction of wild species, invasion of non-native plants, air pollution and disruption of agriculture, tourism and the environment.

"We do say it is 'potential,' " says Sandra Ely of the New Mexico Environment Department. "We're not making any bets on what the precipitation will be, but it's pretty darn clear temperatures are going to increase."

Stephen Saunders, president of Colorado's Rocky Mountain Climate Organization, says disruption of the West's snow and water will make it "harder to support our current population, let alone the growing population that everybody predicts in the West because this is such an attractive place."

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