

Warmer Winters Melt Snowpacks  
New Mexican  
February 21, 2005

ALBUQUERQUE - Mountain snowpacks depended on by many Western states for water have shrunk during the last 50 years because of warmer winters, according to a new report.

Last March, snow was more than 3 feet deep at the Chamita snowpack gauge in the mountains of northern New Mexico. By April 1, it was gone \_ a month earlier than normal. A dry spell and record-breaking temperatures worked together to melt the snowpack.

The dwindling snowpacks of 2004 were extreme, climate scientists said. But new research suggests that it is part of a trend.

"It's a consistent message," said Tom Pagano, a snowpk forecaster at the Natural Resources Conservation Service in Portland, Ore. "Snowpack has been on the decline."

New research suggests that with global temperatures warming, New Mexico will experience the same thing.

"The accumulation of greenhouse gases is exerting a stronger and stronger influence on the climate of the West," said Philip Mote, a climate researcher at the University of Washington.

In the latest issue of the Bulletin of the American Meteorological Society, Mote provides a detailed look at the snowpacks' declines.

This year in the Pacific Northwest, where Mote's work is focused, is a perfect illustration of what he's talking about. Snowpack in the Cascades of Oregon and Washington is less than half of normal.

"It's not that it's been extremely dry," Mote said. "It's that we've had a few periods of warm weather that have just stripped the snow off the mountains."

In New Mexico, the mountains are white after years of drought. Every river basin in the state except one in the Gila Mountains in southwestern New Mexico has an above-average snowpack, according to the U.S. Natural Resource Conservation Service.

But warm weather is lurking.

Snowpack at Chamita is 25 percent above the mid-February average, but temperatures in the area for the first six weeks of 2005 are 6 degrees above average.

The warmer weather might also mean less water makes it to the river because of evaporation and use by plants.

Mote and his colleagues think the snowmelt patterns are consistent with global warming and that the trend will continue.

Estimates from the Intergovernmental Panel on Climate Change suggest that temperatures here could rise between 3 degrees and 9 degrees Fahrenheit during the next century.