

The Pueblo Chieftain

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State girds for drought if temps soar if climate changes

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Is Colorado ready for a future with a different climate - hotter days and altered precipitation patterns?

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DENVER - Some January day in the future, you might be sitting in your living room, drinking coffee made from bottled water and looking across the sand dunes in the front yard.

You'll glance at the headlines and notice that the Colorado economy is finally bouncing back from the triple whammy of a poor ski season last year, failed crops in most parts of the state and the loss from forest fires the previous summer.

Oh yeah, and the heat wave that started Christmas Day will be about to end as high temperatures return to the temperate 60s. Still no snow in the mountains, though.

Then, you'll wonder, "How did this happen?"

A conference last week in Denver looked at ways to avoid that particular picture, or maybe just alert people that sooner or later they may be coping with such a scene. The painting of the future was not pleasant, as a report by the University of Colorado and the Colorado Water Conservation Board depicted it in a theme of gray to black tones. Less white snow, blue water and green trees than you'd like to see. Maybe more red ink for those who need to cope with the economic fallout.

"If you knew 10 years ago that the stock market was going to go into a bear cycle beginning in October 2007, how would you have prepared?" asked Bill DeOreo, an engineer. "You need to be looking at what's the best way to integrate drought into a long-range water conservation plan."

Historian Patricia Limerick of the Center for the American West at CU pointed out that early day explorers to Colorado like Zebulon Pike and Steven Long believed the plains and mountains of the state to be uninhabitable and looked upon them as the natural bounds to civilization on the continent.

Human ingenuity has proved them wrong 200 years later, she said.

Engineers deserve more credit than they are usually given by historians for taming the waters of the state and developing solutions demanded by policymakers.

That's what the policy makers - Gov. Bill Ritter and his top water advisers - were asking for at

the drought summit. All of the state speakers emphasized the meeting was a time to share ideas about what answers could look like if dire climate predictions come true.

CLIMATE CHANGE

Some of the predictions, taken from the CU-CWCB report, included:

A warming trend of 2.5 degrees Fahrenheit by 2025, and 4 degrees by 2050.

Higher winter temperatures on the Eastern Plains, and creeping up into higher elevations in the mountains.

A greater dependence on rainfall, rather than snowfall, for water supply. There may be little change in overall precipitation, which is already highly variable.

An earlier spring runoff, which already is coming two weeks earlier than it historically occurred.

Declining runoff in the Colorado River basin. Runoff changes for the South Platte, Rio Grande and Arkansas basins have not been fully studied.

A drop in overall water supply by 2050, predicted by the National Academies of Science, as Colorado's population is expected to almost double in the same time frame.