

- Mark your confusion.
- Purposefully annotate the article (1-2 mature, thoughtful responses per page to what the author is saying)
- Write a 1+ page response to the article.

Mandatory Water Restrictions in California by *LA Times*, adapted by Newsela, 4/3/15

LAKE TAHOE, Calif. — On April 1, California Governor Jerry Brown stood on a patch of brown grass in the Sierra Nevada mountains that is usually covered with several feet of snow. He was announcing the first forced water restrictions in California history.

Brown watched as state officials checked the Sierra Nevada's historically low levels of snowpack during the state's continuing drought. "It's a different world," he said. "We have to act differently."

Brown ordered the State Water Resources Control Board to put forced restrictions in place to reduce water use by 25 percent. The water savings are expected to amount to 1.5 million acre-feet of water over the next nine months.

Ground Bare Of Snow

Brown's plan would also:

- Require golf courses, cemeteries and other large landscaped spaces to use less water.
- Help city governments replace 50 million square feet of lawn with drought-tolerant landscaping.
- Reward consumers for replacing old dishwashers and washing machines with more efficient models.
- Establish water-efficient irrigation standards for new homes.
- Ban watering the decorative grass that divides some public streets.
- Recommend that water agencies increase prices to discourage excessive water use.

Frank Gehrke is the chief of the California Cooperative Snow Survey Program. He has been attending the snowpack measurements since 1987 and said he has never before seen the ground bare of snow on April 1.

Gehrke said this year's measurements were "way below the records." That's especially concerning because California is already struggling through a drought and the wettest part of the year is winding to a close.

Snow's Low Water Content

California's snowpack accumulation is usually highest on April 1, but the water content measurements of this year's snow were only about 5 percent of the usual average. That means this will most likely be the lowest year on record. The amount of water in the snow on April 1 has never dipped lower than 25 percent of that day's average.

Melted snowpack usually makes up about 30 percent of California's water supply. Reservoir levels and rainfall totals have recently improved, but officials from the Department of Water Resources are still concerned. They believe there will be almost no snow runoff when the rain stops and temperatures rise.

Department spokesman Doug Carlson said his team has never encountered anything like it before.

The April 1 reading marked the fourth time this year that state water officials have measured the snow at Phillips Station, which is about 90 miles east of Sacramento.

The first measurement showed that the snow's water content was 50 percent of the normal level for the date. A month later, it dropped to 25 percent of the usual average, and in March, it was only 19 percent.

Carlson said the station usually has more than 60 inches of snow at this time of year.

Low Rainfall, Warm Weather

Carlson said that means California will likely need to rely on groundwater, which is water located below the earth's surface. "That brings in a whole other set of problems and complications since the groundwater seems to be over-tapped," he said.

Officials said the low snowfall totals have to do with low rainfall and unusually warm weather.

At the eight stations in the northern Sierra where the Department of Water Resources measures snow and rainfall, about 32 inches of rain have fallen since October. That's only 76 percent of the usual average.

According to the National Weather Service, Sacramento temperatures have also been higher than normal for the past 15 months.

The rest of the state's water picture doesn't look quite so bad.

It was warm when recent storms hit California, so they brought rain rather than snow. Now California's rain levels are lower than average, but still better than they were last year. The northern Sierra stations have already gotten more rain in the past six months than they did for the entire year before that.

Snowpack "Just Terrifying"

All that rain has helped refill the state's reservoirs. Still, it hasn't been enough to set the State Water Resources Control Board at ease. As Board Chairwoman Felicia Marcus described it, the state of California's snowpack is "just terrifying."

The board recently put together stronger emergency drought regulations. The board directed local agencies to limit the number of days residents can water their yards. It also warned that it will make restrictions tougher if local agencies don't show improvements on their own.

Marcus said there was not enough "stepping up and ringing the alarm bells" right now.

Governor Brown and others have created new laws in response to the drought. Last week, the governor signed a \$1 billion plan. Most of the funding will go to long-term projects like recycling sewage water and improving treatment plants. It also includes \$127.8 million for food and water supplies and immediate measures to protect the environment from the effects of the drought.

Possible response options:

- Who or what, in your opinion, is most at fault for California's water shortage?
- What should be done about the shortage?
- Select any passage and respond to it.