



Article Questions- Drought forces Grand Junction to dip into Colorado River

Standards met: NGSS Standards: HS-ESS2-2, HS-ESS2-5, HS-ESS3-1

1. Where does our drinking water come from?
  - a. Mountain streams fed by snow melt
  - b. Reservoirs fed by rivers that flow down from the mountains
2. What is the largest water provider between Denver and Salt Lake City?
  - a. Ute Water District
3. What river has the district started to use as a source of water to fill the reservoirs?
  - a. Colorado River
4. Explain what is happening to the snow to account for low stream levels.
  - a. Soil is very dry, causing the snow to soak into the ground before reaching streams
  - b. Climate is so dry, snow is evaporating before it is able to melt
5. Explain why it is important to conserve water usage.
  - a. Water from Colorado rivers supply water for other states and cities down stream, if we use it all there will not be any for down stream
  - b. All life relies on water

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## Drought forces Grand Junction to dip into Colorado River

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COLORADO SUN

DENVER — For 65 years, the Ute Water Conservancy District serving Grand Junction and Mesa County has let the Colorado River flow on by, while drawing drinking water from pristine runoff 11,000 feet high on Grand Mesa.

The severe, ongoing drought has now forced other plans, The Colorado Sun reports.

The utility has for the first time begun to mix Colorado River water into its Grand Mesa reservoir releases to meet the peak demand of 90,000 customers and preserve back-up supplies quickly evaporating in summer heat.

Ute Water, the largest provider between Denver and Salt Lake City, says it must protect supplies in its 96%-full Jerry Creek reservoirs as long as possible given the dry conditions. All of the utility's Grand Valley service area is in a state of exceptional or extreme drought.

Ute Water has rights to pull a relatively small amount from the Colorado, but says its junior rights are likely to be cut off later this summer, when river flows decrease.

The utility says it began taking about 7 cubic feet per second from the Colorado on June 10, or about 14 acre-feet per day. An acre-foot is enough water to cover an area roughly the size of a football field in a foot of water, and serves the needs of two to three households for a year.

Tightening up on resources is crucial after the "back-to-back drought

about for many years," Ute Water external affairs manager Andrea Lopez said. "2018 was a pretty bad year, '19 was decent, '20 was pretty bad and now we're in '21, where runoff just wasn't as generous as we hoped it would have been. ... Over time it just gets worse and worse and we're definitely seeing the impacts of aridification."

Water managers and ranchers across western Colorado say soils are so dry after a string of down years that vegetation is dying off, and depleted snowpack soaks into the ground long before it reaches streambeds. At a recent water conference in Basalt, Lopez said, water engineers talked of snow evaporating before ever melting into a liquid.

Ute Water's reservoirs have stayed full through careful management, Lopez said. Starting to add in river water shares is "simply utilizing another tool that we have in our toolkit to help mitigate" supply challenges.

Ute Water's customers, who surround downtown Grand Junction and stretch to Fruita and Palisade, will start paying a 2% surcharge on their bills to account for electric

power and water treatment costs from using Colorado River water in the mix. The utility's reservoir water falls naturally from the Grand Mesa reservoirs, but water must be pumped up from the Colorado River to a treatment plant.

For customers who use about 3,000 gallons a month, the extra cost will be less than 50 cents. Ute Water does not like to call it a "surcharge," insisting it's a "drought pumping impact rate."

Treatment will make the less-pristine Colorado River supply drinkable, but will leave customer water "hard" or full of minerals like calcium carbonate. The minerals can leave a mark on clothing and some kitchenware, the utility said.

As with domestic water use in other cities, most of the water Ute Water draws from the Colorado will go right back in downstream. Of the 14 acre-feet a day Ute Water plans to use, only about 1.4 acre-feet will be consumed, or disappear from the system. The remainder comes back into sewage treatment plants, is treated, and goes back into the river toward the Utah border.