



WATER IN THE WORKS

AN ELBERT CREEK WATER COMPANY QUARTERLY NEWSLETTER
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A Message from ECWC

Hello, and welcome to the Summer 2023 edition of *Water in the Works*, a quarterly newsletter published by Elbert Creek Water Company (ECWC). The purpose of this newsletter is to improve communication between ECWC customers and staff while providing customers with useful and informative articles, ideas, and updates about our distribution area.

Elbert Creek Water Company Capital Improvement Projects

Elbert Creek Water Company (ECWC) closely evaluates areas of improvement within the treatment facilities and the distributions and collections system as part of capital improvement planning. This is part of a fiscal management plan used to coordinate location, timing, and financing of capital improvements over multiple years. Capital improvement projects are non-reoccurring improvement projects such as new construction, or rehabilitation of an existing facility to a like-new condition. Every year ECWC completes capital improvement projects that have been scheduled based on condition, urgency, and available budget. In 2022 some capital projects the ECWC completed included:

- A retrofit upgrade of a sewer lift station with new pumps, controls, and electrical components.
- Replacing and upgrading fire hydrants.
- Installing an optimal corrosion control treatment method that implements an orthophosphate blend to inhibit corrosion throughout the distribution system.
- Upgraded controls to the SCADA system for remote monitoring and operation capabilities.

Some projects scheduled to be completed in 2023 include:

- Replacement and upgrading a high service pump at the water treatment facility to pump water to the storage tank and distribution system.
- Installation of a variable frequency drive (VFD) at the Elbert Creek pump to have flow control.
- New chemical feed systems for the water treatment facility.
- Re-bedding and burying a sewer submain between County Road 200 and Rockwood Estates.
- Installation of a new omni direction antenna at the Intermediate Booster Pump station on the distribution system.
- Fire hydrant replacement.

Funding to support these important projects comes from revenue from water and sewer base fees and water sales. Rate studies are an important part of capital improvement planning to ensure that the utility has the necessary funding to make these important projects happen. If you have any questions about upcoming capital projects or rate studies, please contact ECWC.

New Study Shows Durango's Water Supplies Declining Dramatically as Climate Change, Drought Hit Home

By Jerd Smith for Water Education Colorado

Climate change has come home to Durango, with a new study indicating that the once water-rich mining and railroad mecca is much drier than it once was, so dry in fact that the city can no longer depend solely on direct flow from the Florida and Animas rivers for a reliable supply of water.

Like other small towns in Colorado, Durango has very little water storage, enough to last for less than 10 days. It has always relied on its ability to pull water directly from the Florida River, using the Animas River as backup. But that is no longer possible, prompting the city to fast-track a major regional pipeline project to tap storage in Lake Nighthorse and to double down on conservation.

Larger cities often have water storage reservoirs that can carry them for months if not years during dry periods. But that's not necessarily the case in smaller rural and mountain towns.

A [new study of stream gage data](#) conducted for Durango by the Silverton-based Mountain Studies Institute (MSI) shows that average annual precipitation in one of the town's major watersheds has declined as much as 19.7% annually since the late 1980s and runoff, the water that eventually makes it to the stream, has dropped even more, as much as 35.7% in the Florida (pronounced Floreeeda) River watershed. The same trend, though to a much lesser extent, is also showing up in the Animas River watershed.

"It's eye opening," said Jarrod Biggs, Durango's assistant finance director who has overseen much of the city's recent water planning efforts. "It's confirmation of what our anecdotal evidence has told us. It doesn't go down to nothing, but it is a significant difference from where we were a decade or two ago."

Jake Kurzweil, a hydrologist and associate director of water programs at MSI who conducted the study, said the declines help illustrate on a local level how watersheds have begun to dry out as the climate warms. The data also measures how much water the natural environment uses, essentially intercepting runoff before it can reach streams, which cities, farmers and industry tap for their water supply needs.

In the Florida River analysis, a measure known as the runoff ratio is markedly declining. The ratio is obtained by taking annual runoff and dividing it by precipitation.

"The runoff ratio is showing us how efficient the watershed is at generating water. Not only are we getting less precipitation, the efficiency of the watershed is also declining. My hypothesis is that we are well below the environmental demand for water," Kurzweil said.

Similar trends are showing up in the Animas watershed, but right now they are not as alarming as those in the Florida. Kurzweil said because the Animas watershed is bigger and its terrain is more diverse, it is better protected from the harsh temperatures and strong sunlight that have driven the drying trends on the Florida River.

Peter Goble, a climatologist at the Colorado Climate Center housed at Colorado State University, cautioned that the region's 1,200-plus-year megadrought likely exaggerates the level of declines seen in the MSI data. He also said that long-term climate warming forecasts don't show dramatic drying trends in the next 30 to 40 years.

"[Kurzweil] is comparing a time when we scarcely had any droughts to a period that has been quite dry. Precipitation can vary widely and our climate models don't show this clear drying signal...if anything climate models show that precipitation may increase just a little bit," Goble said.

"Yes it's getting warmer, yes we do need to be concerned about that, yes it does put pressure on our environmental systems. However I don't like comparing [1985-1999 to 2010-2021] specifically because you are capturing the high side and the low side," Goble said, referring to the time periods MSI used in its analysis.

Kurzweil acknowledges that the megadrought has exacerbated the drying seen in Durango's river systems, but he said he thinks the trend will likely continue, in part because though Northern Colorado could see more precipitation as its climate warms, Southwestern Colorado could be drier because it is so much farther south. The Florida and Animas rivers are part of the San Juan/Miguel/Dolores river basin. Regional officials are tracking the local trends closely.

Ken Curtis is general manager of the Dolores Water Conservancy District in Cortez, a 50-minute drive west of Durango. Curtis is working with a slate of forest, climate and water specialists to find ways to create healthier forests that are less prone to wildfires and better able to sustain water production as the climate continues to warm up.

"Clearly the southwest is a drier area than the northern parts of Colorado," Curtis said. "Climatologically we're closer to a desert and we are at lower latitudes."

Durango's Biggs said the city had been planning to build a pipeline from Lake Nighthorse, a federal reservoir built in the early 2000s, at some point in the future to provide access to more storage. But such a project, likely to cost tens of millions of dollars, had been seen as a long-term goal, not an immediate need.

The new analysis has prompted Durango to fast-track the project and to keep its eye on ongoing and new conservation efforts.

"Presenting the data to our decision makers compelled them to move ahead with something we had been thinking about for quite some time," Biggs said.

"Now, we want to activate this water in the near term. We don't want to be in a situation where in five years we need it and we still haven't built the pipeline," Biggs said.

Durango is working with regional partners including the Southern Ute Tribe, in Ignacio, and the Ute Mountain Ute Tribe, in Towaoc, as well as the U.S. Bureau of Reclamation and others to see if the pipeline can be built in the next five years and provide benefits to everyone in the region.

"We all know the future is uncertain, but Kurzweil painted a realistic picture that shows that everybody's sentiments are true. We are going to have to do with less water...so in the same breath when we talk about a pipeline we also have to talk about conservation," Biggs said.

And it's not just conservation and storage. Local planners are also thinking about worst-case scenarios and emergency backups.

"It's really tricky," Kurzweil said. "When you're trying to do municipal planning you need to look at not just the day-to-day but at the catastrophic. There is a real-life scenario on the Florida when supply is critically low, and a pipeline breaks and there is wildfire and an unplanned spill."

"There is a universe where that exists. I hope it's not ours," he said.

Link to article: <https://www.watereducationcolorado.org/fresh-water-news/new-study-shows-durangos-water-supplies-declining-dramatically-as-climate-change-drought-hit-home/>

Fill 'er Up: Colorado's Reservoirs Hit 100% of Normal for the First Time in 3 Years

By Jerd Smith for Water Education Colorado

Thanks to heavy winter snows and a rainy spring, Colorado's system of water reservoirs hit 100% of normal this month, the fullest they've been in three years, according to the Natural Resources Conservation Service (NRCS).

Last year at this time, reservoirs were just 80% of normal.

"This is great news for reservoir storage," said Karl Wetlaufer, assistant snow survey supervisor at the NRCS in Lakewood. Wetlaufer's comments came Tuesday at a meeting of the state's Water Availability Task Force, a multi-agency group that tracks snow and water supplies statewide and also monitors conditions for drought and flooding.

That "normal" statistic doesn't mean full, but it does mean that the reservoirs have returned to health. At this time of year, that means the statewide system, which includes dozens of individual reservoirs, is 75% full, according to the NRCS.

The Rio Grande Basin, which has struggled with below-average mountain snows and dwindling storage for years, has seen its reservoirs surge back to life this year, with stored supplies measuring 124% of normal. Last year its reservoirs stood at just 83% of normal.

In fact, in 2022 all the reservoirs across the state's major basins were low, with the South Platte River Basin coming closest to health, registering 98% of normal.

"It's really encouraging to see almost all of our major (river) basins increase, so significantly," Wetlaufer said.

Colorado is home to the headwaters of the seven-state Colorado River system and the vast majority of the drought-ridden region's water supplies originate here. Thanks to the heavy winter snows and healthy runoff, Lake Powell and Lake Mead, the two largest reservoirs in the nation, are gaining as well.

"I usually feel like a broken record talking about drought," said Assistant State Climatologist Becky Bolinger, who is a member of the task force. "But now I get to talk about a bunch of water."

And all that water has largely pulled Colorado out of drought, with just a few small areas of the state, including parts of Summit County, as well as northeastern and southeastern Colorado, registering as abnormally dry, the least intense level of drought, according to the U.S. Drought Monitor.

Bolinger said the weather pattern known as El Niño has established itself and is likely to remain in place until next spring. During El Niño periods, usually lasting months though sometimes years, the Pacific Ocean's surface temperatures are warmer than normal. Warm waters cause a shift in the Pacific jet stream, causing areas in the northern U.S. to become drier and warmer than usual, and the gulf and southeast to experience wetter conditions than usual.

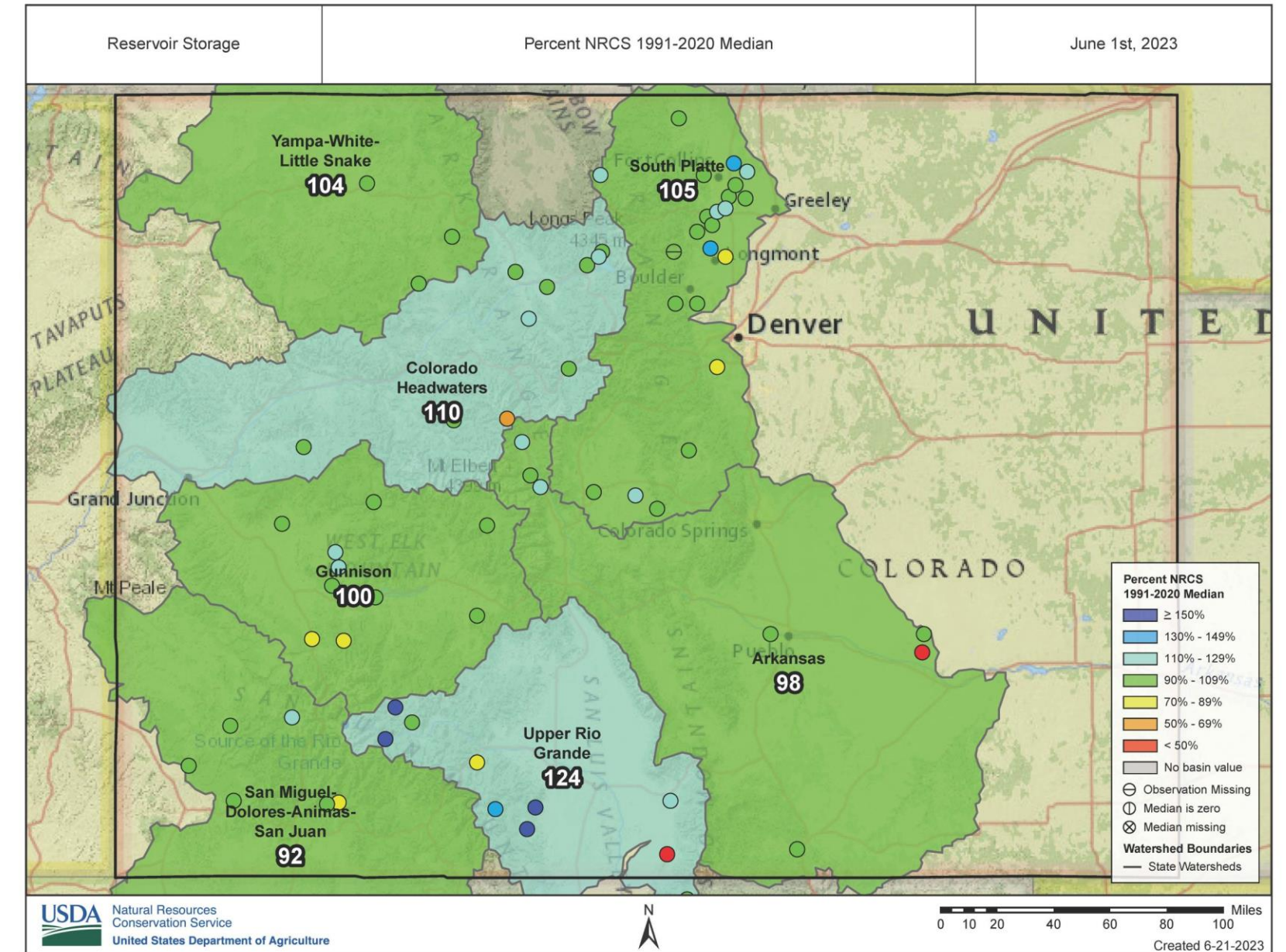
For the past three years, La Niña has dominated Colorado's weather cycle, bringing much drier conditions to Colorado's southwestern region and heavy snows to its northern mountains.

That is likely to change this year as the El Niño pattern takes hold.

"Generally [El Niño] is good for our state, because it means more precipitation," Bolinger said, but in the coming weeks, much warmer temperatures are predicted to arrive and the summer monsoon season is likely to weaken.

"Remember, we live in Colorado, it will dry out again," Bolinger said. "We aren't going to stay in this wet pattern forever. Enjoy it while it lasts."

Link to article: <https://www.watereducationcolorado.org/fresh-water-news/fill-er-up-colorados-reservoirs-register-full-for-the-first-time-in-3-years/>





Don't forget to review ECWC's Water-Wise presentation to make sure you are irrigating your landscaping as economically as possible!

Summer is in full swing and temperatures are high. Many of you are seeing your water bills increase with consequent water consumption. Now is a great time to review your watering practices and consider upgrading your landscaping to include more drought-tolerant plants.

Our Water-Wise presentation can be found at the following link:

<https://static1.squarespace.com/static/600862ade344bd2f8788cee0/t/62604f3825bd7c642bf96964/1650478909659/Glacier+Water+Wise+Landscaping.pdf>