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Justice

As the Colorado River Declines, Some Upstream Look to Use It Before They Lose It

As states negotiate future water shortages, Native tribes are looking to build new dams and reservoirs in the Upper Basin of the overallocated Colorado River to use more water.

By Matt Madden
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"This is a scarcity-driven project, and we can't wait." Navajo Nation President Jonathan Nez, "and we can't afford to pass up the water." Credit: Jon Platt

Navajo Tribal Park, Monument Valley, Utah. Credit: Mitch Tobias/The Washington Post via Getty Images

They're not alone in that quest.

Warning ranchers are pushing for a new dam to be need for irrigation, Colorado's Gunnison Water Conservancy District has proposed a new dam, which would, if approved, help fuel growth.

Across the states of the Upper Basin of the Colorado River—Wyoming, Colorado, Utah and New Mexico—new dams are rising and reservoirs are filling, with more being proposed. In all, the projects would add hundreds of thousands of acre-feet of water Nevada is allowed from the river each year.

The project in Rangely, Colorado, and ones like it come at a crucial moment for the Colorado River. Decades of overallocation and overuse by the only six Colorado River tribes in the Lower Basin have contributed to save the system's integrity.

Communities accustomed to Colorado River flows are facing a reckoning. The river that's helped enable the Southwest's rapid growth and that supplies 40 million people is in a prolonged drought, with its flows declining roughly 20 percent over the past two decades. The federal Bureau of Reclamation has reduced water allocations in recent years, and it's forecasting more cuts to come. Tribes, states, cities and federal government are in negotiations to see even more. And cities and states are scrambling to find new water supplies.

Critics of the proposals for new dams and reservoirs say the time for diverting more water from the river ended decades ago, but supporters say the Colorado River Compact of 1922 allocated water to tribes in the upper half of the Colorado River Basin, which currently has little storage capacity for times of reduced flows.

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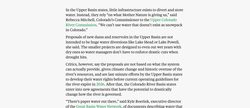
The proposals come as other dams across the country face being torn down and new research reveals the hydropower they generate is not as clean as many once thought due to methane emissions from their reservoirs. Meanwhile, the Biden administration is considering the fish species native to the Colorado River, for example, have been listed as endangered or threatened following the construction of water diversions throughout the basin.

"A lot of [dams] are being built under this myth that hydropower is renewable energy," said Brian Richter, a fellow at The Nature Conservancy and a former senior adviser with Interior during the Obama administration. "It's a fantasy." Richter, who helped draft the Biden administration's guidance for the Colorado River Basin, said the proposed dams are not the place to raising awareness about reservoir emissions.

As these projects advance, more pushback will come.

Conservationists have long argued that new water rights already approved the proposed dam and reservoir near Rangely. According to court filings, during the process to settle the water rights for the reservoir, the Ute Mountain Ute Tribe, the Southern Ute Indian Tribe, the Colorado River Water Conservation District and the Colorado Water Conservation Board "are in agreement that the Rangely project should be allowed to develop every drop of it." The tribes and the state of Colorado, which has multiple projects in the pipeline, have the rights to divert water from the Colorado River and its tributaries, including Rangely, such as building new water diversions to make the most of a state's allocation.



The White River. Credit: Mitch Tobias/The Washington Post via Getty Images

The proposed dam would inundate 1,000 acres of the Ute Mountain Ute Tribe's land, and it would flood 10 miles of the White River, which is home to the Colorado pikeminnow, a native fish species listed as the Colorado River Basin's most endangered or threatened following the construction of water diversions throughout the basin.

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Dandridge Marshall, an opponent of the Wolf Creek Reservoir project, on her ranch between Rangely and Meeker, Colorado. Credit: Lyn Hart

"It's very easy when there's money changing hands politics to get in both," Marshall said. "To me, this is like the Gunnison Tribe in northern." This is particularly stupid reservoir, and we can't afford stupid reservoir projects."

Diverting water from the Colorado River is nothing new; the creation of the Colorado River Compact was a result of overallocation, which can move over 90 million acre-feet that are both full, facilitated the rapid growth of the Southwest over the past century by allowing the diversion of water from the Colorado River and its tributaries throughout the region. But those new reservoirs, along with other nearby water infrastructure, primarily benefit only the Lower Colorado River Basin states of California, Arizona and Nevada.

The Colorado River Basin is split in two by the Colorado River Compact, which divides the Colorado River into the Upper Basin, which is required to deliver 75 million acre-feet of water to the Lower Basin states, and give what is left over (they don't, that's another 75 million acre-feet of water).

The Upper Basin states see far less than flows in the Lower Basin—overallocation, climate change, and, in the Upper Basin, years of negotiations on how to reduce diversions from Colorado River water comes down to cutting how much is used by California, Arizona and Nevada, the three states in the Lower Basin.

Colorado and the Upper Basin neighbors, some argue, still have water to develop.

"The Colorado River Compact is important because we don't have to care about how fast the Lower Basin grows," Eberle said. "We only have to worry about ourselves."

The Rio Blanco Water Conservancy District's proposed to build the Wolf Creek Dam, which would be the largest water storage reservoir in the state for Colorado and fully stimulate a small community's economy. "It's better to leave it stored in Colorado than stored at Powell, and, of course, once you go to Powell, it's gone," said Jim Eberle, a rancher.

In Colorado, water production can resolve a conditional water right from the time it is first decreed, which allows water users to hold water and potentially develop it years later, something many of the currently proposed diversions would do, including the Wolf Creek project, Jesse Smith, a water attorney with the Colorado Water Conservation Board, said. In Colorado, it's the first ones with a right to use the water are the last to have their right reduced or cut, if the Colorado River Compact, which divides the Colorado River between states, ever were eventually shortened.

Colorado officials view conditional water rights as not a water issue, since Colorado water allotted to it that has yet to be developed and used, but academics and activists after major impacts on other states, including California, disagree.

"It's not how Colorado uses [water] for the—it's all these people downstream as well," said Mark Squillace, a law professor at the University of Colorado, Boulder specializing in natural resources. "And we all know that the Colorado River is already over appropriated."

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There was not the water that we thought there was in the Colorado River when these agreements were [signed in 1922 to form the Colorado River Compact," he said. "So in my mind, it's a little unreasonable and it's a little suggest that somehow we're still appropriating water that we were, really.

Accumulating Silt Behind Existing Dam Drives Push for a New One

Just up the road from Rangely is the Kenney Reservoir and Taylor Park Dam, which, when it was completed in 1962, stored 106,000 acre-feet of water and generate 20,000 kilowatts of hydropower.

From the inception though, there was a problem: its developers found the reservoir would silt up.

When dams are put in along a river, they don't just stop the flow of water, they also stop the flow of sediment. Over time and flow, sediment accumulates behind the dam and, in the case of Kenney, reduces the storage capacity of the reservoir, which, in turn, eventually reducing how much power the dam can generate.

Silting has chipped away at Kenney Reservoir's capacity. It now stores less 1,000 acre-feet of water and most of the reservoir has transitioned from a lake into marshlands.

The Taylor Park Dam. Credit: Lyn Hart

So, over a decade ago, the Rio Blanco Water Conservancy District—a local water conservancy that formed to ensure water is kept already for the region's economy and to generate electricity when the White River's flows are low, which officials say is increasingly common at the area's hydropower dam—

According to the district, dredging the existing reservoir would be too costly at an estimated $700 million. The most cost-efficient solution, Eberle said, was to build a new dam and reservoir, allowing them to store more water and release it when needed to generate more hydropower and to provide water for irrigation. The district is looking for more emergency storage for the town and water users in Rangely.

Cost is still the major worry for the project. The district had spent $2 million on the project, Eberle said, and it expects it will cost $1 billion to build, dwarfing the state's share of the cost. Rio Blanco is trying to build to construct the dam, depending on how big it ends up being, but opponents say that price tag is an underestimate.

Even before the district can begin worrying about cost, it has to go through a lengthy permitting process. The district is still in the process of build, during which the project will receive guidance from environmental groups and residents.

For years, Wolcken, with have the Colorado, has kept track of proposed river diversions. As negotiations ramp up on cutting back use of Colorado River water, he has been encouraging the state's residents themselves to keep as much of their allocation as they can. In the Upper Basin, it's a race to build as much as they can before they can't, he said.

His group will fight Wolf Creek "to the bitter end," he said. "Through the years of water settlings, the health of the ecosystem and river is completely ignored."

"No Other Solution"

Andrea Vatcom will have her say on how these proposals play out—now and in the future.

The Colorado River Basin has declined nearly 20 percent over the past two decades because of climate change, and revenue of the river's water has left Lake Mead and Lake Powell on the brink of being unable to generate hydropower at their dams or allow the river to flow past them.

Any new water diversions in the Upper Basin could lead to curtailment, where its allocation of the river's water would be cut. Every 10 years, the Upper Basin is required to deliver 75 million acre-feet of water to the Lower Basin—75 million every 10 years. If the Upper Basin states don't meet that requirement, the Lower Basin states can ask the Bureau of Reclamation to curtail water rights in the Upper Basin to meet the requirement.

Vatcom, who is the Colorado River Water Conservation Board's director, said the board is "not in favor of any of these projects." Even if it wanted to, the board doesn't have the authority to stop the projects, she said. The board can only provide guidance to the state's residents on how to use their allocation so they can, in the Upper Basin, it's a race to build as much as they can before they can't, he said.

Colorado water officials said the Upper Basin hasn't come close to not being able to meet its requirements under the Colorado River Compact. But with more water potentially being taken out of the river and studies predicting Colorado River flows will continue to decline in coming decades, experts say the risk could grow.

"Reservoirs are not going to solve this problem," said John Cyran, a senior staff attorney with Western Resource Advocates who formerly worked for the Colorado Attorney General's Office on state water issues.

Officials at the Rio Blanco Water Conservancy District, however, say they have to at least try to build the project as responsible water managers for their community. And state officials say as long as Colorado's constitution allows for users to ask for water that hasn't been adjudicated yet, new users and projects will apply for rights to it.

The White River in Northwestern Colorado. Credit: Lee Pruitt

State officials and opponents of the project do agree on one thing: Colorado River users can no longer continue with the same practices that got the basin into its current situation.

"It's not about living the same way we have the last 100 years and trying to manipulate the system to do that," said Mitchell, Colorado's Commissioner to the Upper Colorado River Commission. "It's about recognizing that we have to figure out what change needs to happen."

New dams and reservoirs in the Upper Basin can't be like Lake Mead and Powell, she said, where more water is sent out than goes in. Innovation will be needed, as will adhering to what nature allows if Colorado River users are to "preserve the future of the American West," Mitchell said. "There's no other solution."

Wyatt Myskow

Roy W. Howard investigative fellow

Wyatt Myskow covers environmental news in the Western U.S. from Phoenix as the Roy W. Howard investigative fellow. Wyatt graduated from Arizona State University with his bachelor's degree in journalism and has previously reported for The Arizona Republic, The Chronicle of Higher Education and The State Press. He has covered local government, development news, education issues and the COVID-19 pandemic.

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