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Headline: Historic Drought in the American West



**Dans l'Ouest américain,
une sécheresse millénaire
aux conséquences
inédites**

Par Corine Lesnes

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[Photo of Lake Mead]

Photo caption: Lake Mead as seen from the Hoover Dam on the Colorado River at the Nevada-Arizona border, July 19. PATRICK T. FALLON/AFP

Corine Lesnes

Subhead: In the Colorado River basin, unprecedented dryness threatens hydroelectric, industrial, and agricultural production

Article

RUSTIC (COLORADO) - special report

“Burn area”. At the intersection of Highway 14, a sign bars traffic. The forest is prohibited “to all users”. This July, we cannot access the source of the Colorado River, La Poudre Pass Lake. It is from there that the great river of the American West begins, at an altitude of 10,170 feet, in the shadow of the Never Summer Mountains, the mountains that never see summer. Usually this is a popular destination for hikers. But now the landscape is disfigured.

In 2020, this area of northern Colorado, which stretches along the Cache la Poudre River, suffered the largest fire in the state. "We were evacuated for three months," says Tasha Collins, owner of the Trading Post Resort, a business near the town of Rustic that features a taxidermy bear and log cabins popular with fly fishing enthusiasts. The blaze, the Cameron Peak Fire, was not declared contained until December 2020, after one hundred and twelve days: only snow had overcome it. It left behind a mosaic of burnt logs and a river filled with ashes.

A few months later, volunteers from the Poudre Wilderness Volunteers are busy at Cameron Pass. Fallen trees on the paths — ponderosa pines more than one hundred years old — must be cut and cleared, and seventeen destroyed bridges rebuilt. In some places, it got so hot that the earth "formed an impermeable crust," describes Mike Corbin, their crew leader. With 300 members, the organization, created in 1996 when the national Forest Service cut budgets, is the largest of its kind in the United States. After the Cameron Peak Fire, it was inundated with donations, a sign of the emotion of the inhabitants — Denver, the state capital, is 105 miles away — seized by the violence of the fire and suffocated by the smoke.

This July weekend, volunteers are on the waiting list to help restore the forest. Two thousand charred trees were cleared from the trails. There are at least three times as many left. "The climate is changing, that's clear," sighs Mike Corbin. "Before, the weather was much more predictable. In the summer we had thunderstorms every afternoon." Now the "monsoon" (the term used in the American West) is erratic. In 2020, it didn't even materialize. In the spring, when the snow melted, water entered the thirsty soil rather than pouring into streams. The Colorado River has never been so drained.

From its birthplace in the Rockies to its mouth in the Sea of Cortez, Mexico, the Colorado is a besieged river, caught in the infernal cycle that has become common in summers in the West: heat, drought, fires. 1442 miles long, it supplies water and hydroelectricity to 40 million people (and 29 indigenous tribes) in seven states. And it irrigates the crops that these desert regions persist in growing (rice and cotton in Arizona).

Cool the river

This summer, the river basin is in its twenty-second year of drought. At this stage, climatologists speak of "mega-drought". "The region is going through one of its driest periods in 1,200 years," Elizabeth Klein, Deputy Secretary of the Interior, said in May during a hearing before the House of Representatives Committee on Natural Resources. Comparable, according to *National Geographic* magazine, to the great dry period that led the Pueblo Indians to abandon their cave dwellings in Mesa Verde (Colorado) in the 13th century.

Drought all along the river has forced emergency measures to be taken. On the Yampa River, a tributary of the Green River which feeds the Colorado near Moab (Utah), fishing has been limited, tubing prohibited: people no longer go down the rapids on inner tubes, but they swim.

"The water is 75 degrees!" exclaims the manager of a sporting goods store in Steamboat Springs, 6,726 feet above sea level.

The district is in the process of purchasing water from neighboring counties to cool the river and save the ecosystem. Around Grand Junction, where the Gunnison River flows into the Colorado, land of ranches and cowboys, the hay has turned yellow. Farmers are left with a dilemma: sell their animals or feed them with fodder bought at market price. The local water company, which usually draws from small rivers in the north, began pumping from the Colorado River on June 10th, for the first time in sixty-five years.

[Translator's note: According to their website, on June 10th, 2021, the Ute Water Conservancy District, one of three regional partners involved in a drought response plan, began pumping from their secondary source, the Colorado River, to blend with water from the Plateau Creek watershed, the District's primary water source. Plateau Creek flows from the north into the Colorado River about 15 miles east of Grand Junction.]

Some 310 miles downstream, the Colorado forms a meandering lacework that leads to Lake Powell, known to millions of tourists who pass on the road to the Grand Canyon. The water level in the reservoir is at its lowest since its 1964 inauguration, and the famous houseboats are on part-time unemployment. The lake received only 30% of its normal annual water supply, if any at all. The level has dropped to 3,556 feet above sea level: 33 feet from the threshold from which electricity can no longer be generated.

Dry marinas

On July 17, the Bureau of Reclamation, the federal agency that manages water and dams, decided to urgently draw on three nearby reservoirs to maintain hydroelectric production, an exceptional measure that will further penalize upstream farmers. "It's going to take everyone's cooperation," senior Colorado office manager Wayne Pullan told reporters. "We have reached the point we feared reaching." The environmental organization Save The Colorado protested. "Draining the upper basin to maintain Lake Powell is a band-aid on a hemorrhage," complained Gary Wockner, its director. "In our opinion, Lake Powell cannot be saved." Full, the lake spans 266 square miles. Today, it covers about 115 square miles.

A few hundred miles below, Lake Mead is at the same point. The reservoir, 32 miles from Las Vegas, is the largest in the country. As of July 18, it was only 34% full, its lowest level since being put into service in 1934 after the construction of the Hoover Dam on the Arizona-Nevada border. Most pontoons are impassable, with the ramps suspended above the water. Boaters who insist on getting off their boats there are warned that they do so "at their own risk".

It's no longer the lake with 8 million annual visitors that we've come to see, but the "bathtub ring", the ring that marks the old level, as on poorly scrubbed bathtubs: the line that represents the break between the good years and the current scarcity. In twenty years, the level of the lake has fallen by the equivalent of thirteen stories. Sunken geological formations have arisen,

forgotten islands. Some marinas are dry. The Hoover Dam has reduced its hydroelectric production by 25%.

For the federal government, the time for decisions has come. In August, at its next meeting, the Bureau of Reclamation will be forced to take note: the fateful threshold has been reached, the level of Lake Mead has fallen below 1075 feet. *[Translator's note: it is currently at 1068 feet as of 8/2/2021]*. Officials will officially declare a "Tier 1" water shortage in the Lower Colorado Basin. The emergency mechanisms will have to be activated. It will be the first time in the history of the western expansion.

To understand the stakes, we have to go back to 1922, when the Colorado River Compact, the interstate agreement on the distribution of the river's water, was negotiated under the supervision of the federal government, represented by Secretary of Commerce and future President Herbert Hoover. The treaty establishes a mechanism for allotment and resource management between the states of the Upper Basin — the first on the route of the river — (Colorado, Utah, Wyoming, New Mexico) and those of the Lower Basin (Arizona, Nevada, California). The water level is measured at Lees Ferry, a short distance from Lake Powell.

Upper states must ensure that the “lower” states do not lack water: 7.5 million acre-feet of water were allocated to each of the Upper and Lower Basins. The experts’ estimates were on the optimistic side. They based their allotments on hydrologic data which had been exceptional in previous years. They saw this as early as the 1930s ... But never mind: Washington was eager to develop the West; California wanted the federal government to pay for a dam that would control the flow of what an engineer called "the American Nile." Arizona, furious at the "deal", did not sign it until the 1960s. *[Translator: Arizona in fact ratified the deal in 1944, but its disputes regarding allotments were not settled until a 1963 U.S. Supreme Court decision, in “Arizona v. California”.]*

Arizona, the main victim

The [Colorado River Compact's] contingency mechanism must be activated as soon as the level of Lake Mead falls below 1075 feet. We've been there since June 10. "The main victim is going to be Arizona," says George Sibley, professor at Western State College in Gunnison, CO, and a specialist in the history of the river. From January 1, 2022, the state will lose part of its water allocation. The Central Arizona Project, the state's 336-mile irrigation network, is expected to be deprived of 30% of its annual volume. The cuts will hit farmers, but high-tech industries — like semiconductors — which are big consumers of water, could also be affected.

Nevada will also be hit, but to a lesser extent (4% less). The state has decided to ban “useless” lawns, at roundabouts for example, from 2026. In Las Vegas, in the driest region of the country (4 inches of rain per year), “water patrols” track down waste in the suburbs. And the city pays homeowners to get rid of their patches of grass. Baby steps, say environmentalists, in view of the increase in temperatures in the region: more than 2° F in twenty years (0.16° C), according to the federal agency for the protection of the environment.

California, which takes the lion's share of the agreement with 4.4 million acre-feet per year, will not suffer from the restrictions initially. That was the *sine qua non* of its participation in the development of a contingency plan in 2019: if water was to be rationed, the sacrifices had to be made by Arizona first. There was little chance that the west coast giant would ever subsidize agriculture in its neighboring state's deserts. "It's good having 57 representatives in Congress," notes George Sibley — between them, Nevada and Arizona only have 17 seats. California, it is true, is plagued by its own upstate water shortages: the Oroville Dam, which supplies the Central Valley, the region that produces 60% of America's fruit and vegetables, is also filled to only 28% of its capacity.

Will the "mega-drought" challenge the West's water-sharing pact? Negotiations on the revision of the 1922 treaty have started. They are still only deciding future participants (Native American tribes intend to have their place this time).

Upper Basin states are in the ludicrous position of paying their farmers to destroy crops, as Colorado has begun to do, in order to honor their 1922 obligations to the Lower Basin states, where some resort owners could not imagine going without golf courses or lawns. "This is a slow-rolling disaster. We've been living in a fiction from day one," says George Sibley, a supporter of renegotiation. "But most likely," he predicts, "we will continue to pray for more snow in the winter, without being surprised when it does not come."