

Wall Street Eyes Billions in the Colorado's Water

Investor interest in the river could redefine century-old rules for who controls one of the most valuable economic resources in the United States.

<https://www.nytimes.com/2021/01/03/business/colorado-river-water-rights.html> By Ben Ryder Howe 1/3/21

Farmland meets the desert, separated by an irrigation canal, near Fruita, Colo.

There is a myth about water in the Western United States, which is that there is not enough of it. But those who deal closely with water will tell you this is false. There is plenty. It is just in the wrong places.

Cibola, Ariz., is one of the wrong places. Home to about 300 people, depending on what time of year you're counting, the town sits on the California border, in a stretch of the Sonoran Desert encircled by fanglike mountains and seemingly dead rocky terrain. Driving across the expanse, where the temperature often hovers near 115 degrees, I found myself comforted by the sight of an oncoming eighteen-wheeler carrying bales of hay, which at least implied the existence of something living where I was headed.

Thanks to the Colorado River, which meanders through town, Cibola is a verdant oasis that chatters at dusk with swooping birds. Along both banks, a few hundred acres produce lush alfalfa and cotton, amid one of the more arid and menacing environments in North America.

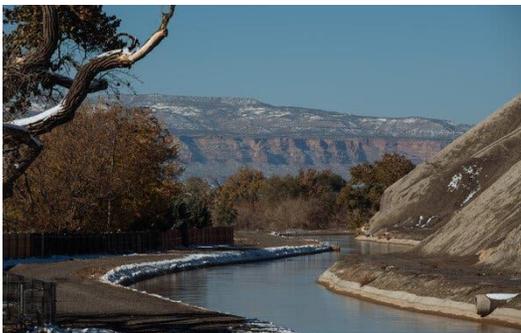
This scene is unlikely to last, though. A few years ago a firm called Greenstone, a subsidiary of a subsidiary of the financial-services conglomerate MassMutual, quietly bought the rights to most of Cibola's water. Greenstone then moved to sell the water to one of the right places: Queen Creek, a fast-growing suburb of Phoenix 175 miles away, full of tract houses and backyard pools.

Transferring water from agricultural communities to cities, though often contentious, is not a new practice. Much of the West, including Los Angeles and Las Vegas, was made by moving water. What is new is for private investors — in this case an investment fund in Phoenix, with owners on the East Coast — to exert that power.

When I reached Holly Irwin, a county supervisor who lives in Cibola, by phone a couple of weeks after my visit, she was angry.

"They're going to make big bucks off the water, and who's going to suffer?" she said. "It's the rural counties going up against big money."

Grady Gammage Jr., a spokesman for Greenstone, said, "In my view there is enough water both to sustain a significant agricultural economy on the river and to support urban growth in central Arizona."



The Grand Valley Ditch, running through Grand Junction, Colo., diverts water from the Colorado River to irrigate farms. Credit...Nick Cote for The New York Times

In the West, few issues carry the political charge of water. Access to it can make or break both cities and rural communities. It can decide the fate of every part of the economy, from almond orchards to ski resorts to semiconductor factories. And with the worst drought in 1,500 years parching the region, water anxiety is at an all-time high.

In the last few years, a new force has emerged: From the Western Slope of the Rockies to Southern California, a proliferation of private investors like Greenstone have descended upon isolated communities, scouring the driest terrain in the United States to buy coveted water rights.

The most valuable of these rights were grandfathered in decades before the population explosion in desert cities like Phoenix and Las Vegas, and privilege water access to small, often family-owned farms in stressed communities. Rechanneling water from rural areas to thirsty growth spots like Queen Creek has long been handled by municipal water managers and utilities, but investors adept at sniffing out undervalued assets sense an opportunity.

As investor interest mounts, leaders of Southwestern states are gathering this month to decide the future of the Colorado River. The negotiations have the potential to redefine rules that for the last century have governed one of the most valuable economic resources in the United States.

The Law of the River

Of all the accomplishments of moving and storing water in the West — from Hoover Dam to the mammoth Colorado-Big Thompson reservoir network — none may be more impressive than a yellowing, sparsely worded 13-page document called the [Colorado River Compact](#). Drafted in 1922, it allocates the river's annual flow, dividing the water among seven states desperate for their share.

Today, the river provides water to 40 million people and 5.5 million acres of farmland — not just in Colorado, Wyoming, Utah, New Mexico, Nevada, Arizona and California but also to 29 Native American tribes and the Mexican states of Sonora and Baja California.

“Back in the 1920s, they knew that if they didn't reach agreement, there were going to be winners and losers, so with a lot of wrangling and quarreling, they eventually agreed to agree,” said Russell George, a former state representative from western Colorado who founded the [Interbasin Compact Committee](#), a statewide governmental body devoted to seeking consensus on water issues.

“Everybody gave a little. Everybody got a little,” he added. “And it had to be a pretty good process, because it lasted 100 years.”

Increasingly, the river is [threatened by drought](#), with flows down 20 percent over the last 20 years. As a result, the talks starting in January will be a vehicle for urgent attempts to manage the water, including replenishing downstream reservoirs. By design, the five-year process is ponderous and built to be consensus-driven, with an eye toward shared sacrifice.

Most of the water in the 1,450-mile-long river comes from Colorado, and as that state's top water official from 2013 to 2017, James Eklund directed the creation of a comprehensive long-term plan to address climate change, the first by a state in the West. He believes that the last best hope against the drought is a market-based solution, one that allows private investors seeking a profit a significant hand in redrawing the map of water distribution in the West.

“I have seen time and again the wisdom of using incentives that attract private sector investment and innovation,” Mr. Eklund said. “Dealing with the threat of climate change to our water requires all sectors, public and private, working together.”



James Eklund, legal counsel for Water Asset Management, favors a market-driven approach to water distribution in the West. Credit...Nick Cote for The New York Times

To proponents of open markets, water is underpriced and consequently overused. In theory, a market-based approach discourages wasteful low-value water uses, especially in agriculture, which consumes more than 70 percent of the water in the Southwest, and creates incentives for private enterprise to become involved. Investors and the environment may benefit, but water will almost certainly be more expensive.

“The whole history of the American West is about moving water,” Mr. Gammage of Greenstone said. “One of the things I think we’ve learned over time is that a resource like water is best allocated through kind of a combination of market forces and regulatory oversight.”

He added, “The market would say water is far more valuable serving urban populations.”

The interested players range from financial firms to university endowments to investor groups, including at least two in Colorado led by former governors. T. Boone Pickens, the Texas oilman who died in 2019, was an early evangelist of water buys. Another supporter is Michael Burry, the hedge fund manager portrayed by Christian Bale in “The Big Short,” who made more than \$800 million shorting the subprime mortgage market in the mid-2000s.

Matthew Diserio, the president and co-founder of the hedge fund Water Asset Management, has called the U.S. water business “the biggest emerging market on earth” and “a trillion-dollar market opportunity.”

WAM, based in New York and San Francisco, invests broadly in water-related ventures, and one of its core businesses is collecting water rights in arid states like Arizona and Colorado. Since leaving government, Mr. Eklund has become WAM’s legal counsel and public face.

“They’re making water a commodity,” said Regina Cobb, the Arizona assemblywoman who represents Cibola. “That’s not what water is meant to be.”

Private investors would like to bring in or amplify existing elements of Wall Street for the water industry, such as futures markets and trading that occurs in milliseconds. Most would like to see the price of water, long set in quiet by utilities and governments, rise precipitously.

Traders could exploit volatility, whether due to drought, failing infrastructure or [government restrictions](#). Water markets have been called a “paradise for arbitrage,” an approach in which professionals use trading speed and access to information for profit. The situation has been compared to the energy markets of the late 1990s, in which firms like Enron made money from shortages (some of which, it turned out, traders engineered themselves).

Many see the compact as a safeguard isolating the river from the market.

The negotiating states will be focused on restoring the flow of the Colorado River, which has been so diminished by use that from 1998 to 2014 it did not even reach its natural terminus in the Gulf of California. But they will also be looking at rebalancing water levels in Lake Powell and Lake Mead, two federally owned reservoirs that hold water to use in case of extreme drought.

“The reality is we have an overallocated river,” said Jeffrey Kightlinger, general manager of the Metropolitan Water District of Southern California, the largest water supplier in the country. “You’ve got two drivers exacerbating the problem. One, moving very rapidly, is climate change. And you’re still seeing continued growth. So you’re going to see a very important negotiation.”

The emergence of open markets could outpace the negotiations. If states, cities, big farms and utilities were able to buy water freely, especially across state lines, the allocations of the compact could be obviated and the governmental power to manage the fate of the river eroded.

“The Western model is a sort of comprehensive, consensus-based public discussion, and it’s worked very well,” said Bruce Babbitt, a former governor of Arizona and secretary of the interior during the Clinton administration. “My fear is that the speculators are going to break it. They’re going to try to break up the system.”

(Video deleted)

In the last few years, Colorado has been debating a water policy approach that has further piqued the interest of private investors: paying farmers not to use the river at all.

Demand management, as the policy is known, is an attempt to solve the so-called wrong places problem and free up water from agriculture and reroute it to urban uses and conservation.

“The idea is, if you pay the farmers enough, they’ll go away,” said Brad Udall, a water and climate researcher at Colorado State University whose family have been lawmakers in the region for 60 years.

It’s not necessarily a new concept — in parts of Southern California, farmers have been paid for more than a decade to fallow land. Nor is it official policy yet. But Mr. Eklund would like it to be.

As Colorado’s water commissioner, he piloted a demand-management program and was known for crisscrossing Colorado’s back roads to convince skeptical farmers of the benefits of the approach. Later, as the state’s negotiator on the Colorado River, he helped make it an official goal of the compact states.

Mr. Eklund secured an “account” in Lake Powell. In theory, water saved by demand management could flow to the account, often called “a pool within the pool,” and be drawn upon if the current drought continues to realize worst-case scenarios.

However, the same water could also flow where water often flows: toward the highest bidder. WAM and other investors could theoretically create their own reservoir “accounts” and let the water sit until its value was maximized.

Andy Mueller, general manager of the Colorado River District, is skeptical. “They’d have to have a storage account of their own in a federal reservoir, and from my perspective that’s a nonstarter,” Mr. Mueller said. “Right now, we have legal and political mechanisms in place to prevent that from happening.”

He added, though, that the pressure of the drought could shift the terrain. “Is that something that can change? Yeah. And crisis drives change.”

[Gary Libecap](#), a professor of economics at the University of California, Santa Barbara, who specializes in water issues, believes that movement of water necessarily generates a public good, whatever form it takes. He said an investor like WAM could help combat drought by creating its own storage account in Lake Powell.

“The State of Colorado could actually buy the water from them,” Mr. Libecap said. “Otherwise, the state has to invest in the whole thing and pay the opportunity cost of just having that water sitting there.”

Such an account would effectively leave Colorado buying back its own water — or other states potentially buying it on an open market — and possibly undermine the states’ authority to control the river, an erosion of the century-long sway of the compact.

According to water-policy professionals I spoke to, investors are already lobbying for it. In an online presentation last spring outlining WAM’s long-term strategy, Marc Robert, the chief operating officer, professed his belief that U.S. consumers would be “compelled” to use more wisely in coming years.

Water curtailment has long loomed over the Southwest. The compact contains a fail-safe mechanism if the river runs too low. Known as a compact call, such an event could trigger draconian, never-before-seen restrictions on water use in cities like Denver, while obligating them to search for alternative, higher-priced sources of water. At which point, if private entities like WAM had stores of water in Lake Powell ready to sell, they would suddenly be worth quite a bit more.

As WAM’s Mr. Diserio likes to say, “When you need water, water is the only thing that will do.”



Andy Mueller, general manager of the Colorado River District, at the river in Glenwood Springs, Colo. Credit...Nick Cote for The New York Times

Flipping Water

The proponents of water markets say they are not in it just for the money. They believe that the West has an outdated and overregulated system governing access to water, which has encouraged the cultivation of crops in the desert.

“Agriculture all over the West required the development of irrigation infrastructure, such as dams and ditches,” Mr. Libecap said. “Often, the best land in the West is not along rivers, so you needed to move water.”

The system worked as long as there was enough to go around, said Mr. Libecap, who recently advised the State of Colorado on its growing water problems. However, “over time, as the West has grown in population, constraints on water supplies have emerged,” leaving a system that was originally designed around the needs of farms to support the growth of vast cities like Las Vegas and Phoenix.

More frustrating for those trying to solve the West’s dire water problems, if water runs out, because of those generous rights granted a century ago, the metropolises will have to turn off their taps before the old farms.

Mr. Mueller believes that the demand management pilot program triggered a land rush in rural western Colorado, with investors snapping up farms and flipping their water rights.

WAM has become one of the largest landholders in the Grand Valley, a high-mountain desert on the Western Slope of the Rockies, 250 miles west of Denver. But Mr. Eklund denies that the firm is flipping water rights.

“If someone was there to short water, they wouldn’t be there anymore,” he said. “They would have bought it, turned it, flipped it, and they’d be gone.”

He also pointed out that unlike the private investors who quietly, quickly and pseudonymously bought up valuable property in the West’s notorious land grabs — like the [acquisition of the Owens River rights by the City of Los Angeles](#) — WAM has purchased water rights in its own name.

In Colorado, which is both an agricultural state and an outdoor recreation magnet, water is not just critical to the economy but an emotional part of the state’s identity and a political third rail. Selling the rights to a Rocky Mountain trout stream or a hayfield dating from the pioneer era to nonlocal interests, especially those seeking to turn a profit, has the potential to be seen as auctioning state patrimony.

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“If this water is to be sold to anyone outside the Grand Valley, then it’s gone,” said Mr. George of the Interbasin Compact Committee. “And all the positives that water has provided for 100 years in the state of Colorado are gone.”



Marc Catlin, a Colorado state representative, noted the financial incentives for farmers. Credit...Nick Cote for The New York Times

Of course, not everyone has been displeased by the arrival of hedge funds reportedly paying millions in cash for old farms. Marc Catlin, a third-generation farmer who represents western Colorado in the General Assembly, said, “A farmer’s property is their 401(k).”

The Enron Fear

Where water investors have historically gotten involved in markets is through agriculture, with mixed results.

In 2015, California got just [5 percent](#) of its average annual snowpack, the lowest in 500 years. Utilities, which in previous dry years bought water from farmers, found they could no longer afford it. The price had risen tenfold in a matter of months.

It wasn't just the drought: California's crops had shifted from low-value seasonal vegetables like lettuce and bell peppers to permanent non-staples, [like almonds](#), that were so valuable that it was no longer economical for farmers to sell water to cities, even as prices spiked.

Mr. Kightlinger, of the Metropolitan Water District of Southern California, traces the recent private-investor interest in water to the 2015 crisis. "When you have pistachio and almond farmers willing to pay 10 times the average price, people sit up and say, 'How can I own some of this?'" he said.

California's agricultural water markets — a mosaic of online exchanges connecting farmers and water brokers — are considered a potential model for the West: fast, flexible and responsive to extreme weather. In September, Nasdaq and CME Group, the world's largest derivatives marketplace, [announced plans](#) to open a futures market for California water, joining it with commodities like Brent crude oil and soybeans.

The market in the Colorado-Big Thompson Project is also nimble and responsive. An engineering marvel from the heyday of federal water construction, the project is a vast network of reservoirs filled by a tunnel that pipes water from the Colorado River 13 miles under the Continental Divide. The high-tech market there services Denver and other cities, fueling development in some of the fastest-growing housing markets in the country. In the last 10 years, the price of water there has gone up more than eightfold.

In Australia, however, water markets have had unintended consequences. Valued at \$2 billion after 14 years in existence, Australia's markets primarily facilitate trades in agricultural areas. When started, they were [hailed as a fast, flexible way](#) of redistributing water on the driest inhabited continent, with little regulation attached.

"We went harder and faster than anyone and let the market rip," said Stuart Kells, a professor at La Trobe Business School in Melbourne. "We let anyone come play."

This led to domination by professional investors with no ownership of farmland, Mr. Kells said. As a result, "water has turned into a financialized product like what happened to energy in the late 1990s," he said.

Last year, Australia's devastating wildfires and drought [spiked water prices](#). Subsequently, the government's antitrust department started an inquiry. Though it stopped short of calling for a shutdown, an interim report last summer recommended comprehensive changes in water markets, citing inadequate regulation and market exploitation by professional traders.

"Here water is very scarce, and in periods of shortage traders essentially cheer on the drought," Mr. Kells said. "The markets have become a paradise for arbitrage." He compared the dynamic to "California in the 1990s, where fires and outages were beneficial for traders because of price spikes and you saw Enron traders cheering on fires."

Australia has also seen the advent of a market in complex financial products, such as derivatives, based on water.

"What has happened in Australia should be a cautionary tale for America," Mr. Kells said. "The way the markets were set up left them open to being gamed."

Buy and Dry

Because the Colorado River is so large, envisioning the local impacts of water transfers can be a challenge for decision makers, especially when the communities are as remote as Cibola. But once you know how to recognize them, they can seem to be everywhere.

Although it originates just miles from the headwaters of the Colorado River, the Arkansas River flows east instead of west, meandering nearly 1,500 miles across the Great Plains before joining the Mississippi River. Near its headwaters, in the farming community of Nathrop, Colo., I met up with Greg Felt, a county commissioner.



Greg Felt, a county commissioner, at a dried-up alfalfa farm near Nathrop, Colo. Credit...Nick Cote for The New York Times

Mr. Felt drove me in his pickup to a wide spot in a two-lane highway where trucks towing horses and inflatable river rafts whizzed past. Chaffee County is considered one of the hidden gems of the Rockies, a relatively unspoiled valley with a diverse economy in tourism as well as agriculture. But here there was nothing to see: just an empty field of ankle-high weeds and crimson splotches of peat. That a lush hay farm had once been here seemed hard to believe.

The previous owner had owned rights to the Chalk River, a tributary of the Arkansas, which irrigated the hayfields using ditches that dated from the Civil War. In 2001, Pueblo West, a planned community 100 miles away, came calling. Built in the 1980s, Pueblo West was growing too fast to keep up with its water needs, so it bought the ranch and its rights.

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Mr. Felt said, “The water came off the land and it dried up,” a common process known as “buy and dry.” Pueblo West, which was supposed to revegetate with native shortgrass, instead subdivided it into 40-acre parcels. It sold those to owners unaware of their obligation to revegetate the land, now without access to water.

In 2006, Pueblo West agreed to irrigate and revive the land. At the moment, though, the dismal vista remains: What had once been a flourishing meadow lined with cottonwoods and willows now looked like a giant abandoned lot.

“Just kind of a nightmare,” Mr. Felt said.

Mr. Catlin, the state representative, said: “We need to think about the true value of water. To me, the value of water is to the grower and to the community that sends it down the river.”

“You know, we in the water business have done a great job of saying, ‘Water’s the next oil, you’ve got to watch out, it’s going to be so valuable,’” he added.

Wall Street investors “recognize the term ‘valuable,’” he said, “and now they’re here.”