

IN SEARCH OF

SO

Water & Tribes Initiative  
Encourages Collaborative Approach  
to Colorado River Management

# SOLUTIONS

By Matt Jenkins

IN THE FALL OF 2018, water managers in Arizona were in heated discussions about how to limit the damage from a decades-long megadrought on the Colorado River. The drought has forced painful reckonings and realignments related to water use throughout the Colorado River Basin. Because of the way the water has been allocated over time, it had become clear that Arizona would bear the brunt of the looming shortages—and that farmers in the state, many of whom have low-priority water rights, would face severe cuts.

At a meeting that October, Stefanie Smallhouse, president of the Arizona Farm Bureau, denounced the proposed cuts. She suggested that the proposals showed disrespect for farmers, in particular for a white settler named Jack Swilling who, in her telling, had heroically made the desert bloom. “I find it’s ironic that we are exactly 150 years from the first farmer starting the settlement [of] the Phoenix area,” Smallhouse said. “There wasn’t anybody else here. There [were] relics of past tribal farming, but [Swilling] was pretty much the starter.”

Later in the meeting, Stephen Roe Lewis spoke. Lewis is the governor of the Gila River Indian Community, a reservation south of Phoenix that is home to members of the Akimel O’otham and Pee Posh tribes. The Akimel O’otham trace their heritage to the Huhugam civilization, which

constructed a massive system of irrigation canals to support the cultivation of cotton, corn, and other crops in the area beginning about 1,400 years ago. But in the 1870s and 1880s, new canal systems built primarily by white farmers drained the Gila River, devastating the Akimel O’otham and Pee Posh farms and leading to famine and starvation. “History is important,” Governor Lewis stated, correcting Smallhouse’s account of Swilling finding only “relics” of tribal farming. “We’ve been farming for over 1,000 years, and the only time that was disrupted was when that water was taken away from us.”

The Gila River Indian Community has, in fact, spent much of the past 150 years trying to win back water its members had long depended on. In 2004, a congressionally approved settlement awarded the community a substantial quantity of water from the Colorado. Since then, the community has actively worked to protect those rights. “We will be here as long as it takes to find solutions,” Lewis told the assembled stakeholders in 2018. “But we will fight to the end to make sure that our water is not taken again.”

**“We will be here as long as it takes to find solutions. But we will fight to the end to make sure that our water is not taken again.”**

A member of the Cocopah Tribe surveys the tribe’s former fishing grounds along the Colorado River. Climate change and severe drought are leading to critical water shortages throughout the Colorado River Basin. Credit: Pete McBride.



As that exchange illustrates, the long history of Native Americans in the Colorado River Basin is often ignored in discussions about the management of the resource, as are their social, cultural, and environmental attachments to the river. The comments from Lewis indicate how committed today's tribal leaders are to changing that. Since the late 1970s, tribes in the region have won a series of settlements confirming their rights to Colorado River water. Today, tribes control an estimated 20 percent of the water in the river. As the entire basin faces the reality of serious shortages, it has become clear that tribes—which have sovereignty under the U.S. Constitution, giving them the right to govern themselves—must be key players in any conversation about the future.

The stakes are considerable, not just for tribes but for everyone who depends on the Colorado. Some 41 million people in seven American and two Mexican states use water from the river, which irrigates more than four million acres of farmland. If the Colorado watershed were a separate country, it would be among the 10 largest economies in the world. But drought and other effects of climate change are pushing the river beyond its ability to meet the enormous demands on it, bringing tribes more squarely into the river's politics.

To improve the ability of tribes to manage their water, and to give them a stronger voice in management discussions and decisions in the basin, several organizations launched the Water & Tribes Initiative (WTI) in 2017, with funding from the Babbitt Center for Land and Water Policy, a program of the Lincoln Institute. Leaders of the project, which is now also funded by the Walton Family Foundation, Catena Foundation, and several other partners, include a cross-section of tribal representatives, current and former state and federal officials, researchers, conservation groups, and others.

"If we work together, we can find solutions to these issues," says Daryl Vigil, a member of the Jicarilla Apache Nation and co-facilitator of WTI. He says this is a delicate time for the tribes: "If

we're not ahead of this game, in terms of just a basic recognition of tribal sovereignty in this process, there are huge risks."

"We are excited to be part of this evolving and growing partnership," says Jim Holway, director of the Babbitt Center. "The work WTI is doing is critical to the long-term sustainability of the basin and is central to our goal of improving the links between land and water management."

Some 41 million people in seven American and two Mexican states use water from the river, which irrigates more than four million acres of farmland. If the Colorado watershed were a separate country, it would be among the 10 largest economies in the world.

The **Babbitt Center for Land and Water Policy** seeks to advance the integration of land and water management to meet the current and future water needs of Colorado River Basin communities, economies, and the environment. The Babbitt Center recognizes that water is the lifeblood of the American West, and land use decisions are made every day that shape our collective water future. The coordination of land and water use decisions is critical for the creation of a sustainable and resilient region. Tribal communities have a long history in the Colorado Basin and a deep connection to the river, and the Babbitt Center is proud to be part of the Water & Tribes Initiative.

---

To learn more about the Babbitt Center and WTI, including opportunities to provide technical assistance or support a Native American Graduate Student Fellowship and Mentorship program, contact Babbitt Center Associate Director Paula Randolph (prandolph@lincolninst.edu).

## Divided Waters

The 29 federally recognized tribes in the Colorado River Basin have long lived within a paradox. In 1908, the U.S. Supreme Court ruled that tribes have a right to water for their reservations. In the first come, first served hierarchy of western water law, the Court dealt them a powerful trump card, ruling that a tribe's water rights were based on the date its reservation was created. Since most reservations were established by the U.S. government in the second half of the 1800s, tribes are theoretically in a stronger position than any of the other users on the river. Like the Akimel O'otham and Pee Posh, all of the tribes were here long before non-native settlers.

But when representatives from the seven basin states gathered in 1922 to draw up the Colorado River Compact, they pushed tribes into the background. The compact specifies the division of water among California, Arizona, Nevada, Colorado, Wyoming, Utah, and New Mexico and laid the foundation of a complex web of agreements, laws, and court rulings collectively known as the “Law of the River”—which essentially ignored Indians. (See the special issue of *Land Lines*, January 2019, for an in-depth exploration of the river and its history.) Although the compact briefly acknowledges “the obligations of the United States to American Indian tribes,” it does not go into detail about tribal water rights. As the scholar Daniel McCool has noted, “the omission of any consideration of Indian rights left unresolved one of the most important problems in the basin” (McCool 2003).

The author and historian Philip Fradkin put a finer point on it, declaring that “the Colorado is essentially a white man's river.” But Anglo settlers had ignored Indians at their peril, he noted: the unresolved issue of Indians' true rights to water from the Colorado was a “sword of Damocles” hanging over the river's future (Fradkin 1996).



**MAP OF FEDERALLY RECOGNIZED TRIBES  
IN THE COLORADO RIVER BASIN**

- |  |  |
|--|--|
| 1 Ute Indian Tribe of the Uintah and Ouray Reservation | 15 Chemehuevi Indian Tribe                   |
| 2 Southern Ute Indian Tribe                            | 16 Colorado River Indian Tribes              |
| 3 Ute Mountain Ute Tribe                               | 17 Yavapai-Apache Nation                     |
| 4 Jicarilla Apache Nation                              | 18 Yavapai-Prescott Indian Tribe             |
| 5 Navajo Nation  | 19 Tonto Apache Tribe                        |
| 6 Zuni Tribe   | 20 White Mountain Apache Tribe               |
| 7 Hopi Tribe   | 21 San Carlos Apache Tribe                   |
| 8 Kaibab Band of Paiute Indians                        | 22 Fort McDowell Yavapai Nation              |
| 9 Havasupai Tribe                                      | 23 Salt River Pima-Maricopa Indian Community |
| 10 Hualapai Indian Tribe                               | 24 Gila River Indian Community               |
| 11 Shivwits Band of Paiute Indian Tribe                | 25 Ak-Chin Indian Community                  |
| 12 Moapa Band of Paiute Indians                        | 26 Quechan Indian Tribe                      |
| 13 Las Vegas Tribe of Paiute Indians                   | 27 Cocopah Indian Tribe                      |
| 14 Fort Mojave Indian Tribe                            | 28 Tohono O'odham Nation                     |
|  | 29 Pascua Yaqui Tribe                        |

Credit: Center for Natural Resources & Environmental Policy, University of Montana.

The full extent of Indian water rights is still not quantified. In the early 1970s, federal policy took a radically new course, adopting the principle of tribal self-determination. That led to tribes negotiating directly with the federal government to settle their water rights. In 1978, Arizona's Ak-Chin Indian Community was the first to do so; since then, 36 water-rights settlements have been negotiated between tribes, other water-rights holders in the basin, and state and federal agencies (see sidebar page 82). "The onset of negotiated settlements was an important part of the evolution" of tribal water rights, says Jason Robison, a law professor at the University of Wyoming. "But the features they've come to incorporate have also broken new ground."

While tribal water rights were originally seen primarily as a necessity for farming on reservations, the settlements of the 20th century allowed some tribes to lease their water rights to users outside their reservations. This came to be seen as an economic development tool and a way to fund basic services for tribal members.

For the Navajo Nation in Arizona, New Mexico, and Utah, tying water to economic development is "all about creating a permanent homeland, where people go off, get educated, and come home," says Biddah Becker, a tribal member and attorney who has long been involved in water issues as a Navajo Nation government official. "We're trying to develop a thriving homeland that people come home to, that works."

In many cases, tribes don't have the physical infrastructure to put their allocated water to use. Throughout the United States, Native American households are 19 times more likely than white households to lack indoor plumbing. On the Navajo Nation, the widespread lack of water services has likely contributed to the tribe's horrendous losses to COVID-19; at one point in 2020, the nation had a higher per capita infection rate than any U.S. state (Dyer 2020). "Between 70,000 and 80,000 Navajos still haul water [to their homes] on a daily basis," Vigil says. "In our country, in 2020, there's still 70,000 to 80,000 people who aren't connected to water infrastructure in a pandemic. It's crazy."

Tribal leaders Dennis Patch of the Colorado River Indian Tribes, left, and Stephen Roe Lewis of the Gila River Indian Community, second from left, join state and federal officials to sign the Arizona Drought Contingency Plan agreement at Hoover Dam in 2019. Lake Mead is visible in the background. Credit: Roberto A. Jackson/*Gila River Indian News*.



Vigil is the Water Administrator for the Jicarilla Apache Nation in New Mexico. In a 1992 settlement with the U.S. Department of the Interior (DOI), the tribe was allotted 40,000 acre-feet (roughly 13 billion gallons) of water per year, which it leased to the operator of a coal-fired power plant. The lease helped fund annual payments to tribal members for many years. But as the economy shifted toward green energy, the leases were not renewed. “So all of a sudden we’re left with settlement water stored [in a reservoir] 40 to 45 miles away, with no ability to use that water,” Vigil says.

Given the current drought, he says, the tribe could easily lease its water to others, but the terms of its federal settlement prohibit leasing water outside of New Mexico. Instead, the water flows out of the tribe’s hands and into the hands of other users. “No mechanisms are available to take our water outside of state boundaries,” Vigil says. “For the last two years, we’ve had over 30,000 acre-feet of unleased water going down the river.”

The ability to lease water can give tribes leverage—and an economic boost. In a hard-fought 2004 settlement, the Gila River Indian Community (GRIC) secured rights to more than twice as much water as the city of Las Vegas. It has used those rights to become a major, though often overlooked, force in Arizona water policies and politics. The tribe participated in negotiations around the Drought Contingency Plan (DCP), a multiyear, basinwide agreement signed in 2019 to address the impacts of the decades-long drought (Jenkins 2019).

States negotiated their own agreements as part of the DCP process; in Arizona, GRIC agreed to leave some of its water in Lake Mead, the reservoir that provides water to the Lower Basin, and to lease another portion to the Central Arizona Groundwater Replenishment District to address concerns about long-term water supplies for new development. Together, the two deals could be worth as much as \$200 million to the tribe.



Daryl Vigil, co-facilitator of the Water & Tribes Initiative and Water Administrator of the Jicarilla Apache Nation in New Mexico. Credit: Courtesy of Bob Conrad.

The Colorado River Indian Tribes (CRIT)—a community that includes the Mohave, Chemehuevi, Hopi, and Navajo tribes on a reservation spanning the river in Arizona and California—was also an important participant in the DCP. The community’s participation was not without internal controversy: some tribal members were opposed to the DCP and attempted to recall the members of their tribal council. Ultimately CRIT agreed to leave up to 8 percent of its annual allocation in Lake Mead for three years in exchange for compensation of \$30 million from the state of Arizona and an additional \$8 million pledge from a group of foundations and corporations organized by the Walton Family Foundation and Water Funder Initiative.

The DCP negotiations were complex and contentious. In the end, coming to a resolution required getting tribes, cities, farmers, and other major stakeholders to the table.

Given the current drought, the tribe could easily lease its water to others, but the terms of its federal settlement prohibit leasing water outside of New Mexico. Instead, the water flows out of the tribe’s hands and into the hands of other users.

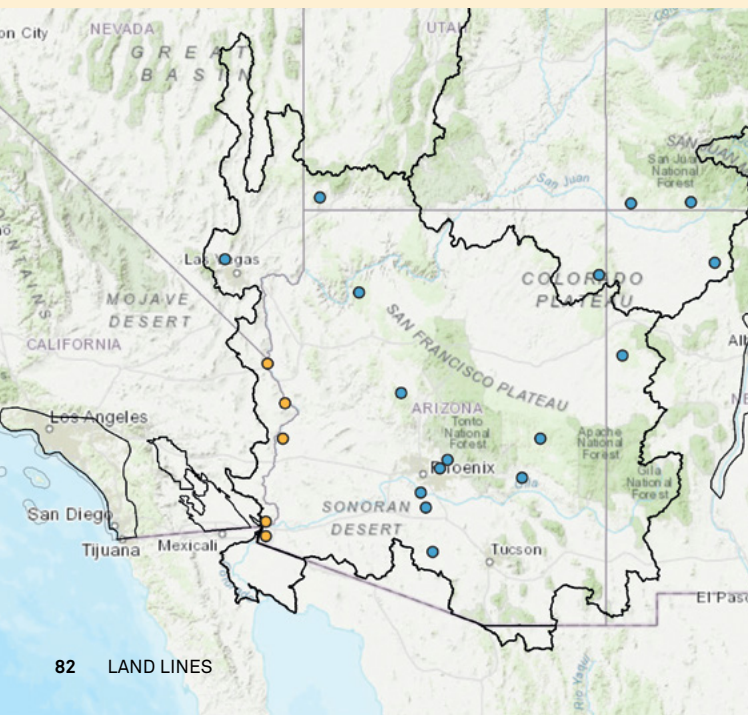


## THE RELATIONSHIP BETWEEN TRIBAL AND STATE ALLOCATIONS

When a tribe wins the right to use or lease a certain amount of Colorado River water, that water is considered part of the allocation of the state where the tribe is based. Because the states have individual allocations of water under the laws and agreements governing the river, newly negotiated tribal water settlements reduce the amount of water available for other users in that state. In the past, when tribal water allocations were not used, this water was left in the system for use by others. This issue is particularly acute in Arizona, where 22 of the 29 basin tribes have reservations. With the water rights of many tribes still unrecognized and unquantified, tribes and other stakeholders are understandably on edge about the future availability of water in the drought-stricken basin and intent on finding ways to work together to ensure a sustainable future.

To access policy briefs, reports, and other materials produced by the Water & Tribes Initiative, visit [www.naturalresourcespolicy.org/projects/water-tribes-colorado-river-basin](http://www.naturalresourcespolicy.org/projects/water-tribes-colorado-river-basin).

Map of resolved surface water rights for tribes in the Colorado River Basin, reached through litigation (indicated in orange) and negotiated settlements (indicated in blue). Credit: “The Hardest Working River in the West,” Babbitt Center StoryMap, [www.lincolninist.edu/research-data/data/co-river-storymap](http://www.lincolninist.edu/research-data/data/co-river-storymap).



## Bridging the Gap

Since its inception, WTI has aimed to improve the tribes’ abilities to advance their interests and to promote sustainable water management in the basin through collaborative problem-solving. “We walk a tightrope,” says Matt McKinney, who co-facilitates the initiative with Vigil. McKinney is a longtime mediator who directs the Center for Natural Resources & Environmental Policy at the University of Montana. “On the one hand, it’s pretty easy to see us being advocates for tribes, which we are. But the larger frame is that we’re advocates for a fair, equitable, effective process of solving problems and making decisions.”

“The success of tribal water settlements has been based on the relationships of the people in the room,” says Margaret Vick, an attorney for the Colorado River Indian Tribes. “And the Water & Tribes Initiative has expanded the [number of] people in the room.” WTI is now working to shift away from narrow negotiations on individual water settlements to a much broader conversation spanning the basin: the current guidelines for managing the river will expire at the end of 2026, and new guidelines for the next several decades will soon be hammered out.

The U.S. Bureau of Reclamation (USBR)—the division of DOI that manages the Colorado and other western waterways—is reviewing the past decade and a half of negotiations and operations to prepare for the next round. “We need a more inclusive renegotiation process,” says Morgan Snyder, senior program officer at the Walton Family Foundation’s environment program. “This is the opportunity to influence the next 25 years of water management in the basin.”

Anticipating the renegotiation process, McKinney and Vigil conducted interviews in 2019 with more than 100 people, including tribal leaders, water managers, and others involved in water issues in the region, to identify major issues facing the basin as well as ways to enhance collaborative problem-solving, particularly tribal participation in decisions about the river. WTI held workshops with tribal members



An aerial view of a portion of the 32,000-acre Mohave Indian Reservation, approximately half of which is used for the cultivation of cotton, alfalfa, and other crops. Credit: Earth Observatory/NASA.

and other interested parties from across the basin to identify strategies to enhance tribal and stakeholder engagement.

“Many interviewees believe it is time to move beyond managing the river as a plumbing and engineering system that supplies water to cities and farms and toward a more holistic, integrated system that better accommodates multiple needs and interests, including but not limited to tribal sacred and cultural values, ecological and recreational values, and the integration of land and water management decisions,” McKinney and Vigil wrote. “The intent here is to articulate a holistic, integrated vision and then make progress toward that vision incrementally over some period of time . . . and to move from a system focused on water use to watershed management” (WTI 2020).

To raise awareness, increase understanding, and catalyze conversations, WTI is issuing a series of policy briefs on topics ranging from the enduring role of tribes in the basin to a system-wide vision for sustainability. It is also helping the Ten Tribes Partnership, a coalition created in 1992 to increase the influence of tribes in Colorado River water management, develop a strategic plan.

But changing the nature of water management negotiations—to say nothing of the nature of water management itself—will not be easy. “Just like any other really complicated process, you have to figure out a way to break it down,” says Colby Pellegrino, deputy general manager for the Southern Nevada Water Authority, which supplies water to Las Vegas and its suburbs. “You have to eat the elephant that is Colorado River law and all of the interrelated problems one bite at a time. This presents issues if different stakeholder groups have differing opinions on the scope of negotiations.”

Some tribes have been frustrated by the difficulty of making their voices heard, even though they are sovereign nations. “We’re not ‘stakeholders,’” Vigil says. “We always get thrown into the same pool as NGOs, conservation groups. But it’s like, ‘No, we’re sovereigns.’”

**“We’re not ‘stakeholders,’ Vigil says. “We always get thrown into the same pool as NGOs, conservation groups. But it’s like, ‘No, we’re sovereigns.’”**



The federal and state governments have also made some significant missteps. In 2009, the USBR launched a major study to assess current and future supply and demand along the river (USBR 2012), yet tribes weren't meaningfully included in that process. Only after pressure from several tribes did the bureau commission a study of tribal water allotments, conducted with the Ten Tribes Partnership and released years later (USBR 2018). That study outlines the barriers to the full development of tribal water rights and analyzes the potential impacts of tribes developing those rights—especially for other users who have come to rely on the water that long went unused by the tribes. And in 2013, the basin states and the federal government began discussions about the Drought Contingency Plan without notifying tribes.

“States have ignored tribal water rights and tribal water use since the compact in the 1920s,” Vick says. “The [supply and demand study] was a state-driven process, and the states did not understand tribal water rights and were rarely involved in even considering what goes on on the reservation, as far as water use. They can't [do this] anymore, because there has to be a full understanding to be able to manage the 20-year drought that we're in.”

One basic but critical remaining challenge is finding a common way to understand and discuss issues related to the river. Anne Castle, a former assistant secretary for water and science at the DOI who held responsibility for the USBR from 2009 to 2014, is now a member of WTI's leadership team. “The challenge is that we're not talking about just having additional people—tribal representatives—at the table,” she says. “Those tribal representatives bring different values to the table as well. We haven't really dealt with those cultural and spiritual and ecological values in these sorts of discussions previously.”

“Tribes call the canyon home,” a monument at Grand Canyon National Park reminds visitors. There are 29 federally recognized tribes in the Colorado River Basin. Credit: Dmitry Petrakov/Alamy.

Bridging that gap is a slow process, Castle adds. “When you have spoken one language for as many years as state water managers have . . . to be exposed to a different way of talking about water is difficult,” she says. “But the converse is also true: it takes [tribal representatives] a long time of sitting in meetings and listening to understand how what state water managers are talking about will impact them.”

Exactly how tribes might get a more substantial voice in decisions about the river's future isn't clear. One proposal is for the creation of a sovereign review team that would include state, federal, and tribal representatives.



## What Comes Next

The coming renegotiations “are a very important inflection point in how the basin states and the federal government treat tribal sovereignty in the Colorado River Basin going forward,” says Robison of the University of Wyoming. “When that process gets mapped out, you’ll be able to see, okay, to what extent are the tribes again being pushed to the margins? To what extent are the basin-state principals and the feds willing to actually not kick the can down the road?”

In a hopeful sign of potential collaboration, several large water agencies are contributing funding to the Water & Tribes Initiative, including the Southern Nevada Water Authority, Denver Water, the Imperial (CA) Irrigation District, the Metropolitan Water District of Southern California, and the Central Arizona Project. The Nature Conservancy and other environmental groups have provided support for WTI convenings as well.

Exactly how tribes might get a more substantial voice in decisions about the river’s future isn’t clear. One proposal that emerged from WTI’s basinwide interviews in 2019 is for the creation of a sovereign review team that would include state, federal, and tribal representatives, perhaps supplemented by an advisory council of representatives from each of the basin’s 29 tribes.

No matter how the negotiations are structured, much is at stake for all involved. While there seems to be a general commitment to consensus and collaboration, there is a fundamental tension at the heart of the endeavor. As McKinney notes, “One of the tribes’ fundamental interests is to develop and use their water rights. That interest seems to be diametrically opposed to the current interests of the basin states and the objectives of the DCP, which are all about using less water.” Historically, unused tribal water has been used by nontribal entities, in some cases allowing those entities to exceed their allocations. Now, in an era of long-term drought and climate change, there’s less and



Ivy Ledezma of the Colorado River Indian Tribes at the Ahakhav Tribal Preserve, a 1,253-acre conservation area established along the river in 1995 in Parker, Colorado. Credit: Alexis Kubhander/Cronkite News.

less water to go around. “You can see,” says McKinney, “that the basin is faced with some difficult conversations and tough choices.”

For most tribes, the choice is clear. “We need to develop our water rights,” says Crystal Tulley-Cordova, principal hydrologist for the Navajo Nation’s Department of Water Resources. “We shouldn’t be expected to forfeit our development.”

One of the most contentious issues centers on the ability of tribes to lease their water to users outside the boundaries of their reservations. Allowing tribes to lease their water—or not—is one of the principal sources of leverage that individual states have over the tribes within their boundaries. “Given that tribal water rights are administered by the state in which the reservation is located, tribes need to work with state officials and other water users to find mutual gain solutions that balance everyone’s needs and interests,” says McKinney.

Vigil agrees and emphasizes that a tribe’s right to do what it wants with its water, whether using it for farming or economic development on tribal lands or leasing it to other users, is a key tenet of the self-determination principle codified in federal policy since the 1970s. “The heart of it goes to those foundational concepts of an ability to determine your own future,” Vigil says. “And that’s what sovereignty is to me.”

## Finding Common Ground

WTI is already helping tribes work toward the kind of solidarity that will make it difficult for any entity to ignore their collective voice. Recently, 17 tribal leaders joined together to send a letter to the DOI about the next stage of negotiations. “When Tribes are included in major discussions and actions concerning the Colorado River, we can contribute—as we already have—to the creative solutions needed in an era of increasing water scarcity,” the letter read. “We believe frequent communication, preferably face-to-face, is appropriate and constructive.”

“The ‘Law of the River’ is always evolving,” says Holway of the Babbitt Center. “I am optimistic that we will better incorporate the perspectives and interests of the broader community in future Colorado River management discussions; in the face of increasing water scarcity, a broader base of engagement will be essential. I am also hopeful we will be seeing a stronger tribal voice within the U.S. Department of the Interior.” (At press time, President-elect Joe Biden had nominated Rep. Deb Haaland of New Mexico to serve as secretary of the Interior; Haaland would be the first Native American to head the agency and the first Native American Cabinet secretary.)

The guiding principle for WTI, McKinney says, is “to build on the collaborative culture in the basin and to focus on common ground, to build a sense of momentum by working on the 80 percent of the issues where tribal and other water leaders can agree—and then circle back around to address the differences.”

That focus on common ground is helping to create stronger ties not just among tribes, but also between tribes and the established water management community. “One of the great things about the Water & Tribes Initiative is that it’s trying to create this network of people who can all rely on each other,” says Colby Pellegrino. “It’s building a web for people to walk across instead of a tightrope.” □

---

## REFERENCES

- Dyer, Jan. 2020. “Practicing Infection Prevention in Isolated Populations: How the Navajo Nation Took on COVID-19.” August 17. *Infection Control Today* 24(8). <https://www.infectioncontroltoday.com/view/how-the-navajo-nation-took-on-covid-19>.
- Fradkin, Philip. 1996. *A River No More: The Colorado River and the West*. Berkeley, CA: University of California Press.
- Jenkins, Matt. 2019. “Beyond Drought: The Search for Solutions as Climate Impacts a Legendary River.” *Land Lines*. January. <https://www.lincolnst.edu/publications/articles/beyond-drought>.
- McCool, Daniel. 2003. *Native Waters: Contemporary Indian Water Settlements and the Second Treaty Era*. Tucson, AZ: University of Arizona Press.
- USBR (U.S. Bureau of Reclamation). 2012. *Colorado River Basin Water Supply and Demand Study*. Washington, DC: U.S. Department of the Interior. <https://www.usbr.gov/lc/region/programs/crbstudy/finalreport/index.html>.
- . 2018. *Colorado River Basin Ten Tribes Partnership Tribal Water Study Report*. Washington, DC: U.S. Department of the Interior. <https://www.usbr.gov/lc/region/programs/crbstudy/tws/finalreport.html>.
- WTI (Water & Tribes Initiative). 2020. “Toward a Sense of the Basin.” Missoula, MT: University of Montana Center for Natural Resources & Environmental Policy. <https://naturalresourcespolicy.org/docs/colorado-river-basin/basin-report-2020.pdf>.

---

**Matt Jenkins** is a freelance writer who has contributed to the *New York Times*, *Smithsonian*, *Men’s Journal*, and numerous other publications.