

# [***CHEEVER AWARD:***](https://advance.lexis.com/api/document?collection=analytical-materials&id=urn:contentItem:667B-D5F1-JJ1H-X4KP-00000-00&context=1516831) [***2021-2022 WINNING ARTICLE UNREALIZED FEDERAL INDIAN WATER RIGHTS ON THE COLORADO RIVER: AN OPPORTUNITY FOR EQUITY AND CONSERVATION***](https://advance.lexis.com/api/document?collection=analytical-materials&id=urn:contentItem:667B-D5F1-JJ1H-X4KP-00000-00&context=1516831)

Spring, 2022

**Reporter**

25 U. Denv. Water L. Rev. 287 \*

**Length:** 10048 words

**Author:** REBECCA GLENN

**Text**

**[\*288]**

**I. Introduction**

The ***Colorado*** ***River*** supplies water to nearly forty million people in seven Western states. [[1]](#footnote-2)1The ***river*** is in the midst of a record "drought" that began in 2000. [[2]](#footnote-3)2With climate change and continued development of the region, ***Colorado*** ***River*** water rights become more valuable year after year. The ***Colorado*** ***River*** Compact ("Compact") divides the ***river*** into the "Upper Basin" (***Colorado***, Utah, and Wyoming) and the "Lower Basin" (Arizona, California, Nevada, and New Mexico) [[3]](#footnote-4)3with storage at Lake Powell and Lake Mead, respectively. [[4]](#footnote-5)4The body of law that governs the ***river*** is referred to as the "Law of the ***River***," and consists of several compacts, acts, agreements, and United States Supreme Court decisions. [[5]](#footnote-6)5Tribal water rights are specifically administered by way of the federal Indian [[6]](#footnote-7)6reserved water rights doctrine. [[7]](#footnote-8)7

Historically, the Lower Basin has historically used more than its share of the apportioned water, which has been balanced by the fact that the Upper Basin states have been slower to develop, and by the fact that tribal entities have not fully solidified their water rights. Because many tribes have outstanding claims for water rights, in effect, the Lower Basin has the cost-free benefit of unused tribal water. Tribal water rights for the Ten Tribes Partnership [[8]](#footnote-9)8alone currently consist of more than 2.8 million acre-feet ("MAF") [[9]](#footnote-10)9per year. [[10]](#footnote-11)10This figure only includes settled water rights for the ten tribes that make up the partnership and does not include the rights of other tribes not in the partnership or the ten tribes' several outstanding claims. All parties with interests in the ***Colorado*** ***River*** have concerns about what effects newly realized tribal water rights will have on the availability of water in both the Upper and Lower Basins.

One glaring concern regarding water levels in the ***Colorado*** ***River*** system is **[\*289]**power production at the reservoirs on the ***river***. Lake Powell can only effectively generate power at a minimum water level of 3,525 feet; it currently sits at 3,526.7 feet [[11]](#footnote-12)11and there are worst-case-scenario projections that it could dip below 3,525 by the end of water year 2022. [[12]](#footnote-13)12Eric Millis of the Utah Division of Water Resources forecasts that once the lake drops to this level, there will be opportunities to pay water users to enter into voluntary agreements to forebear water use so that the water can remain in Lake Powell. [[13]](#footnote-14)13Further, the ***Colorado*** ***River*** Drought Contingency Plan, authorized in 2019, gave the Upper Basin states a right to store 500,000 acre-feet ("AF") in Lake Powell as a "drought pool," not subject to releases to the Lower Basin, for the purposes of meeting future obligations. [[14]](#footnote-15)14

It is well-known in the federal Indian law community that tribal water rights litigation and settlement is expensive and time-consuming, with many settlements taking decades to complete. Further, these settlements typically result in only "paper water," [[15]](#footnote-16)15often in amounts so great that delivery of the right would require construction of new infrastructure. Often, this need for infrastructure sets off a new round of settlement discussions, which further delay delivery of wet water to a reservation. There are numerous tribes throughout the ***Colorado*** ***River*** Basin that have inaccessible paper water rights, which is to the detriment of each tribe, and the benefit of all other junior water users. Tribes that have settlements that permit water leasing and marketing are still restricted from leasing at capacity due to interstate restrictions and some settlements do not permit water leasing or marketing at all. [[16]](#footnote-17)16Tribes are left with huge untapped assets that are either inaccessible for actual use or forced into dormancy due to regulations and cost barriers.

A possible solution for these untapped tribal water rights could be found through a voluntary compensated agreement to leave the water in the ***river***, which on paper would leave the water in the Lake Powell drought pool. [[17]](#footnote-18)17Many tribes with rights to the ***Colorado*** ***River*** are impoverished and should rightfully be compensated for leaving their reserved water rights in the ***river*** to the great benefit of the American West. The ***Colorado*** ***River*** Drought Contingency Plan gives Upper Basin states the authority to pass legislation to create water-saving programs that could implement such agreements with tribes. The agreements would result in just compensation for the tribes, would be beneficial to the ecosystems dependent on the ***Colorado*** ***River*** system, and would provide certainty and reliability for all those with interests in the ***Colorado*** ***River***.

**[\*290]**

**II. The Law of the *River***

A. A BRIEF HISTORY

The United States Department of the Interior via the Bureau of Reclamation manages the ***Colorado*** ***River*** system through a series of acts, Supreme Court decisions, and agreements. [[18]](#footnote-19)18The Secretary of the Interior ("Secretary"), subject to these provisions, makes determinations with respect to the projected plan of operations of the storage reservoirs in the ***Colorado*** ***River*** Basin. The Law of the ***River*** began with the ***Colorado*** ***River*** Compact of 1922 with the following stated purpose:

"Provide for the equitable division and apportionment of the use of the waters of the ***Colorado*** ***River*** System; to establish the relative importance of different beneficial uses of water; to promote interstate comity; to remove causes of present and future controversies; and to secure the expeditious agricultural and industrial development of the ***Colorado*** ***River*** Basin, the storage of its waters, and the protection of life and property from floods." [[19]](#footnote-20)19

The Compact arose after two reports from the Department of the Interior in 1919 [[20]](#footnote-21)20and 1922 [[21]](#footnote-22)21advocated the potential benefits of creating a large reservoir on the mainstream of the ***Colorado*** ***River*** and an all-American canal to the Imperial Valley of California. These proposed projects stoked the fears of the soon-to-be Upper Basin states that the Lower Basin states, particularly California, would quickly consume the additional water that the projects would make available. These fears were due to the Doctrine of Prior Appropriation, which most of the American West still adheres to, and which provides that the first to appropriate water and put it to a beneficial use acquires a vested right to continue to divert and use that quantity of water against all claimants junior to her in point of time. Colloquially this is referred to as "first in time, first in right." [[22]](#footnote-23)22

The Compact defined the Upper Basin and Lower Basin states, demarcated by a point on the ***river*** known as Lee Ferry in Northern Arizona. [[23]](#footnote-24)23It **[\*291]**designated that the Upper Basin and the Lower Basin would each receive 7,500,000 AF of water per year to meet all existing and future rights in each basin. [[24]](#footnote-25)24The Compact also specified that the states of the Upper Basin may not deplete the flow of the ***river*** at Lee Ferry below an aggregate 75,000,000 AF for any period of ten consecutive years. [[25]](#footnote-26)25The States of the Upper Basin cannot withhold water, and the States of the Lower Basin cannot require delivery of water that they cannot beneficially use. [[26]](#footnote-27)26Under the Compact, water impounded for electrical production is subservient to water for dominant uses such as domestic and agricultural purposes. [[27]](#footnote-28)27Further, the Compact requires satisfaction of "present perfected rights." [[28]](#footnote-29)28Notably, the Compact also states in Article VII, "Nothing in this compact shall be construed as affecting the obligations of the United States of America to Indian tribes." [[29]](#footnote-30)29The Compact did no more. Particularly, it did not define each state's allocation, nor did it consider or include the many tribes that had reserved rights [[30]](#footnote-31)30on the ***Colorado*** ***River***.

Following the Compact, next came the Boulder Canyon Project Act of 1928 [[31]](#footnote-32)31("BCPA") which obtained Congressional approval of the Compact, authorized construction of the Hoover Dam, and authorized the Lower Basin to create a second compact to designate its mainstream water to Arizona (2.8 MAF), California (4.4 MAF), and Nevada (0.3 MAF). [[32]](#footnote-33)32The BCPA also determined that all uses of mainstream ***Colorado*** ***River*** water within a state must be charged against the state's apportionment, which includes uses by the United States and importantly, federal reserved water rights. [[33]](#footnote-34)33Out of the seven ***Colorado*** ***River*** Basin states, Arizona refused to ratify the Compact, yet because six of the seven, including California, had ratified, the Secretary began contracting for water with the Lower Basin states in line with the apportionments set out by the BCPA. [[34]](#footnote-35)34

In 1944 the United States entered into the Mexican Water Treaty, guaranteeing the delivery of 1.5 MAF of water to Mexico annually and identifying circumstances that could provide exceptions. [[35]](#footnote-36)35Next, in 1948, the Upper Basin states entered into the Upper ***Colorado*** ***River*** Basin Compact, which apportioned the Upper Basin's allocation of water amongst the states in the basin. [[36]](#footnote-37)36The ***Colorado*** ***River*** Storage Project Act of 1956 provided a water resource **[\*292]**development plan for the Upper Basin and authorized the construction of four dams: Flaming Gorge Dam, Glen Canyon Dam, Blue Mesa Dam, and Navajo Dam. [[37]](#footnote-38)37The Glen Canyon Dam led to the creation of Lake Powell.

Then came the 1963 case, *Arizona v. California*, which resolved a dispute brought by Arizona regarding allocation of the ***Colorado*** ***River*** and established limits on the United States' operation of certain ***Colorado*** ***River*** reservoirs. [[38]](#footnote-39)38Notably, the decree states the Court's agreement with the Master that all uses of mainstream water within a state are to be charged against that state's apportionment, which includes uses by the United States in its trust capacity for tribes. [[39]](#footnote-40)39Soon after the conclusion of the *Arizona v. California* litigation came the ***Colorado*** ***River*** Basin Project Act of 1968. [[40]](#footnote-41)40This act authorized construction of several water development projects throughout the ***Colorado*** ***River*** Basin, including the Central Arizona Project ("CAP"), which would become integral to central Arizona and Phoenix. [[41]](#footnote-42)41The act made CAP subordinate to California's apportionment in times of shortage and required the Secretary to prepare long-range operating criteria for the ***Colorado*** ***River*** reservoir system in consultation with the ***Colorado*** ***River*** Basin Project states. [[42]](#footnote-43)42Specifically, the Secretary must annually determine whether there will be enough water to satisfy the Lower Basin's allocation, and if there will be a water surplus or a shortage. [[43]](#footnote-44)43

The next major piece of the Law of the ***River*** was the Criteria for Coordinated Long-Range Operation of ***Colorado*** ***River*** Reservoirs of 1970 ("Criteria"), later amended in March 2005. [[44]](#footnote-45)44The Criteria brought long-term planning to the table and coordinated the operations of all reservoirs in the ***Colorado*** ***River*** Basin. [[45]](#footnote-46)45Since the Criteria issued, most recent acts have concerned the salinity of the ***river*** and protecting resources on federal lands. [[46]](#footnote-47)46The Law of the ***River*** works in conjunction with other major pieces of federal legislation such as the National Historic Preservation Act of 1966, the National Environmental Policy Act of 1969 ("NEPA"), and the Endangered Species Act of 1973.

B. THE DROUGHT

The ***Colorado*** ***River*** basin has been experiencing what has been referred to as a "drought" since 2000. [[47]](#footnote-48)47Typically the term drought implies that the hardship will only last for a short period of time and may reach a point where water levels will return to "normal." [[48]](#footnote-49)48Climate scientists at the University of California **[\*293]**at Los Angeles and ***Colorado*** State University published research in 2018 finding that the annual runoff from the Upper ***Colorado*** ***River*** Basin decreased by 16.5% since 1914. [[49]](#footnote-50)49Additionally, they concluded that 53% of the decrease in runoff was due to the increased temperature throughout the basin. [[50]](#footnote-51)50With global temperatures expected to continue rising, characterizing the two-decade-long water shortage in the ***Colorado*** ***River*** as a drought is optimistic at best. [[51]](#footnote-52)51

In 2004, the ***Colorado*** ***River*** Basin was experiencing the lowest five-year-average annual hydrology ever observed, which brought the Lake Powell and Lake Mead reservoirs to all-time lows. [[52]](#footnote-53)52At that time, the United States Department of the Interior ("DOI") had not yet fully developed operational rules for the reservoirs, and as such, the Secretary charged the ***Colorado*** ***River*** Basin states with developing a plan to manage the ***river*** and reservoirs during drought. [[53]](#footnote-54)53The NEPA process for an operational drought plan for the ***Colorado*** ***River*** Basin commenced in 2005 and concluded in late 2007. [[54]](#footnote-55)54Additionally, the DOI issued a Record of Decision regarding the operational guidelines for the ***Colorado*** ***River*** Basin during a drought in December 2007. [[55]](#footnote-56)55

The stated purpose of the federal action was to improve management of the ***Colorado*** ***River***, specifically as it relates to the Lake Powell and Lake Mead reservoirs which provide predictability for ***Colorado*** ***River*** users under drought conditions and provide additional mechanisms for storage and water delivery in Lake Mead. [[56]](#footnote-57)56The decision adopted specific interim guidelines for Lower Basin shortages and called for coordinated operations of Lake Powell and Lake Mead. n5755The guidelines are in effect for water supply determinations through 2025 and reservoir operating decisions through 2026. [[57]](#footnote-58)58

Under the 2007 Interim Guidelines, shortage conditions exist in a year when the Secretary determines that there is insufficient water to satisfy the 7.5 MAF of annual consumptive use in the Lower Basin states. [[58]](#footnote-59)59Through 2020, there had yet to be a technical "shortage" on the lower ***Colorado*** ***River***, for in the event a state does not use its entire apportionment, the Secretary may allow other Lower Division states to use the unused apportionment, provided the Secretary authorizes the use by a water delivery contract. [[59]](#footnote-60)60

**[\*294]**In summer 2013, as the drought persisted throughout the Basin, the Basin states and the Bureau of Reclamation began to develop drought contingency plans ("DCPs") to protect storage in Lake Powell and Lake Mead. [[60]](#footnote-61)61The Upper Basin DCP sought to maintain elevation levels of water in Lake Powell and to authorize storage of conserved water to meet Lower Basin demands. [[61]](#footnote-62)62The Lower Basin DCP required its states to contribute water to Lake Mead under certain conditions and created additional flexibility to incentivize voluntary conservation of water for storage at Lake Mead. [[62]](#footnote-63)63All of the Basin states supported the DCPs, which were passed by the legislature in April 2019. [[63]](#footnote-64)64

In 2014, the Basins created a pilot program to incentivize water conservation. [[64]](#footnote-65)65Between 2015 and 2019, the Lower Basin provided around $ 30 million to fund projects and conserved about 175,000 AF of water. [[65]](#footnote-66)66Between 2015 and 2018, the Upper Basin provided $ 8.5 million to fund projects, saving 47,280 AF. [[66]](#footnote-67)67The Bureau of Reclamation recognized in its Review of the Interim Guidelines that these successes "suggest that additional innovative system conservation projects would be beneficial to the ***Colorado*** ***River*** System Storage." [[67]](#footnote-68)68Notably, as part of the 2015 Consolidated and Further Continuing Appropriations Act, Congress provided funding authorizing the Secretary to implement drought response actions such as those taken in the pilot program. [[68]](#footnote-69)69

The Interim Guidelines were created with an expiration date so that they would be revisited and reevaluated regularly. A new set of interim guidelines are to be created and implemented by 2026. [[69]](#footnote-70)70

**III. Federal Indian Water Rights on the *Colorado* *River***

" *Practicality and justice are not easy to find where the irresistible force of absolute legal rights of tribes meets the apparently immoveable object of a century of established non-Indian water uses.*" [[70]](#footnote-71)71-David Getches

A. A BRIEF HISTORY OF FEDERAL INDIAN RESERVED WATER RIGHTS, GENERALLY

There is archaeological evidence that as long as 2,000 years ago, the ancient Hohokam Tribe built and maintained irrigation canals off of the ***Colorado*** **[\*295] *River*** near what is now Phoenix, Arizona, and that Indigenous tribes were practicing irrigation in that region at the time when white men first explored it. [[71]](#footnote-72)72Under any interpretation of the prior appropriation doctrine reverent to the tribes, this early use by tribes gives a senior water right. Some courts reached back to "time immemorial" [[72]](#footnote-73)73for a priority date, [[73]](#footnote-74)74and as water law in the American West developed throughout the twentieth century, tribal seniority to the ***Colorado*** ***River*** could not be ignored.

The landmark case that serves as the foundation of the federal Indian reserved water rights doctrine is *Winters v. United States*. [[74]](#footnote-75)75The *Winters* decision settled a dispute between Indigenous tribes and bands of the Fort Belknap Reservation and upstream nonindigenous water users of the Milk ***River*** in Montana. The upstream users had begun depleting the ***river*** a decade after the creation of the reservation in 1888. [[75]](#footnote-76)76The court determined that the United States implicitly reserved water for tribes at the time that land was set aside for reservations, in an amount sufficient to fulfill the purposes of the reservation. [[76]](#footnote-77)77These federal reserved rights are now known as *Winters* rights, and each have a priority date that matches the date the federal government created the associated reservation. [[77]](#footnote-78)78Importantly, because these rights are federal rights and not state rights, they are not subject to forfeiture or abandonment if they are not put to beneficial use, as required by most western state water law. [[78]](#footnote-79)79The United States is the trustee and holder of title to federal Indian reserved water rights and is obligated to protect tribal water rights and water resources for each beneficiary tribe. [[79]](#footnote-80)80

Cases following *Winters* have further defined federal Indian water rights. In determining the allocations of the ***Colorado*** ***River*** for the Lower Basin states, and to settle uncertainty as to the "amount of water necessary to irrigate all of the reservation's practicably irrigable acreage[,]" with reserved rights to the ***Colorado*** ***River***, the Supreme Court in *Arizona v. California* created the "practicably irrigable acreage" ("PIA") standard. [[80]](#footnote-81)81On behalf of twenty-five tribes, the United States asserted claims to various water sources in the ***Colorado*** ***River*** basin, yet only asserted claims to the mainstream on behalf of five tribes. [[81]](#footnote-82)82The opinion only ruled on the mainstream rights to the ***Colorado*** ***River***, and as such, **[\*296]**twenty tribes were left out of the adjudication. The court adopted the Special Master's holding that the aggregate amount of water reserved for the five reservations should be approximately one MAF, based on the PIA standard. [[82]](#footnote-83)83The opinion notably stated that in case of a deficit to the Lower Basin, the Secretary must first "provide for satisfaction of present perfected rights [[83]](#footnote-84)84in the order of their priority dates without regard to state lines." [[84]](#footnote-85)85Another standard for quantifying *Winters* rights that has been set forth and used by some courts is the "homeland" standard, which disconnects water rights from agriculture, and rather considers the balance of several factors in quantification, such as: tribal history; culture; reservation geography, topography, and natural resources; tribal economic development; prior water use; and population. [[85]](#footnote-86)86

Congress enacted the McCarran Amendment in 1952. [[86]](#footnote-87)87In the Amendment, Congress consented to state jurisdiction of the United States as a defendant in any suit for adjudication of rights to the use of water of a ***river*** system or other source, or for the administration of such rights, where it appears that the United States is the owner of or is in the process of acquiring water rights by appropriation under state law. [[87]](#footnote-88)88Due to the Amendment, all water rights adjudications, including those involving the federal reserved *Winters* rights of tribes, must originate in state court in each state, under state court procedures, and must include all possible interested parties. [[88]](#footnote-89)89General stream adjudications in state court can cost hundreds of thousands of dollars, and often take decades to conclude. To better advance their interests, tribes typically now hire their own outside counsel and participate in water rights litigation as intervenors.

For decades, legal commentators have argued that the comprehensive approach required by the McCarran Amendment should be deemphasized, because although the goal of certainty for all interested parties is a noble one, in reality, western water rights will never be final or permanent due to changing uses, water availability, and changing federal and state environmental regulations. [[89]](#footnote-90)90Adding to the difficulty, state courts have full dockets covering a range of topics and are arguably not the best place for these general stream adjudications. Given the time and cost of adjudications, many tribes end up seeking settlement of their *Winters* rights outside of court. Settlements confirmed by federal legislation sometimes offer opportunities to obtain funding to remedy **[\*297]**past inequities in water resource development. Congress has enacted thirty federal Indian water right settlements into law since 1978 for tribes throughout the United States. [[90]](#footnote-91)91

B. FEDERAL INDIAN WATER RIGHTS SETTLEMENTS AND ADJUDICATIONS ON THE ***COLORADO*** ***RIVER***

The extent to which the ***Colorado*** ***River*** Compact affects the rights of tribes is not clear, however, the Compact did recognize and protect "present perfected rights," leaving them unimpaired by the Compact. [[91]](#footnote-92)92Further, the Compact stated that "nothing in this compact shall be construed as affecting the obligations of the United States of America to Indian tribes." [[92]](#footnote-93)93However, this is not quite the same as saying that the Compact does not affect tribal water rights.

There are thirty federally recognized tribes in the ***Colorado*** ***River*** Basin. [[93]](#footnote-94)94The ten tribes of the Ten Tribes Partnership have claim to more than 2.8 MAF of water alone. The Partnership Tribes have expressed that they fully intend to develop and use these water rights, rights which are currently benefiting junior water users. Once all *Winters* rights have been fully developed and are in full use, it will undoubtedly affect junior water users. [[94]](#footnote-95)95Five of the Partnership Tribes' mainstream water rights were settled through the *Arizona v. California* litigation, and there have been a handful of other federal Indian water rights settlements on the ***Colorado*** throughout the years, but still, fewer than half of the tribes in the ***Colorado*** ***River*** Basin have fully settled or adjudicated their *Winters* rights. [[95]](#footnote-96)96This fact alone creates extreme uncertainty for all users on the ***Colorado*** ***River***, as these *Winters* rights will be senior to most every other right on the ***Colorado*** ***River***.

Even with a full adjudication of rights, or a settlement in hand, tribes often do not see delivery of wet water for years, or possibly ever. For tribes still experiencing dire water shortages, paper water settlements that recognize massive allocations of senior water rights are a welcome asset but often prove effectively useless in terms of providing actual wet water. Many of these parched tribes lack funding to create the infrastructure necessary to deliver or store allocations of such great volume. These tribes end up back at the bargaining table with the federal government to settle for less allocation on the condition that they receive federal funding to create the infrastructure necessary to deliver or store their **[\*298]**remaining water rights.

The Partnership Tribes identified other barriers to full use of their water rights aside from lack of infrastructure. Specifically, the Tribes mentioned not having the expertise, funding or resources for comprehensive water management planning and implementation. [[96]](#footnote-97)97They cite hesitation on the part of local entities to partner with the tribes to develop water due to differences in taxation, regulations, and due to sovereign immunity. [[97]](#footnote-98)98On a grander scale, tribes with reservations that straddle more than one state have even more nuanced restrictions on implementing (and adjudicating) their water rights. An additional complicating layer exists for the Navajo Nation in particular, who not only straddles state lines, but is located in both the Upper Basin and Lower Basin, which boundaries do not exactly follow states lines. [[98]](#footnote-99)99

The final challenge the tribes recognize in realizing the full benefit of their reserved water rights is the inability to voluntarily transfer water. [[99]](#footnote-100)100If the tribes could more freely transfer, lease, bank, exchange, or enter into deferral and forbearance agreements regarding portions of the tribe's reserved water rights for off-reservation uses, the tribes could actually see a benefit from their several currently inaccessible water rights. [[100]](#footnote-101)101The following random sampling of Ten Tribes Partnership tribes' water rights settlements gives a taste of the volume of water allocated, and the many issues the tribes have faced during and after settlement. Of great importance, the Partnership Tribes note in their Water Study that "none of the Partnership Tribes currently has the basic infrastructure or legal and administrative flexibility to fully use or realize the full economic value of its reserved water rights." [[101]](#footnote-102)102

1. The ***Colorado*** Ute Indian Water Rights Settlement

There are two federally recognized tribes in ***Colorado***, the Southern Ute Tribe ("SUIT") and the Ute Mountain Ute Tribe ("UMUT"). Each tribe has water rights to the ***Colorado*** ***River***. The tribes litigated and settled their surface water and tributary groundwater rights for their respective Reservation lands located in ***Colorado*** through the 1986 ***Colorado*** Ute Indian Water Rights Settlement Agreement ("***Colorado*** Settlement") and the ***Colorado*** Ute Indian Water Settlement Act (1988, amended 2000). [[102]](#footnote-103)103UMUT has not yet settled its water rights claims in New Mexico or Utah. The ***Colorado*** Settlement included an apportionment of 25,100 AF per year ("AFY") in the McPhee Reservoir, fed by the Dolores ***River***, and 16,525 AFY in Lake Nighthorse fed by diversion of the Animas ***River***. [[103]](#footnote-104)104The nature of the water rights in Lake Nighthorse are municipal and industrial; the rights in McPhee are agricultural irrigation water, municipal and industrial water, and fish and wildlife development water. [[104]](#footnote-105)105The **[\*299]**water received from the McPhee reservoir generally satisfies the reservation's water needs, excepting times of drought-related water shortages; if additional wet water were available to the reservation, however, it would likely increase agricultural production and resulting income from that sector. [[105]](#footnote-106)106

In the case of the UMUT, Lake Nighthorse sits approximately forty-two miles east of the Ute Mountain Reservation and currently no infrastructure for, or method of, delivery of water from the lake to the reservation exists. [[106]](#footnote-107)107UMUT has not been able to utilize its water rights in Lake Nighthorse since its filling in 2011, which has been detrimental to the Tribe and beneficial to other water users. Further complicating the issue is the operations and maintenance contract for the lake which requires that once a user begins taking any part of their apportionment, they must forever contribute to the maintenance and operations fees of the lake, and the fees are not nominal. The threat of this annual fee has kept the Tribe from leasing its water rights on the lake. [[107]](#footnote-108)108As such, the 16,525 AFY sits in the lake untouched by the Tribe - quite literally a huge, untapped asset.

2. Ute Indian Tribe of the Uintah and Ouray Reservation ("Ute Indian Tribe") Settlement

The issuance of two federal district court decrees in 1923 settled the Ute Indian Tribe's *Winters* rights. [[108]](#footnote-109)109The decrees established rights for irrigation of 59,771 acres, which amounted to a total reserved water right in the amount of 179,315 AFY. [[109]](#footnote-110)110The court also awarded the Tribe the reserved right to divert water for domestic, culinary, and stock-watering purposes throughout the year. [[110]](#footnote-111)111The ***Colorado*** ***River*** Storage Act of 1956 authorized the initial phase of the Central Utah Project ("CUP"), which aimed to move water from the ***Colorado*** ***River*** Basin to the Uinta and Bonneville Basins and the Wasatch Front. [[111]](#footnote-112)112The initial phase included four units or pieces of infrastructure and a later phase would include two more units. [[112]](#footnote-113)113One of the initial and both later units were to be partially or wholly for the benefit of the Tribe's water rights. [[113]](#footnote-114)114

In 1960, the Tribe hired an outside engineer to investigate the planned CUP projects for feasibility. The resulting report concluded that the "successful operation of the Bonneville and Duchesne [units] of the CUP's initial phase will depend upon an agreement by the Indians to limit the irrigation of Indian **[\*300]**owned and Indian water right land of about 20,700 acres." [[114]](#footnote-115)115As a result of the report, the Ute Indian Tribe entered into a deferral agreement with the federal government and the Central Utah Water Conservancy District with the understanding that all phases and units of the CUP project would be pursued in good faith, including satisfaction of water development of the federal Indian reserved water rights. The Utah state legislature approved the agreement, which expanded the Tribe's reserved water rights to irrigation required for 129,331 acres (or 549,685 AFY), as proposed in the Report. [[115]](#footnote-116)116Due to the CUP's complex history, escalating costs, new environmental requirements, and congressional intervention to restrain costs, the projects that would have benefited the Ute Indian Tribe were never constructed, and as such, the benefit to the Tribe never materialized. [[116]](#footnote-117)117

In 1992, Congress passed the Ute Indian Rights Settlement as a part of the Reclamation Projects Authorization and Adjustment Act. [[117]](#footnote-118)118Congress revised a proposed 1980 Ute Indian Water Compact and, with the revision, transferred 113,378 AF of annual diversion of reserved water rights out of the Uinta Basin to the Green ***River***. [[118]](#footnote-119)119The change requires that the Tribe and the State of Utah re-ratify the Ute Indian Water Compact, effectively requiring a comprehensive water rights settlement, which to date has not occurred. [[119]](#footnote-120)120These unresolved claims in the Green ***River*** are only paper water that the Ute Indian Tribe cannot reasonably use on its lands. [[120]](#footnote-121)121As such, and as seems to be the pattern, the Tribe remains unable to fully utilize, administer, develop, and enforce its water resources.

3. Jicarilla Apache Water Rights Settlement

The Nation received a full and final settlement of the future use water right claims to the waters of the ***Colorado*** ***River*** in 1992. [[121]](#footnote-122)122The agreement enacted by Congress approved a contract for diversion of 33,500 AFY, 25,500 AFY depletion from Navajo Reservoir, and 6,500 AFY delivery from Heron Reservoir through the San Juan-Chama Project. [[122]](#footnote-123)123In exchange, the Nation subordinated its reserved rights. [[123]](#footnote-124)124Additionally, through the San Juan ***River*** Adjudication (a tributary of the ***Colorado*** ***River***) the Nation has a reserved right for an annual diversion of 5,683 AFY with a priority date of 1888. [[124]](#footnote-125)125In total, the Nation has 45,683 AFY adjudicated. The Settlement Act expressly permits the Nation to sublease water off-reservation for revenue generation. [[125]](#footnote-126)126

Although the Nation has the security of fully adjudicated water rights to the **[\*301] *Colorado*** ***River*** and the right to lease its waters off-reservation, it still faces infrastructure issues and access to real, wet water. The reservation consists of more than 879,917 acres, [[126]](#footnote-127)127yet the population of the reservation is not able to live outside of Dulce, New Mexico due to a lack of sufficient water systems outside of town. [[127]](#footnote-128)128The Nation has limited economic resources that make expansion of the system impossible. Further, the existing water system has not been properly maintained by the Bureau of Indian Affairs, and it needs repair and maintenance that the Nation is unable to undertake without adequate federal funding. [[128]](#footnote-129)129

Aside from wet water issues, legal issues concerning the jurisdiction and control of the Nation's water marketing efforts impede the Nation. The Nation has stated that existing policies and regulations attempt to limit the Nation's off-reservation water leasing. [[129]](#footnote-130)130The Nation has seen its water marketing revenue decrease in recent years due to low water demand, low market prices, and the expiration of some long-term leases. [[130]](#footnote-131)131The Nation considers off-reservation subleasing the "highest and best use" of its water rights as the resulting revenue builds the Nation's self-sufficiency and provides for the needs of the Nation and its people. [[131]](#footnote-132)132On average, the Nation transferred, leased, or exchanged 31,635 AFY of its 32,575 AFY from 2009 to 2013. [[132]](#footnote-133)133

Many of the Nations's water leases were to coal-fired power plants and the Nation has not renewed them due to the shift to green energy. [[133]](#footnote-134)134Under the terms of the Nation's settlement, the Nation cannot lease water outside the state of New Mexico. [[134]](#footnote-135)135According to Daryl Vigil, the Water Administrator for the Nation, this has resulted in, "over 30,000 acre-feet of unleased water going down the ***river***" during the last two years. [[135]](#footnote-136)136

**IV. Equitable Conservation Solutions**

" *If you're not at the table, you may be on the menu.*" [[136]](#footnote-137)137-Scott McElroy

A. 2026 INTERIM GUIDELINES

The looming negotiations of the 2026 interim guidelines are the most promising platform for finding mutually beneficial solutions for tribal and nontribal interests on the ***Colorado*** ***River***. Tribes will need to have a voice and **[\*302]**a hand in the decision-making that is as substantial as their claims to the ***river***. The weight of the tribes' input should align with the fact that they are not simply stakeholders in the ***river***, but rather are sovereign nations. [[137]](#footnote-138)138As the tribes seek to develop their water rights and, in light of the drought, the Basin States seek to conserve water, creative solutions will be the only mutually acceptable path forward.

It almost goes without saying, but historically, the tribes have been sidelined, with their reserved rights and interests not meaningfully considered, especially in contemplation of the ***Colorado*** ***River***. [[138]](#footnote-139)139For example, the Bureau of Reclamation published a study of future Basin water supply and demand in 2012, which forecasted options and strategies for the next fifty years of water use for all users in the Basin. [[139]](#footnote-140)140The study recognized that there will likely be significant shortfalls between supply and demand in the Basin. [[140]](#footnote-141)141Noticeably lacking adequate representation in the study was consideration of Indigenous tribes' federally reserved water rights on the ***Colorado*** ***River***. [[141]](#footnote-142)142After pressure from several tribes and in recognition of this oversight, the Bureau of Reclamation, through and in agreement with the Ten Tribes Partnership, completed the Tribal Water Study (referenced here throughout). [[142]](#footnote-143)143Later, in 2013, while creating the DCPs for the basins, the Basin States and the Bureau of Reclamation yet again failed to properly include tribes. [[143]](#footnote-144)144

The Partnership Tribes, through their study, submit that flexible mechanisms for the use of tribal water throughout the Basin, namely off-reservation use and water leasing, will be critical as time goes on and tribes realize more of their rights. [[144]](#footnote-145)145Reclamation recognizes the need for flexibility for the operation of the system in times of drought, hence the 2007 Interim Guidelines and the coming 2026 guidelines, yet this flexibility and implementation of creative solutions has not yet been explored. [[145]](#footnote-146)146The Partnership Tribes believe that all tribes in the ***Colorado*** ***River*** Basin need the flexibility to lease their water off-reservation so that junior water users can maintain free access to the water if the tribes were to increase or otherwise fully develop their water rights. [[146]](#footnote-147)147

The ***Colorado*** ***River*** Basin tribes are taking a proactive approach to advocating for their interests to be reflected in the 2026 guidelines, particularly with interest groups such as the Water & Tribes Initiative. [[147]](#footnote-148)148The Water & Tribes Initiative ("WTI") identified that quantification and development of tribal water rights are the top issues to be addressed in the negotiation of the 2026 interim **[\*303]**guidelines. [[148]](#footnote-149)149WTI recently identified twelve tribes with either some or all of their water rights remaining to be quantified or settled. [[149]](#footnote-150)150

During the NEPA process for the 2007 Interim Guidelines, "the 29 federally recognized tribes [at that time] in the Basin and 14 other tribes were notified of the action and coordinated with through letters, consultations, and discussions with tribal representatives at public meetings." [[150]](#footnote-151)151However, in a required review of the ***Colorado*** ***River*** 2007 Interim Guidelines [[151]](#footnote-152)152completed in December 2020, the later Secretary recognized as to 2007 tribal engagement (or lack-thereof):

In addition to currently unquantified rights, Reclamation recognizes that tribes hold quantified rights to a significant amount of water from the ***Colorado*** ***River*** and its tributaries (approx. 3.4 MAF of annual diversion right) that often are senior in priority to those held by other users. The United States has a trust responsibility to protect federal Indian reserved water rights ... Expanded inclusivity will continue to forge and strengthen partnerships that *will be critical as we address the significant challenges ahead*. [[152]](#footnote-153)153

An example of a successful, creative solution that the tribes could point to in the coming negotiations is the ***Colorado*** ***River*** Indian Tribe ("CRIT"), which possesses present, perfected rights to 719,248 AFY from the ***Colorado*** mainstream. [[153]](#footnote-154)154CRIT forewent the use of portions of its water in order to leave the water in Lake Mead as part of the Pilot System Conservation Program. [[154]](#footnote-155)155It does so under a forbearance agreement with the Bureau of Reclamation, and funding to the Tribe for the agreement comes from many sources including the Bureau of Reclamation, Central Arizona Water Conservation District, Metropolitan Water District of Southern California, Southern Nevada Water Authority, and Denver Water. [[155]](#footnote-156)156From October 1, 2018 to September 30, 2019, the Tribe fallowed 1,884 acres of farmland and received $ 2,025,730 in exchange. [[156]](#footnote-157)157This type of agreement is the mutually beneficial solution that tribes, the federal government, and ***Colorado*** ***River*** junior appropriators need. It's beneficial to the tribes in creating revenue where it's due, it's beneficial to the federal government in fulfilling its trust responsibility to the tribes, and it's beneficial to junior appropriators who otherwise could potentially receive nothing.

B. STUMBLING BLOCKS

1. Wet Water Versus Paper Water

The reason that CRIT was able to gain compensation through the Pilot **[\*304]**Program for foregoing its water is because it was previously using it as wet water for agriculture. [[157]](#footnote-158)158In order for other tribes with only paper water (such as the Ute Mountain Ute Tribe with its 16,525 AFY in Lake Nighthorse, or the Ute Indian Tribe with its 113,378 AFY in the Green ***River***) [[158]](#footnote-159)159to take advantage of such a program, they would first have to put their reserved water to use. In essence, the tribe, through the federal government, has to build infrastructure to deliver the water to a field, the reservation, or somewhere out of stream, and only then could the Tribe forego that use for compensation. This is because demand management programs will likely require an actual gain of wet water to the system to recognize a benefit, similar to the requirements of the Pilot Program. [[159]](#footnote-160)160

The 2026 interim guidelines need to advocate for a solution to this Rube Goldberg situation and allow the tribes to keep their federally reserved water rights in the stream for compensation. Tribes that have more water than they could ever utilize for the population of their reservations should not be forced to threaten removing that unneeded water from the system, or have to actually remove it, in order for those rights to be taken seriously and compensated. Considering the great costs of litigating post- *Winters* adjudication infrastructure-focused settlements, the cost of these infrastructure projects alone, and the fact that the federal government owes the tribes the benefit of the trust responsibility, this solution should be pursued.

2. Delivery Restrictions Across Borders

" *The way that the law of the* ***river*** *is structured - upper, lower basins, and how they're managed differently, and how there's different requirements and how states are engaged - it's really complex and doesn't make any sense, and, ultimately, I don't think it's going to get us where the broader consensus wants us to go in terms of a healthy, sustainable* ***river****, and still provide water to all living creatures and plants in the basin.*" [[160]](#footnote-161)161-Daryl Vigil, 2020 Per the Law of the ***River***, state engineers cannot deliver wet water across state lines for compact use. [[161]](#footnote-162)162Taking the UMUT as an example again, this makes it impossible, through wet water releases, for the tribe's water in Lake Nighthorse in ***Colorado*** to ever be delivered to Lake Powell in Arizona for the benefit of the Drought Contingency Pool. These border-related restrictions also create issues for tribes when it comes to leasing water, as exemplified by the Jicarilla Apache, whose water naturally flows down ***river*** to junior users for **[\*305]**free, because it can't lease or release it to anyone outside of New Mexico. [[162]](#footnote-163)163These man-made state borders and man-made basin borders that impose restrictions on a natural body of water like the ***Colorado*** ***River*** and its many tributaries only detract from our ability to properly manage the ***river*** as the one entity that it is. While most believe that the Compact will never be entirely overhauled to manage the ***river*** as one entity, [[163]](#footnote-164)164meaningful changes to its management can still be effectuated through the 2026 interim guidelines.

C. OTHER CONSIDERATIONS

1. Water Scarcity on Reservations in the ***Colorado*** ***River*** Basin

Access to a clean, reliable supply of water is basic to human health. Yet, on some reservations in the ***Colorado*** ***River*** Basin, this basic necessity is not easily accessible. For example, on the Navajo Indian Reservation, which spans the Upper and Lower Basin including New Mexico, Utah, and Arizona, "approximately thirty percent of homes do not have access to drinking water systems ..." and must rely on trucks to haul in potable water. [[164]](#footnote-165)165The Navajo Reservation is home to 156,823 Navajo [[165]](#footnote-166)166and has adjudicated water totaling over 600,000 AFY. [[166]](#footnote-167)167Yet again, paper water rights are not the same as wet water. In instances such as the reality that the Navajo are experiencing, creative solutions like those proposed with the Pilot Program would only be an option after the federal government meets its very basic trust responsibility of providing wet water for the "homeland" [[167]](#footnote-168)168by ensuring that the tribes have basic water supply security for domestic purposes.

2. Cultural Factors

"The cultural significance of water in the worldview of native communities is captured by the shorthand phrase " *water is life*,' some version of which can be heard in many languages, and in nearly every tribal nation." [[168]](#footnote-169)169Water is also important to the economy of tribes, which puts tribal leaders in the unique position of balancing tribal history, cultural values, the economy of the reservation, and conservation for future generations when managing water resources. [[169]](#footnote-170)170Tribes take the brunt of the burden of environmental regulations because their development of water rights is late, and often, in-stream flows and other water-related ecosystems have already been pushed to their compliance limits by non- **[\*306]**tribal users. [[170]](#footnote-171)171

**V. Conclusion**

" *The Partnership Tribes are committed to-and will-develop their water resources and explore opportunities to partner with the federal government, states and other water users as opportunities arise. Where the Partnership Tribes are unable to develop their water resources to receive the full economic benefit of their rights within existing laws, the Tribes will work with other Basin stakeholders to pursue policy, regulatory, and statutory changes.*" [[171]](#footnote-172)172-Tribal Water Study, December 2018 The thirty tribes in the ***Colorado*** ***River*** Basin have substantial federally recognized senior water rights which comfortably amount to one-quarter of the entirety of the water in the ***Colorado*** ***River***. [[172]](#footnote-173)173The American Southwest is transitioning to an even drier climate, the effects of which will only become less tenable as time passes and water scarcity increases. Many tribes have rights to far more water than they could ever put to beneficial use, while junior users may see no delivery of water in the near future. The tribes have every right and the intent to develop their precious water resources, yet they have stated an openness to creative approaches to the issues that junior water users will soon face. The federal government, as the trustee of the tribes' reserved rights, is poised with the upcoming 2026 interim guidelines with an opportunity to amend the countless trust failures of its past. As sovereign entities, the tribes need to be given the flexibility to forego paper water for compensation, and they need to be able to flexibly lease their water, both for their own economic benefit, but also to help junior appropriators meet their needs. Tribal water rights must be taken seriously and the opportunity they provide must be explored as we continue in this climate transition.

[[173]](#footnote-174)57

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1. 1U.S. DEP'T OF THE INTERIOR, BUREAU OF RECLAMATION, TEN TRIBES P'SHIP: ***COLO.*** ***RIVER*** BASIN TEN TRIBES P'SHIP TRIBAL WATER STUDY, STUDY REP. 1-3 (December 2018) [hereinafter *Study Report*], [*https://tentribespartnership.org/wp-content/uploads/2019/12/*](https://tentribespartnership.org/wp-content/uploads/2019/12/) WaterStudy.pdf. [↑](#footnote-ref-2)
2. 2 *Id.* at 1-4. [↑](#footnote-ref-3)
3. 3U.S. Bureau of Reclamation, ***Colo.*** ***River*** Compact, art. II(c)-(d) (Nov. 24, 1922), [*https://www.usbr.gov/lc/region/pao/pdfiles/crcompct.pdf*](https://www.usbr.gov/lc/region/pao/pdfiles/crcompct.pdf). [↑](#footnote-ref-4)
4. 4U.S. Bureau of Reclamation, Criteria for Coordinated Long-Range Operation of the ***Colo.*** ***River*** Reservoirs Pursuant to the ***Colo.*** ***River*** Basin Project Act of September 30, 1968 (June 8, 1970), [*https://www.usbr.gov/lc/region/pao/pdfiles/opcriter.pdf*](https://www.usbr.gov/lc/region/pao/pdfiles/opcriter.pdf). [↑](#footnote-ref-5)
5. 5U.S. Dep't of the Interior, Bureau of Reclamation: Lower ***Colo.*** Region, Law of the ***River*** (2008), [*https://www.usbr.gov/lc/region/g*](https://www.usbr.gov/lc/region/g) 1000/lawofrvr.html. [↑](#footnote-ref-6)
6. 6With reverence for all opinions and preferences on a matter that has no consensus, this Article uses the term "Indigenous" when referring to the indigenous peoples that make up the many tribes with interest in the ***Colorado*** ***River***. The term "Indian" is mindfully used only when specifically referencing the federal Indian reserved water rights doctrine, the body of law known through statutes as federal Indian law, when reciting another person's quote, when calling a tribe by its preferred official name, or when referencing specific federal laws, agencies, or agreements. [↑](#footnote-ref-7)
7. 7 *See* David H. Getches, *The Unsettling of the West: How Indians Got the Best Water Rights*, [*99 MICH. L. REV. 1473, 1473-74 (2001)*](https://advance.lexis.com/api/document?collection=analytical-materials&id=urn:contentItem:44BV-H0B0-00CV-51VX-00000-00&context=1516831). [↑](#footnote-ref-8)
8. 8The ten tribes of the Ten Tribe Partnership consist of the Chemehuevi Indian Tribe, Cocopah Indian Tribe, ***Colorado*** ***River*** Indian Tribes, Fort Mojave Indian Tribe, Jicarilla Apache Nation, Navajo Nation, Quechan Indian Tribe, Southern Ute Indian Tribe, Ute Indian Tribe, and the Ute Mountain Ute Tribe. [↑](#footnote-ref-9)
9. 91 acre-foot is equivalent to 325,851 gallons. A family of four typically uses [fr1/2] - 1 acre-foot per year for domestic purposes. [↑](#footnote-ref-10)
10. 10 *Study Report*, *supra* note 1, at iii. [↑](#footnote-ref-11)
11. 11U.S. Bureau of Reclamation, *Glen Canyon Dam, Current Status*, Upper ***Colorado*** Region (Mar. 30, 2022), [*https://www.usbr.gov/uc/water/crsp/cs/gcd.html*](https://www.usbr.gov/uc/water/crsp/cs/gcd.html). [↑](#footnote-ref-12)
12. 12 *Id.* [↑](#footnote-ref-13)
13. 13Brian Maffly, *Lake Powell Could Become a "Dead Pool' as Climate Change, Political Wars and Unabated Growth Drain its Waters*, THE SALT LAKE TRIBUNE (Jan. 20, 2019), [*https://www.sltrib.com/news/environment/2019/01/20/lake-powell-could-become/*](https://www.sltrib.com/news/environment/2019/01/20/lake-powell-could-become/). [↑](#footnote-ref-14)
14. 14Attachment A2 to the Agreement Concerning ***Colo.*** ***River*** Drought Contingency Mgmt. and Operations 5 (May 20, 2019) [hereinafter *Attachment to Companion Agreement*]. [↑](#footnote-ref-15)
15. 15A decree defining the priority date for the right and the amount of water reserved. [↑](#footnote-ref-16)
16. 16 *See, e.g.*, *Study Report*, *supra* note 1, at 5.10.6 (discussing leasing limitations on the Cocopah Indian Tribe's federal Indian reserved water rights). [↑](#footnote-ref-17)
17. 17 *See Attachment to Companion Agreement*, *supra* note 14, at 2. [↑](#footnote-ref-18)
18. 18Newlands Act (Irrigation), [*43 U.S.C.A. § 391*](https://advance.lexis.com/api/document?collection=statutes-legislation&id=urn:contentItem:8SDD-0HD2-8T6X-7397-00000-00&context=1516831) (Westlaw through ***Pub. L. No. 117-102***); Boulder Canyon Project Act, [*43 U.S.C.A. § 617*](https://advance.lexis.com/api/document?collection=statutes-legislation&id=urn:contentItem:8SDD-0HD2-8T6X-73R7-00000-00&context=1516831) (Westlaw through ***Pub. L. No. 117-102***); [*Arizona v. California, 373 U.S. 546, 598-600 (1963)*](https://advance.lexis.com/api/document?collection=cases&id=urn:contentItem:3S4X-H3B0-003B-S2D7-00000-00&context=1516831); [*Arizona v. California, 547 U.S. 150, 154-55, 159-160 (2006)*](https://advance.lexis.com/api/document?collection=cases&id=urn:contentItem:4JKB-4T40-004B-Y037-00000-00&context=1516831) (consolidated decree); U.S. Bureau of Reclamation, Criteria for Coordinated Long-Range Operation of the ***Colo.*** ***River*** Reservoirs Pursuant to the ***Colo.*** ***River*** Basin Project Act of September 30, 1968 (June 8, 1970), [*https://www.usbr.gov/lc/region/pao/pdfiles*](https://www.usbr.gov/lc/region/pao/pdfiles) /opcriter.pdf; Reclamation Projects Authorization and Adjustment Act of 1992, ***Pub. L. No. 102-575***, ***106 Stat. 4600*** (1992); U.S. Bureau of Reclamation, ***Colo.*** ***River*** Compact (Nov. 24, 1922), [*https://www.usbr.gov/lc/region/pao/pdfiles/crcompct.pdf*](https://www.usbr.gov/lc/region/pao/pdfiles/crcompct.pdf); U.S. Bureau of Reclamation, Upper ***Colo.*** ***River*** Basin Compact (Oct. 11, 1948), [*https://www.usbr.gov/lc/region/pao/*](https://www.usbr.gov/lc/region/pao/) pdfiles/ucbsnact.pdf, (1922); Utilization of Waters of the ***Colo.*** and Tijuana ***Rivers*** and of the Rio Grande, U.S.-Mexico, Feb. 3, 1994, T.S. 944. [↑](#footnote-ref-19)
19. 19***Colo.*** ***River*** Compact, *supra* note 18. [↑](#footnote-ref-20)
20. 20ELWOOD MEAD ET. AL., REPORT OF THE ALL-AMERICAN CANAL BOARD 39 (1919). The three members of the Board were engineers with extensive experience in Western water problems. [↑](#footnote-ref-21)
21. 21DEPARTMENT OF THE INTERIOR U.S. RECLAMATION SERVICE, PRELIMINARY REPORT ON PROBLEMS OF IMPERIAL VALLEY AND VICINITY 18 (1920). [↑](#footnote-ref-22)
22. 22[*Arizona v. California, 373 U.S. 546, 555 (1963)*](https://advance.lexis.com/api/document?collection=cases&id=urn:contentItem:3S4X-H3B0-003B-S2D7-00000-00&context=1516831) (citing [*Wyoming v.* ***Colorado****, 259 U.S. 419, 458-61 (1922)*](https://advance.lexis.com/api/document?collection=cases&id=urn:contentItem:3S4X-45S0-003B-H2C4-00000-00&context=1516831) (holding "first in time, first in right" applies to interstate waters). [↑](#footnote-ref-23)
23. 23***Colo.*** ***River*** Compact, *supra* note 18, at art. II. [↑](#footnote-ref-24)
24. 24 *Id.* at art. III. [↑](#footnote-ref-25)
25. 25 *Id.* at art. III(e). [↑](#footnote-ref-26)
26. 26 *Id.* at art. IV(b). [↑](#footnote-ref-27)
27. 27 *Id.* [↑](#footnote-ref-28)
28. 28 *Id.* at art. VIII. [↑](#footnote-ref-29)
29. 29 *Id.* at art. VII. [↑](#footnote-ref-30)
30. 30 *See* [*Winters v. United States, 207 U.S. 564, 577 (1908)*](https://advance.lexis.com/api/document?collection=cases&id=urn:contentItem:3S4X-9WV0-003B-H241-00000-00&context=1516831) (holding water rights are reserved when reservations are created). [↑](#footnote-ref-31)
31. 31Boulder Canyon Project Act, [*43 U.S.C.A. § 617*](https://advance.lexis.com/api/document?collection=statutes-legislation&id=urn:contentItem:8SDD-0HD2-8T6X-73R7-00000-00&context=1516831) (Westlaw through ***Pub. L. No. 117-102***). [↑](#footnote-ref-32)
32. 32[*Arizona v. California, 373 U.S. 546, 569-70 (1963)*](https://advance.lexis.com/api/document?collection=cases&id=urn:contentItem:3S4X-H3B0-003B-S2D7-00000-00&context=1516831) (holding "Mainstream" water refers to the water to be delivered by the Upper Basin states at Lee Ferry, in the amount of 7.5 MAF annually, and waters of the ***Colorado*** ***River*** tributaries are for their respective state's exclusive use). [↑](#footnote-ref-33)
33. 33 *See* [*43 U.S.C.A. §§617l*](https://advance.lexis.com/api/document?collection=statutes-legislation&id=urn:contentItem:8SDD-0HD2-8T6X-73RN-00000-00&context=1516831), 6171p (Westlaw through ***Pub. L. No. 117-102***). [↑](#footnote-ref-34)
34. 34Boulder Canyon Project Act, [*43 U.S.C.A. § 617*](https://advance.lexis.com/api/document?collection=statutes-legislation&id=urn:contentItem:8SDD-0HD2-8T6X-73R7-00000-00&context=1516831) (Westlaw through ***Pub. L. No. 117-102***). [↑](#footnote-ref-35)
35. 35Utilization of the Waters of the ***Colorado*** and Tijuana ***Rivers*** and of the Rio Grande, Treaty Between the United States of America and Mexico, U.S.-Mex., Feb. 3, 1944, T.S. 994. [↑](#footnote-ref-36)
36. 36Upper ***Colorado*** ***River*** Basin Compact, ch. 48, [*63 Stat. 31*](https://advance.lexis.com/api/document?collection=statutes-legislation&id=urn:contentItem:5CCB-R1P0-01XN-S056-00000-00&context=1516831) (1949). [↑](#footnote-ref-37)
37. 37U.S. DEP'T OF THE INTERIOR, BUREAU OF RECLAMATION: LOWER ***COLO.*** REGION, LAW OF THE ***RIVER*** (2008), [*https://www.usbr.gov/lc/region/g1000/lawofrvr.html*](https://www.usbr.gov/lc/region/g1000/lawofrvr.html). [↑](#footnote-ref-38)
38. 38[*Arizona v. California, 373 U.S. 546, 555 (1963)*](https://advance.lexis.com/api/document?collection=cases&id=urn:contentItem:3S4X-H3B0-003B-S2D7-00000-00&context=1516831). [↑](#footnote-ref-39)
39. 39 *Id.* [↑](#footnote-ref-40)
40. 40***Colorado*** ***River*** Basin Project Act, [*43 U.S.C. §§1501*](https://advance.lexis.com/api/document?collection=statutes-legislation&id=urn:contentItem:8SDD-0HD2-8T6X-74D2-00000-00&context=1516831)-[*56*](https://advance.lexis.com/api/document?collection=statutes-legislation&id=urn:contentItem:8SDD-0HD2-8T6X-72VD-00000-00&context=1516831). [↑](#footnote-ref-41)
41. 41Bureau of Reclamation, Lower ***Colo.*** Region, Law of the ***River***, *supra* note 37. [↑](#footnote-ref-42)
42. 42 *Id.* [↑](#footnote-ref-43)
43. 43 *Id.* [↑](#footnote-ref-44)
44. 44 *Id.* [↑](#footnote-ref-45)
45. 45 *Id.* [↑](#footnote-ref-46)
46. 46 *Id.* [↑](#footnote-ref-47)
47. 47National Integrated Drought Information System, *Current U.S. Drought Monitor Conditions for* ***Colo.***, DROUGHT.GOV (Mar. 29, 2022), [*https://www.drought.gov/states/****colorado***](https://www.drought.gov/states/colorado) #historical-conditions. [↑](#footnote-ref-48)
48. 48 *Drought*, MERRIAM-WEBSTER, [*https://www.merriam-webster.com/dictionary/drought*](https://www.merriam-webster.com/dictionary/drought) (last visited Mar. 25, 2022). [↑](#footnote-ref-49)
49. 49Mu Xiao et al., *On the Causes of Declining* ***Colo.******River*** *Streamflows*, 54, WATER RES. RSCH., 6739 (2018). [↑](#footnote-ref-50)
50. 50 *Id.* [↑](#footnote-ref-51)
51. 51 *See generally* Bradley Udall & Jonathan Overpeck, *The Twenty-first Century* ***Colo.******River*** *Hot Drought and Implications for the Future*, 53 WATER RES. RSCH. 2404 (2017). [↑](#footnote-ref-52)
52. 52U.S. DEP'T OF THE INTERIOR, BUREAU OF RECLAMATION, REV. OF THE ***COLO.*** ***RIVER*** INTERIM GUIDELINES FOR THE LOWER BASIN SHORTAGES AND COORDINATED OPERATIONS FOR LAKE POWELL AND LAKE MEAD 2 (2020). [↑](#footnote-ref-53)
53. 53 *Id.* [↑](#footnote-ref-54)
54. 54 *Id.* at 3. [↑](#footnote-ref-55)
55. 55U.S. DEP'T OF THE INTERIOR, RECORD OF DECISION: ***COLORADO*** ***RIVER*** INTERIM GUIDELINES FOR LOWER BASIN SHORTAGES AND THE COORDINATED OPERATIONS FOR LAKE POWELL AND LAKE MEAD 1-2 (2007). [↑](#footnote-ref-56)
56. 56 *Id.* at 6. [↑](#footnote-ref-57)
57. 58 *Id.* at 4. [↑](#footnote-ref-58)
58. 59 *Id.* at 5-6. [↑](#footnote-ref-59)
59. 60 *Id.* [↑](#footnote-ref-60)
60. 61 *See* Bureau of Reclamation, ***Colo.*** ***River*** Interim Guidelines for the Lower Basin Shortages, *supra* note 52, at 8. [↑](#footnote-ref-61)
61. 62 *Id.* [↑](#footnote-ref-62)
62. 63 *Id.* [↑](#footnote-ref-63)
63. 64***Colo.*** ***River*** Drought Contingency Plan Authorization Act, ***Pub. L. No. 116-14***, ***133 Stat. 850*** (2019). [↑](#footnote-ref-64)
64. 65U.S. DEP'T OF THE INTERIOR, BUREAU OF RECLAMATION, PILOT PROJECTS TO INCREASE ***COLO.*** ***RIVER*** SYSTEM WATER IN LAKE POWELL AND LAKE MEAD 1 (2021). [↑](#footnote-ref-65)
65. 66 *Id.* [↑](#footnote-ref-66)
66. 67 *Id.* at 3. [↑](#footnote-ref-67)
67. 68Bureau of Reclamation, ***Colo.*** ***River*** Interim Guidelines for the Lower Basin Shortages, *supra* note 52, at 9. [↑](#footnote-ref-68)
68. 69 *Id.* [↑](#footnote-ref-69)
69. 70 *Id.* [↑](#footnote-ref-70)
70. 71David Getches, *Foreward*, in BONNIE G. COLBY ET AL., NEGOTIATING TRIBAL WATER RIGHTS, at xvi (2005). [↑](#footnote-ref-71)
71. 72[*Arizona v. California, 373 U.S. 546, 552 (1963)*](https://advance.lexis.com/api/document?collection=cases&id=urn:contentItem:3S4X-H3B0-003B-S2D7-00000-00&context=1516831). [↑](#footnote-ref-72)
72. 73 *See* [*United States v. Adair, 723 F.2d 1394, 1414 (9th Cir. 1983)*](https://advance.lexis.com/api/document?collection=cases&id=urn:contentItem:3S4W-Y690-003B-G29W-00000-00&context=1516831). [↑](#footnote-ref-73)
73. 74Under the prior appropriation doctrine, water rights are recognized with a priority date. The earliest date is the most senior right, and that user is entitled to their allocated water first. In years of drought, the most junior appropriator may not receive their water. [↑](#footnote-ref-74)
74. 75[*207 U.S. 564 (1908)*](https://advance.lexis.com/api/document?collection=cases&id=urn:contentItem:3S4X-9WV0-003B-H241-00000-00&context=1516831). [↑](#footnote-ref-75)
75. 76 [*Id. at 568-69*](https://advance.lexis.com/api/document?collection=cases&id=urn:contentItem:3S4X-9WV0-003B-H241-00000-00&context=1516831). [↑](#footnote-ref-76)
76. 77 [*Id. at 564*](https://advance.lexis.com/api/document?collection=cases&id=urn:contentItem:3S4X-9WV0-003B-H241-00000-00&context=1516831). [↑](#footnote-ref-77)
77. 78 *Study Report*, *supra* note 1 at 2-1. [↑](#footnote-ref-78)
78. 79 *Id.* at 2-3. [↑](#footnote-ref-79)
79. 80 *Id.* at 2-1. [↑](#footnote-ref-80)
80. 81 [*In re Gen. Adjudication of All Rts. to Use Water in the Big Horn* ***River*** *Sys., 753 P.2d 76, 101 (Wyo. 1988)*](https://advance.lexis.com/api/document?collection=cases&id=urn:contentItem:3RVJ-BYP0-003G-J29J-00000-00&context=1516831) ("The determination of PIA involves a two-part analysis: the PIA must be susceptible of sustained irrigation (not only proof of arability but also of the engineering feasibility of irrigating the land) and irrigable at reasonable cost.") (discussing the PIA standard set forth in [*Arizona v. California, 373 U.S. 546, 600-01 (1964))*](https://advance.lexis.com/api/document?collection=cases&id=urn:contentItem:3S4X-H3B0-003B-S2D7-00000-00&context=1516831). [↑](#footnote-ref-81)
81. 82[*Navajo Nation v. U.S. Dep't of the Interior, 996 F.3d 623, 630 (9th Cir. 2021)*](https://advance.lexis.com/api/document?collection=cases&id=urn:contentItem:62J9-YCY1-F528-G220-00000-00&context=1516831) (citing [*Arizona v. California, 373 U.S. 340, 344-45 (1963))*](https://advance.lexis.com/api/document?collection=cases&id=urn:contentItem:3S4X-H3W0-003B-S2K7-00000-00&context=1516831). [↑](#footnote-ref-82)
82. 83[*Arizona v. California, 373 U.S. 340, 344-45 (1964)*](https://advance.lexis.com/api/document?collection=cases&id=urn:contentItem:3S4X-H3W0-003B-S2K7-00000-00&context=1516831). The reservations received the following allocations: Chemehuevi Indian Reservoir, 11,340 AF; the Cocopah Indian Reservation, 2,744 AF; the Yuma Indian Reservation, 51,616 AF; the ***Colorado*** ***River*** Indian Reservation, 717,148 AF; and the Fort Mohave Indian Reservation, 122,648 AF. [↑](#footnote-ref-83)
83. 84 *Winters* reserved rights are "present perfected rights." [↑](#footnote-ref-84)
84. 85[*Arizona v. California, 373 U.S. 340, 342 (1964)*](https://advance.lexis.com/api/document?collection=cases&id=urn:contentItem:3S4X-H3W0-003B-S2K7-00000-00&context=1516831). [↑](#footnote-ref-85)
85. 86 [*In re Gen. Adjud. of All Rts. to Use Water in Gila* ***River*** *Sys. & Source, 35 P.3d 68, 76 (Ariz. 2001)*](https://advance.lexis.com/api/document?collection=cases&id=urn:contentItem:44JD-GKM0-0039-43YD-00000-00&context=1516831). [↑](#footnote-ref-86)
86. 87[*66 Stat. 560*](https://advance.lexis.com/api/document?collection=statutes-legislation&id=urn:contentItem:5CFP-G8P0-01XN-S0HJ-00000-00&context=1516831) (1952), codified at [*43 U.S.C. § 666*](https://advance.lexis.com/api/document?collection=statutes-legislation&id=urn:contentItem:8SDD-0HD2-8T6X-73VR-00000-00&context=1516831). [↑](#footnote-ref-87)
87. 88 *Id.* [↑](#footnote-ref-88)
88. 89 *See* [***Colo.******River*** *Water Conserv. Dist. v. United States, 424 U.S. 800, 819 (1976)*](https://advance.lexis.com/api/document?collection=cases&id=urn:contentItem:3S4X-9YH0-003B-S3H5-00000-00&context=1516831); *see also* [*Arizona v. San Carlos Apache Tribe, 463 U.S. 545, 548-49, 570-71 (1983)*](https://advance.lexis.com/api/document?collection=cases&id=urn:contentItem:3S4X-4GN0-003B-S3KV-00000-00&context=1516831). *But see* [*Baley v. United States, 942 F.3d 1312, 1340 (Fed. Cir. 2019)*](https://advance.lexis.com/api/document?collection=cases&id=urn:contentItem:5XH3-3N01-K054-G316-00000-00&context=1516831) ("As the volume and scope of particular reserved rights ... are federal questions, there is no need for a state adjudication to occur before federal reserved rights are recognized. State water rights are preempted by federal reserved rights." (internal citations omitted)). [↑](#footnote-ref-89)
89. 90 *See* COLBY ET AL., *supra* note 71, at 158. [↑](#footnote-ref-90)
90. 91FELIX COHEN, HANDBOOK OF FEDERAL INDIAN LAW 1687-88 (Nell Jessup Newton ed., 2017). [↑](#footnote-ref-91)
91. 92***Colo.*** ***River*** Compact, *supra* note 18, at art. VII-VIII. [↑](#footnote-ref-92)
92. 93 *Id.* at art. VII. [↑](#footnote-ref-93)
93. 94The thirty ***Colorado*** ***River*** Basin Tribes include: Ak-Chin Indian Community, Chemehuevi Indian Tribe, Cocopah Indian Tribe, ***Colorado*** ***River*** Indian Tribes, Fort McDowell Yavapai Nation, Fort Mojave Indian Tribe, Gila ***River*** Indian Community, Havasupai Tribe, Hopi Tribe, Hualapai Indian Tribe, Jicarilla Apache Nation, Kaibab Band of Paiute Indians, Las Vegas Tribe of Paiute Indians, Moapa Band of Paiute Indians, White Mountain Apache, Navajo Nation, Pascua Yaqui Tribe, Quechan Indian Tribe, Salt ***River*** Pima-Maricopa Indian Community, San Carlos Apache Tribe, San Juan Southern Paiute Tribe, Shivwits Band of Paiute Indian Tribe of Utah (Constituent Band of the Paiute Indian Tribe of Utah), Southern Ute Indian Tribe, Tohono O'odham Nation, Tonto Apache Tribe, Ute Indian Tribe, Ute Mountain Ute, Yavapai-Apache Nation, Yavapai-Prescott Indian Tribe, and Pueblo of Zuni. [↑](#footnote-ref-94)
94. 95 *Study Report*, *supra* note 1, at 7-1. [↑](#footnote-ref-95)
95. 96 *Id.* at 7-2. [↑](#footnote-ref-96)
96. 97 *Id.* [↑](#footnote-ref-97)
97. 98 *Id.* [↑](#footnote-ref-98)
98. 99 *Id.* [↑](#footnote-ref-99)
99. 100 *Id.* [↑](#footnote-ref-100)
100. 101 *Id.* [↑](#footnote-ref-101)
101. 102 *Id.* at 9-1. [↑](#footnote-ref-102)
102. 103 *Id.* at 5.3-4. [↑](#footnote-ref-103)
103. 104 *Id.* at 5.3-5 to 5.3-6. [↑](#footnote-ref-104)
104. 105 *Id.* [↑](#footnote-ref-105)
105. 106Tel. Interview with Mike Preston, Board VP, Weenuch-u' Dev. Corp. ("WDC") (Apr. 20, 2021). Mr. Preston's role on the WDC Board includes the governance of the 7,600-acre Ute Mountain Farm and Ranch Enterprise, which he also helped create and organize in the late 1980s. [↑](#footnote-ref-106)
106. 107 *Study Report*, *supra* note 1, at 5.3-6. [↑](#footnote-ref-107)
107. 108Tel. Interview with Peter Ortego, Dep't of Justice Dir., Ute Mountain Ute (Apr. 1, 2021). [↑](#footnote-ref-108)
108. 109 *See* [*Hackford v. Babbitt, 14 F.3d 1457, 1469 (10th Cir. 1994)*](https://advance.lexis.com/api/document?collection=cases&id=urn:contentItem:3S4X-93S0-003B-P3JC-00000-00&context=1516831) (first citing United States v. Dry Gulch Irrig. ***Co***., No. 4418, slip op. (D. Utah 1923), then citing United States v. Cedarview Irrig. ***Co***., No. 4427, slip op. (D. Utah 1923)). [↑](#footnote-ref-109)
109. 110 *Study Report, supra* note 1, at 5.1-8. [↑](#footnote-ref-110)
110. 111 *Id.* [↑](#footnote-ref-111)
111. 112 *Id.* at 5.1-8. [↑](#footnote-ref-112)
112. 113 *Id.* [↑](#footnote-ref-113)
113. 114 *See id.* at 5.1-9 to 5.1-10. [↑](#footnote-ref-114)
114. 115 *Id.* at 5.1-10. [↑](#footnote-ref-115)
115. 116 *Id.* at 5.1-9. [↑](#footnote-ref-116)
116. 117 *Id.* [↑](#footnote-ref-117)
117. 118 *Id.* at 5.1-10. [↑](#footnote-ref-118)
118. 119 *Id.* at 5.1-10 to 5.1-11. [↑](#footnote-ref-119)
119. 120 *Id.* at 5.1-11. [↑](#footnote-ref-120)
120. 121 *Id.* at 5.1-24. [↑](#footnote-ref-121)
121. 122 *Id.* at 5.4-4. [↑](#footnote-ref-122)
122. 123 *Id.* [↑](#footnote-ref-123)
123. 124 *Id.* [↑](#footnote-ref-124)
124. 125 *Id.* [↑](#footnote-ref-125)
125. 126 *Id.* at 5.4-5. [↑](#footnote-ref-126)
126. 127 *Id.* at 5.4-1. [↑](#footnote-ref-127)
127. 128 *Id.* at 5.4-8. [↑](#footnote-ref-128)
128. 129 *Id.* [↑](#footnote-ref-129)
129. 130 *Id.* at 5.4-9. [↑](#footnote-ref-130)
130. 131 *Id.* [↑](#footnote-ref-131)
131. 132 *Id.* at 5.4-6 to 5.4-7. [↑](#footnote-ref-132)
132. 133 *Id.* at 5.5. [↑](#footnote-ref-133)
133. 134Matt Jenkins, *In Search of Solutions: Water & Tribes Initiative Encourages Collaborative Approach to* ***Colo.******River*** *Mgmt.*, LAND LINES MAGAZINE (Jan. 12, 2021), [*https://www.lincolninst.edu/publications/articles/2021-01-in-search-solutions-water-and-tribes-initiative-encourages-collaborative-approach-to-****colorado****-****river****-management*](https://www.lincolninst.edu/publications/articles/2021-01-in-search-solutions-water-and-tribes-initiative-encourages-collaborative-approach-to-colorado-river-management). [↑](#footnote-ref-134)
134. 135 *Id.* [↑](#footnote-ref-135)
135. 136 *Id.* [↑](#footnote-ref-136)
136. 137[*Transcript of Oral Argument, Navajo Nation v. Dep't of the Interior, No. 14-16864, 2021 WL 1655885 (9th Cir. Feb. 14, 2017)*](https://advance.lexis.com/api/document?collection=cases&id=urn:contentItem:62J9-YCY1-F528-G220-00000-00&context=1516831). [↑](#footnote-ref-137)
137. 138 *See* Jenkins, *supra* note 134. [↑](#footnote-ref-138)
138. 139 *Id.* [↑](#footnote-ref-139)
139. 140 *Id.* [↑](#footnote-ref-140)
140. 141United States Bureau of Reclamation, ***Colorado******River*** *Basin Water Supply and Demand Study* 9 (2012), [*https://www.usbr.gov/lc/region/programs/crbstudy*](https://www.usbr.gov/lc/region/programs/crbstudy) /finalreport/Executive%20Summary/CRBS\_Executive\_Summary\_FINAL.pdf. [↑](#footnote-ref-141)
141. 142 *See* Jenkins, *supra* note 134. [↑](#footnote-ref-142)
142. 143 *See generally Study Report*,  *supra* note 1. [↑](#footnote-ref-143)
143. 144Jenkins, *supra* note 134. [↑](#footnote-ref-144)
144. 145 *See Study Report*, *supra* note 1, at 9-2. [↑](#footnote-ref-145)
145. 146 *See generally id.* [↑](#footnote-ref-146)
146. 147 *Id*. [↑](#footnote-ref-147)
147. 148Water & Tribes Initiative, *The Status of Tribal Water Rights in the* ***Colorado******River*** *Basin*, 2 (Apr. 2021), https://www.getches-wilkinsoncenter.cu.law/wp-content/uploads/2021/04/ Policy-Brief-1-The-Status-of-Tribal-Water-Rights.pdf. [↑](#footnote-ref-148)
148. 149 *Id.* [↑](#footnote-ref-149)
149. 150 *See id.* [↑](#footnote-ref-150)
150. 151Bureau of Reclamation, Lower ***Colo.*** Region, Law of the ***River*** *supra* note 37, at 3. [↑](#footnote-ref-151)
151. 152 *See generally id.* [↑](#footnote-ref-152)
152. 153 *Id.* at 14 (emphasis added). [↑](#footnote-ref-153)
153. 154 *See* [*Consolidated Decree, Arizona v. California, 547 U.S. 151, 158 (2006)*](https://advance.lexis.com/api/document?collection=cases&id=urn:contentItem:4JKB-4T40-004B-Y037-00000-00&context=1516831). [↑](#footnote-ref-154)
154. 155U.S. Bureau of Reclamation, *Pilot System Conservation Program (Pilot Program)* (Aug. 31, 2021), [*https://www.usbr.gov/lc/region/programs/PilotSysConsProg/pilotsystem.html*](https://www.usbr.gov/lc/region/programs/PilotSysConsProg/pilotsystem.html). [↑](#footnote-ref-155)
155. 156 *Id.* [↑](#footnote-ref-156)
156. 157 *Id.* [↑](#footnote-ref-157)
157. 158 *Id. (*"Project fallowed 1,591 acres of farmland during the fallowing period beginning October 1, 2016, through September 30, 2017."). [↑](#footnote-ref-158)
158. 159 *See* discussion *supra* Section II.B regarding Ute Mountain Ute Tribe and Ute Indian Tribe settlements. [↑](#footnote-ref-159)
159. 160Tel. Interview with Erin M. Wilson, P.E., Principal, Wilson Water Group (Apr. 20, 2021). [↑](#footnote-ref-160)
160. 161Anna V. Smith, *Tribal Nations Enter Negotiations Over* ***Colorado******River*** *Water*, MOTHER JONES (March 15, 2020), [*https://www.motherjones.com/environment/2020/03/tribal-nations-enter-negotiations-over-****colorado****-****river****-water/*](https://www.motherjones.com/environment/2020/03/tribal-nations-enter-negotiations-over-colorado-river-water/). [↑](#footnote-ref-161)
161. 162Wilson, *supra* note 160. [↑](#footnote-ref-162)
162. 163Jenkins, *supra* note 134. [↑](#footnote-ref-163)
163. 164Tel. Interview with John Cyran, Senior Staff Attorney, Healthy ***Rivers*** Program, Western Resource Advocates (May 5, 2021). [↑](#footnote-ref-164)
164. 165 *Study Report*, *supra* note 1, at 5.5.-9 to 5.5-10, 7-11. [↑](#footnote-ref-165)
165. 166NAVAJO DIV. OF HEALTH & NAVAJO EPIDEMIOLOGY CTR., NAVAJO POPULATION PROFILE 2010 U.S. CENSUS 16 (2013), [*https://www.nec.navajo-nsn.gov/Portals/0/Reports*](https://www.nec.navajo-nsn.gov/Portals/0/Reports) /NN2010PopulationProfile.pdf. [↑](#footnote-ref-166)
166. 167 *Study Report*, *supra* note 1, at 5.5-11 tbl.5.5-B. [↑](#footnote-ref-167)
167. 168 *See* [*In re Gen. Adjudication of All Rts. to Use Water in Gila* ***River*** *Sys. & Source, 35 P.3d 68, 76 (Ariz. 2001)*](https://advance.lexis.com/api/document?collection=cases&id=urn:contentItem:44JD-GKM0-0039-43YD-00000-00&context=1516831) ("When an Indian reservation is created, the government impliedly reserves water to carry out its purpose as a permanent homeland."). [↑](#footnote-ref-168)
168. 169 *Study Report*, *supra* note 1, at 7-15. [↑](#footnote-ref-169)
169. 170 *Id.* [↑](#footnote-ref-170)
170. 171 *Id.* at 7-16. [↑](#footnote-ref-171)
171. 172 *Id.* at 9-2. [↑](#footnote-ref-172)
172. 173Water & Tribes Initiative, *supra* note 148, at 1. [↑](#footnote-ref-173)
173. 57 *Id.* [↑](#footnote-ref-174)