



# The Enduring Role of Tribes in the Colorado River Basin

## Introduction

The purpose of this policy brief is to explain the origin, rationale, and purpose of the Water & Tribes Initiative in the Colorado River Basin. As explained more fully below, the long-term objectives of this Initiative are to:

- Enhance the capacity of tribes to advance their needs and interests with respect to water management in the basin; and
- Advance sustainable water management through collaborative decision-making.

## What is the historical place of tribes in the Colorado River Basin?

Flows from the Colorado River system are the lifeblood of the southwestern United States and northwestern Mexico. According to the U.S. Bureau of Reclamation, nearly 40 million U.S. residents rely on this water for their lives and livelihoods.<sup>1</sup> Encompassed within the river's 244,000 square mile basin is territory of seven U.S. states (Arizona,

California, Colorado, Nevada, New Mexico, Utah, Wyoming) and two Mexican states (Baja California and Sonora).

It is difficult to overstate the degree of dependence on the basin's water, both in major metropolitan areas within and adjacent to the basin (e.g., Los Angeles, Phoenix, Denver, Salt Lake City, Las Vegas, Albuquerque), as well as vast agricultural areas in each state (e.g., Imperial Irrigation District). A similar perspective applies to the basin's diverse federal lands—national parks and monuments, national recreation areas, national forests, national wildlife refuges, and otherwise—and robust tourism and recreation revenues generated from recent unprecedented visitation to these locales and other parts of the basin.<sup>2</sup>

Native Americans have inhabited the Colorado River Basin for millennia.<sup>2</sup> Their permanence is truly remarkable given persistent, multi-faceted colonization over the past four centuries. In contemporary times, 26 federally recognized tribes reside within the basin, which contains 29 Indian reservations (see map on page 3; the tribes highlighted with the darker color in the legend are members of the Ten Tribes Partnership).<sup>4</sup> These tribes are sovereigns under the U.S. Constitution.<sup>5</sup>



The tribes in the basin share a deep, historic connection to the river that integrates culture, community, ecology, and sustenance. They uniformly revere the sacred, essential nature of water, and many of the tribes refer to themselves as “river people.” Tribal leaders and members understand water’s pivotal role in enabling economic development and diversification, providing social services for health and welfare, and maintaining water-related cultural and spiritual traditions. Water is life, as is commonly said, and an indispensable ingredient to the tribes’ exercise of the human right of self-determination as it pertains to socioeconomic conditions, cultural identity, governmental autonomy, and external political relations.<sup>6</sup>

### How is the use of Colorado River water administered, and how are tribes affected?

The “Law of the River” is the colloquial phrase for the body of laws governing transboundary water allocation and management in the Colorado River Basin.<sup>7</sup> Regarded as one of the most “institutionally encompassed” basins in North America,<sup>8</sup> the Law of the River includes an international treaty and numerous Minutes to the treaty, two interstate water compacts, a seminal U.S. Supreme Court decree issued in *Arizona v. California*, and dozens of federal statutes and regulations, and additional court decisions.

Over the past century, this massive body of laws has facilitated an equally massive body of water infrastructure in the form of large-scale dams, reservoirs, canals, and so on constructed throughout the Colorado River system.<sup>9</sup> Glen Canyon Dam and Lake Powell, and other elements of the Colorado River Storage Project are the principal projects in the Upper Basin, while Hoover Dam and Lake Mead are their counterparts in the Lower Basin. All told, the basin’s plumbing system has the capacity to store approximately 60.0 maf.<sup>10</sup>

Tribes have not been primary beneficiaries of the Law of the River and the vast water projects spawned by it.

Rather, from the latter half of the nineteenth century up to the present, settlers within and adjacent to the basin have been primary beneficiaries of the Law of the River’s allocation rules and associated water projects. Basin tribes have been historically marginalized in some of the major water-related decision-making bodies and processes.<sup>11</sup> The exclusion of tribes from discussions and decisions about river management is a socio-economic and environmental injustice.

Advances have been made during the past several decades—e.g., recognition and quantification of Indian reserved rights in *Arizona v. California*, negotiation of numerous tribal water rights settlements, formation of the Intertribal Council of Arizona in 1952 and the Ten Tribes Partnership in 1992, and preparation of the Tribal Water Study. Nonetheless, there is still much work to be done, as illustrated by 12 basin tribes having unresolved water rights claims and a host of other tribes possessing quantified yet underutilized water rights. According to the Bureau of Reclamation, quantified tribal diversion rights comprise about 2.9 million-acre feet (maf) in the basin, while undetermined demands for water associated with the unresolved tribal water rights claims are expressly acknowledged as “a factor impacting Basin-wide water availability.”<sup>12</sup>

### How have the impacts of climate change influenced the rules governing water management in the basin?

Anthropogenic climate change has affected, and is projected to continue to affect, the Colorado River Basin’s hydrology in profound ways.<sup>13</sup> Average surface air temperature in the basin rose 2.5 degrees Fahrenheit between 1895 and 2005. The 19-year period from 2000 to the present has been the driest period in the past 100 years of record keeping, and one of the driest periods in the past 1,200 years. Researchers have posed grave questions about whether this pattern constitutes merely a severe drought or the onset of aridification.<sup>14</sup>



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**FIGURE 1B-A**  
Map of Federally Recognized Tribes in the Colorado River Basin



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



Stemming from flow declines, average annual water demands have actually exceeded water supplies in the basin since the historic drought's onset.<sup>15</sup> System-wide reservoir storage has declined from nearly full to less than half of capacity in 2019 accordingly, with Lake Powell and Lake Mead currently at 42% and 41% of capacity, respectively.<sup>16</sup> In conjunction with continued increases in surface air temperature, researchers project average annual runoff in the basin will continue to diminish across the twenty-first century, perhaps by 8.7% as set forth in the Downscaled GCM Scenario of the Bureau of Reclamation's basin study,<sup>17</sup> though researchers have suggested reductions ranging from 6% to 45%.

Climate change's impacts on the basin's hydrology are forcing policymakers and water managers to collaboratively develop and implement adaptive measures.<sup>18</sup> Examples at the international level include Minute 319's and Minute 323's shortage-sharing and treaty-water storage programs respectively adopted in 2012 and 2017. These programs were preceded by a suite of domestic measures established by the 2007 Interim Guidelines, including a coordinated operating regime for Lake Powell and Lake Mead that implements the Colorado River Compact's flow obligations, an operating regime for Lake Mead governing shortage sharing along the Lower Colorado River, and water banking (Intentionally Created Surplus and Developed Shortage Supply) programs. These measures have been followed at the domestic level by a pilot system conservation program and a pilot drought response actions program. In May 2019, the Basin States and Reclamation finalized the Drought Contingency Plans. Beginning no later than December 31, 2020, the Secretary of the Interior must initiate a formal review of the 2007 Interim Guidelines to evaluate their effectiveness.<sup>19</sup>

The Upper Basin drought contingency plan aims to bolster Lake Powell's storage in order to fulfill compact flow obligations and to maintain hydropower generation and revenues at Glen Canyon Dam. The Lower Basin drought contingency plan has similar goals vis-à-vis Lake Mead, namely: (1) to require the Lower Basin States to contribute water in addition to the 2007 Interim

Guidelines to Lake Mead storage; and (2) create flexibility to incentivize additional voluntary conservation of water to be stored in Lake Mead.<sup>20</sup>

Overall, the incremental emergence of these domestic and international measures illustrates growing awareness and concern among policymakers and water managers regarding the supply/demand imbalance in the basin and climate change's associated hydrological impacts. Notwithstanding their novelty and the collaborative processes through which they have been formed, the measures' collective adequacy to navigate these formidable dynamics remains uncertain.

This concern is perhaps most pronounced in relation to the approximately 1.2 maf structural deficit along the Lower Colorado River demonstrated as a disconnect between (1) the normal amount of water released to Lake Mead from Lake Powell and (2) the amount of water to which the Lower Basin states are entitled to use during normal conditions under the *Arizona v. California* decree.<sup>21</sup> This disconnect is indeed a fundamental structural problem with the Law of the River that climate change has brought to the fore.

### What is the emerging role of tribes in this new era of adaptive management?

Colorado River Basin tribes must be engaged in Colorado River governance at this critical juncture in the history of the basin and the Law of the River. Policymakers and water managers cannot make deliberate, well-informed decisions without tribes at the table, and tribes face serious risks of marginalization if they are not part of these conversations. Among other illustrations, the integrity of water management and planning processes throughout the basin hinges in no small part on future approaches to (1) the 12 basin tribes' unresolved water rights claims, and (2) the 2.9 maf of underutilized diversion rights held by basin tribes.<sup>22</sup> Ignoring these considerations will generate hollow, unsustainable outcomes.



Not only is tribal participation imperative for the validity of water-related decision-making processes in the basin, it is essential to respecting tribal sovereignty under U.S. law, honoring trust obligations borne by the federal government, and upholding basin tribes' fundamental human right to self-determination. Water is, again, of utmost importance to the socioeconomic, cultural, and political dimensions of basin tribes' ability to engage in self-determination. We need to work diligently to adapt the Law of the River in a manner that comports with tribal sovereignty, trust obligations, and self-determination. The contemporary hydrological and institutional context is ripe for doing so.

Although applicable to Colorado River governance across the board, the preceding sentiments are immediately relevant to tribal engagement in implementing the drought contingency plans in the Upper Basin and Lower Basin, as well as formal review of the 2007 Interim Guidelines beginning no later than December 31, 2020.<sup>23</sup>

### Why do we need a Water & Tribes Initiative in the Colorado River Basin?

The Water & Tribes Initiative was created to address two long-term objectives:

- Enhance the capacity of tribes to advance their needs and interests with respect to water management in the basin; and
- Advance sustainable water management through collaborative decision-making.

The Initiative is guided by a broad-based Leadership Team, half of whose members represent tribes, and the other half representing multi-stakeholder watershed groups,<sup>24</sup> conservation organizations,<sup>25</sup> and members from the academic community.<sup>26</sup> For a list of members of the Leadership Team, along with their bios, please go to

<http://naturalresourcespolicy.org/projects/water-tribes-colorado-river-basin.php>

The Initiative is convened and facilitated by Darryl Vigil and Matthew McKinney, two widely respected facilitators with experience in western water policy and working with tribes and diverse groups. It is currently supported by the Babbitt Center for Land and Water Policy (a center of the Lincoln Institute of Land Policy) and the Walton Family Foundation.

During its first full year of operation (2018/2019), the Water & Tribes Initiative has completed many consultations, convened two basin-wide workshops, delivered presentations at various conferences, and prepared policy briefs--all designed to build relationships and foster a shared understanding of the enduring role of tribes in the basin.

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### Endnotes

<sup>1</sup> Bureau of Reclamation, Colorado River Basin Water Supply and Demand Study, Exec. Summary 3 (2012), [https://www.usbr.gov/watersmart//bsp/docs/finalreport/ColoradoRiver/CRBS\\_Executive\\_Summary\\_FINAL.pdf](https://www.usbr.gov/watersmart//bsp/docs/finalreport/ColoradoRiver/CRBS_Executive_Summary_FINAL.pdf) [hereinafter Executive Summary].

<sup>2</sup> A basin map depicting the agricultural and urban areas referenced here can be found in *id.* at 2. For data on national parks visitation in the basin states, see NPS Stats, National Park Service Visitor Use Statistics, <https://irma.nps.gov/Stats/>. See also Tim James et al., The Economic Importance of the Colorado River to the Basin Region (2014), <http://azsmart-dev.wpcarey.asu.edu/wp-content/uploads/2015/01/PTF-Final-121814.pdf>.

<sup>3</sup> See, e.g., Helen C. Fairley, Cultural Resources in the Colorado River Corridor, in U.S. Geological Survey, The State of the Colorado River Ecosystem in Grand Canyon 177, 178 (2005), <https://pubs.usgs.gov/circ/1282/c1282.pdf>.

<sup>4</sup> U.S. Bureau of Reclamation & Ten Tribes Partnership, Colorado River Basin Ten Tribes Partnership Tribal Water Study 1B-1 (2018), <https://www.usbr.gov/lc/region/programs/crbstudy/tws/finalreport.html> [hereinafter Tribal Water Study].

<sup>5</sup> Johnson v. McIntosh, 21 U.S. (8 Wheat.) 543 (1823); Cherokee Nation v. Georgia, 30 U.S. (5 Pet.) 1 (1831); Worcester v. Georgia, 31 U.S. (6 Pet.) 515 (1832).

<sup>6</sup> Jason Robison et al., Indigenous Water Justice, 22 Lewis & Clark L. Rev. 873 (2018), [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3013470](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3013470).

<sup>7</sup> See, e.g., Bureau of Reclamation, Lower Colorado Region, The Law of the River, <https://www.usbr.gov/lc/region/g1000/lawofrvr.html>.



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<sup>8</sup> Bureau of Reclamation, Provisional Upper Colorado River Basin Consumptive Uses and Losses Report, 2016-2020 4 (2017), <https://www.usbr.gov/lc/envdocs/reports/ColoradoRiverSystemConsumptiveUsesandLossesReports/20190300-ProvisionalUpperColoradoRiverBasin2016-2020-CULReport-508-UCRO.pdf>.

<sup>9</sup> A useful map of this infrastructure can be accessed at Bureau of Reclamation, Projects and Facilities, <https://www.usbr.gov/projects/maps.php>.

<sup>10</sup> Executive Summary, *supra* note 1, at 3.

<sup>11</sup> These issues of "Indigenous Water Justice" are discussed in Robison et al., *supra* note 6.

<sup>12</sup> Bureau of Reclamation, Colorado River Basin Water Supply and Demand Study, Technical Report C—Water Demand Assessment C-38 (2012), [https://www.usbr.gov/lc/region/programs/crbstudy/finalreport/Technical%20Report%20C%20-%20Water%20Demand%20Assessment/TR-C-Water\\_Demand\\_Assessment\\_FINAL.pdf](https://www.usbr.gov/lc/region/programs/crbstudy/finalreport/Technical%20Report%20C%20-%20Water%20Demand%20Assessment/TR-C-Water_Demand_Assessment_FINAL.pdf) [hereinafter Technical Report C]. See also Tribal Water Study, *supra* note 4, at 1-1 (describing how tribes within the Ten Tribes Partnership "have reserved water rights, including unresolved claims, to divert nearly 2.8 million acre-feet of water per year from the Colorado River and its tributaries").

<sup>13</sup> Bradley Udall & Jonathan Overpeck, The Twenty-First Century Hot Drought and Implications for the Future, 53 *Water Resources Research* 2404 (2017), <https://agupubs.onlinelibrary.wiley.com/doi/full/10.1002/2016WR019638>.

<sup>14</sup> Colorado River Research Group, When Is a Drought Not a Drought? Drought, Aridification, and the "New Normal" (2018), [https://www.coloradoriverresearchgroup.org/uploads/4/2/3/6/42362959/crrg\\_aridity\\_report.pdf](https://www.coloradoriverresearchgroup.org/uploads/4/2/3/6/42362959/crrg_aridity_report.pdf).

<sup>15</sup> Bureau of Reclamation, Colorado River Basin Stakeholders Moving Forward to Address Challenges Identified in the Colorado River Basin Water Supply and Demand Study, Phase I Report 1-5 (2015), <https://www.usbr.gov/lc/region/programs/crbstudy/MovingForward/PhaseIReport/Chpt1.pdf>.

<sup>16</sup> Lake Powell Water Database, <http://lakepowell.water-data.com/> (last visited May 29, 2019); Lake Mead Water Database, <http://lakemead.water-data.com/> (last visited May 29, 2019).

<sup>17</sup> Bureau of Reclamation, Colorado River Basin Water Supply and Demand Study, Technical Report B—Water Supply Assessment B-81 (2012), [https://www.usbr.gov/lc/region/programs/crbstudy/finalreport/Technical%20Report%20B%20-%20Water%20Supply%20Assessment/TR-B\\_Water\\_Supply\\_Assessment\\_FINAL.pdf](https://www.usbr.gov/lc/region/programs/crbstudy/finalreport/Technical%20Report%20B%20-%20Water%20Supply%20Assessment/TR-B_Water_Supply_Assessment_FINAL.pdf).

<sup>18</sup> For an overview of these adaptive measures, see Jason Robison, The Colorado River Revisited, 88 *U. Colo. L. Rev.* 475 (2017), [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2727279](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2727279).

<sup>19</sup> Department of the Interior, Record of Decision, Colorado River Interim Guidelines for Lower Basin Shortages and the Coordinated Operations for Lake Powell and Lake Mead 56 (2007), <https://www.usbr.gov/lc/region/programs/strategies/RecordofDecision.pdf> [hereinafter Interim Guidelines].

<sup>20</sup> Bureau of Reclamation, Colorado River Basin Drought Contingency Plans, <https://usbr.gov/dcp/> (last visited May 29, 2019).

<sup>21</sup> See, e.g., Robison, *supra* note 18, at 567.

<sup>22</sup> Technical Report C, *supra* note 12, at C-38.

<sup>23</sup> Interim Guidelines, *supra* note 19, at 56.

<sup>24</sup> Including but not limited to White River Partners; Middle Colorado Watershed Council; Desert Rivers Collaborative; Uncompahgre Watershed Partnership; San Juan Watershed Group; Dolores River Restoration Partnership; Southeast Utah Riparian Partnership Escalante River Watershed Partnership; Virgin River Partners; Verde Watershed Restoration Coalition; Gila Watershed Partnership; and watershed group resources (RiversEdge West and Cross-Watershed Network).

<sup>25</sup> Including the Colorado River Sustainability Campaign.

<sup>26</sup> Including the Colorado River Research Group; the Climate Center and Native Nations Institute at the University of Arizona; and the College of Law at the University of Wyoming.

## For More Information

The Water & Tribes Initiative was catalyzed in 2018 to enhance the capacity of tribes to advance their needs and interests with respect to water management in the basin, and to advance sustainable water management through collaborative decision-making. The Initiative is guided by a broad-based Leadership Team and funded through in-kind contributions of tribes and many other people as well as funding from the Babbitt Center for Land and Water Policy and the Walton Family Foundation. For more information, please go to <http://naturalresourcespolicy.org/projects/water-tribes-colorado-river-basin.php>.

## Leadership Team

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