

Enhancing Tribal Water Management Capacity in the Colorado River Basin: A Baseline Assessment

- Revised Final Report -



Prepared by

Water & Tribes Initiative | Colorado River Basin

with support from Colorado River Sustainability Campaign

Enhancing Tribal Water Management Capacity in the Colorado River Basin: A Baseline Assessment

About this Report

This report was produced by the Water & Tribes Initiative with support from the Colorado River Sustainability Campaign. The Project Team included Matthew McKinney, Ph.D., Co-Director, Water & Tribes Initiative; Daryl Vigil, Co-Director, Water & Tribes Initiative; Daniel Cordalis, JD/MA, Tribal Partnership Manager, Colorado River Sustainability Campaign; Anne Mariah Tapp, JD, Canyon Country Consulting LLC.; John Shepard, BA, Senior Advisor, Sonoran Institute; and Travis Anklam, MS, Projects and Education Coordinator, Center for Natural Resources & Environmental Policy – University of Montana.

There is no official consensus regarding the terminology used related to Indigenous peoples or when to capitalize certain terms. In this report, Native American and American Indian are used as well as general capitalization of the word Tribe as a sign of respect.

Acknowledgments

This report would not be possible without the support of the Basin Tribes who participated in this project. The Project Team thanks each tribal representative who shared their time, wisdom, and perspective during the interviews that informed this report, as well as the tribal leadership that approved participation in the project. The Project Team would also like to thank the Walton Family Foundation, Babbitt Center, and Vitalyst Foundation for making this Baseline Assessment possible. Finally, the Project Team thanks Anne Castle, Jim Holway, Sam Tucker, Jay Weiner, and the Water & Tribes Initiative Leadership Team for their review and constructive feedback.

Photo/art Credits:

Front cover - Adobe Stock	15 - JoAnn Smith, Adobe Stock
3 - JoAnn Smith	18 - Patrick A. Kikut, JoAnn Smith
4 - Dave Showalter	20 - John Weisheit
6 - JoAnn Smith	22 - JoAnn Smith
7 - JoAnn Smith	23 - JoAnn Smith
8 - Patrick A. Kikut	24 - JoAnn Smith, Patrick A. Kikut
9 - JoAnn Smith, JoAnn Smith	57 - John Weisheit
11 - Patrick A. Kikut	Back cover - Patrick A. Kikut



© January 19, 2023 Water & Tribes Initiative | Colorado River Basin | waterandtribes.org

Table of Contents



Acknowledgments	2
Introduction	4
Methods	6
Interview Methodology and Limitations	
Report Organization	
Part I: Tribal Water Priorities	9
1. Law, Policy, and Governance	
2. Human Health	
3. Agricultural and Commercial Use	
4. Technical Water Management Needs	
Part II: Existing Tribal Water Management Capacity	15
1. Tribal Staff Dedicated to Working on Water Management Issues	
2. Tribal Water Departments, Technical and Scientific Work	
3. Water Legal Work: In-House and Outside Legal Contracts	
Part III: Capacity-Building Needs, Interests, and Challenges	18
1. Common Needs and Interests	
2. Capacity-Building Challenges	
Part IV: Emerging Options to Enhance Capacity	22
Closing Thoughts	24
Appendices	
1: List of Participating Tribes	26
2: Interview Protocol	27
3: Profiles of Participating Tribes	29
4: Existing Tribal Water Management Capacity	52
Endnotes	57



Introduction

The 30 federally recognized Tribes in the Colorado River Basin (Basin) depend on the waters of the Colorado River and its tributaries for cultural and religious activities, and for agricultural, environmental, municipal, and commercial uses. Twenty-two of these Tribes currently hold quantified legal rights, often with senior priority dates, to approximately 3.2 million acre-feet (MAF) of water, which constitutes approximately 25 percent of the available water in the Basin in recent years. Eleven of the Basin Tribes are actively working to finalize, secure, and access their outstanding water rights. As these processes resolve and climate change and aridification cause Basin water supplies to continue to decrease and become less predictable, it is likely that the proportion of water in the Basin held by Tribes will increase in years to come. The Tribes' large collective water rights should entitle Basin Tribes to a significant role in shaping water management in the Basin.¹

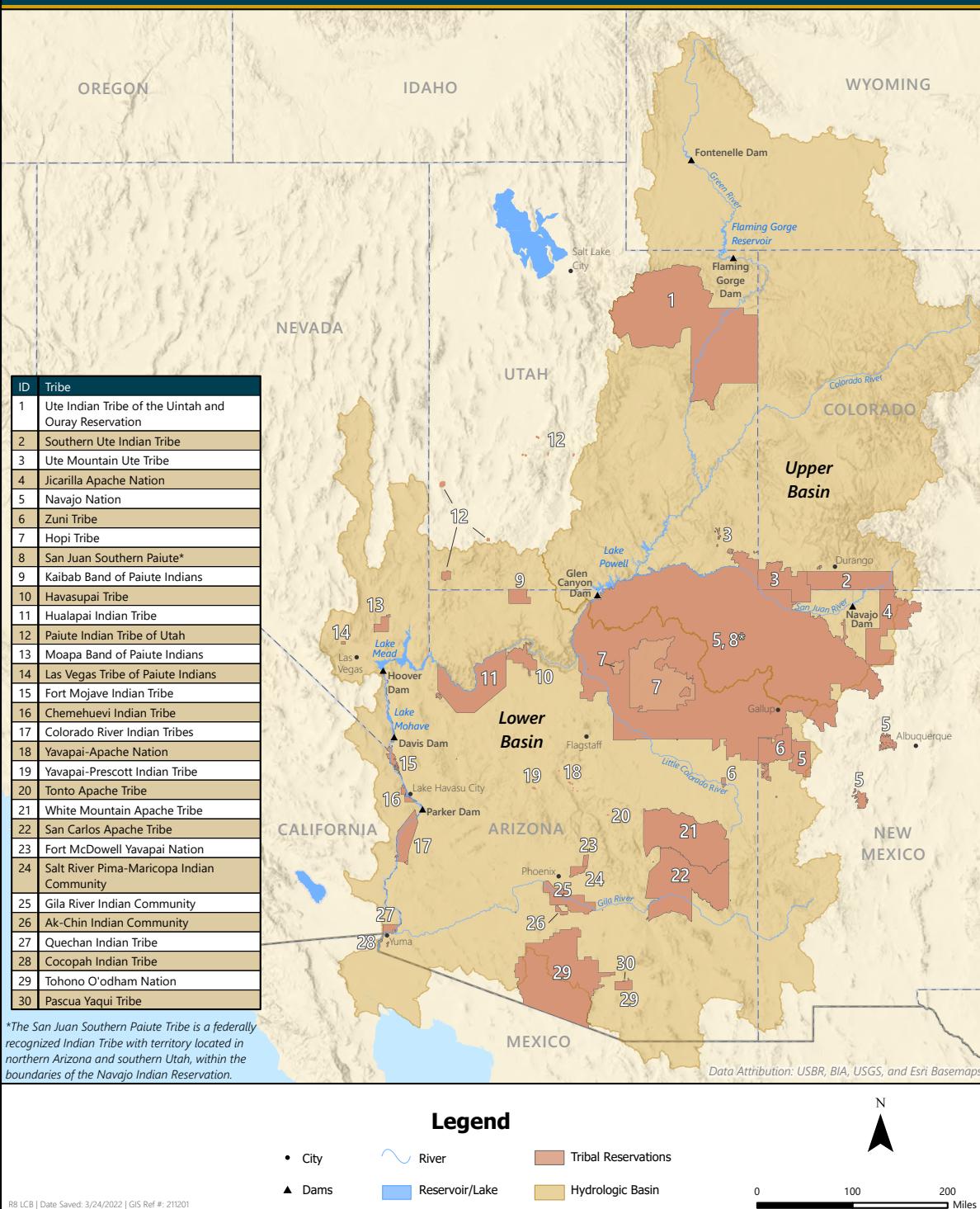
Basin Tribes have increasingly participated in a variety of water policy dialogues and water transactions and sought opportunities to better manage water on their respective reservations. At the same time, federal and state governments, philanthropic and conservation communities, and others have increasingly expressed an interest in working with Tribes to support their water-related interests and needs.

In response to this growing engagement and to strategically support Basin Tribes, the Water & Tribes Initiative (WTI)² and the Colorado River Sustainability Campaign (CRSC)³ came together to assess the capacity-building needs, interests, and priorities of the 30 Tribes in the Basin. WTI and CRSC share a commitment to enhance the capacity of Tribes to manage water resources and to engage in Colorado River water policy discussions. Since 2017, WTI has focused on two goals: (1) enhancing the capacity of Tribes to manage their water resources and to engage in water policy discussions; and (2) advancing sustainable water management through collaborative problem solving. The CRSC works to ensure that the Colorado River, its tributaries, and its Delta sustain healthy and diverse populations of fish and wildlife and outstanding recreational opportunities, while also providing water to support highly resilient communities, business, and agriculture.

Together, WTI and CRSC agreed that the best way to support Tribes and enhance their capacity to manage their water resources was to ask tribal leaders and staff to articulate their water-related priorities, explain their existing capacity to manage water and engage in water policy discussions, and to identify the most important capacity-building needs, interests, and priorities. Through discussions with Basin Tribes, this baseline assessment report sheds light on what water issues are highest priority for Basin Tribes and what additional resources these Tribes need to effectively address those issues.



FEDERALLY RECOGNIZED TRIBES IN THE COLORADO RIVER BASIN





Methods

Interview Methodology and Limitations

The WTI and CRSC project team invited all 30 Tribes in the Basin to participate in this baseline assessment. 19 of the 30 Tribes participated in this assessment from October 2021 through March 2022. As an intermediate step, in December 2021, WTI and CRSC prepared an interim report that reflected preliminary findings from 10 of the 30 Tribes. This final report incorporates the contents of the interim report and represents a more complete picture of the needs and interests of Basin Tribes.

Each Tribe identified who would be interviewed, and interviews included some or all of the following: elected tribal officials, tribal water staff, tribal water attorneys (in-house and outside counsel), and consultants. Appendix 1 presents the list of Tribes that completed interviews. While the interviews were conversational and flexible in nature, the project team utilized the questions in the interview protocol presented in Appendix 2 to guide the discussions. Conversations ranged from one to two hours. To ensure that the information collected was complete and accurate, after the interviews the project team provided a summary of each conversation to the interviewees for review, comment, and confirmation of content.

As part of the interviews, the project team asked each Tribe to articulate its own definition

of “capacity” and “progress” relating to “water resource management.” Two of these phrases need a short explanation and working definition to help frame this report. First, “capacity,” as used in this assessment report, means the ability of a Tribe—typically through human and financial resources—to engage as needed on the water issues most important to that Tribe. Accordingly, “capacity” will mean something different for different Tribes as one Tribe may not hold the same interests on certain issues as another Tribe (for example, agricultural infrastructure versus rural water delivery). Second, “water resource management” is a broad and potentially cumbersome catchall phrase that, like “capacity,” means different things to different Tribes. For example, one Tribe may associate the phrase with agricultural water management or stock-water needs while another may focus on the management of domestic supplies, while still another may focus on the legal work required to quantify its water rights. Thus, with regard to both phrases, Tribes’ comments may not track each other’s but that should not diminish the importance of those management and capacity needs.

This baseline capacity assessment is presented with the following limitations in mind:

- The information presented in this final report presents a more complete description of tribal capacity-building needs and interests than the findings in the interim report, completed in December 2021. The final report

captures the results of conversations with 19 Tribes, whereas the interim report was based on conversations with 10 Tribes. However, even this final report reflects a snapshot in time. The project team talked to some, not all, leaders and staff given the limitations of scheduling and other priorities. Other tribal leaders and staff may have offered slightly different responses to the interview questions.

- The interviewees and information presented here do not represent the official position of any Tribe. While some elected tribal officials did participate in the project interviews, addressing Tribal Councils or obtaining tribal resolutions with formal positions fell outside the scope of this report.
- In addition to providing a concise summary of each interview, this report offers some generalizations and draws some conclusions to clarify the existing and desired capacity of Tribes in the Colorado River Basin to manage water resources. Given the richness of each conversation, the unique circumstances facing each Tribe, and the difficulty of generalizing across Basin Tribes, we encourage readers to spend time reviewing the summaries of each interview presented in Appendix 3.
- Most Tribes interviewed have developed a basic capacity to manage on-reservation wastewater and water treatment services. This capacity, which was usually housed in a Tribe's Public Works or Utility Department, was not the focus of this report, unless it was so highlighted by interviewees.

Report Organization

The report is organized into four parts:

- Part I: *Tribal Water Priorities*, provides a high-level overview of the most important water-related issues faced by the Tribes interviewed. The rationale for presenting this information first is to ground the conversation about capacity around the priorities that are most critical to each Tribe. Within this part, Table 1 displays the highest-priority water needs and interests identified by each Tribe.
- Part II: *Existing Tribal Water Management Capacity*, synthesizes information about each Tribe's current water resource management capacity, including its ability to manage water on-reservation, as well as its interest and capacity to engage in policy discussions on river management.



- Part III: *Capacity-Building Needs, Interests, and Challenges*, describes the capacity-building needs and interests among the Tribes interviewed. It begins by reviewing the complete list of needs and interests shared by interviewees and then identifies common themes. This part of the report also highlights challenges and barriers to enhancing the capacity of Tribes to manage water resources and to engage in water policy discussions.
- Part IV: *Emerging Options to Enhance Capacity*, provides a brief summary of lessons learned and the path forward.



Tribal Water Priorities

Part I



A number of shared water-related priorities emerged from the interviews. These priorities may be grouped into four broad categories, shown in no specific order below.

1. Law, Policy, and Governance
2. Human Health
3. Agriculture and Commercial Use
4. Technical Water Management Needs

Each category includes specific priorities, many of which overlap. In general, categories 2, 3, and 4 constitute on-reservation needs that emerged as an overarching and consistent first priority for Tribes, outweighing the flexible use of tribal water off reservation. Yet, the meaning of “meeting on-reservation needs” varied by Tribe.

This section first presents and discusses the four categories within which the priorities fall. Priorities within the four categories are not ranked in order of importance but rather simply recap the various priorities the Tribes collectively identified. Following that, Table 1 provides a complete list of each Tribe’s stated priorities.

As noted above, these four categories must be qualified: beyond shared themes, each Tribe’s priority is uniquely shaped by a myriad of factors, including reservation size, geographic location, membership size, and the progress the Tribe has made toward quantifying its water rights. Accordingly, supporting a specific tribal water

priority requires a complete understanding of the Tribe’s situation and the precise barriers facing that Tribe. Moreover, many of the priorities listed below—such as fully developing and using recognized tribal water rights—are ongoing and may take decades to fully accomplish. But, even so, these priorities have multiple, actionable steps that need support in the short and medium term. Despite this cautionary note, these categories provide a useful tool to examine commonality in the Tribes’ water-related priorities and perhaps organize work toward meeting those needs.



1. Law, Policy, and Governance

The law, policy, and governance category has many facets that overlap with Basin water governance but also includes the fundamental work of protecting and securing a tribal water right. Specific priorities within this category include:

- Resolve outstanding tribal water rights. Until most of a Tribe's water claims are quantified, through adjudication or negotiated settlement, this task is a priority for the Tribe because, among other things, it sets the foundation for having water to manage and meet the Tribe's needs.
- Protect water resources and water rights through legal, political, and other means.
- Develop and use recognized water rights for a diversity of purposes, including water marketing, forbearance agreements, and other legal mechanisms. This has recently been elevated in the Basin through a National Congress of American Indians' resolution, WTI policy briefs, and other governance discussions.⁴
- Establish or enhance a water resources program.
- Participate in Basin-wide policy discussions. Tribes are often engaged in these negotiations through both their attorneys and tribal elected officials.

2. Human Health

The human health category garnered overdue attention as the COVID-19 crisis turned the nation's eye to inequitable tribal access to clean, potable, piped drinking water. Yet, this issue has been endemic throughout the Basin and Indian Country for decades. Shared priorities in the human health category include:

- Securing access to clean, safe, potable, piped drinking water—including the needed infrastructure and delivery systems—for tribal members was repeatedly mentioned as the top priority for Tribes whose members still lack this basic human right.⁵ Many interviewees specifically noted that environmental water projects and policy negotiations not related to clean, safe drinking water were a secondary priority to ensuring that tribal members have access to piped, potable water in their homes.
- Ensure that tribal members are able to use water rights on-reservation, which goes hand in hand with obtaining the infrastructure needed to deliver that water to tribal members, tribal farms, and other on-reservation enterprises. To date, many Basin Tribes have not had the opportunity to put their water to use on-reservation, even if their rights are settled, due to a lack of water delivery infrastructure.

3. Agricultural and Commercial Use

Water is essential to on-reservation enterprises, including agriculture and commercial use, and Tribes reflected a need for modernizing, improving, and adding infrastructure to support on-reservation water needs. Common priorities in this category are as follows:

- Improve the efficiency of existing irrigation systems and address the deferred maintenance of on-reservation Indian irrigation systems managed by the Bureau of Indian Affairs. For example, the estimated cost to address deferred maintenance at the Pine River Indian Irrigation Project on the Southern Ute Indian Tribe Reservation is between \$70 and \$100 million.
- Provide sufficient water to farm on-reservation and advance sustainable, traditional agriculture.

- Build new water delivery systems for multiple objectives.
- Provide water for tribal enterprises, whether gaming, mining, tourism, hunting and fishing, or other economic and revenue-generating sources.
- Protect and restore water quality.
- Monitor, protect, and manage groundwater resources.
- Restore riparian areas for multiple uses (cultural, spiritual, ecological).
- Remove invasive species.
- Enhance forecasting for water supply and streamflow.
- Adapt to climate change.
- Provide engineering for stormwater management, floodplain studies, sanitation/wastewater systems, and the technical support needed to achieve the suite of priorities described in Table 1.

4. Technical Water Management Needs

Technical water management needs are common priorities for all Basin Tribes, though their nature varies by Tribe. Whether or not a Tribe has quantified its water rights or secured wet water, all Basin reservations contain water resources such as flowing rivers, springs, wetlands, and other riparian areas. Tribes also manage highly technical water systems for irrigation, sanitation, and other purposes. Priorities mentioned in this category include:



Table 1: Water-Related Priorities by Tribe⁶

Tribe Name	Key Water Priorities
Ak-Chin Indian Community	<ul style="list-style-type: none">- Every issue that deals with water is “first on tap” and a priority. That said, some issues were highlighted as follows:<ul style="list-style-type: none">- Secure and protect Ak-Chin water rights.- Ensure adequate water quality.- Increase sustainability of water resources by, among other things, upgrading technology to improve water efficiency on farms.
Chemehuevi Indian Tribe	<ul style="list-style-type: none">- Expand water storage infrastructure.- Upgrade existing on-reservation well and add more wells.- Set standards, utilizing Clean Water Act authority, to ensure Havasu Lake and the river maintain good water quality.- Foster exchange with other Tribes around water resource management and cultural connection to the Colorado River.- Engage at the Basin level to have a greater voice in water policy discussions that impact Chemehuevi and tribal water rights in the Basin.
Gila River Indian Community	<ul style="list-style-type: none">- Ensure that Community members have the perpetual ability to farm on-reservation and have water for their needs.- Create financial structures such as water funds that allow the Community to sustainably support on-reservation water use through water marketing.- Two on-reservation aquifer recharge and habitat restoration projects that use CAP water have been completed. Significant time over the last three years has been dedicated to the management of these projects.- Complete a third aquifer recharge project, which is in progress. The Community has an ultimate goal of dedicating approximately 60,000 acre-feet yearly of recharge to bring back the river, to have sustainable groundwater supply, and to create wetlands and other habitat.- Utilize the aquifer recharge projects to assist the Community in cultural and environmental goals, as well as related goals such as restoring the river on-reservation.
Hopi Tribe	<ul style="list-style-type: none">- The Hopi Tribe has prioritized providing safe clean drinking water to the Hopi People. Further, water priorities include providing sufficient water to Hopi to in key tribal economic sectors such as agriculture, livestock and industry to provide a viable livable economy to the Hopi.<ul style="list-style-type: none">- Finalizing the settlement would allow other water issues to be addressed.- Arsenic contamination in village water is a significant problem for Hopi.- Access to clean drinking water is a priority, including well development off the reservation that could serve tribal members if infrastructure can be developed.- Access to rivers of cultural importance outside of Hopi Trust land boundaries is a challenge.- Hopi Tribe members are interested in becoming engaged in Basin-wide policy discussions and note that they have not historically “been at the table.”
Hualapai	<ul style="list-style-type: none">- Quantify and access the Tribe’s unresolved water rights.- Protect groundwater from depletion related to groundwater pumping supplying off-reservation agriculture in nearby communities.- Build infrastructure for agricultural irrigation.- Fully develop the Tribe’s water rights, including securing infrastructure that would allow the Tribe to pump Colorado River water to tribal communities.- Protect culturally important groundwater and springs from the threat of lithium mining.- Ensure water rights support thriving game and cattle populations.- Protect reservation lands from wildfire.

Tribe Name	Key Water Priorities
Jicarilla Apache Nation	<ul style="list-style-type: none"> - Fully utilize the Nation's water for the benefit of its citizens. <ul style="list-style-type: none"> - Remove barriers to increased water leasing. - Create models for innovative tribal water projects. - Develop groundwater sources. - Build new and repair existing water infrastructure. - Complete Navajo-Gallup Water Supply Project (Public Law 111-11). - Lease water to Bureau of Reclamation to support the silvery minnow. - Participate in San Juan River Recovery Implementation Project. - Develop first-of-its kind proposed lease with the Interstate Stream Commission and the Nature Conservancy - Support pulse flow through Navajo River.
Kaibab Band of Paiute Indians	<ul style="list-style-type: none"> - Secure a sustainable supply of water for the reservation to ensure tribal members can live on their homeland in perpetuity. - Attract and retain water resource staff. - Maintain water management records and filing systems. - Secure financial resources for water systems and management. - Update water meters on the reservation.
Navajo Nation	<ul style="list-style-type: none"> - Provide tribal members access to clean drinking water. - Secure more staff for long-term planning. - Complete Navajo-Gallup Water Supply Project. - Resolve Navajo Nation water rights in Arizona and New Mexico. - When asked about priorities with an environmental nexus, the Nation mentioned its engagement in the San Juan River Recovery Implementation Program (SJRRIP).
Paiute Indian Tribe of Utah	<ul style="list-style-type: none"> - Ensure purchased water rights are recognized as tribal water rights. - Secure and supply clean drinking water. - Provide adequate water to Paiute communities as they grow. - Assess and understand the Paiute Tribe's water needs more fully. - Improve water distribution and supply, particularly to the Kanosh Band.
Pueblo of Zuni	<ul style="list-style-type: none"> - Finalize Zuni River settlement. - Continue to restore the Little Colorado River wetlands. - Improve and implement Zuni drought management plan. - Continue to gather data and monitor Zuni's on-reservation water resources. - Build and update robust wastewater treatment systems on-reservation. - Expand municipal water infrastructure. - Develop right-sized agriculture (rather than BIA models) through the sustainable agriculture that Zuni is promoting in the community. - Educate community members on water use and management.
Quechan Indian Tribe	<ul style="list-style-type: none"> - Important to understand that the Tribe's main focus from 2018-2020 was designing the job description for a water technician and then hiring for the position. This occupied much of the time/energy/bandwidth for water projects for those years. With that context, priorities are as follows: <ul style="list-style-type: none"> - Create a water administration program. - Work with growers who farm on leased reservation land to improve water efficiency. - Develop flexible tools for utilizing Quechan water in a way that benefits the Tribe. For example, the Tribe has recently entered into a seasonal fallowing agreement with Metropolitan Water District. - Improve efficiency of water conveyance and distribution system on-reservation. - Remove invasive species, particularly salt cedar. - Restore habitat with spiritual and cultural importance to Quechan, including working to ensure better tribal member access to traditional cultural materials such as willow and mesquite.

Tribe Name	Key Water Priorities
Salt River Pima-Maricopa Indian Community	<ul style="list-style-type: none"> - Allocate secured SRPMIC water to diverse uses. - Preserve water quality and quantity. - Provide adequate water delivery. - Create access to existing water resources for tribal members. - Explore opportunities to restore riparian areas and maintain instream flows.
San Carlos Apache	<ul style="list-style-type: none"> - Quantify and access unresolved water rights, including aboriginal claims and federal reserved rights. - Secure infrastructure to deliver water to the reservation. - Utilize tribal water for diverse purposes, including agriculture.
Southern Ute Indian Tribe	<ul style="list-style-type: none"> - Secure funding to build infrastructure to provide piped water. - Sustainably Utilize federal reserved water rights that are currently unused by the Tribe. - Continue rehabilitation of the Pine River Indian Irrigation Project (estimated \$70–\$100M). - Secure funding of infrastructure to enable utilization of Animas–La Plata settlement water.
Tohono O'odham Nation—San Xavier District	<ul style="list-style-type: none"> - Expand use of CAP water. - Restore riparian areas along Santa Cruz River. - Monitor and protect groundwater quantity and quality. - Engage in Basin-wide policy dialogues around Interim Guideline renegotiation. - Control and mitigate floods, including flood mapping, building water discharge infrastructure, floodwater recharge, and recovery projects.
Tonto Apache Tribe	<ul style="list-style-type: none"> - Quantifying the Tribe's water rights is the Tribe's top priority. - Address the impacts of groundwater mining adjacent to the Tribe's reservation, including challenges posed by a contamination plume that required the Tribe to cease diverting water from two off-reservation wells that it had acquired.
Ute Mountain Ute Tribe	<ul style="list-style-type: none"> - Launch a water resource management program, distinct from other departments in the tribal government. - Engage in Basin-wide policy discussions. - Resolve Tribe's water rights in New Mexico and Utah. - Fully utilize and benefit from tribal water rights, including Animas–La Plata water. - Secure funding of infrastructure to enable utilization of Animas–La Plata settlement water. - Support Mancos River restoration project that will, ideally, assist in keeping the Mancos River flowing. - Support ecological restoration and habitat improvement on the Tribe's Blue Mesa property. - Repair Alan Canyon headgate to move water through an otherwise dry canyon. - Reduce threat that White Mesa Uranium Mill poses to groundwater resources.
White Mountain Apache Tribe	<ul style="list-style-type: none"> - Design and construct a Rural Water System to deliver water to tribal members. This includes a 50-mile pipeline, surface water treatment plant, and a dam that will provide a long-term water supply to the tribal community. - Enhance monitoring and forecasting of water supply and streamflow, including oversight of and coordination between tribal and USGS gaging stations, that help the Tribe with mitigation planning for climate impacts and community education, among other things. - Monitor, protect, and restore culturally important wetlands, streams, and springs. - Manage forest to protect headwaters from wildfire threat. - Protect and defend the Tribe's secured water rights.
Yavapai-Prescott Tribe	<ul style="list-style-type: none"> - Exercise water rights under the Tribe's existing settlement agreement, especially with regard to effluent credits and the use of surface and groundwater. - Finish the Tribe's water management plan and move into the implementation of this plan. - Complete an on-reservation infrastructure inventory and land capacity analysis.

Existing Tribal Water Management Capacity

Part II



This section describes the current capacity of the 19 interviewed Tribes. As defined previously, “capacity” is the ability of a Tribe to engage as needed in the water issues most important to that Tribe. As a metric, capacity is commonly described through both human resources—e.g., full-time employees (FTEs), tribal departments—and financial capability metrics. While helpful, these metrics are not the only measures of capacity, as some critical elements are harder to quantify. Examples include the ability of existing employees to interface between departments to identify and fulfill work priorities, political ability, and interest and available time of tribal leadership to engage in water issues. Another example, mentioned by several Tribes, is the presence of a unifying document—a Water Vision, Water Plan, or even a Water Code—that indicated a Tribe had put resources toward water management planning. Nonetheless, the human resource metrics described below are building blocks that support growth in other areas and are important to understand.

This section presents an overview of general trends and provides figures that utilize capacity metrics but does not provide Tribe-by-Tribe details. Such information can be found both in *Appendix 3: Profiles of Participating Tribes* and in *Appendix 4: Tribal Water Management Capacity*.

To effectively capture the “capacity” of a Tribe, especially one that wishes to increase its participation in water policy discussions, better delineating how much staff time goes toward water management issues would be helpful. Despite some limitations to the data gathered, the information below is both useful in its own right and indicates how integrated water issues are across tribal departments, programs, and offices. Other data limitations are described below with the presented figures.



1. Tribal Staff Dedicated to Working on Water Management Issues

Figure 1 shows how many “dedicated water management staff” that each of the interviewed Tribes reported. The results show that of the 19 responses, four Tribes do not have any dedicated water management staff; three Tribes have one FTE; four Tribes have two to five FTEs; and nine Tribes have more than five FTEs.

This data may lack precision due to over- or under-inclusive tribal responses regarding what “water management staff” is, as noted above. For example, the Navajo Nation responded it has over 100 water management staff members, but approximately 80 of those are on livestock and irrigation projects and likely do not contribute to policy, governance, or other “management” decisions. Similarly, the San Xavier District of the Tohono O’Odham Nation has six FTEs in its Natural Resource Department, which handles water issues in the district, but how many of those FTEs work on water is unclear. It would be helpful to get better resolution on the gathered data to better understand current staff capacity.

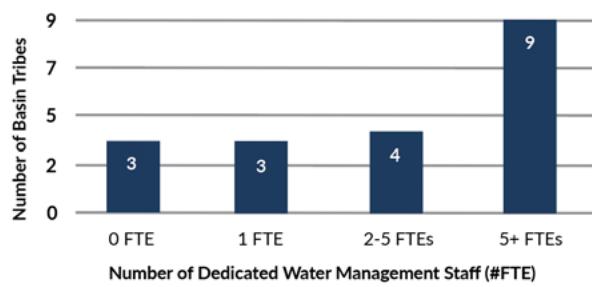


Fig. 1. Number of Tribal Staff Dedicated to Working on Water Management Issues.

2. Tribal Water Departments, Technical and Scientific Work

In addition to the focus of FTEs, the interviews examined the type of in-house capacity and external support utilized by the interviewed Tribes. The following sections present the different ways Tribes have built capacity. The figures following each narrative synthesize the information discussed.

An important first measure of a Tribe’s water management capacity is whether it has an organized governmental office that focuses on water issues. A water department staffed by a director and additional FTEs is the clearest example of such an entity. However, as indicated in the interview responses, other tribal entities handle a similar scope of work, including a water program (often a program within a larger department), or a Tribal Utility Department that handles reservation water delivery and other needs. In Figure 2 below, those are indicated as “Water Department or Program.” Alternatively, Tribes that do not have a water department or program but have in-house staff working on water issues in other departments (e.g., Natural Resource or Environmental Protection) are identified as Tribes with “Other Department or Entity Working on Water Issues.”

Interview responses included descriptions of both formal and informal collaborative groups of tribal staff and leadership working on water issues, typically across disciplines. In Figure 2 on the next page, this data is displayed under the category “Governance or Other Interdisciplinary Entity.” For example, the San Carlos Apache Tribe has a Water Team led by the Tribal Council Chairman and includes two in-house tribal attorneys and staff from an outside engineering consulting firm. The Southern Ute Indian Tribe has a Water Options Team made up of tribal

community members, Tribal Water Resources Division staff, and other staff as needed that makes recommendations to the Tribal Council on water issues. Other Tribes have similar bodies that provide information and recommendations to Tribal leadership. These groups, teams, or committees may include staff from a water department along with tribal leadership but are not exclusive to either Tribes with independent water departments or programs. Whether formally organized or more ad hoc these collaborative bodies appear to be important to the Tribes that utilize them as they are often interdisciplinary and can assist decision-making bodies.

Figure 2 also presents information on how many Tribes contract outside consultants to assist in the technical work (i.e., scientific or engineering) needed to support water resource management. Presumably, Tribes with a staffed water department or program have some form of in-house technical staff (whether an in-house hydrologist or a technician). The figure below presents information about how many Tribes have additional outside consultants, as well as how many Tribes rely exclusively on outside technical support.

	Water Dept. or Program	Other Dept. or Entity Working on Water Issues	Governance or Interdisciplinary Entity	In-House and Outside Technical	Only Outside Technical Help & No In-House Capacity
Tribes (out of 19)	13	5	9	9	3

Fig. 2. In-House and External Tribal Water Management Capacity. This figure presents the number of Basin Tribes that have a Water Department or water program, including a water utility; the number of Tribes that don't have a Water Department or program but work on water issues in other tribal programs; Tribes with interdisciplinary water entities to help decision making; the number of Tribes that supplement the tribal Water Department with contract technical support; and the number of Tribes that rely exclusively on outside technical assistance. Out of the 19 Tribes, three have no in-house capacity to work on water issues. Note that multiple Tribes fit into several categories, so the totals do not add up to 19.

3. Water Legal Work: In-House and Outside Legal Contracts

Of the Tribes that answered this question, 16 responded that they contracted with outside legal counsel for their water work while three Tribes had in-house water counsel whose practice was solely focused on water issues (see figure 3). Four Tribes have in-house attorneys that handled water work, albeit not exclusively. Twelve of the 16 Tribes relied on only outside counsel for their legal water work. And four out of the seven Tribes with some in-house water counsel also retained outside counsel.

	Outside Water Legal Counsel	In-House Water Legal Counsel	In-House Counsel Working on Water and Other Legal Issues
Tribes (out of 19)	16	3	4

Fig. 3. Legal Support for Tribal Water Management. This figure shows the number of Tribes that conduct water legal work through outside legal contracts; through dedicated in-house water attorneys; or in-house attorneys who handle water issues, among other legal issues. Responses indicate one Tribe lacks water-focused legal support.

Within the responses, differences in the focus areas for legal work emerged. Some of the Tribes that relied on outside counsel were involved in either water rights litigation or settlements rather than tribal program work; thus, the outside counsel's work did not touch on day-to-day water management. The responses also showed a variety of arrangements to support a Tribe's legal capacity on water issues, including utilizing in-house attorneys supported by outside counsel expertise as needed, purely outside counsel, and purely in house. These arrangements varied depending on a Tribe's needs and preferences.



Capacity-Building Needs, Interests, and Challenges

Part III

Building on the water-related priorities identified by Tribes that participated in the baseline assessment, along with an understanding of their existing capacities to manage water, the project team then asked the interviewees to reflect on their capacity-building needs and interests.

The specific capacity-building needs and interests for each Tribe are presented in *Appendix 3: Profiles of Participating Tribes*. This section synthesizes that information by highlighting common needs and interests, as well as challenges to enhancing tribal water resource management capacity in the Colorado River Basin.

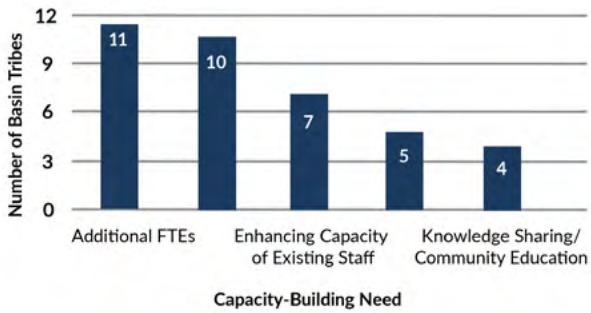


Fig. 4. Most Frequently Mentioned Tribal Capacity-Building Needs. The total number of Tribes that indicated each type of need is shown at the top of each bar.

1. Common Needs and Interests

The 19 Tribes interviewed identified many capacity-building needs, some of which were common among Tribes and others that were unique to a given Tribe. Figure 4 displays the most frequently mentioned capacity-building needs, displaying both the type of need and the number of Tribes identifying the need.

In addition to the most often mentioned capacity-building needs displayed in Figure 4, Tribes also identified a suite of additional capacity-building needs. Those are displayed in Table 2, which organizes the needs into the four categories introduced in Part 1. Many of the bullets could easily appear in more than one category. For example, Law, Policy and Governance necessarily overlaps with Human Health, as well as Agriculture and Commercial Use, and Technical Water Management Capacity is necessary to achieve many of the outcomes in the other categories.



Table 2: Detailed Capacity-Building Needs

General Needs and Interests	
<ul style="list-style-type: none"> • Secure ongoing funds that allow a Tribe to attract and retain high-quality professional water resource staff and build a full Water Department. • Build the capacity of federal agencies to meaningfully engage with Tribes as sovereigns and dismantle legacies of systemic disenfranchisement of Tribes. • Secure staff to support the Tribe with grant writing, reporting, and general grant administration. • Obtain physical office space for Water Resource Management staff and departments. • Provide a list or database of vetted project managers or consultants qualified to support Tribes engaged in water management projects. • Provide community members with technical information about water in a comprehensible way. • Create more intentional systems to retain, steward, and transmit historical, cultural, ecological, and policy knowledge about water matters. • Establish systems to facilitate succession and mentor/bring up younger generations. 	
Law, Policy, and Governance	Technical Water Management Needs
<ul style="list-style-type: none"> • Finalize tribal water settlements and fully utilize quantified water rights, including groundwater rights, to meet on-reservation needs. • Bring on staff dedicated to water policy matters, including the many highly specialized knowledge bases needed in the Basin (e.g., the nuances of drought management, infrastructure bill implementation, etc.). • Build internal elected official and tribal water staff understanding about the opportunities to realize priorities through engaging in policy discussions in the Basin. • Build policy expertise at the Tribal Council/elected official level around water issues. • Develop and disseminate toolboxes, webinars, and fact sheets about various water-related matters relevant to Basin Tribes. 	<ul style="list-style-type: none"> • Build technical expertise of existing staff on issues such as flood management, water conservation, and irrigation efficiency, and support them in becoming certified water operators. • Build internal ability, both in staffing and upgrading technical equipment, to track water use and consumption on-reservation. • Provide technical assistance (and funding) for pilot projects that create efficient water use and renewable energy pilot projects that provide power for on-reservation water delivery electrical needs. • Procure equipment for water resource management and monitoring.
Agriculture and Commercial Use	Human Health
<ul style="list-style-type: none"> • Secure tribal water infrastructure to serve agriculture and commercial use. • Secure funds to pay ongoing Operation, Maintenance, and Replacement (OMR) costs for tribal infrastructure projects. • Address deferred maintenance and infrastructure disrepair of irrigation projects on-reservation. • Develop groundwater supplies to support on-reservation enterprises. 	<ul style="list-style-type: none"> • Secure tribal member access to clean drinking, potable piped water in homes. • Ensure tribal members have access to water for farming, to support livestock, and other on-reservation domestic needs.

2. Capacity-Building Challenges

Each of the capacity needs expressed was accompanied by a discussion of the challenges and barriers that Tribes currently face in meeting those needs. These are described below.

The current system of federal funding is a significant obstacle to enhancing capacity. The baseline tasks of identifying funding opportunities, applying for federal grants, and then managing and administering any grant awarded – which often includes onerous federal reporting requirements – can occupy almost all the staff time that might be supported by a grant. Ironically, this leaves little time for staff to complete the project the grant was intended to support. The endless cycle of applying for and managing these grants was also identified as a source of burnout and

disillusionment for tribal staff. Additionally, not receiving a grant renewal can result in the Tribe cutting a position, exacerbating employee retention issues and setting back momentum.

Several Tribes noted that it is a recurring challenge to identify appropriate grants and partners promising enough to justify the transaction costs associated with the time and resources the Tribe has to commit to pursue a grant. Short-term programs and programs with onerous reporting requirements often result in a net financial burden to Tribes. Finally, a recurrent theme in the interviews was the fact that tribal attorneys are often the only staff with the writing skills to apply for a major federal grant and subsequently administer it. Many Tribes rely on their legal team to secure and manage grants related to water resource management, even while they recognize it is an inefficient use of attorney time.

A second major barrier to enhancing capacity is attracting and retaining professional staff, particularly tribal members. First, Tribes noted that they are often hard-pressed to provide the salary and commitment of a permanent position that would attract high-level professionals. This is particularly true if federal grant funds are expected to cover the salary of an FTE. Second, even if a Tribe can provide a competitive salary, it is difficult to find a professional willing to move to a highly rural, often under-resourced reservation. This situation is complicated by the fact that most Tribes do not offer remote positions for in-house staff. Even if all those obstacles are surmounted, there is a real shortage of professionals, particularly of tribal members with the combined skillset to hit the ground running and navigate the complex field of Colorado River Basin tribal water policy. Many Tribes commented on the difficulty of finding and retaining experts to sift through the myriad of demands, requests, and



opportunities related to Colorado River Basin management and helping the Tribe prioritize dedication of resources.

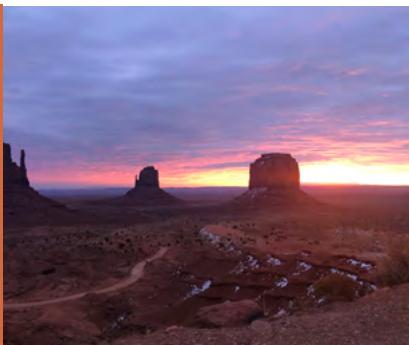
Most Tribes highlighted the need to build the capacity of the staff currently employed—whether by building policy expertise, training staff to be certified water operators, or providing staff with the resources needed to acquire and build other technical skillsets. Interestingly, despite the significant use of external consultants and experts, no Tribe identified a need for additional contract support—rather, all Tribes focused on building in-house staff capacity. Finally, creating pipelines to nurture tribal youth interested in working on water management was a common theme throughout the interviews.

A third category of capacity-building barriers stem from the inadequate water infrastructure on tribal reservations in the Basin. Of course, this includes many tribal members' continued lack of access to clean, safe, potable piped drinking water. Many Tribes have been forced to dedicate so many resources to obtaining "wet" water and securing safe drinking water that they simply do not have additional resources and/or bandwidth to engage in policy discussions regarding other Colorado River Basin issues. Even where negotiated water rights settlements result in funding for infrastructure development, Tribes face high operation and maintenance (O&M) costs and a lack of a tax base from which to raise funds to pay these costs. The WTI 2020 report *Universal Access to Clean Water for Tribes in the Colorado*

River Basin explores challenges related to O&M costs in detail and is a recommended resource on this subtopic.

The need for physical office space to house water resource staff is another capacity barrier. Several Tribes do not have office space available and are situating water staff in trailers or in temporary, shared offices. Tribes also expressed a need for new or updated monitoring equipment and technical support that would allow them to better account for on-reservation water use and improve water efficiency.

Finally, on the policy front, multiple barriers at the federal and state level were identified. First, many Tribes expressed frustration about having to educate federal officials about the basics of tribal sovereignty and the trust relationship. There is a clear capacity-building need on that front at the federal level. Second, many policies remain in place that prevent the full and flexible use of tribal water. This includes the State of Arizona's continued insistence on including policy riders that are unacceptable to Tribes as a condition to tribal water settlements. Finally, interviewees identified a lack of formal processes for Tribes to engage in state-level water policy forums and the continued inadequacy of meaningful federal processes and pathways that would result in Tribes having a co-sovereign role in Basin management discussions. While these latter barriers are not directly related to capacity building, we note them because they were flagged by almost every Tribe interviewed.



Emerging Options to Enhance Capacity

Part IV

Each of the interviews included a significant amount of time dedicated to brainstorming about potential solutions to some or all the capacity challenges described above. These are described below.

Strategy 1. Provide Funding for Professional Water Resource Staff

As discussed above, Tribes face obstacles obtaining funding to support tribal water resource management staff. For Tribes with limited resources, a lack of funds is a huge hurdle to building out full water resource management capacity. Several Tribes highlighted the need to identify funding for direct support of FTE positions and, to a lesser extent, for philanthropy to provide “matching” funds that would enable a Tribe to apply for a grant that would otherwise be out of reach. In terms of strategy, once a Tribe has at least one FTE dedicated to water resource management, that person can then identify more resources and provide leadership and networking that would potentially attract additional solutions to that Tribe’s needs.

Strategy 2. Provide Grant Identification, Application, and Administration Support

A key opportunity to reduce barriers to tribal water resource management capacity is providing support to Tribes to identify grant opportunities, apply for those grants, and then effectively and efficiently administer grants. Specific actionable next steps suggested included a database or listserv that could be updated regularly to identify upcoming federal, state, and private

grant opportunities and/or non-grant-related federal funding opportunities. This was noted as particularly important and pertinent with the significant funds forthcoming from the implementation of the Infrastructure Investments and Job Act of 2021 and the Inflation Reduction Act of 2022.

Tribes also need staffing and/or consultant support to augment capacity to write grant applications and administer federal grants. The specific form(s) that could take requires more conversation and will vary by Tribe; some Tribes may only be open to building grant writing and administration capacity in-house for confidentiality reasons, while others might be more willing to partner with an outside entity who could provide grant-writing and/or administration support. Two Tribes mentioned the challenge of administering grants and projects once funding was secured. This included the difficulty of identifying qualified contractors; one suggestion is to develop a list of contract project managers or consultants who both specialize in water and have demonstrated experience supporting Basin Tribes.

Strategy 3. Create Pathways to Build Youth and Tribal Member Water Management Expertise

Across the board, tribal members and tribal staff tied capacity building directly to generational learning and “next generation” leadership. There is a very strong interest in strategies and frameworks that will assist Tribes in cultivating

the next generation of water leaders and, by doing so, help Tribes retain and steward historical, cultural, and institutional knowledge and facilitate succession. Most interviewees described the need to create pathways that would enable tribal members, particularly youth, to build expertise and knowledge about water management that they can bring back to their community. Specific ideas provided during interviews included the following: (1) creating scholarships, internships, and summer opportunities to build youth engagement in water management; (2) educating tribal youth councils about their Tribe's water issues; (3) creating career opportunities for young tribal professionals to enter water management fields; and (4) establishing mentoring systems that would ensure the succession of younger staff, particularly tribal members, into more senior water management positions. Some Tribes, such as Gila River Indian Community, have already taken steps along these lines by establishing scholarships for tribal youth who are interested in professional careers in water. The internship program established by the Institute for Tribal Environmental Professionals is another such example.

Strategy 4. Support In-House Tribal Water Leadership

Interviewees articulated the need to support in-house tribal leadership, inclusive of both long-term staff and elected leaders, to build institutional knowledge about water management. As described in Part II, one way Basin Tribes have effectively tackled this challenge is by creating water commissions or water subcommittees on tribal councils that work directly with staff to address water governance issues. Other Tribes provide trainings on water resource issues to all newly elected tribal officials as another way of conveying institutional knowledge.

Strategy 5. Create Opportunities for Peer-to-Peer Learning

Finally, multiple interviewees expressed their interest in peer-to-peer learning opportunities in water resource management. Such a strategy could take the form of a series of participant-driven webinars, workshops, or toolboxes. Multiple Tribes mentioned their interest in visiting other Tribes with established water departments or active tribal water systems as a helpful method of peer-to-peer learning. This could then evolve into some type of institutionalized network for tribal water managers.



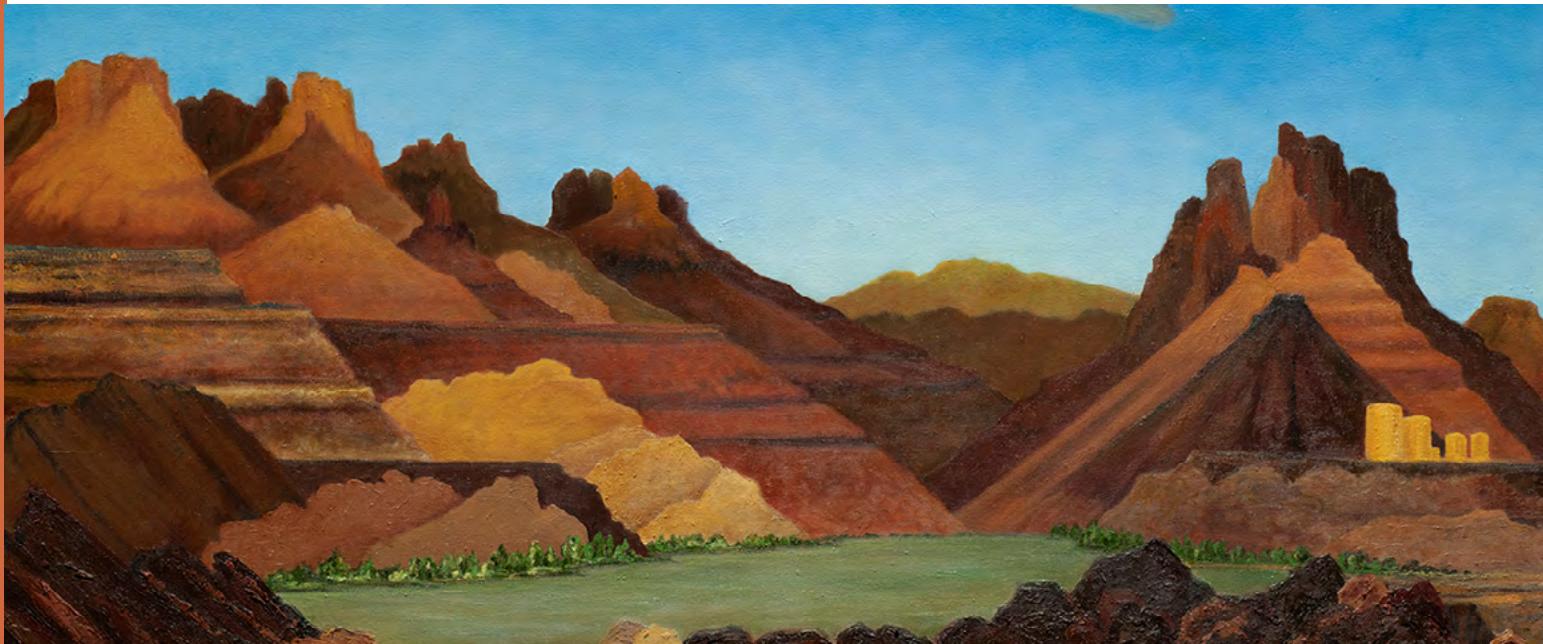


Closing Thoughts

Over the course of this project, many Basin tribal leaders and tribal water staff were incredibly generous to share time and insight with the project team. As a result of this generosity, this report will ideally shed light on what water issues are highest priority for Basin Tribes and what additional resources these Tribes need to engage effectively on those key issues. Those in the Basin working on water issues have ample opportunity to respond to the needs and priorities highlighted in this report. Indeed, building authentic, trust-based tribal partnerships will require supporting tribal water priorities by focusing on the pressing, long-neglected water issues still plaguing Basin Tribes, including addressing capacity gaps, ensuring tribal members have access to clean,

potable drinking water, and securing modern water delivery infrastructure.

At the same time, this report generalizes and attempts to capture trends that are inherently difficult to characterize. This is because the water-related priorities of each Tribe are shaped by a myriad of factors, as discussed throughout this report. Accordingly, supporting a specific tribal water priority or working with a Tribe at all requires a granular understanding of the Tribe's particular situation, interests, and needs and the precise barriers facing that Tribe. For this reason, readers are again encouraged to review Appendix 3, which provides a profile of each Tribe that participated in the baseline assessment.



Appendices

Appendix 1: List of Participating Tribes

Tribe	Location in Basin by State
Ak-Chin Indian Community	AZ
Chemehuevi Indian Tribe	CA
Gila River Indian Community	AZ
Hopi Tribe	AZ
Hualapai Tribe	AZ
Jicarilla Apache Nation	NM
Kaibab Band of Paiute Indians	AZ
Navajo Nation	AZ, UT, NM, CO (fee land)
Paiute Indian Tribe of Utah	UT
Pueblo of Zuni	NM, AZ
Quechan Indian Tribe	AZ, CA
Salt River Pima-Maricopa Indian Community	AZ
San Carlos Apache Tribe	AZ
Southern Ute Indian Tribe	CO
Tohono O'odham Nation—San Xavier District	AZ
Tonto Apache Tribe	AZ
Ute Mountain Ute Tribe	CO, UT, NM
White Mountain Apache Tribe	AZ
Yavapai-Prescott Tribe	AZ

Appendix 2: Interview Protocol

Introduction

The Water & Tribes Initiative (WTI), in partnership with the Colorado River Sustainability Campaign (CRSC), is reaching out to all 30 federally recognized Tribes in the Basin to assess their existing capacity to manage water resources and engage in policy discussions on the Colorado River. [In the spirit of “if you know one Tribe, you know one Tribe,” the assessment team will adapt its approach and outreach for each of the 30 Tribes in the Basin (i.e., who to contact, how many interviews, individual or group interviews, etc.)].

WTI and CRSC are committed to working with Tribes in the Basin to enhance their capacity to meet their needs, interests, and priorities related to water. We realize that no one size fits all, and that this is a long-term proposition and investment. We are interested in meeting with tribal leaders as well as natural and cultural resource staff.

To complete this baseline assessment, we are defining “capacity” along two dimensions: (1) the traditional aspects of capacity (e.g., staffing, expertise, and funding); and (2) the capacity or bandwidth for, and level of interest in, engaging in policy discussions focused on Colorado River Basin management. We are also interested in learning how you and your Tribe define capacity and measure progress.

Interview Questions

1. Do you have any questions for us before we launch into this discussion?
2. Does your Tribe currently have a professional water resource staff and/or program? If NO, skip to question #5.

3. If YES, could you please help us create a profile of your existing capacity by explaining the following:

- a. How many staff members or FTE do you have?
 - b. How many, and what type, of consultants (e.g., legal, technical, etc.)?
 - c. Areas of expertise (e.g., law and policy, hydrological and technical, administrative, other)?
 - d. How would you characterize the level of expertise (e.g., new, developing, or advanced)?
 - e. Where is the staff or program located? That is, which department or departments? How does this program fit within your Tribe’s system of governance and decision making? Are land, water, and related functions coordinated and/or do they exist in separate silos? (This question suggests that capacity is not just about people and expertise; it’s also about communication and coordination.)
 - f. How does your Tribe retain and steward historical, cultural, and institutional knowledge about water?
 - g. Are staff Native American/Tribal members or not? Do you wish to expand the proportion of professional staff who are tribal members?
4. Moving forward, how, if at all, would you like to enhance your capacity to manage water resources and engage in policy discussions?

- a. Please reflect on what type of capacities you would like to enhance, as well as how you would like to learn, engage, and otherwise enhance your capacity (e.g., mentoring program, learning from others, training workshops, job sharing, etc.).
- b. And would you be interested in exploring opportunities to harness resources from philanthropic foundations, federal and state programs, and other sources to enhance your capacity?
5. If NO, who performs water resource-related functions for your Tribe (e.g., water supply utility, water treatment utility, energy/electricity utilities, legal and/or policy advocacy, and so on)?
6. If NO, are you interested in creating some type of staff position and/or program (including the use of interns)?
- a. If you are interested, what is your most important need, interest, or priority? In other words, what type of capacity would you most like to have in the near term?
- b. And what are the most significant constraints you face in moving in this direction?
- c. Would you be interested in exploring opportunities to harness resources from philanthropic foundations, federal and state programs, and other sources to build a professional water resources staff and/or program?
- d. How and/or where would such capacity be best housed within your Tribe's system of governance and decision making?
7. As we suggested in our introductory comments, we are very interested in learning how you and your Tribe define capacity and measure progress—beyond the two dimensions we have talked about.
- Would you like to offer any comments and/or thoughts on the meaning of capacity to you and your Tribe?
8. Three supplemental questions related to existing capacity and the need/interest in enhancing that capacity:
- a. What are your highest-priority interests related to water, whether policy focused or on the ground (including infrastructure), and what are the barriers to achieving those initiatives?
- b. From what type of resources and/or capacity, if any, do you need to secure and invest funds (the pending infrastructure bill, other recent federal legislation, philanthropic foundations, etc.)? What challenges do you face in securing those resources?
- c. Are there outstanding water projects that you would like to accomplish over the next five years—including those that focus on infrastructure, access to clean water, and cultural and ecological values?
- 1) What, if any, barriers do you anticipate to accomplishing those projects?
- 2) By way of context and perspective, has your Tribe completed any such water projects in the last three years and what enabled those projects to be successful?

Appendix 3: Profiles of Participating Tribes

The following profiles of each Tribe that participated in this baseline assessment start by providing basic information about membership, reservation size, and a general description of each Tribe's recognized and/or unresolved water rights. Each profile then highlights the water-related priorities of each Tribe, describes its existing capacity to manage water and engage in water policy discussion, and concludes by clarifying its capacity-building needs, interests, and priorities.

The information presented in these profiles is based, first and foremost, on the interviews with each Tribe. That information was supplemented as appropriate with documentary sources, primarily available from the Tribes. Each profile has been reviewed and approved by each of the respective Tribes. Individually and collectively, these profiles represent the data for this report.



Ak-Chin Indian Community

Brief Description

The Ak-Chin Indian Community ("Community") has ~1,100 tribal members and a land base of over 22,000 acres. The Community was the first Tribe in the nation to secure a federally authorized Indian water rights settlement and has recognized water rights to 85,000 acre-feet of water. The Community's water is delivered through federal infrastructure, via the Central Arizona Project ("CAP"), through the Santa Rosa Canal. It is largely utilized for agriculture but also serves as the Community's drinking water supply. The Community's members are served by a Community-owned and managed state-of-the art surface treatment plant designed to treat the CAP water and delivers potable water to homes and businesses. Agriculture is the cornerstone of the Community's activities and livelihood. Historically, the Community has enjoyed a good relationship with neighboring water users and is the largest employer in Pinal County.

Water Priorities

For the Community, every issue that deals with water is "first on tap" and a priority. That said, some issues were highlighted in conversation. First among those is securing and protecting its water rights for future generations. Related to this is the need to ensure adequate water quality. The Community is interested in increasing the sustainability of water resources and particularly in upgrading technology to increase water efficiency on farms.

Existing Capacity

The Community maintains inherent authority over the waters located within its boundaries and has more than two decades of experience managing environmental programs and initiatives. It divides water resource management responsibility among several tribal departments and programs. The Water Operations Section has five FTEs: a manager, a supervisor, two operators, and a technician. This section focuses on sampling drinking water for the Community. The Environmental Programs Section has three FTEs: a program manager, a water quality specialist, and an environmental technician. The Environmental Programs Section is grant funded by EPA 106 and 319 funds. These staff members sample surface water for the Community and may conduct groundwater sampling in the future. Ak-Chin Farms has ~29 staff members involved in water distribution for agricultural uses. Most of the Community's water operators are enrolled Community members. The Community's General Counsel also works with the Community on legal matters associated with water-related issues. While the Community largely has the staff capacity to manage its water in house, it also works with several technical consultants who conduct water quality sampling, assist with water resource planning, and monitor soil moisture and irrigation. Multiple frameworks exist for knowledge transmission related to water. Cultural knowledge transmission occurs through work on farms, the cultural resources department, and the on-reservation

Him-dak Eco Museum. Administrative and data transfer usually is led by departments and programs that keep archives of key information. The EPA's online database houses water sampling results. Finally, all water-related programs report to the Community Council, which sets policy and direction for water management on the reservation.

Capacity-Building Needs and Interests

The Community would like to expand its capacity to support the next generation of Community members as water resource professionals and provide training to existing staff. Getting youth involved in water quality programs has proven difficult, but efforts are ongoing. Alongside

building staff capacity, the Community would like to expand its capacity to interact with other tribal nations in the Basin to better understand what is happening with water resources at a Basin-wide scale. Last, the Community is also interested in securing funding to support its water resources improvements and goals and sustain water resources for future generations. However, it is a recurring challenge to find appropriate grants and partners promising enough to justify the Community's time and resources spent searching for them. Short-term programs and programs with onerous reporting requirements also can result in a net financial burden to the Community.



Chemehuevi Indian Tribe

Brief Description

The Chemehuevi people have lived along the Colorado River since time immemorial. The original Chemehuevi Reservation, created by order of the Secretary of the Interior in 1907, consisted of ~36,000 acres, including rich bottomlands along the Colorado River. However, in 1940, the United States condemned ~7,776 acres to create Lake Havasu. The lands condemned included the best arable land on the reservation and the condemnation resulted in almost all the Chemehuevi people leaving the reservation. In 1974, a strip of land along Lake Havasu was restored to the Tribe. Today, the Chemehuevi Indian Tribe Reservation encompasses about 32,000 acres along the shores of Lake Havasu, in southeastern California. The reservation includes 30 miles of Colorado River frontage. Chemehuevi has ~1,145 tribal members, and about 250 live on the reservation. The Tribe has recognized present perfected water rights to 11,340 acre-feet of water from the Colorado River mainstem pursuant to the decree in *Arizona v. California*, 547 U.S. 150 (2006). Potable water is supplied to the reservation via groundwater wells and is the main source of water for most people in the area. The current water system has limited storage capacity—a significant risk for the Tribe if a crisis disrupts the community's water supply.

Water Priorities

Chemehuevi's top priorities for water resource management center on infrastructure. Expanded water storage is a critical need; the current water system has limited storage capacity, and would only serve the Tribe for two days. The existing on-

reservation well is in poor condition. Chemehuevi aims to upgrade its existing well and potentially add other wells to serve the reservation. Water quality is another priority for Chemehuevi. While Havasu Lake has overall good water quality, the Tribe is concerned with upstream pollution threats and would like to set standards to keep the lake and river clean. The Tribe has applied for Treatment as State (TAS) status under the federal Clean Water Act to obtain the authority to set such standards. Beyond the reservation, the Tribe would like to foster exchange with other Tribes around water resource management and cultural connections to water. Last, the Tribe would like to engage with other Tribes and entities in the Basin to have a greater voice in policy discussions that affect its water policy, water availability, and water management in the Basin.

Existing Capacity

The Tribe's water resources are managed through its Water Department, whose staff ranges from three to seven employees. These employees manage water delivery and sewage treatment for the Tribe. The Chemehuevi Tribe's Environmental Department also conducts robust water quality sampling of Lake Havasu and water on the reservation. The Environmental Department is funded through EPA Clean Water Act Section 106 Tribal Program and is working toward TAS certification for both CWA 303 (Water Quality Standards) and 404 (Dredge and Fill Permitting). The Tribe's Cultural Center has played a large role in advocating for water rights and emphasizing the importance of water to tribal members. Additionally, the Tribe works with

several consultants, including a construction firm, an engineering firm, and attorneys. All departments managing water resources report to the Tribal Administrator and Council. The Tribe also has a Water Board, which provides advice and direction regarding water resources management on the reservation.

Capacity-Building Needs and Interests

Chemehuevi's capacity-building needs include training, tools, and resources for tribal members, elected officials, and staff to better understand water issues. The development of toolboxes,

webinars, and fact sheets would be helpful to boost the capacity of Water Board members, community members, and the tribal council to inform decisions regarding water management. The Tribe would also like to improve inter-department collaboration to create a more cohesive water management program. Funding would bolster capacity by providing the Tribe with resources to support tribal member participation on the Water Board. Intertribal conversations and learning opportunities, including visits to other Tribes with robust Water Departments, would be helpful for building capacity.



Gila River Indian Community

Brief Description

The Gila River Indian Community (Community) has ~21,000 tribal members and a reservation of ~372,000 acres in central Arizona. The Community has recognized rights to well over 100,000 acre-feet of water per year. The Community's water resource management is as advanced as any Tribe in the Basin. The Community's tribal elected officials are well versed in the Community's water governance issues and the Community Council has multiple subcommittees that manage and address water issues for the Community. Akin Gump serves as the Community's water counsel.

Water Management Priorities

The most important water management priority for the Community is ensuring that Community members have the perpetual ability to farm on-reservation and that Community members have water to meet their needs. The Community is also working to create financial structures, such as water funds, that allow the Community to sustainably support on-reservation water use through water marketing. Additionally, the Community has dedicated significant resources to two on-reservation aquifer recharge projects that serve cultural and environmental goals such as restoring the river on-reservation. Managing these projects and implanting a third recharge project remains a priority for the Community. The Community has an overarching goal of dedicating approximately 60,000 acre-feet/year of recharge to bring back the river, maintain a sustainable underground water supply, and create wetlands and other habitat. Notably, these aquifer recharge projects involve ongoing water delivery costs.

Existing Capacity

Multiple Community Council subcommittees, and ultimately the Community Council, manage and address water matters for the Community; this work occurs in close coordination with the Community's Executive Office and Office of General Counsel. The Community Governor is highly engaged as a leader in water negotiations within the Basin and in Basin-wide policy forums, including the Colorado River Basin Tribal Coalition and the Inter-Tribal Council of Arizona.

As it implements its settlement agreement, the Community has decided to largely outsource its water management capacity and obtain external legal, policy, engineering, and technical support. During the years when the Community was negotiating its settlement, it had an in-house Water Resource Department called the Office of Water Rights that supported the overall settlement negotiation effort led by the Community's Office of General Counsel. The Community also relied on external legal, policy, engineering, and technical support to assist during settlement negotiations and to seek congressional approval. After Congress approved the Community's water settlement, the Office of Water Rights was disbanded, with much of the staff absorbed by the Community's Office of General Counsel.

Currently, the Office of General Counsel oversees external legal, policy, engineering, and technical support. As stated above, the Community is still implementing its settlement and has been involved in complex water management issues due to

drought and other matters. As such, it currently has no plans to move back to an in-house-only model once its settlement is fully implemented. However, if the Community's water management tasks become more routine, the Community could revisit its current water management structure. Right now, the in-house staff members working on water management are located in the following departments: the Community's Office of General Counsel, Department of Public Works, Pima-Maricopa Irrigation Project, Gila River Indian Irrigation and Drainage District, and the Gila River Farms. These staff carry out Council directives related to the on-reservation use of the Community's water for farming and other purposes, and work to complete the construction of the Community's irrigation project funded under its water settlement. In-house staff also oversee the construction the Community's irrigation project through a self-governance annual funding agreement with the Bureau of Reclamation. The Community's main water attorneys are Jason Hauter

and Don Pongrace. Mr. Hauter is a Community tribal member and a partner at Akin Gump. The Community also uses external water consultants, some of whom have worked with the Community for many years.

Capacity Needs and Interests

Although funding for additional staff or external support is not an obstacle per se for the Community, demonstrating philanthropic support can create more buy-in for a project—thus allowing the Community to expand its scope of existing water work. Pilot projects and feasibility studies are often attractive for partnerships between the Community and philanthropy or nongovernmental organizations. One area identified as potentially ripe for partnership is technical assistance (and funding) for pilot projects that create efficient water use. Another includes renewable energy pilot projects that can provide power for on-reservation water delivery electrical needs.



Hopi Tribe

Brief Description

The Hopi Tribe has a membership of ~14,000 and a reservation of ~1,542,306 acres in northern Arizona. The Hopi Tribe's water rights have not been recognized through either adjudication or negotiated settlement, although the Little Colorado River adjudication has been ongoing for decades. It is hard to overemphasize the importance of water to the Hopi people. While the cultural connection with water at Hopi is very strong, the Hopi Tribe is now expanding its western-based technological knowledge of water and water infrastructure.

Water Management Priorities

The Hopi Tribe has prioritized providing safe clean drinking water to the Hopi People. Further, water priorities include providing sufficient water to Hopi to in key tribal economic sectors such as agriculture, livestock and industry to provide a viable livable economy to the Hopi. At the highest level, finalizing Hopi's water settlement would allow other water issues to be addressed. Hopi has significant problems with arsenic contamination in the wells that serve Hopi villages. Access to clean, potable drinking water is a priority—including well development on off-reservation lands that could be used to serve tribal member homes if infrastructure can be developed. One unique challenge that Hopi faces is securing access to rivers, including for water use and cultural use, because the lands of the Navajo Nation entirely surround the Hopi Reservation.

Existing Capacity

The Hopi Tribal Council has a water/energy committee that guides water governance decisions for the Tribe. The Hopi Tribe's attention and resources are primarily dedicated to securing its water rights through a negotiated settlement; however, it is increasingly interested in developing the capacity to engage in larger Basin policy discussions. Currently, the Hopi Tribe has a Water Resource Program, with the director serving as the single FTE. Additionally, the Hopi Utilities Commission Director is responsible for on-reservation water delivery and managing projects to remove high levels of arsenic from Hopi drinking water. Several of Hopi's water resource staff are tribal members. The Hopi Cultural Resource Advisory Team, elders, and Hopi societies are knowledge-holders about water and water management.

Capacity Needs and Interests

The Hopi Tribe is seeking assistance to help it identify outstanding capacity needs and interests. Hopi expressed a need to expand its engagement in Basin-wide policy discussions and has recently engaged in the Colorado River Basin Tribal Leaders Coalition and other forums.



Hualapai Tribe

Brief Description

The Hualapai Tribe has ~2,300 members and a reservation that encompasses about one million acres along 108 miles of the Grand Canyon and Colorado River. The Tribe has recognized water rights to 694 acre-feet of water and is currently in settlement proceedings to secure unresolved water rights. Four thousand acre-feet of water is currently being delivered to the Tribe through the Central Arizona Project. Potable water is supplied to Tribal members on the reservation via groundwater supply. Despite on-reservation tributaries and drainages contributing over 60,000 acre-feet of water to the Colorado River each year, the Tribe does not currently have the right to utilize or divert any of the Colorado River water that flows along 108 miles of the reservation.

Water Priorities

The Hualapai Tribe's priorities related to water include securing unresolved water rights; protecting groundwater from being depleted by the extreme groundwater pumping supplying off-reservation agriculture in nearby communities; capturing on-reservation water for community use; securing infrastructure for agricultural irrigation; purchasing additional land for hay farming and developing irrigation for that use; and fully developing the Tribe's water rights, including securing infrastructure that would allow the Tribe to pump Colorado River water to tribal communities. The Hualapai Tribe is also fighting proposed lithium mining that threatens culturally important groundwater and hot springs on Hualapai lands and ancestral lands. The Hualapai Tribe has robust hunting resources and is interested in ensuring that its water rights support thriving

elk populations and the community's cattle. Finally, the Tribe is concerned with wildfire threatening its forests and wildlife, especially deer and elk.

Existing Capacity

The Tribe's water resources are managed through its Department of Natural Resources and Public Works Departments. Each department has four to five FTEs working on water. Both departments report to the Tribal Council, which sets policy and makes decisions regarding the Tribe's water. Most staff working on water resource management for the Tribe's Department of Natural Resources are enrolled tribal members. The Tribe also works with several consultants, including two water attorneys based in D.C. and several technical experts who support the Public Works Department. The Tribe's chairman, staff, and council members have been involved in several Basin-wide policy discussions regarding water, including the Arizona Drought Contingency Plan process and the Colorado River Basin Tribal Coalition. To increase the efficiency of water resources management, the Tribe would like to combine water resource staff from the Natural Resources and Public Works Departments into one water resources program. Cultural knowledge about water is retained and stewarded by the Cultural Department and tribal elders. Radio, tapes, and books have all been utilized to transmit cultural knowledge, including insights directly related to the societal importance of water.

Capacity-Building Needs and Interests

The Hualapai Tribe places first priority on obtaining legal recognition for its unresolved water rights, determining that it is a prerequisite to capacity building. However, once its water rights are secured, there will be a need to create opportunities to train and hire more tribal members as water resources professionals. Another need is procuring equipment to support water resource management. The Tribe articulated a need for support identifying and securing federal funding, particularly as the Infrastructure Investment and Jobs Act funds are disseminated.



Jicarilla Apache Nation

Brief Description

The Jicarilla Apache Nation (JAN) has ~3,254 tribal members and a reservation of ~879,917 acres in northern New Mexico. JAN has recognized diversion rights of around 45,000 acre-feet per year of water, and outstanding rights in the Rio Puerco system.

Water Resource Management Priorities

In terms of priorities, JAN's focus is on fully utilizing its water for the benefit of its citizens. This includes removing barriers to increased water leasing; creating models for innovative tribal water projects; developing groundwater sources on-reservation; and building new and repairing existing water infrastructure. Looking forward, JAN is advocating for the completion of the Navajo-Gallup Water Supply Project, and scoping and advancing diversion and storage projects on the reservation. JAN also has water resource management priorities with an environmental nexus. The Tribe has engaged in a leasing arrangement with the Bureau of Reclamation (BOR) to support silvery minnow and actively participates in the San Juan River Recovery Implementation Program. More recently, JAN has led a first-of-its-kind proposal for a lease with the New Mexico Interstate Stream Commission to commit water to instream flows that was previously leased for coal-fired power production. JAN also aims to lead pulse flows through the Navajo River.

Existing Capacity

The JAN Water Administration consists of three FTEs. As of fall 2021, two of these positions, which had been previously staffed, remained unfilled. Additionally, JAN has two attorneys on contract

with the Nation who serve as primary legal counsel on water issues. While these two attorneys are not technically staff, they are fully integrated into JAN's water management framework. The Nation also contracts with outside engineering and hydrology experts as needed. The Water Administrator and one of JAN's contract attorneys are tribal members, as are all members of the Water Commission. JAN is currently dedicating time and attention to the transmission of institutional knowledge through education directed toward tribal members and developing a succession plan to address staff changes in the future. JAN has a longstanding seven-member Water Commission made up of tribal members appointed by the president. The existence of this commission has been a part of JAN's emergence as an innovator and leader in water management in the Basin and in Basin-wide policy discussions, including the Upper Basin Dialogues, the Ten Tribes Partnership, and the Colorado River Basin Tribal Coalition. JAN has developed a water plan and a water code, both of which function as frameworks to hold and transmit institutional knowledge.

Capacity-Building Needs and Interests

JAN's capacity-building needs include staffing, policy changes, and infrastructure. JAN aims to fill capacity gaps in JAN Water Administration by fully staffing open positions. JAN also aims to shift policies to maximize its water use for the benefit of its citizens. JAN has capacity needs related to building new and repairing existing water resource infrastructure, as well as developing groundwater sources. Finally, JAN would like to build its grant-writing capacity.



Kaibab Band of Paiute Indians

Brief Description

The Kaibab Indian Reservation encompasses approximately 121,000 acres on the Arizona Strip, about 50 miles north of Grand Canyon, and includes the community of Pipe Spring, Arizona. The Kaibab Band of Paiute Indians ("Kaibab Tribe") has approximately 400 tribal members, 150 of whom reside on the reservation. The Kaibab Tribe is part of the Southern Paiute Consortium, which also includes the Paiute Indian Tribe of Utah and the San Juan Southern Paiute. The Kaibab Indian Reservation includes five villages, Pipe Spring National Monument, and the non-Indian community of Mocassin. The Kaibab Tribe is governed by a seven-member Tribal Council that oversees services to tribal members and the workings of the tribal government and tribal departments. All of the Kaibab Tribe's water rights are currently unresolved.

Water Priorities

The Kaibab Tribe's priorities related to water include securing a sustainable supply of water for the Kaibab Indian Reservation to ensure that tribal members can live on their homeland in perpetuity. Currently, potable water is supplied to Tribal members on the reservation via a variety of sources: groundwater supply on the west side of the reservation; municipal water from Fredonia, Arizona; and surface water from Cottonwood Creek. Groundwater supply is declining on the western side of the reservation, and groundwater quality is poor on the eastern side of the reservation, making it unsuitable for use by tribal members. The Kaibab Tribe is exploring several options for additional water supply on the reservation. The Lake Powell Pipeline Project, a large

water conveyance project proposed by the State of Utah and a state water conservancy district, may offer an opportunity to secure delivery of water to the reservation in the long term. Kanab Creek, which crosses the eastern boundary of the reservation, could also be a source of water for the Tribe and its members. Other water management priorities include attracting and retaining water resource staff; maintaining water management records and filing systems; securing financial resources for water systems and management; and updating water meters on the reservation. At a cultural level, the Kaibab Tribe sees water as sacred, as a living entity, and as something that must flow; if water stagnates, it will become sick.

Existing Capacity

The Kaibab Tribe's water resources are managed by a Water Resources Director who oversees the public water system, surface water monitoring, and water planning. The Kaibab Tribe hopes to hire another employee to work with the Water Resources Director. The Public Works Department oversees wastewater management for the reservation. The Tribe currently works with an engineering consultant, ethnographers, and a law firm on water issues. All staff working on water ultimately report to the Kaibab Tribal Council. It is important to note that the reservation is very remote, making it more difficult to attract contractors and staff, and also more difficult to obtain supplies for water resource infrastructure development and management.

Capacity Needs and Interests

The Tribe would like to build the capacity of its Water Resources Department by adding another employee. Systems are needed, including a filing system, to assist the Tribe in keeping better records relating to water and other matters. Accessing funding is a baseline need to facilitate capacity building for the Tribe, but there are concerns about capacity to administer and manage any funding that is secured.



Navajo Nation

Brief Description

Navajo Nation has nearly 400,000 tribal members and, according to the 2020 Census,⁷ over 165,000 of them live on the reservation. The Navajo Nation has a land base of more than 27,000 square miles, spanning Arizona, New Mexico, and Utah; recognized water rights that total significantly more than 100,000 acre-feet; and significant, additional unrecognized water rights. For these reasons and others, the Navajo Nation has unique water resource management challenges that are more akin to those of a state government than to challenges faced by other tribal governments in the Basin.

Water Management Priorities

The Navajo Nation identified several priorities for water resources. First is securing access to clean, potable, drinking water for tribal members. The Navajo Nation is also focused on completing the Navajo-Gallup Water Supply Project. Another priority is resolving its water rights in Arizona and New Mexico. Finally, on a capacity-building level, with regard to projects with an environmental nexus, the Navajo Nation will continue to engage in the San Juan River Recovery Implementation Project.

Existing Capacity

The Navajo Nation's Department of Water Resources currently has approximately 100 FTEs responsible for water resource management.

However, 80 of them are focused on livestock and irrigation-related projects. Of the remaining 20 employees, approximately half work on domestic and water planning for the Navajo Nation while the other half are focused on other water project-related activities. Many of the Navajo Nation's employees, including those in the Nation's Department of Water Resources, are tribal members. The Navajo Nation uses external legal and engineering/technical consultant support as needed for water development and ongoing water settlement activities, such as the Navajo-Gallup Water Supply Project completion. The Navajo Nation engages in Basin-wide policy discussions, including the Ten Tribes Partnership, the Colorado River Basin Tribal Coalition, and the Upper Basin Dialogues.

Capacity Needs and Interests

The Navajo Nation identified a need to increase the number of FTE available to work on long-term water planning. The Navajo Nation would like to build its grant-writing capacity, as well as its planning and project design capacity. The Navajo Nation's capacity-building needs include securing the needed human and other resources to complete and implement a water plan for the Nation. Approximately \$4 billion is needed for the Nation's water infrastructure, including funds to provide access to clean drinking water for tribal members.



Paiute Indian Tribe of Utah

Brief Description

The Paiute Indian Tribe of Utah consists of five constituent bands: Cedar, Indian Peaks, Kanosh, Koosharem, and Shivwits. Prior to 1954, each band (except the Cedar Band) of Paiutes had its own separate reservation and federally recognized, functioning tribal government. On September 1, 1954, Utah Senator Arthur V. Watkins promoted passage of Public Law 762, which terminated the federal trust relationship with the Indian Peaks, Kanosh, Koosharem, and Shivwits Paiutes. Termination resulted in the loss of the bands' tribal trust lands to nontribal entities. Of the five bands, only the Shivwits Band retained its reservation lands and federal reserved water rights after termination.

In 1980, Congress acted and passed the Paiute Restoration Act, which restored the federal trust relationship with the Paiute Indians. The Restoration Act established the Paiute Indian Tribe of Utah (Paiute Tribe) as the federally recognized Tribe and brought the five bands together under one Tribe. In 1984, the Paiute Tribe's proposed reservation plan was approved, which resulted in the creation of the Tribe's reservation. Today, the Paiute Indian Tribe of Utah has 917 enrolled tribal members and a reservation land base of approximately 34,000 acres in southern Utah.

Water Priorities

The Paiute Tribe has multiple priorities related to water, many of which stem from the Tribe's history as terminated. The Paiute Tribe's members are served by a tribal groundwater well in Cedar City, tribal water delivery systems, and urban water delivery sources such as municipal nontribal water districts. The Paiute Tribe has purchased state water rights, distinct from

those secured by the Shivwits Band in its water rights settlement. Subsequently, the Paiute Tribe has struggled to have these purchased water rights recognized as tribal water rights by the State of Utah—a main priority for the Paiute Tribe. Other priorities include ensuring the Paiute Tribe can secure and supply clean drinking water; providing adequate water to the Paiute Tribe's communities as they grow; and more fully assessing and understanding the Paiute Tribe's water needs. The Kanosh Band, particularly, needs improvements to its water distribution and supply system.

Existing Capacity

The Tribe does not have a Water Resource Department. The Tribal Administrator and Chief Financial Officer work to secure funding for water resources. Currently, the Tribe is 100% contract and grant dependent, with 638 particularly important contracts. The Tribe's Facilities Program and personnel conduct water testing and maintenance for the Tribe, as well as meeting water-right proofing requirements. The Tribe contracts with an external general counsel. The Tribe is governed by a six-person Tribal Council — one (1) elected representative from and by each constituent band, and the sixth elected as the chairperson for the Tribe.

Capacity-Building Needs and Interests

The Paiute Tribe identifies staff capacity as a primary need. Hiring a staff member to focus on and manage the Tribe's water and trust lands would be significant for the Tribe. There is also a need to train existing facility and other staff to manage water resources, including educating them to become certified water operators. The Tribe expressed a need for community and tribal leadership education about both water policy and the nuances of the Tribe's water rights. There are also capacity needs around Paiute language preservation related to ensuring that the Tribe retains knowledge about the cultural importance of water. The Tribe has indicated a desire to become more involved in Basin-wide policy discussions and tribal representatives currently attend some Upper Basin Dialogue meetings, but capacity limits the Tribe's participation.



Pueblo of Zuni

Brief Description

The Pueblo of Zuni has ~11,368 tribal members and a reservation of ~450,000 acres in northwestern New Mexico. The majority of the Pueblo of Zuni's water rights have not been recognized through either adjudication or negotiated settlement; indeed, Zuni has been in a decades-long effort to settle its water rights to the Zuni River in New Mexico. Water is of paramount cultural importance to the Zuni people and occupies a significant place in Zuni ceremonies and belief systems. The Zuni Heaven Water Settlement exemplifies the way water, culture, and religion are interwoven at Zuni.

Water Management Priorities

The Pueblo of Zuni's first water resource management priority is finalizing the Zuni River settlement. The ongoing restoration of Little Colorado River wetlands also remains a priority. The Pueblo of Zuni aims to improve and implement its drought plan over coming years and continues to dedicate resources toward data gathering and monitoring of Zuni's on-reservation water resources. In coming years, the Pueblo of Zuni hopes to build more robust wastewater treatment systems on-reservation; expand municipal water infrastructure; continue Little Colorado River wetland restoration; and develop right-sized and culturally grounded sustainable agriculture in the Zuni community. Education for community members on water use and management is also a priority.

Existing Capacity

Zuni's Water Resource Program is housed under the Zuni Natural Resource Division, which also

has six other departments under its purview. These departments include Zuni's Little Colorado River Wetlands Program, Zuni's Water Rights Program, and Zuni's Water Resource Program. The departments within the Natural Resource Division collaborate closely, particularly on issues relating to water. The Water Resource Program has two FTEs, and four additional FTEs serve the Little Colorado River Wetlands Program, with one shared with the Zuni's Water Rights Program. These programs are largely staffed by Zuni tribal members, although some non-Zuni staff are also employed in the Division. Zuni contracts with two separate attorneys to assist Zuni in these negotiations and other water issues. Zuni also utilizes two different technical firms (one engineering and one geoscience) that serve as consultants for the Little Colorado River Settlement, the Zuni River Basin adjudication, and other Zuni River Basin efforts. Finally, Zuni has very strong cultural traditions and organic frameworks for transmitting cultural, ecological, and other knowledge about water. These include the employment of tribal members, the Zuni Cultural Resource Advisory Team (ZCRAT), and the engagement of elders. The Zuni Tribal Council designates specific council members as liaisons for various departments.

Capacity Needs and Interests

Zuni's primary capacity-building need and interests are to increase the staffing in the Water Resource Department, to build the technical capacity of existing staff, and to deliver community education. Alongside these capacity needs is the overarching goal of dedicating capacity and resources to finalize the Zuni River settlement; it is important to note that more staff capacity would facilitate this larger aim.



Quechan Indian Tribe

Brief Description

The Quechan Indian Tribe (Quechan Tribe) has roughly 4,000 members and a reservation of 45,000 acres in California and Arizona. The Colorado River runs through the Quechan Reservation and is central to the Quechan Tribe.

Water Management Priorities

At the time of this assessment, the Quechan Tribe had spent the preceding three years designing a position description for a water technician and then hiring that staff person. The process of identifying the need for that position and implementing the hire was a major goal that the Quechan Tribe realized. A next step is creating a water administration program and working with growers who farm leased reservation land to improve their water efficiency. The Quechan Tribe places a priority on developing flexible tools for utilizing its water in a way that benefits the Tribe. For example, the Quechan Tribe has recently entered into a seasonal fallowing agreement with the Metropolitan Water District. Another priority for the Quechan Tribe involves improving the efficiency of water conveyance and distribution systems on-reservation. This will likely include automation and monitoring on-reservation water management systems in years to come. Along the Colorado River, the Quechan Tribe aims to remove invasive species—most notably salt cedar—and restore habitat with spiritual and cultural importance to tribal members. This includes restoration that provides tribal members better access to traditional cultural materials, including willow and mesquite.

Existing Capacity

The Quechan Tribe has developed a hybrid model for water resource management that couples external legal and technical support with in-house staff. The Quechan Tribe's water resources management program is in its nascent stages and its first in-house FTE, a water resource technician (who is also a Quechan tribal member), was hired in 2020. This technician works closely with the Quechan Tribe's external legal counsel on water management issues for the Tribe. Legal counsel represents the Tribe in many Basin-wide policy forums, including the Colorado River Basin Tribal Coalition and Ten Tribes Partnership. The Quechan Tribe also has a longstanding relationship with an engineering firm that supports the Tribe's on-reservation water management and infrastructure projects as well as water-related grant applications. Other tribal staff who are not formally housed in the water resource program conduct work on drinking water and restoration projects for the Tribe. The Quechan Tribal Council does not have a formal delegation system for decisions related to water governance, but rather communicates with counsel and staff as needed. However, as water becomes scarcer, the Tribal Council is working to develop more formal systems for water development and management.

Capacity Needs and Interests

The Quechan Tribe aims to build the capacity of the water technician and hopes to add staff to that program. Grant writing support was identified as a capacity-building need. However, a concern was raised about reliance on federal grants because grant reporting can take up almost all the staff time available for actual water-related work.



Salt River Pima-Maricopa Indian Community

Brief Description

The Salt River Pima–Maricopa Indian Community (SRPMIC) comprises two distinct Native American Tribes: the Onk Akimel O'odham (Pima) and the Xalychidom Piipaash (Maricopa). The Pima and Maricopa people have lived and farmed along the Gila and Salt Rivers since time immemorial. The SRPMIC Reservation, which was established by executive order in 1879, encompasses 52,600 acres of land in the Phoenix metropolitan area. SRPMIC has set aside 19,000 acres of its lands as a natural preserve. SRPMIC has ~9,000 tribal members.

Water Priorities

SRPMIC has rights to 122,400 acre-feet of water. SRPMIC secured its water rights in a 1988 settlement, which leased a small portion of SRPMIC's water to cities in the region while also ensuring an abundance of water rights for the Tribes' use. SRPMIC's members are served by a tribally managed water system that delivers clean, potable water via groundwater supply. SRPMIC's current water management efforts are focused on allocating secured water resources to diverse uses. Its priorities related to water include preserving water quality and quantity, providing adequate water delivery, and creating access to existing water resources for tribal members. SRPMIC is also interested in exploring opportunities to restore riparian areas and maintain instream flows.

Existing Capacity

SRPMIC's Water Resources Section is housed within its Public Works Department. It consists of a water resources manager and several technicians and engineers. The Water Resources Section handles water and wastewater regulatory compliance and designs and builds water and wastewater facilities and treatment plants. Legal and policy issues related to water resources are managed by this department and SRPMIC's Office of General Counsel. Including the Water Resource Section staff listed above, SRPMIC has roughly 45 staff members working on water-related tasks across several departments. This includes staff dedicated to drainage and irrigation management, water treatment, regulatory compliance, and water planning. Of these, roughly one-third are tribal members. SRPMIC is actively working to train and support tribal members to take on supervisory roles and gain technical skills. SRPMIC generally has the funds and capacity to address most water issues in house, and occasionally consults outside legal experts regarding SRPMIC's water settlement. All departments, including Public Works, ultimately report to SRPMIC's nine-member Tribal Council.

Capacity-Building Needs and Interests

SRPMIC would like to expand its capacity to support the next generation of tribal members as water resource professionals. Approaches could include introducing SRPMIC members to technical fields at a young age, providing college scholarships, and creating funding and other opportunities to integrate enrolled members as water resource staff.



San Carlos Apache Tribe

Brief Description

The San Carlos Apache Tribe has ~15,393 tribal members and a reservation that encompasses about 1.8 million acres in central Arizona. Through the Globe Equity Decree, the Tribe has recognized water rights to 37,695 acre-feet of water, including the second-most-senior water rights on the Gila River. This includes the rights to 6,000 acre-feet of Gila River water, though most of this is used upstream. As a result, the Gila River water that does make it to the reservation is often of low quality. The San Carlos Apache Tribe remains in litigation to resolve its remaining aboriginal and federally reserved rights. The San Carlos Apache Tribe also has an existing contract with the BOR in which BOR agreed to build infrastructure to deliver water to the reservation. Despite the contract's signing in 1980, BOR has yet to build the project, and the San Carlos Apache Tribe's water is currently flowing downstream to communities in the Phoenix area.

Water Priorities

The San Carlos Apache Tribe's priorities related to water include securing its unrecognized water rights, obtaining needed infrastructure to deliver water to the reservation, and utilizing water for diverse purposes, such as agriculture. The San Carlos Apache Tribe is currently in litigation to resolve outstanding water rights, including aboriginal claims and federal reserved rights claims. A settlement of the San Carlos Apache Tribe's water rights would enable the development of additional water infrastructure and expanded delivery capacity.

Existing Capacity

The San Carlos Apache Tribe's water resources are managed by its Water Team, which is led by the Tribal Council's Chairman and includes two tribal attorneys, including the Attorney General from the Tribe's Department of Justice, and staff from an engineering firm. The San Carlos Apache Tribe's Tribal Utility Authority manages wells, water treatment, potable water delivery, construction, and maintenance of water resources on the reservation. The San Carlos Apache Tribe utilizes outside legal and engineering support.

Capacity-Building Needs and Interests

Moving forward, the San Carlos Apache Tribe would also like to enhance its capacity to manage water resources by hiring additional water experts as staff or consultants. If the Bureau of Reclamation secures funding to build infrastructure to deliver water to the San Carlos Reservation, the San Carlos Apache Tribe will need to build and staff a project management team to work alongside the federal team.



Southern Ute Indian Tribe

Brief Description

The Southern Ute Indian Tribe (SUIT) has ~1,500 members and a reservation of ~675,000 acres in southwestern Colorado. SUIT has recognized rights to 137,090 acre-feet/year of water and has developed its water resources management capacity through a predominately in-house model overseen by SUIT's executive branch, specifically the SUIT Tribal Council. The SUIT Water Resources Division (Division) is housed within the larger Department of Natural Resources (DNR), which has seven different departments that collaborate to solve SUIT's natural resources challenges.

Water Management Priorities

SUIT has several key water resource management priorities. The Tribe needs to secure funding to build infrastructure to provide piped potable water to tribal members who currently haul potable water for domestic/in home use. The Tribe would like to reduce the number of tribal households who depend on water hauling. This will save tribal members expense of gas and wear and tear on their vehicles, as well as the time it takes to haul water. Another funding need is for infrastructure to enable the Tribe's utilization of Animas-La Plata settlement water. SUIT is also focused on the rehabilitation of the antiquated Pine River Indian Irrigation Project, which has extensive deferred maintenance costs. Addressing the deferred maintenance and irrigation infrastructure disrepair of this BIA-managed project will require federal funding of an estimated \$70–\$100 million.

Existing Capacity

The Division has five FTEs and is supported by an in-house water attorney, and some of the DNR staff are tribal members. While the Division uses legal, technical, and engineering consulting support as needed, it is increasingly moving that work in house when possible. SUIT has also built institutional capacity within the Tribe by developing a Water Use Options Team (WOT) whose responsibility is to make recommendations to Tribal Council on governance decisions related to water. The Division intentionally dedicates energy, time, and resources to passing on institutional knowledge through mentorship, Division guiding documents, and recordkeeping. The Division represents SUIT in Basin-wide policy forums, including the Ten Tribes Partnership (TTP), the Colorado River Basin Tribal Coalition, Upper Basin Dialogue, and WTI.

Capacity-Building Needs and Interests

The most significant outstanding capacity need for SUIT is related to infrastructure. Federal funding of an estimated \$70–\$100 million is needed to address deferred maintenance and infrastructure disrepair of the Pine River Indian Irrigation Project. Federal funding is also needed to support SUIT in fully utilizing its water settlement water and to supply piped potable drinking water to tribal members who currently haul water.



Tohono O'odham Nation—San Xavier District

Brief Description

The San Xavier District of the Tohono O'odham Nation (TON) is one of 11 TON districts. Its ~72,000 acres are home to approximately 1,800 TON tribal members. The San Xavier District is one of two TON districts that receives Central Arizona Project (CAP) water annually, and its boundaries include a large portion of the Santa Cruz River. Thus, while the San Xavier District is not a distinct tribal government in the Basin, the District manages a significant amount of TON CAP water allocation and also stewards the Santa Cruz River.

Water Management Priorities

The San Xavier District has multiple priorities related to on-reservation water use and development. It hopes to expand the use of CAP water; monitor and protect groundwater quality and quantity; and restore riparian areas along the Santa Cruz River. At the policy level, the District prioritizes engagement in Basin-wide policy dialogues around the renegotiation of the Interim Guidelines. Flood control and mitigation are also priorities; the District plans to construct flood control and water discharge infrastructure, implement floodwater recharge and recovery projects, and complete flood mapping. One jurisdictional challenge the District faces is the fact that 60 percent of the San Xavier District's land base is allotted to individual landowners.

Existing Capacity

The San Xavier District has an in-house water resource capacity model. Its Natural Resource Department, which handles the District's water resource matters, has six FTEs: a Director, Assistant Supervisor, Natural Resource Specialist, Administrative Assistant, and two Groundskeepers. The Natural Resource Department is able to access general GIS and administrative support, although those employees are not formally housed in the department. The District uses engineering, hydrology, legal, and consultant support for infrastructure and specific project needs such as floodplain management. It is important to note that each of the 11 TON districts, including San Xavier, has its own Chairman, Vice Chairman, Administration, and Council that oversee the water work described above. The San Xavier District places a high priority on water knowledge stewardship and transfer, making a large effort to involve youth and preserve cultural knowledge about water.

Capacity Needs and Interests

As the Natural Resource Department is generally well staffed, the San Xavier District did not identify significant staffing needs or challenges. Rather, needs relate to expanding the skills and expertise of staff—particularly fostering in-house hydrologic, technical, and grant management expertise. The District also aims to secure the funding, policy changes, and technical support needed to accomplish the water management priorities described above.



Tonto Apache Tribe

Brief Description

The Tonto Apache Tribe's ancestral homelands included the East Verde River and the rich expanse of the larger Verde Valley. Like many Apache Tribes in Arizona, the Tonto Apache Tribe experienced extreme persecution during colonization and its members were forcibly marched to the San Carlos Apache Reservation in 1875. When the Tonto Apache people returned to their aboriginal homelands along the East Verde River, white settlers had taken much of their land. The members then settled on land within the Tonto Nation Forest near Payson, Arizona. In 1972, 85 acres of land were set aside as the Tonto Apache Reservation. Over time, the Tribe has had additional land taken into Trust on its behalf, expanding the reservation to nearly 400 acres. The Tonto Apache Tribe's current membership is approximately 175 people, nearly half of whom are under the age of 18.

Water Priorities

The Tonto Apache Tribe has filed water rights claims in Arizona's Gila River Adjudication and is simultaneously engaged in water rights settlement negotiations with the State of Arizona and other parties. The quantification of its water rights is the Tonto Apache Tribe's top priority. This would ensure the Tribe's ability to supply its members with water while it continues to expand its housing stock and land base to accommodate its growing membership. The Tribe also intends to dedicate water supplies to expanded commercial use and farming once its rights are quantified and accessible. Another priority is addressing groundwater mining impacts; this has been an issue for the Tonto Apache Tribe, due to the patchy nature of groundwater resources

beneath and adjacent to the Tribe's reservation, and challenges posed by a contamination plume that required the Tribe to cease diverting water from two off-reservation wells it had acquired. Reflecting on this issue, Chairman Calvin Johnson shared that his definition of water resource capacity included full reservoirs and lakes, and recharged aquifers under the reservation.

Existing Capacity

A five-person Tribal Council, headed by the Chairman, governs the Tonto Apache Tribe. The Council serves as decision maker on everything that pertains to the Tribe and its departments and enterprises, which include a healthcare facility, a police department, a casino and hotel complex, a gym, social services, and all water-related matters. Currently, the Tonto Apache Tribe does not have a Water Resources or Natural Resource Department, nor staff specifically dedicated to those tasks. The town of Payson delivers municipal drinking water to the Tribe, an arrangement that would likely continue under a water rights settlement. The Tribe's on-reservation treatment plant handles wastewater.

Capacity-Building Needs and Interests

Looking to the future, the Tonto Apache Tribe would like to develop capacity around water resource management. For example, the Tribe currently contracts out its water-quality testing and would like to bring that capacity in-house, ideally as part of a broader initiative to bring on-board sufficient staff capable of managing all the Tribe's water-related activities. Finally, the Tonto Apache Tribe faces unique challenges as one of Arizona's smallest Tribes. The amount of federal funding it can access is often directly proportional to the size of the Tribe's membership and land base, leaving the Tribe (like other small Tribes) without the resources needed to govern effectively. Funding and grant-management capacity limitations are two issues constraining the Tonto Apache Tribe from hiring water or natural resources staff.



Ute Mountain Ute Tribe

Brief Description

The Ute Mountain Ute Indian Tribe (UMU) has ~2,200 members and a land base of 582,321 acres in southwestern Colorado, northern New Mexico, and southeastern Utah. UMU has recognized rights to over 100,000 acre-feet/year of water. UMU is in the process of developing its internal capacity and structure to manage water resources.

Water Management Priorities

UMU Tribe's priority for building water resource management capacity is to establish a Water Resource Department. UMU, through tribal leadership and its in-house counsel, is actively working to settle its water rights in both Utah and New Mexico. In Colorado, UMU's focus is on fully using and benefitting from its water rights, including resolving outstanding infrastructure needs that would allow the Tribe to access water from the Animas–La Plata settlement. Alongside these focused priorities, UMU also aims to engage in Basin-wide policy discussions over the coming years and advocate for the Tribe's water resource management goals through Basin-wide forums. UMU also has specific place-based water resource management that it hopes to realize over the coming years. In Utah, UMU is working to reduce the threat that the White Mesa Uranium Mill poses to groundwater resources, including the deep aquifers that supply drinking water regionally. UMU is also scoping a headgate repair project in Allen Canyon to seasonally move water through an otherwise dry canyon. In Colorado, UMU is working on restoration projects on the Mancos River and on the Tribe's Blue Mesa property. UMU is also

participating in collaborative processes related to potential National Conservation Area designations in Southwestern Colorado.

Existing Capacity

Currently, UMU does not have a Water Resource Department; instead, water-related responsibilities are dispersed throughout tribal departments, with the Legal Department and the Environmental Programs Office taking a primary role. This includes representing UMU at the Ten Tribes Partnership, Upper Basin Dialogues, and Colorado River Basin Tribal Coalition. In 2021, the UMU Tribe hired an external consultant to assist the Tribe in developing a Water Resource Department. Additionally, the UMU Tribal Council, acting under the leadership and direction of Chairman Manuel Heart, established a Water Resources Committee to focus on water governance issues. UMU works with engineering consultants as well, primarily to solve on-reservation infrastructure challenges and advance the UMU Tribe's ongoing settlement negotiations in New Mexico and Utah. As with other water matters, UMU is in the process of designing and implementing systems focused on retention of institutional knowledge; the Tribal Historic Preservation Office, cultural leaders in the Tribe, the Environmental Programs and Natural Resource Departments, and the Legal Department all work to retain, steward, and transmit water knowledge.

Capacity-Building Needs and Interests

UMU's most immediate capacity-building need is for funding to launch its Water Resource Department and hire two FTEs to staff the department. UMU also aims to build its grant-writing capacity.



White Mountain Apache Tribe

Brief Description

The White Mountain Apache Tribe has ~16,000 members and a reservation that encompasses about 1.67 million acres in east-central Arizona. The terrain on the reservation varies wildly, with the highest elevation at 12,600 feet and the lowest at around 3,000 feet. Most of the Tribe's water is drawn from on-reservation streams and rivers, which flow from the reservation's mountainous terrain. The mountains are the headwaters of both the Salt River Watershed and the Little Colorado River. Overall, WMAT manages a significant amount of resources with a limited staff.

Water Priorities

Through its negotiated settlement, WMAT has recognized water rights to 96,000 acre-feet of water. Most drinking water on the reservation is currently delivered from a small, dammed reservoir to the WMAT communities. Groundwater supply on the reservation is limited. WMAT's highest priority related to water resources is designing and constructing a Rural Water System to deliver water to tribal members. This Rural Water System includes a 50-mile pipeline, surface water treatment plant, and a dam that will provide a long-term water supply to the WMAT community. WMAT has a 638 contract with the Bureau of Reclamation for this project. Another priority is monitoring and forecasting water supply and streamflow. WMAT oversees six gaging stations and coordinates with USGS around six additional gaging systems overseen by that agency. WMAT would like to better coordinate with agencies and other Tribes to enhance forecasting for water supply and streamflow, while also providing educational information to the tribal government and community on mitigation planning for climate impacts. The Water

Resources Program has identified springs, wetlands, and streams that are culturally sensitive and coordinates with elders and cultural advisors to monitor, protect, and restore these sites. While also a land issue, forest management remains a high priority to WMAT; wildfire is an ongoing threat to the Tribe's headwaters, and thus water quality. Finally, protecting the Tribe's secured water rights is a high priority for Tribal Council.

Existing Capacity

WMAT's water resources are managed through its Water Resources Program, which is staffed by eight full-time employees and is housed within WMAT's Planning Department. The Water Resources Program is supported by three technical consultants who provide hydrological and policy expertise. The Water Resources Program coordinates with other programs in the Planning Department: Environmental Protection Office, Tribal Forestry, and Engineering. It also coordinates with the Game & Fish Department—which oversees the Wildlife, Fisheries, Sensitive Species, and Enforcement Programs, the Cultural Program, and the Land Office. All of these programs coordinate and make decisions through a Tribal Project Planning Review process that involves monthly meetings to review proposed projects. Many of the directors and employees in the above-listed departments are tribal members, including most of the staff in the Water Resources Program.

Capacity-Building Needs and Interests

WMAT's biggest capacity-building challenge is attracting, hiring, and training enough staff, particularly tribal members, with adequate skills and expertise to operate and maintain water systems into the future. Although WMAT has set aside funds to build technical capacity and educate community members, challenges persist and are compounded by the rural, remote location of the reservation. Staffing needs will greatly increase once the Rural Water System is complete. One capacity-building effort that would be helpful to WMAT is knowledge sharing with other Tribes about topics such as tribal water systems. Capacity support focused on identifying and securing funding resources would be helpful for WMAT.



Yavapai-Prescott Tribe

Brief Description

The Yavapai people have lived in central and western Arizona since time immemorial. In 1875, the Yavapai people were forcibly marched from their homelands to the San Carlos Reservation—a brutal march of 180 miles across mountains and flooded rivers that resulted in the deaths of hundreds of tribal members. After 25 years, the remaining Yavapai people returned to their homelands and found the lands occupied by settlers. After their return, the Yavapai-Prescott Tribe Reservation was originally created from 75 acres of the former Fort Whipple military reservation. Today the reservation is 1,398 acres, almost entirely surrounded by the City of Prescott. The Yavapai-Prescott Tribe has 180 members, 125 of whom live on-reservation. The Tribe is involved in many economic development opportunities, including a conference center, casino, resort hotel complex, a retail commercial center, and an industrial park. The Tribe secured its water rights in a settlement dated to 1994. Per the terms of the settlement, the City of Prescott provides water and sewer services to the Tribe, which also has annual allocations of 550 acre-feet, as well as 1,100 acre-feet of surface water to Granite Creek, groundwater, and effluent credits.

Water Priorities

The Tribe's main priority is to exercise its rights under the existing water settlement agreement, especially regarding effluent credits and the use of surface and groundwater. The Yavapai-Prescott Tribe does have an existing water management plan that includes a vision statement, explores the cultural value of water, and provides a surface water model of the

on-reservation water resources. The creation of this plan was a component of the settlement agreement. Finishing the water management plan and moving forward into implementation is a priority. The Tribe aims to complete an on-reservation infrastructure inventory and land capacity analysis.

Existing Capacity

The Yavapai-Prescott Tribe's water resource work is housed in the Planning Department. Three employees focused on water resource management work within the Planning Department—a tribal planner, environmental protection specialist, and a water resource technician. The environmental protection specialist is funded through EPA General Assistance Program, EPA Clean Water Act Section 106 funding, and EPA Clean Water Act 319 funding. The Planning Department, and all water resource work that occurs under the department's purview, is overseen by the Yavapai-Prescott Board of Directors, which meets on a weekly basis. The Yavapai-Prescott Tribe works with two outside legal counselors, predominately on issues related to implementing the Tribe's settlement agreement.

Outstanding Capacity-Building Needs and Interests

Additional staff and external support to complete outstanding tasks such as the Water Management Plan is a capacity-building need. While the Yavapai-Prescott Tribe has been outsourcing work to consultants with more regularity in recent years, sometimes the Tribe lacks the basic capacity to even identify and secure consultants. A list or database of vetted project managers or consultants would be a helpful tool, as would intertribal learning opportunities. Grant writing and project management is a continuous challenge.

Appendix 4: Existing Tribal Water Management Capacity

Tribe	In-House Water Resource Staff	Contractors/Consultants
Ak-Chin Indian Community	<p>Water Resource Management responsibility is divided among several departments.</p> <p>Water Operations Section with five FTEs.</p> <ul style="list-style-type: none"> • Manager • Supervisor • Two Operators • Technician <p>Environmental Programs with three FTEs.</p> <ul style="list-style-type: none"> • Program Manager • Water Quality Specialist • Environmental Technician Ak-Chin Farms. • 29 staff members are involved in water distribution for agriculture. <p>General Counsel.</p> <ul style="list-style-type: none"> • General Counsel works on water-related legal matters. 	Technical consultants support the Community with water quality sampling, water resource planning, soil moisture monitoring, and irrigation on an as-needed basis.
Chemehuevi Indian Tribe	<p>Water Department—ranges from three to seven FTE.</p> <ul style="list-style-type: none"> • Generally oversees water delivery and sewage. <p>Environmental Department</p> <ul style="list-style-type: none"> • Water quality sampling of Lake Havasu and other on-reservation water. <p>Cultural Center.</p> <ul style="list-style-type: none"> • Advocates for water rights and provides context on the importance of water to tribal members. <p>Tribe has a Water Board, which provides advice and direction related to water management.</p>	<p>Tribe regularly works with consultants.</p> <ul style="list-style-type: none"> • Construction firm • Engineering firm • Attorneys

Tribe	In-House Water Resource Staff	Contractors/Consultants
Gila River Indian Community	<p>No Water Resource Department.</p> <p>The Community's model has been to dedicate significant resources to contract out legal and policy work, as well as engineering and technical support, during the implementation phase of its settlement process, including strategic planning and long-term water management policy development.</p> <p>The Office of General Counsel, in close coordination with the Community's Executive Office, oversees the work of outside attorneys and consultants.</p> <p>Currently, the in-house staff working on water management are located in the following departments: the Community's Office of General Counsel, Department of Public Works, Pima-Maricopa Irrigation Project, Gila River Indian Irrigation and Drainage District, and the Gila River Farms. These staff members carry out the directives of Council related to the on-reservation use of the Community's water for farming and other purposes, and to complete the construction of the Community's irrigation project funded under its water settlement. In-house staff also oversees the construction the Community's irrigation project through a self-governance annual funding agreement with the Bureau of Reclamation.</p> <p>Multiple Community Council subcommittees, and ultimately the Community Council, manage and address water matters for the Community in coordination with the Community's Executive Office and Office of General Counsel.</p>	<p>The Community uses an extensive network of external consultants to meet much of its water management needs. This includes legal, policy, technical, engineering, and other services.</p> <p>Akin Gump is primary legal counsel for the Community's water matters.</p> <p>The Community uses external water consultants, some who have worked with the Community for many years. Some of the older consultants have retired.</p>
Hopi Tribe	<p>Water Resource Program with one FTE.</p> <ul style="list-style-type: none"> • Director. <p>Hopi Utility Department.</p> <ul style="list-style-type: none"> • Director holds responsibility for on-reservation water delivery and arsenic-removal projects. <p>Hopi Cultural Resource Advisory Team, elders, and Hopi societies are knowledge-holders about water and water management.</p> <p>Hopi Tribal Council has a water/energy committee that guides water governance decisions for the Tribe.</p>	N/A
Hualapai Tribe	<p>Department of Natural Resources (four-five FTEs) and Public Works (four-five FTEs) share responsibility for water resource management.</p> <p>Cultural Department and tribal elders retain and steward cultural knowledge about water.</p>	<p>Two water attorneys based in D.C.</p> <p>Technical experts who support Public Works Department.</p>

Tribe	In-House Water Resource Staff	Contractors/Consultants
Jicarilla Apache Nation	<p>One FTE focused on water.</p> <ul style="list-style-type: none"> • Water Administrator. <p>Two unfilled FTE positions</p> <ul style="list-style-type: none"> • Assistant Water Administrator. • Administrative Assistant. <p>Tribal Water Commission (President appoints members).</p>	<p>Two attorneys are on contract with the Tribe and serve as primary legal counsel on water issues.</p> <p>JAN hires outside engineering and hydrology experts as needed.</p>
Kaibab Band of Paiute Indians	<p>One FTE—Water Resource Director who oversees public water system, surface water monitoring, and water planning.</p> <p>Public Works Department oversees wastewater management for the reservation.</p>	<p>Engineering consultant, ethnographers, and an external law firm all support the Tribe on water issues.</p>
Navajo Nation	<p>100 Water Resource staff:</p> <ul style="list-style-type: none"> • ~80 focused on livestock and irrigation projects. • ~10 on domestic and municipal water planning. <p>~12 on other project-related activities.</p>	<p>NN uses legal and engineering/technical consulting as needed for water development and ongoing water settlement activities (e.g., Navajo-Gallup Water Supply Project).</p>
Paiute Indian Tribe of Utah	<p>No Water Resource Department.</p> <p>Tribal Administrator and Chief Financial Officer secure funding for any water resource work undertaken by the Tribe.</p> <p>Facilities Program conducts water testing and water rights proofing.</p>	<p>External general counsel is on contract with the Tribe.</p>
Pueblo of Zuni	<p>Six FTEs focused on water.</p> <p>Water Resource Program with two FTEs</p> <ul style="list-style-type: none"> • Program head (tribal hydrologist). • Technician. <p>LCR Wetlands Program, Water Rights Program both have responsibilities related to water and water policy as well. Total FTE for those two departments is four FTEs, with one FTE shared by both departments.</p> <p>Zuni has very strong cultural traditions and organic frameworks for transmitting cultural, ecological, and other knowledge about water. These include the employment of tribal members, the Zuni Cultural Resource Advisory Team (ZCRAT), and the engagement of elders.</p>	<p>Two external counsel focused on water rights negotiations and other water issues.</p> <p>Two different technical firms (one engineering and one geoscience) who serve as consultants for the Little Colorado River Settlement, the Zuni River Basin adjudication, and other Zuni River Basin efforts.</p>

Tribe	In-House Water Resource Staff	Contractors/Consultants
Quechan Indian Tribe	<p>One FTE in Water Program.</p> <ul style="list-style-type: none"> • One water technician. <p>Other tribal staff, not in water resource program, work on drinking water and restoration projects.</p>	<p>Outside legal counsel focused on water resources.</p> <p>Engineering firm that supports the Tribe with on-reservation water management and infrastructure projects as well as with water-related grant applications.</p>
Salt River Pima-Maricopa Indian Community	<p>Including the Water Resource Section staff listed below, SRPMIC has roughly 45 staff members working on water-related tasks in several departments. These include staff dedicated to drainage and irrigation management, water treatment, regulatory compliance, and water planning.</p> <p>Water Resource Section is housed within Public Works Department.</p> <ul style="list-style-type: none"> • Water Resource Manager. • Several Technicians and Engineers. <p>The Water Resources Section handles water and wastewater regulatory compliance and designs and builds water and wastewater facilities and treatment plants. Legal and policy issues related to water resources are managed by this department and SRPMIC's Office of General Counsel.</p>	
San Carlos Apache Tribe	<p>The San Carlos Apache Tribe's water resources are managed by its Water Team, which is led by the Tribal Council's Chairman and consists of two tribal attorneys, including the Attorney General from the Tribe's Department of Justice, and staff from an engineering firm.</p> <p>The San Carlos Apache Tribe's Tribal Utility Authority manages wells, water treatment, potable water delivery, construction, and maintenance of water resources on the reservation.</p>	<p>External engineering firm. External legal counsel.</p>
Southern Ute Indian Tribe	<p>Five FTEs focused on water within both the Water Resource Division and Legal Department.</p> <ul style="list-style-type: none"> • Water Resource Division Head. • Water Resource Specialist. • Water Resource Technician. • Soil and Water Conservationist. • Soil Conservation Technician. • In-House Water Attorney. <p>Water Use Options Team (WOT) whose responsibility is to make recommendations to Tribal Council on governance decisions related to water.</p>	<p>SUIT uses legal and engineering/technical consulting as needed.</p> <p>Some of the legal work on water issues used to be contracted out, but now is being moved in house.</p>

Tribe	In-House Water Resource Staff	Contractors/Consultants
Tohono O'Odham Nation—San Xavier District <i>See endnote 7 infra.</i>	<p>Six FTEs in Natural Resource Department (which was formerly water rights office).</p> <ul style="list-style-type: none"> • Director. • Assistant Supervisor. • Natural Resource Specialist. • Admin Assistant. • Two Groundkeepers Crew. • Oversee Ranger Program. <p>Natural Resource Department has general GIS and admin support, although those positions are not housed in the Natural Resource Department.</p>	Engineering, Hydrologist, and Legal consultant support.
Tonto Apache Tribe	<p>No Water Resource Department.</p> <p>No staff dedicated to water resource management.</p> <p>A five-person Tribal Council, headed by the Chairman, governs the Tonto Apache Tribe. The Council serves as decision maker on everything that pertains to the Tribe and its departments and enterprises, which includes all water-related matters.</p>	External legal counsel.
Ute Mountain Ute Tribe	<p>No Water Resource Department.</p> <p>Two FTEs with responsibility for water distributed as follows:</p> <ul style="list-style-type: none"> • Environmental Programs Department has a hydrologist on staff. • In-house counsel serves as water lead for Tribe. <p>Public works handles on-reservation water delivery and wastewater management. Farm and Ranch personnel manage irrigation of the 7,600-acre enterprise. Off-reservation fee lands' irrigation and irrigation of a small farm on reservation are currently managed by another government department.</p> <p>Newly established Water Resources Committee that is a subpart of UMU Tribal Council, staff, and consultants. Chairman Manuel Heart is very involved in Basin water policy matters.</p>	<p>Tribe contracted with consultant to develop a Water resource Department.</p> <p>UMUT has also retained an engineering firm to support the consultant and Water Resources Committee.</p>
White Mountain Apache Tribe	<p>Water Resources Program, which is staffed by eight FTEs and is housed within WMAT's Planning Department.</p> <p>The Water Resources Program coordinates with other programs in the Planning Department: Environmental Protection Office, Tribal Forestry, and Engineering. It also coordinates with the Game & Fish Department—which oversees the Wildlife, Fisheries, Sensitive Species, and Enforcement Programs, the Cultural Program, and the Land Office.</p>	Water Resources Program is supported by three technical consultants who provide hydrological and policy expertise.
Yavapai-Prescott Tribe	<p>The Yavapai-Prescott Tribe's water resource work is housed in the Planning Department, which has three FTEs focused specifically on water issues.</p> <ul style="list-style-type: none"> • Tribal planner. • Environmental protection specialist. • Water resource technician. 	Two outside legal counsel, who primarily support the Tribe in matters related to implementation of the Tribe's water rights settlement agreement.

Endnotes



¹ See Water & Tribes Initiative, Policy Brief #4: *The Status of Tribal Water Rights in the Colorado River Basin* (April 2021).

² Water & Tribes Initiative, www.waterandtribes.org (2022).

³ Colorado River Sustainability Campaign, www.rivercampaign.org (2022).

⁴ See, e.g., National Congress of American Indians, Resolution #ANC-22-006, *Supporting Tribal Nations' Innovative Solutions to Drought in the West* (June 2022); Water & Tribes Initiative, Policy Brief #5: *Developing the Next Framework to Manage the Colorado River: Flexible Tools to Benefit Tribes and the Basin* (August 2022).

⁵ For more information on this important topic, please see Water and Tribes Initiative, *Universal Access to Clean Water for Tribes in the Colorado River Basin* (April 2021), available at <https://www.naturalresourcespolicy.org/docs/water-tribes/wti-full-report-4.21.pdf>.

⁶ Note that the San Xavier District of the Tohono O'odham Nation (TON) is one of 11 TON districts. As the San Xavier District holds a significant amount of TON total CAP water allocation, the District was interviewed as part of the project and counted as one of the 19 interviewed Tribes.

⁷ While this information is the best available, it is important to note that overall self-response reporting for the Navajo Nation for Census 2020 was down 22.7% from prior years. For a detailed explanation of the manifold problems resulting from no entity taking responsibility for accurately tracking tribal enrollment through the census or other means, see DeWeaver, Norm, *Assessing the Challenges in American Indian Population Data in the State of Indian Country Arizona, Volume 1* (2013) pp 23-25.

For More Information

The Water & Tribes Initiative emerged in 2017 to enhance the capacity of Tribes in the Colorado River Basin and to support sustainable water use through collaborative problem-solving. The Initiative is guided by a broad-based Leadership Team and the Babbitt Center for Land and Water Policy serves as the fiscal manager and a partner. The Initiative is funded through in-kind contributions of Tribes and other organizations, as well as generous donations from the Catena Foundation, Walton Family Foundation, and twenty other organizations representing agricultural water users, water utilities, conservation groups, and university experts. For more information, please go to www.waterandtribes.org.

Leadership Team

Leland Begay, White Mountain Apache Tribe

Lorelei Cloud, Southern Ute Indian Tribe

Maria Dadgar, Inter Tribal Council of Arizona

Jason John, Navajo Nation (Crystal Tolley-Cordova, alternate)

Nora McDowell, Fort Mojave Indian Tribe

Jay Weiner, Quechan Indian Tribe

Jason Hauter, Gila River Indian Community

Alice Walker, Kaibab Band of Paiutes

Peter Culp, Culp & Kelly

Celene Hawkins, The Nature Conservancy

Becky Mitchell, Colorado Water Conservation Board

Colby Pellegrino, Southern Nevada Water Authority

Jason Robison, College of Law, University of Wyoming

Garrit Voggesser, National Wildlife Federation

John Weisheit, Living Rivers

Sharon Megdal, University of Arizona (ex-officio)

Andy Mueller, Colorado River District (ex-officio)

John Shepard, Sonoran Institute (ex-officio)

BACKBONE SUPPORT TEAM

Daryl Vigil, Jicarilla Apache Nation

Matthew McKinney, Center for Natural Resources & Environmental Policy, University of Montana

Nina Gruber, Babbitt Center for Land and Water Policy

Anne Kalmer-Cainion, Colorado River Sustainability Campaign

Heather Tanana, Wallace Stegner Center, University of Utah

Matthew Moseley, Ignition Strategy Group



Water & Tribes Initiative
Colorado River Basin