

A COMPARATIVE ANALYSIS OF STATE WATER PLANNING EFFORTS
PART I: ARIZONA, UTAH & COLORADO

PREPARED FOR THE NEW MEXICO INTERSTATE STREAM COMMISSION
BY
THE UTTON TRANSBOUNDARY RESOURCES CENTER

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Utton Transboundary Resources Center

Introduction

The New Mexico Interstate Stream Commission (ISC) engaged the University of New Mexico's Utton Transboundary Resources Center to assist with State Water Planning.

The Utton Center and the ISC met twice, once to discuss the State Water Planning statute and again to discuss the potential role of tribes in State Water Planning.

The Utton Center also conducted a study of three other states' water planning processes. This comparative analysis of water planning governance structures was framed around questions presented by ISC planning staff.

This report provides a synopsis of the advisory meetings and responses to the ISC's questions about other states' water planning efforts. It is anticipated that this work will continue with a subsequent analysis of water planning in four other western states.

It is important to note that the ISC maintains its own legal counsel and that the Utton Center does not represent the ISC. This report is provided to assist the ISC in developing its own understanding of State Water Planning governance in New Mexico and across the West. This report conveys general information only and is not intended to provide legal advice.

Advisory Meetings

Meeting I: The State Water Planning Statute

The Utton Center reviewed the State Water Planning statute and researched recent New Mexico case law for interpretations of the planning statute. The ISC completed the State Water Plan in 2004 and subsequent reviews of the State Water Plan in 2008 and 2013; the ISC is now seeking clarification about the scope of its current legal obligation to update the State Water Plan. The ISC presented the Utton Center with specific questions about the State Water Plan statute, the answers to which are presented here.

QUESTIONS ADDRESSED

I. What does the statute say? What does the ISC have to do?

The Legislature requires that the ISC prepare,¹ adopt and implement² a State Water Plan. The State Water Plan shall be subject to *adoption* by the ISC, after public review and comment.³ Adoption of the State Water Plan means that the ISC will accept the Plan as its own and put it into effective operation. The State Water Planning statute provided

¹ §72-14-3.1(A) & (C).

² §72-14-3.1(A) & (G).

³ §72-14-3.1(G).

detailed requirements for the content of the State Water Plan.⁴ The 2003 State Water Plan generally conforms to the outline of requirements called for in the New Mexico State Water Planning statute.

The Legislature requires that the State Water Plan be reviewed, updated and amended at least every five years *in response to changing conditions*.⁵ Both the 2008 and 2013 State Water Plan Reviews discussed conditions that have changed since 2003, such as:

- Awareness of climate change;
- Population growth;
- Initiation of interbasin transfer proposals;
- Initiation of instream flow proposals;
- Additional endangered species listings;
- Implementation of Active Water Resource Management;
- Expanded development of water resources; and,
- Settlement of water right adjudications.

There have been additional changing conditions since the 2013 State Water Plan Review, one example being approval of the Aamodt settlement (March 21, 2016). Therefore, the ISC should now review, update and amend the State Water plan in response to those changed conditions it identifies.

The ISC should also consider including an update of accomplishments that relate to issues identified in the State Water Plan and State Water Plan Reviews. Achievements like the completion of the updates of the Regional Water Plans with a common technical platform should be highlighted to show the value of the ISC's adoption of the State Water Plan.

The ISC can strategize to make the State Water Plan more robust over time. By requiring a regular update process every five years, the Legislature has recognized that the State Water Plan will be an evolving document. The Legislature has also provided limited funding to the ISC for water planning. There will be future opportunities for updates, which will allow the ISC to identify its priorities for updating the State Water Plan, including what will be addressed in future phases of the quinquennial update process.

II. What parts of the State Water Plan should the ISC focus on for the 2017-2018 update?

As described above, the ISC is obligated to update and amend the State Water Plan in response to “changing conditions.” While the “changing conditions” that the ISC decides to address are entirely within its own purview, the following short and long-term items were identified as candidates for updates during discussions between the ISC and the Utton Center.

A. Short-term

⁴ §72-14-3.1 (C) & (D).

⁵ §72-14-3.1(H).

1. Refine Water Budgets
 - a. Developed integrable formats for regions!
 - b. Identify and integrate new climate change knowledge⁶
 - i. Water availability
Precipitation pattern & temperature variability
 - ii. Water management
New capture & storage strategies
2. Identify Critical Infrastructure Needs
 - a. State priorities (major works)
 - b. Regional Water Plan infrastructure priorities
3. State Water Plan Implementation
 - a. Identify items to be implemented prior to next update
 - b. Define roles & responsibilities
 - c. Plan schedules
 - d. Estimate costs

B. Long-term

1. Integrate the following broader water budget information from the WRRRI Statewide Water Assessment
 - a. Dynamic Statewide Water Budget
 - b. Aquifer mapping
 - c. Surface Water inflow, outflow, gains & losses
 - d. Groundwater recharge
 - e. Produced Water
 - f. Energy-Water nexus

Although not required by law, the Utton Center does recommend that the ISC consider updating and reissuing its Water Atlas, which was produced as an appendix to the 2003 State Water Plan. The ISC is tracking the Statewide Water Assessment being lead by the New Mexico State University's Water Resources Research Institute, which could be used to inform an updated Water Atlas when it is complete.

2. Agricultural Water Efficiency and Conservation
 - a. Advances in on-farm efficiency
 - b. Improvements in conveyance efficiencies
 - c. New water storage and release strategies
3. The progress of Active Water Resource Management implementation

⁶ See The Upper Rio Grande Impact Assessment, available at: <http://www.usbr.gov/watersmart/wcra/reports/urgja.html>

4. The progress in processing water permit applications
5. Advancements in the licensing, adjudication, and settlement of water rights
6. Regional water plan policy recommendations

III. Should the State Water Plan be a policy document or an implementation plan?

The State Legislature has mandated that the State Water Plan be a *comprehensive, coordinated strategic management tool*.⁷

Strategic management is a term of art that has evolved in the area of business planning since the 1950's. The term is generally used today to describe the development of an *implementation plan* for an entity's major objectives and programs. This includes an assessment of the resources available to achieve identified goals and plans, in the context of the internal organizational capacity and the external working environment.

It is unclear whether the Legislature intended to refer to the academic strategic management doctrine with its use of the term "strategic management." Entire journals are devoted to the topic and academic careers have been built around developing concepts of "strategic management." Full implementation of "strategic management" in the purest academic sense is most likely unachievable given available resources.

The Utton Center recommends the ISC pursue "strategic management" in a more general sense. The term "strategic management" has entered the common lexicon where it now more commonly refers to a straightforward process of indentifying and implementing strategies designed to reach particular objectives in light of available resources and operating environments.

There are different types of strategies. Some strategies simply identify a goal and a process for achieving that goal. Other strategies incorporate adaptive management, where resources can be redistributed in response to changes in the operating environment. The more adaptive a strategy, the more fluid and complex it tends to be. Nonetheless, adaptive strategies allow for changes in behavior without a formal plan revision or update.

Knowing your strategic planning operating environment includes understanding societal expectations. Maintaining an awareness of the current expectations of stakeholders will allow the ISC to refine its messaging about and marketing of the State Water Plan. In a traditional marketing plan, a company might want to identify what its customers want before developing a product. While the general public might assume that it is the customer base for the ISC's State Water Plan product, it is actually the Legislature that has called for this product and has defined what it shall include. Therefore, the ISC

⁷ §72-14-3.1(B) & (C).

should strive to meet the expectation of the Legislature while controlling the wider expectations of the general public.

IV. What are the respective roles of the ISC, Office of the State Engineer, the Water Trust Board, and the water planning regions?

It is the role of the ISC to prepare, implement and update the State Water Plan. The Office of the State Engineer and the Water Trust Board were specifically named by the Legislature as entities that the ISC was to collaborate with in developing the State Water Plan.⁸ In addition, the Legislature required that the ISC consult with other government agencies as appropriate in developing the State Water Plan.⁹ That process has been completed.

The section of the State Water Planning statute that governs the update of the State Water Plan does not actually state which agency shall play a role in the update process.¹⁰ The ISC is not actually specifically named as the entity responsible for the State Water Plan update. Nonetheless, when read in the full context of the State Water Planning statute it is fair to assume that the ISC is responsible for the update process and may collaborate in that process with the Office of the State Engineer and Water Trust Board. Likewise, consultation with other government agencies may also be included as a component of the update process if ISC feels that will be useful. The extent of collaboration and consultation undertaken in the update process appears to be within the discretion of the ISC.

The role of the regional water plans within the State Water Plan and the update process is also within the discretion of the ISC. The State Water Planning statute simply states that the ISC shall integrate regional water plans into the State Water Plan *as appropriate and consistent with State Water Plan policies and strategies*.¹¹ The determination of what aspects of a regional water plan are appropriate and consistent with the overall State Water Plan is a matter for the ISC to decide. Clearly the ISC is making a serious effort to make the regional water plans more integrable with the State Water Plan and it is anticipated that the regional plans will be increasingly integrated with the State Water Plan as they all go through the continual revision process in the future.

V. What essential approaches or steps need to be taken to integrate regional water plans as appropriate and consistent with the State Water Plan?

The State Water Plan must be *adopted* by the ISC. This means that the ISC shall be responsible for implementing the State Water Plan. The ISC is only required to *accept* the regional water plans. This does not require the ISC to implement the regional water plans. This distinction should guide the ISC's determination of what elements of the regional water plans are integrated into the State Water Plan, as the ISC will become

⁸ 72-14-3.1(A).

⁹ 72-14-3.1(C).

¹⁰ 72-14-3.1(H).

¹¹ 72-14-3.1(C)(11).

responsible for implementing actions integrated into the State Water Plan from regional plans. This important distinction between the ISC responsibilities for adopting the State Water Plan and merely accepting regional water plans should also guide how the ISC describes what it assimilates into the State Water Plan from regional plans. The ISC will want to carefully phrase items drawn into the State Water Plan from regional plans to ensure that it can implement what it describes in the State Plan.

- VI. An additional question was posed regarding the role of Pueblos and Tribes in the State Water Plan update process. This was addressed in a subsequent meeting of the ISC and the Utton Center.

Meeting II: Tribal Consultation

The ISC has long-standing relationships with New Mexico's Native American Nations, Tribes and Pueblos. These relationships are governed in part by State law that directs the ISC to promote communication, collaboration, positive government-to-government relations, and cultural competency.

The interactions of the ISC and New Mexico's twenty-two federally recognized Native American tribes are guided by the State of New Mexico's State-Tribal Collaboration Act.¹² This Act has three main requirements, all of which the ISC has complied with. This Act requires the ISC develop a policy to promote communication and collaboration with tribes.¹³ The ISC has complied with this requirement with the creation of its Tribal Communication and Collaboration Policy. In addition, the State-Tribal Collaboration Act calls for State agencies to designate a tribal liaison,¹⁴ which the ISC has also done. Lastly, the Act requires the ISC to submit an annual report to the Indian Affairs Department. This report should include a description of the programs and services that affect tribes.¹⁵

The principles espoused in the ISC's Tribal Communication and Collaboration Policy are already embraced in the State Water Plan. These basic principles include respecting tribal sovereignty, promoting intergovernmental relations, establishing partnerships, mutually resolving concerns, and utilizing informal communications.¹⁶ The Tribal Communication and Collaboration Policy also sets forth sample procedures for State-Tribal Working Groups and for State-Tribal Consultations.

The State Water Planning statute itself calls for the ISC to consult directly with Indian Nations, Tribes and Pueblos to form a policy and process to guide (1) the integration of tribal water plans with the State Water Plan and (2) the adjudication or settlement of Indian water right claims.¹⁷

¹² §11-18-2, et seq.

¹³ §11-18-3(A)(4).

¹⁴ §11-18-3(E).

¹⁵ §11-18-3(C)(6).

¹⁶ Tribal Communication and Collaboration Policy, Office of the State Engineer/Interstate Stream Commission, §4; State Water Plan, §E.

¹⁷ §72-14-3.1(E).

A great deal of scholarship and many guidance documents have been developed to assist federal, state and local governmental agencies with their tribal relationships. At the end of the day, most of the concepts espoused by these guidance documents can be condensed down to the simple concepts of being considerate neighbors and maintaining positive working friendships.

Historically, the ISC-Tribal relationships have focused largely on the settlement of Indian water right claims. This history should serve the ISC as it consults with tribes on the State Water Plan. As noted above, the State Water Planning statute calls for the ISC to develop a process to guide the adjudication and settlement of Indian water right claims. The ISC's State-Tribal Collaboration Act Annual Report for 2014-2015 highlights the ongoing consultations on the topics of the Navajo Settlement, the Aamodt Settlement, and the Taos-Abeyta Settlement.

The ISC also participates in an Annual State-Tribal Water Institute. During the 2014 State-Tribal Water Institute the tribes requested that they be notified of regional water planning meetings and that their comments be incorporated into the state water planning process. This illustrates the interest of some tribes in the regional and State water planning processes.

The ISC is already aware that tribes may not want to interact with the State Water Planning process. The natural tension inherent between parties with unresolved water rights claims create a disincentive to work together resolving water management issues. This tension may be overcome in some areas, particularly where tribes have concerns about the application of State water administration and development outside of tribal borders that impact the amount of water flowing into Indian Country. Nonetheless, unless there is a preexisting relationship between the ISC and a tribe with a solid foundation of mutual understanding and some measure of trust, it may be very difficult to engage that tribe in the planning process.

It is important to note that the Legislature stated specifically that nothing in the State Water Plan shall be construed to determine, abridge or affect the water rights of Indian Nations, Tribes or Pueblos.¹⁸ While this should provide some comfort to tribes, it is a statement that is intended to direct those (such as judges) in their interpretation of the State Water Plan. This important reassurance should be highlighted by the ISC when dealing with tribes. It may be not necessarily be effective with those tribes who have seen their water rights affected by other documents that make similar proclamations, such as the Rio Grande Compact.

Clearly, the ISC needs to make an effort to collaborate with the tribes in the update of the State Water Plan. While this could be viewed as a burden, it can be seen as an excellent opportunity to strengthen the ISC's working relationships with New Mexico's tribes.

¹⁸ §72-14-3.1(J).

The Utton Center recommends that the ISC take this opportunity to consult with tribes above and beyond the two topics required by the State Water Planning statute, primarily because consulting on either the integration of tribal water plans with the State Water Plan and the adjudication or settlement of Indian water right claims may be a non-starter for some tribes. Those same tribes may be eager to consult and collaborate with the ISC on other issues. Approaching consultation with a broader view may lead to the development of mutual understanding and the level of trust required to ultimately consulting on water planning and water rights issues.

Good relationships take time and effort. Government-to-government relations in particular are time consuming. The complexities of interacting at multiple levels of leadership within twenty-two individual and separate governments make this a difficult mandate to fulfill. While standardized consultation approaches may make the task appear easier initially, the consultation process will eventually have to be tailored to the character and needs of each tribe.

Good relationships also take personal commitment. The Utton Center is particularly enthusiastic about the potential for greatly improved tribal-ISC collaborations given the interest and character of the staff that are charged with maintaining the tribal relationship in the State Water Plan context. New leadership brings new opportunity for improved relationships. Committed and culturally aware staff provides the infrastructure to develop multiple levels of relationships, which are critical for real collaboration.

The Utton Center proposes the ISC pursue a “Blue Sky Portfolio” approach with those tribes that it already has established an adequate foundation of communication and understanding. The concept is to work with each tribe to develop a portfolio of all the water issues, policies, and projects that are of specific interest to each tribe. This would serve as a guidance tool for the ISC to develop productive collaborations with each tribe. This would also provide a source of continuity as leadership and staff changes over time. For example, with those Pueblos that change government leaders every year, a portfolio of all the water issues under the blue sky that are specific to a tribe will serve as a cornerstone for continued consultation, collaboration and progress.

The ISC is also encouraged to consider what it may learn through its relationships with New Mexico’s Tribes, Nations and Pueblos. New Mexico’s Native Americans are proven leaders in water management, both historically and today. The Pueblos were successfully irrigating long before Spanish colonizers appeared in the Southwest. In the 16th and 17th Centuries the Pueblos showed great hospitality when treated well, and equal strength and cunning when mistreated. They have been leaders in the sharing of shortages (e.g. the Jemez River Shortage Sharing Agreement). In recent decades they have been at the forefront of riparian and flow restoration. The ISC can only benefit by recognizing and appreciating that these communities have proven resilient in the face of endless incursions, foreign epidemics, multiple governments, vicious cycles of drought and flood, and western water law. New Mexico’s Tribes, Nations and Pueblos have much to teach about good water management and water ethics. We are fortunate to have them as neighbors and should make the most of our common interests and concerns.

Water Planning Governance around the West

Utah

QUESTIONS ADDRESSED

I. What is the statutory basis for water planning; what types of water plans exist?

The statutory basis for the Utah State Water Plan is found in Title 73, Chapter 10 of the Utah Code (1963).¹⁹ The Utah Board of Water Resources and Division of Water Resources are authorized and required to undertake water planning by §73-10-15, 16 & 17. These statutes are relatively scant. They require all other government agencies to cooperate in the creation of the State Water Plan. State Water Plan funds may be made available to other state agencies so they may develop materials to contribute to the State Water Plan.

Another Utah water statute requires that retail water providers and water conservation districts prepare and adopt individual water conservation plans.²⁰ These entity-specific water conservation plans must include a water reduction goal and strategies for achieving that goal. These plans must be updated every five years and a public hearing must be held before either adopting or updating a water conservation plan. Retail water suppliers and conservation districts must have a water conservation plan to be eligible to receive state funding for water development.

There is also a statutory provision that authorizes the Utah State Engineer to produce groundwater management plans.²¹ These plans establish critical management areas where groundwater is being mined. The goal of these plans is to limit withdrawals to the safe yield limit while protecting the integrity and quality of the aquifer.

The Utah State Water Plan has actually been developed as a series of documents. There is the overall State Water Plan with an additional eleven individual water plan for each of the Utah's major hydrologic river basins.

The State Water Plan currently is comprised of the following documents:

- The Utah Statewide Water Plan (1990)
- Utah's Water Resources "Planning for the Future" (a 2001 update of the 1990 State Water Plan)
- Utah Hydrologic River Basin Water Plans:²²
 - Bear River (1992, updated 2004)
 - Cedar/Beaver (1995)

¹⁹ Title 73, Chapter 10, Utah Water and Irrigation Code, Board of Water Resources-Division of Water Resources (1963). Available at http://le.utah.gov/xcode/Title73/Chapter10/73-10.html?v=C73-10_1800010118000101.

²⁰ Utah Code §73-10-31.

²¹ Utah Code §73-5-15 (2012).

²² www.water.utah.gov/Planning/PlanningPage2.html.

- Jordan River (1997, updated 2010)
- Kanab Creek/Virgin River (1993)
- Sevier River (1999)
- Southeast Colorado (2000)
- Uintah Basin (1998, updated 2015)
- Utah Lake (1998, updated 2014)
- Weber River (1997, updated 2009)
- West Colorado (2000)
- West Desert Basin (2001)

II. Who governs the water planning process?

The Utah Board of Water Resources governs the acceptance of the State Water Plan. The Board of Water Resources is the policy-making body for the Utah Division of Water Resources. The Board of Water Resources consists of nine members including the Director of the Division of Water Resources. The members serve four-year terms and are appointed by the Governor with the consent of the Senate. Not more than four members can be from the same political party, and they cannot receive compensation for their services.

The Board of Water Resources has the power and duty to authorize studies, investigations, and plans for the full development, utilization, and promotion of water use and power resources through a variety of methods, and to “do all other things on behalf of the State for any purposes which relates to the development, conservation, protection, and control of water and power resources of the state.”²³

III. Who develops the water plan(s)?

How is it structured? Who is represented? How are decisions made?

Utah began water planning in 1963 at the direction of the Utah Legislature. The Water Resource Board and the Water Resource Division have been authorized to conduct Utah’s water planning. The Division is responsible for the state’s comprehensive water planning, which it produces for the Board.²⁴

The Board of Water Resources selects projects for construction, which “in its opinion, will conserve the water of this state for the best interests of the citizens of the state.”²⁵ The order of planning and implementation is as follows: the Board of Water Resources selects water projects, has plans and cost estimates prepared, and refers them to the Director of the Division of Finance. Upon approval of funds the Utah Water Board enters into a contracts for the construction of the projects.²⁶

²³ Utah Code §73-10-4.

²⁴ E-mail from Todd D. Adams, P.E., Deputy Director, Utah Division of Water Resources (May 24, 2016, 12:18 MST).

²⁵ Utah Code §73-10-5.

²⁶ Utah Code §73-10-5.

The Water Resource Division answers to the Department of Natural Resources, which answers to the Governor of the State of Utah. The Division is under the policy direction of the Board of Water Resources. Director, Eric Millis, P.E., is the current executive and the administrative head of the Division. The Director oversees the Project Development branch and the State Water Planning Branch. The Deputy Director of Project Development oversees Geologic Investigations, Design and Construction, and Investigation and Management. The Assistant Director of State Water Planning oversees Technical Services; River Basin Planning; Water Conservation, Education, and Use; and Hydrology and Computer Application.

All other State agencies shall cooperate with the Division of Water Resources in the formulation of a state water plan.²⁷ In addition, the Utah Center for Water Resources Research (“UCWRR”) works on projects that address a wide range of planning and management problems across the State, providing valuable information to individuals and to the State, to assist with water planning and management.²⁸ For example, the 1990 State Water Plan was prepared in cooperation with the State Water Plan Coordinating Committee, consisting of: Department of Natural Resources, Division of Water Rights, Division of Parks and Recreation, Division of Wildlife Resources, Department of Environmental Quality, Division of Drinking Water, Division of Water Quality, Department of Agriculture and Food, Governor’s Office of Planning and Budget, Division of Comprehensive Emergency Management, and the Utah Water Research Laboratory.

The Utah State Engineer plays a limited role in water planning. The Utah Division of Water Rights is an agency of Utah State government within the Department of Natural Resources. Its mission is to provide order and certainty in the beneficial use of Utah’s water. The Division of Water Rights is currently led by the State Engineer, Kent L. Jones, P.E. The State Engineer is responsible for the general administrative supervision of Utah’s waters and the measurement, appropriation, apportionment, and distribution of those waters.²⁹ The Utah State Engineer also makes rules, brings suit in courts, requests water surveys, establishes water distribution systems, and defines their boundaries.³⁰ The State Engineer is included in some advisory committees and has the opportunity review the planning documents, but that is the extent of the Engineer’s participation in water planning.³¹

State and local entities implement the State Water Plan. Local advisory committees direct water planning efforts in each region with extensive interagency and public involvement.³² Those entities include towns, cities, irrigation districts, and water

²⁷ Utah Code §73-10-13.

²⁸ Utah State University, Utah Center for Water Resources Research, available at: <http://uwrl.usu.edu/partnerships/ucwrr>.

²⁹ Utah Code §73-2-1(3)(a).

³⁰ § 73-2-1(1-8).

³¹ Adams, *supra* note 24.

³² Public Outreach, Education, and Engagement for State Water Planning: A Survey of Western States Water Council Members, September 2013,

conservancy districts.³³ The state and regional plans focus on providing financial, technical, and communication tools to assist State and local entities. The Department of Environmental Quality is responsible for implementing the state's water quality programs.

The Board and Division of Water Resources welcome extensive public and interagency involvement in the water planning process. Many tools are used for public outreach, education, and engagement to involve other state agencies and the public in the process. They are:

1. State and Federal agencies, conservancy districts and other partners advertise meetings and post links to the Division of Water Resources website;
2. The Division staff meet with municipalities to seek input;
3. A public relations firm facilitates listening sessions and crafts outreach tools;
4. Public service announcements and press releases;
5. Videos; and,
6. Printed flyers posted around communities advertise local listening sessions.

After the Board completed drafting the 2001 State Water Plan in 2000, the Division made it available to the public during the month of October. In November 2000, several public hearings were scheduled statewide in order to take public comment.

IV. How is water planning funded? How much, from where, and how often?

The operating budget of the Division of Water Resources is approximately \$6.2 million per year. That amount comes from the State General Fund and the Restricted Water Funds. The State General Fund is for water planning and the Restricted Water Fund is for development. These funds consist of Four Revolving Loan Funds: the Revolving Construction Fund (for irrigation projects), the Cities Water Loan (for domestic systems), the Conservation & Development Fund (for multipurpose projects over \$1M), and the Water Infrastructure Restricted Account (to be used for \$33B in identified essential infrastructure needs).³⁴

Currently the Division of Water Resources receives a 1/16-cent dedication from the state's sales tax; however over the next six years the Division will be getting an additional 1/16-cent from the state's sales tax that will go to the Water Infrastructure Restricted Account.

V. How is water planning staffed?

http://dnrc.mt.gov/divisions/water/management/docs/state-water-plan/survey_publicoutreach_ed_statewaterplan.pdf

³³ Adams, *supra* note 24.

³⁴ Adams, *supra* note 24.

What is the professional background of the planning staff?

The Division staffs approximately 50 employees, not including the Board. The planning branch alone has 26 positions. Engineers make up approximately seventy-five percent of the total staff. The Director of the Division is a professional engineer. The remaining staff persons of the Division are geologists, accountants, administrative staff, and a public outreach officer.³⁵

ADDITIONAL INFORMATION

Utah has six federally recognized tribes: The Confederated Tribes of the Goshute Reservation, the Navajo Nation, the Northern Ute Tribe, the Paiute Tribe (five bands), the Northwestern Bank of Shoshoni Nation, and the Skull Valley Indian Community.

The Utah State Water Plan does not include a section on the State's tribes' water allocations or rights, except to mention that the only reserved water right claim that has been fully settled in Utah is that of the Shivwits Band of the Paiute, listed under the "Other Considerations" portion of the water plan.³⁶ Since the Utah State Water Plan was updated, the State has entered into a water rights settlement with the Navajo Nation. More information about those tribes that are involved in water issues with the State is provided below.

I. Shivwits Band of the Paiute

The Paiute Indian reservation was created in 1891 and the tribe was federally recognized in 1903. It consists of five bands that live independently of each other on separate reserved lands in Utah: the Cedar Band, the Indian Peaks Band, the Kanosh Band, the Koosharem Band, and the Shivwits Band. All but one band of the Paiute Tribe were federally terminated in 1954.³⁷ In 1980 the bands' federal recognition was restored, but by then nearly one half of the Paiutes had died and the tribe had lost over 15,000 acres.³⁸

The relationship between the Paiute and the state of Utah has likely been extremely strained, especially considering that Utah Senator Arthur V. Watkins, former the chair of the Senate Interior Committee Subcommittee on Indian Affairs, promoted Indian termination legislation of 1954 by specifically pushing for the termination of four bands of Paiute Indians in Utah.³⁹ The Paiute Tribe has struggled to survive, and as of 2015 there were only a total of 918 Paiute tribal members among all five bands.

The Utah Code requires the State of Utah and the Engineer adjudicate all water rights.⁴⁰ In 1980 the State initiated an adjudication of water rights on the Virgin River. In 1987, the United States joined as a party and claimed a water right on behalf of the Shivwits

³⁵ Adams, *supra* note 24.

³⁶ Utah's Water Resources "Planning for the Future" at 59.

³⁷ 25 U.S. Code, §17, XXXII, Paiute Indians of Utah – Termination of Federal Supervision.

³⁸ Utah American Indian Digital Archive, available at: <https://www.google.com/#q=1891+establishment+of+paiute+reservation>.

³⁹ Paiute Indian Tribe of Utah History, available at: <http://www.utahpaiutes.org/about/history/>.

⁴⁰ Utah Code §73-4-1 et seq.

Band. Nearly all of the area's water was put to use by settlers in Utah after the Paiute Reservation was created. As a result the tribe had very little access to water, not enough to engage in agriculture. After 112 years of fighting for water rights, the Shivwits Band agreed to a settlement for its reserved water rights claim in 2001.⁴¹ The settlement appropriates 4,000 acre-feet annually to the Band. The Department of the Interior credits the Shivwits Band, the City of St. George, and the State of Utah for coming together to negotiate a settlement for "the benefit of all the parties," rather than using litigation.⁴²

II. Northern Ute of the Uintah and Ouray Reservation

The Northern Ute Reservation was established in 1861. After Congress authorized additional acreage for the Ute's homeland, the reservation totaled over 4 million acres. After various Congressional acts that took lands from the tribe, the Northern Utes currently have one-fourth of their original reservation.⁴³

In 1965, the Northern Ute signed an agreement with the federal government and the Central Utah Water Conservancy District ("CUWCD"), which stated that the tribe would receive a water project for the reservation as long as the Central Utah Project ("CUP") could proceed.⁴⁴ The CUP project proceeded but the Ute Project was never built. The Ute Project was later de-authorized in 1992.⁴⁵ In 1980, the CUWDC and the state of Utah, along with federal representatives, began negotiations with the Ute Tribe to settle the tribe's outstanding water claims and to compensate it for the government's failure to deliver in the 1965 water agreement.⁴⁶ The state is still working with the Tribe on the settlement.⁴⁷

III. Navajo Nation

The Navajo Nation Reservation was created by treaty in 1868. In 1884 the portion of the Navajo Nation that is in present day Utah was added to the existing Navajo Nation by Congress. The Navajo Reservation is the largest in the United States. Despite the Nation's early priority date and that fact that the San Juan River runs through its Reservation, approximately forty percent of Navajo homes do not have running water.⁴⁸

⁴¹ Pub. L. 106-263, 114 Stat. 737, 746-46.

⁴² U.S. Dept. of the Interior, Office of the Secretary, Secretary Norton Announces Completion of Shivwits Band Water Rights Settlement Act, Nov. 20, 2003, available at: https://www.doi.gov/sites/doi.gov/files/archive/news/archive/03_News_Releases/031120a.htm

⁴³ 25 U.S.C.A. § 349, Patent in Fee to Allottees (known as the Dawes Act); High Country News, Utah and the Utes are at War, available at: <https://www.hcn.org/issues/9/285> (the large northern section of the reservation was taken to create a national forest).

⁴⁴ High Country News, *supra* note 19.

⁴⁵ U.S. Department of the Interior, Bureau of Reclamation, available at:

http://www.usbr.gov/projects/Project.jsp?proj_Name=Central+Utah+Project.

⁴⁶ High Country News, *supra* note 19; 73 U.C.A. § 21, The Ute Indian Water Compact (1980); Ute Indian Water Settlement Act of 1989, Pub. L. 102-575, 106 Stat. 4601.

⁴⁷ E-mail from Eric Millis, P.E., Director, Utah Division of Water Resources (June 9, 2016, 7:15 MST).

⁴⁸ Navajo Nation Water Project (<http://www.navajowaterproject.org>).

In January 2016, the Navajo Nation approved the Utah Navajo Water Rights Agreement, which allocates 81,500 acre-feet annually to the Navajo.⁴⁹ Like other tribal reserved rights claims, the Navajo have given up a large portion of their claim in exchange for federal and state funded water projects that will bring water to the many who do not have it.⁵⁰ Utah has allocated \$2 million out of the \$8 million it has promised to contribute to the Agreement; Congress has yet to appropriate any of its contribution to the Agreement.

⁴⁹ 23rd Navajo Nation Council, Office of the Speaker, available at: http://www.navajonationcouncil.org/pressReleases/2016/Jan/NNC_approves_the_Utah_Navajo_Water_Rights_Agreement.pdf; See also <http://www.deseretnews.com/article/705396522/Navajo-water-rights-settlement-with-Utah-inching-closer.html?pg=all>

⁵⁰ Erica Gies, the Navajo Are Fighting to Get Their Water Back, Huffpost Politics, available at: http://www.huffingtonpost.com/entry/navajo-water_us_571a6c52e4b0d912d5fe8816.

Arizona

I. What is the statutory basis for water planning; what types of water plans exist?

According to the 2014 Arizona water plan, known as the *Strategic Vision for Water Supply Sustainability*, the Arizona water law system is “a complex mixture of State and federal laws.”⁵¹ Arizona’s groundwater and surface water are regulated under separate statutes and rules. Colorado River supplies are managed “in cooperation with the State,” but the contracts for Colorado River water “are initiated through the U.S. Secretary of the Interior and administered by the Bureau of Reclamation.”⁵² Reclaimed water is managed under a completely different set of regulations and policies and “its management framework was significantly influenced by case law.”⁵³

Title 45 of the Arizona Revised Statutes governs water management.⁵⁴ It establishes a Department of Water Resources⁵⁵ and calls for a Director of the Department of Water Resources who “shall be responsible for the direction, operation and control of the Department.”⁵⁶ The Governor appoints the Director.⁵⁷ The Department, through the Director, now holds the authority, powers, duties and responsibilities formerly held by the Arizona Water Commission and the State Water Engineer relating to surface water, groundwater and dams and reservoirs.⁵⁸

The powers and duties of the Director of the Department of Water Resources include the power to formulate plans and develop programs for the development, management, conservation and use of surface water, groundwater and the watersheds in Arizona.⁵⁹ The Director has the authority to investigate works, plans or proposals pertaining to surface water and groundwater and acquire, preserve, publish and disseminate related information that the Director considers prudent.⁶⁰

The Director shall coordinate with and may contract with State agencies regarding matters that relate to surface water and groundwater and the development of state water plans.⁶¹ The Director shall coordinate with the Department of Environmental Quality with respect to water quality control, for its assistance in the development of state water plans.⁶² The Director shall coordinate with the Department of Environmental Quality regarding water plans, water resource planning, and other aspects of water management

⁵¹ ADWR, *Arizona’s Next Century: A Strategic Vision for Water Supply Sustainability*, 15, (2014), available at: http://www.azwater.gov/AzDWR/Arizonas_Strategic_Vision/

⁵² *Id.*

⁵³ *Id.*

⁵⁴ Ariz. Rev. Stat. Ann. § 45-101 et seq.

⁵⁵ Ariz. Rev. Stat. Ann. § 45-101(a).

⁵⁶ Ariz. Rev. Stat. Ann. § 45-102(b).

⁵⁷ Ariz. Rev. Stat. Ann. § 45-101(c).

⁵⁸ Ariz. Rev. Stat. Ann. § 45-103(B).

⁵⁹ Ariz. Rev. Stat. Ann. § 45-105(A)(1).

⁶⁰ Ariz. Rev. Stat. Ann. § 45-105(A)(2).

⁶¹ Ariz. Rev. Stat. Ann. § 45-105(B)(4).

⁶² Ariz. Rev. Stat. Ann. § 45-105(B)(4)(b).

pertaining to studies, investigations, site prioritization, including the selection of remedies and implementation of the water quality assurance revolving fund program.⁶³

In 2010, the Arizona Legislature created the Water Resources Development Commission. The purpose of the Commission was to assess the then current and future water needs of Arizona. The Director of the Arizona Department of Water Resources was tasked to appoint the members of the Commission, who were all to “possess knowledge about various water resources and water management issues in Arizona and represent a regional and geographic cross-section of the state.”⁶⁴ The Commission was aided by the technical staff of the Department of Water Resources, the Central Arizona Project, the Arizona Water Banking Authority, and rural study groups. Their final report of findings and recommendations was completed in October of 2011.⁶⁵ The Water Resources Development Commission Report found that there was a “possible imbalance of approximately 3.2 MAF in Arizona by the year 2110.”⁶⁶

In January 2014, under the direction of Governor Janice K. Brewer, the Arizona Department of Water Resources developed a comprehensive water supply and demand analysis for Arizona and released its findings in a publication entitled *Arizona’s Next Century: A Strategic Vision for Water Supply Sustainability*.

There are other types of water related plans in Arizona, such as county level plans. Arizona law allows for the creation of County Water Augmentation Authorities. They are charged, in conjunction with local governmental entities and the Director of Water Resources, to develop water resource augmentation plans for the county in which each Authority is established, to guide the development of water augmentation efforts in that county.”⁶⁷ These Authorities are also charged with coordinating water conservation efforts in their jurisdiction.⁶⁸

The Arizona Legislature has also authorized the creation of a State Water and Power Plan. This pertains only to Arizona’s share of the Colorado River. The Arizona Legislature has declared that “the State’s right and obligation to receive two million eight hundred thousand acre feet of main stream Colorado river water annually...is essential to the continued well-being, health and prosperity of the people of the State and that the State proceed promptly to establish, develop and execute an appropriate program for the development and utilization of such water.”⁶⁹ The Legislature connected water and power initiatives, stating, “development of the state’s power resources is an essential and integral part of the effectuation or such program, including the financing thereof.”⁷⁰ It has declared that power and energy resources must be developed “in order to provide

⁶³ Ariz. Rev. Stat. Ann. § 45-105(B)(4)(c).

⁶⁴ http://www.azwater.gov/AzDWR/WaterManagement/WRDC_HB2661/

⁶⁵ The Arizona Water Resource Development Commission Final Report is available here: http://www.azwater.gov/AzDWR/WaterManagement/WRDC_HB2661/Meetings_Schedule.htm

⁶⁶ ADWR, *A Strategic Vision for Water Supply Sustainability*, Appendix I-13.

⁶⁷ A.R.S. § 45-1944.

⁶⁸ *Id.*

⁶⁹ Ariz. Rev. Stat. Ann. § 45-1701(3).

⁷⁰ Ariz. Rev. Stat. Ann. § 45-1701(4).

effective support for and implementation of the state’s water program” and for the benefit of the people of the state.⁷¹

The Water and Power Plan is under the control of the Arizona Power Authority. It encompasses the Central Arizona Project, the Montezuma pumped storage power project, the Hoover power plant modifications project, the Hoover power plant uprating project, the financing or refinancing of the State’s proportionate share of the costs incurred by the United States with respect to the Hoover visitor facilities, and by the Bureau of Reclamation “with respect to the Air Slot Treasury Loan for the construction of air slots at Hoover Dam.”⁷² In the future, the State Water and Power Plan could include new water and power projects that utilize Colorado River water authorized by the Arizona Legislature.⁷³

II. Who governs the water planning process?

As described above, the Director of the Department of Water Resources is responsible for and oversees the water planning process.

III. Who develops the water plan(s)?

How is it structured? Who is represented? How are decisions made?

For five years prior to the release of the Strategic Vision, the Department of Water Resources participated in the development of the comprehensive water supply and demand analysis through the work of its Water Resources Development Commission.⁷⁴ During that same time, the U.S. Bureau of Reclamation and the other six Colorado River Basin States identified projected supply and demand imbalances on the Colorado River system.⁷⁵

Utilizing the work of its Water Resources Development Commission and the Colorado River Basin Water Supply and Demand Study, the Department of Water Resources identified the potential water supply and demand imbalance that could potentially result in Arizona if no action is taken. The Strategic Vision concluded that local and regional efforts can mitigate potential supply impacts, but will not resolve overall anticipated impacts to the State’s water supply.⁷⁶ The challenge was to “explore viable solutions” to address the projected imbalances and initiate the action necessary to develop those solutions.⁷⁷

In an effort to recognize the uniqueness of the various regions throughout the State and the specific challenges facing those regions, the Strategic Vision identified a “portfolio of strategies,” or key priorities and action items to maintain sustainable water supplies for

⁷¹ *Id.*

⁷² Ariz. Rev. Stat. Ann. § 45-1703.

⁷³ A.R.S. §45-1703(B).

⁷⁴ ADWR, *A Strategic Vision*, 9.

⁷⁵ *Id.*

⁷⁶ *Id.*

⁷⁷ *Id.*

the needs of each area.⁷⁸ It also recognized specific measures that would have “widespread potential benefit” for all Arizonans.⁷⁹ It laid out a framework for the development of strategies to address projected imbalances between water availability and demand over the following 100 years.⁸⁰ It also provided context for maximizing the effectiveness of those strategies to address the needs of multiple water users across Arizona.⁸¹

The strategic priorities identified by the Department of Water Resources were:

1. Resolution of Indian and Non-Indian Water Rights Claims;
2. Continued Commitment to Conservation and Expand Reuse of Reclaimed Water;
3. Expand Monitoring and Reporting of Water Use;
4. Identify the Role of In-State Water Transfers;
5. Supply Importation and Desalination; and,
6. Develop Financing Mechanism to Support Water Supply Resiliency

Financing of large-scale projects was also addressed in the Strategic Vision. The Department of Water Resources concluded that “only Arizona’s community, political and business leaders are capable of garnering financial resources and mechanisms necessary” to meet the water supply needs.⁸²

The Strategic Vision outlined a 10-Year Action Plan, as follows:

- Legislate Strategic Vision update every 10 years (year 1)
- Begin discussions with Mexico and California about ocean desalination (year 1)
- Resolve right-of-way issues for utilities (year 1)
- Establish adjudication study committee (year 1)
- Begin discussions on water development financing (year 2)
- Remove current statutory limitation (*A.R.S. § 45-801.01(22)*) on the ability to receive long-term storage credits for recharging reclaimed water beyond 2024 (year 2)
- Review legal and institutional barriers to direct potable reuse of reclaimed water – develop and implement plan for resolution (year 3)
- Review and implementation of adjudication study committee findings (year 3)
- Develop and begin implementation of direct potable reuse of reclaimed water public perception campaign (year 4)
- Begin discussions with New Mexico on an interstate cooperative program for watershed management/weather modification in the Upper Gila watershed (year 4)
- Resolve remaining Indian settlements (year 1 - 10)
- Resolve general stream adjudication (year 5 - 10)

⁷⁸ *Id* at Strategic Vision Overview

⁷⁹ *Id.*

⁸⁰ *Id.*

⁸¹ *Id.*

⁸² *Id* at 19.

The Department of Water Resources concluded by declaring that this Strategic Vision needs to be implemented in order to address the challenges of avoiding future water crisis.⁸³

Between January and August 2014, the ADWR presented the Strategic Vision on a statewide outreach tour to “receive input from local stakeholders and other interested parties.”⁸⁴

Water planning has continued in Arizona since the release of the Strategic Vision. On November 4, 2014, Governor Janice K. Brewer established the Governor’s Council on Water Supply Sustainability.⁸⁵ The Council consisted of members appointed by the Governor. The Arizona Department of Water Resources provided staffing and technical support to the Council. The Council prepared and submitted to the Governor a report that identifies the priorities for implementation of the action items and strategic priorities identified in the Strategic Vision to develop a secure and sustainable water supply for Arizona’s next century.

The Governor directed that the plan should include:

- Recommendations on water supply augmentation;
- Recommendations on water supply infrastructure needs;
- Identification of potential partnerships for water supply augmentation and infrastructure needs including the federal government, political subdivisions of Arizona and other states, private parties, and international parties;
- Identification of potential funding and financing solutions;
- Recommendations on legal procedural changes; and,
- Timetables for implementation.

On December 31, 2014, The Governor’s Council on Water Supply Sustainability published an Initial Report. The Initial Report recommended that working groups be formed to develop, evaluate and prioritize recommendations and potential partnerships regarding water supply augmentation and water supply infrastructure needs. It proposed workgroups to address desalination, funding, rural issues, and stakeholder engagement.

The Arizona Water Initiative was then announced by Governor Ducey in October 2015. The Initiative is “based off of and furthers the activities” that were identified in the 2014 Strategic Vision for Water Supply Sustainability Report.⁸⁶ The Water Initiative is designed to implement the Strategic Vision and address the recommendations of the Governor’s Council on Water Supply Sustainability through two tracks.

⁸³ *Id* at 22.

⁸⁴ *Id*. Past meeting dates, locations and presentations can be found here:

http://www.azwater.gov/AzDWR/Arizonas_Strategic_Vision/.

⁸⁵ See <http://azmemory.azlibrary.gov/cdm/singleitem/collection/execorders/id/741/rec/3>

⁸⁶ See http://www.azwater.gov/AzDWR/Arizona_Water_Initiative/

Track One is to focus on a stakeholder driven analysis of the 22 Planning Areas identified in the Strategic Vision. In this track, the Arizona Department of Water Resources will “work closely with the Planning Areas to identify issues that are resulting in demand and supply imbalances and to develop strategies that are likely to be successful in addressing them.”⁸⁷ This first track will identify and prioritize the 22 planning areas identified in the Strategic Vision, beginning with rural areas.⁸⁸

Track Two creates the Governor’s Water Augmentation Council. The Council, appointed by the Governor and chaired by the Director of the Department of Water Resources, consists of “a wide array of experts including water providers and leaders in Arizona agriculture, mining, agribusiness, homebuilding, watershed groups and government.”⁸⁹ The Council is tasked to “investigate long-term water augmentation strategies” for the twenty-two areas identified in the Strategic Vision, as well as “additional water conservation opportunities, funding and infrastructure needs” and report to the governor annually with recommendations for policy or statutory changes.⁹⁰ The Council has been directed to prepare an annual report and submit it to the Governor by July 1, 2016 and by July 1 every year thereafter.

The Council completed their first Annual Report at the third quarterly meeting on June 10, 2016. The report was scheduled to be submitted to the Governor and the Legislature on July 1, 2016 but is not yet available. A draft of the report (May 18, 2016) is currently available online.⁹¹

IV. How is water planning funded? How much, from where, how often?

The baseline operating budget for the Arizona Department of Water Resources is \$9.2M, which supports forty-eight fulltime employees. Adjudication support is also funded at \$1.25M, which supports 14.5 fulltime employees. Within its operating budget, the Department of Water Resources appears to fund most of its water planning work through its Water Resources Fund, which is currently funded with a baseline annual appropriation of \$641,200. The Water Resource Fund is to be used to carry out the purposes of Title 45 of the Arizona Revised Statutes.⁹² The Arizona Legislature appropriates these funds annually.

⁸⁷ ADWR, Planning Area Process, available at:

http://www.azwater.gov/AzDWR/Arizona_Water_Initiative/PlanningAreaProcess.htm

⁸⁸ <http://azgovernor.gov/governor/news/2015/10/governor-doug-ducey-announces-arizona-water-initiative> (checked May 24, 2016).

⁸⁹ *Id.*

⁹⁰ ADWR, Governor’s Water Augmentation Council, available at:

http://www.azwater.gov/AzDWR/Arizona_Water_Initiative/GovernorsWaterAugmentationCouncil.htm

⁹¹ Available at:

http://www.azwater.gov/AzDWR/Arizona_Water_Initiative/documents/2016GWACAnnualReportDraft_May_18_2016.pdf.

⁹² Ariz. Rev. Stat. Ann. § 45-117(C).

- V. How is water planning staffed?
What is the professional background of the planning staff?

The Arizona Department of Water Resources has staff that performs a variety of planning functions. Four staffers implement the management of critical groundwater management areas. An additional two staffers manage statewide strategic planning and tribal affairs. Five more staffers oversee community level planning, promote water conservation through education, and facilitate technology and data transfers. The Department of Water Resources Assistant Director for Water Planning oversees all of these positions.

The Utton Center has been unable to ascertain the professional backgrounds of these staffers.

ADDITIONAL INFORMATION

In 2010, the Arizona Department of Water Resources produced the *Arizona Water Atlas* to provide “water-related information on a local, regional and statewide level to frame and support water planning and development efforts.”⁹³ This also inspired the creation of a “statewide water resources data repository housed at ADWR” that is updated continuously “as water use information is reported and collected.”⁹⁴ The Atlas is organized into seven Planning Areas that contain a total of 51 groundwater basins. Each Planning Area is discussed in a different volume of the Atlas and can all be accessed online.⁹⁵

In recognizing the uniqueness of the various regions throughout the State, the Strategic Vision for Water Supply Sustainability also recognized the varying challenges each of those regions faces. It developed a “portfolio of strategies” that need to be implemented according to the needs of each area of the State and then prioritized them based on their widespread potential to benefit all Arizonans.

Among the identified statewide strategic priorities is the *Resolution of Indian and Non-Indian Water Rights Claims*. Arizona has resolved, wholly or partially, 13 of 22 Indian water rights claims. However, until Arizona’s general stream adjudications are complete, uncertainty makes it difficult for the Department of Water Resources to identify all the strategies necessary for meeting projected water demands. The Strategic Visions recommends the creation of a Study Committee to “develop options in a short time frame” that would help guide the Department of Water Resources towards adequate funding to complete the technical work to support completing the adjudications process.⁹⁶ According to the Strategic Vision, “development of options could initially focus on conceptualization of water rights administration in a post-adjudicated Arizona. This will

⁹³ ADWR, *Strategic Vision*, 14.

⁹⁴ *Id.*

⁹⁵ The Arizona Water Atlas is available at:
<http://www.azwater.gov/AzDWR/StatewidePlanning/WaterAtlas/>.

⁹⁶ ADWR, *Strategic Vision*, 17.

streamline the Court and the Department of Water Resources' effort to collecting and evaluating only that information that will assist in administering the final water rights decrees."⁹⁷

28% of Arizona lands are held in trust by the federal government for Native Americans. Negotiation of Indian water rights claims has traditionally been through litigation. Under the "Winters Doctrine," the "reserved water rights" for federal reservations was established.⁹⁸ In *Winters v. United States*, the U.S. Supreme Court found that "a federal reservation includes an amount of water necessary to fulfill the reservation's purpose."⁹⁹ Priority dates are based on the treaty enactment date, an act of Congress, or an Executive Order establishing the reservation. In *Arizona v. California* (1963), the U.S. Supreme Court included the standard of practicably irrigable acreage as a method of quantifying water rights.

In 2001, the Arizona Supreme Court rejected practicably irrigable acreage as the sole standard for quantification of Indian water rights and instead found that "Indian reserved rights must account for the present and future needs of the reservation as a tribal homeland."¹⁰⁰

Litigation and settlement are the processes for quantifying Indian water rights claims in Arizona. According to the Department of Water Resources' Arizona Water Atlas:

When the settlement process begins, parties potentially impacted by the Indian water rights claims identify the sources of water necessary to satisfy the tribal needs. A federal negotiating team works with the parties to assure that federal requirements, including local cost contribution, are met. ADWR [Division of Water Resources] participates in the settlement discussion, offering technical assistance and ensuring state water laws and policies are followed.¹⁰¹

After the parties agree on a settlement, the United States Congress is engaged for approval and funding. The Congressional act generally ratifies the agreement, authorizes congressional appropriations, and sometimes requires a state contribution. The parties finalize the agreement and, if necessary, "seek approval of the court in either the Gila River General Stream Adjudication or the Little Colorado General Stream Adjudication."¹⁰²

Arizona v. California decreed entitlements to divert water from the Colorado River to four Indian reservations along the river: Cocopah, Colorado River Tribes, Fort Mohave, and Fort Yuma.

⁹⁷ ADWR, *Strategic Vision*, 17-18.

⁹⁸ ADWR, Arizona Water Atlas, Volume 1, Appendix G, 163 (2010).

⁹⁹ *Id.*

¹⁰⁰ *Id.*

¹⁰¹ *Id.*

¹⁰² *Id.*

In addition there are eight Congressionally authorized Indian water rights settlements in Arizona, for the following tribes:

- Ak Chin Indian Community
- Tohono O'odham Nation
- Salt River-Pima Maricopa Indian Community
- Fort McDowell Indian Community
- San Carlos Apache Tribe
- Yavapai-Prescott Indian Tribe
- Zuni Indian Tribe
- Gila River Indian Community

Settlement negotiations were in process with the White Mountain Apache Tribe, the Hopi Tribe, and the Yavapai Apache Tribe. Tribes with unresolved claims include the following tribes:

- Havasupai
- Hualapai
- Kaibab Paiute
- Pascua Yaqui
- San Carlos Apache (Gila River tributaries)
- Tohono O'odham (Sif Oidak District)
- Tonto Apache
- Navajo Nation

Colorado

I. What is the statutory basis for water planning; what types of water plans exist?

Colorado completed a new Colorado Water Plan at the end of 2015. The completion of the final Water Plan was the culmination of twelve years of data gathering, public meetings, regional planning, and goal setting.

It was the drought of 2002 and 2003 that spurred Colorado into action. When some towns in Colorado came within weeks of running out of water, it became clear that meaningful water planning was needed. In 2003 the Colorado General Assembly (the Colorado legislature) created the Office of Water Conservation and Drought Planning within the Colorado Water Conservation Board (CWCB).¹⁰³ This also included the initiation of Colorado's Statewide Water Supply Initiative (SWSI) and the organization of river basin planning groups.

Colorado's Office of Water Conservation and Drought Planning is charged with promoting water conservation and drought planning. This includes serving as a repository for drought mitigation and conservation information, disseminating that information to the general public, providing technical assistance, providing financial assistance for conservation and drought planning, and even helping other agencies with the water wise landscaping projects.

Colorado's SWSI is an ongoing analysis of water resources. It provides current water data to decision-makers. It has been used to develop Colorado's understanding of its agricultural, environmental, recreational, and municipal water needs. It includes climate variability scenarios to assist with long-term planning. The information collected by Colorado's SWSI served as the foundation for the creation Colorado's 2015 Water Plan.

In 2004 Colorado passed a Water Conservation and Drought Mitigation Planning Act. It directed all municipalities, agencies, and private and public drinking water utilities to develop their own water conservation plans.¹⁰⁴ The creation of an individualized water conservation plan is now required before these entities can receive financial assistance from the CWCB.

In 2005 Colorado enacted the Colorado Water for the 21st Century Act.¹⁰⁵ It created permanent Basin Roundtables in each of Colorado's eight river basins. An additional Roundtable was created for the Denver area. A committee of basin representatives was also formed to serve as the Interbasin Compact Committee, which is tasked with assisting with interbasin compact negotiations.¹⁰⁶ The intent of these Roundtables is to, "facilitate

¹⁰³ Colo. Rev. Stat. §37-60-124.

¹⁰⁴ Colo. Rev. Stat. §37-60-126.

¹⁰⁵ Colo. Rev. Stat. §37-75-101, et seq.

¹⁰⁶ Colo. Rev. Stat. §37-75-105.

continued discussions within and between basins on water management issues, and to encourage locally driven collaborative solutions to water supply challenges.”¹⁰⁷

By the end of 2013 each Roundtable had developed a Basin Implementation Plan. These Plans looked at future water needs with the assistance of representatives from industry, agriculture, environmental and recreation groups, and other water users. These Plans reflect a decades worth of stakeholder engagement through public meetings focused on developing balanced, stakeholder developed collaborative water management solutions.¹⁰⁸

In 2013 there was another watershed moment in Colorado water planning. Governor John Hickenlooper issued an Executive Order directing the CWCB to commence work on the Colorado Water Plan.¹⁰⁹ Touting Colorado’s historic leadership on water management issues, the Governor recognized the good work of the Interbasin Compact Committee and the Basin Roundtables. He acknowledged that the SWSI predicts a 500,000 acre-foot supply-demand gap by 2050.

Governor Hickenlooper’s Executive Order set forth some principles that might apply equally in New Mexico. He stated that the buying and drying of agricultural lands was not acceptable to Coloradans. He declared that water quantity and water quality must be thought of together and no as longer separate issues. Most importantly, he tasked the CWCB with developing a water plan that incorporated the following values:

- A productive economy;
- Vibrant and sustainable cities;
- Productive agriculture;
- Robust skiing, recreation and tourism;
- Efficient and effective water infrastructure that promotes smart land use; and,
- A strong environment with health watersheds, rivers, streams, and wildlife.

II. Who governs the water planning process?

As described above, the Governor has directed the CWCB to develop the Colorado State Water Plan. The Governor is given great credit for his leadership on water planning. However, one main criticism is that there is a lack of clarity about who is going to implement the Plan. There is considerable talk of collaborative solutions throughout the plan and its supporting documents but little talk of who will do exactly what. For example, the chapter on legislative proposals to improve water management was left blank in the new Plan.

The Governor and the CWCB are now trying to retroactively control expectation about their new Water Plan. They are working to clarify that the 2014 Water Plan is a foundational document that sets forth objectives but leaves the process of determining how to meet those objectives to the Basin Roundtables. Their argument is that the

¹⁰⁷ Colo. Rev. Stat. §37-75-104.

¹⁰⁸ *Id.*

¹⁰⁹ Colo. Exec. Order D 2013-005, May 14, 2013.

inclusion of specifics in this draft of the Water Plan would discourage the development of solutions at the local (basin) level.

While the Governor has clearly tasked the CWCB with leading the development of the Water Plan, he is also deferring to the Basin Roundtables to develop specific actions. This well-intentioned structure still requires some tweaking to find the balance between robust civic participation and strong centralized leadership. As the CWCB puts it, “Finalizing the Plan is the first step.”

THE CWCB BOARD

Given its primary role in the creation of the Colorado State Water Plan and its similar authority to the New Mexico ISC, it may be useful to better understand the structure of the CWCB. The CWCB was created over seventy-five years ago to provide policy direction on water issues.”¹¹⁰ The CWCB is governed by a fifteen-member Board.¹¹¹ “Each CWCB program is directed by the agency’s [Strategic Framework](#), as well as through Statutory Authorities and Responsibilities. Reviewed annually by the Board, the Strategic Plan also contains a [Board Member Work Plan](#), which guides the Board’s actions and helps implement the authorities and objectives of the CWCB.”¹¹²

There are fifteen members on the CWCB Board. Eight voting members represent the State’s major water basins. One voting member represents the City and County of Denver. The tenth Ex-Officio voting member is the Director of the Department of Natural Resources. There are also five Ex-Officio non-voting members: The Director of the CWCB, the State Engineer, the Attorney General, the Director of the Division of Parks & Wildlife and the Commissioner of Agriculture. These members “inform and advise the voting Members on water issues as they relate to or impact their agencies.”¹¹³

“Board Members serve three-year terms, are appointed by the Governor after they apply or are nominated for the position, and must be confirmed by the Senate. Board appointees are generally experienced in water resource management; water project financing; engineering, planning, and development of water projects; water law; irrigated farming, and/or ranching. No more than five appointees can be members of the same political party, and all appointees must reside in the area they represent.”¹¹⁴

The CWCB Board reviews its Strategic Framework annually. The CWCB Strategic Framework “creates a strategy that enables the agency to successfully implement its mission. The Framework’s focus is to emphasize implementation of projects, policies, and partnerships resulting from intense planning activities.”¹¹⁵ The Board uses the “Board Member Work Plan” within the Strategic Framework to “identify policy

¹¹⁰ <http://cwcb.state.co.us/about-us/about-the-cwcb/Pages/main.aspx>

¹¹¹ *Id.*

¹¹² *Id.*

¹¹³ <http://cwcb.state.co.us/about-us/cwcb-board/Pages/main.aspx>

¹¹⁴ *Id.*

¹¹⁵ CWCB, *Strategic Framework*, 3, (2013).

<http://cwcbweblink.state.co.us/WebLink/ElectronicFile.aspx?docid=169613&searchid=1bda1d2a-a8e0-4e31-9140-953cd1443900&&dbid=0>

development needs, set program direction, define program and project priorities, and develop staff performance goals.”¹¹⁶

III. Who develops the water plan(s)?

How is it structured? Who is represented? How are decisions made?

Colorado’s Water Plan was built upon a long-term consistent public planning process, led by the Basin Roundtables. The final document was drafted and compiled by the CWCB. Representatives from all water use sectors were represented in the Basin Roundtables. In addition, the Colorado General Assembly’s Water Resources Review Committee held hearings across the state to solicit comments on the Water Plan. A team of eighteen state employees from various agencies actually authored the Water Plan, with an additional thirteen people serving as a review committee.

The Colorado Water Plan is framed around the values set forth by Governor Hinkenlooper in his Executive Order, listed above. The Plan begins with an overview of Colorado’s water history, then it details Colorado’s water law and governance structure. It describes the projected supply-demand gap, followed by a discussion of strategies that can be used to meet future needs. The Colorado Plan includes ideas for funding water management and infrastructure in the future. It also emphasized the need for effective water rights permitting and increased water education throughout the State.

Overall the mission of the Colorado Water Plan is to encourage Coloradans to “close the gap by 2030.” This includes a goal to conserve 400,000 acre-feet a year. The Water Plan contemplates closing the remaining 100,000 acre-feet of the gap by increasing water storage capacity in Colorado.

IV. How is water planning funded?

How much, from where, how often?

The CWCB, which is almost entirely self-funded, receives the majority of its funding appropriations from the CWCB Construction Fund. The Construction Fund is also referred to as the “Cash Funds.”¹¹⁷ Revenues are generated from interest collected on CWCB issued loans, mineral lease income, severance taxes, and an occasional transfer from the Colorado General Fund. The CWCB operational budget, which in part supports water planning, was \$5.75M in 2015. The Interbasin Compact Commission’s Operating Budget for FY16 was approximately \$740,000, which includes funding for the basin Roundtables and the SWSI.

The Colorado Water Plan is unique in that it attempts to address how the implementation of the Plan will be funded. The Plan estimates that Colorado will need to raise an additional \$100M per year starting in 2020. The Plan proposes to explore public-private partnerships, utilize severance tax funds, and develop a guarantee repayment fund and a new bond program. This appears to be the least developed portion of the Colorado Water

¹¹⁶ <http://cwcb.state.co.us/about-us/cwcb-board/Pages/main.aspx>

¹¹⁷ <http://cwcb.state.co.us/ABOUT-US/ABOUT-THE-CWCB/Pages/main.aspx>

Plan. Most notably, the Plan estimates that \$1M or more will be needed annually to support ongoing stream management and watershed planning efforts.

Additional information about how Colorado funds water projects and management can be found below.

- V. How is water planning staffed?
What is the professional background of the planning staff?

The CWCB is staffed with more than 40 employees and functions under six major program areas:¹¹⁸

1. Management
2. Finance & Administration
3. Interstate & Federal
4. Stream & Lake Protection
5. Water Supply Planning
6. Watershed & Flood Protection

Specialties within the CWCB include Hydrologists, Engineers, Natural Resource Scientists, Geomorphologists, Attorneys, Financial Managers and Public Policy Leaders.¹¹⁹

Under the Management program area there is a Director, a Deputy Director for Resource Management, and a Deputy Director for Integrated Resources.¹²⁰

The Water Supply Planning Section includes a Section Chief, three Program Managers, a Program Assistant, an Administrative Assistant, a Climate Change Risk Management Specialist, a Water Conservation Technical Specialist, a Water Conservation Coordinator, and an Outreach, Education & Public Engagement Coordinator.¹²¹

The CWCB worked closely with many other state agencies in the formulation of their Water Plan. Employees within CWCB's other program areas drafted portions of the Water Plan, according to their expertise.

The CWCB Water Supply Planning Section also supports the Interbasin Compact Committee with financial, technical and staff support, ensuring "the proper coordination of CWCB information, policies and resources for each of the Basin Roundtables."¹²²

ADDITIONAL INFORMATION

- I. Implementation Funding

¹¹⁸ <http://cwcb.state.co.us/ABOUT-US/ABOUT-THE-CWCB/Pages/main.aspx>

¹¹⁹ <http://cwcb.state.co.us/about-us/cwcb-jobs/Pages/main.aspx>

¹²⁰ <http://cwcb.state.co.us/about-us/CWCBStaff/Pages/main.aspx>

¹²¹ *Id.*

¹²² *Id.*

Colorado's Water Plan implicates existing funding sources and explores additional funding opportunities with the objective to sustainably fund implementation of the water plan. Colorado is also looking to federal funding options.

The estimated financial need for future improvements to the municipal and industrial water infrastructure, including Basin Implementation Plans, water infrastructure improvements, and the 90 watershed and stream management plans, is more than \$20 billion. This amount is projected just to fill the municipal and industrial gap and to maintain current infrastructure.¹²³ This figure does not include statewide environmental or recreation needs, or water treatment project needs.

Clearly Colorado's funding needs for water projects are substantial. Current funding sources can assist with future needs, including, the CWCB Water Project Loan Program, the CWCB Water Resource Supply Fund, the Species Conservation Trust Fund, and the Water Resources and Power Development Authority's Water Revenue Bond Program. Although these programs cannot solely fund the state's water needs, they can assist in bridging funding gaps when combined with other funding sources.¹²⁴

The CWCB's also offers Water Efficiency Grants that are available for eligible conservation activities and projects, such as planning:

- Water Conservation Planning Grants: For water providers seeking to develop or update their water conservation plans.
- Water Conservation Implementation Grants: For water providers implementing water conservation plan goals and programs identified in locally adopted and CWCB-approved water conservation plans.
- Drought Mitigation Planning Grants: For water providers or state and local governmental entities developing drought mitigation and response plans.
- Water Resource Conservation Public Education and Outreach Grants: For agencies seeking to promote the benefits of water resource conservation through public education and outreach.

“To meet long-term water demands, Colorado will need to secure funding through a combination of legislation, partnerships, and state and federal grant and loan programs. It is the CWCB's intent to promote, and potentially financially and politically support, projects that evaluate water supply, storage, and conservation reports on a regional, multipurpose, multi-partner, multi-benefit basis, and projects that evaluate the consolidation of services where practical, feasible, and acceptable.”¹²⁵ Below is a table or projected costs for the Basin Implementation Plans. Note that many projected costs have not yet been developed, further emphasizing the incomplete nature of the current version of the Colorado Water Plan.

¹²³ *Id.*

¹²⁴ Colorado's Water Plan – Final 2015, 9.2 Economics and Funding, <http://cwcblink.state.co.us/WebLink/ElectronicFile.aspx?docid=197277&searchid=c39986f7-7670-4457-aa01-2a92b22450e8&dbid=0>

¹²⁵ *Id.*

TABLE 9.2-1 PROJECT COSTS IDENTIFIED IN THE BASIN IMPLEMENTATION PLANS*

BASIN	SINGLE-PURPOSE PROJECTS AND METHODS			MULTI-PURPOSE PROJECTS	TOTAL
	ENVIRONMENTAL, RECREATIONAL, OR WATER QUALITY	MUNICIPAL AND INDUSTRIAL	AGRICULTURAL		
Arkansas	\$345,000,000	\$270,000,000	\$10,000,000	\$792,000,000	\$1,407,000,000
Colorado	\$1,500,000	\$4,000,000	Forthcoming	\$132,000,000	\$137,500,000
Gunnison	\$8,000,000	\$46,000,000	\$9,000,000	\$423,000,000	\$486,000,000
North Platte	Forthcoming	Forthcoming	Forthcoming	Forthcoming	Forthcoming
Rio Grande	Forthcoming	Forthcoming	\$80,000	\$130,000,000	\$131,080,000
South Platte / Metro	Forthcoming	Forthcoming	Forthcoming	Forthcoming	Forthcoming
Southwest	\$60,000,000	Forthcoming	Forthcoming	Forthcoming	\$60,000,000
Yampa/White/Green	\$5,000,000	Forthcoming	Forthcoming	Forthcoming	\$5,000,000
TOTAL	\$419,500,000	\$320,000,000	\$19,080,000	\$1,477,000,000	\$2,235,580,000

* Costs were rounded to three significant figures. Most identified projects did not have associated costs. Therefore, additional cost estimating and Refinement of existing project costs will be forthcoming to develop an overall statewide summary of water project funding needs.

II. Tribal Water Issues

There are only two federally recognized tribes in Colorado, both of which are Ute tribes.¹²⁶ The two Colorado Ute reservations were established in 1868, at which time their priority date for reserved water rights was also set.¹²⁷

The Colorado General Assembly established the Colorado Commission of Indian Affairs in 1976.¹²⁸ The Commission was designed to engender government-to-government relationships between the two Ute tribes and the State of Colorado.¹²⁹ The Colorado State Tribal Consultation Guide defines consultation as asking for advice or seeking an opinion, and that “consultation does not mean obtaining consent.”¹³⁰

The two tribes, water conservancy districts, and the State of Colorado began negotiations to resolve the tribes’ water rights claims in the 1980’s. In 1986, the Colorado Ute Indian Water Rights Settlement Act was completed, and ratified in 1988 by Congress, thus settling the tribes’ water rights on three rivers.¹³¹ The settlement was to supply both Ute tribes with water from the Animas-La Plata Project. However, by 2000 the project had not been constructed. As a result, Congress enacted the scaled-down Colorado Ute Settlement Amendments of 2000.¹³²

The Animas-La Plata project’s Ridge Basin Dam was completed in 2007. In 2011 Lake Nighthorse began filling with water.¹³³

Southern Ute Indian Tribe

The Southern Ute Tribe’s reservation headquarters are near Ignacio, Colorado. The reservation is a small portion of the historical land base of the Utes, which once encompassed Utah and New Mexico as well as Colorado.¹³⁴ The reservation was once comprised of one-third of the western portion of the State of Colorado. Numerous acts of Congress divested the Southern Utes of their land. This, combined with encroachment by settlers looking for gold, reduced the reservation to a checkerboard of land approximating 300,000 acres. Current tribal membership is 1,059.¹³⁵

¹²⁶ Numerous other tribes were historically in Colorado.

¹²⁷ *Winters v. United States*, 207 U.S. 564 (1908).

¹²⁸ C.R.S. §§24-44-101 et seq.

¹²⁹ Colorado Commission of Indian Affairs, Letter from CCIA Executive Director, <https://www.colorado.gov/pacific/ccia/about-us-40>

¹³⁰ Colorado Commission of Indian Affairs, State-Tribal Consultations, <https://www.colorado.gov/pacific/ccia/about-us-40>

¹³¹ Pub. L. 100-585, 102 Stat. 2973 (1988).

¹³² Colorado Ute Indian Water Rights Final Settlement Agreement, Nov. 9, 2001, https://www.usbr.gov/uc/progact/animas/pdfs/1_ALPCostSharingAgt313_02.pdf

¹³³ Gail Binkly, *For Colorado’s Two Indian Tribes, the Long Awaited Promise of Water Fulfilled at Last, Brings Hope for Continued Economic Growth*, Colorado Foundation for Water Education, https://www.yourwatercolorado.org/CitGuides/index.php?option=com_content&view=article&id=533:ute-water&catid=128&Itemid=149

¹³⁴ Southern Ute Indian Tribe, Living in La Plata County, <https://www.southernute-nsn.gov/natural-resources/lands/living-in-la-plata-county/>

¹³⁵ *Id.*

Under an 1874 treaty commonly known as the Brunot Agreement, the Southern Ute Tribe has the right to hunt, fish, and gather in an off-Reservation area that is approximately four million acres in size. The area within which the Tribe retained reserved hunting and fishing rights is in the San Juan Mountain region of Colorado and includes parts of nine counties and the towns of Naturita, Lake City, Pagosa Springs, and Cortez. Tribal members can hunt, fish, and gather in that area subject to regulation by the Tribe. Importantly, treaty rights cannot be exercised on private property without landowner consent.¹³⁶

In the 1930s the Southern Ute Tribe acquired water rights on the Pine river and more water rights from the Florida river when the Lemon Reservoir was built in the 1960s.¹³⁷

The Southern Ute Tribe has a Water Resources Division within its Natural Resources Department.

Ute Mountain Ute Tribe

The Ute Mountain Ute Tribe headquarters are in Towaoc, Colorado, but the reservation borders reach into New Mexico and Utah.

When the Southern Ute Tribe was securing their wet water rights in the 1930s and 1960s, the Ute Mountain Tribe received nothing. A project known as the Dolores Project was proposed to bring water to the Ute Mountain Utes in the early 1970s. It was put on hold due to the change in public opinion regarding dams.¹³⁸

In 1977, the Secretary of the Interior recommended that President Carter reconsider cancelling the Dolores Project, stating that the Ute Mountain Ute Tribe had suffered long enough from broken promises and failed expectations, and that they “were entitled to ‘prompt water delivery from the project.’”¹³⁹ At the time the city of Cortez within the Ute Mountain reservation had no significant drinking water or municipal plumbing. Members of the tribe relied on filling water jugs when the water truck came around. Eventually the Dolores Project moved forward. In 1994 water flowed into the Ute Mountain Ute reervation, filling the McPhee Reservoir at the head of the Dolores Project.¹⁴⁰

This excerpt from an article that describes the overall relationship between the tribes and the State of Colorado, regards the water settlement as a positive one:

“...the tribes are pleased to have their claims resolved and the reservoirs finally in place after decades of effort.

¹³⁶ *Id.*

¹³⁷ *Id.*

¹³⁸ Binkly, *supra*.

¹³⁹ *Id.*

¹⁴⁰ *Id.*

“We had some strong leaders that really had vision about getting water based on the 1868 rights,” says Heart of the Ute Mountain Utes. “But they couldn’t do it by themselves, so they had to find ways to partner with water conservancy districts to make it a win-win for everyone.”

Water district officials say the completion of the Dolores and Animas-La Plata projects has benefited both tribes and non-Indian users. “It took years but it was time and money well spent,” agrees Bruce Whitehead, executive director of the Southwestern Water Conservation District, which was involved in the settlement. “This resolved the tribal claims without totally upsetting the water system we have now, and the Utes got wet water. I do think this worked out for the benefit of all.”

Lawler says the settlements set the tone for continued cooperation among the Utes and non-Indian water users. “Unlike a lot of places in Indian country, both of the [Colorado] Ute tribes have been very good about trying to work with the state,” he says.

The tribes are continuing to work with other entities in a number of efforts. When the Animas-La Plata Project was downsized, each tribe received a \$20 million tribal resource fund as compensation for the water they gave up in the downsizing. Three-quarters of the funds must be used to “enhance, restore, and utilize the tribes’ natural resources in partnership with adjacent non-Indian communities or entities in the area,” the legislation stipulates.

The Utes used some of those monies to help build an intake structure on the upper end of Lake Nighthorse for future uses by the tribes, as well as the La Plata West Water Authority, which also gave funding, and potentially other entities by agreement. *The structure, which was also funded by the Southwest Basin Roundtable and Colorado Water Conservation Board, is also an essential first step in getting water to the eastern side of the Ute Mountain Ute reservation.*¹⁴¹

This represents the only link we have identified between the entities involved in Colorado state water planning and the two tribes.

¹⁴¹ *Id* (emphasis added).