

### In this issue

Negotiating Tribal Water Rights  
California Colloquium on Water  
Archival News  
In Memoriam: David Todd  
Announcements  
Donors 2006  
Join Friends of the Archives



<http://www.lib.berkeley.edu/WRCA/wrcanews.html>

## Negotiating Tribal Water Rights in the Arid West: Legal Background

by Bonnie G. Colby, John E. Thorson & Sarah Britton

A great deal of Western property rights rested on this narrow margin of timing... even though the passage of years might give those property rights an aura of venerability, they nonetheless rested on a principle still in vogue in playground disputes: "It's mine; I got here first."

—Patricia Nelson Limerick, *The Legacy of Conquest*

By 1900, the doctrine of prior appropriation had evolved into the dominant mechanism by which most western states allocated surface waters. Prior appropriation is the concept that the first people using water should have first right to the water. The doctrine grants a water right to those who first appropriate surface waters, granting priority access as long as the water is put to "beneficial use." Later (junior) appropriators are entitled to divert only water not needed to satisfy senior rights. The priority date of an appropriative right is the date the water is first put to use and determines who receives water in times of shortage, because senior rights are satisfied before junior appropriators receive water.

The prior appropriation doctrine promoted westward expansion and development by importing diverted water to once-arid land and providing secure access to water. Dependable access to water encouraged extensive public and private investment in water projects. Projects on reservations received a small fraction of overall federal investment, however, and many of these were built primarily to benefit non-Indians homesteading within reservation boundaries. In the mid-1950s, as available surface water became increasingly scarce, low-cost electricity and technological advances led to the extensive drilling of groundwater wells. By the 1960s, levels of nonrenewable groundwater supplies had declined in many western basins. Recognition of the hydrologic connection between rivers and aquifers raised concerns that groundwater pumping was depleting surface



# California Colloquium on Water

## Fall 2006 Schedule

This fall's Colloquium opened September 12 with "New Orleans and Hurricane Katrina: Lessons for California's Levees." If you missed this lecture by Ray Seed, UC Berkeley Professor of Civil & Environmental Engineering, you will soon be able to watch it on the Colloquium Web site as streaming video (see below).

### October 10

[The Role of Climate on Water Institutions in the Western Americas](#)

Greg Hobbs

*Justice, Colorado Supreme Court*

### November 14

[Tales of the New Fish Patrol: Saving California's Largest River—the Mighty Sacramento](#)

Diana Jacobs

*Deputy Director (retired) & Science Advisor,  
California Department of Fish & Game*

### December 5

[When the Environment and Politics Collide: Recent Developments in the Sacramento–San Joaquin Delta](#)

Mike Taugher

*Environmental Reporter, Contra Costa Times*

Lectures are held in Room 250, Goldman School of Public Policy, 2607 Hearst Avenue at LeRoy Avenue.

Visit the Colloquium Web site for more information: <http://www.lib.berkeley.edu/WRCA/ccow.html>. You can view the flyer for each lecture and the brochure for the fall semester as PDF files. Streaming videos of the lectures will be posted there as they become available. The lectures will also become available in VHS format for loan or in-house viewing at WRCA. You can also sign up online for the Colloquium & Events Listserv list.

*The Colloquium is sponsored by the Water Resources Center Archives of the University of California. It is financially supported by the Deans of the UC Berkeley Colleges of Engineering, Environmental Design, Letters & Science, Natural Resources, and the Boalt Hall*

*School of Law; the Beatrix Farrand Fund of the Department of Landscape Architecture & Environmental Planning; the UC Berkeley Executive Vice Chancellor & Provost; the Earth Sciences Division of the Ernest Orlando Lawrence Berkeley National Laboratory; the Groundwater Resources Association of California; and the Metropolitan Water District of Southern California.*

## Water Resources Center Archives

everything but the water...

**Address** 410 O'Brien Hall  
University of California  
Berkeley, CA 94720-1718

**Phone** (510) 642-2666

**Fax** (510) 642-9143

**Web site** <http://www.lib.berkeley.edu/WRCA/>

**Email** [waterarc@library.berkeley.edu](mailto:waterarc@library.berkeley.edu)

**Hours** Monday-Friday, 9 a.m.-5 p.m.  
(Summer: 10 a.m.-5 p.m.)  
Closed weekends &  
UC Berkeley holidays

**Staff** Linda Vida, Director  
Paul Atwood, Technical Services Librarian  
Trina Pundurs, Technical Services Assistant  
Kady Ferris, Public Services Assistant

**Mission** *To maintain and continue to develop a collection of current and historical water-related materials to meet the needs of the University of California and the people of the state.*

Newsletter edited & designed by Nancy Novitski. Photos (details):  
page 1 © 2005 Rick Knepp, page 13 © 2005 Brendan DeTemple.

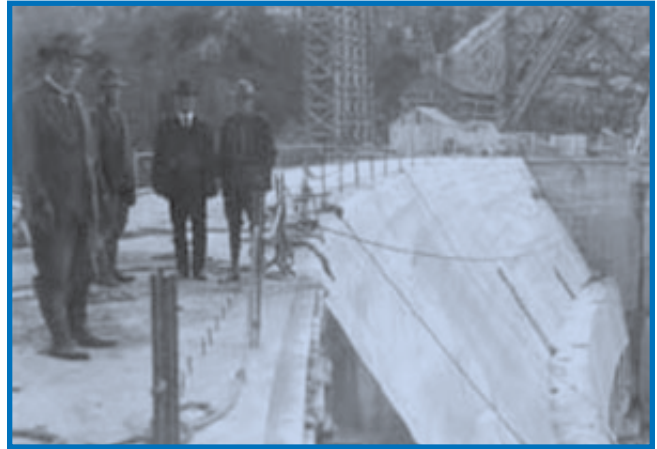
# Archival News

## Archivist Paul Atwood Studies San Francisco Water Supply

The body of knowledge about San Francisco's water supply is disparate. Many materials documenting the past 160 years of political, social, environmental, and engineering activities and concerns are held in institutional collections with minimal public access.

WRCA Associate Librarian and Archivist Paul Atwood will spend the next several months trying to change that. Paul has been awarded a grant by the Librarians Association of the University of California to improve the discovery and research of materials in all media about the water supply of San Francisco.

Currently, the majority of published research cites items at WRCA, UC Berkeley's Bancroft Library, and the San Francisco History Center of the San Francisco Public Library. More adventurous researchers find information at the California Historical Society in San Francisco. Institutions that do not promote their materials, limiting public access, include the San Francisco Public Utilities Commission, National Park Service, California Department of Water Resources, Sierra Club, various State environmental agencies, and local historical societies and public libraries in the Sierra Nevada.



San Francisco City Engineer Michael O'Shaughnessy and others atop Hetch Hetchy Dam, January 18, 1923 (detail). John D. Galloway Papers; GALLOWAY no. 94(2).

Paul will identify, assess, and define discrete collections with the intention of providing enhanced awareness of materials that are often overlooked and difficult to locate and access. He will produce a summary of the compiled data and an annotated guide to collections that will be publicly accessible on the Web. The guide will be promoted locally in print and electronic media, as well as on professional listservs and in publications.

## New Web Site about UC Berkeley River Restoration Studies

WRCA is collaborating with Matt Kondolf, UC Berkeley Professor of Landscape Architecture and Environmental Planning, on a new Web site detailing river restoration studies at UC Berkeley. UC faculty and students have been actively involved in environmental planning and restoration for nearly four decades. Hydrology for Planners, the foundation course for environmental planning students pursuing restoration studies, has been offered every year since Luna Leopold created the course in 1973. Over the years, restoration-related coursework and research have spanned a variety of departments, involving faculty and students in Civil Engineering; Landscape Architecture and Environmental Planning; Environmental Sciences; Energy and Resources Group; Environmental Science, Policy, and Management; Geography;

Integrated Biology; and Earth and Planetary Science.

The Web site, *River Restoration at Berkeley*, features a detailed view of the California node of the National River Restoration Science Synthesis; a bibliography of UC Berkeley term papers and Ph.D. and master's theses from 1987 to the present, with full text when available; descriptions of relevant UC Berkeley courses; and an international calendar of conferences and workshops. The site will also include lists of jobs, grants, and post-graduate opportunities.

The site is now online at <http://www.lib.berkeley.edu/WRCA/restoration/>. Check back regularly for updated information!

# In Memoriam: David Keith Todd

Longtime WRCA supporter David K. Todd—groundwater authority, UC Berkeley Professor Emeritus of Civil Engineering, and consulting engineer—died of leukemia on April 23, 2006, at age 82. WRCA mourns the loss of a great friend and a leader in his field.

An Indiana native, David received his B.S. in civil engineering from Purdue University in 1948. He then earned an M.S. in meteorology at New York University in 1949. David completed his Ph.D. in UC Berkeley's then-Department of Civil Engineering in 1953, while also working as a lecturer for the department. He then went on to become a professor in the department, serving as chair of the Division of Hydraulics and Sanitary Engineering from 1970 to 1975.

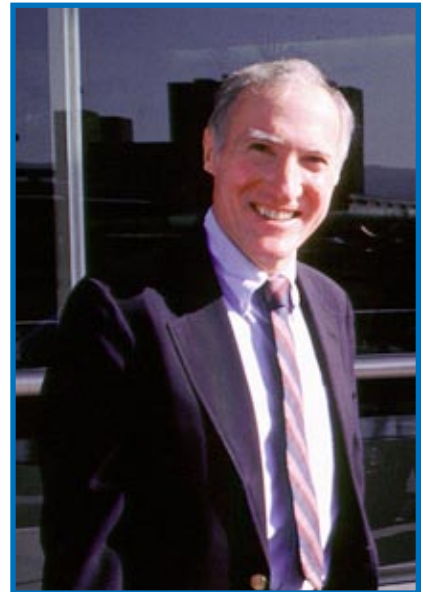
After retiring from the University in 1980, David founded the groundwater consulting firm Todd Engineers. With his firm, he served a variety of clients, including members of industry, nonprofit organizations, and governmental entities ranging from local water districts to the United Nations.

David made many contributions to the field of groundwater hydrology over the course of his life, both in the United States and abroad. He published widely, including the seminal text *Groundwater Hydrology*. He was also known as a great lecturer, both at UC Berkeley and, later, with a company he founded, Resource Seminars. David also testified as an expert witness in a number of significant court cases.

Throughout his academic career and later as a consultant, David was interested and involved in the UC Water Resources Center (WRC), WRCA's parent unit in UC's Division of Agriculture and Natural Resources. Between 1965 and 1970 he received many grants from WRC to analyze groundwater systems. Later he served on the WRC Coordinating Board. David presented at WRC's Biennial Groundwater Conference six times, most recently in 2005 as the keynote speaker.

David was also a staunch supporter of WRCA. In 1975 he donated to WRCA his consulting reports from 1957 to 1969. That collection, the David K. Todd Papers, became part of WRCA's archival collection,

preserved as a resource for current and future generations (finding aid online through WRCA's Web site: <http://www.lib.berkeley.edu/WRCA/mss.html>). In 2000 he donated many additional unique books and reports from his personal library to WRCA. He was also one of the early financial supporters of WRCA and continued his support until the time of his death.



Groundwater expert David Todd, 1985.

As one of the early speakers in WRCA's California Colloquium on Water lecture series, David helped to increase the visibility and prominence of the series. On April 9, 2002, he spoke on "Managing Groundwater Resources" (WRCA call no. G402 XU2-9 0115 Video).

To learn more about David Todd, visit the Todd Engineers memorial Web page: [http://toddengineers.com/david\\_keith\\_todd\\_memorial.html](http://toddengineers.com/david_keith_todd_memorial.html).

# California Colloquium on Water

## Spring 2006 Summary

Jeff Mount, Director of the UC Center for Watershed Sciences at UC Davis, opened the spring 2006 California Colloquium on Water lecture series in February with “Hell and High Water in the Delta: The Fate of California’s Water Supply Hub.” According to Mount, the levees of the Sacramento–San Joaquin Delta are slowly being pushed to their capacity. More than 150 years of farming and soil excavation have depressed the land, making it more prone to flooding. Moreover, rising urbanization in these areas puts homes and residents in a precarious state. Mount discussed several possible plans of action: business as usual, an aggressive water recycling program to reduce the water levels, or even the construction of the long-controversial Peripheral Canal. Mount suggested a comprehensive, well-planned, and sustainable approach to the predicament would be the most effective means to remediation.

March’s lecture was delivered by Andrew Cohen, director of the Biological Invasions Program at the San Francisco Estuary Institute. In “The Invaded Estuary: Exotic Species in San Francisco Bay,” Cohen addressed the problems of foreign species making the Bay their new home. Many of these invasive organisms thrive in the waters of the Bay, disrupting the native ecosystem. The main mode of transportation for invasive species is ship ballast water. One way to decrease the number of foreign organisms, suggests Cohen, is a mid-ocean ballast water exchange; but according to his research, this tactic would only reduce invasions by 75%. To more effectively decrease biological invasions, Cohen proposes that the shipping industry begin treating ballast water before dumping it. Since we already treat wastewater, Cohen suggests using the same technology on ballast water.

In April Thad Bettner, deputy director of Westlands Water District, spoke on behalf of the general manager of Westlands about how the district strives to make the most efficient use of its water. Westlands comprises 600,000 acres of land on the west side of Fresno and Kings Counties—land that produces much of the nation’s tomatoes, cotton, sugar beets, and asparagus.

In his lecture, entitled “Utilizing California’s Water Supply Efficiently and Effectively,” Bettner explained how Westlands copes with receiving a smaller portion of water than stipulated by their contract with the U.S. Bureau of Reclamation. Because contract water only accounts for a percentage of their total water supply, they make up for the disparity with groundwater and water Bettner referred to only as “additional district supply.” Westlands also participates in water use efficiency programs such as irrigation system improvements, intradistrict loan

### Missed the Lecture? Watch the Video!

Streaming videos of these lectures will be posted at WRCA’s Colloquium Web site as they become available (<http://www.lib.berkeley.edu/WRCA/ccow.html>). The lectures will also be available in VHS format for loan or in-house viewing at WRCA.

programs (shuffling water between farmers), and satellite imagery that measures water consumption and evaporation.

In May, Roy Herndon, Chief Hydrogeologist for

Orange County Water District, spoke about the district’s pioneering water recycling program. Scheduled to begin operation in 2007, the program has been twelve years in the making. The process, also known as the Groundwater Replenishment System, first treats wastewater through a series of filtration processes: microfiltration, reverse osmosis, and UV light exposure and peroxide treatment. After treatment the water is reintroduced into the ground and eventually re-emerges as potable water. Sound scientific processes are only one facet of the program; Herndon stressed the success of the program hinges on the backing of local community organizations, politicians, state and federal agencies, and other “non-water” experts.

# Negotiating Tribal Water Rights

*Continued from page 1*

flows, thereby undermining senior surface-water rights. Many states began to regulate groundwater withdrawals and integrate groundwater into the prior appropriation system. By the early 1990s, numerous western states enacted laws that allowed some protection of instream flows, encouraged conservation, and facilitated water transfers. Although federal policies specifically defer to state laws in matters of water rights administration, the federal government began playing an increasing role in western water management, particularly through the federal Endangered Species Act (ESA) and the Clean Water Act.<sup>1</sup> In addition, the federal government has strong interests in interstate disputes over shared water resources, and in negotiations and litigation involving Indian water rights.

## General Stream Adjudications and the McCarran Amendment

As states attempted to improve water management and clarify existing water rights, many initiated general stream adjudications. Such adjudications are court actions to determine the type, amount, and priority date of every user's water right in a particular watershed or basin. Adjudications often involve thousands of water users and take decades to complete. The technical and legal expenses often run into the millions of dollars, and litigation frequently heightens tensions among the water users.

Since the adjudications usually involve federal reserved water rights (those rights appurtenant to tribal and federal lands), a key issue has been whether these cases should be heard in state or federal court. Many believe that tribes attain a more impartial hearing in federal court, but states argue in favor of their own court system. Under the concept of sovereign immunity, the federal government and tribes as sovereigns historically could not be taken into state court to determine their water rights. This frustrated state attempts to quantify and prioritize all water rights in general stream adjudications of basins where federal reserved water rights existed.

In 1952, Congress passed the McCarran Amendment, which waived federal sovereign immunity and allowed states to bring the federal government into state general stream adjudications.<sup>2</sup> Later, the U.S. Supreme Court

ruled that the McCarran Amendment also applied to state adjudications of Indian reserved water rights held in trust by the United States.<sup>3</sup> Although the Court did not entirely eliminate the power of federal courts to determine Indian water rights, federal review is unlikely to occur in instances where state court proceedings are underway or are planned in the near future.<sup>4</sup> Although adjudications have been brought in both state and federal court, most suits are filed in a state forum because the cases are initiated by the states themselves. The McCarran Amendment and related court rulings do *not* mean that federal rights are quantified according to state law; the extent of the federal reserved water rights can be determined in state court only by using federal substantive law.

## Federal Reserved Water Rights

*If one may mark the turn of the twentieth century by the massive expropriation of Indian lands, then the turn of the twenty-first century is the era when the Indian tribes risk the same fate for their water resources.*

—Joseph Membrino, former assistant solicitor, Branch of Water and Power, Division of Indian Affairs, Department of the Interior

In the 1800s, many Indian tribes agreed to settle on reservations that in most cases were small portions of their former lands. According to treaties and rules of reservation establishment, all tribal rights on a reservation were preserved except those expressly ceded.<sup>5</sup> In other words, when these lands were set aside for tribal people, the natural resources of the reservations were also reserved.

In 1908, the U.S. Supreme Court confirmed the reservation doctrine when it issued its historic *Winters v. United States* decision.<sup>6</sup> In *Winters*, the court held that when the reservations were established, sufficient water to fulfill the purposes of the reservations was implicitly reserved. These federal reserved water rights benefiting tribal lands are commonly known as *Winters* rights. The Court determined the priority date for these rights to be the date the reservation was established. Assigning a priority date provided a means to integrate federally reserved rights with appropriative water rights recognized under state law.<sup>7</sup> *Winters* rights retain their validity and seniority regardless of whether tribes have put the water to beneficial use. By contrast, in most western states, an appropriative water right is subject to forfeiture or abandonment if not exercised on a regular basis.

*Continued on next page*

# Negotiating Tribal Water Rights

*Continued from previous page*

Because Indian reservations were generally established before the extensive non-Indian settlement of western lands, *Winters* rights usually have senior priority dates, making them some of the most reliable and valuable rights in many western basins. For years, these senior rights had little practical value to tribes, and unclaimed *Winters* rights posed little threat to existing non-Indian water users. Substantive federal assistance is only recently available to assist tribes in asserting and developing their reserved water rights. This has placed state water rights and *Winters* rights in competition for limited water supplies.:

Today, the process of settling Indian water rights claims entails the tremendous challenge of blending two sets of legal principles: the state doctrine of prior appropriation and the federal reserved water rights doctrine. Because of the typically early priority of reserved water rights, the *Winters* doctrine places a cloud of uncertainty over many water rights perfected under state law. Many current disputes involve non-Indian water users that have appropriated, under state law, water that previously may have been reserved for Indian tribes, but that was never quantified or fully used on reservations.

## Standards for Quantifying *Winters* Rights

There are two schools of thought among tribes on quantifying their water entitlements. Some tribes choose to pursue quantification through negotiated settlements so as to secure quantified rights, which they can develop before the game is over. Other tribes view quantification as a trick to limit tribal access to water. These tribes prefer to begin using water, as much as practical, to assert their rights.

—Kevin Gover, attorney, former assistant secretary for Indian Affairs

While clearly recognizing Indian tribes' rights to reserved waters, the *Winters* decision does not specify either the method for quantifying or any standards for administering these rights. The *Winters* decision placed no limit on the amount of water to which the tribes were entitled in the future, and merely stated water was reserved to fulfill the purposes for which the reservations were established. While language in treaties and other documents may describe specific purposes for a given reservation, the overall purpose for establishing Indian reservations was

to create permanent tribal homelands. The intent was to set aside a land base where Indians could govern themselves and provide for their communities, as they had done before non-Indian incursions. This requires access to water and other resources that are needed for the current and future livelihood of tribes. The *Winters* decision left the magnitude of tribal water rights open-ended.

## Agricultural Purposes

In its 1963 decision *Arizona v. California*,<sup>8</sup> the U.S. Supreme Court reaffirmed the *Winters* doctrine and established the standard of practicably irrigable acreage (PIA) to quantify reserved water rights on a reservation set aside for agricultural purposes. This standard applies to all reservations, whether established by treaty, statute, or executive order.

*Arizona v. California* was prompted by Arizona's need to determine its share of Colorado River water in order to obtain federal appropriations for the Central Arizona Project (CAP), a canal that would deliver water from the Colorado River to the major cities and farms of the state. The United States intervened to assert, among other things, the reserved water rights of the five Indian reservations on the lower reaches of the main stem of the Colorado River.<sup>9</sup>

Under the PIA standard, tribes are legally entitled to the amount of water needed to irrigate all practicably irrigable acreage within their reservation boundaries. The PIA standard is intended to account for relevant costs and benefits and to reflect the actual conditions of the reservation in question. A PIA analysis typically involves

- detailed assessment of the surface and groundwater supplies of the reservation and surrounding area;
- identification of all arable land on the reservation (land that is amenable to sustained agricultural use, including currently, historically, and potentially arable lands);
- assessment of the amount of arable land that is irrigable;
- development of feasible cropping patterns for the irrigable land;
- calculation of the amount of irrigation water needed to sustain the crops;
- design of irrigation and conveyance systems capable of delivering the needed water; and

*Continued on next page*

# Negotiating Tribal Water Rights

Continued from previous page

- comparison of land development and production costs with crop revenues to determine the total acreage that is economical to irrigate.<sup>10</sup>

Using the standards established in *Arizona v. California*, western Indian tribes have placed hundreds of thousands of acres under cultivation in the past four decades, providing employment opportunities and relieving poverty on many reservations.

## Other Reservation Water Needs

*Arizona v. California* addressed the quantification of *Winters* rights only for agricultural purposes. Because non-agricultural uses were minimal on the reservations considered in Arizona, the United States did not seek

to quantify them. On some reservations, however, a significant part of the tribes' reserved water rights involves other uses for the water. Such uses might include domestic use, stock watering, mineral extraction, industrial development, preservation of instream flows for fisheries, cultural or religious purposes, and recreation.

In some cases, courts have found that tribes hold reserved water rights for the preservation of fisheries or other instream uses.<sup>11</sup> These instream flow rights tend to be extremely controversial because they often compete with established consumptive uses. In some instances, courts have denied tribal claims to reserved water rights for instream flows.<sup>12</sup>

The quantification of instream flow rights is a complex process requiring detailed hydrologic studies to

Continued on next page

## Tribal Water Rights Sidebar: Concerns with the PIA Standard

The PIA (practicably irrigable acreage) standard, as a means for quantifying *Winters* rights, raises several concerns. First, the standard compels tribes and non-Indian water users to analyze the costs and benefits of new tribal irrigation development, thus detracting from a broad evaluation of many other potential uses of tribal water. The creation of skilled jobs on the reservation is a primary objective for many tribes, and modern irrigated agriculture provides relatively few year-round skilled jobs. In addition, land subjugation may disrupt wildlife habitat, archeological sites, air and water quality, and other reservation resources. By requiring tribes to document the extent to which developing new irrigated acreage has positive financial benefits, the PIA standard does not encourage tribes to explore water use alternatives that yield higher economic returns and provide better employment opportunities that are perhaps more compatible with tribal values and protection of the reservation environment. In instances where agriculture is not the intended use of tribal water, the PIA standard may award tribes either too little or too much water for other economically sound uses. The PIA standard generally results in large awards for reservations with climates and soils well suited

for crop production, and limited entitlements for mountainous reservations with short growing seasons. The quantity of water awarded may be inconsistent with the intended uses for the water and the development plans for the reservation.

Further, PIA feasibility studies are still ambiguous in many respects. The use of varying, yet plausible, crop price scenarios, crop yields, production costs, and other parameters influences the resultant financial feasibility and leaves the disputing parties many details over which to disagree. Some also argue that requiring financial feasibility (as PIA does) for new Indian irrigation projects is inequitable, because feasibility tests were not rigorously applied to decades of federal water projects that primarily serve non-Indian irrigators.

Some tribal advocates argue that the PIA standard, which has been relied upon for decades, is now an established method that offers a structured and reliable approach to quantifying Indian reserved water rights. Furthermore, alternative approaches (such as balancing of interests) sometimes suggested by western states tend to maximize the discretion of state courts that often adjudicate water rights. Some tribal advocates fear that modification or abandonment of the PIA standard will escalate uncertainty and protract litigation.

# Negotiating Tribal Water Rights

*Continued from previous page*

determine the variability of flow in a given stream, the optimal flows needed for fisheries, and a determination of the historical extent of the fisheries. Quantification also may entail determining the flows needed to preserve riparian areas to support traditional hunting and gathering on reservations. These claims are typically documented through interviews with tribal members and historical analyses to determine the extent of hunting and gathering activities.

In some instances, technical studies that determine the extent of reserved water rights may include ceded territories off the reservation (land ceded by a tribe to the United States when a reservation was established). This most often occurs in the Pacific Northwest, where many treaties guarantee the right to fish at usual and accustomed places on former tribal lands that now belong to non-Indians. In these instances, a reservation of water may be implied to support fish-harvesting activities on these ceded lands.<sup>13</sup> A recent ruling by the Arizona courts articulates a homeland standard for quantifying tribal reserved rights. Although it is too early to see how this new standard will be implemented, it undoubtedly will alter the dialogue about quantification.

## **Pueblo Water Rights**

The water rights of the Pueblo Indians constitute a special case and do not necessarily fall under the *Winters* doctrine.<sup>14</sup> Settling Pueblo water rights is complex because determining the quantity of their rights requires a historical inquiry based on treaty rights and interpretation by three different sovereigns. Over the past six hundred years, the Pueblos were “ruled” by Spain, Mexico, and then the United States. As each sovereign ceded power to the next, the new government redefined tribal rights. In the Treaty of Guadalupe Hidalgo, the United States guaranteed it would recognize and preserve the rights formerly granted to the territory’s citizens. Thus, adjudications of Pueblo water rights have revolved around the extent to which the Pueblos retain the status and rights they enjoyed under Spanish and Mexican rule.

One of the most contentious issues concerning Pueblo water is the quantity of their rights. The Pueblos argue that under aboriginal title, recognized by Spain and Mexico and perpetuated by the Treaty of Guadalupe

Hidalgo, the quantity to which they are entitled is an expanding right to enable development of all the natural resources of the reservation. Non-Indians argue that if the aboriginal right is used, the quantity should be based on the uses to which the water was historically applied. Further, non-Indians argue that the Pueblos should be subject to the *Winters* doctrine like other Indian tribes.

## **Tribal Sovereignty**

*Tribal sovereignty is an ancient notion, 10,000 years old at least and perhaps far older than that. Yet, in spite of having been tested during dark and treacherous times, tribal sovereignty remains vigorous and vibrant in this modern technological society.*

—Charles F. Wilkinson, University of Colorado law professor

Understanding tribal sovereignty is essential in appreciating the complex framework for settling Indian water rights disputes. The governmental powers of Indian tribes generally were not granted by Congress but are inherent powers never taken away. Before non-Indians came to dominate the western United States, Indian tribes had established thriving communities with extensive trade networks and were sovereign governors of their people and natural resources. Modern courts have recognized tribal authority over tribal people and lands, and in many instances have denied state regulatory authority over Indian country, a phrase that encompasses reservations, allotments, and dependent Indian communities.<sup>15</sup> Although exclusive tribal authority has been eroded over the years,<sup>16</sup> the concept of tribal sovereignty is the basis on which tribes govern their internal affairs. The notion of tribal sovereignty has, in some respects, been strengthened since the early 1970s by successive presidential administrations that have supported self-determination in Indian country.<sup>17</sup>

Issues related to tribal sovereignty emerge at various stages of Indian water rights negotiations. State concerns about tribal sovereignty are strong due to the potential for tribal water policies to have significant impacts on non-Indian water users. Likewise, the impact of state water regulations on tribal sovereignty is great, given that water is inextricably linked to reservation economies and to tribal culture and tradition.<sup>18</sup> Although some tribes and states contend for dominant regulatory powers over water and other natural resources, many observers believe the interconnected nature of rivers, lakes, and aquifers make joint jurisdiction and management desirable.

*Continued on next page*

# Negotiating Tribal Water Rights

*Continued from previous page*

Tribal sovereignty forms the backdrop against which attempts by other governments to limit and regulate tribal water resources must be evaluated. The courts have established that the regulatory interest of the state, if not preempted by federal law, must be weighed against the potential effect of the proposed state regulatory measure on the tribe's continued ability to make its own laws and be ruled by them. The off-reservation impact of reservation activities has come to be used by the courts as an important measure of state interest.<sup>19</sup>

## Federal Trust Relationship

*It is appropriate to educate members of Congress about the federal trust responsibility to tribes and the conflicts this trust responsibility creates in local communities... We also need to educate Congress that funding settlements is an appropriate exercise of trust responsibility.*

—Michael Connor, former majority staff, U.S. Senate Energy and Natural Resources Committee

The federal government's relation to tribes can be viewed as trusteeship or guardianship. At its inception, the trust doctrine reflected the Supreme Court's view of Indian tribes as domestic dependent nations and of a tribe's relationship to the United States as that of a ward to his or her guardian.<sup>20</sup> Although Congress enjoys broad powers over Indian affairs, these powers are subject to procedural and constitutional limitations. The trust relationship, while enhancing federal power over Indians, creates certain federal duties relating to Indian tribes.

Specifically, the trust responsibility provides federal protection for Indian resources and federal assistance in resource development and management.<sup>21</sup> These resources have been found to include not only land but other assets, such as timber, water, and reservation fisheries.<sup>22</sup> This may entitle Indian tribes to receive special benefits not available to other citizens. The benefits that flow from the trust relationship are not based on race but derive from the government-to-government relationship between the United States and Indian tribes.<sup>23</sup>

Administration of most aspects of the trust responsibility was delegated by Congress to the Department of the Interior and the Department of Justice, although these obligations are not limited to those departments.

The United States' trust duty to Indian tribes must be observed by any federal agency whose activities might have some effect on the tribe's trust assets.<sup>24</sup> The trust relationship is intended to hold all executive branch officials to strict standards in dealing with Indian trust property while allowing them the flexibility to exercise reasonable judgment. This is of particular importance in instances where the United States has a conflict of interest between general public programs and the rights of Indian trust beneficiaries.

The courts have held that federal agencies cannot subordinate Indian interest to other public purposes except when clearly authorized to do so by Congress.<sup>25</sup> In *Nevada v. United States*,<sup>26</sup> the Supreme Court held that the United States could adequately represent more than one interest simultaneously and so is not subject to the same standards as a private trustee. In this case, the Court found that claims made by the United States on behalf of the Pyramid Lake Paiute Tribe (Nevada) to protect fisheries should have been asserted in prior litigation. Nevertheless, the Court found the failure of the United States to do so was not a breach of its trust obligation to the tribe, even though the United States also had protected the competing interests of non-Indian irrigators. This ruling illustrates the ambiguous and sometimes conflicting roles of the federal government in tribal water cases.

## Federal Obligations to Indian Tribes

*There are four justifications for federal funding of settlements: To ensure consistency with federal trust responsibility to tribes; to avoid litigation costs to tribes, the federal government, and to local parties; to eliminate claims against the federal government; and to avoid displacing existing water users.*

—Michael Connor, former majority staff, U.S. Senate Energy and Natural Resources Committee

Some Indian tribes receive assistance from the federal government in the course of negotiating and implementing water settlements. Assistance may include funds to defray the costs of hiring attorneys, engineers, and other experts needed to support a tribe's assertion of its water rights. Also, federal attorneys with the Department of the Interior's Solicitor's Office and the Department of Justice may represent the United States as trustee for the tribe in court. Federal monies form a substantial part of many settlement packages, often providing for economic-development programs on reservations.

*Continued on next page*

# Negotiating Tribal Water Rights

Continued from previous page

A historical perspective is useful in understanding the obligations of the federal government to resolve Indian water disputes. Shortly after Congress passed the 1902 Reclamation Act,<sup>27</sup> the U.S. Supreme Court recognized Indian reserved water rights in its *Winters* decision. One might expect that tribes would have benefited substantially from federal reclamation efforts; however, this was not the case. As the prestigious National Water Commission observed in 1973, federal policies to establish irrigated agriculture and settle the West “were pursued with little or no regard for Indian water rights and the *Winters* doctrine.” The commission concluded that “with few exceptions the projects were planned and built by the federal government without any attempt to define, let alone protect, prior rights that Indian tribes might have had in the waters used for the projects.”<sup>28</sup>

Consequently, tribes often have been unable to put their entire water entitlement to use, and non-Indian appropriators have come to rely upon water that is reserved for tribes. As a result, Indian tribes who are today struggling to assert and develop their *Winters* rights are viewed as interlopers in the western water arena. Assistance to tribes in resolving these disputes recognizes the federal government’s responsibility in these matters.

The federal government must attempt to balance the interests of non-Indians (who were often induced by federal actions and policies to rely on tribal water supplies) and the requirements of other federal agencies or laws (such as the federal ESA) against the interests of Indian tribes whose water-related needs and trust responsibilities were shortchanged during decades of federal water-development largesse. It is useful, in considering these competing interests, to recognize that although non-Indian water users have incurred substantial costs to develop water-dependent enterprises, they also have enjoyed the benefits of the disputed water resources for many years.

Bonnie G. Colby is a Professor of Agricultural and Resource Economics at the University of Arizona, where she has been a faculty member since 1983. John E. Thorson served as special master for Arizona’s general stream adjudications 1990–2000. He is now an administrative law judge for the California Public Utilities Commission. Sarah Britton is an attorney practicing with the public defender in Sacramento, California. This chapter is reprinted from their book *Negotiating Tribal Water Rights: Fulfilling Promises*

in the *Arid West* (Tucson: University of Arizona Press, 2005), available for viewing at WRCA (call no. LI 72 P5).

## Notes

1. 16 U.S.C. § 1531 (1973); 33 U.S.C. § 1251-1387 (1988).
2. 43 U.S.C. § 666(a) (1952).
3. *Colorado River Water Conservation District v. United States*, 424 U.S. 800 (1976). Federal courts must defer to state court proceedings.
4. See *Arizona v. San Carlos Apache Tribe*, 463 U.S. 545 (1983).
5. See, e.g., *United States v. Winans*, 198 U.S. 371 (1905); Felix S. Cohen and Rennard Strickland, *Felix S. Cohen’s Handbook of Federal Indian Law* (Charlottesville, Va.: Michie Bobbs-Merrill, 1982).
6. *Winters*, 207 U.S. 564 (1908).
7. In some instances, these rights go back to time immemorial. See *United States v. Adair*, 723 F.2d 1394 (9th Cir. 1983), cert. denied, 467 U.S. 1252 (1984).
8. *Arizona v. California*, 373 U.S. 546 (1963), decreed in final form, 376 U.S. 340 (1964), decree amended, 383 U.S. 268 (1966), supplemental decree entered, 439 U.S. 419 (1979), supplemental opinion, 460 U.S. 605 (1983) [*Arizona II*], second supplemental decree entered, 466 U.S. 144 (1984). The report by Special Master Tuttle contains a detailed discussion of the rationale for the rule adopted by the Court rejecting open-ended decrees.
9. The five reservations were Chemehuevi, Cocopah, Yuma, Colorado River, and Fort Mojave. Other Indian tribes in the region with potential claims to the Colorado River were not included in the adjudication.
10. See, e.g., Ann E. Amundson and American Indian Resources Institute, *Tribal Water Management Handbook* (Oakland, Calif.: AIRI, 1988), 144.
11. See *Colville Confederated Tribes v. Walton*, 752 F.2d 397 (9th Cir. 1985), cert. denied, 454 U.S. 1092 (1981); *Adair*, 723 F.2d 1394, 1412-14 (9th Cir. 1983), cert. denied, 467 U.S. 1252 (1984); *Mucklesboot Indian Tribe v. Trans-Canada Enterprises, Ltd.*, 713 F.2d 455 (9th Cir. 1983), cert. denied, 465 U.S. 1049 (1984); *Confederated Salish and Kootenai v. Flathead Irr. Dist.*, 616 F. Supp. 1292 (D. Mont. 1985); *Board of Control v. United States*, 646 F. Supp. 410 (D. Mont. 1986), 832 F.2d 1127 (9th Cir. 1987), 862 F.2d 195 (9th Cir. 1988).
12. See *In re Rights to Use Water in the Big Horn River*, 753 P.2d 76 (Wyo. 1988), affirmed sub. nom., *Wyoming v. United States*, 492 U.S. 406 (1989) [Big Horn I]; see also *Nevada v. United States*, 463 U.S. 110, 113 (1983).
13. See *United States v. Washington*, 384 F. Supp. 312 (W.D. Wash. 1974), aff’d, 520 F.2d 676 (9th Cir. 1975), cert. denied, 423 U.S. 1086 (1976); *United States v. Washington*, Phase II, No. 9213 (W.D. Wash., September 26, 1980).
14. See generally Charles T. DuMars, Marilyn O’Leary, and Albert E. Utton, *Pueblo Indian Water Rights: Struggle for a Precious Resource* (Tucson: University of Arizona Press, 1984).
15. *United States v. Mazurie*, 419 U.S. 544 (1975), citations omitted.
16. See, e.g., *Brendale v. Confederated Tribes and Bands of the Yakima Indian Nation*, 492 U.S. 408 (1989).
17. This began in 1970 when the Nixon administration announced the policy of self-determination without termination and Congress passed the Indian Self-Determination and Educational Assistance Act of 1975, 25 U.S.C. §§ 450-450n, 455-458e (1982).
18. See, e.g., *Colville Tribes v. Walton*, 752 F.2d 397 (9th Cir. 1985).
19. See *Rice v. Rehner*, 463 U.S. 713 (1983); see also *Washington v. Confederated Tribes*, 447 U.S. 134 (1980); *Puyallup Tribe, Inc., v. Department of Game*, 443 U.S. 165 (1977); *Brendale v. Confederated Tribes and Bands of the Yakima Indian Nation*, 492 U.S. 408 (1989).
20. *Cherokee Nation v. Georgia*, 30 U.S. 1 (1831).
21. See *Seminole Nation v. United States*, 316 U.S. 286, 297 (1942); *Navajo Tribe of Indians v. United States*, 364 F.2d 320 (Cl. Ct. 1966); *United States*

Continued on next page

# Announcements

## Coasters Feature L.A. Aqueduct Images

Looking for a unique gift idea? Eight striking turn-of-the-century images from WRCA's archival collection are now featured on coasters, available for purchase in sets of four. These images from the Joseph B. Lippincott Collection document the building of the Los Angeles Aqueduct between the Owens Valley and Los Angeles. Last year WRCA digitized over 800 Lippincott photographs, now available online (visit <http://www.lib.berkeley.edu/WRCA/aqueduct.html> and click "finding aid"). The price for each set of coasters is \$17.50. For mail orders, please add \$2.50 for shipping and handling.



## Welcome, Kady

Kady Ferris joined the WRCA team as Public Services Library Assistant in August. Kady previously spent three years as a part-time student employee at the UC Berkeley Mathematics Statistics Library, where she dabbled in all aspects of circulation, from shelving and patron relations to cataloging and checking in new materials. This background, along with three years working as the films manager for the Student Entertainment Board, has prepared her for the variety of tasks she performs at WRCA, including organizing the Colloquium lecture series, assisting with fundraising for the library, and keeping track of circulation. Kady graduated from UC Berkeley in May with a bachelor's degree in mass communications and is glad to be staying in the Bay Area. Though new to the world of water resources, she is fascinated by all that she has learned thus far and looks forward to expanding her knowledge further.

## Farewell, Paige

After over four years of service to WRCA, Paige Wooden left her post as Public Services Library Assistant at the end of July. She began her tenure at WRCA as a student employee, sending out interlibrary loans, schlepping books, creating inventories of archival collections, making copies, and executing other special projects. After graduating from UC Berkeley in May 2005 with an undergraduate degree in English, she joined the full-time staff. As Public Services Library Assistant, she managed circulation, responded to email inquiries, purchased books and supplies, helped patrons, and maintained an atmosphere of merriment and joy with her quirky sense of humor. She will miss Paul, Trina, Linda, Becky, Jessica, and Grayson, as well as all the other great souls she got to work with along the way. Paige moved to the East Coast to attend graduate school in English literature at the University of Maryland.

---

## Negotiating Tribal Water Rights

*Continued from previous page*

v. Mitchell, 463 U.S. 206 (1983).

22. See *Pyramid Lake Paiute Tribe v. Morton*, 354 F. Supp. 252 (D.D.C. 1972); *Pyramid Lake Paiute Tribe v. U.S. Department of Navy*, 898 F.2d 1410 (9th Cir. 1990); *Northern Arapahoe Tribe v. Hodel*, 808 F.2d 741 (10th Cir. 1987).

23. *Morton v. Mancari*, 417 U.S. 535 (1974).

24. *United States v. Eberhardt*, 789 F.2d 1354 (9th Cir. 1986).

25. See, e.g., *United States v. Winnebago Tribe*, 542 F.2d 1002 (8th Cir. 1976); *United States v. Southern Pacific Trans. Co.*, 543 F.2d 676 (9th Cir. 1976). But see *Seneca Nation of Indians v. United States*, 338 F.2d 55 (2nd Cir. 1964), cert. denied, 380 U.S. 952 (1965); *Seneca Nation of Indians v. Brucker*, 262 F.2d 27 (D.C. Cir. 1958), cert. denied, 360 U.S. 909 (1959).

26. 463 U.S. 129 (1983).

27. 32 Stat. 388, 43 U.S.C. 391 (1902).

28. U.S. National Water Commission, *Water Policies for the Future* (Port Washington, N.Y.: Water Information Center, 1973), 474-75.

# Donors 2006

## **Gifts-in-Kind**

Balance Hydrologics, Inc.  
California Department of Water Resources  
Contra Costa Water District  
Jeremy Frankel  
Thomas F. McCubbins  
T.N. Narasimhan  
Beatrice Olsen  
Nigel Quinn  
Akiko Sato, Institute for Global Environmental  
Strategies  
Tehama County Resource Conservation District  
U.S. Army Corps of Engineers  
WateReuse  
Western States Water Council

## **Friends of the Archives**

### **River**

---

Dr. L. Martin Griffin  
Sari Sommarstrom  
Tim Strohane

### **Watershed**

---

John Andrew  
Tom Graff  
Professor Matt Kondolf  
B.J. Miller  
Tim Ramirez

### **Member**

---

California Engineering Contractors, Inc.  
California Urban Water Agencies  
Del Puerto Water District  
Kennedy/Jenks Consultants, Inc.  
Noble Consultants, Inc.  
Strategic Environmental Analysis, L.C.  
Zone 7 Water Agency of California

### **Associate**

---

Bechtel Corporation—  
Geotechnical & Hydraulic Engineering  
Somach, Simmons & Dunn  
Northern California Water Association  
Hydrologic Systems

### **Sponsor**

---

NRCE, Inc.  
Todd Engineers  
Law Offices of Patrick Maloney

### **Benefactor**

---

Balance Hydrologics, Inc.  
Nestle Waters North America, Inc.  
San Francisco Public Utilities Commission  
Santa Clara Valley Water District  
Professor Emeritus Robert L. Wiegel

**Thank you!**

# Friends of the Archives

Please consider supporting WRCA by becoming a member. Membership forms are available on the Friends of the Archives Web site: <http://www.lib.berkeley.edu/WRCA/friends.html>.

## Corporate Memberships

Member	\$150/year
Associate	\$250/year
Sponsor	\$500/year
Benefactor	\$1,000/year

### **Member** **\$150**

Services include:

- Extended loan period (*1 semester*)
- Annual WRCA calendar of historic photographs
- Acknowledgement in WRCA newsletter, Web site, and annual report

### **Associate** **\$250**

Services include all of the above, plus:

- 1/2 hour of research each month (*upon request*)

### **Sponsor** **\$500**

Services include all of the above, plus:

- 1 hour of research each month (*upon request*)
- Document delivery by mail (*1 loan or 2 photocopies*)

### **Benefactor** **\$1,000**

Services include all of the above, plus:

- Annual WRCA calendar of historic photographs (*3*)
- Document delivery by mail (*2 loans or 4 photocopies*)
- Acknowledgement on commemorative plaque on display at WRCA

## Individual Memberships

Creek	\$25/year
River	\$50/year
Cascade	\$75/year
Watershed	\$100/year

### **Creek** **\$25**

Services include:

- Extended loan period (*1 semester*)
- Acknowledgement in WRCA newsletter, Web site, and annual report

### **River** **\$50**

Services include all of the above, plus:

- Annual WRCA calendar of historic photographs

### **Cascade** **\$75**

Services include all of the above, plus:

- Document delivery by mail (*1 photocopy upon request*)

### **Watershed** **\$100**

Services include all of the above, plus:

- Annual WRCA calendar of historic photographs (*2*)

*Individual donations are tax-deductible.*

Please make checks payable to "University of California Regents." Be sure to include contact information: name, organization name (if applicable), address, phone number, and email address.

Send checks to: Water Resources Center Archives  
410 O'Brien Hall  
University of California  
Berkeley, CA 94720-1718