New Mexico Historical Review

Volume 73 | Number 4 Article 4

10-1-1998

Fantastical Assumptions: A Centennial Overview of Water Use in New Mexico

Hana Samek Norton

"Fantastical Assumptions": A Centennial Overview of Water Use in New Mexico

HANA SAMEK NORTON

On 7 January 1997, four western members of Congress, including Joe Skeen of New Mexico, introduced H. R. 128, a bill entitled "State Water Sovereignty Protection Act."[1] The act, still under consideration, proposes "to preserve the authority of the States over water within their boundaries, to delegate the authority of the Congress to the States to regulate water, and for other purposes." H. R. 128 seeks to make the federal government subject to "all procedural and substantive laws of the State relating to the allocation, adjudication, appropriation, acquisition, use and exercise of water rights to the same extent as a private person subject to such laws." Further, the bill proposes that "the withdrawal, designation or other reservation of lands by the United States for any purpose (whether by statute or administrative action) does not give rise by implication to a federal reserved right to water relating to such purposes."[2]

In plain language, H. R. 128 seeks to write the closing chapter in the historic struggle among the West's ethnic groups over the allocation of natural resources by transferring control of western waters to the states. Jurisdiction over water normally rests within the states; however, the federal government has retained certain "federal reserved rights" over western waters, and it is in this arena that federal and state water policies clash. Federal rights are based on the legal doctrine that by withdrawing public lands for federal purposes and programs (national forests, parks, military and Indian reservations, maintaining river navigability), the national government has reserved enough water from a state's streams to fulfill the purposes of acts like H. R. 128.[3]

Hana Samek Norton lives in Albuquerque and researches in the area of natural resources.

Not surprisingly, H. R. 128 (like the long simmering Sagebrush Rebellion), reflects the desire of some westerners to make available all remaining federally–managed resources for more intense economic exploitation.[4] The bill's proponents expect that removal of the federal hand would slake, at least during the legislators' lives, the West's voracious appetite for water.[5] As the West approaches the new millennium, inter–ethnic competition over resources that commenced during the historic settlement of the West promises to remain a prominent feature of the western political landscape. In New Mexico, a unique ethnic mixture and long–standing contentions over land and water have added a particular complexity to this pattern. As historian Donald Pisani has noted, during the past century the law has served to reallocate wealth—in the case of the West, natural resources—from the weakest to the strongest group.[6] This approach has guided responses to the challenges of living in an arid environment, but in the new millennium past solutions may not as readily provide answers to future problems.

In 1878, John Wesley Powell, in his *Report on the Lands of the Arid Regions of the U.S.*, pointed out that only a fraction of western land could be irrigated given the available water and he argued for a reform of the existing land laws to prevent the few from monopolizing a scarce resource. Powell argued for a rational use of natural resources, warned about the limits of the western water supply, and urged the development of reservoirs and the preservation of irrigable lands. Powell's most insightful and revolutionary recommendation was the passage of national legislation to deal with the unique problems of living in an arid environment. "It hardly seems wise to imperil interests so great by entrusting them to the possibility of some future court made law," he warned.[7]

By the end of the nineteenth century, western states and territories assumed control over the regulation of water within their borders. They developed a body of laws to manage "their" water in order to foster local visions of development, a move which some legal experts applaud but which some western historians decry. But rather than solving the basic problem of water shortage, this proprietary approach mired the West in interstate and international water litigation.[8] In 1888, for example, New Mexico, experiencing shortages of water due to development in southern Colorado, sanctioned the obstruction of the Rio Grande's flow. New Mexico claimed ownership of the river in disregard of an international agreement between the U.S. and the Republic of Mexico. The federal government took New Mexico to the U.S. Supreme Court three times before achieving a partial victory.[9]

At the beginning of the twentieth century, promoters of western development realized that the West lacked sufficient water resources to support the economic growth, and that private endeavors were inadequate and too haphazard to provide water for the growing multitudes. As a result of western lobbying, Congress passed the Newlands Act in

1902, generating the first wave of massive, federally-funded irrigation projects that dot the West today.[10]

Although the projects were constructed with federal funds, Congress, by default, handed control over the generated water to the states.[11] While these federal projects promoted the development of Anglo American communities, Native American reservation communities—located in the same arid areas—received far less generous Congressional appropriations for their irrigation development.[12] As a result, native communities were prevented from utilizing the water, and consequently, the neighboring non-Indian communities reaped the benefits of using this resource free of charge.[13] When Indian communities began to assert their water rights, they were met with hostility from the courts and their non-Indian neighbors. As lawyer Monique Shay observes, the government subjected on-reservation proposals to repayment assessments and to economic feasibility yardsticks. The measurements—which would have halted many off-reservation projects—were not implemented for non-Indian project assessments.[14]

The ecological and economic disasters of the 1930s further prompted the federal government to fund conservation programs. In addition to constructing more flood protection, irrigation, and water storage projects, the government also resumed promoting resource planning.[15] The National Resources Planning Board (NRPB) was established in 1939 to create a national land policy. The aims of the NRPB included compiling an inventory of water resources and instituting interstate stream compacts for the regulatation, conservation, and development of water flowing through several states.[16] The NRPB's existence, however, was short-lived, ending in 1943 amidst charges of "socialistic assault on free enterprise."[17]

The NRPB nevertheless sowed the seeds of future western water projects. While opposed to "socialistic assaults," western states would continue to find federal involvement useful when it came to water development. In New Mexico, for example, one of the NRPB proposals was the construction of a transmountain diversion. The project would channel water from the San Juan to the Chama River in order to supply water for the middle Rio Grande valley; in exchange, water from the Rio Grande would supply the San Luís valley in Colorado.[18]

The San Juan-Rio Grande water exchange indicates not only the need for cooperation and federal intervention, but also demonstrates the potential for intense competition for water resources. By the 1930s, in the Land of Enchantment as elsewhere in the West, a pattern of losers and winners in the struggle for land and water already had emerged. In 1935, the *Tewa Basin Study,* a government-sponsored survey, examined centuries of human interaction with the environment in northern New Mexico and found "evidence of the press of an increasing population upon dwindling material resources, increasing economic rivalry between

cultural groups and the growth and technique of exploitation."[19]

The original dynamics of competition for land and water, which at first involved Hispanic and Indian populations, have been altered by the arrival of Anglo–Americans armed with Anglo–American law. In the resulting tripartite competition, the first group to experience expropriation by the new arrivals were the agricultural and sedentary Pueblo Indians, and then the pastoral and nomadic tribes. Despite colonial laws to protect Pueblo resources, encroachment on Pueblo land grants became endemic during the Spanish and Mexican periods, and continued into the American era.[20] By the end of the eighteenth century, population pressures propelled Hispanic settlements throughout and outside the main corridor of the Rio Grande valley. These settlements brought contact and conflicts with Jicarillas, Utes, and Navajos. With the arrival of Americans, armed conflicts increased and continued through the 1860s.

At first, the Hispanic settlers benefitted from American law. In 1876, the U.S. Supreme Court upheld the ongoing transfer of Pueblo lands into non–Indian ownership—largely Hispanic—by adopting the view espoused by the New Mexican territorial court that the Pueblo communities were not truly "Indians" and therefore not protected by federal statutes for Indians.[21] This law remained in effect until 1913. As a result, according to some estimates, the Pueblo Indians sustained a loss of 80 to 90 percent of their land to non–Indians between 1848 and 1913.[22] Soon, however, American laws undermined the interests of Hispanic settlers. Some of the new American settlers moved into the eastern plains and the southwestern portions of New Mexico, where few American settlements existed, while other Americans found attractive lands in settled portions of the territory. It became only a matter of law to accomplish the transfer of these lands into new ownership.

In 1897, the U.S. Supreme Court ruled that the Hispanic land grants' *ejidos* were not owned by the local community, but were in fact public lands.[23] Whatever lands the grantees had not lost in the land grant "confirmation" process were subsequently divested through territorial legislation.[24] As a result, during the territorial and early statehood periods, courts used similar tactics to seize grant lands from the Pueblo Indians and common lands from Hispanic communities. What remained to be determined by further judicial action was how much water for these lands the owners could claim. The answer to that question unleashed another round of conflicts.

In 1907, New Mexico revised its water code and charged the Office of the Territorial Engineer with inventorying the water resources of New Mexico by means of hydrographic surveys. Based on these surveys, the Office of the Attorney General filed suits to determine the rights of all stream users. The office employed the doctrine of prior appropriation, which governs water use in most western states.[25] This doctrine holds that the right to use water is governed by "priority" (date of first use)

and the amount of use—which is subject to loss—by its beneficial nature. In times of scarcity, those with senior appropriation dates receive the right of first use, others in descending order, and junior appropriators might receive no water.[26]

In theory, the Pueblos were to be regarded in this process as any other residents of New Mexico Territory, with equal opportunities to appeal to the courts—an altogether unlikely occurrence as some on the bench candidly admitted.[27] Fortunately for the Pueblo Indians, and alarmingly for other residents, the legal weather vane temporarily shifted in the Pueblos' favor. In 1913, the U.S. Supreme Court declared that its original ruling regarding the Pueblos was based on inaccurate information. The court reversed the 1876 decision, declaring that the Pueblos were indeed "Indians" and as such were entitled since 1848 to the protection of their lands and water by the federal government. In turn, the U.S. attorney for the Pueblos commenced to file suits against non–Indian settlers residing within Pueblo grants. Had the suits prevailed, they would have resulted in the eviction of some 12,000 individuals, a substantial segment of New Mexico's electorate, and led to a major political crisis in New Mexico.[28]

Alarmed by this prospect, in 1922 the Secretary of the Interior (and New Mexican) Albert B. Fall supported the passage of the Bursum Bill to nullify the legal victory of the Pueblos. The legislation would have confirmed retroactively and without compensation to the Pueblos that the disputed Pueblo lands and water should be placed in the possession of the non–Indian settlers. Had it passed, the Bursum Bill would have officially consummated another transfer of Indian resources into non–Indian hands.[29]

The national outcry against this strategy for an "Indian land grab" scuttled the proposed bill, and the crisis ultimately led to the passage of the Pueblo Lands Act (1924) and the Pueblo Relief Act (1933). The two acts did not deter further challenges to the Pueblo Indians' natural resources. While the Pueblo Lands Board (created under the act) in many instances ruled in favor of the Pueblos, subsequent reviews by the courts often reversed the decisions. As a result, the Pueblo of San Ildefonso still lost 90 percent of its agricultural lands.[30] The key question of water use on Pueblo lands was left to future determination by the courts. By the time the Pueblos' turn came in the 1960s, interim court rulings on water in the West further complicated the process.

A perusal of legal commentaries on these "court–made laws" reveal them to be contradictory and vague, based on hair–splitting legal theories and selective historical interpretations.[31] The process seems to have been designed to postpone the inevitable reckoning: that the demands of all the parties cannot be satisfied. What in fact is left to the courts is the determination of who will bear the greater portion of the loss.[32]

Under federal Indian policy in the nineteenth century, most western

nomadic tribes adopted various degrees of the agricultural economy of their white neighbors. Ironically, by doing so, the tribes faced further conflicts with their same neighbors as the two groups competed for resources. In the late nineteenth century, many in the West believed that Indians possessed too much land and, as a result, non–Indians pressed for laws such as the 1887 Allotment Act. Similarly, in the twentieth century Indian tribes have been found guilty of claiming too much water. The continuous existence of Indian tribes on western lands poses a particular problem to western states where the prior appropriation doctrine governs water rights.

This peculiar situation is the result of the 1908 decision by the U.S. Supreme Court in *Winters v. United States*. The court held that the Congress or the Executive, by setting aside Indian reservations, also "reserved" for the Indians the right to water in the amount sufficient to fulfill the purposes of the reservation. Priority of tribal water use dates from the establishment of that reservation, or from date of aboriginal use, which often gives the tribes rights that are senior to those of non–Indian appropriators.[33] However, unlike appropriations by non–Indians under state laws, under federal law Indian water rights are not dependent upon "beneficial" application of water and they cannot be lost through non–use. Since the tribes' rights may also grow as the needs of the reservation population increase and change, non–Indian appropriators are left insecure as to how much water, if any, they will be apportioned.[34]

In 1963, the Supreme Court addressed the question of exactly how much water is "reserved" for Indian reservations in the case of *Arizona v. California.* Besides the existing historical water uses, the court limited the Indians' reserved rights to the "practicably irrigable acreage" on the reservation.[35] Until recently, this definition served to establish the limits of Indian water use for agricultural purposes—based on the principle of economic feasibility—but it has since come under attack. Some tribes have tried to expand claims for future needs for domestic, commercial, religious, recreational, and more recently, environmental and ecological purposes.[36] These claims represent the traditional non–Indian concept of "development," but they have served as catalysts for further conflicts between Indian and non–Indian water users.

These conflicts are based on non–Indians' fear that, armed with the *Winters* and *Arizona v. California* decisions, Indians would "take" all of the water. Such a scenario, however, has not come to pass.[37] In part, this is due to the McCarran Amendment passed in 1952. The amendment stipulates that state courts across the West can adjudicate federal reserved water rights, including Indian rights, as part of a state stream adjudication process.[38]

However, some legal commentators warned that hostile state courts could undermine or simply ignore the tribes' rights established in *Win-*

ters and under other favorable federal decisions, or that they might be simply more vulnerable to public pressure.[39] This is particularly true since *Winters* remains a case law, never having been finalized through legislation by Congress—where no doubt it would face stiff opposition from western senators.[40] Proponents of H. R. 128 may argue that their aim is to cut through the Gordian knot of water litigation by handing over control of water to the states once and for all, but high among the motivations for the bill is that it would enable states to adjudicate federal Indian water rights from Montana to New Mexico.

The stakes are high, given the portion of Indian reserved rights. In New Mexico, from 1907 to date, according to some estimates, water adjudications are only about 20 percent complete, and based on the evidence, they have not been going swimmingly.[41] In the 1960s, the state of New Mexico filed for the adjudication of all tributaries to the Rio Grande. The first suit, filed in 1966, *State of New Mexico v. Aamodt,* is still in court, known now as the "longest running water lawsuit on record involving the federal government."[42]

The *Aamodt* case involves the adjudication of the Rio Pojoaque stream system north of Santa Fe and includes four Indian Pueblos. The case was regarded as a pilot for the determination of Pueblo water rights, but it has become a legal morass. In the first round of *Aamodt,* the Federal District Court of New Mexico ruled that state law should determine the water rights of the Pueblo Indians. This ruling was overturned on appeal, after which the court took nine years to render another decision.[43] In an interesting replay of the 1876 argument that Pueblo Indians are not truly "Indians," the Federal District Court adopted the view that even though the Pueblos are "Indians," the *Winters* doctrine of reserved water rights suggests that their homelands are not "technically" Indian reservations.[44]

Because the Pueblo Indians possess land grants dating to Spanish colonial rule, the court limited the application of the *Winters* ruling to Pueblo "reservations" but declared it inapplicable to Pueblo land grants.[45] Extending the *Winters* interpretation of reserved rights to Pueblo grant lands, the court declared, "would fix an unrealistic priority." Then the court certified the case for interlocutory appeal to a higher court, since there existed "substantial ground for difference of opinion."[46]

Exploring these different opinions has been a long and expensive process. In over thirty years of litigation, the state, federal, Indian, and non–Indian litigants have presented and perused evidence of water use by the Pueblos going back to prehistoric, Spanish, and Mexican periods, examined and re–examined Spanish, Mexican, and American laws pertaining to the Pueblos, and subjected the two Pueblo Acts to a microscopic scrutiny.[47] In 1987, estimates placed the legal fees expended since 1974 by the federal government on behalf of the four Pueblos at some $1.7 million; non–Indian defendants had received a federal grant for

legal fees of $450,000, plus $200,000 from the state which continues to appropriate funds to defend the non–Indian water users.[48]

The excruciatingly slow process of water litigation throughout the West, including New Mexico, has led some to consider negotiated settlements with Indian tribes. This effort has yielded mixed results for the tribes. Some fear that in the negotiations, tribes may cede rights that they would be able to defend successfully in court.[49] In New Mexico, the main stem of the Rio Grande—where the bulk of New Mexico's population and several Pueblo communities reside—has not yet been adjudicated. These residents therefore face years of acrimonious litigation and negotiations.

In fact, even the more straightforward litigation has not proceeded smoothly in New Mexico. One of the more charged suits, filed in 1977, involves the Rio Hondo basin and the Mescalero Apache Reservation. "Mescalero Victory Would Complicate Issue," declared the *El Paso Times* headline in 1987, announcing that an Indian victory would be a second blow to New Mexican Pecos basin farmers who were already bearing the brunt of Texas' claim to the Pecos water. The article also observed, with a note of relief, that the tribe "now diverts only about 600 acre–feet a year from the watershed."[50]

In their claim, the Mescaleros filed for 17,942 acre–feet of surface water. The state responded by declaring the tribe's petition "fantastical—founded upon unrealistic, arbitrary and often wildly exaggerated or speculative assumptions."[51] The local newspapers carried the usual prediction of calamity for non–Indians, similar to Montanans' reaction to the *Winters* ruling in 1908. "You'd have green fields on the Indian reservation and brown ones downstream," warned the chief counsel for the Water Defense Association.[52]

In its brief, the state espoused the argument that the Mescaleros' water claims for their proposed agricultural projects should not be measured according to the "practicably irrigable acreage" because the Mescalero reservation was "blessed" with an environment that supports grazing as well as recreation. "In the 113 years since the first definiation [sic] of their boundaries," the state argued, "the Mescaleros have never engaged in any but minimal irrigated farming."[53] A leading authority on water in New Mexico noted, however, that throughout the existence of the reservation, non–Indians have waged concerted efforts to deprive the Mescaleros of water.[54]

The state tried to calm fears by pointing out that non–Indian settlement in the valley predated the establishment of the reservation.[55] Three years later, the court rejected the Mescaleros' claim to a reservation priority date of 1852 in favor of a later 1873 date, one safely junior to the non–Indians'. In addition, the court ruled against the two proposed tribal irrigation projects, and limited the tribe to 1,372 acre–feet, with a future right to an additional 900 acre–feet for future growth.[56]

In 1993, on appeal, the court reversed the ruling that established 1873 as the reservation priority date. The Mescaleros' proposed water projects, however, which had been based on the "practicably irrigable acreage" rule, were rejected by the court as economically impracticable.[57]

In the northern part of the state, an adjudication of the Rio Chama basin—launched in the 1960s—elicited similar anxieties. The claims in dispute involved the Jicarilla Apache tribe.[58] The adjudication process placed the Jicarilla Apache tribe and the local Hispanic population in conflict. The Hispanic community voiced bitterness toward the legal process that forced the contest; both ethnic groups drew upon examples of defeat under this system, in past struggles over natural resources. In the last round of litigation over Hispanic land grants, the local Hispanic population lost, and, as a result, regarded the federal government's activities on behalf of the Jicarillas with suspicion. The reaction of the Hispanic water users was hauntingly similar to their ancestors' sense of bewilderment and betrayal during the land grant confirmation process. One resident expressed the local sentiments to the court:

> Water rights belong to everybody . . . We are the fighters for the (Tierra Amarilla) land grant. Maybe our lawyers are crooked. It's true, we never have anything in our favor. One day God is going to punish everybody . . . Mess with our rights and the war continues.[59]

Such views partly reflect a real fear of some members of the estimated 700 "acequia communities" of the gentrification of rural northern New Mexico. The reason is that a non–Indian irrigator living on a land grant or in an acequia community can separate the water rights from his/her land and sell those rights to others, such as commercial or recreational interests. Such a transfer renders the land fallow and is seen as the first step toward the disintegration of ancestral rural communities.[60]

Proponents of such transfers see the practice simply as a matter of maximizing the use of a scarce resource. Business interests, for example, claim that small family farms represent an inefficient use of water and argue that resources should be utilized instead for municipal, industrial, and other commercial development.[61] Recently, however, communities have begun to reject such arguments, contending that concessions to the marketplace threatens their social and cultural integrity.

Most western states have incorporated communities' concerns over water allocation into water laws—including non–consumptive uses for recreational, aesthetic and ecological purposes—but these concerns did not appear in New Mexican law until 1985 when the state began a process of water planning.[63] The public welfare argument, alluded to by

John Wesley Powell one hundred years earlier, is now seen as an innovative legal principle. Some legal commentators have urged the acequia communities to use the public interest argument in litigation to protect their survival. However, when legislators amended New Mexico's water code in 1985, they determined that the courts should define "public interest." But, as one commentator has pointed out, the courts are ill–prepared to deal with such politically–charged definitions that pit powerful economic interests against newly emerged cultural and community values.[63]

Part of the problem of determining water rights lies in the very doctrine of western water use. Eminently reasonable on the surface, the doctrine of prior appropriation has traditionally provided substantial economic incentives and opportunities for investors whose projects were defined as "beneficial" principally in economic terms. At first, this approach was also applicable to agricultural developments. In retrospect, however, the prior appropriation system has been labelled "grossly inefficient" when parceling out the scarce resource of water in an arid environment.[64] Changing demographics and expediency continue to intensify the need for determining the most efficient and fair approach to water use.

Some western residents are no longer content to rely on past interpretations of "beneficial use." In 1994, the New Mexico State Engineer's Office determined that the Intel Corporation's application to drill wells in the city of Rio Rancho was in the public's interest, despite objections from the affluent downstream community of Corrales. The state engineer accepted Intel's argument that the expansion of its infrastructure, the stimulation of the local economy, and the resulting new jobs represented a beneficial use of water.[65]

Unfortunately, these industrial activities, while indeed economically beneficial, merely compound the problem of water shortage facing urban communities: they attract more residents and businesses and fuel the ever–spiralling demand for more water. This pattern is most obvious in the city of Albuquerque, the largest urban water user in New Mexico. When faced with water shortages, Albuquerque's solution consists of searching for more water by tapping deeper into the underground aquifer, drawing upon the city's share of water from the Rio Chama diversion, purchasing surface water rights, and periodically launching exhortations at conservation.[66]

In 1995–96, in one of the boldest measures to confront the water issue, city leaders instituted a low water use toilet exchange program and issued calls for residents to switch to xeriscaping. While residential water use decreased by 4.4 percent, industrial water use jumped 18 percent. As the newspapers observed, "Much of the industrial increase comes from new plants or expansion that got a helping hand from city

tax breaks." These tax incentives drew criticism from water conservationists who inquired about the wisdom of encouraging the relocation of heavy water–use industries into demonstrably arid areas. The newspaper, however, noted the sobering fact that residential water use in Albuquerque accounted for 70 percent, while industrial use comprised 3 percent. The report also emphazised that the city lacked leadership on the water isssue.[67]

Considering the historic emphasis in the West—particularly in New Mexico—on fostering and maintaining economic growth, the reluctance of politicians to assume leadership on the water issue is hardly surprising. Some forty years ago in his pioneering work, *The People of Plenty*, David M. Potter identified the "state of material plenty" as a pervasive influence upon the American character. He argues that the abundance of resources has heightened Americans' demands for material goods to an unmitigable degree.[68] In Albuquerque, columnist V. B. Price has highlighted the imbalance between water supply and demand repeatedly, voicing two solutions: planning and limiting growth.[69]

While "planning" has recently become a word periodically uttered by politicians, "limiting growth" remains an unmentionable proposal. For example, the *Albuquerque Tribune* reported that Albuquerque mayor Jim Baca made powerful enemies within months of his election as a result of vowing "to bring Albuquerque's brainless and rampaging growth under control."[70] Unlike Baca, most civic leaders avoid making declarative statements. In a "water forum" held in 1996, limiting growth was not an issue to be considered for the agenda. The city's water conservation director, Jean Witherspoon, stated that city officials were indeed searching for new ways to reduce personal water consumption and promote more efficient water use. Yet—revealingly—she announced that the public was split on the issue of growth limitations and declared that in forty years, "who knows what technology will bring? . . . As technology for wells gets better, they may be able to go deeper. A prediction that in 100 years we will not have enough water may be true today, but you don't know about the future," she proclaimed.[71]

In fact, barely a year later, Albuquerque city officials declared that groundwater pumping was infeasible due to the expense and the danger of land subsidence. The city would pump water from the Rio Grande instead. The city water resources manager assured Albuquerque residents that even with the anticipated 30 percent increase in water costs, for "less than a [monthly] trip to McDonald's, you get a sustainable water supply and hundreds of gallons delivered to your door," thereby making Albuquerque's water rates "competitive" with neighboring communities.[72]

Indeed, competition remained the primary concern of those who would guide the arid West into the next millennium. A month later, the Bernalillo county planning commission approved a 6,424–acre develop-

ment based on the prediction that a city of 50,000 residents will spring up on the west side of the Rio Grande in the next 25 years. The plan called for "residential, resort, industrial and commercial development, along with parks, trails and open spaces." The announcement stated that "Westland planners, frustrated by how long the city proposed to take in providing city services, turned to the county instead." The startled city officials regarded the plan with chagrin, since the development proposed to pump water from the aquifer—thereby threatening to "wreak havoc with the city's water strategy."[73]

Since the city's water "strategy" consists of promoting its own development, the city officials' complaints resemble the proverbial pot calling the kettle black. To this date, the city of Albuquerque does not know how much groundwater is available, and in a statement that once again harkens back to Powell, the chair of the Middle Rio Grande Technical Advisory Committee noted candidly: "If we don't know [the quantity of water in the aquifer], then the decisions we face in regards to people's water rights are going to be decided by who has the best lawyer, not what the best management of the resource is."[74]

The city services, for the extension of which Westland developers could not wait, include water and sewer lines. But even the absence of these services no longer precludes development. In 1997, major portions of the state's Subdivision Act passed in 1995 and aimed at the "colonias" located mostly in southern New Mexico headed for repeal, spearheaded by a Lovington area real estate broker and state representative. Critics of the bill charged that it would "eliminate rules requiring developers to prove their subdivisions have adequate water, sewer, garbage services and roads so fire trucks and ambulances can reach homes."[75]

Those who are lucky enough to reside in "water included" areas in the Rio Grande corridor are not safe, however, from the curtailment of the water supply, since their rights are yet to be defined. In 1996, a writer somberly reminded readers: "If the river runs low, water users get cut off, newest users first. The middle Rio Grande pueblos get water before the farmers of the Middle Rio Grande Conservancy District."[76] An equally cautionary statement can be applied to the city of Albuquerque. The city, of course, has the options to drill wells, elimine irrigated farming up and down the valley, and bring in the city's share of water from the San Juan–Chama project. Most likely, a combination of all these approaches will be used to face the water crisis. The proposed H. R. 128, if passed, would provide another strategy by limiting the restrictive powers of the federal government. And some western politicians have cast an even wider net. In 1982, the Canadian press quoted Senator Frank Moss (Utah) as stating, "'If Canada did not supply us with water, it could be regarded as an unfriendly act.'"[77]

In the current debate, one is struck by the fact that those who would label the use of water by Hispanic acequia communities as inefficient

and the proposed development of Indian lands as "fantastical" are perfectly content with actively promoting the development of their own communities in the face of a demonstrably uncertain water supply. The New Mexico state legislature already appears prepared not to provide any water to some of its residents. This method, to be sure, represents the ultimate solution to the water crisis. The underlying attractiveness of this approach is that it falls first upon those who traditionally have encountered social and economic discrimination.

As this century draws to a close, a perusal of legal literature on western water litigation reveals a slew of suggestions for countering the latest legal theories and court rulings. Such suggestions are fascinating, but all the litigation cannot alter the basic facts: the West is dry, the demand for water is ever–growing, and all past efforts—legal or technological—have failed substantially to alter these first two facts.

In a rare moment of public candor, one legal authority has recently admitted this reality. While defending the existing system of rules and regulations, Charles Dumars recommends the usual implementation of long–term research programs, coordinating efforts, studies of the aquifer (until one understands it "with a sufficient level of confidence"). He argues for "rational" water use to support "reasonable economic development" Dumars concludes: "Finally, we must understand that water is scarce because too many people choose to live where water is in limited supply."[78] The "people of plenty" who settled the West with the intention of making the desert bloom made it so—and never imagined that they had harbored their own "fantastical assumptions." Ironically, the victors in the latest struggle to control this scarce resource are finding out that they are merely the victims of their own wild success.

NOTES

1. The other representatives included Helen P. Chenoweth (R–Idaho), James Hansen (R–Utah), and Robert F. Smith (R–Oregon).

2. U.S. Congress. House. Committee on Judiciary and Committee on Resources. *State Water Sovereignty Act.* 105th Congress, 1st session, 1997. H. Rept. 128.

3. David H. Getches, *Water Law in a Nutshell* (St. Paul, Minnesota: West Publishing Co., 1984), 291.

4. For examples of local discussions, see "How the West Was Sold," *Albuquerque Journal*, 4 October 1992; "Antiquated Mining Law Withstands Reform Efforts," *Albuquerque Journal*, 11 October 1995; "Violating the Public Trust: Uses and Abuses of Public Resources," *Home Mechanix* (8 February 1992), 8; "Me First! Dedicated to Plundering the Land," *Albuquerque Tribune*, 30 November 1992; "Public Land Use Debate Growing," (Albuquerque) *Sunday Journal*, 15 December 1991; "Dollars and Sense," *Albuquerque Journal*, 17 January 1993; "Wolves' Return to Yellowstone Fuels Debate about West," *Albuquerque Journal*, 17 Novem-

ber 1994.

5. "Frontier Filling Up," *Albuquerque Journal*, 19 January 1992.

6. Donald J. Pisani, "Enterprise and Equity: A Critique of Western Water Law in the Nineteenth Century," *Western Historical Quarterly* 17 (January 1987), 15–37.

7. John Wesley Powell, *Report on the Lands of the Arid Region of the United States, with a more Detailed Account of the Lands of Utah* (Washington, D.C.: Government Printing Office, 1879), 25–45, 43.

8. Frank J. Trelease, "Interstate Use of Water—Sparhose v. El Paso & Vermejo," *Land and Water Law Review* 22 (1987), 315–46. For a different viewpoint, see Pisani, "Enterprise and Equity."

9. Everett Dick, *The Lure of the Land: A Social History of the Public Lands from the Articles of Confederation to the New Deal* (Lincoln: University of Nebraska Press, 1971), 307–17.

10. Ibid., 317.

11. Ira G. Clark, *Water in New Mexico: A History of Its Management and Use* (Albuquerque: University of New Mexico Press, 1987), 567.

12. Monique C. Shay, "Promises of a Viable Homeland, Reality of Selective Reclamation: A Study of the Relationship Between the Winters Doctrine and Federal Water Development in the Western United States," *Ecology Law Quarterly* 19 (August 1992), 553, 557.

13. Ibid., 586.

14. Ibid., 578.

15. For a summary of the evolving legislation of public lands, see James Muhn and Hanson R. Stuart, *Opportunity and Challenge: The Story of BLM* (Washington, D.C.: U.S. Department of the Interior, Bureau of Land Management, 1988), 1–52.

16. National Resources Planning Board, *Public Land Acquisition in a National Land-Use Program,* Part I: Rural Lands, Report of the Land Committee to the National Resources Planning Board, June 1940 (Washington, D.C.: U.S. Government Printing Office, 1940), 1. Several interstate water compacts already existed in New Mexico in 1939: the Colorado River and La Plata compacts (1922) and the recently completed Rio Grande Compact (1938).

17. Clark, *Water in New Mexico*, 257.

18. Ibid., 258.

19. *Tewa Basin Study, 1935*, 2 vols. (n.p.: Soil Conservation Service, 1939), 2:ii.

20. For a discussion of colonial water competition, see G. Emlen Hall, *Four Leagues of Pecos: A Legal History of the Pecos Grant, 1800–1933* (Albuquerque: University of New Mexico Press, 1984).

21. *Felix Cohen's Handbook of Federal Indian Law* (n.p.: Five Rings Corporation, 1942; reprint, 1986), 387–88.

22. 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), 56.

23. Christine A. Klein, "Treaties of Conquest: Property Rights, Indian Treaties, and the Treaty of Guadalupe-Hidalgo," *New Mexico Law Review* 26 (Spring 1996), 237–38.

24. Malcolm Ebright, *Land Grants and Lawsuits in Northern New Mexico* (Albuquerque: University of New Mexico Press, 1994); William deBuys, *Enchantment and Exploitation: The Life and Hard Times of a New Mexico Mountain Range* (Albuquerque: University of New Mexico Press, 1985); Victor Westphall, *Mercedes Reales: Hispanic Land Grants of the Upper Rio Grande Region* (Albuquerque: University of New Mexico Press, 1983).

25. Clark, *Water in New Mexico*, 118–19.

26. Michael Lieder, "Adjudication of Indian Water Rights Under the McCarran Amendment: Two Courts are Better Than One," *The Georgetown Law Journal* 71 (1983), 1023–24.

27. Clark, *Water in New Mexico*, 602.

28. *Felix Cohen's Handbook of Federal Indian Law*, 387–89.

29. Francis P. Prucha, ed., *Documents of United States Indian Policy* (Lincoln: University of Nebraska Press, 1975), 215–17.

30. U.S. Congress. Senate. *Survey of Conditions of Indians in the United States—Pueblo Lands Board, January 4, 1932, partial report*. 72nd Congress, 1st sess., 1932. S. Rept. 25. Serial 9489. Some Pueblos had no adverse claims within their boundaries; in the 1930s and 1940s, the Pueblos bought back some of the lands they had lost to non–Indians.

31. Judith V. Royster, "A Primer on Indian Water Rights: More Questions than Answers," *Tulsa Law Journal* 30 (Fall 1994), 73–74. For example, in the recent case involving the Wind River Reservation, the courts rejected the concept that a reservation is in fact a "homeland" of the residents, and ruled that the purpose of the reservation was only for agricultural activity.

32. DuMars, O'Leary, and Utton, *Pueblo Indian Water Rights*, 116.

33. Norris Hundley, jr., "The 'Winters' Decision and Indian Water Rights: A Mystery Reexamined," *Western Historical Quarterly* 13 (January 1982), 31; Royster, "A Primer on Indian Water Rights," 70–73. Who exactly reserved these rights—the Indians or the federal government—became another legal question. In addition, if a tribe had been using water in the aboriginal territory before the arrival of the Europeans, such a water right is deemed to have "immemorial" priority, predating all non–Indian use.

34. Carol S. Leach, "Federal Reserved Rights in Water: The Problem of Quantification," *Texas Tech Law Review* 9 (1977), 93–94; Lieder, "Adjudication of Indian Water Rights Under the McCarran Amendment," 1024.

35. Lieder, "Adjudication of Indian Water Rights," 1053.

36. Royster, "A Primer on Indian Water Rights," 75–82; DuMars, O'Leary, and Utton, *Pueblo Indian Water Rights*, 28.

37. Shay, "Promises of a Viable Homeland," 567–68; DuMars, O'Leary, and Utton, *Pueblo Indian Water Rights*, 97.

38. Royster, "A Primer on Indian Water Rights, 96. Because the amendment did not specifically state whether it applies to Indian water rights, it has resulted in a slew of contradictory court rulings. Under one such ruling, state courts can adjudicate such reserved water rights, although interestingly enough, they are precluded from adjudicating other Indian property rights, such as those pertaining to land. Lieder, 1025, 1053–54.

39. Royster, "A Primer on Indian Water Rights," 99; Shay, "Promises of a Viable Homeland," 584; Clark, *Water in New Mexico*," 628.

40. Shay, "Promises of a Viable Homeland," 569.

41. "Jicarilla Water Rights Evoke Worries," *Rio Grande Sun*, 7 March 1996.

42. "Lawyer: Water Policy Could Pose Legal 'Nightmare'," *Santa Fe New Mexican*, 1 January 1992.

43. Ed Newville, "Pueblo Indian Water Rights: Overview and Update on the Aamodt Litigation," *Natural Resources Journal* 29 (Winter 1989), 259–60.

44. Ibid., 259.

45. Ibid.

46. Ibid., 261; *State of New Mexico v. Aamodt*, 618 Federal Supplement, 1010–11.

47. The various legal positions and theories up to 1984 are discussed in DuMars, O'Leary, and Utton, *Pueblo Indian Water Rights*, 67–71.

48. "Aamodt Defendants Exhaust Legal Funds," *Albuquerque Journal*, 24 January 1989.

49. Elizabeth Checchio and Bonnie G. Colby, *Indian Water Rights: Negotiating the Future* (Tuscon: Water Resources Research Center, College of Agriculture, The University of Arizona, 1993), 49–65; Royster, "A Primer on Indian Water Rights," 100–1. The Jicarillas have recently negotiated a settlement regarding their share of water from the San Juan–Chama Project and from the Navajo Reservoir. *Albuquerque Journal*, 19 November 1997.

50. *El Paso Times*, 16 November 1987. The Rio Hondo is a major tributary of the Pecos River.

51. *The Ruidoso News*, 16 October 1986. *El Paso Times*, 28 January 1989. *El Paso Times*, 1 February 1989. The 17,942 acre-feet of water amounted to twelve times the amount used by the village of Ruidoso with a population of 6,200—double the tribe's population. *El Paso Times*, 15 November 1987. Mescalero tribal chair Wendell Chino countered by pointing to the tribe's 45 percent unemployment rate. *El Paso Times*, 1 February 1989.

52. *El Paso Times*, 17 November 1987. Fears that Indians will take water from non-Indian users continue to surface throughout the West. For example, see "Waterless in Wind River?" *High Country News*, 27 August 1990.

53. *The Ruidoso News*, 16 October 1986.

54. *Clark, Water in New Mexico*, 615.

55. *The Ruidoso News*, 15 November 1987.

56. "Judge Kills Tribe's Water Plan," *Roswell Daily Record*, 27 January 1989; "Appeal Expected in Water-Use Case," *Albuquerque Journal*, 27 January 1989. *State of New Mexico v. L. T. Lewis*, District Court of Chaves County, Final Judgement, 10 July 1989.

57. *State of New Mexico v. L. T. Lewis*, New Mexico Court of Appeals, 12 May 1993.

58. "Jicarilla Water Rights Evoke Worries," *Rio Grande Sun*, 7 March 1996.

59. Ibid.

60. Jose A. Rivera, "Irrigation Communities of the Upper Rio Grade Bioregion: Sustainable Resource Use in the Global Context," *Natural Resources Journal* 36 (Fall 1996), 500; John F. Klein-Robbenhaar, "Balancing Efficiency with Equity: Determining the Public Welfare in Surface Water Transfers from Acequia Communities," *Natural Resources Journal* 36 (Winter 1996), 42.

61. Rivera, "Irrigation Communities of the Upper Rio Grade Bioregion," 505; Klein-Robbenhaar, "Balancing Efficiency with Equity," 46. This proposal to transfer water rights from farms to commercial interests first emerged in the 1950s. W. Eugene Hollon, *The Great American Desert, Then and Now* (Lincoln: University of Nebraska Press, 1966), 249-50.

62. Mary McNally and Olen Paul Matthews, "Changing the Balance in Western Water Law? Montana's Reservation System," *Natural Resources Journal* 35 (Summer 1995), 671. Consuelo Bokum, "Implementing the Public Welfare Requirement in New Mexico's Water Code," *Natural Resources Journal* 36 (Fall 1996), 456.

63. Susanne Hoffman-Dooley, "Determining What is in the Public Welfare in Water Appropriations and Transfers: The Intel Example," *Natural Resources Journal* 36 (Winter 1996), 103-7.

64. Pisani, "Enterprise and Equity," 24-26.

65. Hoffman-Dooley, "Determining What is in the Public Welfare in Water Appropriations and Transfers," 117-18.

66. "Drought Takes New Victims," (Albuquerque) *Sunday Journal*, 16 June 1996.

67. "Industrial Water Use Soars in '95 Offsetting Private-Sector Savings," *Albuquerque Tribune*, 10 February 1996. In 1995, Philips Semiconductor used 442 million gallons, representing the largest industrial water user in the Albuquerque area.

68. David M. Potter, *The People of Plenty: Economic Abundance and the American Character* (Chicago, Illinois: University of Chicago Press, 1954), 67, 71; Clark, *Water in New Mexico*, 567.

69. V. B. Price, "More People, Less Water," *Albuquerque Tribune*, 26 August 1994; "No Choice But to Get Serious About Controlling Growth," *Albuquerque Tribune*, 28 February 1997.

70. V. B. Price, "Already, Our Reformist Mayor is Making Powerful Enemies," *Albuquerque Tribune*, 2 January 1998.

71. Tony Davis, "Limited Growth Isn't on Water-Savings Options List," *Albu-*

querque Tribune, 28 May 1996.

72. Ibid.

73. "County's Plans Will Milk Aquifer, City Contends," *Albuquerque Tribune,* 6 March 1997.

74. "Airborne Geologists Spy on N.M.'s Underground Water," *Albuquerque Tribune*, 15 November 1997.

75. "Colonia Reforms Earning Criticism," *Albuquerque Journal,* 27 February 1997; "No Choice But to Get Serious About Controlling Growth," *Albuquerque Tribune,* 28 February 1997.

76. "Drought Would Teach a Hard Lesson," *Albuquerque Journal*, 28 April 1996.

77. Pat Ohlendorf, "The World Water Crisis," *MacLean's* (13 December 1982), 44.

78. Charles T. DuMars, "Changing Interpretation of New Mexico's Constitutional Provisions Allocating Water Resources: Integrating Private Property Rights and Public Values," *New Mexico Law Review* 26 (Summer 1996), 391.