

a century, there had been a Wright at Wright's Trading Post in Albuquerque, far longer than at any other Indian-made crafts dealership in the city. When she sold the Wright Building, two years later, to the Bank of New Mexico, that unique symbol of a significant phase of local history was destined to share the fate of too many of Albuquerque's commercial and cultural monuments. Underneath a photo of Wright's Trading Post in its former days of glory was Charles Arthur Wright's final epitaph: "Landmark to vanish."<sup>74</sup>

74. *Albuquerque Tribune*, photo caption headline, November 7, 1958.

## Underground Water in Hispanic New Mexico: A Brief Analysis of Laws, Customs, and Disputes

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In Colorado District Court for Water Division No. 3 (Alamosa) on July 5, 1990, Judge Robert W. Ogburn signed an order denying trial of a water dispute under Spanish and Mexican law. This dismissal resulted from a motion for Partial Summary Judgment by the Rio Grande Water Conservation District, the state of Colorado, and many other towns, irrigation districts, conservancy districts, and private entities. These objectors opposed the application of American Water Development, Inc. (AWDI), to withdraw 200,000 acre-feet of groundwater annually from aquifers underlying land known as the Luis María Cabeza de Baca Grant No. 4. As owner of the grant and principal applicant, AWDI asserted an absolute right to this water based on the law of prior sovereigns and the Treaty of Guadalupe Hidalgo.

The law of prior sovereigns was articulated by Chief Justice John Marshall when Louisiana was purchased from France in 1803. It embraced the principle that an area's change of sovereignty should not alter the private property rights of citizens affected by the change. This concept was further developed in the 1848 Treaty of Guadalupe Hi-

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dalgo. Article VIII of that treaty specified that Mexican property should be "inviolably respected" and that the heirs and future owners of the land should have the same guarantees as if the property belonged to United States citizens.<sup>1</sup>

For a variety of reasons, however, Judge Ogburn was unwilling to try the AWDI application for underground water based on Hispanic law. Basing his written opinion on the argument that the Baca No. 4 was not a legitimate Spanish land grant, because it was conveyed to the heirs of Cabeza de Baca by Congress out of the federal public domain, Judge Ogburn ruled that the applicants had "neither the facts nor the law on their side."<sup>2</sup> Instead, he granted the objectors' motion for Partial Summary Judgment, leaving AWDI with the future possibility of appeal to a higher court should the company wish to pursue its contested rights to underground water under Spanish and Mexican law.

There is no denying the importance of this matter to the people of the San Luis Valley whose staunch opposition to AWDI has surprised no one. At stake is the right to export more than a million acre-feet of water presently underlying AWDI's 100,000 acres of private property. When AWDI filed its application in Division No. 3 Water Court in 1986, it applied for permits to drill 100 wells to a depth of 2,500 feet. Water pumped to the surface would be conveyed to the thirsty cities of Colorado's Front Range for sale or lease. AWDI has contended that its deep wells would have limited effect on senior appropriators in the San Luis Valley whose wells average only 100 feet in depth. Local residents disagree with AWDI engineering studies, but more importantly they simply do not want anyone transporting what they see as their water from the San Luis Valley to the profligate inhabitants of the Front Range.

The question of Hispanic rights to underground water remains. If AWDI decides to follow the appeal process, and if this right is granted them, the issue will be thoroughly dissected in court. Any trial of this complexity will take a long time. As water becomes increasingly important to the Southwest, other entities will surely ask similar questions

1. United States Senate, *The Treaty Between the United States and Mexico*, 30th Congress, 1st session, Executive Document 52 (Washington, D.C.: 1848), 47. I am indebted to Michael C. Meyer for this reference. See his "The Living Legacy of Hispanic Groundwater Law in the Contemporary Southwest," *Journal of the Southwest* 31 (Autumn 1989), 237-99.

2. Statement of Judge Robert W. Ogburn, transcript of proceedings, July 5, 1990, Water Division No. 3, District Court, State of Colorado, 126. The Memorandum and Order of Partial Summary Judgment carries the same date.



Typical Mexican *noria*, or communal well, c. 1935. Photo by T. Harmon Parkhurst, courtesy of Museum of New Mexico.

about the rights of Spaniards and Mexicans to underground water and whether these rights, supposedly protected by the Treaty of Guadalupe Hidalgo, are different from rights to surface water. The balance of this essay is an attempt to take a preliminary look at these questions with attention directed specifically to the situation in New Mexico as recorded in the Spanish and Mexican Archives.<sup>3</sup>

The legal rights of Hispanic settlers to appropriate subsurface waters on private property reflected limited technological skills and a paucity of information regarding underground hydrology. Spaniards and Mexicans did not fully comprehend the extensive nature and variety of water under the surface of the American Southwest, and their laws echoed this limited understanding, limited need, and a technology that had not changed much since the days of the Roman Empire. Their principal interest was in what Clesson S. Kinney has called percolating waters, i.e., waters that work their way through the subsurface, that are not part of a large body of water or the flow of any water course, and that may come to the surface through the force of gravity.<sup>4</sup> Although they may have understood the existence and form of subterranean water courses or streams and artesian waters, their laws, customs, and occasional disputes reveal a primary concern with wells and springs, most, if not all of which, tapped into or enlarged the flow of percolating waters.

The extant body of documentation reveals, however, that Hispanic law and custom took into consideration the uniqueness of subsurface waters. Under certain conditions, rights to underground water were clearly distinct from rights to surface waters. Had they possessed greater

3. Additional background material on underground water rights in Hispanic law can be found in Michael C. Meyer, *Water in the Hispanic Southwest: A Social & Legal History, 1550-1850* (Tucson: University of Arizona Press, 1984); see also Meyer, "The Living Legacy." The monumental work of Ira G. Clark, *Water in New Mexico* (Albuquerque: University of New Mexico Press, 1987), deals with groundwater but primarily in the twentieth century. For a detailed description of the situation between American Water Development, Inc. (AWDI) and San Luis Valley residents, see *High County News*, November 6, 1989.

4. Clesson S. Kinney, *A Treatise on the Law of Irrigation and Water Rights and the Arid Region Doctrine of Appropriation of Waters*, 4 vols. (San Francisco: Bender-Moss Company, 1912), 2, Sec. 1186, p. 2150. Kinney writes that percolating waters are those "which slowly percolate or infiltrate their way through the sand, gravel, rock, or soil, which do not then form a part of any body of water or the flow of any water course, surface or subterranean, but which may eventually find their way by force of gravity to some water course or other body of water, with whose waters they mingle, and thereby lose their identity as percolating waters." Kinney divides underground water into three classes: subterranean water courses or streams; artesian waters; and percolating waters. He discusses each category in Vol. 2, Part 10, chapters 59-62.

knowledge of the region's tributary and nontributary hydrology, Spaniards and Mexicans might have developed a more detailed system for the equitable distribution of all kinds of underground streams, aquifers, and artesian waters. Lacking this information and the requisite technical skills to develop the water, those officials who concerned themselves with percolating waters had to rely for the most part on common sense and an imprecise body of Hispanic law.

One of the earliest legal references to subterranean water is found in the *Siete Partidas*. Completed in 1265, this compendium of laws included Partida 3, Title 33, Law 19, providing that anyone may dig springs and wells on his land, even if by doing so he diminishes water in the springs and wells of his neighbors, who have recourse against him only if they can prove malice or the intent of causing prejudice.<sup>5</sup> No other law in the Spanish corpus of land and water legislation better illustrates the singular status of underground water and the rights of landowners to develop it. On the other hand, Laws 5 and 7 of Title 17, Book 4 of the *Recopilación* make what appears to be a conflicting point, repeated in other Spanish laws of this period, that waters in the Indies were to be common to both Spaniards and Indians.<sup>6</sup> Whether this meant all known water, all water that existed in the Indies, or just surface and flowing water is not clear. As noted above, colonial Spaniards did not pay much attention to the supply of water in underground aquifers, but New Mexican documents reveal that at least some officials acted on a conviction that underground water could be privatized under conditions outlined in the *Siete Partidas*. At the same time, Hispanic settlers in America were heirs to a long standing tradition in Roman law that "public things" incapable of human control—such as flowing rivers, air, and the sea—should remain accessible to all the people, because such things (*res omnium communes*) benefited all individuals and were not susceptible to human domination or dominion.<sup>7</sup>

But springs (*fuentes*, *manantiales*, *nacimientos*, *veneros*) and wells (*pozos*, or *norias*) were not in the category of *res omnium communes*. If man-made, they were not at the disposition of all men, and if they

5. Cited in Licenciado Santiago Oñate, "Memorandum on the Right to Use Water Under the Laws of Spain and Mexico," February 2, 1948. This report is cited hereinafter as Oñate, 1948, original in the possession of Myra Ellen Jenkins.

6. *Recopilación de Leyes de Los Reynos de Las Indias*, 3 tomos (1791; Madrid: Consejo de la Hispanidad, 1943), 2: 57-58.

7. Rudolph Sohm, *The Institutes. A Text-Book of the History and System of Roman Private Law*, translated by James Crawford Ledlie (Oxford: Clarendon Press, 1901), 320, 321, 339, as cited in Oñate, 1948, p. 7.

were on private property, and the water did not leave that property, they were appurtenant to the land.

Writers have long tried to distinguish between the private and public nature of water in Hispanic law. In 1852, for example, D. Teodosio Lares, Mexican professor of administrative law and ex-secretary of justice, wrote that a pool of water formed by a spring would not be considered a watercourse and would not require official approval unless such a pool interfered with the flow of water from a river or caused a public health problem.<sup>8</sup> One hundred years later Licenciado Santiago Oñate, consultant and expert witness on Hispanic water law for the state of Texas, argued that "[s]prings and wells were not subject to the same legal status as rivers. These were not things of the common, and were taken to be part of the land, being therefore of the property of ownership of the proprietor of the land. Over springs and wells the owner of the soil had dominion and no concession was required to use such waters."<sup>9</sup>

This argument was presented more recently in historian David Vassberg's writings on public lands. Focusing on sixteenth-century Spain, the author noted that the principle behind the idea of public ownership in Castile was that "no individual had the right to appropriate for himself and monopolize a part of the resources of Nature that were produced without the intervention of man."<sup>10</sup> It would seem to follow, therefore, that if subterranean water could be made useful only through the application of man's knowledge and energies, its status had to be distinct from that of public water.

In Spanish law, however, claim to the earth's resources was never absolute because ownership of land and the usufructory right to water were always granted at the sovereign's mercy (*merced*). Such grants might be revoked as circumstances changed, but revocation was not whimsical and did not deny property owners the right to press their case for continued use. Unless the exploitation of underground water created a health hazard or public nuisance, or unless it had continuously flowed off private property to be utilized by adjoining neighbors, the development and use of springs and wells remained a private matter under the control of property owners to whom the subsurface water sources were appurtenant.

8. D. Teodosio Lares, "Lecciones de Derecho Administrativo" (Paper delivered at the Ateneo Mexicano, Mexico, 1852), 78-80, as cited in Oñate, 1948, p. 26.

9. Oñate, 1948, p. 12.

10. David E. Vassberg, "The Tierras Baldías: Community Property and Public Lands in 16th Century Castile," *Agricultural History* 48 (1974), 384.

Local officials favored private ownership and development of underground water, even though exceptions to this rule occasionally appeared in Hispanic New Mexico. For the most part, however, springs and wells enjoyed a unique status. In the August 12, 1786, *Instrucción* of José de Galvez for the colonization of Baja California, land premiums were offered to those willing to open up norias (draw wells) in new areas to be settled (Article 11). The *Instrucción* stated further that everyone was to have equal use of water regardless of their position on the stream or date of water appropriation. The only private property in water (*propiedad privada*) attached to springs and wells on private property up to the moment when such water left the land of its owner.<sup>11</sup> In one of few specific references to underground water, the *gobernador intendente* of Durango urged Indians and non-Indians to do their best to increase agricultural production through the exploitation of "las aguas corrientes" (surface water) and "subterráneas" (ground water).<sup>12</sup> The goal was improvement of crop production. Nothing was said about water rights in the twenty-nine articles of this *Instrucción*.

Laws from the Mexican period say little about springs and wells, but there is an implied continuation of their unique status. If they constituted a public nuisance, their owners could be fined by local authorities.<sup>13</sup> But the development of a spring, or seasonal waters on private land did not come under the jurisdiction of town councils even if such development diminished the flow of water into a nearby town.<sup>14</sup> This view seems to echo the concept enunciated in the *Siete Partidas* and repeated more recently in the Texas case, *State v. Valmont Plantations* (346 S.W. 2d 855), in which the court said that "Springs and wells on

11. Cited by Guillermo F. Margadant S. in his "El Agua a La Luz del Derecho Novohispano. Triunfo de realismo y flexibilidad," unpublished paper presented at the Derecho Indiano Congress, Santiago, Chile, 1985. This work has been revised and published in *Recopilación de leyes de los reynos de las Indias. Estudios Históricos-Jurídicos*, General Editor, Francisco de Icaza Dufour, 4 vols. (Mexico: Porrúa, 1987), 4: 501-11.

12. Article 16 of the *Instrucción* of Felipe Diza de Ortega, Durango, May 20, 1786, Microfilm roll 1787A, frames 277-83, Parral Archives, Mexico.

13. See, for example, the Plan de advitrios a que deven arreglarse las Alcaldías de este Territorio . . . , formulated by the Diputación Territorial of New Mexico, October 19, 1827, Roll 18, frames 418ff, Mexican Archives of New Mexico [hereinafter cited as MANM]. See also the 1846 Ordenanzas Municipales of Santa Fe in which Article 134, title 7 of the Mexican *Bases Orgánicas* is cited, and in which is noted the need to clean public reservoirs and acequias to avoid flooding of public roads. Roll 6, frame 59, Spanish Archives of New Mexico, I (hereinafter cited as SANM, I), State Record Center and Archives, Santa Fe.

14. This opinion was expressed in 1849 by seven Spanish jurists who collaborated on the *Enciclopedia Española de Derecho y Administración, o Teatro Universal de la Legislación de España e Indias* (Madrid, 1849), as cited in Oñate, 1948, p. 41.

a man's private property were not for common use." Local authorities in New Mexico were generally instructed to distribute water to settlers, and special officials were chosen to make sure no one took more than he needed. Only if citizens engaged in a dispute over springs and wells, or if the public health and safety were jeopardized, would these officials have any legal authority over what were in essence private waters.

Local custom contributed to acceptance of these principles. As defined by the Mexican jurist Joaquín Escriche, custom is the "unwritten law that has been introduced by use."<sup>15</sup> It is also the practice of a majority of the people in a particular place where the absence of written law, or the ineffective administration of laws, forces people to develop their own rules of social behavior.

In New Mexico, especially in the Mexican period, many laws that were intended for Santa Fe either failed to survive the long journey from Mexico City or were so contradictory and inapplicable to local problems that the citizenry soon learned to depend more on custom.<sup>16</sup> Furthermore, the Spanish policy of recognizing Indian customs not only served to establish custom as an acceptable policy, but tended to give it a role that was at times more powerful than the law itself.<sup>17</sup>

The power of custom was acknowledged in many ways. According to one New Mexican, lands in the "Vegas Grandes" were granted to Luis María Cabeza de Vaca without a title, but by means of the "*costumbre antigua*" (ancient custom) by which the governor held the right to approve or disapprove grants according to the merit of each.<sup>18</sup> In a similar vein, New Mexican officials recognized the existence of *la costumbre sistemada* (organized custom), *la costumbre bien recibida* (well accepted custom), and the working together of *derechos* (laws) and customs in the settlement of land and water disputes.<sup>19</sup>

In most water matters, custom and law were both active in influencing decisions of local authorities. Alcaldes were quick to point out that the "force of custom" had to be recognized in establishing the rules

15. Joaquín Escriche, *Manual del Abogado Americano* (Paris: Garnier Hermanos, 1863), 8-9.

16. In a Letterbook of Communications sent by the Jugoado Primero of Santa Fe to Mexico City, the ayuntamiento noted that it was unable to find the laws to which Mexico City referred in its order. Roll 28, frame 73, MANM.

17. See Margadant, "El Agua a La Luz," 22, 23; Richard E. Greenleaf, "Land and Water in Mexico and New Mexico 1700-1821," *New Mexico Historical Review* 47 (April 1972), 86.

18. Roll 6, frames 702, 703, SANM, I.

19. See Roll 21, frames 775, 776, and Roll 28, frame 80, MANM.

for acequias and their headgates.<sup>20</sup> By 1841, justices of the peace placed the same emphasis on the importance of "ancient custom" in resolving water disputes.<sup>21</sup> And in most grants of land, possession was given with the understanding, sometimes referred to as a custom, that the water, pastures, watering places, and other public areas were to remain free for all.

Sometimes authorities were just ignorant of the law. They covered themselves by inserting the phrase "*según las leyes*" (according to the laws). But in a surprising number of documents, they cited Spanish laws from the *Recopilación* and the *Nueva Recopilación*, as well as Laws of the Cortes, some of which included the date, title, and appropriate article. The main problem was that Spanish and Mexican laws were not sufficiently specific to resolve the many types of water controversies arising in the Americas. This situation allowed for a broad range of customs and practices satisfactory to the needs of the people but not always standardized between one geographical area and another. A decision to allow the use of spring water as part of a silver mine grant in Parral, even though citizens claimed they would be deprived of a water source to which they had a right through "ancient and established custom," did not establish a precedent for officials in other regions of northern Mexico who faced similar circumstances.<sup>22</sup> As with matters strictly pertaining to water, land grant petitions presented officials with a variety of problems that had to be addressed individually on their merits and not as part of a system of legal precedents generally associated with a system of common law. In many cases, the petitions for land, and the formal grants that followed, took into consideration the location and availability of existing waters.

This procedure was especially true for community grants. When the Town of Chamita grant was requested in 1724, for example, petitioner Antonio Trujillo of Santa Cruz asked for the entrances and exits (*entradas y salidas*), uses and customs (*husos y costumbres*), rights and rights of way (*derechos y servidumbres*), and that the pastures, waters, watering places, and woods (*pastos, aguas, abrevaderos, montes*) remain common. He also stated that the land he requested would not cause prejudice to a third party and he would take full responsibility for bringing in settlers.<sup>23</sup> This request was typical of language used in most

20. Roll 15, frame 194, MANM.

21. Roll 29, frame 115, MANM.

22. Roll 1797B, frames 930, 931, Parral Archives.

23. Town of Chamita Grant, 1724, Report 36, file 64, Roll 16, frame 2, Surveyor General Records, State Records Center and Archives, Santa Fe (hereinafter cited as SGR).

petitions. The phrases were also similar to those used by granting officials and alcaldes charged with placing grantees in possession.

One hundred years later, little change had been made in the basic form. Salvador Montoya requested land that would eventually become the town of Tecolote, stating in his petition that he was only interested in cultivating the area in order to increase agricultural production and that the grant should not include the waters, pastures, and watering places that were to remain common.<sup>24</sup> The grant was approved.

Of interest to present-day descendants of all grantees of land in New Mexico is whether subterranean water was included in the waters that were supposed to remain public and unappropriated. The answer to this question seems to depend on whether a prior claim to the water could be made by other individuals.

In the 1760s, for example, a grant was made to Bartolomé Fernández in Navajo country for grazing livestock, but he was told that if the "Apaches" objected to privatizing land that included a spring, the boundary would have to be pulled back so the Indians could continue to use the water.<sup>25</sup> The same warning was made to Felipe Tafoya who requested land in the vicinity of Atrisco where there was a spring of water. He, too, was told that the land could be his only if its occupation did not prejudice the Indians.<sup>26</sup>

Resistance to the privatization of percolating water can also be seen in a 1752 grant to Juan de Gabaldón. He requested a tract of planting land in the Tesuque area and mentioned plans to build a reservoir from local springs. Governor Tomás Vélez de Cachupín replied that he could not dam the springs entirely, but if his neighbors agreed that such a reservoir would also be beneficial to them, and if they were willing to help in the construction and maintenance, the dam could be built.<sup>27</sup> In another instance, citizens of the town of Atrisco complained that the spring water they had been using for their cattle was being directed to an individual's newly opened piece of cultivated land. Governor Juan Bautista de Anza sided with the townsmen, recognizing the public nature of this water and its usefulness as a resource common to all.<sup>28</sup> The Taos ayuntamiento expressed a similar concern in 1837 when a community protested that its water rights would be

24. Town of Tecolote Grant, 1824, Report 7, file 8, Roll 12, frames 60-61, SGR.

25. Bartolomé Fernández Grant, 1767, Report 178, file 54, Roll 21, frame 7, SGR.

26. Felipe Tafoya Grant, 1766, Report 99, file 173, Roll 22, frames 4-6, SGR.

27. Juan de Gabaldón Grant, 1752, Report 65, file 150, Roll 19, frames 16-28, SGR.

28. Town of Atrisco, 1768, C.45, Roll 37, frames 1-15, Court of Private Land Claims Records, hereafter cited as CPLCR.

diminished by the awarding of an upstream grant even though the petitioner assured officials that his irrigation would be effected through development of springs and not river water.<sup>29</sup> A committee appointed by the ayuntamiento recommended rejection of the petition because of potential injury to some 300 settlers of Ranchos de Taos.

In each of the above examples, when spring water was viewed as an existing public resource, or when it had become available to more than the owners of the property to which it was appurtenant, authorities opposed privatization. Water that ran downhill from a spring onto neighboring property was not to be appropriated by a single individual. As the alcalde of Albuquerque said when making the Carnué grant in 1819, "all [emphasis added] the waters will be worked in common allowing them to run to the last populated area."<sup>30</sup>

Under different circumstances, however, spring water was considered very private and was neither available to others for partial use nor a resource under administrative control of local authorities.

The strongest case for privatization of underground water was made when its owners physically controlled it in a responsible fashion. In 1818, a conveyance of land was made in which the sale documents included "un pozo de noria" (a draw well). Instead of being part of the land deal, the well commanded a price of fifty pesos, and the deed noted that this was a separate transaction.<sup>31</sup> In 1845, Juan Otero requested a grant of land in the area where he was opening up "una noria." His request was also approved, although the amount of land he asked for was reduced to one league.<sup>32</sup> One year later, Juan Bautista Vigil and two others offered to put in two wells in the Jornada del Muerto providing water to travelers "at very little expense."<sup>33</sup> They might have meant that the water would be sold cheaply or that it would not cost very much to put in the wells. Although the project did not

29. Tomás Torres, Rancho del Rio Grande Grant, 1795 and 1837, C.10, Roll 34, frames 5-26, CPLCR.

30. Article 1, "Ynstrucción" for the *teniente* of the new population of Carnué, April 21, 1819, Cañon de Carnué Grant, 1819, Report 150, file 96, Roll 27, frames 36-37, SGR. The Laguna Indians were also protected in their right to a spring called the Ojo del Gallo, even though the water flowed through their land to the town of Cubero. The governor assured them that they had the best right to this water through *antiquedad* [antiquity]. See Governor Antonio Narbona's letter to the people of Cubero, August 28, 1826, in Pueblo of Laguna, C.133, Roll 46, frame 32, CPLCR.

31. Book H, Santa Fe County Deed Book, pp. 144-45, as noted in El Pino, C.81, Roll 42, frame 47, CPLCR.

32. Juan Otero Grant, 1845, Report 106, file 181, Roll 23, frames 1-23, SGR.

33. Juan Bautista Vigil, et al. (Jornada del Muerto), 1846, Report 26, file 58, Roll 16, frames 12-13, SGR.

receive approval, the petition itself seems to indicate that its land-hungry authors expected officials to look favorably on a request for land if petitioners could develop the water and make it available to thirsty travelers. Perhaps, their failure could be interpreted as an indication that New Mexican officials doubted their humanitarian motives and feared their ability to control so much land on such an important overland route.

In other ways, springs and well water gradually developed a unique status in the land grant process. Petitioners frequently asked for land specifically watered by identified springs. They knew that officials occasionally investigated the availability of water on land requested, and to encourage approval of their request, they sometimes exaggerated the amount of water on the land hoping to impress the authorities with its agricultural potential.<sup>34</sup> In 1768, when alcalde Bartolomé Fernández placed settlers in possession of the Las Huertas grant, he noted the boundaries and the "*seis beneros de agua*" (six springs) on the land.<sup>35</sup>

Other documents indicate that springs often formed the center or boundary landmark of granted land. The town of Torreón, for example, was granted land around the "*Ojo de Torreón*" with borders "up to where the water will reach."<sup>36</sup> The Lucero Spring grant was measured one league in each direction from the Agua Negra Spring.<sup>37</sup> Nerio Antonio Montoya was granted land by the territorial deputation (legislature) of New Mexico with limits described by the "*ojo del inmedio*" (the central or middle spring).<sup>38</sup> These kinds of grants, and many others that mentioned springs on one of the perimeters, suggest that some grazing and farming operations were *entirely* dependent on a subsurface water source managed by and for the owners of the land. From the point of view of officials anxious to increase agricultural production, therefore, approval of a land grant petition might be directly related to the grantees' ability to deliver water from various underground sources.

Springs were occasionally granted for very specific purposes. Governor Ignacio Flores Mogollón granted a small spring of water in 1715 to a citizen of Santa Fe for irrigated farming.<sup>39</sup> More frequently, springs

34. See for example the Eaton or Domingo Fernandez Grant, 1822, Report 19, file 16, Roll 14, frames 700-710, SGR.

35. San Antonio de Las Huertas Grant, C.90, Roll 43, frame 39, CPLCR.

36. Town of Torreón Grant, 1841, Report 22, file 20, Roll 15, frame 4, SGR; also see Nerio Antonio Montoya Grant, CD.20, Roll 34, frame 40, CPLCR.

37. Lucero Spring Grant, 1824, 1845, C.69, Roll 41, frame 63, CPLCR.

38. Seción del día 12 de Noviembre de 1831, Journal of the Diputación Provincial, Roll 42, frame 685, MANM.

39. Santa Fe Grant, C.80, Roll 42, frame 28, CPLCR.

were granted to individuals who wanted land and water for raising livestock. It was customary to ask for a *sitio* (one league of 5,000 varas on each side), but the ideal quadrangular dimensions were rarely adhered to.<sup>40</sup> In at least one recorded instance, a New Mexican governor granted spring water for mining purposes. Citizens were placed in control of the "*Ojo del Oso*" so they would have spring water for the machinery needed to run the Ortiz mine.<sup>41</sup>

Some grants were made in such a way that grantees would have full control of their water. Others, especially those that included lands already used by neighbors, or that were necessary for the survival of downstream residents, had to share their spring water. This action was also the custom with surface water under Hispanic law. Authorities hoped to prevent potential conflicts over water because litigation was costly and difficult. Few trained lawyers ever resided in New Mexico, and great distances separated New Mexico from higher courts to the south. At the same time, advancement of agriculture and livestock raising was extremely important to New Mexican officials. If economic gain could be achieved by granting land and waters for these purposes, government officials were generally found to be supportive of such requests.<sup>42</sup> They tried to avoid disputes over spring water by requesting a review of the land's natural resources and potential use conflicts, but some problems were inevitable. How these difficulties were resolved sheds further light on the legal status of percolating waters.

Whereas a function of alcaldes, ayuntamientos, prefects, and other local officials was to distribute and regulate the use of surface water, these same officials exercised no control over subsurface water *unless* the water flowed onto other properties, was used by the public on land belonging to the sovereign, or was overflowing its boundaries

40. See Arroyo Seco Grant, 1707, C.114, Roll 45, frame 11, CPLCR; M. and S. Montoya Grant, 1766, Report 100, file 175, Roll 22, frame 4, SGR; Ojo del Espíritu Santo Grant, 1815, Report 44, file 36, Roll 17, frame 2, SGR; Bartolomé Baca Grant, 1819, Report 126, file 123, Roll 24, frame 17, SGR. In 1838, Governor Manuel Armijo granted land to José Sutton who promised not only to graze sheep around a spring (Ojo de Anil) but to construct a textile factory for his merinos. See José Sutton Grant, Report 45, file 61, Roll 17, frames 1-3, SGR.

41. Elisha Whittlesey et al., Ortiz Mine Grant, 1833, Report 43, file 28, Roll 17, frames 13-14, SGR.

42. See, for example, the encouraging response to Guadalupe Miranda in 1841 when he asked for an "*ojo*" in the San Marcos area. Because he would be expanding agricultural production where travelers could also take advantage of his settlement, the investigating commission recommended that the governor approve his request. Report of investigating commission, December 23, 1841, Roll 4, frames 160-61, SANM.

causing transportation or health problems. Three examples illustrate this point.

The first situation involves a squabble between neighbors over the right to fence off and stop the flow of two springs that had been used for some time before upstream neighbors decided to direct the flow into reservoirs. Litigation documents are incomplete, but those existing show a conflict between the right to water by virtue of prior appropriation (*antiquedad* and *prioridad*) versus the principle of sharing (*equidad*) a water source if it crossed over to other lands. The upstream developers of these springs were, in effect, depriving the downstream users of the spring water, and even though the final result of this dispute is not known, authorities probably insisted on both parties sharing the water.<sup>43</sup>

A second example involves the Indian pueblo of Tesuque. In 1805, the Indians began digging an acequia that cut off the spring water being used by a downstream neighbor. When apprised of the situation, Governor Real Alencaster ruled that the Indians could take out their ditch, but they would have to find a way to send the spring water to their neighbors. If they failed to do this, he said, they would be punished. The matter surfaced again in 1842 when Vicente Valdés complained that the Indians had tried to direct the spring water into a reservoir to irrigate a new piece of land. On this occasion, the prefect ordered the Indians to provide their neighbors with water in the fall months when they needed it most. Since these springs were located on Tesuque land, the judgment seemed fair.<sup>44</sup>

A final example deals with a complicated dispute that may say more about the pettiness of local politics than about the accepted manner of resolving water disputes. In 1813 a citizen built a reservoir to collect water from two *ojitos*. Both reservoir and springs were on public land. The ayuntamiento of Santa Fe insisted that the reservoirs be removed because they constituted a health hazard and because no one should have the right to develop public water only for the benefit of one's farm lands and gardens.<sup>45</sup> In this case, authorities decided that the springs could not be privatized.

Overall, existing documentation for New Mexico allows for a qualified conclusion that water under the surface was treated differently and less as an inalienable possession of the sovereign than surface

43. Roll 6, frames 1282-83, SANM, I; see also Sitio de Juana López Grant, C.82, Roll 42, frame 36, CPLCR.

44. Santa Fe County Deed Book S, pp. 130-31, recorded December 26, 1887.

45. Roll 6, frames 1193ff, SANM, I.

water. The paucity of documentation is as much a result of the general illiteracy of New Mexicans as it is a reflection of a limited hydraulic technology and the common sense practices acceptable to New Mexican settlers. Disputes did develop; some of these have been cited above. But a need for accommodation and cooperation on a frontier where lives were in constant danger from marauding nomads helped to minimize them.

Percolating water developed by cleaning out a spring or digging a well allowed land owners to graze livestock and irrigate small cultivated plots without having to raise flowing water from deeply cut river channels. Furthermore, maintenance of dams and headgates against the sudden rise of streams during spring runoff, or an unexpected summer storm, was not necessary when underground water was utilized.

Perhaps the greatest advantage of developing percolating water was that it was generally considered to be the property of the immediate land owner. Nothing could deprive him of this right, unless he allowed the water to become a public nuisance, or unless, as in the case of some springs, its location demanded sharing with Hispanic neighbors or nearby Indians. Properly cared for man-made wells were actually encouraged by officials who wanted to see this kind of initiative for the expansion of agriculture and industry. Fines might be levied against those who allowed their water to damage public or private property,<sup>46</sup> but the historical record gives no indication that Hispanic authorities ever deprived these well owners of their water. Even in an extreme instance in which the ayuntamiento of Santa Fe gave a property owner the choice of controlling his well water or completely shutting it down,<sup>47</sup> local officials were concerned only with the public safety and health of all citizens, not the stripping of water from its rightful owner. These officials viewed their responsibility as one that balanced consideration for the owner's property with the public's right to safe and sanitary living conditions.

46. Plan de advitrios a que deven arreglarse las Alcaldías de este territorio para la creación de sus fondos formado por la Exsma. Diputación Proval. del mismo conforme lo acordado en la Sesión del día 19 de Octubre de 1826. Copy, January 19, 1834. This plan says in part that well or spring water, which is polluted or allowed to cause other damages, and destined for the use of houses will result in a fine of 4 reales to the owner; Roll 18, frame 405, MANM.

47. Ayuntamiento proceedings, Santa Fe, June 2, 1832, Roll 14, frame 1003, MANM.