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WATER RIGHTS PROBLEMS IN THE UPPER RIO GRANDE WATERSHED AND ADJOINING AREAS*

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The purpose of this article is to direct attention to general land and resource problems of all Spanish-speaking people of the Southwest and, in particular, to the water law and land grant background of economically depressed areas of the Upper Rio Grande Watershed.[1]

I
BACKGROUND OF WATER RIGHTS IN NEW MEXICO

Water rights, as well as other property rights, have everywhere been determined by land tenure systems. But in New Mexico the varying influences of two diverse systems have resulted in greater confusion over water rights than generally exists elsewhere. A brief summary of the history of land tenure systems in New Mexico will illustrate some of the causes for present day conflicts over water rights.

For the purpose of this discussion, it might seem that either Kearny's entrada into the plaza in Santa Fe in 1846, or the Treaty of Guadalupe-Hidalgo in 1848, would be a convenient starting point. However, the choice of either would distort history and would not explain fully the origins of today's water rights problems.

We will not begin with Adam in the Garden of Eden, or with Columbus, or even with Coronado, but with Juan Onate, the first colonizer in this region.[2] Juan Onate settled at San Gabriel, across the river from San Juan Pueblo, and in 1598 ordered the acequia madre Onate dug in the vicinity of Espanola. Although San Gabriel subsequently failed, a new settlement was founded at Santa Cruz in 1603, which, with the founding of Santa Fe a few years later, estab-

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1. For a description of the approximate area and physical conditions, *see* Dortignac, Watershed Resources and Problems of the Upper Rio Grande Basin, (Mimeographed, U.S. Forest Service, 1956). *See also,* The Nations Water Resources, ch. 12, Rio Grande Region, The First National Assessment of the Water Resources Council, (U.S. Gov't Printing Office, 1968); 43 U.S.C., § 615ii *et seq.* (1964), authorizes the San Juan-Chama trans-mountain diversion which is of great importance to the area.

2. Hammon & Rey, Onate, Colonizer of New Mexico, Vols. V and VI, (1952). *See also,* Harper, Cordova & Oberg, Man and Resources in the Middle Rio Grande Valley, (1943) [hereinafter cited as Man and Resources]. Although this summary is dated, it contains the essential background facts and figures.

lished the water law of the old world in this region. The first irrigation agriculture in this country by Europeans was begun in the Espanola valley, with assistance from Indians, who furnished not only man hours but also their experience in canal construction methods.

During the Spanish colonial period, which lasted over 200 years, various grants of land were made by the Crown. The grants of land were made in general for three *purposes.*[3] Pueblo Indian land occupancy and special grants of minerals and water, rare for reasons explained later, are excluded from this list:

1. Grants to individuals for services rendered.
2. Community grants made upon petition of settlers.[4]
3. Grants made to empresarios, who were required by their contracts to bring settlers. These were used during the later Mexican period also.

These grants, made primarily for settlement, farming and stock-raising, were usually located near water where farming was possible. Other areas were seldom settled by the Spanish due to lack of water and the presence of hostile Indians.

The boundaries of Spanish and Mexican land grants were often loosely described and sometimes they overlapped.[5] But such dis-

3. Grants were also distinguished by the *method* by which limits of the area or place of the grant were fixed. The United States Supreme Court said that "Mexican grants [meaning all grants before the American Occupation] were of three kinds:

> (1) grants by specific boundaries, where the donee is entitled to the entire tract, whether it be more or less; (2) grants of quantity, as of one or more leagues within a larger tract described by what are called outside boundaries, where the donee is entitled to the quantity specified, and no more; (3) grants of a certain place or rancho by name, where the donee is entitled to the whole tract according to the boundaries given, or if not given, according to its extent as shown by previous possession. United States v. McLaughlin, 127 U.S. 428, 448 (1888).

New Mexico *community* grants are covered in N.M. Stat. Ann. ch. 8 (Repl. 1966). The state courts are expressly empowered to "entertain bills of complaint filed by any such board to enjoin persons from trespassing upon the common lands or *using the common waters within such grant* . . ." where there is no adequate remedy at law. N.M. Stat. Ann. §§ 8-1-16, 8-2-15 (Repl. 1966) (emphasis added). No attempt is made here to explain other powers provided by law for government or management of the particular types of grants.

Source materials on New Mexico grants are found in A. Diaz, A Guide to the Microfilm of Papers Relating to New Mexico Land Grants (Univ. of N.M., 1960).

4. The Pueblo Water Right grows out of this type of community grant. Cartwright v. Public Serv. Co. of N.M., 66 N.M. 64, 343 P.2d 654 (1958) involves the town of Las Vegas grant. *See also,* Hutchins, *Pueblo Water Rights in the West,* 38 Texas L. Rev. 748 (1960). The requisites for a Spanish grant of *minerals* binding on the United States are found in Castillero v. United States, 67 U.S. (2 Black) 1 (1863). *See* United States v. Parrott, 27 F. Cas. 416 (No. 15, 998) (C.C.N.D. Cal. 1858).

5. The grants described as "floats" resulted from legal settlements of disputed claims. *See* Shaw v. Kellogg, 170 U.S. 312 (1898); United States v. McLaughlin, note 3 *supra.* For

crepancies caused few disputes during the Spanish and Mexican colonial periods because use and occupancy (possession) was of greater significance than legal title *(dominium)* in determining rights to land under Spanish law. But therein were scattered the seeds of many of the disputes over land titles and water rights which plague us today.

The settlers preferred Rio Arriba country, with its timber, grass and water supply, to the flat lands to the east. The area designations of Rio Abajo and Rio Arriba became part of our heritage and vocabulary, as have nouns like *plaza, suerte, ejido* and *la vega.*[6] The reason why the ditch boss in New Mexico was called the mayor domo, while in California he was called zanjero, has never been made clear. Both Spanish words for ditch, acequia and zanja, are of Arabic origin. Perhaps the title of the irrigation official stemmed from the origins and language preferences of the colonists of northern New Mexico, the Gallegos, as distinguished from those of the people of Andalucia, Extremadura and Valencia. Or it may be simply because California was settled 150 years after New Mexico.[7]

Before the arrival of the Spaniards there were no domestic grazing animals, although game animals and buffalo were found in abundance. To the North, in the San Luis Valley of Colorado, there was a vast game and buffalo pasture and an Indian hunting ground. Along the mouths of creeks in this area one can still pick up arrowheads in a handful of dirt. The presence of this large hunting ground, jealously guarded by the Indians, explains in large part why San Luis, always claimed to be the oldest town in Colorado, was not settled until 1836. The Indians permitted few white men other than the mountain men and trappers to venture north of Taos.

The Spanish settlers brought cattle, sheep, and horses to their new homes. My Navajo friends have always smiled about the importance of sheep in their eclectic religion. During this long period of Spanish Colonial history, it is important to realize that there was little overgrazing or extensive timber cutting, although agriculture developed steadily along the river.

The brief period of Mexican rule, from 1821 to 1846, did not

mineral claims on Spanish and Mexican grants *see* note 4 *supra.* In New Mexico *compare* Lockhart v. Wills, 9 N.M. 344, 54 P. 336 (1898), [*and*] Lockhart v. Johnson, 181 U.S. 516 (1901) (an unconfirmed grant not reserved against mineral entry), *with* United States v. San Pedro & Canon del Agua Co., 4 N.M. (4 Gild., E.W.S. ed) 405, 17 P. 337 (1888) (confirmation of a grant by patent or statute did not pass the minerals).

6. Hence Las Vegas, New Mexico, named for its location at the edge of a fertile plain.

7. The California history, including the founding of the Pueblo of Los Angeles in 1780, is summarized in the Brief of Appellant, Los Angeles v. San Fernando, 2d Civil No. 33708, now pending in the Court of Appeal, Second Appellate District, State of California. The lower court has found against an extension of the Los Angeles pueblo water right.

change conditions significantly, although some larger herds of sheep and cattle did exist. However, the settlers were poorly protected from the hostile Indians who took their livestock. The internal struggles in Mexico following independence left the settlers with few soldiers to protect them and their animals. There was little overgrazing except in the close vicinity of settlements. But as the hostile Plains Indians were pushed back from the settlements along the Santa Fe Trail and new markets were opened, larger herds of sheep and cattle were encouraged. At this time the livestock industry was still not important to a majority of the settlers who raised animals only for home consumption. The great expanse of range continued to be available to the white settlers and Pueblo Indian herdsmen. There was a minimum of emphasis on the boundary lines of grants or on legal titles. The tax system did not emphasize formal titles. Private lands were taxed on the basis of their productivity and in that period the taxes were usually paid in kind.

The Spanish and Mexican land grants were of surface interests only. The regelian concept governed subsurface interests and the Sovereign made few express grants of mineral rights because rights to minerals were the patrimony of the Crown,[8] or of water rights, because these, with some exceptions, were generally *public juris* or *res communes.*[9] But it is important to remember that wherever surface water rights were recognized they were appurtenant to the land and were not transferrable. During this period the methods available for diverting streams for irrigation were quite primitive. The brush and earthen dams were frequently destroyed by every flood.

In brief, this is the way the Anglos found the country. It has been estimated that in 1850 the total population of the New Mexico Territory, which included southern Colorado and all of Arizona north of the Gila, was only 61,500 people. But by 1860 it had grown to 93,500, while ten years later the population of New Mexico alone was over 91,000.[10]

This sudden spurt in New Mexico's growth was aided by a number of circumstances. First, there was the acquisition of the Southwest by the United States. Under the terms of the Treaty of Guadalupe-

8. Moore v. Smaw, 17 Cal. 199, 79 Am. Dec. 123 (1861) explained fully that mineral rights in grants did not pass from the Crown without express language. Mineral rights were the property of the previous sovereign and passed by cession to the United States. *See* Fremont v. United States, 58 U.S. (17 How.) 542 (1854) on rights of the surface owner when minerals were discovered. *See* note 5 *supra.*

9. Springs and waters in the ground belonged to the surface owner. 1 Kinney on Irrigation and Water Rights, § 563 (2d ed. 1912).

10. Man and Resources, note 2 *supra.* The information and figures given are largely from chs. 2, 3 & 4. *See also* note 11 *infra.*

Hidalgo, the United States paid about 16 million dollars to Mexico for the southwestern lands, extending west from the Rio Grande to the Pacific. Then Texas ceded her claims to the lands east of the Rio Grande for 15 million dollars in 1850. The Gadsden Purchase of 1853 gave the United States title to the lands below the Gila for 10 million dollars.[11] Another factor in this rapid growth was the discovery of gold in California in 1848, which caused numerous Easterners, along with thousands of refugees from the famine in Ireland and the revolution in Europe in 1848, to seek their fortunes in the West. Furthermore, the Civil War, which had torn the nation apart for four years, had left its toll of displaced persons, many of whom moved west to find new homes. All of these elements combined to make available land for settlement and people to settle on it. Then the completion of the transcontinental railway made the land easily accessible to the settlers.

The combination of these ingredients, i.e., land available, those in need of it, and the relative ease of claiming it, produced the predictable result, an influx of settlers into the Southwest. Most of New Mexico's present day disputes over land and water rights can be traced to this Anglo invasion. Thus begins the long story of greed, oppression and misuse of the land and other natural resources.[12]

At this point, it is necessary to emphasize an earlier statement. Many of the Spanish and Mexican grants were of large areas, many had imprecise boundaries. Many grants were imperfect, or were only

11. P. Gates, History of Public Land Law Development, ch. 6 (1968) [hereinafter cited as Gates]. Professor Gates of Cornell, at p. 117 *supra* summarized the situation from official documents:

> [I]n New Mexico, Arizona, and Colorado, there was left from the Mexican period a tangle of land claims over which men fought and litigated for many years. Ownership of the most promising land quickly passed into the hands of "Anglos" but, because owners were reluctant to let their title papers out of their hands, claims were still being presented for confirmation as late as 1885. Although an Act of July 22, 1854, authorized the surveyor general of New Mexico Territory to investigate the claims and report to Congress, of the 202 claims filed by 1885, only 48 had been confirmed and 22 patented by 1885. No action had been taken to present 300 claims.

12. Man and Resources, *supra* note 2, esp. ch. 3 on Deterioration of Physical Resources. G. Sanchez, *Forgotten People* (Univ. of N.M. Press, 1940) reprinted by Calvin Horn Publisher, Inc., 1967, p. 17:

> Ruthless politicians and merchants acquired their stock, their water rights, their land. The land grants became involved in legal battles. Was a grant genuine, was it tax free, was it correctly administered, was it registered? Who were the grantees, who the descendants, where the boundaries, and by whose authority? Defenseless before the onslaught of an intangible yet superior force, the economic foundations of New Mexican life were undermined and began to crumble. As their economy deteriorated so did the people, for their way of life was based on, and identified with, the agrarian economy which they had built through many generations.

licenses, or included no more than possessory or grazing rights. Some, though bona fide, had not been properly authorized. Others were acts of corrupt officials, who were especially abundant during the last period of Mexican administration when communication with the central Mexican government was virtually nil. *But none of these grants carried with them the rights to minerals and water unless they were expressly granted.*[13] On this point there has been endless misinformation and confusion, although it is clear that Spain and Mexico did not recognize riparian systems for irrigation. This does not mean, however, that Spanish and Mexican law is the source of our prior appropriation system.[14] That system developed in the gold fields among miners trespassing on the public domain, at a time when there was no national mining law.[15] In contrast, the occupiers of Spanish and Mexican grants generally had lawful possession under color of title.[16] As emphasized above, they did not have property rights in flowing streams. The law of Spain and Mexico had always provided that rivers were for the common use of all men until a

13. *See,* State v. Valmont Plantations, 346 S.W.2d 853 (Tex. Civ. App. 1961), *aff'd,* 163 Tex. 381, 355 S.W.2d 502 (1962). References are made at 346 S.W.2d 860 n. 14 to the applicable Mexican and Texas laws.

14. There are decisions which suggest this: Hagerman Irrig. Co. v. McMurry, 16 N.M. 172, 113 P. 823 (1911); Maricopa County Munic. Water Cons. Dist. v. Southwest Cotton Co., 39 Ariz. 65, 4 P.2d 369 (1931). Motl v. Boyd, 116 Tex. 82, 286 S.W. 458 (1926) encourages the view that Mexican law recognized riparian rights, but this has been fully discounted by scholarly research in State v. Valmont Plantations, *supra* note 13.

15. Basey v. Gallagher, 87 U.S. (20 Wall.) 670 (1875); *see* note 4 *supra.*

16. *See* notes 3 & 4 *supra.* The grants were made for a variety of reasons. The settlement of the Sevilleta de La Joya grant is an example of one kind:

> Sometime during the 1700's the provincial government of New Mexico persuaded some hardy but landless families living in the vicinities of Mora, Las Vegas and Taos, and who had some experience fighting Indians, to settle near a friendly Indian Pueblo between the settlements of Belen and Socorro. A garrison was needed at that point to defend the Mexico-bound wagon trains and caravans, and it was understood that the new settlers were to provide that defense. In 1819, a grant of land was made to the people living there, then numbering 67 individuals.... The title to the grant was confirmed by the Court of Private Land Claims for New Mexico on Dec. 19, 1901, and a patent was given in 1907...." Notes on Community Owned Land Grants in New Mexico. Regional Bull. No. 48, Conservation Economics Series No. 2, August, 1937 (U.S. Dept. of Agric. Soil Cons. Service, Region Eight, Albuquerque, mimeographed, in possession of the author.

The La Joya Grant originally comprised 272,193 acres. Upon patent in 1907 after allocating individual acreages to descendants of the grantees, there were 216,000 unallotted acres which remained in community. The Wheat King, General Thomas D. Campbell, bought the grant for taxes in 1937 for $76,500.00, or about 35 cents per acre.

This brief study includes three other grants: Canyon de San Diego, Jacona, Cundiyo. Appended to the study is a petition on behalf of 1700 alleged descendants of the grantees to President Roosevelt and New Mexico's Congressional representatives asserting that the grant was tax free by its terms as a military grant which the Court of Claims had not admitted as evidence. They attacked the tax sale to General Campbell reciting the figure of 35 cents an acre for 216,000 acres.

property interest has been expressly transferred by the sovereign.[17] Thus the relationship between land and water has two aspects that demand special attention:

1. The Treaty of Guadalupe-Hidalgo protected and guaranteed only property rights that existed under the law of Spain and Mexico.

2. The right to stream flows was not among those protected private property rights unless there had been a grant of such rights by the sovereign.

Under the Treaty, Mexican citizens had the option to remain or leave. In either case their property rights were to be protected. Until passage of the Homestead Act in 1862 and the first mining law in 1866,[18] there was no national policy on water and mineral rights.[19] Later, water rights legislation encouraged additional appropriations from sources flowing through or being used by land grantees. This is obvious in the Rio Grande basin, the Colorado basin and the watershed of the Canadian which drains parts of the Mora grant. But Southwest miners, cattlemen and sheepmen often paid little attention to the private property status of grants which had not been patented or confirmed by Congress. Or they claimed the lands for themselves by using most or all of the acquisitive practices known to man.[20] Congress did nothing from 1848 to 1854 about settling rights to any of the grants.[21] Then from 1854 to 1870 a total of 62 Spanish and Mexican grants were confirmed either directly by Congress or upon the initiative of the Land Office, after which time Congress again changed its policy and declined to act.[22]

The Surveyors-General sent to the Territory varied greatly in ability, industry and integrity. Also, they had insufficient funds and inadequate help so there were long delays and great inequities in the

17. All of the sources are found in State v. Valmont Plantations, note 13 *supra.*

18. 30 U.S.C. § 51 (1964). The first mining law is important because it confirmed appropriative water uses on the public domain which were not otherwise recognized by law. Many of the appropriated flows came from sources already used by land grantees which interfered with their rights. In California, where the theory of riparian rights was developed in Lux v. Haggin, 69 Cal. 255, 10 P. 674 (1886), it was held that Spanish and Mexican law was superseded by the adoption of the common law. However, in New Mexico and the other "Colorado doctrine" states where no riparian rights were recognized, the land grantees and previous users of stream flows were in competition with later appropriators who were merely holding possessory interests in most cases. *See* 1 Wiel Water Rights, § § 259-264.

19. *See* ch. 23 of Gates, note 1 *supra.*

20. For an example, *see* W. Keleher, Maxwell Land Grant (rev. ed. 1964) [hereinafter cited as Keleher].

21. Act of July 22, 1854, ch. 103, 10 Stat. 308. The law created the Surveyor General of New Mexico who was required to follow the instructions of the Secretary of the Interior "to ascertain the origin, nature, character and extent of all claims of lands under the laws, usages, and customs of Spain and Mexico."

22. Keleher, note 20 *supra,* at 11. *See also* Gates, note 11 *supra* at 117.

recognition of grant rights.[23] In 1885, President Cleveland's zealous new appointee as Surveyor-General of New Mexico, George W. Julian, discovered that at the time of the Treaty there were an estimated 24,000 square miles (approximately 15 million acres) of grants in New Mexico.[24] By the time many grant rights were settled the figure had grown much larger. The Maxwell Land Grant is a well known example.[25] It had been made in 1841 by Gov. Armijo to Guadalupe Miranda and Carlos Beaubien and was confirmed by the 1860 Act of Congress. When the patent was finally issued in 1879, it contained 1,714,764 acres, (265,000 acres of it in Colorado). Julian later claimed that the patent was issued in violation of law because it was "limited by the law under which it was made to twenty-two square leagues, or about 96,000 acres."[26] The litigation over this grant impelled Congress, in 1891, to establish the Court of Private Land Claims in New Mexico.[27] But that is a long story in itself and other parallel events are of greater importance in a discussion of water rights.

The arrival of the Anglos in 1846 had opened up new markets while the arrival of the railroad in 1879 opened many more. Livestock production and sales increased to satisfy the demands of this rapidly growing market. It has been estimated that the number of grazing animals in the Middle Valley area alone more than quadrupled between 1870 and 1900.[28] New markets had also given fresh impetus to the old partido system.[29] Under that system the grant

23. *See e.g.*, Shaw v. Kellogg, 170 U.S. 312 (1898) where a large grant of in lieu lands in settlement of a dispute over the town of Las Vegas grant was confirmed by an act of Congress in 1860. More than 34 years elapsed after the land department took final action in 1864 before rights in one part of the grant were finally settled by the United States Supreme Court in 1898.

24. Keleher, note 20 *supra*, at 127. This figure would cover about 20% of the present area of New Mexico (about 121,000 square miles). Julian was referring to the whole area at the time of the treaty.

25. Keleher, note 20 *supra*. *Cf.* Dunham, Government Handout–A Study of the Administration of the Public Lands, 1875-1891 at 4 (1941); Brayer in *William Blackmore; The Spanish-Mexican Land Grants of New Mexico and Colorado, 1863-1878* at 18, agrees with Dunham in the criticism of the handling of the Maxwell Grant.

26. Keleher, note 20 *supra*, at 129.

27. *Id.* at 127. Act of March 3, 1891, ch. 539, 26 Stat. 854. The legislation authorized this court to handle claims in Arizona and New Mexico Territories and Colorado. One section provided that no claim in excess of 11 leagues should be allowed; another section provided for the confirmation of titles of up to 160 acres to persons who had been in adverse possession for 20 years. "Under this act spurious, forged, and antedated claims to 33, 500,000 acres, out of a total of 35 million that had not been finally passed on, were rejected." Gates, note 11 *supra*, at 117-18.

28. Man and Resources, note 2 *supra* at 49.

29. The system is referred to in Josiah Gregg's 1844 book, Commerce of the Prairies 122 (1933 ed.). *See also* Material on the Partido System, Bull. No. 105, comp. and mimeo-

holder, who had little capital but often had rights to water and grass, took livestock on shares and assumed all of the responsibility for them. The owner or patron, Anglo or Hispano, provided the capital and the market. The partidario contributed his labor, skill and assumed the risks. This institution greatly affected the future of water rights and uses since it encouraged overgrazing which, in turn, produced heavily silted streams. These streams then tended to change their courses during floods and high water, causing valley lands to become water logged and watersheds eroded.[30]

While the deterioration of the farming, grazing and forest lands was underway, the population of New Mexico was increasing from about 119,000 in 1879 (when the railroad arrived), to about 195,000 in 1900.[31] The timber withdrawal acts and the establishment of the Santa Fe National Forest in 1892 and the Cibola and Carson Forests in 1906 did not stop the watershed deterioration. The total productive irrigated acreage in the Upper Rio Grande Valley declined steadily after 1880, as the number of livestock increased and the forests were cut. But with this growing ecological imbalance an important and constructive development occurred in the area of water law. In 1907 the Territory adopted a statutory system which incorporated the tested principles of prior appropriation within a framework of management and public responsibility which is the focus of Part II of this discussion.[32]

II
PARTICULAR WATER LAW PROBLEMS OF THE REGION

A. New Mexico water law: acquisition, protection and exercise of private rights

The water law of New Mexico before 1907 is found in the state's history, court decisions, and in its statutes beginning with 1851. The First Territorial Legislature declared: "The course of ditches or acequias established prior to July 20, 1851, shall not be disturbed."[33]

Although the perfect law in any field has never been written, it is clear that the 1907 legislation, which was adopted and in part restated in the Constitution of the new state of New Mexico and in

graphed by the U.S. Forest Service, Albuquerque, July, 1937, for a list of "Partido Men" with their ownership of sheep and cattle, and also a copy of a "Sheep Contract and Chattel Mortgage."

30. Hamilton, Rio Grande Deathwatch, 18 New Mexico Q. Rev. 67 (1948).

31. Man and Resources, note 2 *supra*, at 48-49.

32. N.M. Stat. Ann. § § 75-1-1 *et seq.*, 75-1-2 *et seq.*, (Repl. 1968) established the office of State Engineer.

33. N.M. Stat. Ann. § 75-14-6 (Repl. 1968).

subsequent statutory amendments, was an improvement over the pre-existing law.[34]

Briefly, the legislation may be summarized as follows:

1. A formal declaration of an already established principle that unappropriated water is a valuable public resource. The acquisition of private rights, managed through the priority principle, gave the first user the senior right. The concept of irrigation as a public use, that is, a use that benefits the community, was implicit. The legislation devised a public management system for the orderly handling of appropriations, transfers of rights, changes of use, terminations of rights for non-use, and further provided procedures for making factual determinations of available supplies and present uses, to prevent or minimize injury to such rights.[35]

2. The legislation required continuing records of quantities demanded and available, and of the nature and place of use. Supervision over interstate sources was provided.[36] The 1907 legislation was a modified form of the Wyoming permit system devised in 1889-1890. In 1900, when the Wyoming statute was under constitutional attack, the Wyoming Supreme Court, in the course of upholding the legislation, quoted what was then common knowledge in the West:

> In that state of Wyoming, at least, there will no longer be the ludicrous spectacle of learned judges solemnly decreeing the right to from two to ten times the amount of water flowing in a stream, or, in fact, amounts so great that the channel of the stream could not possibly carry them; thus practically leaving the questions at stake as unsettled as before. Kinney, Sec. 493.[37]

Monopoly over water rights was a public problem because control over water gave control over land. Ill-conceived irrigation projects and land speculation worked to the detriment of the farmers and of the community generally, including the heirs of Spanish and Mexican grantees. A New Mexico territorial engineer, with the aid of the new legislation, was able to veto a project that was dependent on La Plata River water. The supply was not adequate for the proposed project.

34. There have been many amendments. However, the subsequent *ground* water legislation first enacted in 1927 is the most significant substantive law development. N.M. Stat. Ann. § § 75-11-1 through 75-11-40 (Repl. 1968).

35. N.M. Stat. Ann. § 75-1-1 *et seq.* (Repl. 1968).

36. The Interstate Stream legislation was passed in 1935. N.M. Stat. Ann. § 75-34-1 (Repl. 1968). However, the governor has been authorized in 1927 to "take such steps . . ." to protect rights in interstate streams, N.M. Stat. Ann. § 75-34-7 (Repl. 1968). In 1941 the State Engineer was directed to control interstate waters involved in litigation. N.M. Stat. Ann. § 75-4-11 (Repl. 1968).

37. Farm Inv. Co. v. Carpenter, 9 Wyo. 110, 61 P. 258 (1900).

He denied a permit as being against the public interest and was upheld by the Territorial Supreme Court.[38]

3. The legislation provided for adjudication of water rights. The priority principle was applied. The concept of beneficial use was to be tested and reviewed by the courts, and was defined pragmatically to meet the requirements of the times, as, for example, in the Red River Valley case.[39] This decision established public recreation and fishing rights in a project constructed with public funds, even though the reservoir covered areas of private land.

Stream system adjudications may be set in motion by the State Engineer.[40] His staff gathers the data and makes the technical preparations, but the final adjudication of water rights is by the courts.

These are the bare bones of the New Mexico legislation. Amendments to the statutes since 1907, including those of 1959, and the Constitutional Amendment in 1967 (which provides a de novo hearing in District Court in an appeal from the State Engineer),[41] have built on the earlier law, which provides the framework within which all who claim New Mexico water rights can be heard. Despite its imperfections and inherited disabilities–largely because the New Mexico statute is written over the tangled history of earlier legal systems–the permit statute has worked well. It has allowed for change and improvement and has obviated many of the serious uncertainties and conflicts which might have occurred. Arizona and Colorado, for example, have had difficulties over the interrelationship of surface and ground water supplies and the management of ground water.[42]

B. Public rights and management problems

The New Mexico constitution recognizes and confirms existing rights and declares the substance and application of the appropriation doctrine. Public ownership of all unappropriated streams and watercourses is asserted.[43] These sections are a restatement of the 1907 legislation, and of existing law.[44] They are followed by pro-

38. Young & Norton v. Hinderlider, 15 N.M. 666, 110 P. 1045 (1910).

39. State v. Red River Valley Co., 51 N.M. 207, 182 P.2d 421 (1945).

40. *See* N.M. Stat. Ann. § § 75-4-2, 75-4-8 (Repl. 1968).

41. N.M. Const. art. 16, § 5 was added as a result of special election Nov. 7, 1967. *See* N.M. Stat. Ann. § § 75-1-2.1, 75-1-2.2 (Repl. 1968) on protection of pre-1907 water rights.

42. *See* Fellhauer v. People, 167 Colo. 320, 447 P.2d 986 (1968); Jarvis v. State Land Dept. 104 Ariz. 527, 456 P.2d 385 (1969).

43. N.M. Const. art. 16, § § 1-3.

44. N.M. Stat. Ann. § 75-8-1 *et seq.*, (Repl. 1968) expressly protects pre-1907 uses including areas where "local or community customs, rules and regulations have been adopted" for the use of ditches and laterals.

cedural provisions that specify how a public resource may become private property and how, under public control, it may be transferred, or the place or nature of the use changed, and also how it may be returned to public ownership after non-use for a statutory period. The 1907 legislation, as amended, contemplates cooperation with existing institutions such as community ditches, acequias and other public distribution agencies.[45] A 1912 statute specifically provides that a public community acequia was not required to obtain a permit to change a point of diversion.[46] This matter is handled differently for individuals. An 1895 statute discusses private and non-profit corporations operating as irrigation systems.[47] In 1956, the legislature formally declared that community ditch associations are "political subdivisions of the state."[48] The community ditch has remained an important institution in New Mexico though there are many new types of water distribution agencies.[49] But all this legislation has been found quite confusing by groups of New Mexicans, and often as unrelated to them as they had found the early quiet title suits and possessory actions over water and land brought by or between the new occupiers.[50] The legislation required knowledge of land boundaries, quantities of water needed or used, methods of measurement, and other matters relating to water uses that had not been important or required for more than 200 years. Fear and suspicion on the part of the Spanish-speaking settlers and the Indians were justified. Many of them were illiterate and few spoke English. Other factors also contributed to this attitude.[51]

45. N.M. Stat. Ann. § 75-14-1 *et seq.*, (Repl. 1968) esp. 75-14-25.1 as amended in 1965 makes acequia and ditch associations political subdivisions of the state.

46. *Id.* at § 75-14-60.

47. *Id.* at § 75-14-25. Storrie Project Water Users Assn. v. Gonzales, 53 N.M. 421, 209 P.2d 530 (1949).

48. Note 45 *supra*. *See* N.M. Stat. Ann. § 75-14-1 *et seq.* (Repl. 1968).

49. *See e.g.*, Conservancy Districts, N.M. Stat. Ann. § 75-28-1 *et seq.*, Irrigation Districts, § 75-22-1 *et seq.*, (Repl. 1968). One of the interesting developments related to the community ditch is the extension of the private nature of the institution in the 1880's when the San Juan country was settled by Mormons. *See* Holmberg v. Bradford, 56 N.M. 401, 244 P.2d 785 (1952) and earlier cases.

50. *See* First State Bank v. McNew, 33 N.M. 414, 269 P. 56 (1928) which held that the appropriation statute did not apply to stockwatering tanks.

51. The absence of educational opportunity was eloquently stated many years ago. *See* G. Sanchez, Forgotten People 21-23 (1967 ed.).

> Before 1890, there were virtually no public schools in the territory and education had been left largely to private and church endeavor.
>
> * * *
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> It is quite apparent that this situation was not conducive to the development of a people long isolated from Western civilization. That native leaders realized this is evidenced by such statements as those made by J. Francisco Chaves, territorial superintendent of public instruction, in his report to the governor in 1901:

The Pueblo Indians had long had irrigation systems that were built and managed as community affairs.[52] These Indians and the descendants of the Spanish colonists, who had lived on the land for generations without relating a piece of paper to a water right, were equally mystified by the law's formalities. This attitude has not entirely disappeared, as is evidenced by recent legislation which makes the declaration of a water right, vested before 1907, prima facie evidence of such a right.[53] The Anglos' emphasis on individual property rights and formal land titles was not well understood by either group. It must be remembered that the 1851 legislature had found it necessary to protect old institutions and to redefine them.[54] The 1907 legislation provided for the exercise of eminent domain by the state or United States, "or any *person*, firm, association or corporation" for the construction and maintenance of irrigation ditches, pipelines and storage areas.[55] This legislation recognized water as a public resource—a concept the Spanish colonists already knew and the Indians had long understood.

The period from the Treaty of Guadalupe-Hidalgo of 1848 to the enactment of the Reclamation Law in 1902 was one which saw intense conflicts over Spanish and Mexican grant rights.[56] The passage by Congress of the first homestead law in 1862 and of the first mining law in 1866, gave recognition to possessory water rights, and established principles which were carried into the mining law of 1872, the Desert Land Act of 1877, and the Carey Act of 1894.[57] This legislation, while not specifically aimed at clearing up land and water disputes over grant lands, had, in fact, the opposite effect. Nor did the Reclamation Law of 1902, which established an irrigation policy based on the use of public funds, improve the status of

> "The indispensableness of education to worldly prosperity has also been demonstrated. An ignorant people not only is, but must be, a poor people. They must be destitute of sagacity and providence, and, of course, of competence and comfort. The proof of this does not depend upon the lessons of history, but on the constitution of nature. No richness of climate, no spontaneous productiveness of soil, no facilities for commerce, no stores of the precious and useful metals garnered in the treasure-chambers of the earth can confer even worldly prosperity upon an uneducated people. Such a people cannot in this day and generation create wealth of themselves, and whatever riches may be showered upon them will run to waste. Let whoever will sow the seed or gather the fruit, intelligence will consume the banquet."

52. *See* Clark, New Mexico Water Resources Law 49 (1964).

53. N.M. Stat. Ann. § § 75-1-2.1, 75-1-2.2 (Repl. 1968).

54. Note 33 *supra.* N.M. Stat. Ann. § § 75-14-9, 75-14-11 (Repl. 1968).

55. N.M. Stat. Ann. § 75-1-3; *Cf.* § 75-14-1 (Repl. 1968). *See* Kaiser Steel Corp. v. W.S. Ranch Co., _____ N.M. _____, 467 P.2d 986 (1970) on the "public use" of water.

56. Gates, note 11 *supra* at 117-118. The Court of Private Land Claims confirmed 504 claims in New Mexico totalling 9,899,021 acres.

57. *Id.* in chs. 15, 17.

grantees or their heirs.[58] Moreover, their lands, with headgates along the streams, had been divided into narrower and narrower *suertes* with each generation of inheritance.[59] There was even more reason than before to fear that increasing downstream demands and uses would impair their rights. In 1909, the Legislature sought to protect the "natural right of the people living in the upper valleys of the several stream systems to impound and utilize a reasonable share of the waters which are precipitated upon and have their source in such valleys and superadjacent mountains. . . ."[60] This was to be accomplished within the framework of 1907 enactments which provided that "local and community customs, rules and regulations" . . . shall govern the distribution of water where they "have for their object the economical use of water and are not detrimental to the public welfare . . ." and without impairing the "authority of the state engineer and water master to regulate the distribution of water from the various stream systems of the state . . ."[61]

Even prior to the Reclamation Law of 1902, it had been determined that large flows of Rio Grande flood waters could be used for irrigation downstream.[62] After the convention with Mexico in 1906, the Rio Grande Project made filings on the stream, and work on the Elephant Butte Dam and Reservoir was begun.[63] Years later, El Vado Dam and Reservoir were constructed on the Chama, a tributary of the Rio Grande. Despite these and other projects in different reaches of the river, there have been periods of great water shortage and, thus, more litigation.[64] The San Juan-Chama transmountain diversion from the Colorado Basin is expected to help relieve this situation in the middle sections of the Rio Grande.[65] Conditions of

58. *Id.* in ch. 22, 43 U.S.C., § § 371-615R (1964).

59. *See* Vol. II, Tewa Basin Study, 1935, The Spanish-American Villages (U.S. Dept. of Agriculture Soil Conservation Service, Albuquerque, 1939) (Mimeographed, in possession of author). This survey covers more than 25 northern villages and tells what had occurred in the past 50 years or more.

60. N.M. Stat. Ann. § 75-5-27 (Repl. 1968).

61. *Id.* at § 75-8-2.

62. *See* United States v. Rio Grande Dam & Irrig. Co., 174 U.S. 690 (1899).

63. The background is found in New Mexico v. Backer, 199 F.2d 426 (1952).

64. Texas v. New Mexico, 352 U.S. 991 (1957).

65. *See* pending litigation New Mexico v. Aamodt, No. 6639 (D. N.M.) with the United States as plaintiff in intervention, which is an attempt to adjudicate water rights in the Nambe-Pojoaque Stream System, including rights of Indians.

Inter-bureau frictions and the desire of two Indian pueblos to have independent legal counsel rather than Department of Interior lawyers prompted sharp comment from Senator Anderson who sponsored the San Juan Champ Project in the 87th Congress. Anderson's Newsletter *News from the Capitol,* Sept. 15, 1970; Albuquerque Journal, Sept. 10, 1970, A-1, Albuquerque Journal Sept. 15, 1970, b-12.

The recognition and protection of Indian water rights as well as other water rights are factors in the New Mexico adjudication procedure which includes ,

the land and of the people in this area have changed but little over the years and poverty has long been a way of life.[66] The many important interests of the United States in this area also strongly affect the rights of its inhabitants to the available water.

C. The National Interest; rights and obligations of the United States

1. Indian Water Rights

Although Indian water rights cannot be examined in detail herein, some background on the "reservation doctrine" must be provided because of its affect on the water rights of other groups.

(a) Indian lands are not public lands, i.e., part of the "public domain", but they are trust lands. The origins of the Indian titles are material here only insofar as we remember that there are treaty lands and also "reservations", and because their acquisition dates may be determinative of the water rights of claimants on non-Indian lands.

(b) There are numerous Rio Grande and other New Mexico pueblos.[67] The United States has plenary control over the Indians and their lands, for certain purposes, and their water rights are protected by the United States. The Rio Grande Compact declares that: "Nothing in this Compact shall be construed as affecting the obligations of the United States of America to Mexico under existing treaties or to the Indian tribes, or as impairing the rights of the Indian Tribes."[68]

Here we should recall earlier litigation in the United States Supreme Court in which Texas brought suit against New Mexico.[69] After six years the case was dismissed in a very short opinion on the grounds of the indispensability of the United States as a party. It has been claimed that the result turned on the rights of the Indians, which is incorrect since the United States has many different types of interests in the area. It should be noted that the Court's opinion says nothing about Indians. In 1952, Arizona brought suit against

the whole allocation process and all types of uses. Confusion over water rights as such and methods of diversion, or rights of carriage or delivery is illustrated by a Colorado case where the plaintiff had been supplied from 1929 to 1965 with surplus water from Indian irrigation works. The Indians began to use more of their supply on increased acreage. It was held that although the plaintiff had an adjudicated water right from the stream he had no cause of action against the United States as trustee for the Indians to compel delivery of the water. Martinez v. United States, 302 Fed. Supp. 1069 (1969).

66. *See* Sanchez, note 51 *supra*, esp. chs. 4, 5.
67. Texas v. New Mexico, note 64 *supra*.
68. N.M. Stat. Ann. § 75-34-3 (Repl. 1968).
69. Texas v. New Mexico, 352 U.S. 991 (1957) was dismissed in these words:

> The motions to amend the bill of complaint are denied. The motion to dismiss is granted and the bill of complaint is dismissed because of the absence of the United States as an indispensable party.

California over the waters of the Colorado. The 1963 decision held that Indian water rights must come out of Arizona's share of the allocation.[70]

There are three points to keep in mind about this and related litigation involving Indians:

1) The quantities of water the Indians are entitled to are not generally specified. This is a major reason for the pending litigation in the United States District Court for New Mexico brought by the State Engineer for adjudication of the Nambe Pojoaque Stream System.[71]

2) The procedures for adjudicating Indian rights where the United States does not enter the litigation are uncertain, and they may still be unclear even if the United States is joined.[72]

3) The Reservation Doctrine that emerged from Indian water rights is not limited to Indians, as was made clear in *Arizona v. California.*[73]

2. Public Lands of the United States: BLM, Forest Service, Parks, Wildlife Refuges, Wilderness Areas, Recreation, Defense

In 1956, a summary of land ownership in the Upper Rio Grande Basin of New Mexico revealed that 38% of the land was federally owned—20% in forests, 12% in other public domain lands, and 6% in other federal uses. Indian lands accounted for an additional 15% while another 10% was comprised of state and local land in public ownership, while only 37% was privately owned.[74] Large areas of this land were included in the original Spanish and Mexican land grants, as was, for example, the Rio Arriba county area.[75] But much of the water yield in the area, from the Continental Divide on the west to the Sangre de Cristo range on the east, now arises on public

70. Arizona v. California, 373 U.S. 546 (1963).

71. New Mexico v. Aamodt, note 65 *supra.*

72. *See e.g.,* Texas v. New Mexico, note 64 *supra,* New Mexico v. Aamodt, note 65 *supra,* Arizona v. California, note 70 *supra.*

The question of whether the United States can be made a party in state water adjudication proceedings under the McCarran Amendment, 43 U.S.C. § 666 (1964) was decided affirmatively in United States v. District Court, _____ Colo. _____, 458 P.2d 760 (1969), *cert. granted,* _____ U.S. _____, 90 S.Ct. 123 (1970). (Affirmed by Supreme Court on March 24, 1971.)

73. Arizona v. California, note 70 *supra. See also* One Third of the Nation's Lands, ch. 8, (Report of the Public Land Law Rev. Comm., June, 1970) Water Resources for Recommendations on the Reservation Doctrine.

74. *See* the Dortignac study, note 1 *supra.* For a summary of present conditions in the Rio Grande Region *see The Nation's Water Resources,* ch. 12 (The First National Assessment of the Water Resources Council, Nov. 1968).

75. *See* United States v. Tijerina, 407 F.2d 349 (1969), *cert. denied* U.S. 90 S.Ct. 76 (1969).

lands. A 1970 report presents figures from a recent water resource study, including comparative data on water yields and uses from other western public lands.[76]

3. The Reservation Doctrine: Reserved Rights of the United States

The reservation concept is founded on the Constitution's reservation to Congress of the power to rule and regulate all federally owned lands, and on the premise that federal *proprietary* rights over public land and water were not lost when new states were admitted to the Union; i.e., the new states acquired no more than the powers incident to their new sovereignty. It follows that unless the United States disposed of its property rights in the water on federally owned lands by the legislation of 1866, 1870 and 1877, those rights remain the property of the United States. This logic continues to be disputed by the states. It is argued that the United States did not acquire *proprietary* rights (as opposed to sovereign rights) in western *waters,* or, alternatively, that public land legislation transferred water rights. The western states further contend that their declaration of ownership of such water rights when they joined the Union effected a surrender of such rights by the United States.[77] A 1935 United States Supreme Court decision,[78] commonly cited to support these assertions, appears to indicate just as clearly that although the waters on the public domain were severed from the land by legislation when they were appropriated under state law, the United States did not divest itself of all property interests in waters on the public lands.[79]

The origins of the reservation doctrine are found as dictum in a 1889 New Mexico case.[80] In the absence of express authority from Congress, the Court said, a state "cannot by its legislation destroy the right of the United States, as the owner of lands bordering on a stream, to the continued flow of its waters; so far, at least, as may be necessary for the beneficial uses of the government property."[81]

Both the federal power over navigation, not covered here,[82] and the reservation doctrine represent broad areas of state and federal

76. Contract Study of the *Development, Management and Use of Water Resources on the Public Lands,* 2 vol., (prepared for the Public Land Law Rev. Comm. March 1969).

77. These arguments are summarized in Hanks, *Peace West of the 98th Meridian–A Solution to Federal-State Conflicts Over Western Waters,* 23 Rutgers L. Rev. 33 (1968).

78. California Oregon Power Co. v. Beaver Portland Cement Co., 295 U.S. 142 (1935).

79. *See* Goldberg, *Interposition–Wild West Style,* 17 Stan. L.Rev. 1 (1964).

80. United States v. Rio Grande Dam & Irrig. Co., 174 U.S. 690 (1899).

81. *Id.* at 703.

82. *See,* Morreale, *Federal Power in Western Waters: The Navigation Power and the Rule of No Compensation,* 3 Nat. Res. J. 1, 77 (1963).

adjustment within the legal framework of federalism and the ambit of the national interest.

A 1908 decision dealing with Indian water rights also applied the reservation doctrine.[83] *Winters v. United States* arose out of a suit by the federal government on behalf of Fort Belknap Indians in Montana, who complained of stream diversions from the non-navigable Milk River by the defendants, who were entrymen under homestead and desert land laws. The Indians were on a reservation established pursuant to a treaty and confirmed by act of Congress in 1888. The United States Supreme Court affirmed an injunction, holding in favor of the Indians. The Court's rationale was that the water had been reserved to make possible a change in the nomadic habits of the Indians, and to encourage them to become a "pastoral and civilized people." There was no discussion of the federal statutes of 1866, 1870 or 1877 which recognized and protected state's control of water uses. The court relied on the Rio Grande case saying that "The power of the government to reserve the waters and exempt them from appropriation under state laws is not denied and could not be. . . ."[84]

In the Pelton Dam decision in 1955, the United States Supreme Court held that the FPC had authority to issue a power license for a project stretching from an Indian reservation on one side of the Rouge River to reserved lands on the other side.[85] The decision refueled a long controversy that is not yet over.[86]

The most important, for our purpose, of the other recent cases which have considered or applied the reservation doctrine was *Arizona v. California.*[87] Arizona contended that the United States lacked authority to reserve *navigable* waters, but the Court, citing the *commerce* and *property* clauses of the Constitution, held that "[W]e have no doubt about the power of the United States under these clauses to reserve water rights for its reservations and its property."[88]

For the first time, the commerce clause was mentioned in a "reservation doctrine" decision which raises new questions about the application of the navigation servitude. However, the decision is most significant for its expansion of the reserved rights doctrine to cover non-Indian lands.

83. 207 U.S. 564 (1908).

84. *Id.* at 577.

85. FPC v. Oregon, 349 U.S. 435 (1955). In the view of careful readers of the court's opinion, the decision rests on the supremacy clause rather than on the property clause.

86. *See* note 77 *supra.*

87. 373 U.S. 546 (1963).

88. *Id.* at 598.

An unreported 1963 decision by the United States District Court for Utah has prompted comment on the problems faced by those water users who have long exercised rights which might be subject to the reservation doctrine, because their water has its source on public lands of the United States.[89] The plaintiff, Glenn, used the Federal Tort Claims Act to sue for deprivation of a water right he had exercised since 1930, under a permit issued in 1933 by the State Engineer of Utah. The water's source was a spring in Ashley National Forest, although plaintiff's lands were outside the forest. In 1961 the Forest Service constructed a pipeline within the forest and diverted the spring's output to a recreation area near Flaming Gorge Dam. The Court held that the United States had the right to the use of the water by reason of the President's reservation of that right in 1897.[90] The decision was not appealed.

Although the *Glenn* holding is of limited value, for several reasons not explored here, the possibilities it outlines are related to New Mexico, as well as other states, where National Forests, Parks, BLM lands and other federally owned lands are a primary source of water used by descendants of the states' original settlers and grantees. The New Mexico constitution protected existing water rights,[91] as did the water law of 1907.[92] The problem is proving the uses and declaring the right as required by law.[93] It is obvious that the dates of the appropriation and of the early uses are crucial factors in the determination of water rights.

It is essential to remember that the law of Spain and Mexico did not grant the landowner riparian water rights; he enjoyed a usufructuary right, the right to use water from public streams, which was protected by the Treaty of Guadalupe-Hidalgo. The problems today are those of dating the first uses, at least approximately, of specifying the location of uses, and of making accurate estimations of the amounts used or required.

D. Interstate Compacts and Regional Adjustments

Water rights in New Mexico are further influenced by the interstate compacts to which New Mexico is a party.[94] The La Plata Compact provides for a rotation system between New Mexico and

89. Glenn v. United States, Civil No. 153-61 (D.C. Utah, March 16, 1963).

90. The Forest Reserve Act, 16 U.S.C. 475 (1964), was cited by the United States. The Court's conclusions indicated that plaintiff's water rights under the state permit, the date of the President's withdrawal order, Feb. 22, 1897, were permissive only.

91. N.M. Const. art. 16, § § 1-3.

92. N.M. Stat. Ann. § 75-8-2 (Repl. 1968).

93. *Id.* at § 75-1-2.1 & 2.2 (Repl. 1968).

94. *See* pages following N.M. Stat. Ann. § 75-34-3 (Repl. 1968) for copies of New Mexico's interstate compacts.

Colorado. Decreed rights are protected. In litigation over that Compact, a United States Supreme Court decision established the principle that the sum total of rights from the shared stream within one state cannot exceed the amount equitably apportioned by compact between states.[95]

Two Colorado River Compacts contemplate uses by New Mexico from the Colorado River, as do several acts of Congress. Arizona will pump water out of the Colorado River for the Arizona Project.[96] Arizona is entitled to 50,000 acre ft. of water from the Upper Basin above Lee Ferry.[97] However, Arizona is fast approaching the 50,000 maximum and yet the Navajo Indians, whose uses are to be taken out of Arizona's share of the Colorado, say they do not intend to be limited by the 50,000 acre feet.

CONCLUSIONS AND SUGGESTIONS

1. All claimants in New Mexico, and particularly descendants of the original Spanish settlers and grantees, should make a record of all claimed uses and rights. This record should include the estimated volume or rate of flow claimed, which should be further defined as to seasonal or periodic uses for irrigation and for all other uses.

2. Associations of those who are apt to be water rights claimants, such as community ditch organizations, irrigation districts, or the like, should sponsor forum discussions on water rights and related matters, to educate their members on the subject and to expose and examine fears, errors and injustices. This should form the basis for better understanding, as well as promoting the joining of forces with others to petition the State Engineer to bring an action, under his statutory powers, for the purpose of determining individual rights and groups of rights to water in a given district dependent upon a particular source of supply. A class action, in the nature of a quiet title suit, is an alternative procedure which may be used to determine these rights, but it is a less desirable method for two main reasons: the cost of a survey and other technical assistance will be great, and the effect of a judgment is limited to the parties to the suit.

3. The suggestions made should not overlook the *quality* of the water supply.

95. La Plata River & Cherry Creek Ditch Co. v. Hinderlider, 291 U.S. 650 (1938) *dismissing appeal from* 93 Colo. 128, 25 P.2d 187.

96. P.L. 90-537, 82 Stat. 885 (1968).

97. Upper Colorado River Basin Compact, Art. III, *see* note 94 *supra*, at 580. Arizona is an *Upper Basin* state as to the portions which drain into the Colorado above Lee Ferry, although Arizona is a *Lower Division* state with California and Nevada. Compact Art. II. Under the Compact Art. III, New Mexico's share of the upper basin allocation is 11.25%, Colo. 51.75, Utah 23.00 and Wyo. 14.00.

4. The implications of the reserved rights doctrine should be fully understood by those likely to be affected by its application. In summary, it has this effect: the withdrawal or reservation of lands by the United States, "reserves" such waters arising on or flowing through such lands as are needed for the purposes for which the land has been withdrawn or set aside. Private water rights that can be proved to antedate the reservation or withdrawal, if valid under state law, are superior to a federal claim of a water right. But a water right claimed after the date of the federal withdrawal is subordinate to the federal right. It follows that in times of shortage, almost certain to occur in the future in New Mexico, persons in the second category may receive little or no water and no compensation need be made for their loss.

5. Finally, it is imperative that there be full understanding of the national interest. It is essential that the reasons for actions of the United States in setting aside lands from which waters arise be fully understood. Proposed legislation in Congress which will attempt to adjust conflicts of rights and interests in this area should be explained. And all water users should be made aware that a triumph for "state water rights" over the federal interest, frequently advocated in the West, is no assurance that the people whose interests are directly involved will be benefited. The establishment of firm, saleable water rights, comparable to clear titles to land, may only result in their rapid loss in the market place.