



Summer 2007

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Recommended Citation

Viola Sanchez, *Carryover Storage of Indian Prior and Paramount Water in El Vado*, 47 NAT. RES. J. 697 (2007).

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Carryover Storage of Indian Prior and Paramount Water in El Vado

ABSTRACT

Storage and release for the Six Middle Rio Grande Pueblos has taken place at El Vado Reservoir since the reservoir was first used in 1935. No distinction was made between the lands being served and their appurtenant water rights in storage and delivery in the early years of El Vado operation. El Vado storage and release for Indian lands became an issue at least as early as 1948 because of Rio Grande Compact restrictions on El Vado releases. As a result of this and other alleged Rio Grande Compact violations by New Mexico, Texas filed a Supreme Court lawsuit, Texas v. New Mexico No. 9, Original, in October 1951. The case was never decided on its merits. Notwithstanding the legal and technical challenges involved with storage and release for Indian lands at El Vado during times of Rio Grande Compact restrictions, El Vado storage and release of water for the prior and paramount lands has continued to this day.

One of the oddities about the practice is that unused storage for Indian lands is not carried over from one year to the next. In some cases it is not carried over from one month to the next. This is not a typical practice in reservoir operations. This article will focus on legal reasoning and evidence that may have led to this practice. Background material and analysis is presented on (1) carryover storage; (2) Indian prior and paramount and newly reclaimed water rights; (3) the Rio Grande Compact; (4) the 1981 El Vado Storage Agreement; (5) El Vado ownership and operation; (6) El Vado inflow hydrology and shortages; (7) the permits that the Middle Rio Grande Conservancy District obtained from the New Mexico State Engineer; and (8) the position of Steve Reynolds, New Mexico State Engineer and New Mexico Commissioner for the Rio Grande Compact. A discussion on whether carryover storage can be allowed in the future is also included.

* The material in this article is part of the research for a potential Ph.D. dissertation in civil engineering at the University of New Mexico. It does not represent the views of the Bureau of Reclamation, Department of the Interior, or any other entity. The author dedicates this article to the memory of Mr. Garry Rowe, retired Area Manager, Albuquerque Area Office, U.S. Bureau of Reclamation. Without his patient instruction and mentorship over the years, this article could not have been written. The author also wishes to thank Mr. Subhas Shah and Ms. Anabel Gallegos of the Middle Rio Grande Conservancy District for providing access to their historical files.

I. BACKGROUND

An understanding of carryover storage; the prior and paramount (P&P) and newly reclaimed Indian water rights of the Six Middle Rio Grande Pueblos;¹ Articles VI, VII, and VIII of the Rio Grande Compact² (Compact); the 1981 El Vado Storage Agreement³ (1981 Agreement); El Vado ownership; and El Vado inflow hydrology is a necessary foundation to understand the issues involved with Indian P&P storage in El Vado.

A. Carryover Storage

Carryover storage refers to the practice of storing water in a reservoir and leaving it in storage, or "carrying it over," until a future time period when it is needed. The time period can be from one day, week, or month to another within the same year, or from one calendar year to another.

Currently, unused water stored in El Vado for the P&P Indian lands is not carried over from one calendar year to the next as water earmarked for the Pueblos. At times, it is released to the Compact before the end of the current calendar year in which it was stored. This happens in November and December, so that the State of New Mexico can be given credit for the delivery to Elephant Butte during the current year's Compact accounting at the end of the calendar year. Releases in November and December take place after irrigators between El Vado and Elephant Butte reservoirs have finished their irrigation season, ensuring that releases are not consumed by agricultural water users above Elephant Butte.⁴ November and December releases also minimize the losses to evaporation and riparian consumption along the Rio Grande.

1. These are the pueblos of Cochiti, Santo Domingo, San Felipe, Santa Ana, Sandia, and Isleta.

2. The Rio Grande Compact was signed at Santa Fe, New Mexico on March 18, 1938. Ratification and approval followed by the State of Colorado, 1939 Colo. Sess. Laws 489, by the State of New Mexico, 1939 N.M. Laws, 59, and by the State of Texas. 1939 Tex. Gen. Laws 531. The consent and approval of Congress was given on May 31, 1939. Act of May 31, 1939, ch. 155, 53 Stat. 730; *reprinted in* NMSA § 72-15-23 (1978).

3. Agreement—Procedures for the Storage and Release of Indian Water Entitlements of the Six Middle Rio Grande Pueblos, U.S. Government—Middle Rio Grande Conservancy Dist. (Mar. 17, 1980) (signed by signatories for the agreeing parties in October and November of 1981) [hereinafter 1981 Agreement].

4. Releases used to begin shortly after the MRGCD shut down on October 31. In the last few years, the Pueblos have asked that irrigation water be delivered until November 15; the MRGCD has granted this request. Therefore, releases to the Compact in the last few years have begun sometime after November 15.

At other times during irrigation season, unused water stored in El Vado for the P&P Indian lands for a given month is released to the Middle Rio Grande Conservancy District (MRGCD) on the first day of the following month. The 1981 Agreement computes required storage quantities for the Six Middle Rio Grande Pueblos on a monthly basis for the upcoming irrigation season.⁵ If the quantity computed for storage for a particular month goes unused, it then reverts to the general MRGCD Rio Grande (water originating in the Rio Grande basin) pool and is available for release to lands holding water rights junior to the P&P lands within the MRGCD. It is possible that water set aside for the Pueblos may revert back to the general MRGCD Rio Grande pool and then be carried over by MRGCD to the next calendar year, depending on Compact restriction status.

B. Prior and Paramount and Indian Newly Reclaimed Water Rights

The Act of March 13, 1928 allowed the Six Middle Rio Grande Pueblos to be incorporated into the delivery system of the proposed MRGCD.⁶ Prior to the creation of the MRGCD, there were about 70 direct diversions from the Rio Grande by means of ditch headings and rock-and-brush diversion structures for various acequias and ditches within the Middle Rio Grande Valley. This included some diversions for the Six Middle Rio Grande Pueblos.⁷ The MRGCD combined the acequia and ditch systems from Cochiti Pueblo south to the Bosque del Apache National Wildlife Refuge such that only four diversion dams were required to divert water to MRGCD lands.⁸ In order to combine irrigation systems, the MRGCD had to incorporate the irrigation systems of the Six Middle Rio Grande pueblos into the MRGCD system. This required congressional approval. The approval, with the terms and conditions, is set forth in the 1928 Act, which led to the 1928 Agreement between the MRGCD and the United States (1928 Agreement).⁹ This agreement provided for construction

5. 1981 Agreement, *supra* note 3.

6. Act of March 13, 1928, ch. 291, § 700, 45 Stat. 312 (authorizing the Secretary of the Interior to Execute an Agreement with the Middle Rio Grande Conservancy District Providing for Conservation, Irrigation, Drainage, and Flood Control for the Pueblo Indian Lands in the Rio Grande Valley, New Mexico, and for Other Purposes) [hereinafter 1928 Act]. Reconnaissance work was approved in Act of February 14, 1927. *See also* 1 JOSEPH BURKHOLDER, REPORT OF THE CHIEF ENGINEER, THE OFFICIAL PLAN OF THE MIDDLE RIO GRANDE CONSERVANCY DISTRICT (1928).

7. BURKHOLDER, *supra* note 6, at 28–34, 42–44, 47–48.

8. The MRGCD was also created to provide drainage of waterlogged lands and flood control. *See id.* at 56, ¶ 88.

9. Agreement By and Between the United States of America, Acting By the Secretary of the Interior, and the Middle Rio Grande Conservancy District, Providing for Conservation, Irrigation, Drainage, and Flood Control for the Pueblo Indian Lands in the Rio Grande Valley, New Mexico (1928) [hereinafter 1928 Agreement].

of MRGCD facilities through pueblo lands. Subsequent agreements between the MRGCD and the Secretary of the Interior, administered through the Bureau of Indian Affairs (BIA),¹⁰ covered operation and maintenance (O&M) of MRGCD facilities through pueblo lands serving the newly reclaimed lands.

The 1928 Act provided for the protection of Indian water rights.

That all present water rights now appurtenant to the approximately eight thousand three hundred and forty-six acres of irrigated Pueblo lands owned individually or as pueblos under the proposed plans of the district, and all water for the domestic purposes of the Indians and for their stock shall be prior and paramount to any rights of the district or of any property holder therein, which priority so defined shall be recognized and protected in the agreement between the Secretary of the Interior and the said Middle Rio Grande Conservancy District, and the water rights for the newly reclaimed lands shall be recognized as equal to those of like district lands and be protected from discrimination in the division and use of water, and such water rights, old as well as new, shall not be subject to loss by nonuse or abandonment thereof so long as title to said lands shall remain in the Indians individually or as pueblos or in the United States, and such irrigated area of approximately 8,346 acres shall not be subject by the district or otherwise to any pro rata share of the cost of future operation and maintenance or betterment work performed by the district.¹¹

Thus, the distinction between Indian P&P and newly reclaimed water rights dates back to 1928 and was set forth by Congress. The total acreage for P&P lands was later updated to 8,847.¹² The total acreage for

10. The Bureau of Indian Affairs has had other names in the past. To avoid confusion, this agency is referred to as the Bureau of Indian Affairs (BIA) in this article, regardless of what it was called at the time.

11. 1928 Act, *supra* note 6.

12. *Id.* The acreage accorded the P&P designation, 8,847 acres, was the acreage in production at the time the 1928 Act was passed. However, it does not represent the historic height of Indian acreage under production. The Official Plan, tbl. 3, at 33, shows that about 25,555 acres were estimated to be under production up to the year 1600, prior to any Spanish development. See BURKHOLDER, *supra* note 6. Also, the Commissioner of Indian Affairs wrote in 1927 that as much as 25,000 acres were farmed by the pueblos at the time the Spanish entered and for a "century or two thereafter." The Indians in the Middle Rio Grande Valley were seriously affected by water logging of their lands, as were the non-Indians, since at least 1880, and their acreage under production decreased accordingly. Letter from T.F. McCormick, Superintendent, Northern Pueblo Agency, and Chester E. Faris, District Superintendent, to Commissioner of Indian Affairs (Dec. 2, 1927) (on file with author). It is unclear whether Indian lands over and above 8,847 acres would eventually receive a time immemorial priority date

Indian newly reclaimed lands is not to exceed 12,600 acres for purposes of payment of O&M charges to MRGCD by the United States on behalf of the Pueblos.¹³ The current newly reclaimed total acreage is 11,951.044 acres.¹⁴ Based on this language, and clauses in the subsequent BIA-MRGCD contracts for construction and O&M, there is virtually no argument as to the seniority of the Indian P&P water rights over and above the MRGCD or any property holders within the MRGCD to the natural flow of the Rio Grande, regardless of Compact restrictions.¹⁵ The questions and controversies arise when El Vado storage and release for Indian lands takes place during times of Compact restrictions.

C. Rio Grande Compact

Article XVI of the Rio Grande Compact is used to justify storage and release of water for Indian lands during times of Compact restrictions. The Compact states, "Nothing in this Compact shall be construed as

or whether the language of the 1928 Act would be interpreted as settlement language, limiting the pueblos' time immemorial acreage to 8,847.

It should be noted that just because 8,847 acres were under production at the time of passage of the 1928 Act does not mean that all 8,847 acres were successfully farmed. In 1928, "Isleta was nearly thirty days without water...and the river was dry at Albuquerque and above during part of the irrigation season. A large part of the Indian crops were lost for lack of irrigation storage." Letter from Pearce Rodey, Attorney for the MRGCD, to the Hon. Edgar B. Merritt, Commissioner of Indian Affairs (Oct. 10, 1928) (on file with MRGCD). DAN SCURLOCK, U.S. DEP'T OF AGRIC., FOREST SERV., ROCKY MTN. RES. STATION, GEN. TECHNICAL REP. RMRS-GTR-5, FROM THE RIO TO THE SIERRA: AN ENVIRONMENTAL HISTORY OF THE MIDDLE RIO GRANDE BASIN 47, 50, 62, 67, 70 (1998) (noting droughts in 1663-1671, 1752, 1879, 1895-1907, and 1908 that likely would have caused massive crop failure throughout the Middle Rio Grande valley, including Indian lands). Had the MRGCD not entered 2002 with carryover storage from the previous year that was used for the P&P lands, there would have been massive shortages for all MRGCD lands, including the P&P lands, if the only source of irrigation water was the natural flow of the Rio Grande. There is no doubt that irrigation storage would be needed on some occasions to ensure successful farming of Indian P&P lands as well as newly reclaimed lands. There is no guarantee, however, that El Vado storage will always guarantee a sufficient supply, even to just the P&P lands. This was demonstrated by the hydrological study in Appendix A of the Official Plan of MRGCD, and by experience since El Vado has been used for P&P drought operations.

13. Act of Aug. 27, 1935, Pub. L. No. 74-352, ch. 745, § 1832, 49 Stat. 887.

14. Agreement By and Between the United States of America, Acting by the Secretary of the Interior, and the Middle Rio Grande Conservancy District, a Political Subdivision of the State of New Mexico, Providing for the Payment of Operation and Maintenance Charges on Newly Reclaimed Pueblo Indian Lands in the Middle Rio Grande Valley, New Mexico, § II(D), at 6 (Sept. 2004).

15. Interestingly, the Act did not extend the prior and paramount nature of the Six Middle Rio Grande Pueblos' right over other water users in the Rio Grande basin outside of the MRGCD.

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."¹⁶

Currently, there is no serious controversy in applying Article XVI to the natural flow of the Rio Grande. Under this interpretation, the article means that direct diversions for the pueblos from the Rio Grande are not to be curtailed for purposes of making delivery of natural flows to Texas under the Compact. New Mexico has never curtailed any diversions of natural flows from the Rio Grande up to this point for the purposes of making Compact deliveries to Texas, and the possibility that curtailments all the way up to a senior water right holder would be made is not likely, at least in the near future. Therefore, under this interpretation, Article XVI has very little real application, at least at the present time.¹⁷

The real controversy centers on applying Rio Grande Compact Article XVI to reservoir storage and release in post-Compact reservoirs. For such purposes, the language in Article XVI has been interpreted to supercede the provisions of Rio Grande Compact articles VI, VII, and VIII. A highly simplified interpretation of articles VI, VII, and VIII follows.

Article VII imposes *storage* restrictions on post-Compact reservoirs (including El Vado) under certain conditions. If usable Rio Grande Project storage in Elephant Butte and Caballo is less than 400,000 acre-feet, no new

16. Rio Grande Compact, *supra* note 2, art. XVI.

17. In *Texas v. New Mexico No. 9 Original*, Motion for Leave to File Complaint and Complaint, 16-17, Texas made the following request:

Wherefore, plaintiff prays that a preliminary injunction issue restraining the State of New Mexico and the Middle Rio Grande Conservancy District...and that said defendants be enjoined and restrained from diverting and using, within the State of New Mexico above San Marcial, any of the water of the Rio Grande or its tributaries allocated to and due Texas under the Rio Grande Compact; that said defendants, their engineers, agents, and representatives, be further enjoined and restrained from diverting or using the waters of the Rio Grande or its tributaries in New Mexico above San Marcial until the accrued debit of New Mexico shall be not in excess of 200,000 acre-feet....

New Mexico argued otherwise in Answer of the State of New Mexico, at 13, *Texas v. New Mexico*, 344 U.S. 806 (1952):

It was not the intent, meaning, or purpose of the compact that the computed "accrued debits" should be used as a basis for requiring any curtailment in the use or diversion of Rio Grande water above San Marcial by water users having appropriate rights under the laws of New Mexico....Defendant State of New Mexico denies that the computations of the New Mexico "accrued debits" as alleged in the complaint create or show any obligation on New Mexico or its water users above San Marcial to curtail their uses of water in order to repay any alleged debt to Texas or otherwise.

Thus, there has been controversy in the past about curtailments of direct diversions. This controversy could be reignited should New Mexico's accrued debit ever surpass 200,000 acre-feet again.

storage is allowed in Colorado or New Mexico reservoirs constructed after 1929, i.e., post-Compact reservoirs.¹⁸

Articles VI and VIII impose *release* restrictions on post-Compact reservoirs. Article VI limits New Mexico's accrued debit to 200,000 acre-feet. If New Mexico or Colorado is in a debit situation, then New Mexico or Colorado shall retain water in storage at all times in post-Compact reservoirs to the extent of its accrued debit, within the physical limitations of storage capacity. For example, if New Mexico has a debit to Texas of 50,000 acre-feet and post-Compact reservoirs have at least 50,000 acre-feet of Rio Grande water in storage,¹⁹ then New Mexico must curtail releases from post-Compact reservoirs to maintain 50,000 acre-feet in storage. (Compact provisions apply only to water originating in the Rio Grande basin, not trans-basin San Juan-Chama water.) If New Mexico has a debit to Texas of 300,000 acre-feet, then the amount of water retained in post-Compact reservoir storage is physically limited to the amount of storage space available, which is slightly less than 200,000 acre-feet.²⁰

The reason for withholding water in storage to the extent of the debit becomes clear upon reading Article VIII. During January, the Texas Commissioner may demand of the New Mexico and/or Colorado commissioners the release of water from post-Compact reservoirs up to the amount of the accrued debit to bring the quantity of usable water in Rio Grande Project storage to 600,000 acre-feet by March 1 and to maintain this

18. Exceptions are made if either Colorado or New Mexico at any time relinquishes accrued credits in Rio Grande Project Storage and Texas accepts the relinquished water. In that case, New Mexico or Colorado may store water in post-Compact reservoirs in the amount of relinquished water.

19. Using the figure in this example, if less than 50,000 acre-feet of Rio Grande water is in storage in post-Compact reservoirs, past practice does not recognize that additional storage *must* occur to reach 50,000 acre-feet. In decades past this has been a source of contention, with Texas sometimes arguing that the additional storage must occur. A management issue would occur with the MRGCD should Texas's argument be followed. The debit could become so large that, if storage must occur to the extent of the debit, it could take over all El Vado storage, leaving no room for the MRGCD to manage San Juan-Chama water. In this situation, and if Texas's interpretation were followed, there would also be a conflict between storage under Article VI and storing for P&P lands. Interview with Garry Rowe, former Area Manager, Albuquerque Area Office, U.S. Bureau of Reclamation, in Albuquerque, N.M. (June 15, 2007).

20. This includes 180,000 acre-feet of storage space for El Vado (although this can be further limited during certain times of the year) plus 2,882 acre-feet of post-compact storage in Nichols and McClure Reservoirs (1,061 acre-feet is pre-Compact) that provide water to the city of Santa Fe. The figure of 180,000 acre-feet for El Vado is the result of a reduction of the original 198,110 acre-foot capacity due to sedimentation over the years and dam safety considerations. Reductions will continue in the future with additional sedimentation and dam safety considerations. Telephone Interview with Kevin Flanigan, New Mexico Interstate Stream Commission (May 10, 2007). *See also* RIOGRANDE COMPACT COMM'N, REPORT OF THE RIOGRANDE COMPACT COMMISSION 2005, at 66, tbls. for McClure and Nichols Reservoirs (2005).

quantity in storage until April 30. Article VI release restrictions and Article VII storage restrictions do not necessarily coincide. In the history of the Compact, there have been time periods when Article VI release restrictions would have applied, since New Mexico had accrued a debit. However, Article VII storage restrictions did not apply since usable Rio Grande Project storage was more than 400,000 acre-feet.²¹ The opposite has also been true. There have been times when Article VII storage restrictions have been in place at the same time that New Mexico has had either a zero debit or a credit with Texas. The reason for this is that the Article VI debit is dependent on the required amount of water being delivered to Elephant Butte Reservoir²² based on the Otowi Index Supply.²³ Article VII storage

21. Times when Article VI applied but Article VII did not apply include 1940, 1943–1946, part of 1947, 1948–1949, parts of 1950–1953, part of 1957, 1958, 1959, most of 1960, parts of 1961–1963, parts of 1965–1967, parts of 1969–1971, most of 1973 and 1974, 1975, parts of 1976 and 1977, most of 1979, 1980–1984, 1989–1990. However, it should be remembered that the debit for a given year cannot be computed until after the end of a calendar year, while Article VII restrictions can be computed on a daily basis. In real time operations, it is the previous year's debit that is used, compared to the current real-time Article VII condition. Looking back at historical records, such as described above, the Article VI and Article VII conditions for the same year can be compared. The debit for the year and end-of-month usable Rio Grande Project storage can be found in the annual Report of the Rio Grande Compact Commissioners in the tables entitled "Rio Grande Compact Deliveries by New Mexico at Elephant Butte" and "Rio Grande Compact Release and Spill from Project Storage" for the respective year.

22. The amount of water required to be delivered to Elephant Butte was defined in the Rio Grande Compact, article IV, and was updated by a resolution adopted by the Rio Grande Compact Commission at the February 22–24, 1948 annual meeting. Because of inaccuracies and difficulties in maintaining the San Marcial gaging station, the resolution did away with the San Marcial Index Supply, which was defined in Article IV as "the recorded flow of the Rio Grande at the gaging station at San Marcial during the calendar year exclusive of the flow during the months of July, August, and September." The resolution replaced the San Marcial Index Supply with the Elephant Butte Effective Index Supply, defined as "the recorded flow of the Rio Grande at the gaging station below Elephant Butte Dam during the calendar year plus the net gain in storage in Elephant Butte Reservoir during the same year or minus the net loss in storage in said reservoir, as the case may be."

23. The Otowi Index Supply was defined in the Rio Grande Compact, Article IV, and was updated by a resolution adopted by the Rio Grande Compact Commission at the February 22–24, 1948 annual meeting. The resolution states,

The Otowi Index Supply is the recorded flow of the Rio Grande at the U.S.G.S. gaging station at Otowi Bridge near San Ildefonso (formerly station near Buckman) during the calendar year corrected for the operation of reservoirs constructed after 1929 in the drainage basin of the Rio Grande between Lobatos and Otowi Bridge.

The Rio Grande at Otowi gaging station is located immediately downstream of the bridge crossing the Rio Grande on the Pojoaque-Los Alamos highway. The resolution contains a table of the Otowi Index Supply and corresponding Elephant Butte Effective Index Supply, relating the required delivery to Elephant Butte (Elephant Butte Effective Index Supply) to the annual volume of water passing the Otowi gage (Otowi Index Supply).

restrictions are based on the usable Rio Grande Project water in storage in Elephant Butte. Much of the time, however, both Article VI and Article VII restrictions apply simultaneously. Under the Compact, if storage and release for P&P lands are made during times of Compact restrictions, New Mexico is the Compact state that bears most of the burden. Texas bears a minimal burden, and Colorado remains unaffected. P&P storage is composed of waters originating in the Rio Grande basin above Otowi and, as such, is part of the Otowi Index Supply that forms the basis for the amount of water owed by New Mexico to Texas. Although Texas might wind up receiving the water a year later, New Mexico nevertheless owes that water to Texas.²⁴ Therefore, New Mexico would bear the burden of increased difficulties in remaining out of Article VI debit status and Article VII storage restrictions if stored P&P water is consumed in the middle Rio Grande valley by the pueblos rather than reaching Elephant Butte. P&P operations at El Vado during times of Compact restrictions do not relieve New Mexico of making the required deliveries to Texas as determined by Article IV of the Compact.

Simply stating that Article XVI trumps articles VI, VII, and VIII of the Compact does not answer serious remaining questions. Building and operating El Vado required a permit from the New Mexico State Engineer.²⁵ The permit was applied for and obtained by the MRGCD and has since been transferred to the Bureau of Reclamation (Reclamation). If the facility itself is permitted by the State of New Mexico and is not a specifically Indian facility on Indian lands,²⁶ why wouldn't its operations, even those for the benefit of Indian lands, be subject to the Compact? If an Indian water right is truly aboriginal and from time immemorial did not require reservoir storage in El Vado, a post-Compact reservoir, why should it be required now? Why should reservoir storage be treated as prior and paramount?

24. The Rio Grande Compact makes no provision for taking into account Indian uses of water in determining New Mexico's obligation to deliver water to Texas, which is the basis for the above statement. However, New Mexico argued differently in *Texas v. New Mexico*, 344 U.S. 806 (1952), Answer of the State of New Mexico, at 13, *Texas v. New Mexico*, 344 U.S. 806 (1952). Moreover,

[q]uantities of water used by the Indians [all 18 New Mexico pueblos in the Rio Grande Basin] must be deducted in determining the obligation of New Mexico to make water deliveries at San Marcial and in determining the debit or credit and the accrued debit or credit of the State of New Mexico. The Rio Grande Compact Commission has failed, refused, and neglected to take into account such Indian uses in determining the New Mexico obligation to deliver water at San Marcial and in determining the debits or credits and accrued debits or credits of New Mexico.

Answer of the State of New Mexico at 13, *Texas v. New Mexico*, 344 U.S. 806 (1952).

25. Permit No. 1690, NM Office of the State Engineer. See also Permit No. 0620.

26. Post-Compact reservoirs on Indian lands serving only Indian lands, such as Acomita and Seama, have not thus far had any controversy attached to their operation under Compact restrictions. Telephone Interview with Randy Shaw, Designated Engineer, BIA (June 13, 2007).

Since this article assumes that Article XVI allows P&P storage in El Vado during article VI, VII, and VIII restrictions, a brief discussion of further areas of study follows.

Article XVI states that the Compact is not to affect obligations of the United States to Indian tribes.²⁷ Is there a possibility that the Compact might affect an obligation of the United States to the tribes? Yes. The 1928 Act, 1928 Agreement,²⁸ and subsequent O&M agreements have created obligations to the Six Middle Rio Grande Pueblos. Any pre-existing United States obligations to the pueblos were also recognized and confirmed in the June 30, 1948 Flood Control Act²⁹ and the Repayment Contract between Reclamation and the MRGCD.³⁰

27. Rio Grande Compact, *supra* note 2, art. XVI.

28. In the Brief for the United States as Amicus Curiae in *Texas v. New Mexico*, the following statements are made: "the Bureau of Indian Affairs and the Secretary of Interior contend that the Indians have an interest in the stored waters of El Vado Dam....The United States believes that the Indians have substantial storage rights in El Vado Reservoir." Brief for the United States as Amicus Curiae at 9-10, *Texas v. New Mexico*, 344 U.S. 806 (1952). New Mexico, in its answer, makes several statements confirming the pueblos' rights to storage and release from El Vado. Answer of the State of New Mexico at 12, *Texas v. New Mexico*, 344 U.S. 806. "In addition, and as recognized by the contract of December 14, 1928, between the United States of America and the Middle Rio Grande Conservancy District, six Indian Pueblos...have rights in waters stored in and released from El Vado Reservoir." Answer at 12. "Defendant admits that the Indians have both natural-flow and storage rights...." *Id.* at 13.

29. "Nothing in this Act shall be construed to abrogate or impair existing obligations of the United States or any agency thereof, including obligations to furnish water for irrigation and obligations to any Indian or tribe or band of Indians whether based on treaty, agreement, or Act of Congress." Act of June 30, 1948, ch. 771, 62 Stat 1171.

30. Contract 178r-423, entitled "Contract Between United States and the Middle Rio Grande Conservancy District for Rehabilitation and Construction of Project Works, and Repayment of Reimbursable Construction Costs Thereof," states in its section titled Indian Lands:

Nothing in this contract shall be construed to abrogate or impair existing obligations of the United States or any agency thereof, including obligations to furnish water for irrigation and obligations to any Indian or tribe or band of Indians, whether based on treaty, agreement, or Act of Congress.

The status of the Indian lands and water rights in relation to the Conservancy District and the Bureau of Reclamation shall not be changed whether the works of said District are operated by the District or by the Bureau of Reclamation.

Nothing in this contract contained shall be construed to affect adversely the rights of Indians under existing contracts between the United States on behalf of said Indians and the District or under existing laws of the United States relating to the rights of said Indians. Moreover, the priority of right and the quantity of water to which the Indians are entitled shall not be adversely affected and are saved to the Indians by the provisions hereof, and every paragraph and provision of this contract shall be so interpreted and construed as to save such rights unimpaired. It is also agreed that none of the provisions in paragraphs 20, 21 or 22 hereof shall apply to Indian lands or Indian water rights or affect adversely the right of the Indians to have delivered to their lands the water they are entitled to. It is further agreed that

Article XVI states that the rights of the Indian tribes are not to be impaired by the Compact. Is there something in the Compact that impairs the rights of the Six Middle Rio Grande Pueblos? Most likely the answer to this question is yes on two possible counts.

Rio Grande Compact Article III details the obligations of Colorado to deliver water in the Rio Grande at the Colorado-New Mexico state line. It is obvious from the tables in Article III that Colorado has a right under the Compact to some depletions of the Rio Grande. The amount varies depending on the available flows, but some depletion is always allowed. With roughly 650,000 acres in production in the San Luis Valley of Colorado and a right to some depletion of the Rio Grande, it is obvious that there is nothing "natural" about the natural flow of the Rio Grande.³¹ So if the Indians have a right to the natural flow of the Rio Grande, but the natural flow of the Rio Grande has been depleted as allowed by the Compact, should the pueblos not have the right to be made whole through other means, namely through storage in El Vado to make available to the Indians the amount that should have been theirs through the natural flow of the Rio Grande, unaffected by allowable Colorado depletions under the Rio Grande Compact?

Another aspect of Colorado's allowable depletions under the Compact is that no provisions are made for the timing of deliveries to the Colorado-New Mexico state line. It is perfectly permissible under the Compact for Colorado to make deliveries required for the entire year during the early spring runoff and then to completely deplete the Rio Grande during the summer when farm deliveries to the pueblos are most needed. Also, Colorado may make use of relinquished credits during the critical summer period, depleting the Rio Grande at this time. Actions such as these can definitely impair the rights of the pueblos to a water supply from the natural flow of the Rio Grande at a critical time for agriculture.

nothing in paragraph 32 hereof relating to the excess land provisions of the Federal Reclamation laws and regulations promulgated thereunder shall be construed as applying to the lands or water rights of the Indians.

Id. § 34.

31. Arguments might be made that the shortfall to the P&P lands results from New Mexico's failure to administer water rights in the Rio Grande basin of New Mexico upstream of the P&P lands. However, the acreage in production in New Mexico upstream of the P&P lands is miniscule compared to that of Colorado. Perhaps 15,000 to 30,000 acres are in production in New Mexico upstream of the Six Middle Rio Grande Pueblos compared to 650,000 acres in production in Colorado, also upstream of the Six Middle Rio Grande Pueblos. Much of this land in New Mexico is farmed by other pueblos. New Mexico would not have the authority to administer these lands in the absence of adjudication or settlement. These pueblos would likely have rights equal to the P&P lands. Pueblos with lands upstream of some or all of the P&P lands are Taos, Picuris, San Juan, Santa Clara, San Ildefonso, Nambe, Pojoaque, Tesuque, Jemez, and Zia. See Rio Grande Compact, *supra* note 2, art. III.

Another line of reasoning allowing P&P storage in El Vado would be that the Compact may not infringe on "Indian rights," which is not limited to natural flow rights, and as the pueblos have a right to benefit from El Vado by virtue of the 1928 Act and 1928 and subsequent Agreements, they should be allowed to benefit from El Vado regardless of Compact restrictions.

Yet another line of reasoning is that the Pueblos were not signatories to the Compact and therefore are not bound by it.³² In *Hinderlider*³³ v. *La Plata River & Cherry Creek Irrigation Co.*,³⁴ the Supreme Court stated, "the [La Plata River Compact] apportionment is binding upon the citizens of each State [New Mexico and Colorado] and all water claimants, even where the State had granted the water rights before it entered into the compact." Can this case even apply to the Pueblo Indians, who were not allowed to vote in the State of New Mexico³⁵ at the time the Compact was ratified and whose water rights were never granted by the State of New Mexico to begin with?³⁶

Why should reservoir storage be treated as prior and paramount even though the reservoir did not exist from time immemorial? The answer is that reservoir storage is not prior and paramount, even if that storage is for the P&P lands.³⁷ The ability to store water in El Vado is junior to other

32. See Brief for the United States as Amicus Curiae at 8, *Texas v. New Mexico*, 304 U.S. 806 (1952).

33. Interestingly, M.C. Hinderlider was still the State Engineer of Colorado and Rio Grande Compact Commissioner for Colorado in 1951 when the question of pueblo storage in El Vado during times of Compact restrictions was raised. M.C. Hinderlider was the longest-serving State Engineer in Colorado history, serving from 1923 to 1954. *125th Anniversary of the State Engineer's Office*, 20 STREAMLINES (Colo. Div. of Water Resources), Mar. 2006, at 7, available at <http://water.state.co.us/pubs/streamlines/streamlinesMar06.pdf>. His signature is on the Rio Grande Compact as Commissioner for Colorado.

34. 304 U.S. 92 (1938).

35. Indians in New Mexico were prohibited by the New Mexico Constitution from voting in state elections until 1948. *Native Americans*, NEW MEXICO MAG., <http://www.nmmagazine.com/NMGUIDE/nativeam.html> (last visited Oct. 8, 2007).

36. The Pueblos' water right was recognized and affirmed by the Act of March 13, 1928, *supra* note 6, a federal, not state, law. In its Brief in Support of Return to Rule to Show Cause at 23, *Texas v. New Mexico* No. 9 Original, 344 U.S. 806 (1952), the State of New Mexico argued the following: "New Mexico may not stand in judgment, as *parens patriae*, for the Indian tribes as it does for its other water users. So far as the Indian tribes are concerned the United States is *parens patriae*."

37. There are statements in the historical record regarding P&P storage in El Vado to the effect that the storage is also a senior right. See, e.g., Answer of Defendants, Middle Rio Grande Conservancy District et al. at 16, *Texas v. New Mexico* No. 9 Original, 344 U.S. 806 (1952): "Rights to the storage of water in Elephant Butte and Caballo Reservoirs are junior, inferior, and subordinate to...the rights of the Indians to the use of both natural flow and storage water of the Rio Grande and its tributaries." Such references address the seniority of Indian storage against the Rio Grande Compact or water users below Elephant Butte, not water users

recognized downstream direct diversion rights between El Vado and Elephant Butte, including the Rio Chama Acequia Association (RCAA) and the MRGCD (including P&P) direct diversion rights. When El Vado inflows during the spring runoff drop so that the quantity available is insufficient for the direct diversion rights of the RCAA and the MRGCD and storage for the Pueblos, then storage for the Pueblos is decreased or curtailed to give first priority to the recognized direct diversion rights of the RCAA and the MRGCD.³⁸ Thus, New Mexico State Engineer Permit No. 1690, the El Vado Storage Permit, is followed: "This application is approved provided it is not exercised to the detriment of any others having prior valid and existing rights to the waters of said stream system."³⁹

These arguments are not meant to exhaust the reasoning behind allowing or disallowing Indian storage at El Vado during times of Compact restrictions. Hopefully, they point to the fact that there are good arguments both for and against the practice that have not been decided to the satisfaction of all affected parties. Regardless, for nearly 60 years,⁴⁰ it has

downstream of El Vado and upstream of Elephant Butte. Since *Texas v. New Mexico No. 9 Original* was not decided on its merits, no decision was made as to the merit of such statements.

38. This same practice is followed on the Pecos River. Sumner Reservoir is a Carlsbad Irrigation District (CID) facility that is located upstream of the diversion point for the Fort Sumner Irrigation District (FSID). The ability of CID to store in Sumner Reservoir is junior to the direct diversion right of all of FSID. Therefore, when inflows to Sumner Reservoir are insufficient for both CID storage and FSID direct diversions, flows are bypassed and delivered to FSID and storage for CID is appropriately curtailed. Interview with Garry Rowe, *supra* note 19.

39. N.M. Office of State Eng'r, Approval of Permit No. 1690 (1930).

40. According to Texas's *Motion for Leave to File Complaint and Complaint*, In August, 1948, New Mexico requested permission to release for use in the Middle Rio Grande Conservancy District of New Mexico 25,000 acre-feet of debit water owing by such State, which debit water was stored in El Vado Reservoir on the Rio Chama in New Mexico, and such release was authorized by the Rio Grande Compact Commission in accordance with the fourth unnumbered paragraph of Article VI of the Compact. New Mexico did actually release from El Vado Reservoir, and divert and use thereafter for its own purposes above San Marcial, 38,000 acre-feet of debit water owed by it to Texas and stored in El Vado Reservoir, an amount 13,000 acre-feet in excess of that authorized to be released.

Motion for Leave to File Complaint and Complaint, at 11, *Texas v. New Mexico* (Oct. 1951). In the *Answer of the State of New Mexico*, storage and release over and above the 25,000 acre-feet was attributed to operations on behalf of the pueblos:

The storage and release of water in El Vado Reservoir in 1948 was such as to comply with and satisfy the obligations of the United States to the Indian Tribes and to protect the paramount rights of such Indian Tribes....[I]n August 1948, New Mexico requested permission to release for use in the Middle Rio Grande Conservancy District 25,000 acre-feet of debit water stored in El Vado Reservoir, and that such release was authorized by the Rio Grande Compact Commission, and further admits that the total release of

been the practice to store water for Indian lands in El Vado even during times of Compact restrictions. It is important to understand that the arguments for or against carryover storage for P&P lands in El Vado are taking place in the context of whether P&P storage in El Vado is permissible at all during times of Compact restrictions.

D. 1981 El Vado Storage Agreement

The 1981 Agreement⁴¹ committed to writing a method of computing the annual El Vado storage requirement for the Six Middle Rio Grande Pueblos. The 1981 Agreement is designed to protect the P&P lands from shortages during drought years. It assumes that the pueblos are supplied first from the natural flow of the Rio Grande, and supplemented from El Vado storage only if the natural flow falls short of pueblo demand. In many years, the P&P lands can be adequately supplied from the natural flow of the Rio Grande. Although storage still takes place, releases are not made in those years. In some years, part but not all of the stored water is released for pueblo irrigation, leaving some P&P storage at the end of the irrigation season.

Unlike storage, releases are not given detailed treatment in the 1981 Agreement. A memorandum included with the 1981 Agreement from Joseph Little, attorney for the Six Middle Rio Grande Pueblos Irrigation Committee, to Robert Nanninga, General Manager of the MRGCD, details a protocol to be followed for requesting releases, but it does not have sufficient detail to cover all possible situations.⁴² As a result, much controversy has ensued over how, when, why, and by whom releases from El Vado for the P&P lands are to be made. However, P&P water is released to either the MRGCD or the Compact at certain times. The reasons for these

debit water thereafter amounted to 38,000 acre-feet. Denies that all such water so released was diverted and used by New Mexico for its own purposes. Alleges upon information and belief that quantities of such water in excess of 13,000 acre-feet were actually diverted for and used by Indians under their paramount rights.

Answer of the State of New Mexico, at 6-7, *Texas v. New Mexico* (Oct. 1951). The same is stated in the answer of the Middle Rio Grande Conservancy District (MRGCD) et al. See Answer of Defendants, Middle Rio Grande Conservancy District et al., at 6, *Texas v. New Mexico* (July 30, 1952). Thus, there is a record of El Vado operations to benefit the Pueblos during times of Compact restrictions on El Vado operations in 1948, but the serious controversy began in 1951 with the actions of the Rio Grande Compact Commission requiring that the gates of El Vado remain open during 1951. This requirement was refused by the MRGCD at least partly to satisfy Indian delivery requirements and was followed by the subsequent *Texas v. New Mexico* No. 9, *Original* lawsuit.

41. 1981 Agreement, *supra* note 3.

42. *Id.* at 8 (memorandum appended as final page of document).

releases are not due to express language in the 1981 Agreement, but are the product of other considerations such as Compact restrictions, as described below.

Once the required volume is computed and the proper requests for storage have been made, "[Reclamation] shall annually store, or designate for storage, the quantity of water in the El Vado Reservoir necessary to satisfy the prior and paramount water rights of the Six [Middle Rio Grande] Pueblos."⁴³ To "store" means that the amount of Rio Grande⁴⁴ water in El Vado storage is less than that computed under the 1981 Agreement, so that flows must be captured and stored prior to the time they are needed by the pueblos in that year. This will occur regardless of current Compact restrictions. To "designate for storage" means that there is Rio Grande water in El Vado storage coming into the current irrigation season that equals or exceeds the computed P&P storage amount; the required quantity is "tagged," i.e., it is set aside for P&P needs for that irrigation season. This too occurs regardless of current Compact restrictions. If only a portion of the amount required for P&P storage in a given year is already stored as Rio Grande water in El Vado, then that quantity is "designated for storage" for the P&P lands ("tagged") and the remaining amount necessary to satisfy P&P demand for that year is stored. Therefore, it is possible to both "store" and "designate for storage" in a given year. After the required amount for the P&P lands is stored or designated for storage, additional storage may be made for MRGCD non-P&P lands depending on Compact conditions.

The 1981 Agreement was signed by the Six Middle Rio Grande Pueblos Irrigation Committee Chairman, the Designated Engineer,⁴⁵ the BIA Area Director, the BIA Southern Pueblos Agency Superintendent, and the Bureau of Reclamation Regional Director. The 1981 Agreement was approved by James Watt, Secretary of the Interior, on December 28, 1981. Conspicuous by its absence is the MRGCD as a signatory and party to the 1981 Agreement. The MRGCD was asked to become a party to the 1981

43. *Id.* at 3.

44. There is no assumption made that MRGCD San Juan-Chama waters will be utilized for the P&P lands. The MRGCD has occasionally requested that stored San Juan-Chama water be used to cover possible P&P needs, and this request has been granted. These are exceptions for specific circumstances.

45. The title of "Designated Engineer" has been applied to the person described in the 1927 Act: "That said Secretary, through the Commissioner of Indian Affairs, shall designate an engineer, who shall represent the department...." Act of February 14, 1927. The "duly authorized agent" of the 1928 Act is taken to be the Designated Engineer: "That said Secretary of the Interior, through the Commissioner of Indian Affairs, or his duly authorized agent, shall be recognized by said district in all matters pertaining to its operation...." Act of 1935, *supra* note 13. The Designated Engineer is also mentioned in the 1928 Agreement and subsequent BIA-MRGCD O&M agreements.

Agreement when it was being drafted, but declined. Thus far, the MRGCD has gone along with the 1981 Agreement on a voluntary basis.⁴⁶

An important aspect of the 1981 Agreement is that it applies only to Indian P&P lands, and not to Indian newly reclaimed lands. From at least as early as 1951 until the execution of the 1981 Agreement, storage during times of Compact restrictions was made for all Indian lands under production, from a low of 9,400 acres to a high of 12,350 acres.⁴⁷ Thus, storage was made for the 8,847 acres of P&P lands plus some additional newly reclaimed lands.⁴⁸ To avoid the potential controversy and objections to operating El Vado for Indian newly reclaimed lands during times of Compact restrictions, the 1981 Agreement limited computations for storage to only the P&P acreage of 8,847, even if less is actually farmed. A declaration of acreage under production by the pueblos is no longer necessary for storage computations, since 8,847 acres is automatically assumed.⁴⁹ In 1981, the acreage under production was thought to be considerably less than 8,847 acres, so it was not considered important to address the controversial issue of storage for Indian newly reclaimed lands during times of Compact restrictions. This may no longer be the case. Recent MRGCD analysis of aerial or satellite photos shows that the pueblos are currently farming over 10,000 acres, but this analysis must be taken as

46. Interview with Garry Rowe, *supra* note 19.

47. These acreage totals over and above the P&P total were based on plans for the current year reported by BIA that did not always materialize. In years when actual acreage was reported, the total acreage actually in production fell far short of what BIA had anticipated. Actual irrigated acreage reports never exceeded 8,847 acres. However, the intent to store for some newly reclaimed lands in addition to P&P lands is clear. Interview with Garry Rowe, *supra* note 19.

48. Although the acreage planned to be under production and the expected natural flow of the Rio Grande varies from year to year, there were many years when the same amount was stored each year—about 20,000 acre-feet. The lack of a methodology or hydrologic rationale to compute storage based on current conditions was one of the driving forces behind the 1981 Agreement.

49. Declaring which Indian lands hold the P&P designation and which hold the newly reclaimed designation has never been done. Thus, delivery is made to Indian lands based on total acreage, and it does not matter exactly which plot of land is being farmed. In some cases, it would be easy to administer deliveries to newly reclaimed lands. For example, if a new ditch were constructed by the MRGCD and the lands irrigated by that ditch were never irrigated before, it would be a simple matter to shut off that ditch to curtail deliveries to the Indian newly reclaimed lands served by that ditch. In other cases, there is checkerboarding of lands so that P&P and newly reclaimed lands are side by side and are served by the same pueblo and/or MRGCD ditches. It would be impossible, with the current system and the lack of metering at farm turnouts, to administer deliveries to newly reclaimed lands in such cases. Trying to delineate which lands are P&P and which lands are newly reclaimed would introduce many legal questions and may have to wait for an adjudication.

an approximation because the photography is several years old and has not been verified on the ground.⁵⁰

The exclusion of Indian newly reclaimed acreage from El Vado storage computations under the 1981 Agreement effectively makes the Indian newly reclaimed lands subject to Rio Grande Compact restrictions. However, this may not be the final word on this issue. It may simply be an unintended consequence of the 1981 Agreement, at least as far as the pueblos today are concerned.⁵¹ For 30 years prior to the 1981 Agreement, El Vado storage and releases for newly reclaimed lands were not subject to Rio Grande Compact restrictions. However, since no specific storage quantity is computed for the Indian newly reclaimed lands under the 1981 Agreement, storage and releases for these lands come out of the general Rio Grande MRGCD pool in El Vado, which, as currently operated, is subject to Compact restrictions, with no distinction made between the Indian newly reclaimed, non-Indian newly reclaimed, or non-Indian pre-1907 lands that it serves.⁵² Thus, the pueblos should have an interest in protecting the El Vado water supply for their newly reclaimed lands, which means minimizing to the greatest extent possible the effects of Compact restrictions on their newly reclaimed lands.

Carryover storage for Indian newly reclaimed lands takes place as part of the general Rio Grande MRGCD pool and is subject to the limitations of the Compact. Because of the 1981 Agreement, the topic of this article is limited to carryover storage for Indian P&P lands in El Vado.

E. El Vado Ownership and Operation

El Vado Reservoir is a facility of the MRGCD. Construction began in the early 1930s and was completed in 1935. El Vado construction was

50. Personal communication with Doug Strech, MRGCD (Nov. 6, 2006).

51. It was very much an intended consequence of some of the negotiators of the 1981 Agreement. The 1928 Act states, "the water rights for the newly reclaimed [Indian] lands shall be recognized as equal to those of like district lands and be protected from discrimination in the division and use of water." 1928 Act, *supra* note 6. It was felt that to store for Indian newly reclaimed lands during times of Compact restrictions would result in "discrimination in the division and use of water" between the Indian newly reclaimed lands and the "like District lands," i.e., non-Indian newly reclaimed lands. Since non-Indian newly reclaimed lands are subject to the Compact, it was decided that Indian newly reclaimed lands should also be subject to the Compact to keep from having "discrimination in the division and use of water." This interpretation contradicts other interpretations that assumed Indian newly reclaimed lands could benefit from El Vado storage during Compact restrictions for the better part of 30 years. Hence, there is controversy over whether Indian newly reclaimed lands are subject to the Compact. Interview with Garry Rowe, *supra* note 19.

52. These lands also receive water from MRGCD's San Juan-Chama allocation, but these waters are not subject to the Compact.

paid for by MRGCD's taxpayers and by the BIA for the part of El Vado's construction costs attributable to the Indian newly reclaimed lands. Credit was given to the BIA for the part of El Vado's construction costs for the P&P lands. On May 28, 1963, the MRGCD transferred to the U.S. Bureau of Reclamation "certain water rights in connection with Permit No. 1690 [the El Vado storage permit issued by the New Mexico State Engineer]."⁵³ On July 25, 2005, Judge James Parker ruled that certain MRGCD facilities are owned by the U.S. Bureau of Reclamation, including El Vado.⁵⁴

As members of the MRGCD, the pueblos have a right to benefit from the use of El Vado. However, they do not own a certain amount of storage space in El Vado, or certain parts of the facility. Neither do any individual MRGCD taxpayers or groups of taxpayers who helped pay for El Vado's construction, operation, and maintenance. Should the pueblos lay claim to the share of storage space in El Vado based on the ratio of P&P acreage to total MRGCD acreage, the total would be:

$$\frac{8,847 \text{ P\&P acres}}{123,267 \text{ total MRGCD irrigable acres}^{55}} \times 180,000 \text{ acre-feet storage} = 12,919 \text{ acre-feet}$$

The Pueblos often store more than this amount for P&P lands, sometimes exceeding 30,000 acre-feet.⁵⁶ In order to protect the P&P lands during serious drought years, more than 12,919 acre-feet of storage is needed.⁵⁷ It is doubtful that the pueblos would want to limit their P&P storage to 12,919 acre-feet, regardless of the severity of drought conditions

53. Letter from A.V. Rasco, Acting Dep't of the Interior Field Solicitor, to M.R. Compton, State Engineer's Office (n.d.) (on file with New Mexico State Engineer, file for Permit No. 1690).

54. *Rio Grande Silvery Minnow v. Keys*, No. CV 99-1320 JP/RHS-ACE, slip op. (D.N.M. July 25, 2005).

55. 123,267 acres is the MRGCD irrigable acreage used in the Official Plan and the New Mexico State Engineer permits, and this acreage is used here for illustration. Arguments can be made for revising this number.

56. Revisions to the 1981 Agreement by the Department of the Interior in 2005 cap P&P storage at 30,000 acre-feet. This is an artificial construct, however, to lower the exorbitant amounts of P&P storage that can be generated by Interior's new storage methodology, which includes about 11 acre-feet per acre of diversion demand at Otowi for P&P lands. In a March 23, 2001 letter from New Mexico State Engineer Tom Turney to Subhas Shah, MRGCD, and Steve Hansen, U.S. Bureau of Reclamation, the State of New Mexico took the position that 7.2 acre-feet per acre annually for irrigated non-pueblo lands would be a "sufficient and non-wasteful" MRGCD diversion as measured at the diversion dams. There is a natural cap on storage generated by the original 1981 Agreement, with some minor technical updates, which rarely exceeds 30,000 acre-feet by using more reasonable numbers for P&P demand.

57. If the total of 8,847 acres of P&P lands plus the maximum total of 12,600 acres of Indian newly reclaimed lands is used in the numerator of the above equation, the total storage space would be 31,318 acre-feet.

and their projected demand, just so that they can claim 12,919 acre-feet of storage space as their own. Operating El Vado in such a way as to imply ownership of a certain amount of storage space in the reservoir for the Pueblos would likely require negotiations and the agreement of the MRGCD, Reclamation, the New Mexico State Engineer (as the issuer of the storage permit), and possibly other Compact states, since El Vado is a post-Compact reservoir. Such an operation would raise many other issues, such as O&M responsibilities.

The administration of El Vado is complicated by the fact that the pueblos are entitled to benefit from, but do not own storage space in El Vado and do not own the facility itself. There may be times when the Pueblos may want to retain under the P&P label stored water that they do not immediately need, but it may be in the best interest of other MRGCD members to release that water. Thus, dam operators must walk a fine line between protecting the interests of the senior P&P lands and serving the junior lands of MRGCD, including the pueblos' newly reclaimed lands. El Vado is a facility shared by all MRGCD members, with four different classifications of water rights: Indian P&P, Indian newly reclaimed, non-Indian pre-1907, and non-Indian newly reclaimed. Some of these water rights classifications fall under Article XVI of the Compact (even if the exact meaning of that statement is not agreed upon); some do not. The fact that El Vado is a shared facility benefiting the holders of different water rights is one of the main issues behind the question of allowing carryover storage for P&P lands.

F. El Vado Inflow Hydrology and Shortages

Two facts relating to the hydrology of El Vado inflows are pertinent to this article. The first is that El Vado was never meant to guarantee to the P&P lands or to any other lands of the MRGCD that they would never suffer shortage. The Debler and Elder 1928 hydrology study in Appendix A of the Official Plan has computations showing shortages that would affect P&P lands.⁵⁸ It is always possible to enter an irrigation season with little or no carryover storage in the general MRGCD Rio Grande pool. This lack of carryover storage, if combined with insufficient spring runoff to capture additional storage and low Rio Grande flows during the irrigation season, can create a situation in which the quantity stored plus the natural flow of the Rio Grande throughout the irrigation season are insufficient for P&P lands.

58. BURKHOLDER, *supra* note 6, app. A, at 222-25. For a graph illustrating the data in Debler and Elder's 1928 table, see a Power Point presentation by the author, Historic El Vado Reservoir Operations, slide 9.

The second fact about El Vado inflow hydrology pertinent to this article is that the above scenario is very rare. Only in the driest of years when low natural flow coincides with low amounts of carryover storage in El Vado is there insufficient water to fully supply the P&P lands.

It is important to remember that shortages can be caused by reasons other than insufficient storage or natural flow. A more common cause of shortages is insufficient planning and communication on deliveries. It is usually the case that some P&P lands experience shortages because of operational issues rather than supply issues. Storage and releases to the P&P lands under the 1981 Agreement are not meant to make up for poor operations or communications at the field level.

G. Summary of Issues

There are very few arguments about the ability of Indian newly reclaimed lands to benefit from El Vado storage and releases when Compact restrictions are not in place. The main areas of controversy are (1) whether Indian newly reclaimed lands may benefit from El Vado storage and release during times of Compact restrictions; (2) whether P&P lands may benefit from El Vado storage and release, even when Compact restrictions are not in place; and (3) whether P&P lands may benefit from El Vado storage and release during times of Compact restrictions.

The question of whether Indian lands may benefit from El Vado storage or which Indian lands may benefit from El Vado storage was briefly examined above but is not the main focus of this article. Notwithstanding evidence from various sources,⁵⁹ practical questions remain unanswered.

59. For a more complete discussion of whether Indian lands are to benefit from El Vado storage, refer to the power point presentation by the author entitled *The El Vado Storage Agreement between the Six Middle Rio Grande Pueblos, the Bureau of Indian Affairs, and the Bureau of Reclamation*, dated January 28, 2004. This analyzes the basis for El Vado Indian storage based on historical drought data; the Official Plan of MRGCD; the Acts of 1927, 1928, 1935, 1938, 1946, 1956, and 1978; the 1928 Agreement (including payment computations made by the United States to MRGCD), the U.S.-MRGCD O&M Agreements of 1936, 1938, 1943, 1947, 1958, 1965, 1980, and 1992; the legislative history; the El Vado storage permit; the 1948 Flood Control Act and subsequent BOR-MRGCD agreement; correspondence; arguments in *Texas v. New Mexico* No. 9, *Original* (344 U.S. 906 (1952)); and practice over the years.

During the early years of the MRGCD, one voice came out against Indian P&P storage at El Vado. In the file of the MRGCD, 1924-1967 BIA U-6.1, U-7.1-U-7.5, the following article can be found: John Collier, *Shall the Pueblo Indians Finance Albuquerque and the Santa Fe Railway*, AM. INDIAN LIFE, BULL. No. 12, June 1928. The office of the organization that published this Bulletin was in San Francisco. In the article, the author described as "unjust and ruinous to the Pueblos" the arrangements being made with the MRGCD on behalf of the Pueblos and made many false accusations, showing a definite misunderstanding of the provisions and arrangements of the 1928 Act and pending 1928 Agreement. Mr. Collier's accusations were rebutted by Pearce C. Rodey, the attorney for the MRGCD, in an October 10, 1928 memo to

El Vado is a facility that benefits both the P&P and non-P&P lands of the MRGCD. Non-P&P lands and the MRGCD are both subject to the Compact. How would a facility that is shared by two different entities, with one entity subject to the Compact and one entity not subject to the Compact, affect daily reservoir operations, especially during times of Compact restrictions?

In 1951, Texas filed *Texas v. New Mexico No. 9, Original*⁶⁰ against New Mexico and the MRGCD for alleged Compact violations, including the practice of Indian storage and release in El Vado during times of Compact restrictions.⁶¹ The case was never decided on its merits, as the United States

Edgar B. Merritt, Commissioner of Indian Affairs. This memo is located in the same MRGCD file. Besides correcting the inaccuracies in Mr. Collier's writing, Mr. Rodey included a few other statements, such as,

The truth is, the appeal made by Mr. Collier is simply an attempt to raise an issue to justify the financial continuance of his organization in the minds of certain well intentioned but uninformed people living outside the state....a false issue for the purpose of gaining support for his organization. Such organizations could not survive were it not for misinformation conveyed to well-intentioned people who think they are really helping the Indians when, as a matter of fact, they are merely serving to keep alive an organization of agitators who in the present instance are likely seriously to handicap the future of the Pueblo Indians in New Mexico.

Unfortunately for Mr. Rodey and the MRGCD, in 1933 John Collier went on to become the Commissioner of Indian Affairs as part of President Franklin D. Roosevelt's administration. In his new capacity, Mr. Collier seemed to negotiate directly with the MRGCD and Mr. Rodey rather than delegating these negotiations to lower ranking federal officials. It seemed that his entire focus was on paying the MRGCD as little as possible for the work. As such, statements have been recorded that the P&P lands did not need El Vado to bring down the dollar amount that the BIA would owe the MRGCD. A handwritten note in the MRGCD file entitled "1.1-G Indian Construction Funds, U.S. Govt. Appropriation Pueblo Indian lands (Correspondence and data to Sept 1 1935)" states, "*Stored Water* — They saved over \$125,000 at El Vado on base [sic] their claim that they had *Plenty* [sic]." This directly contradicted legislative intent and some of the language of the 1928 Agreement. It seems that nearly all of the attempts made by Mr. Collier to reduce and withhold payments to the MRGCD on behalf of the pueblos were denied, either by a Solicitor's Opinion, a Comptroller General's Opinion, or Congress. Some of the payment delays caused by Mr. Collier nearly forced the MRGCD to default on their bonds, have massive layoffs of personnel, and stop construction.

60. *Texas v. New Mexico No. 9, Original* was filed in the October 1951 U.S. Supreme Court Term. See *Texas v. New Mexico*, 342 U.S. 874 (1951); *Texas v. New Mexico*, 343 U.S. 932 (1952); *Texas v. New Mexico*, 344 U.S. 806 (1952); *Texas v. New Mexico*, 344 U.S. 906 (1952); *Texas v. New Mexico*, 347 U.S. 925 (1954); *Texas v. New Mexico*, 348 U.S. 805 (1954); *Texas v. New Mexico*, 348 U.S. 946 (1955); *Texas v. New Mexico*, 350 U.S. 858 (1955); *Texas v. New Mexico*, 350 U.S. 984 (1956); *Texas v. New Mexico*, 354 U.S. 918 (1957).

61. See Brief in Support of Return to Rule to Show Cause at 22-24 for the State of New Mexico's arguments regarding the United States as an indispensable party to the lawsuit because of the rights of the Indians. The Appendix to Reply to Return of Defendants to rule to Show Cause at 21-24 contains a letter from the Rio Grande Compact Commission to the Secretary of the Interior that summarizes the Secretary's position on El Vado operations during times of Compact restrictions and the Commission's stance opposing the Secretary.

was ruled an indispensable party to the lawsuit.⁶² Thus, these questions have never been answered definitively. A definitive answer awaits a future adjudication, lawsuit, or act of Congress.

In order to operate El Vado on a real-time, daily basis, these questions must be studied, even if they cannot be answered definitively, so that operations can be based on the best possible reasoning. Some amount of political compromise may also be a factor in El Vado operations to this day. After studying these questions, it is likely that the lack of carryover storage at El Vado reservoir for Indian P&P lands is a compromise that attempts to consider and respect the rights of all parties.⁶³

To address the issue of carryover storage at El Vado, the following are analyzed in greater depth: (1) permits that the Middle Rio Grande Conservancy District obtained from the New Mexico State Engineer; (2) the Rio Grande Compact as it pertains to Indian storage and release; and (3) the position taken in 1969 and 1970 by Steve Reynolds, New Mexico State Engineer and Rio Grande Compact Commissioner for New Mexico.⁶⁴

II. ANALYSIS

A. State Engineer Permits

The New Mexico Office of the State Engineer has two main permit files pertaining to the MRGCD that shed light on Indian storage in El Vado. The first file is for Permit No. 0620⁶⁵ and appurtenant materials and contains the *Application for Change in Points of Diversion*, filed November 25, 1930 and approved January 26, 1931. The second file is for Permit No. 1690⁶⁶ and

62. On February 25, 1957, the Supreme Court stated, "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." *Texas v. New Mexico*, 352 U.S. 991 (1957).

63. Undoubtedly, all parties, the United States, the three Compact states, the Pueblos, and the MRGCD, felt to a greater or lesser degree that their full rights were not being respected. That, however, is the nature of a compromise.

64. Steve Reynolds was the New Mexico State Engineer from September 1955 until March 1990. The New Mexico State Engineer serves as the Rio Grande Compact Commissioner for New Mexico. See Past New Mexico State Engineers, New Mexico Office of the State Engineer, http://www.ose.state.nm.us/state_engineer_past_state_engineers.html; 1997-1998 Annual Report, Interstate Stream Commission, New Mexico Office of the State Engineer, <http://www.ose.state.nm.us/publications/97-98-annual-report/interstate.htm>.

65. New Mexico Office of the State Engineer, Santa Fe, NM, Permit Files, MRGCD Change in Point of Diversion. When MRGCD combined about 70 direct ditch diversions from the Rio Grande into four diversion dams, they had to file an application with the State Engineer to change the points of diversion.

66. New Mexico Office of the State Engineer, Santa Fe, NM, Permit Files, Permit for El Vado Reservoir.

appurtenant materials and contains the *Application for El Vado Dam and Reservoir*, filed May 27, 1930 and approved August 20, 1930.

Within File No. 1690 is a *Notice of Intention to Make Formal Application for Permit No. 1690*, filed September 2, 1923 by the Middle Rio Grande Water Association. The Middle Rio Grande Water Association assigned all rights under their *Notice of Intention* to the MRGCD. This assignment was filed with the New Mexico State Engineer on January 16, 1926. The *Notice of Intention* filing seems to have been an attempt to assign the earliest possible priority date to El Vado reservoir. In particular, a date was desired that would enable El Vado to be classified as a New Mexico pre-Compact reservoir, defined as a reservoir constructed in 1929 or earlier. Reservoirs constructed after 1929 are post-Compact reservoirs and as such are subject to debit and release restrictions in articles VI and VIII of the Compact and storage restrictions in Article VII of the Compact. Ultimately, El Vado received a priority date of August 20, 1930, the date when the *Application for El Vado Dam and Reservoir* was approved by the New Mexico State Engineer. Therefore, El Vado is a post-Compact reservoir.⁶⁷

It would be expected that Permit No. 1690 would contain information pertaining to the operation of El Vado; however, it does not. Permit No. 1690 contains information on the location of El Vado; the quantity of water to be stored (198,110 acre-feet); its intended use ("a regulating reservoir, and the water is to be used to supplement the natural flow of the Rio Grande during the irrigation season....To be used for flood control and storage purposes."); and its size, composition, elevation-capacity relationship, and estimated cost. The Approval of the State Engineer summarizes permit and construction dates and includes the following remark: "This application is approved provided it is not exercised to the detriment of any others having prior valid and existing rights to the waters of said stream system."⁶⁸ Permit 1690 does not include information on the acreage to be benefited.

A memorandum to Earl Smith from A.F. Brown dated September 12, 1949,⁶⁹ contained in the files for Permit 1690, states that "Application No.

67. Document entitled "Conclusions" (on file with New Mexico State Engineer, file for Permit No. 1690); Handwritten Memorandum (June 30, 1976) (referencing Exhibit A, State of New Mexico County of Sandoval in the District Court, No. 895) (on file with New Mexico State Engineer, file for Permit No. 1690). Exhibit A is a letter to R.P. Barnes from James A. French, State Engineer, stating that "a filing fee of \$2,315.00 will be required before the Notice of Intention can be given a priority date." Only \$10.00 had been paid, which is the basic fee accompanying the Notice of Intention. *Id.*

68. Document titled "Approval of State Engineer" for Permit No. 1690 (on file with New Mexico State Engineer, file for Permit No. 1690).

69. Memorandum to Earl Smith from A.F. Brown (Sept. 12, 1949) (on file with New Mexico State Engineer, file for Permit No. 1690).

1690 is for permit to construct El Vado Dam and related works for the storage and release of water of the Rio Chama as a supplemental supply to the direct diversion for the 123,267 acres." The fact that the 123,267 total irrigable MRGCD acreage includes the Indian P&P and newly reclaimed lands is evidence of an understanding at the State Engineer's Office that the P&P lands were included in the lands to be benefited by El Vado storage and releases. However, the memorandum does not provide any information on operations.

A document simply entitled "Conclusions" appears to be part of another document entitled "No. 0620" located in the State Engineer's files for Permit No. 1690.⁷⁰ It states, "El Vado Reservoir was intended to be a means of regulating the flow of water to which old rights [including Indian P&P] are claimed, and therefore is in reality a change in method of appropriation rather than an application for a new appropriation."

The most direct statement that Indian P&P lands are to benefit from El Vado is in the paperwork filed for Permit 0620 rather than Permit 1690. According to the Statement to Accompany Applications,⁷¹

70. *Id.*

71. Statement to Accompany Applications by Middle Rio Grande Conservancy District to State Engineer for Permits to Change Points of Diversion and Place of Use of Certain Water Rights in and to the Waters of the Rio Grande, in the Counties of Sandoval, Bernalillo, Valencia and Socorro, in the State of New Mexico, Sept. 30, 1930 (on file with New Mexico State Engineer, file for Permit No. 0620).

In order to further comply with the law and with the rules and regulations of the State Engineers Office, said District desires to file with said State Engineers Office, the attached applications for permits to change the points of diversion and place of use of certain waters more particularly described in this statement. Due to the magnitude of the project and to the unique and unusual nature of the matters involved, these applications cannot be made strictly in accordance with the prescribed form, and the following statement together with the accompanying maps, is respectfully submitted in lieu thereof.

Id. at 1. Thus, the Statement appears to be part of the Application for Permit to Change Point of Diversion, which was filed by MRGCD with the Office of the State Engineer. What appears to be a draft undated paper entitled "File 0620 Middle Rio Grande Conservancy District" within New Mexico Office of the State Engineer File for Permit No. 0620 states,

This office has made a review of filings of the Middle Rio Grande Conservancy District in the Office of the State Engineer....No. 0620 is really the basic application setting forth the claimed rights of the District. While it is called an application for change in point of diversion it is plain from the reading of the supporting papers that it is also the intention of the District to make changes in place of use. Final proofs and engineers report have not been filed for either of these permits and they have been carried along by means of extensions of time.

...

In order to safeguard still further, the existing rights [including Indian P&P] and the supply for new lands, the District proposes as a part of its Official Plan the construction of a reservoir on the Rio Chama, with a capacity of 198,110 acre feet, for the purpose of regulating and equalizing the flow of that stream and supplementing the low season flow of the Rio Grande with stored water during the irrigation season.⁷²

This statement is also included in a memorandum in File 0620 to S.E. Reynolds from M.B. Compton dated February 17, 1986 on the subject of MRGCD Files 0620 and 1690.⁷³

In conclusion, State Engineer Permits 1690 and 0620 and their accompanying files have no information on reservoir operations. The files for State Engineer Permits 1690 and 0620 have information in other documents stating that El Vado was to benefit all MRGCD lands, including Indian P&P lands. It seems that no provision was made for the details of operations at El Vado. This may have been a simple oversight. It might not have been anticipated that controversy over the operation of El Vado would ensue because of the differing priority dates of lands within the MRGCD or differences in Compact interpretation for Indian lands. It appears that providing details of El Vado reservoir operation was not a requirement of the permit.

The fact that the New Mexico State Engineer's files have no information regarding specific reservoir operations for Indian lands is not surprising. Many significant issues were overlooked in the initial activities surrounding the formation of the MRGCD. For example, while the MRGCD lobbied Congress for construction funding on behalf of the pueblos, the need for future O&M funding was overlooked. This oversight was not corrected until the 1930s and required yet another congressional act.⁷⁴

It is believed that the District could, at this time, file Proof of Completion of Works for El Vado Reservoir and we could issue Certificate of Construction and that we could then carry applications 0620 and 1690 by combined extensions of time until the day when the District could file Proof of Completion of works in accordance with their permit No. 0620 to change point of diversion, and Proof of Beneficial Use in accordance with their permit to change place of use, and engineer's final report.

Id. The MRGCD did in fact file a Proof of Completion of Works under Permit No. 1690 for El Vado Reservoir on August 8, 1935. State Engineer George Neal issued an Approval on August 20, 1930. The author was not able to find a Proof of Completion of Works or engineer's final report for application 0620. To this date, the MRGCD has not filed a Proof of Beneficial Use with the New Mexico Office of the State Engineer.

72. Statement to Accompany Applications, *supra* note 71, at 22.

73. Memorandum to S.E. Reynolds from M.B. Compton (Feb. 17, 1986).

74. See Act of August 27, 1935, 74th Congress, sess. I, ch. 745, S. 1832, Public Law No. 352.

The fact that differences in operation for Pueblo Indian storage in El Vado were not noted early in the formation of the MRGCD may have been by design. The Debler and Elder 1928 hydrology study incorporated into Appendix A in the Official Plan depicts projected reservoir operations at El Vado.⁷⁵ Even assuming larger flows in the Rio Grande at Otowi than what today's longer term records can justify, the study shows shortage years in which all MRGCD lands, including P&P lands, would have suffered some shortage.⁷⁶ The projected operation of El Vado made no distinctions in either storage or release based on the priority date of MRGCD lands, whether Indian P&P, Indian newly reclaimed, non-Indian pre-1907, or non-Indian newly reclaimed.

The MRGCD may have considered that prohibiting El Vado storage for P&P lands results in a nearly unenforceable situation in the field. Based on its own hydrological study and experience,⁷⁷ the MRGCD was well aware that there were times when the natural flow of the Rio Grande would be insufficient to supply the P&P lands within the MRGCD, let alone the pre-1907 and Indian and non-Indian newly reclaimed lands as well. If El Vado storage were available for pre-1907 and newly reclaimed lands during such times, but P&P lands were not allowed to benefit from El Vado, then the MRGCD would have to curtail delivery from El Vado storage to P&P lands, the senior water right lands of the MRGCD, in order to deliver to junior lands. Such an operation would not be tolerated by the Pueblos. The Pueblos are in a position to see that this does not happen, as their lands for the most part lie at the head of the northern three of MRGCD's four divisions. Waters bound for junior users would have to pass through the Pueblos first. It is virtually certain that the MRGCD could not have curtailed the Pueblos from taking water earmarked for junior users under these circumstances.⁷⁸

B. Rio Grande Compact

The assumption that storage and release for pueblo P&P lands can take place during times of Compact restrictions raises interesting operational considerations in a facility that is shared by both non-Indians and Indians. Possible scenarios may shed some light on the current lack of El Vado carryover for P&P lands. Table 1 is a matrix showing the various

75. BURKHOLDER, *supra* note 6, at 222–25.

76. *Id.* See also Power Point presentation by the author, *supra* note 59.

77. BURKHOLDER, *supra* note 6, at 222–25.

78. Because most Indian lands are at the head of three of the MRGCD's divisions, the opposite operation is relatively simple—that of delivering water to the P&P lands and curtailing junior non-Indian users.

possible permutations of Article VI, Article VII, and Article VIII Compact restrictions. A discussion of the various scenarios follows.

Table 1. Possible Combinations of Rio Grande Compact Restrictions				
Scenario	Article VI Restriction	Article VII Restriction	Article VIII Restriction	Releases Typically Made To
1	No	No	Not Applicable	MRGCD on the first day of the following month during the current irrigation season
2	No	Yes	Not Applicable	Compact after current irrigation season
3	Yes	No	No	Compact after current irrigation season or MRGCD on the first day of the following month during the current irrigation season
4	Yes	No	Yes	Compact after current irrigation season
5	Yes	Yes	No	Compact after current irrigation season
6	Yes	Yes	Yes	Compact after current irrigation season

For all six scenarios, it should be noted that if all P&P storage in a current year were released for the P&P lands and delivery was made to the P&P lands, non-Indians could not benefit from water that should not, under the Compact, have been released to them. Furthermore, there would be no carryover issue since all P&P waters would be released during the irrigation season for the benefit of the P&P lands. The carryover issue only affects years in which not all P&P stored water is released to the P&P lands.

Scenario 1. No Article VI release or Article VII storage restrictions are in place. Because there is no debit, Article VIII cannot be invoked and

so it is not applicable. Water stored for P&P lands is computed on a monthly basis. If any P&P stored water is left unused at the end of a month, it generally reverts to the general MRGCD Rio Grande pool in El Vado at the beginning of the next month and is available for other MRGCD users. Although this reversion does not have to take place,⁷⁹ El Vado, as a shared facility, may not be used to guarantee an unreasonable amount of protection to one beneficiary at the expense of other beneficiaries. The pueblos retain unused water long enough (one month) so that any reasonable possibility of shortage due to relinquishment of this water has passed. Should the pueblos retain the water for an unreasonable time period, junior users (including Indian newly reclaimed lands) might be needlessly harmed. Water can be lost to evaporation rather than used for its intended purpose of release to MRGCD beneficiaries when needed.

Relinquishing unused P&P water on the first day of the following month from a shared facility is consistent with the basic underlying principles of the Prior Appropriation doctrine. Under Prior Appropriation, the senior user is entitled to a full supply, followed by the junior users in order of priority. However, the senior user is not entitled to more than a full supply, which would result in depriving junior users of their rights. The senior user is entitled to have legitimate demand met.⁸⁰ Other considerations, such as the convenience of the user, may not be possible to achieve if such a consideration would result in the deprivation of a junior user. The senior user is not expected to experience shortages while junior users have their needs supplied. Of course, the senior user is not necessarily guaranteed a full supply, since hydrologic conditions may be such that shortages could shut down all junior users and even short the senior user.

79. During prior and paramount reservoir operations in 2002, the author did in fact carry over unused P&P storage at the end of July 2002 until late August 2002 rather than relinquishing it to the general MRGCD pool on August 1, 2002. The author's computations and proposed arrangements for the carry over were such that non-P&P MRGCD users were not harmed. The author obtained concurrence from David Gensler, MRGCD, to carry over the July 2002 unused P&P water in accordance with the computations and methodology proposed by the author.

80. Legitimate demand is based on the extent of the water right. In the Pueblos' case, their P&P water right is based on acreage and is not quantified in terms of volume of water. Thus, the agricultural demand for 8,847 acres as a volume of water must be determined to be able to compute the required P&P storage amount in El Vado. This lack of quantification of a necessary volume of water sufficient to supply 8,847 acres can lead to controversy in how agricultural demand is computed. The crop need, cropping pattern, farm efficiency, distribution system efficiency, river transport efficiency, and methodology to address whether or not natural flows are usable by the Pueblos are all open to argument. Values chosen for these parameters can lead to P&P shortages or an excess of supply for P&P lands to the detriment of other lands.

The monthly relinquishment of unused stored P&P water is one way to follow these tenets of Prior Appropriation. It is not the only way, but it is the method that has been followed for decades. The level of comfort with the practice, in terms of security for the P&P lands versus the needs of junior users, varies depending on the viewpoint of the affected party.

This unused water is carried over to the next year if unused by other MRGCD beneficiaries. The difference is that it is carried over under the MRGCD label rather than the P&P label, since it has been relinquished to the general MRGCD Rio Grande pool. If carried over to the following year by the MRGCD, it is available to be tagged for P&P usage the following year. It is possible that it can be carried over under the P&P label with the proper agreement and understanding of all affected parties, provided that it does not lead to any backdoor claims of pueblo ownership of storage space in El Vado.⁸¹ Pueblo ownership of storage space in El Vado should be negotiated in an up-front manner, rather than obtained through attempts to establish precedents without the concurrence of other affected parties. Any water carried over under a P&P label should become part of the following year's P&P supply and should not become a supplemental source to the water computed for storage for P&P lands in the subsequent year. Creating such a supplemental source could lead to at least two unacceptable situations. The first is that storage in El Vado set aside for P&P lands would increase beyond what is warranted, using up space that could be used to benefit junior users. The second is that a supplemental source could be marketed without the following of lands, creating a situation that serves to increase the P&P right beyond what is given in the 1928 Act.

Scenario 2. There are no Article VI release restrictions at the time when P&P water is released. Since there is no debit, there will be no Article VIII calls for water by Texas. Article VII storage restrictions are in place during the time when water was stored.⁸² Under this scenario, unused P&P

81. Ownership of storage space and ownership of water are separate issues. It has not been determined that the pueblos "own" water that might be carried over under the P&P label, or whether the pueblos "own" water stored under the P&P label at any time. Who actually "owns" any of the Rio Grande water in El Vado, and the nature of that ownership and its ramifications, would be an interesting subject to research. However, this issue does not necessarily have to be settled for the pueblos to be able to benefit from that water, as they have been doing for decades, or for the pueblos to market that water, such as through a forbearance contract where land is fallowed and the water not applied to the land is available for marketing.

82. The timing of storage and releases dictates whether there are Compact issues. For example, P&P and non-P&P water may be stored outside of Article VII restrictions on general El Vado operations but released to P&P and non-P&P lands during Article VII restrictions on general El Vado operations. In this case, there is no Compact issue since the water was stored outside of Article VII restrictions.

water is released to the Compact after the current irrigation season, in November and December.

In this scenario, Compact Article VII restrictions are in place when P&P water is stored. Therefore, non-P&P lands should not benefit from waters stored for P&P lands, since the non-P&P lands are subject to Compact restrictions. Preventing non-P&P lands from benefiting from storage made during Article VII restrictions has ramifications for releases to the P&P lands during the irrigation season. These waters should be released at the proper times and with the proper operational constraints in place to ensure that releases benefit only P&P lands. For example, calling for and releasing more water for P&P lands than is needed to meet P&P legitimate agricultural demand results in nonuse of released water by P&P lands and a corresponding use by non-P&P lands in the shared MRGCD delivery system. This improper usage results in a Compact Article VII violation by non-P&P lands due to improper P&P operations—non-P&P lands benefit from El Vado storage at a time when they should not.

The logic behind releasing unused P&P water stored in El Vado to the Compact at the end of the irrigation season again relates to El Vado's status as a shared facility with non-P&P lands. Unused water released to the Compact helps New Mexico deliver more water to Elephant Butte, increasing usable Rio Grande Project storage and thus hastening the lifting of Article VII restrictions. The lifting of Article VII restrictions allows MRGCD non-P&P beneficiaries (including the Indian newly reclaimed lands) to once again benefit from storage in El Vado. In addition to ramifications for the MRGCD, the lifting of Article VII restrictions has ramifications for other New Mexico water users, including the city of Santa Fe's municipal water users who benefit from Nichols and McClure reservoirs. Releasing unused P&P waters to the Compact at the end of the irrigation season also helps New Mexico with its credit/debit situation under the Compact. Staying out of debit, decreasing a New Mexico debit, or increasing a New Mexico credit, which may happen when unused P&P waters are released, is to the benefit of MRGCD non-P&P lands including Indian newly reclaimed lands. Helping New Mexico stay below its 200,000 acre-foot debit limit under the Compact will help keep Texas lawsuits from being filed, which would call into question the whole interpretation of Article XVI of the Compact for Indian rights.

Carrying over P&P stored waters in El Vado from one calendar year to the next under this scenario can raise logistical issues when New Mexico comes out of Article VII restrictions. Assume a situation in which P&P storage took place during Article VII restrictions and unused P&P stored water is carried over to the subsequent calendar year. Then assume that New Mexico comes out of Article VII restrictions during the winter or spring of the subsequent calendar year in question. The wet conditions allowing New Mexico to come out of Article VII restrictions will decrease

the amount of storage required for the P&P lands in the subsequent year. It is possible that not all the water stored for P&P lands during Article VII restrictions is needed by the P&P lands in the subsequent year. These surplus waters cannot be released to the P&P lands, since P&P lands are already receiving the natural flow of the Rio Grande and a full supply from the remainder of the carried over P&P water stored during Article VII restrictions. If the surplus water is released to the P&P lands, the beneficiaries would be non-P&P lands, which are not allowed to benefit from water stored during Article VII restrictions. These waters cannot be released to MRGCD's general Rio Grande pool for the same reason – non-P&P lands are not to benefit from waters stored during Article VII restrictions. If the surplus water is left in El Vado to slowly evaporate, it deprives junior MRGCD lands (including Indian newly reclaimed lands) of valuable storage space in El Vado that might be filled with either San Juan-Chama water or the current year's runoff because Article VII restrictions would have been lifted. These complications and unintended consequences resulting from changes in Article VII restriction status may create a situation in which it is highly desirable, if not necessary, to release unused P&P storage to the Compact prior to the end of the calendar year.

Scenario 3. Article VI release restrictions are in place at the time P&P water is released to the Pueblos. There are no Article VII storage restrictions at the time P&P water is stored. Texas cannot⁸³ or chooses not to invoke Article VIII. Releases are made to the Compact after the current irrigation season or, in some cases, to the MRGCD on the first day of the following month during irrigation season.

It may be that there is sufficient water in El Vado's general Rio Grande pool and the P&P pool to cover the extent of the debit. Releases are being made from waters stored over and above that necessary to cover the debit. In that case, there is no Compact issue with releases to either P&P or non-P&P lands. For example, if El Vado has 170,000 acre-feet in storage and the debit is 10,000 acre-feet, and if releases for P&P and non-P&P lands do not cause storage to drop below 10,000 acre-feet, operations are within the parameters of Article VI. In this case, unused P&P waters would be relinquished to the general MRGCD Rio Grande pool rather than to the Compact for the same reasons as given in Scenario 1.

If there is insufficient water in El Vado's general Rio Grande pool to cover the debit and releases are made from the P&P supply, these releases must be used only on P&P lands. As in Scenario 2, calling for and releasing more water for P&P lands than is needed to meet P&P agricultural

83. It is possible that Texas expects to have more than 600,000 acre-feet of usable Rio Grande Project storage by March 1, so no call for release from upstream reservoirs can be made.

demand results in nonuse of the released water by P&P lands and a corresponding use by non-P&P lands in the shared MRGCD delivery system. This results in a Compact Article VI violation by non-P&P lands due to improper P&P operations—non-P&P lands benefit from El Vado releases at a time when they should not.

The logic for releasing unused P&P water to the Compact at the end of the irrigation season is similar to that for Scenario 2, as El Vado is a shared facility with non-P&P lands. Releasing the water prior to the end of the calendar year helps decrease New Mexico's debit, or helps to keep it from increasing. Decreasing the debit means that more of El Vado's storage capacity is available for releases in the following irrigation year for non-P&P lands, including Indian newly reclaimed lands. Nichols and McClure reservoirs also may benefit from having more storage capacity available in the following calendar year. Releasing the water to the Compact has the potential to put New Mexico in either a credit situation or a zero debit situation, so that Article VI will no longer apply.

In the event that New Mexico is expected to complete the year with enough water delivered to Elephant Butte to erase the debit and establish a credit, it may be acceptable to carry water over in El Vado for the Pueblos under the P&P label. However, even in this case, it may still be desirable to release the unused P&P water to the Compact, given that New Mexico can use all the credits it can get. Credits also benefit Indian newly reclaimed lands. However, if Elephant Butte is expected to spill, the debit will be erased, and releasing unused P&P water downstream to a spilling or soon-to-spill Elephant Butte is not desirable. If unused P&P water is released to the general MRGCD Rio Grande pool in El Vado instead of to the Compact, the waters will be carried over under the MRGCD label and then tagged the following spring for P&P usage again. The end effect is the same—the P&P lands will wind up with the same water the next year, minus some evaporation. As in Scenario 1, it may be possible to carry over unused P&P water under the P&P label from one calendar year to the next with the proper agreement and understanding of all affected parties, provided that it does not lead to any backdoor claims of pueblo ownership of storage space in El Vado. Any water carried over under a P&P label should become part of the next year's P&P supply and should not become a supplemental source to the water computed for storage for P&P lands in the subsequent year.

Scenario 4. Article VI release restrictions are in place at the time P&P water is released to the Pueblos. There are no Article VII storage restrictions at the time P&P water is stored. Texas chooses to invoke Article VIII. Releases are made to the Compact after the current irrigation season.

For this scenario to occur, usable Rio Grande Project storage must be more than 400,000 acre-feet with no expectation in January that the March 1 usable Rio Grande Project storage will be over 600,000 acre-feet. New Mexico must be in a debit situation with water in storage at upstream

post-Compact reservoirs such that releases from these reservoirs are a possibility. Although it is possible for this scenario to materialize, because everything must line up in this way, it would not be a common occurrence.

The logic for releasing unused P&P stored water in this case is the same as for Scenario 3. In addition, releasing these waters would prevent Texas from making an Article VIII call for stored P&P waters in El Vado. While it is assumed that Article XVI of the Compact would be invoked to deny the request, it may be best not to allow for the possibility, especially given the fact that the following year's spring runoff is generally sufficient to supply the P&P lands in the following year except under the most extreme circumstances.

Scenario 5. Article VI release restrictions are in place when P&P water is released to the Pueblos. Article VII storage restrictions are in place at the time P&P water is stored. Texas chooses not to invoke Article VIII. Releases are made to the Compact after the current irrigation season.

If Article VII restrictions are in place, the usable Rio Grande Project storage is less than 400,000 acre-feet. Unless there is a highly unusual precipitation event, or several of them, usable Rio Grande Project storage in January will be expected to be less than 600,000 acre-feet by March 1 of the following irrigation season. Thus, Texas will have the option of invoking Article VIII, but may choose not to do so. If P&P waters have already been released to the Compact, there might not be any other water stored in upstream post-Compact reservoirs available for release to Texas under Article VIII.

Article VI and Article VII restrictions were in effect at the same time during most of the 1950s and 1960s and into the 1970s. Persistent long-term drought conditions combined with municipal use of San Juan-Chama allocations by various San Juan-Chama contractors may make this a common scenario once again in the future.

The logic for releasing P&P waters to the Compact after the irrigation season when Article VI and Article VII restrictions are in effect is the same as for Scenarios 2 and 3 above.

Scenario 6. Article VI release restrictions are in place when P&P water is released to the pueblos. Article VII storage restrictions are in place at the time P&P water is stored. Texas chooses to invoke Article VIII. Releases of unused P&P storage are made to the Compact after the current irrigation season.

This scenario is the same as Scenario 5 except that there may be some carryover Rio Grande storage in El Vado from before Article VII restrictions came into effect. In that case it might be possible for Texas to invoke Article VIII.

The logic for releasing unused P&P storage to the Compact at the end of the irrigation season is the same as for Scenarios 2 through 4.

In conclusion, hopefully it is obvious that there is room for some flexibility regarding P&P carryover storage, at least in regard to Compact operations. Decisions concerning carryover P&P storage should be made with an understanding of the ramifications for all parties and not simply because it was done that way in years past. It may be that the conditions of years past upon which decisions were then based are not the same conditions prevalent at the present time. Many possible scenarios may develop regarding the interplay between P&P storage and releases and the Compact. Endangered Species issues may add another layer of complexity to the operations. It is impossible to foresee all possibilities. Flexibility, openness, and understanding of the current conditions should be used to determine the best course of action. The Pueblos should realize their need to protect not only their P&P rights but their newly reclaimed rights as well, which under the current 1981 Agreement are subject to the Compact as are other non-Indian rights.

A hydrologic study of a situation found in a recent year might show that carryover of Indian P&P storage is actually more efficient in lessening the effects of Compact restrictions on New Mexico. Such was the case in 1969 to 1970.

C. Steve Reynolds' Position

The position taken in 1969 and 1970 by Steve Reynolds, then New Mexico State Engineer and New Mexico Rio Grande Compact Commissioner, exemplifies his openness to allowing P&P carryover storage. Jesse Gilmer was Commissioner for Texas and had held the position for only nine months at the time.

Commissioner Reynolds reported there would be less water loss on delivery to Elephant Butte Reservoir if the release was made at other times than November or December. In addition, he recommended water stored and not released for Indian users should be carried over rather than being released to Elephant Butte each year. He pointed out that releases could still be made in accordance with Article VIII of the Compact. Commissioner Gilmer took the position that storage of water for Indians was illegal and in violation of the Compact, and that the matter should be referred to the legal advisers for an opinion.⁸⁴

84. Minutes of the 31st Annual (42nd) Meeting of the Rio Grande Compact Commission at Santa Fe, New Mexico 6 (Mar. 5, 1970) (on file with author).

Mr. Reynolds' comments were based on previous correspondence with the Rio Grande Compact Commissioners for Colorado and Texas.⁸⁵ In a September 23, 1969 letter to the Honorable C.J. Kuiper and the Honorable Jesse B. Gilmer, Commissioners for Colorado and Texas respectively, Steve Reynolds wrote,

[T]here is approximately 20,000 acre feet of water presently available for release from storage in El Vado Reservoir. Our records relating to previous releases from El Vado Reservoir indicate that about 20%, or 4,000 acre feet, of this water would be lost in transit to Elephant Butte Reservoir if the water in El Vado is released [in November and December].

Our estimates indicate that New Mexico could realize a credit of about 15,000 acre feet for 1969 under the compact without releasing the water stored in El Vado Reservoir. My purpose here is to propose that the water now in storage in El Vado Reservoir be retained.

If the El Vado water is released this fall there would be about 16,000 acre feet more water in Elephant Butte Reservoir on 1 March 1970 than there would be if the El Vado water is retained. However, if the water now held in El Vado Reservoir is retained, it would not be necessary for the Bureau of Reclamation to store water during the 1970 spring runoff for possible use by the Pueblo Indians...thus, the flow to Elephant Butte Reservoir in the 1970 runoff season prior to about mid-May (the time by which the Bureau normally has acquired in storage the amount that might be needed by the Indians) would be increased by about 20,000 acre feet. The incremental channel loss as a result of this increase in flow in the early part of the runoff season would be negligible. Thus, the retention of the water now in storage in El Vado Reservoir would have the effect of increasing the water available at Elephant Butte Reservoir at mid-May, 1970 by about 4,000 acre feet.

If the water at El Vado Reservoir is not released this fall, the supply available at Elephant Butte Reservoir on March 1 would be reduced by about 16,000 acre feet but the supply available at Elephant Butte by mid-May would be about 4,000 acre feet more than if the fall release is made. Our estimates indicate that there will be about 400,000 acre feet of water in Project Storage on March 1, 1970. Thus, this later date of availability of the El Vado water should create no disadvantage to those using water from Elephant Butte Reservoir....

85. Letter from S.E. Reynolds to the Hon. C.J. Kuiper & the Hon. Jesse B. Gilmer (Sept. 23 1969) (available in the MRGCD file entitled "El Vado Reservoir, Storage Releases, Indian Agreements, Year 1958 thru Year 1979").

I acknowledge that Commissioner Gilmer may demand, during the month of January 1970, the release of water now stored in El Vado Reservoir. Thus, if Commissioner Gilmer does not agree to my proposal, I will ask the Bureau of Reclamation to reschedule the release for mid-November....

I believe that retention of the water now stored in El Vado Reservoir would be good water management with advantages to all affected interests and I very much hope that Commissioner Gilmer will be able to agree with this proposal.⁸⁶

Reynolds followed up with a January 9, 1970 letter further explaining his technical analysis and commenting on the Texas technical analysis. Apparently it did not persuade Commissioner Gilmer.

One thing to note from this correspondence is that Steve Reynolds saw no need to consult the Pueblos or Reclamation for permission to carry over this storage. He treated carryover storage for Indian lands as purely a Compact issue. The issue for Reynolds was not carryover storage; the issue was the best possible water management to yield the most water for all affected parties—as it should be today.

III. CONCLUSIONS

The issue of carryover storage of P&P water in El Vado is part of a broader issue involving interpretation of Article XVI of the Rio Grande Compact, namely, whether Indian storage should be allowed at all during times of Compact restrictions. Assuming that storage itself is allowable, the practice is influenced by the fact that both El Vado and the MRGCD delivery system are shared facilities with other water rights holders within the MRGCD who are subject to the Compact. The Indian newly reclaimed water rights themselves are subject to the Compact, given the practical outworking of the 1981 Agreement. The current situation disallowing carryover storage for P&P lands may not be an unyielding requirement at all times, but can likely be amended with the agreement of all affected parties should the situation present itself where other alternatives are more beneficial.

86. *Id.*