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## **NEW MEXICO'S EXPERIENCE WITH INTERSTATE WATER AGREEMENTS**

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### **INTRODUCTORY REMARKS**

The State of New Mexico and its neighboring states have negotiated and utilized interstate compacts and related agreements as means to resolve controversy among the interests of the states and their water users over the water supplies of interstate stream systems. Compacts or related agreements often were required to obtain Congressional authorization and federal financing of reservoir and irrigation projects. Some compacts preserve the status quo in water use or deliveries, while others guarantee allocations of water for future development. All compacts were drafted to address specific concerns in the respective basins, and thus are as varied in their provisions as the conditions in each basin.

Implementation of the compacts has been controversial, in some cases resulting in continual arguments over one or more states' obligations under a compact and in other cases resulting in interstate litigation. New Mexico is party to eight interstate compacts and three US Supreme Court decrees that govern the use of interstate stream systems. Actions of Congress also have supplemented the provisions of the compacts. This paper summarizes the history of compact development and administration by basin, related litigation and Congressional action, and related current challenges.

## COLORADO RIVER BASIN

### Colorado River Compact

In the early 1900s, southern California sought federal assistance to construct a high dam on the mainstream of the Colorado River to provide water supplies for its agricultural and municipal growth. To obtain federal financing, California needed the consent and help of the other Colorado River Basin states. The other states were concerned that under the prior appropriation doctrine, fast growth in California's development of Colorado River water might preempt their ability to later develop water supplies in the basin to meet their future needs. The states in the Upper Colorado River Basin desired a guaranteed allocation of the waters of the basin in exchange for their support of a high dam on the Lower Colorado River.

After much negotiation, the Colorado River Compact was signed by Arizona, California, Colorado, Nevada, New Mexico, Utah, and Wyoming in 1922, and was subsequently ratified by the legislatures of all respective states except Arizona. In 1928, Congress, in the Boulder Canyon Project Act, approved the compact and authorized construction of the high dam on the Colorado River. The Colorado River Compact apportions the use of waters of the Colorado River System to the Upper Basin and to the Lower Basin. Parts of Arizona, Colorado, New Mexico, Utah, and Wyoming constitute the Upper Basin. The Lower Basin includes parts of Arizona, California, Nevada, New Mexico, and Utah. The consent of the United States to the compact was conditioned by Section 4(a) of the Boulder Canyon Project Act upon the California legislature passing a Limitation Act whereby the authorized dam (now Hoover Dam) would be built only if California would agree to limit its annual consumptive use to 4.4 million acre-feet per year of the 7.5 million acre-feet per year apportioned to the Lower Basin by Article III(a) of the compact, plus not more than one-half of any excess or surplus waters not apportioned by the compact. California met this requirement by enacting the California Limitation Act in 1929, after which the President of the United States in 1929 proclaimed the compact effective even though Arizona had not ratified it. Arizona opposed the compact and the Boulder Canyon Project Act for years, including via litigation in the US Supreme Court, but finally ratified the compact in 1944.

To administer the provisions of the compact, Article V of the compact provides that each signatory

state, through the state official charged with water rights administration, together with the directors of the US Bureau of Reclamation and the US Geological Survey, cooperate to promote the systematic determination and coordination of the facts as to flow, appropriation, consumption, and use of water in the Colorado River Basin; ascertain and publish the annual flow of the Colorado River at Lee Ferry, the point of division between the Upper and Lower basins; and perform such other duties as may be assigned by mutual consent of the signatory states. Article VI of the compact provides that controversies between two or more signatory states relating to the compact may be adjusted by commissioners appointed by the Governors of the states affected, subject to ratification by the legislatures of said states. No action has ever been initiated under this provision.

Articles III(a) and III(b) of the Colorado River Compact apportion from the Colorado River System to the Upper Basin and to the Lower Basin the beneficial consumptive use of 7.5 million acre-feet and 8.5 million acre-feet, respectively, of water per year. The Colorado River System is defined by the compact as that portion of the Colorado River and its tributaries within the United States. In addition, Article III(d) provides that the States of the Upper Division (Colorado, New Mexico, Utah, and Wyoming) will not cause the flow of the Colorado River at Lee Ferry to be depleted below an aggregate of 75 million acre-feet for any period of ten consecutive years.

Article III(c) provides that the States of the Upper Division are obligated to deliver at Lee Ferry whenever necessary additional amounts of water to supply one-half of the deficiency in the availability of surplus water to Mexico to satisfy any right in Mexico to the use of waters of the Colorado River System that may be recognized by the United States. Under the 1944 treaty on Utilization of Waters of the Colorado and Tijuana Rivers and of the Rio Grande, which took decades to negotiate and was ratified by the US Senate and proclaimed by the President in 1945, normal water deliveries to Mexico on the Colorado River are scheduled at 1.5 million acre-feet per year.

Article III(e) of the compact provides that the States of the Upper Division shall not withhold water, and the States of the Lower Division shall not require the delivery of water, which cannot reasonably be applied to domestic and agricultural uses.

The Upper Colorado River Basin Compact of 1948 allocated among the Upper Basin states the

consumptive use apportioned to the Upper Basin by Article III of the Colorado River Compact. No such compact was negotiated to allocate among the Lower Basin states the consumptive use apportioned to the Lower Basin. But Arizona needed to settle the allocation of water from the Colorado River mainstream to obtain Congressional approval for a project to provide Colorado River water for agricultural uses and municipal growth in central Arizona.

In 1952, the US Supreme Court granted Arizona leave to file a complaint against California and seven municipal organizations of that state in order to determine the relative rights of those two states to utilize the waters of the Colorado River (*Arizona v. California, et al.*, US Supreme Court No. 8, Original). The United States and Nevada intervened in the suit, and New Mexico and Utah were made parties in their capacities as Lower Basin states only. After extensive evidentiary hearings before the special master from 1956-1958 and subsequent briefings and arguments before the special master and the Court, the Court in 1964 entered a decree that apportioned between the States of Arizona, California and Nevada the water supply available from the mainstream of the Colorado River in the Lower Basin in accordance with the apportionment of mainstream water provided by the Boulder Canyon Project Act, which authorized construction of Hoover Dam and its impoundment Lake Mead. With the allocation of Colorado River mainstream water in the Lower Basin confirmed by the 1964 decree, Arizona could seek from Congress the authorizations and funding necessary for the Central Arizona Project to provide a means for Arizona to utilize her allocation, which project was subsequently authorized in 1968 by the Colorado River Basin Project Act (Public Law 90-537). The Court, however, did not interpret the Colorado River Compact, and it did not apportion tributaries in the Lower Basin except for the Gila River Basin as between New Mexico and Arizona.

In order to allow the States of the Upper Basin to develop and use, consistently with the provisions of Articles III(d) and III(c) of the Colorado River Compact, the apportionment of water to the Upper Basin made by Article III(a) of the compact, Congress, in the Colorado River Storage Project Act of 1956 (Public Law 84-485), authorized the Colorado River Storage Project to regulate the flow of the Colorado River and several complementary water projects. The

largest project feature authorized was Lake Powell formed by Glen Canyon Dam and located just upstream from Lee Ferry. Pursuant to Section 602 of the Colorado River Basin Project Act of 1968, the Secretary of the Interior, in consultation with the seven basin states, in 1970 approved the Long-Range Operating Criteria for the coordinated operation of Colorado River System reservoirs, including for the storage and release of water from Lake Powell that addresses the delivery of water under Articles III(c), III(d) and III(e) of the Colorado River Compact.

In response to abundant water supplies in the basin in the late 1990s and uses by California in excess of her basic apportionment of 4.4 million acre-feet under the 1964 decree in *Arizona v. California*, the Secretary, in consultation with the basin states, in 2001 supplemented the Long-Range Operating Criteria by adopting interim surplus guidelines effective through 2016 on which to base determinations of surplus allocations of water from Lake

Mead for Lower Basin water uses. Now, in response to low reservoir storage resulting from a critical five-year drought in 2000-2004, the Secretary, again in consultation with the basin states, is working on development of criteria for coordinated reservoir operations during low storage conditions, including interim shortage guidelines on which to base determinations and allocations of shortage from Lake Mead to water uses in the Lower Basin and Mexico.

In the development and implementation of the Long-Range Operating Criteria, critical Colorado River Compact interpretations have been avoided or delayed. No determinations have been made as to the accounting of tributary uses and reservoir evaporation in the Lower Basin as against the basic apportionment to the Lower Basin made by Articles III(a) and III(b) of the compact. Nor have any determinations been made as to the burden of the deficiency, if any, of meeting delivery obligations of the United States to Mexico under the 1944 Mexican Water Treaty. Because of unresolved differences between the Upper

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Division States and the Lower Division States over the obligation of each to provide water to meet the Mexican Treaty delivery obligation, the Long-Range Operating Criteria provides for a minimum objective release from Lake Powell of 8.23 million acre-feet per year, which includes one-half of the Mexican Treaty delivery. The minimum objective release continues to this day to be controversial, and the 2000-2004 drought and consequent decline in Colorado River System storage has resulted in an increased level of concern in the Upper Division States. To date, the ability of the Upper Division States to develop the apportionment to the Upper Basin has not been impaired.

Pursuant to the requirements of Section 11 of Public Law 87-483, the State of New Mexico recently requested the Bureau of Reclamation to make a hydrologic determination that sufficient water is available within the State's Upper Basin apportionment to provide for domestic uses of the Navajo Nation in New Mexico under the proposed Navajo-Gallup Water Supply Project. Implementation of the proposed project is a key component of the San Juan River Basin in New Mexico Navajo Nation Water Rights Settlement Agreement that the State of New Mexico and the Navajo Nation signed in April 2005. If the Settlement Agreement were approved by Congress, the proposed project would develop the remainder of New Mexico's Upper Basin apportionment. The proposed project would divert water in the Upper Basin for use in the Upper Basin, the Lower Basin and the Rio Grande Basin. Based on section 303(d) of the Colorado River Basin Project Act, which provides a model for Congressional authorization of a specific diversion of water from the Upper Basin for use in the Lower Basin portion of an Upper Basin state, the Upper Colorado River Commission in 2003 by resolution approved the proposed use of New Mexico's Upper Basin water in the Lower Basin of New Mexico. The model provides a basis for resolution of conflicting provisions of existing law to permit an Upper Basin state to utilize its Upper Basin apportionment anywhere within its boundaries.

The provisions of the 1964 decree in *Arizona v. California* relating to the apportionment of Gila River Basin water limit the amounts of irrigated acreage and consumptive use from the Gila River, its tributaries and underground water sources in New Mexico by stream segments to uses existing as of 1960, including

uses in the Virden Valley under the Gila River decree of 1935 (Globe Equity No. 59). Neither Arizona nor New Mexico were party to the Gila River decree. To obtain New Mexico's support for the Central Arizona Project and provide a renewable water supply for future growth in southwestern New Mexico, the Colorado River Basin Project Act of 1968 authorized a New Mexico unit of the Central Arizona Project named Hooker Dam or suitable alternative. Section 304 of the Act authorized New Mexico through Hooker Dam or suitable alternative to increase consumptive use of water from the Gila River Basin by an average of up to 18,000 acre-feet per year, over and above the uses permitted under the decree in *Arizona v. California*; provided, that such increase does not cause economic injury or cost to downstream water rights senior to September 30, 1968, and that contracts are entered between water users in New Mexico and the Secretary of the Interior to provide for the use of the water in New Mexico and the delivery of Colorado River water, via the Central Arizona Project, to downstream users in Arizona in quantities sufficient to replace any diminution of their supply resulting from the use in New Mexico. The Arizona Water Settlements Act of 2004 amends the Colorado River Basin Project Act by limiting the increased consumptive use from the Gila River Basin in New Mexico to an average of 14,000 acre-feet per year, including reservoir evaporation, and approving specific diversion bypass parameters to protect downstream water rights in New Mexico and Arizona.

There are several major challenges ahead for New Mexico and the other Colorado River Basin states as to management of the Colorado River System within the framework of the Colorado River Compact. It is critical to the States of the Upper Division that Lake Powell be operated to ensure that Article III(d) of the compact can be met to avoid compact calls for curtailment of Upper Basin uses. This objective is an integral part of current discussions between the Secretary of the Interior and the seven basin states on the possible development of criteria for coordinated operations of Lake Powell and Lake Mead during low storage conditions. Shortage guidelines on which to base determinations and allocations of shortage from Lake Mead to water uses in the Lower Basin and Mexico need to be developed either independently or in conjunction with low-storage reservoir operating criteria. The Secretary plans to develop shortage guidelines or low-storage reservoir operating criteria

by the end of 2007, which may be only interim guidelines or criteria.

Also, the obligation of the Upper Division States under Article III(c) of the compact to deliver water to Lee Ferry for meeting the 1944 Mexican Water Treaty delivery needs to be determined by quantification of surplus and deficiency. Any release from Lake Powell at Glen Canyon Dam that is in excess of the release needed to comply with Article III of the compact reduces the yield available for consumptive use in the Upper Division States. Determining the deficiency and the Article III(c) obligation would involve system-wide accounting of consumptive uses, including on Lower Basin tributaries. Lower Division States do not agree with Upper Division States' positions that the apportionment of 8.5 million acre-feet of consumptive use to the Lower Basin under Articles III(a) and III(b) of the compact includes mainstream reservoir evaporation and uses on the Lower Basin tributaries such as the Gila and Little Colorado Rivers. Lower Basin mainstream reservoir evaporation currently amounts to about 1 million acre-feet per year, and Lower Basin tributary uses currently amount to about 2 million acre-feet per year.

Use by the Lower Basin in excess of its compact apportionment would result in lowering water levels in Lake Mead and could result in increased releases from Lake Powell to protect the Southern Nevada Water Authority's intake in Lake Mead to supply municipal water to the Las Vegas metropolitan area and to protect the power head at Lake Mead. The Upper Division States are concerned that such increased demands might increase the threat of a call against the Upper Basin. In addition, Nevada has nearly reached full use of her 300,000 acre-feet of mainstream water apportioned by the Boulder Canyon Project Act and *Arizona v. California*, and southern Nevada is looking for more water to support one of the fastest growing metropolitan areas in the country. The Southern Nevada Water Authority has announced its intention to divert and use for municipal purposes in and near Las Vegas water from the Virgin River, a Lower Basin tributary above Lake Mead. Nevada may contend that such tributary use is not accountable under the Colorado River Compact or *Arizona v. California*, similar to the position taken by Arizona on its tributary uses from the Little Colorado River.

Controversies among the basin states will require resolution of technical, legal and institutional issues. In connection with the process to develop Lower Basin

shortage guidelines and to evaluate low-storage operating criteria for Lakes Powell and Mead, the seven basin states have requested the Secretary of Interior to consider a suite of activities, including water supply augmentation, phreatophyte eradication and specific water conservation measures for coordinated future water management in the Colorado River Basin and to continue to work with the states on these issues.

The United States and the seven basin states have a significant challenge to comply with salinity control mandates of the International Boundary and Water Commission. The salinity of deliveries to Mexico under the 1944 Mexican Water Treaty began increasing in 1961 in response to the discharge of saline water drainage wells from the Wellton-Mohawk Division of the Gila Project into the Colorado River below the Imperial Dam but above the Mexican point of diversion. At the end of 1961, Mexico objected to the salinity of the Colorado River waters being delivered. The State Department, in consultation with the Committee of Fourteen (two representatives each appointed by the Governors of the seven basin states), in 1965 negotiated Minute 218 of the International Boundary and Water Commission, which was a five-year agreement on practical measures to reduce the salinity of the waters reaching Mexico. Minute 218 was extended through 1971, and Minute 241 provided temporary solutions to the salinity problem for 1972-1973.

After further negotiations between the United States and Mexico and State Department consultations with the Committee of Fourteen, Minute 242 of the International Boundary and Water Commission in 1974 provided the permanent and definitive solution to the Colorado River salinity problem. Minute 242 provides a quantitative salinity standard for deliveries under the 1944 Mexican Water Treaty that reflects little deterioration in water quality between the salinity of water available in the Colorado River to United States water users at Imperial Dam and the salinity of water available in the Colorado River to Mexico water users at Morelos Dam. Minute 242 also provides, among other things, for the bypass of Wellton-Mohawk drainage water to the Santa Clara Slough in the Gulf of California. In response to Minute 242, the Congress in 1974 passed the Colorado River Basin Salinity Control Act (Public Law 93-320).

Title I of the Act authorized the Yuma Desalt Plant to desalinate Wellton-Mohawk drainage water for delivery to Mexico under the treaty. Because the Yuma

Desalt Plant is very expensive for the United States to operate, it has remained on standby status since 1993 and drainage water has continued to be bypassed to

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the Santa Clara Slough without being accounted as a delivery to Mexico under the treaty. The basin states support operation of the plant with delivery of desalted water to the Colorado River so as to lessen the burden on the basin states of providing water for Mexican treaty deliveries;

however, environmental organizations believe the delivery of untreated drainage water to Santa Clara Slough should continue to protect the slough as an environmental resource. Environmental organizations also have sought delivery of Colorado River water in excess of the 1944 Mexican Treaty obligation for delivery to the Colorado River delta for habitat needs of species in Mexico. Minute 306 established a framework for joint United States-Mexico studies of the ecology of the delta region. The seven basin states oppose any delta restoration measures that would involve delivery of Colorado River water in excess of the current treaty delivery obligation.

Title II of the Act authorized the study, construction, operation and maintenance of salinity control projects to be undertaken to reduce salt loadings throughout the Colorado River Basin. Salinity projects implemented include Reclamation salinity control projects and Department of Agriculture on-farm salinity reduction programs. The Colorado River Basin Salinity Control Forum was created by the basin states for the purpose of developing and recommending basin-wide water quality standards for salinity, which are then adopted by the states. Through the forum, the basin states recommend salinity control projects and cost-sharing for the projects. Greater reductions in salinity loadings will be needed in the future to offset the effects on salinity concentrations of continued water resource development in the Colorado River Basin, primarily

in the Upper Basin, and meet the water quality standards for salinity.

**Upper Colorado River Basin Compact**

In order to provide for the development of water projects in the Upper Basin, the Upper Basin states in 1946 began negotiations of a compact to effectuate a division of the Colorado River waters apportioned to the Upper Basin by the Colorado River Compact. The Upper Colorado River Basin Compact was signed by Arizona, Colorado, New Mexico, Utah and Wyoming in 1948, and was approved by Congress in 1949. The compact creates the Upper Colorado River Commission to administer its provisions, with members of the commission representing the United States, Colorado, New Mexico, Utah and Wyoming. Arizona is not included on the commission. The Upper Colorado River Commission maintains an office and staff in Salt Lake City, Utah.

Article III of the Upper Colorado River Basin Compact provides an allocation among the Upper Basin states of the apportionment of water from the Colorado River System made to the Upper Basin by Article III of the Colorado River Compact. Arizona is allocated a fixed 50,000 acre-feet of consumptive use annually, and the states of Colorado, New Mexico, Utah and Wyoming are allocated percentage shares of the amount remaining available to the Upper Basin. Article IV of the compact provides for the curtailment of uses within the States of the Upper Division when necessary to meet the requirements of Article III of the Colorado River Compact. Article X of the compact incorporates the 1922 La Plata River Compact to apportion waters of the La Plata River and its tributaries between Colorado and New Mexico. Article XIV of the compact provides that Colorado deliver to New Mexico from the San Juan River and its tributaries which rise within the State of Colorado a quantity of water which shall be sufficient, together with water originating in the San Juan River Basin in New Mexico, to enable New Mexico to make full use of the water apportioned to New Mexico by Article III of the compact; subject, to recognition of first and prior rights for water uses existing and federal water projects authorized as of October 11, 1948, to sharing of physical water supply shortages between uses not so recognized that are dependent upon a common source of water, to preferential uses of water to which Indians are entitled, and to any curtailment of water use by either state to comply with Article IV.

The Upper Basin states, with cooperation from the Department of the Interior, have been working toward development of their compact apportionments. Several substantial federal water projects have been developed in the Upper Basin pursuant to the Colorado River Storage Project Act of 1956, Public Law 87-483, the Colorado River Basin Project Act and other Congressional authorizations. The Upper Colorado River Commission has not had to make any significant finding of fact or decision on administration of provisions of the compact relating to curtailment of use in order to meet the requirements of Article III of the Colorado River Compact, primarily because the Upper Basin use has not approached full development of the yield available to the Upper Basin at Lee Ferry. In recent years, the Commission has directed major effort toward the operation of Lake Powell and Lake Mead, including annual operation plans, the Glen Canyon Adaptive Management Program and endangered species issues. The 2000-2004 period brought the most severe five-year drought recorded on the Colorado River, which severely depleted storage in the Upper Basin and raised concern over the operation of Lake Powell under the Long-Range Operating Criteria. Discussions continue among the seven Colorado River Basin states and the Department of the Interior regarding the operation of the Colorado River System reservoirs. The operation of Lake Powell affects the yield available to the Upper Basin at Lee Ferry under Article III of the Colorado River Compact.

Upon review of the Hydrologic Determination prepared by the Bureau of Reclamation in 1988 and signed by the Secretary in 1989 which studied the yield available to the Upper Basin under varying assumptions of Lake Powell operations, the Upper Colorado River Commission by resolution determined that the yield available to the Upper Basin at Lee Ferry is at least 6.0 million acre-feet per year. Based on this estimate, the State of New Mexico and the Navajo Nation negotiated provisions of the San Juan River Basin in New Mexico Navajo Nation Water Rights Settlement Agreement that provide for full development of the remainder of New Mexico's share of the Upper Basin yield allocated by Article III of the Upper Colorado River Basin Compact without displacing existing water users in New Mexico. The Settlement Agreement recognizes that Navajo Nation uses in the Upper Basin in New Mexico must be subject to New Mexico's obligations under the Colorado River and Upper Colorado River Basin

compacts. The Secretary, in consultation with the Upper Division States, must update the Hydrologic Determination to determine whether sufficient water is available within New Mexico's share of the yield available to the Upper Basin to source the proposed Navajo-Gallup Water Supply Project that is a major component of the settlement. Obtaining Congressional approval of the Settlement Agreement is likely to be as large or larger a challenge as was negotiating the agreement. The proposed settlement would cost almost \$1 billion in current dollars to implement.

The Upper Colorado River Commission in the coming years has the challenge to protect the yield available to the Upper Basin under Article III of the Colorado River Compact. Again, it is critical to the States of the Upper Division that Lake Powell be operated to ensure that Article III(d) of the compact can be met and to avoid compact calls on Upper Basin uses. At the same time, the commission must be prepared to implement, pursuant to Article IV of the Upper Colorado River Basin Compact, curtailments in the Upper Basin, if and when necessary, to comply with Articles III(c) and III(d) of the Colorado River Compact. Part of this preparation involves determining the methodologies for computing consumptive uses in the Upper Basin chargeable against the compact apportionments.

The commission and the Upper Basin states also participate in activities of the Glen Canyon Adaptive Management Program formed by the Secretary of the Interior as a consequence of the Grand Canyon Protection Act. As the Secretary receives input from the program on ways to operate Lake Powell at Glen Canyon Dam to conserve sediment and biological resources in Glen, Marble and Grand Canyons, the objective of the Upper Division States in the program is to protect the authorized purposes of Lake Powell and Glen Canyon Dam and to ensure that water is not released from Lake Powell to the impairment of uses in the Upper Basin. Also, the States of the Upper Division continue to participate in endangered fish species recovery efforts in the Upper Colorado River Basin with an objective to meet endangered fish habitat needs and recovery goals while development of the states' Upper Basin apportionments proceeds. Colorado, Utah and Wyoming participate in the Upper Colorado River Endangered Fish Recovery Program that covers the Upper Colorado, Green and Yampa rivers in the Upper Basin, and Colorado and New Mexico participate in the San Juan River Basin

Recovery Implementation Program that covers the San Juan River.

The annual costs of the three environmental programs currently total about \$16 million per year and are funded by revenues obtained from the sale of hydroelectric power produced at Colorado River Storage Project units. Such power production has declined with storage levels during the recent drought, and could be suspended at Lake Powell if the drought continues and storage in Lake Powell drops to minimum power pool. Although the use of water for hydroelectric power generation is subservient to the use of water for domestic and agricultural purposes under Article IV of the Colorado River Compact, continued development of the Upper Basin apportionment is dependent upon the environmental programs and implementation of capital recovery projects funded jointly by the United States, the Upper Division States and power revenues for Endangered Species Act compliance. Also, the operation and maintenance of federal water projects, and to some extent salinity control projects, in the Upper Basin, including Glen Canyon Dam, are funded from Colorado River Storage Project power revenues. Obtaining alternate funding for project operations and for the environmental programs may become a challenge if Lake Powell storage drops below minimum power pool.

### **La Plata River Compact**

The La Plata River is a small tributary to the San Juan River. The snowmelt runoff in the La Plata River typically ends at the beginning of the summer, and low base flows during the summer and fall are insufficient to meet the water demands of all users on the stream system in Colorado and New Mexico. Irrigation ditch diversion rights in Colorado and New Mexico had been decreed in separate actions by district courts, but an equitable apportionment was needed between the states to attempt to resolve controversy between the water users in both states as to their relative rights to waters of the La Plata River drainage. The La Plata River Compact was signed by Colorado and New Mexico in 1922 and approved by Congress in 1925. The compact provides that the state engineers of the two states daily shall administer its provisions. In 1938, the US Supreme Court rendered a final decision on appeal in the case of *Hinderlider v. La Plata River and Cherry Creek Ditch Company* that upheld the La Plata River Compact and found that an

equitable apportionment of the waters of an interstate stream made by compact between two or more states with the consent of Congress is binding on the citizens of each state and all water claimants or appropriators within the states party to the compact.

Article II.2 of the La Plata River Compact provides that on each day between February 15 and December 1 of each year, Colorado must deliver to New Mexico at the state line a quantity of water equivalent to one-half the mean flow at the Hesperus Station in Colorado for the preceding day, but not to exceed 100 cubic-feet-per-second. Article II.3 of the compact provides that the state engineers of the two states may, in the alternative, rotate the use of the waters of the La Plata River between the two states for such periods of time as the state engineers may jointly determine. Article II.4 of the compact provides that Colorado is not required to deliver any water not then necessary for beneficial use in New Mexico.

Disputes between the state engineers of Colorado and New Mexico as to Colorado's compliance with Article II.2 of the La Plata River Compact have continued for decades. At issue from time to time most years is Colorado's unilateral determinations of New Mexico's beneficial use demand and Colorado's unilateral determinations that curtailing her water uses or otherwise adjusting her operations within the La Plata River Basin to meet the Article II.2 obligation are either not subject to the compact or are futile. Colorado essentially turns the compact, and compact deliveries, on and off at her discretion. Each year on the La Plata River brings the same challenge of trying to make Colorado more responsive to her compact delivery obligation.

### **Animas-La Plata Project Compact**

The Animas-La Plata Project was authorized in 1968 by the Colorado River Basin Project Act to provide for municipal, industrial and agricultural water supply development in the Animas and La Plata river basins in both Colorado and New Mexico. Included in the authorization was Congressional approval of the Animas-La Plata Project Compact, an interstate agreement between the States of Colorado and New Mexico. The legislatures of both states ratified the compact in 1969.

The Animas-La Plata Project Compact provides that the right to store and divert water in Colorado and New Mexico from the Animas and La Plata river systems for uses in New Mexico under the Animas-



La Plata Project shall be of equal priority with those rights granted by decree of the Colorado state courts for the uses of water in Colorado for the project, providing that such uses in New Mexico are within the allocation of water made to that state by Articles III and XIV of the Upper Colorado River Basin Compact. New Mexico uses under the project are thus protected from more junior appropriations and further water development within Colorado. The Colorado Ute Settlement Act Amendments of 2000 amended the project authorization to a smaller municipal and industrial water supply project, but did not affect the project compact. Project construction is anticipated to be completed in 2011, and the Bureau of Reclamation has established a project operations committee to determine how the project will operate to both bypass direct flow and pump water to off-stream storage for the delivery of water to Colorado and New Mexico project contractors with equal priority.

## **RIO GRANDE BASIN**

### **Rio Grande Compact**

Controversy over the apportionment of the waters of the Rio Grande between irrigators in southern New Mexico's Mesilla Valley against irrigators downstream around El Paso, Texas, and Juarez, Mexico, began prior to the turn of the twentieth century. A need to resolve the controversy arose in the early 1900s out of growth in water use in the San Luis Valley in Colorado that further depleted base flow in the lower Rio Grande and competing plans for reservoirs to capture spring snowmelt runoff at Elephant Butte for uses in New Mexico and at the international boundary for uses in Texas and Mexico. Texas and Mexico claimed priority of right over uses in southern New Mexico. After years of debate among affected interests, including on the floors of Congress and in court, the National Irrigation Congress in 1904 endorsed a plan prepared by the US Reclamation Service to construct a storage reservoir at Elephant Butte to provide irrigation service to lands in southern New Mexico and Texas through a distribution system that would become known as the Rio Grande Project and to provide water to Mexico to satisfy that country's demands if a treaty could be negotiated.

In 1905, Congress enacted legislation to extend the 1902 Reclamation Act to the El Paso Valley in Texas and also authorized the Reclamation Service to

construct works to deliver waters of the lower Rio Grande to water users in the Rio Grande Project based on the results of its irrigable lands surveys. In 1906, Congress ratified a treaty providing for the delivery each year of 60,000 acre-feet of water to Mexico at the head of the Acequia Madre on the Rio Grande near El Paso, Texas. The 1906 treaty between the United States and Mexico was proclaimed by the President in 1907. Elephant Butte Dam was completed in 1916, and the Reclamation Service subsequently finished its surveys and determined that the Rio Grande Project would serve 88,000 acres in New Mexico and 67,000 acres in Texas. Water users in both states endorsed these allotments.

In the meantime, an embargo limiting development of Rio Grande waters on public lands in Colorado and New Mexico that had been instituted by the Secretary of the Interior in 1896 remained in effect. After the Colorado River Compact was signed in 1922, Colorado and New Mexico began attempts to negotiate a compact to apportion Rio Grande waters. Such a compact, it was felt, might then result in the embargo being lifted as desired by residents of the Middle Rio Grande Valley in New Mexico and the San Luis Valley in Colorado. Concerns grew in the 1920s that expansion of irrigation in the Middle Rio Grande Valley and the San Luis Valley might undermine the allotments within the Rio Grande Project. After several years passed, compact negotiations began in earnest in 1928.

The 1929 Rio Grande Compact signed by Colorado, New Mexico, and Texas and approved by the United States provided for the maintenance of the status quo of the Rio Grande above Fort Quitman, Texas, for a period of six years until a permanent compact could be negotiated to apportion the waters of the Rio Grande among the states and suggested that the United States construct a drain from the Closed Basin area of the San Luis Valley in Colorado to the Rio Grande to compensate for 60,000 acre-feet of Rio Grande water dedicated for delivery each year to Mexico by the 1906 treaty. Events subsequent to completion of the 1929 Rio Grande Compact, including the Great Depression, disagreement among the states and a lawsuit brought by Texas in the US

**[Animas-La Plata] Project construction is anticipated to be completed in 2011...**

Supreme Court in 1935 against New Mexico and the Middle Rio Grande Conservancy District alleging violations of the compact and interference with the water rights of the Rio Grande Project, did not allow for negotiation of a permanent compact prior to the expiration date of the 1929 compact. However, by action of the respective state legislatures, the 1929 compact was extended to allow completion of the Rio Grande Joint Investigation which had been undertaken by the United States in response to requests by the states. The *Texas v. New Mexico* suit was held in abeyance until final action on the permanent compact was taken by the affected states and the Congress.

The 1938 Rio Grande Compact was signed by Colorado, New Mexico and Texas in 1938, and was ratified by the respective state legislatures and approved by Congress in 1939. The 1938 Rio Grande Compact apportions the waters of the Rio Grande above Ft. Quitman, Texas, among the three states. Articles III and IV of the compact establish annual water delivery schedules for the States of Colorado and New Mexico, respectively, and Articles VI, VII and VIII limit water storage and accruals of debits and credits in deliveries from year to year. To administer the provisions of the compact, the compact provides for a commission consisting of the state engineers of Colorado and New Mexico, a commissioner appointed by the Governor of the State of Texas, and a representative of the United States. The Rio Grande Compact Commission has adopted Rules and Regulations for administration of the compact, including for measurement and accounting of deliveries of water, storage of water and credits and debits under the compact.

The Article IV delivery schedule set New Mexico's deliveries at San Marcial at the head of Elephant Butte Reservoir. The Rio Grande Compact Commission in 1948 by resolution changed from the schedule shown in Article IV of the compact the gaging stations and measurements of deliveries by New Mexico beginning 1949, finding that such change would result in substantially the same results so far as the obligations of New Mexico to deliver water are concerned. Deliveries by New Mexico beginning 1949 are measured at Elephant Butte Dam.

The compact did not define the relative rights of New Mexico and Texas below Elephant Butte Dam or provide to the states a division at the Texas state line of the waters below the dam. The question of the division between the two states of the water available

for release from Elephant Butte Reservoir is taken care of by contracts between the districts under the Rio Grande Project and the US Bureau of Reclamation, which provide that lands within the project all have the same rights. The Bureau of Reclamation each year allocates water under the project according to the respective areas in New Mexico and Texas defined and allotted by Reclamation pursuant to its surveys completed in response to the 1905 federal legislation. Under the 1938 Rio Grande Compact, the compact commissioner appointed by the State of Texas represents the interests of water users within the Rio Grande Project in both New Mexico and Texas.

In the October 1951 term of the US Supreme Court, Texas filed a motion with the Court for leave to file a complaint against the State of New Mexico and the Middle Rio Grande Conservancy District. Texas sought an injunction restraining the latter parties from increasing the amount of storage in reservoirs constructed after 1929 in New Mexico above San Marcial when there is less than 400,000 acre-feet of usable water in Rio Grande Project storage as per Article VII of the Rio Grande Compact, from diverting and using in New Mexico above San Marcial waters of the Rio Grande allocated to Texas by the compact, and from diverting or using waters of the Rio Grande until the accrued debit of New Mexico shall not be in excess of 200,000 acre-feet, except as such debt may be caused by holdover storage of water in reservoirs constructed after 1929 in the Rio Grande Basin above San Marcial, and requiring them to release water from storage in strict accordance with Article VIII of the compact. After hearing and oral argument before a special master, the Court in 1957 dismissed the bill of complaint because of the absence of the United States as an indispensable party.

By 1961, Colorado continued to be unable to meet its schedule of deliveries under Article III of the Rio Grande Compact, and the States of New Mexico and Texas requested Colorado to expedite that state's processing of the Bureau of Reclamation's report on its plan for development of the Closed Basin Division of the San Luis Valley Project to salvage water being lost to non-beneficial use in the closed basin and convey the salvaged water to the Rio Grande for delivery to New Mexico and Texas. The Rio Grande Compact Commission in 1964 adopted a resolution requesting the Secretary of the Interior to expedite completion of the feasibility report on the Closed Basin Division of the project. In 1966, Texas and New

Mexico filed in the US Supreme Court a motion for leave to file a complaint against the State of Colorado. The complaint alleged that Colorado had accrued a debit of 939,300 acre-feet of water in violation of the Rio Grande Compact.

After a series of briefs and conferences, the Court in 1968 accepted the complaint for filing (*Texas and New Mexico v. Colorado*, US Supreme Court No. 29, Original). Simultaneously, the parties reached an agreement under which a continuance was granted to provide Colorado an opportunity to demonstrate its willingness and ability to meet the annual delivery obligation established by the schedules of Article III of the Rio Grande Compact. The continuance provided that Colorado deliver water at the Colorado-New Mexico state line each year according to the annual delivery obligation and make frequent reports to New Mexico and Texas on all measures taken to effect compliance. Colorado instituted water rights priority administration in its portion of the Rio Grande Basin; the Bureau of Reclamation implemented the Closed Basin Division, and the obligations of the continuance were met through 1984. In 1985, the Rio Grande Compact Commission determined that all previously accrued water debits by Colorado were cancelled by an actual spill of usable water at Elephant Butte Dam. Consequently, the suit was dismissed in 1985.

Maintaining scheduled compact deliveries at Elephant Butte Dam is a major continuing challenge for New Mexico. The Elephant Butte Reservoir pool receded more than 20 miles during the extreme drought of 2000-2004. Since 2000, the State of New Mexico and the Bureau of Reclamation have excavated, extended and maintained a pilot channel through the exposed sediment delta to provide for more efficient water delivery to the reservoir pool. Also, the delivery schedules, in addition to hydrology, limit the amount of water available for use in the Rio Grande Basin in New Mexico. Each acre-foot of non-beneficial consumptive use by invasive salt cedar and Russian olive in the Basin above Elephant Butte Dam is an acre-foot of water less available for beneficial use by New Mexico. Unlike Colorado, the State of New Mexico to date has not had to actively administer water rights by priority in the Rio Grande Basin to meet its scheduled deliveries, but New Mexico must prepare for such possibility in the future. In addition, the State of New Mexico participates in the Middle Rio Grande Endangered Species Act Collaborative Program with an objective to meet endangered species habitat needs

without negatively impacting compact deliveries to Elephant Butte Reservoir or beneficial consumptive uses in New Mexico.

Another major challenge looming for the State of New Mexico is the adjudication of the water rights of the numerous Pueblos within the Rio Grande Basin within the constraints of the compact.

### **Amended Costilla Creek Compact**

Controversy over the waters of the Costilla Creek stream system, principally the water stored in Costilla Reservoir, began in 1938. When constructed by 1920, it was contemplated that Costilla Reservoir would be part of a reservoir system irrigating a substantial amount of acreage. However, only a small fraction of the anticipated irrigation development occurred by 1941. In 1938, the New Mexico State Engineer granted the owner of the reservoir an extension of time to develop the irrigation use, provided that the owner cease irrigation from the reservoir of lands in Colorado because the reservoir had been constructed solely for the benefit of New Mexico irrigators. The State Engineer in 1940 ordered as such, and also ordered the owner not to store in Costilla Reservoir water decreed to Eastdale Reservoir in Colorado. As a consequence of an injunction suit subsequently brought by the owner against the New Mexico State Engineer, compact negotiations between New Mexico and Colorado were initiated in 1941 to attempt to resolve the issues.

The Costilla Creek Compact was signed by Colorado and New Mexico in 1944, and subsequently was ratified by the respective state legislatures in 1945 and approved by Congress in 1946. The Costilla Creek Compact provided for delivery of apportioned water to users in New Mexico and to Colorado at interstate points of delivery on the New Mexico-Colorado state line. Apportioned water includes apportionments of direct flow from the Costilla Creek stream system and of water stored in Costilla Reservoir. By the early 1960s, Colorado desired to transfer water uses from one interstate ditch to another, and the compact was amended in 1963 to account for revised interstate delivery requirements on the two affected ditches as described. An account of the adjustments made by the compact amendments is provided in Article III of the Amended Costilla Creek Compact. The Amended Costilla Creek Compact provides for a commission to administer its provisions, said commission to be composed of the official in each state charged with

administering public water supplies (e.g., the state engineers of the two states).

Articles IV and V of the Amended Costilla Creek Compact provide for the daily administration of the direct flow and storage waters of the Costilla Creek stream system during

the irrigation season to ditches in both Colorado and New Mexico. A water master performs this function. The Costilla Creek Compact Commission in 2002 adopted by rule an operations manual and a daily accounting spreadsheet to calculate required water deliveries and

record actual deliveries. The operations manual resolved administrative and operational issues effective through the 2005 irrigation season. The commission in 2005 extended use of the operations manual, with minor modifications, indefinitely.

**By the early 1930s, New Mexico irrigators proposed construction of Alamogordo Dam and Reservoir (now named Fort Sumner Reservoir) to provide replacement storage for silted McMillan Reservoir...**

**PECOS RIVER BASIN**

**Pecos River Compact**

Development of surface water in the Pecos River Basin for irrigation in New Mexico south of Roswell and in Texas north of Girvin began about 1880. Two storage reservoirs (McMillan and Avalon reservoirs) constructed prior to 1900 by New Mexico irrigators were inadequate to serve established rights, and Texas irrigators planned construction of a large reservoir on the Pecos River near the New Mexico state line. Base flows during the irrigation season were insufficient to meet irrigation rights if available at all, and storage of flood waters was necessary to provide for irrigation uses. The Pecos Valley of Texas Water Users Association in 1916 sent a petition to the Secretary of the Interior requesting engineering and financial aid to construct Red Bluff Dam near the state line and to rehabilitate irrigation works in Texas, and also requesting the federal government to arbitrate water rights and supervise the apportionment of Pecos River water between users in New Mexico and Texas and among the users in Texas. No federal assistance was available at that time, however, due to available funds

going to other Reclamation projects already underway and the involvement of the U.S. in World War I.

In 1923, representatives of New Mexico, Texas and the United States began negotiations in an effort to solve problems that arose involving the interests of both states in the Pecos River Basin. A compact was negotiated and signed in 1925, and was subsequently ratified by the legislatures of both states. However, the Governor of New Mexico vetoed the ratification. The New Mexico legislature in 1933 ratified an amended version of the 1925 compact, but final approval of the amended compact did not occur.

By the early 1930s, New Mexico irrigators proposed construction of Alamogordo Dam and Reservoir (now named Fort Sumner Reservoir) to provide replacement storage for silted McMillan Reservoir of the Carlsbad Irrigation Project. Texas irrigators opposed the proposed Alamogordo Reservoir, and New Mexico irrigators opposed the proposed Red Bluff Reservoir at the state line which would impound for use in Texas water that had been appropriated for use in New Mexico but that had to be passed downstream to Texas because of inadequate storage facilities upriver. The Secretary of the Interior in 1935 suggested that the two states settle their differences or risk both proposed projects. Representatives of the Carlsbad Irrigation District in New Mexico and the Red Bluff Water Power Control District in Texas and the US Senators of the two states subsequently signed the Alamogordo Agreement, which provided for construction of both Alamogordo and Red Bluff dams, with New Mexico to continue to pass downstream to Texas the same proportion of floodwaters originating above the Carlsbad Project that had reached Texas during the previous twenty years. The Alamogordo Agreement also contemplated the subsequent negotiation of a compact between New Mexico and Texas incorporating this principle. Both dams were constructed in the late 1930s. Also, large-scale ground water development for irrigation uses in the Roswell Basin occurred during the late 1930s and 1940s.

The two states and federal agencies jointly participated in the Pecos River Joint Investigation between 1938 and 1942 to provide material to aid in compact negotiations between the states. Compact negotiations were reinitiated in 1943, and the resulting Pecos River Compact was signed by New Mexico and Texas in 1948 and ratified by the respective state legislatures and approved by Congress in 1949. The

compact provides for a commission that is comprised of a commissioner from each state and a federally appointed commissioner to administer its provisions. New Mexico's Pecos River Compact commissioner is appointed by the Governor. The compact in essence apportions the consumptive use of the waters of the Pecos River by limiting the development of floodwaters in New Mexico after 1946 as a result of the Article III(a) limit on depleting state line flows.

Article III(a) of the Pecos River Compact provides that New Mexico shall not deplete by man's activities the flow of the Pecos River at the New Mexico-Texas state line below an amount which will give to Texas a quantity of water equivalent to that available to Texas under the 1947 condition. The Pecos River Commission was unable to make determinations as to whether New Mexico was in compliance with Article III(a) of the compact, and Texas in 1974 submitted to the US Supreme Court a complaint that asserted that New Mexico during the period 1950-1972 had not complied with Article III(a) of the Pecos River Compact and had under-delivered at the Texas state line in a cumulated amount of 1.2 million acre-feet of water during the period. The Court accepted the complaint in 1975 (*Texas v. New Mexico*, US Supreme Court No. 65, Original).

After numerous hearings before special masters and oral arguments before the Court from 1978-1987 regarding the interpretation of Article III(a) of the compact, the determination of the 1947 condition and the inflow-outflow methodology for quantifying departures from the 1947 condition, the Court in 1987 issued an opinion which affirmed the special master's determination of an under-delivery by New Mexico on the Pecos River of 340,100 acre-feet from 1950-1983. In 1988, the Court remanded the case to the special master to recommend appropriate monetary damages or terms for water repayment. In July 1989, the states stipulated to a total under-delivery of 45,700 acre-feet for the period 1984-1986 and a total under-delivery of 385,800 acre-feet for 1950-1986.

Texas estimated that as a result of the cumulative under-delivery, the damage to Texas may have been \$51 million and the benefit to New Mexico may have been \$912 million. New Mexico estimated that a conservatively high estimate of the damage to Texas may have been about \$8 million. After hearings before the special master in 1989, Texas requested a negotiated settlement and agreed to release its claims for all equitable or legal relief arising out of New

Mexico's violations of the Pecos River Compact for the years 1950-1986 in exchange for \$14 million. The 1990 Legislature appropriated the funds, and payment was made to Texas in 1990.

In 1988, the Court also had adopted the special master's proposed amended decree for operation of the Pecos River Compact and appointed a river master to compute annual compact compliance under the terms of the decree, beginning with the year 1987. The decree directs the river master to follow the procedures in a river master's manual to account deliveries at the Texas state line. The decree approved the river master's manual and also provided a procedure for making modifications to the manual. The decree permits New Mexico to accumulate over-deliveries, but not to accumulate under-deliveries that are in excess of accumulated over-deliveries. Net shortfalls in delivery must be paid back within a six-month period, mainly during the non-irrigation season, following the river master's determination of a net shortfall and approval of a shortfall repayment plan. New Mexico during the period 1988-1993 filed with the river master and debated six motions to modify certain computational procedures in the river master's manual so that resultant computed net shortfalls might better reflect shortfalls caused by man's activities in New Mexico, as opposed to other causes such as nature or computational error. Under Article III(a) of the Pecos River Compact, New Mexico is responsible only for shortfalls resulting from man's activities. After considerable argument and deliberation on the motions, the river master adopted the third motion as proposed and approved most of the other motions in amended form. During the time that the third motion was under consideration, the river master used internally inconsistent assumptions for the same variable in two different equations. The use of inconsistent assumptions would have been avoided using the procedures of the third motion adopted in 1992. In 1991, New Mexico filed a motion with the US Supreme Court to review the accounting of state-line delivery for the previous year on the basis that the river master's use of internally inconsistent assumptions is clearly erroneous, but the court denied the motion. Because the decree does not allow for retroactive corrections to previous river master determinations of delivery without agreement of the states, and because Texas refuses to agree to retroactive corrections, the accumulated over-delivery since 1987 has not been increased to reflect retroactive application

of the manual modifications that were approved by the river master.

To date, no net shortfall has been computed. As a result of studies conducted by the State Engineer Office in 1990 to evaluate options that may be used to satisfy water delivery shortfalls in the Pecos River, the New Mexico Legislature beginning in 1991 has appropriated tens of millions of dollars for the Interstate Stream Commission to purchase water rights or lease water from willing sellers for the purpose of increasing state line flows to avoid the occurrence of net shortfalls. The water rights purchase and lease program instituted by the legislature was meant to respond to the State of New Mexico's compact and decree obligations without involuntary and

**Maintaining compact deliveries at the New Mexico-Texas state line in compliance with the decree in *Texas v. New Mexico* is a major continuing and costly challenge for New Mexico.**

uncompensated reductions in water uses. New Mexico's Pecos River Basin water users supported the program because it would avoid a large-scale priority call against junior ground water uses in the Roswell Basin whose pumping effects on river flows are

delayed and because river pumpers between Roswell and Artesia, that the Carlsbad Irrigation District for years charged took district water, would be bought out and removed from the river. Additional water rights acquisitions for this purpose were approved by the Legislature in 2002 as part of a long-term Consensus Plan developed by the Lower Pecos River Basin Committee, an organization comprised of irrigation districts, county and municipal governments, and business representatives along the lower Pecos River, as well as the Bureau of Reclamation. In addition to long-term purchase and retirement of water rights and short-term leasing of water in the lower Pecos River Basin, other components of the Consensus Plan include augmentation pumping from the Roswell artesian aquifer to the Pecos River and water salvage projects. During the period 1991-2004, the State of New Mexico spent approximately \$34 million on Pecos River water rights acquisitions and water leases.

Maintaining compact deliveries at the New Mexico-Texas state line in compliance with the decree in *Texas v. New Mexico* is a major continuing and

costly challenge for New Mexico. In spite of water rights acquisitions and water leases to date, New Mexico has been able to accrue only a limited cumulative over-delivery in state line deliveries through 2005. The challenges for New Mexico and its water users are to fund and implement the long-term Consensus Plan, to avoid the occurrence of a net shortfall and to develop the augmentation well field to either avoid a net shortfall or have some capacity to repay one if necessary. New Mexico must develop a backup shortfall repayment plan. Further, implementation of the Consensus Plan is an attempt to avoid priority administration in the lower Pecos River Basin as desired by the New Mexico legislature. Should the plan fail and a need for priority administration to comply with the decree arise, the State Engineer is in the process of preparing criteria for such administration if needed.

Also, the state-line delivery requirement under the decree in *Texas v. New Mexico*, in addition to hydrology, limits the amount of water available for use in the Pecos River Basin in New Mexico. Non-beneficial consumptive use by invasive salt cedar and Russian olive along the Pecos River depletes water that otherwise could be available for use in New Mexico. Large-scale salt cedar eradication efforts on tens of thousands of acres along the Pecos River have taken place, and cleared areas must be maintained. In addition, the State of New Mexico is working with federal agencies and the Carlsbad Irrigation District to address endangered species habitat needs in the Pecos River without negatively impacting deliveries of water from Fort Sumner Reservoir to the Carlsbad Irrigation Project diversion at Avalon Dam and without negatively impacting state-line flows. Since 1998, Reclamation has offset new depletions resulting from its modification of dam operations and other activities related to conservation of endangered species in the Pecos River, but agreements to continue to do so in the future have not been made.

Since the Court appointed a river master in 1988, the Pecos River Commission has not administered Article III(a) of the Pecos River Compact or actively participated in the accounting of state line deliveries under the decree in *Texas v. New Mexico*. The commission continues to administer other provisions of the compact, such as those relating to data collection. Nothing in the decree prohibits the commission from reaching agreement on accounting of deliveries under Article III(a) of the compact, but

such attempts to date have been futile. Nevertheless, if a net shortfall were to occur, New Mexico may seek from the commission or from the court credit in delivery to reflect retroactive adjustments for manual modifications approved by the river master. Under Article III(a) of the compact, New Mexico should not be held responsible for net shortfalls caused by technical error in accounting state line deliveries, as opposed to man's activities in New Mexico. Further study of the accounting methods in the river master's manual may indicate that additional shortcomings need to be addressed through manual modifications. New Mexico also must remain diligent each year in critically reviewing, and challenging when appropriate, the river master's accounting of deliveries.

## CANADIAN RIVER BASIN

### Canadian River Compact

Studies conducted by the New Mexico State Engineer in 1925 to investigate the amount of water and lands in the Canadian River Basin physically available for storage and irrigation in New Mexico, including available dam sites, concluded that economically feasible development plans might involve costly upstream conservation storage with flood protection to downstream areas. To explore this possibility and to reach agreement with neighboring states on an equitable apportionment of the flow of the Canadian River, a negotiating commission was formed with the States of Arkansas, New Mexico, Oklahoma and Texas participating. In 1926, New Mexico, Oklahoma and Texas signed a compact (Arkansas abstained), but the agreement did not become effective because ratification by the states was not completed.

Conchas Dam, originally authorized as a Works Relief Program project and constructed by the US Army Corps of Engineers, was completed in 1940 to provide storage for water to irrigate lands under the Tucumcari Irrigation Project in New Mexico and flood control. In 1949, the Bureau of Reclamation prepared a report for a project to develop Canadian River waters for irrigation, municipal and industrial uses in Texas. Congress authorized the project, provided that project construction could not commence until the States of New Mexico, Oklahoma and Texas entered a compact apportioning Canadian River waters. Congress also required that a representative of the United States

appointed by the President participate in the negotiations of any such compact.

The Canadian River Compact was signed by New Mexico, Oklahoma and Texas in 1950, was subsequently ratified by the respective state legislatures, and was approved by Congress in 1952. The compact provides for a commission to administer its provisions. New Mexico's Canadian River Compact commissioner is appointed by the Governor. The compact in essence apportions the waters of the Canadian River by limiting conservation storage in each of the signatory states.

Article IV(a) of the Canadian River Compact provides that New Mexico has free and unrestricted use of all waters originating in the drainage basin of the Canadian River above Conchas Dam, and that New Mexico has free and unrestricted use of all waters originating in the drainage basin of the Canadian River below Conchas Dam provided that the amount of conservation storage in New Mexico available for impounding the waters which originate below Conchas Dam shall be limited to an aggregate of 200,000 acre-feet. The compact defines conservation storage as that portion of the capacity of reservoirs available for the storage of water for subsequent release for domestic, municipal, irrigation and industrial uses, and it excludes any portion of the capacity of reservoirs allocated solely to flood control, power production or sediment control.

In the mid 1980s, New Mexico in the drainage of the Canadian River below Conchas Dam enlarged the physical capacity of Ute Reservoir to 246,000 acre-feet and provided operating criteria to administratively limit the amount of capacity available to store water that originates below Conchas Dam to comply with Article IV(b) of the compact. The operating criteria considered New Mexico's right to store in the drainage below Conchas Dam those waters originating in the drainage above Conchas Dam, and also water stored in Ute Reservoir for sediment control purposes. In 1987, Oklahoma and Texas submitted to the US Supreme Court a complaint which alleged that New Mexico had violated Article IV(b) of the Canadian River Compact by building reservoir capacity in excess of 200,000 acre-feet in the drainage of the Canadian River below Conchas Dam. The Court accepted the complaint (*Oklahoma and Texas v. New Mexico*, US Supreme Court No. 109, Original).

After hearings before a special master and oral arguments before the Court from 1988-1991 regarding the interpretation of Article IV(b) of the compact, the Court in 1991 ruled that New Mexico may not store for conservation purposes water within the physical drainage of the Canadian River below Conchas Dam in excess of 200,000 acre-feet, regardless of whether or not some portion of such water originated above Conchas Dam. As a result of the ruling, New Mexico would have to increase storage capacity at or above Conchas Dam to more fully utilize the water originating above Conchas Dam, the use of which New Mexico remains entitled to under the compact.

After an additional hearing before the special master in 1992, the Court in 1993 adopted a stipulated judgment and decree that included the Court's 1991 ruling, a schedule for operating Ute Reservoir, releases of water from Ute Reservoir stored in excess of the operating schedule, and payments totaling \$400,000 from New Mexico to Oklahoma and Texas in exchange for their release of claims for all equitable and legal relief arising out of New Mexico's violation of the compact during 1987-1993. Current compliance with the decree basically requires updating the allowable storage level in Ute Reservoir annually for estimated sediment deposition and for any changes in storage capacities of other reservoirs located within the physical drainage of the Canadian River below Conchas Dam and releasing water in excess of the allowable storage level at the maximum physical release capacity or on an alternate schedule if requested by Texas.

## CONCLUDING REMARKS

Implementing and complying with interstate compacts and associated court decrees and federal laws continues to be a challenge. Many technical details and other administrative issues remain to be resolved by New Mexico and the other states with which it has entered compacts. In some instances, resolution and certainty as to how much water a state may develop has come through litigation. Nevertheless, the compacts to which New Mexico is a party and related agreements have, for the most part, allowed New Mexico and other states to move forward with projects to develop and use water.

In the years ahead, the State of New Mexico will continue to have challenges. New Mexico must meet its delivery obligations under the Rio Grande Compact

and under the decree in *Texas v. New Mexico* on the Pecos River. New Mexico also must work with the other Colorado River Basin states to resolve issues relating to the interpretation and implementation of Article III of the Colorado River Compact, and to promote reservoir operations, including at Lakes Mead and Powell, which protect the yield available to the Upper Basin at Lee Ferry under Article III of the compact. The Colorado River Basin states continue to work with the United States to identify and promote the implementation of measures

**...the State has the challenge to negotiate Indian water rights settlements that stay within the framework of the compacts, preferably while not displacing existing uses, and to get such settlements authorized and funded by Congress.**

needed to meet salinity standards in the Colorado River. Threats to the availability of water for uses in New Mexico resulting from application of the Endangered Species Act within the United States or from Colorado River delta issues must be addressed. Also, the State has the challenge to negotiate Indian water rights settlements that stay within the framework of the compacts, preferably while not displacing existing uses, and to get such settlements authorized and funded by Congress.

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Note: This paper was compiled in large part from OSE/ISC annual reports.