

SURFACE WATER RESOURCES DEVELOPMENT, APPORTIONMENT,
ADMINISTRATION AND MANAGEMENT MILESTONES

Philip B. Mutz

Interstate Stream Engineer

N.M. Interstate Stream Commission

Tom Bahr asked me to sketch the legislative history of developments on the river. Apparently he had in mind that this presentation could possibly give some perspective to the presentations that follow. Accordingly, I have thrown in several other bits of history, and some of the appendage documents and events, which make up the story of the development, apportionment, administration, and management of the surface water supply of the Rio Grande Basin above Ft. Quitman, Texas.

The Rio Grande Basin above Ft. Quitman contains about 32,000 square miles if the closed drainage basins which do not contribute significant amounts of water to the stream system are not included.

The theme of this conference is managing the Rio Grande during recent "water surplus" years. A measure of the "water surplus" can be taken by comparing the 1984, 1985 and 1986 flows, the latter year being partially estimated, with

average flows at three locations on the river:

	Del Norte, CO	Otowi Bridge	Below Caballo Res
1984	762,000AF/117%	1,380,000AF/125%	655,000AF/106%
1985	1,010,400AF/154%	1,993,000AF/181%	677,000AF/109%
1986	940,000AF/150%	1,650,000AF/150%	1,020,000AF/164%

Development of the water resources of this river system almost antedates the history. The Chamita ditch on Rio Chama in New Mexico has a documented priority date of 1724. In Colorado the earliest documented water right in the state, 1852, is the San Luis Peoples Ditch in the Rio Grande Basin. The water law of the New Mexico Territory was initiated by Stephen Kearny in 1846. The Kearny Code provided that the laws theretofore enforced concerning water courses would continue in force except that such regulation as was required was transferred from officials of the villages to those of the counties.

The New Mexico Territorial Supreme Court, in 1898, said that the doctrine of prior appropriation is and always has been the settled law of this territory by legislation, custom and judicial decision. It said further, in effect, that the public interest required that that be the settled law of the territory.

The Colorado law dates from 1872 and embraces the appropriation doctrine.

Jumping out of chronological order for the purpose of

enhancing comity on the river, the Texas Code, which does not embrace the appropriation doctrine to the extent that the Colorado and New Mexico Codes do, originated in 1913.

In the 1700s and the 1800s, Spanish Colonization in the Espanola and Middle valleys and in the Elephant Butte-Ft. Quitman section was accompanied by the expansion of irrigation. In the 1880s, extensive irrigation development began in Colorado. In the early 1890s, water shortages began to occur in the Mesilla and El Paso valleys and the people near Juarez complained to their government. The Mexican government filed a claim for damages against the United States. As a result, the United States Department of State instituted an investigation through its International Boundary Commission. The report of this investigation, best known as the Follett Report, covers comprehensively and in detail the stream flow, irrigated areas, canal systems and diversions for every section of the basin from the San Luis Valley to El Paso and is published in United States Senate Document 229, 55th Congress, 2nd Session.

An outcome of the Follett investigation was the "embargo" of 1896, which was an order by the Secretary of the Interior preventing further irrigation development of any magnitude in Colorado and New Mexico through suspension of all applications for rights-of-way across public lands for use of Rio Grande water. With some modification in

1907, this embargo remained in effect until May, 1925, when it was lifted.

In 1902, the United States Congress enacted legislation providing for the construction of irrigation works for the reclamation of arid lands to be known as the Reclamation Act. The legislation also provides that all monies received from the sale and disposal of the public lands in 16 western states is to be reserved and appropriated in a special fund to be known as the Reclamation Fund. Subsequently, the state of Texas became the "seventeenth state" under the Reclamation Act. That act, as supplemented and amended, constitutes the federal reclamation and related laws, the authority for the authorization and construction of federal reclamation projects in the 17 western states.

In 1905, Congress enacted legislation relating to the construction of a dam on the Rio Grande, providing for a reclamation project in New Mexico and Texas to be supplied from the reservoir and extending the provisions of the Reclamation Act to that portion of the state of Texas which can be irrigated from the reservoir. Elephant Butte Dam was completed in 1916 with a New Mexico water right initiated by the Secretary of the Interior carrying a priority date of 1906. Its priority antedates that of any of the major and most of the small reservoirs constructed in the Rio Grande system in New Mexico and Colorado.

In 1906, the United States and Mexico entered a treaty, another outgrowth of the 1896 Follett Report, which provides that the United States shall deliver on a schedule at the International Dam on the Rio Grande at Juarez, Mexico, 60,000 acre-feet of water per year. The multi-purpose functions of Elephant Butte Reservoir include the delivery of water to meet the Mexican Treaty.

New Mexico's Surface Water Code, as amended, was enacted in substantially its present form in 1907. The code recognized all rights initiated prior to March 19, 1907, its effective date.

In the period from 1900 to 1935, a number of investigations of the water supply and potential works for its development were conducted on various segments of the river basin.

Meanwhile, Colorado was striving to secure permission to build reservoirs under the embargo. Permission was finally obtained to build several reservoirs in Colorado, and during the period 1909-1978, nine reservoirs were built on the Rio Grande and its tributaries having an aggregate capacity of about 280,000 acre-feet. Costilla Reservoir, capacity 15,000 acre-feet, was built in New Mexico in 1917 for irrigation of lands in Colorado and New Mexico. These reservoirs, built by local organizations, were the product of the 1907 modification of the "embargo."

In 1918, the Elephant Butte Irrigation District, which distributes water from the Rio Grande Project in New Mexico and the El Paso County Water Improvement District No. 1, which performs the same function in Texas, signed contracts with the Department of the Interior for the repayment to the federal government of the project costs allocated to them. Those contracts provide that the New Mexico portion of the Rio Grande Project constitutes 57 percent, of the total project and the Texas portion constitutes 43 percent. Subsequent amendatory contracts have all retained these same percentages.

About 1918, active interest developed in reclamation in the Middle Valley of New Mexico, extending from Cochiti to San Marcial. Much of the irrigated area had become badly seeped, the area irrigated had declined and the acreage that was irrigated failed to produce.

With the interstate situation becoming increasingly aggravated, and competition increasing for use of the river among users from Texas to Colorado, some were in favor of attempting to negotiate an interstate compact which would apportion the river's flow. In 1923, the legislatures of Colorado and New Mexico enacted statutes authorizing the appointment of representatives; Texas followed suit. Congress consented to the formation of the Rio Grande Compact Commission, and the president designated a

representative of the United States. The hydrographic studies previously undertaken, principally by the states of Colorado and New Mexico, were still in progress and compact negotiations moved slowly. In 1929, an agreement was reached, temporary in nature and which did not attempt to apportion the river's water; the purpose of the 1929 Rio Grande Compact was to establish a "status quo" on development of the river until a permanent compact could be negotiated.

During the same period of negotiation of the 1929 Compact, under cooperative agreement between the Middle Rio Grande Conservancy District and the Bureau of Reclamation, an extensive investigation of the Middle Valley was conducted. The primary purpose being to determine the probable effect on the water supply for the Rio Grande Project by the construction and operation of the proposed works of the Middle Rio Grande Conservancy District. The District was created in 1925, and issued its final plan for flood control, drainage and irrigation in 1929.

The irrigation and drainage works of the Middle Rio Grande Conservancy District were undertaken and completed by 1935 along with El Vado Dam and Reservoir on the Rio Chama to regulate the water supply to the district. With construction of the works of the district, the available water resources of the Rio Grande above Ft. Quitman were

apparently fully appropriated and conflicts of interest among federal agencies were indicated as was potential violation of the Rio Grande Compact. As a result, the president, in 1935, issued a memorandum to the federal agencies concerned to not approve any application for projects involving large allotments of Rio Grande water above El Paso without securing from the Natural Resources Committee an opinion on all relevant points of view. Also in 1935, the Rio Grande Compact Commission, meeting with the Natural Resources Committee, adopted a resolution requesting the committee to arrange immediately for: 1) a comprehensive investigation of the water resources of the Rio Grande Basin above Ft. Quitman, 2) the past, present and prospective uses and consumption of water in the basin, and 3) opportunities for conserving and augmenting the Water resources by all feasible means; all to assist the Rio Grande Compact Commission in reaching a satisfactory basis for equitable apportionment of the waters of the Rio Grande. The resulting Rio Grande Joint Investigation, completed in 1937, was, and still is, one of the most comprehensive reports on regional planning.

Also, in the banner year of 1935, Texas sued New Mexico in the United States Supreme Court alleging violation of the Rio Grande Compact through construction and operation of El Vado Reservoir. The suit was dismissed in 1939 following

negotiation of the Rio Grande Compact.

Following construction of Elephant Butte Dam, the river channel downstream progressively decreased in capacity to carry flood flows. Also, the river channel always had been unstable and shifting. In 1933, a convention between the United States and Mexico was concluded which proposed: 1) construction of Caballo Reservoir, 2) canalization of the channel of the Rio Grande from Caballo Dam to El Paso, and 3) construction of the American Diversion Dam and Canal to deliver Rio Grande Project water to the El Paso Valley. Caballo Reservoir was completed in 1939 with a total capacity of about 350,000 acre-feet of which 100,000 acre-feet is reserved for control of floods originating downstream from Elephant Butte Dam. The Caballo-El Paso canalization project was also completed as was the American Dam.

Using results of the studies of the Rio Grande Joint Investigation, negotiations in 1937 and early 1938 resulted in the Rio Grande Compact as we know it today. The compact as ratified by the respective state legislatures and the United States Congress and became effective May 31, 1939.

Platoro Reservoir was completed in 1951 on the Conejos River in Colorado by the Bureau of Reclamation pursuant to a congressional authorization in 1940. Platoro Reservoir has multi-purpose functions and the entire capacity of the

reservoir may be used for flood control if necessary.

Two flood and sediment control reservoirs, Jemez Canyon, completed in 1954, and Abiquiu, completed in 1963, were authorized by Congress in 1948 as a part of the Middle Rio Grande Project. That authorization also included channel rectification, involving a low-flow channel extending some 75 miles south of San Acacia into the upper reaches of Elephant Butte Reservoir; a floodway from Cochiti to Elephant Butte Reservoir and a floodway through the city of Truth or Consequences. The legislation also authorizes the U.S. Bureau of Reclamation to maintain the channel of the Rio Grande from Velarde to San Acacia to accommodate flows of about 5,000 cubic feet per second. Under the legislation, the U.S. Army Corps of Engineers constructed flood control levees along sections of the river in the Middle Valley, which are maintained by the Middle Rio Grande Conservancy District.

In 1960, Congress authorized the construction of Cochiti and Galisteo reservoirs, completed in 1975, for flood and sediment control. The 1960 authorization includes operating criteria governing the operation of all four of the Middle Rio Grande Project reservoirs: Jemez Canyon, Abiquiu, Cochiti and Galisteo. The U.S. Army Corps of Engineers operates and maintains the four flood control reservoirs and the authorization also provides that the

corps' operation may depart from the specified criteria with the advice and consent of the Rio Grande Compact Commission.

In 1963, Congress authorized construction of the San Juan-Chama Project to import San Juan River water to the Rio Grande. Heron Reservoir completed in 1970 in the Rio Grande Basin is used solely to store and regulate the imported San Juan-Chama Project water.

Pursuant to the authorizing legislation, a complex accounting procedure has been developed to account for the imported San Juan-Chama Project water, its storage, losses and use in the Rio Grande Basin. The accounting is also necessary for the determination of New Mexico's scheduled and actual delivery of water under the Rio Grande Compact and, therefore, must be approved by the Rio Grande Compact Commission.

In 1964, Congress authorized the establishment and maintenance of a permanent pool of 1200 surface acres in Cochiti Reservoir for fish and wildlife resources and for recreation, the pool to be established and maintained with San Juan-Chama Project water. The pool was established in the winter of 1975-76 and continues to date.

The Closed Basin Division, Colorado, was authorized by Congress in 1972 to provide for the delivery of water to the Rio Grande from the Closed Basin at the northern end of the San Luis Valley. This project was investigated from the

early 1900s, was contemplated in the 1929 Compact, and was dedicated and delivered its first water (a very modest amount) to the Rio Grande in 1985.

The United States Congress in 1974 authorized the establishment of a recreation pool at Elephant Butte Reservoir and its maintenance for a period of 10 years using excess San Juan-Chama Project water. The authorized 50,000 acre-foot recreation pool was established in 1975-76. The authorizing legislation provided that in the event of spill from Elephant Butte Reservoir, the pool would spill first. When it became apparent that spill would occur in 1985, the Rio Grande Compact Commission arranged to transfer, by exchange, the pool to Abiquiu Reservoir with the agreement of the U.S. Army Corps of Engineers. Later the corps could not maintain the pool in Abiquiu Reservoir because of the lack of rights-of-way and the Rio Grande Compact Commission requested, and the corps agreed, to move it to Cochiti Reservoir.

In 1986, there remained no viable option to store the Elephant Butte recreation pool, including the possibility to store at least a part of it in Platoro Reservoir in Colorado. As a result, the pool spilled in August 1986.

The diversion and terminal storage elements of the San Juan-Chama Project were completed in 1971. The city of Albuquerque has a contract for 48,000 acre-feet of water,

about one-half of the project yield. Albuquerque has not had the need to use all of its contracted water to date, which is also true for a number of the other contractors. Congress enacted legislation in 1981 authorizing storage of San Juan-Chama Project water in Abiquiu and Elephant Butte reservoirs. Albuquerque stored some water in Elephant Butte, but that amount was exchanged to Abiquiu in 1985 when the Elephant Butte recreation pool was moved. Otherwise it would have spilled. The 200,000 acre-feet of authorized storage in Abiquiu Reservoir was filled in 1985 and remains full.

The Middle Rio Grande Conservancy District stores its excess San Juan-Chama Project water in El Vado and Abiquiu reservoirs, which is also the case for most of the contractors. By contract, by exchange, by sub-contract and by congressional authorization, San Juan-Chama Project water has been stored in most of the major and some of the minor reservoirs in the Rio Grande system in New Mexico.

The Hudspeth County District in Texas has a contract extending only to return flow as it occurs from operation of the Rio Grande Project which it distributes to water users in Hudspeth County. The contract puts no obligation on the Rio Grande Project for delivery of a specific amount of water.

Numerous ditches located upstream from the Middle Rio

Grande Conservancy District divert water from the Rio Grande and its tributaries and most of those in New Mexico are organized as community ditches, which are political subdivisions of the state of New Mexico.

Thus, a multitude of interests can be affected and a plentitude of agencies can be involved in the operation and management of the Rio Grande reservoir and river system.

Operation under the Rio Grande Compact has historically resulted in both Colorado and New Mexico being in a debit status more of the time than otherwise. Operation under the compact also resulted in two United States Supreme Court cases alleging violations of the compact.

The first case, Texas v. New Mexico, was dismissed in 1957 because of the absence of the United States as an indispensable party.

The last case, Texas and New Mexico v. Colorado, was carried under a continuance of the court from 1968 to 1985, provided that each and every year Colorado met its annual delivery obligation of the Rio Grande Compact. The record shows that Colorado each year met that annual obligation.

Because of the need to provide protection to the city of Truth or Consequences from spills from Elephant Butte Reservoir, the Rio Grande Compact Commission agreed to an operation in 1985 that would allow storage of water in the upstream flood control reservoirs, thus allowing Elephant

Butte Reservoir to maintain some empty space to control floods originating downstream from Cochiti Reservoir. Under that agreement, a procedure to credit upstream storage to Elephant Butte Reservoir was devised. Pursuant to the accounting procedure, Elephant Butte Reservoir would have actually spilled on June 13, 1985, had not upstream storage been made to provide flood protection below Elephant Butte Dam. This was the first spill of water from Elephant Butte Reservoir since the actual spill in 1947.

At a special meeting held July 2, 1985, the Rio Grande Compact Commission found that actual spill had occurred and that the spill had wiped out the debits of Colorado and New Mexico. The commission also adopted a resolution requesting the attorneys general of the states to petition the United States Supreme Court for dismissal of the case, New Mexico and Texas v. Colorado, which was done.

Operation of the upstream flood control reservoirs in 1985 and 1986 to prevent flood damage resulted in the maximum amount of water ever stored in Abiquiu and Cochiti reservoirs with unavoidable environmental consequences which were of deep concern to some citizens.

Those concerns included impacts on the fishing and perching opportunities for bald eagles, portions of Bandelier National Monument and white water rafting on Rio Chama above Abiquiu Reservoir. As a result of the latter, a

suit styled State of New Mexico v. the Bureau of Reclamation and the U.S. Army Corps of Engineers was filed by the district attorney for the First Judicial District in Santa Fe. The suit alleged, among other things, improper operation of the reservoirs and violation of the Rio Chama Scenic and Pastoral Act, which is legislation enacted by the New Mexico Legislature in 1977. The suit was dismissed by the District Court but has been appealed by the plaintiff in the Tenth Circuit Court of Appeals.