

THE SAN JUAN-CHAMA PROJECT: FOUNDATION FOR ADMINISTRATION

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In the preparation of this paper, I am taking the usual license of a speaker to adjust the title assigned him so that it meets his own pre-conceptions of what the audience should hear. My original assignment, and the topic as it appears in your program, indicate that I will discuss accounting procedures under the San Juan-Chama Project. When Dr. Stucky first approached me with that topic, I advised him that I was not competent to speak on the technical aspects of water accounting under the San Juan-Chama Project. He assured me that I should not be concerned with that disability. In fact, he said, "If lawyers were restricted to speaking on topics within their fields of competence, they would never have an opportunity to appear on the programs of the New Mexico Water Conference." With that sobering knowledge engraved on my mind, I determined at least to mitigate my risks by broadening the subject given me to include a consideration of the nature of the San Juan-Chama legislation, a brief discussion of the project itself, and a general consideration of the problems of administering imported water in the framework of a reclamation project on an interstate stream subject to the diverse claims of many people within three states and two countries.

While many of you are more familiar with the project and its origin than I am, I will risk boring you with a brief resume of the legislation under which it was authorized. The San Juan-Chama Project had been the dream of many New Mexicans for decades before its authorization by Public Law 87-483, which became law on June 13, 1962. It was authorized as a participating project in the Upper Colorado River Storage Project, and will make possible an average annual diversion of 110,000 acre-feet of water from the upper tributaries of the San Juan River in the Upper Colorado River Basin. The waters will be collected from these tributary stream systems in the State of Colorado, and carried through tunnels penetrating the Continental Divide into a reservoir on Willow Creek, a tributary of the Rio Chama in New Mexico.

The imported waters will be used to serve the City of Albuquerque with municipal water, to provide supplemental water for irrigation of lands in the Middle Rio Grande Conservancy District, and to replace depletions in the Rio Grande Basin caused by projects for irrigation and other purposes on several tributaries of the Rio Grande in New Mexico. Depending upon the ultimate determination of feasibility and the desire of the local people to participate in these tributary units, some of the waters may ultimately be used for projects other than the four tributary units specifically authorized by the legislation.

Before discussing the problems of handling water imported into the Rio Grande Basin, brief consideration should be given to the legal and

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institutional basis of water law and administration in New Mexico. Our water law is based on the doctrine of prior appropriation. The New Mexico Constitution provides that beneficial use is the basis, the measure and the limit of the right to the use of public waters, and that priority in time of appropriation gives the better right. All of the groundwaters and surface waters of the State belong to the public and are subject to appropriation for beneficial use in accordance with law under the general supervision of the State Engineer. The basic law applies both to surface waters of the Rio Grande and to underground waters in the Basin. Our courts have ruled that the State Engineer has the authority and the duty to recognize the relationship of surface and underground waters in his administration of the law, and he is required to protect the rights of both surface and underground water users.

In addition to the water law embedded in the New Mexico Constitution and statutes, an important part of the law of the river is also found in the Rio Grande Compact of 1938. This interstate compact, entered into between the states of Colorado, New Mexico and Texas, divides the water of the Rio Grande among the three states. Thus, under the law of the river, the State of New Mexico has the dual obligation to supervise the distribution of the waters of the Rio Grande among the rightful owners of water rights within the State and to secure performance of the State's obligation to its downstream neighbors under the Rio Grande Compact. This is a complex and difficult task even when dealing only with the native waters of the Rio Grande. The question posed by my assigned topic is, how can we administer the native waters together with the imported waters of the San Juan-Chama Project when those waters are commingled? I will attempt to respond to that question later, but first let us take a closer look at the project itself, and the key provisions of the authorizing legislation.

As indicated above, the San Juan-Chama Project was authorized in 1962. However, its construction was contemplated by the Colorado River Storage Project Act of 1956 (P.L. 485). The latter law contained several provisions governing the construction and operation of the project. It provided that project storage for control and regulation of water imported from the San Juan River should be limited to a single off-stream dam and reservoir on a tributary of the Rio Chama. The Project Act also specified that this reservoir could be used only for control and regulation of the water imported, and that no power facilities could be constructed. Further, the 1956 act specified that the project must "be operated at all times by the Bureau of Reclamation of the Department of the Interior in strict compliance with the Rio Grande Compact . . . ."

The diversion and conveyance facilities of the project are virtually complete, the Heron Reservoir, the off-stream storage facility on a tributary of the Rio Chama, is scheduled for completion in fiscal year 1971.

The Bureau of Reclamation's definite plan report on the project contemplates that the yield from Heron Reservoir will be allocated as follows:

City of Albuquerque	48,200 acre-feet
Cochiti Reservoir	5,000 acre-feet
Middle Rio Grande	
Conservancy District	20,900 acre-feet
Tributary units	27,700 acre-feet

The 5,000 acre-feet assigned to Cochiti Reservoir is for recreation and fish and wildlife purposes, as authorized by Public Law 88-293.

There were four tributary units authorized by the legislation. The Cerro Unit is adjacent to the Red River, some 27 miles North of Taos. It originally called for the construction of a reservoir on the Red River. The reservoir site has since been found to be geologically infeasible, and the Bureau of Reclamation is studying the possibility of alternative means of constructing a feasible Cerro Unit. The second tributary project is the Taos Unit. It originally contemplated the use of two reservoirs, one of which has since been found to be physically infeasible. Again, the Bureau of Reclamation is evaluating the potential for redesign of the project by use of groundwater in a portion of the project area. The Indian Camp Dam element is still a feature of the Taos Unit.

The third tributary project is the Llano Unit, which would be constructed along the east side of the Rio Grande above its confluence with the Rio Chama. The Pojoaque Unit, about 16 miles north of the City of Santa Fe, would involve as its principal storage feature the Nambe Falls Dam on Nambe Creek, a tributary of the Rio Grande. It is anticipated that portions of the water allocated to the authorized tributary units will be released and made available for other units or purposes. The Bureau of Reclamation and the New Mexico Interstate Stream Commission are evaluating other potential irrigation, municipal, industrial and recreational customers who might use the water so released.

It will be noted that none of the authorized tributary units could physically receive and use waters released from Heron Reservoir. All the contemplated units would operate under the principle of exchange - that is, they would use additional native waters of the Rio Grande, the imported waters being released from Heron Reservoir to offset the effects on the stream.

From our brief discussion of the law of the river, it should be apparent that existing water users in New Mexico, and below New Mexico on the Rio Grande, are entitled to be protected against any new use of the native waters of the Rio Grande which would be to their detriment. Therefore, it is important that, as waters imported from the San Juan River are released from Heron Reservoir, they be delivered downstream in amounts sufficient to offset the effects of the new uses caused by tributary units. It is also important that, as these imported waters

are released, they be withheld from those who have no rights therein, but do have physical access to the waters of the Rio Chama and the Rio Grande. The Bureau of Reclamation and the State must have the power to insure that water is delivered to the rightful owners thereof in the Middle Rio Grande Conservancy District, the City of Albuquerque, and the downstream users in New Mexico and Texas. If the existing rights in the native waters and the new rights in the tributary units are to be fully protected, it is also necessary that means be devised to quantify and account the incremental losses of water resulting from its storage and transportation through the system to the ultimate user. It is to these problems of administration and accounting that we now turn.

The San Juan-Chama Project represents one of the first major inter-basin transfers of water in New Mexico. In a physical sense, it also constitutes an interstate transfer of water, although the water imported is within New Mexico's allocation under the Upper Colorado River Basin Compact. The legal and institutional mechanisms employed by New Mexico in preparation for this importation project should serve as a model for any future large-scale water-importation schemes in which the State may participate.

The first fundamental prerequisite of administering the combined native and imported waters is the ability of the State to regulate and control the use of native waters of the Rio Grande system. Under our general law, the New Mexico State Engineer has general jurisdiction over the diversion and use of surface waters of the Rio Grande. The related groundwaters of the system were also brought within his jurisdiction by the declaration of the Rio Grande Underground Water Basin in 1956, pursuant to State law.

Even though the State Engineer's jurisdiction has attached to both surface and related underground waters, it would not be possible to administer those waters if existing water rights were not defined. The second prerequisite to successful administration is the binding, legal definition of existing water rights. In order to be in a position to identify and quantify existing water rights, the State Engineer has initiated a series of general water-rights adjudication suits under the authority of the New Mexico statutes.

A water-rights adjudication suit is a proceeding, usually initiated by the State Engineer, in which are joined all of the claimants of water rights within a stream system. In these massive lawsuits, sometimes involving several thousand parties, the Court defines all aspects of the water rights within the system. In the language of the statute (Section 75-4-8), the decree in such a case must declare, as to the water right adjudged each party, "...the priority, amount, purpose, periods and place of use, and as to water use for irrigation, except as otherwise provided in this article, the specific tract of land to which it shall be appurtenant, together with such other conditions as may be necessary to define the right and its priority."

These water-rights adjudication suits have many of the attributes of giant quiet-title suits with respect to water rights.

One of the first adjudication suits initiated was that on the Rio Chama between Abiquiu Dam and the confluence of the Rio Chama with the Rio Grande. This litigation is almost 100% complete with respect to the individual water rights therein. Similar law-suits are under way, or about to be under way, on each of the tributaries for which tributary units are authorized. Upon the completion of these omnibus water-rights suits, the State Engineer will be in a position to limit all water users to the use of water to which they are entitled under their existing rights or under contracts with the Secretary of the Interior for water under the San Juan-Chama Project.

With administrative jurisdiction over both surface and underground waters, and with the completion of the adjudication suits defining the nature and extent of water rights, the State will be in a position to meet two of the prerequisites for management of the commingled native and imported waters. The third strand in the fabric of administration is the accounting procedure itself - that is, the statutory or administrative method for off-setting project depletions with releases and deliveries of water from Heron Reservoir. For these procedures, we must look again to the basic legislation and to actions taken to implement it by the Bureau of Reclamation and the affected states since the adoption of the legislation.

Section 8 of the San Juan-Chama Act outlines operating conditions to be met. It requires that details of project operation essential to accounting for San Juan and Rio Grande flows shall be developed through the joint efforts of the Rio Grande Compact Commission, the Upper Colorado River Commission, the appropriate agencies of the United States and of the states of Colorado, New Mexico and Texas, and the various project entities. The same section of the act requires that Texas and New Mexico agree on a system of gaging devices and measurements "to determine the present effects of tributary irrigation, as well as present river channel losses." Pursuant to the last-mentioned provision, the states of Texas and New Mexico, through their Rio Grande Compact commissioners entered into a "Memorandum of Agreement" dated November 7, 1962, wherein they agreed upon all of the measuring stations to be maintained for the purposes of the San Juan-Chama Project Act. The act also requires that all works of the project shall be constructed so as to permit physical compliance with all provisions of the Rio Grande Compact.

A report was prepared by the Bureau of Reclamation entitled "Accounting of Water-San Juan-Chama Project, Colorado-New Mexico", February 1963. This report represents a preliminary statement of the techniques to be applied in the accounting of the waters of the Rio Grande and the San Juan involved in the subject project. In summary, the report indicates that the future flow at the Compact gaging station at Otowi Bridge will be kept equal to the Rio Grande flows prior to project operation, plus the additional San Juan-Chama water conveyed past that point for use by

the City of Albuquerque and the Middle Rio Grande Conservancy District under their contracts with the Secretary of the Interior. Diversions of water from the Colorado River system will be so restricted as to assure compliance with the Upper Colorado River Compact, and the provisions of the San Juan-Chama Project authorization. The imported waters of the San Juan River system will bear the incremental losses resulting from storage and transportation of those imported waters, thus holding harmless the downstream water users in New Mexico and Texas.

As the project construction moves toward completion, and as the plans for tributary units and other uses under the project are advanced, it will be continually necessary to update the criteria for administration and accounting of water. This process is recognized by the Bureau of Reclamation in the aforementioned report of February 1963, wherein it is stated as follows: "The details of the accounting of water described herein must be subject to adjustments that may be indicated by changing conditions, changes in project plans and operations, and additional and improved engineering knowledge and data. When such adjustments may be indicated to be appropriate, the Bureau of Reclamation will consult with the States of Colorado, New Mexico, and Texas and the project entities before implementing adjustments."

While the details of accounting will change from time to time, it is our view that New Mexico has provided a solid foundation for administration by means of its law and the institutions arising out of that law, and by the process of water-rights adjudication. The existence of these laws and this system of administration provide assurance that there will be continued and improved opportunity for the development of our water resources. Further, this development will be accomplished with full protection of existing water-right owners within the State of New Mexico, with full recognition of our solemn obligations under the Rio Grande Compact, and with security for the investment of the United States in this project.