

AVOIDING A TRAIN WRECK IN THE SAN JUAN RIVER BASIN

John W. Leeper, P.E.

Civil Engineer

Navajo Nation Department of Water Resources

The San Juan River is a tributary to the Colorado River. In New Mexico and Colorado the San Juan River includes flows from six streams including the San Juan, Rio Blanco, Los Pinos, Animas, La Plata and the Mancos Rivers. The San Juan River flows either through or along the boundary of the Navajo Indian Reservation. The average undepleted flow of the San Juan River below Shiprock, New Mexico is approximately 1.7 million acre-feet per year and the average gage flow is approximately 1.3 million acre-feet. The Law of the River, treaty and statutory obligations to Indian tribes, federal mandates to protect endangered species and water development interests appear to be on a collision course. The struggle over water development in the San Juan River Basin highlights conflicting federal responsibilities, as well as conflicting bodies of law.

THE LAW OF THE RIVER

Allocation of water in the Colorado River Basin is subject to the 1922 Colorado River Compact, the 1944 Mexican Water Treaty, the Upper Colorado River Basin Compact of 1949, the Colorado River Storage Project Act of 1956, the California Limitation Act, the Boulder Canyon Project Act, the Central Arizona Project Act, and others. These agreements are collectively known as the "Law of the River" and they largely control the distribution of water in the Colorado River Basin.

Based on the "Law of the River," Arizona was allocated 50,000 acre-feet of depletion from the Upper Basin. Approximately 34,000 acre-feet of this water is contracted to the Navajo Generating Station for power generation near the City of Page. Another 2,700 acre-feet is used by the City of Page. Recent annual consumptive use and loss studies conducted by the U.S. Bureau of Reclamation indicate that the entire 50,000 acre-feet allocation may be consumptively used. Neither the Arizona Department of Water Resources nor Navajo Department of Water Resources concur with this conclusion.

New Mexico has an allocation of 11.25 percent of the Upper Basin Colorado River water. Based on the most recent hydrologic determination by the Bureau of Reclamation, New Mexico may deplete 669,000 acre-feet. During the 1970's the New Mexico State Engineer maintained that the State's allocation was 770,000. More recently, the state has estimated the allocation to be 727,000 acre-feet.

Colorado has an allocation of 51.25 percent of the Upper Basin Colorado River water. Based on the most recent hydrologic determination by the Bureau of Reclamation, Colorado may deplete 3,079,000 acre-feet. Colorado is able to utilize Upper Basin water from sources other than the San Juan River. Fortunately for Colorado, this allocation can be supplied by at least two other tributaries. One of the purposes of the Animas-La Plata Project was to enable Colorado to utilize its full compact allocation. A map of the basin is shown in Figure 1.

WATER CLAIMS OF THE INDIAN NATIONS

Four Indian Nations have trust lands within the San Juan River Basin including the Jicarilla Apache, Ute Mountain Ute, Southern Ute and Navajo. And, all four tribes have substantial San Juan River water claims.

Jicarilla Apache

The Jicarilla Apache Water Rights Settlement Act provides 32,000 acre-feet of depletion from the San Juan River. This Act includes 25,500 acre-feet of depletion from Navajo Reservoir and 6,500 acre-feet of depletion from the San Juan Chama Project.

Ute Mountain Ute and Southern Ute

The Colorado Ute Indian Water Rights Settlement Act of 1988 (P.L. 100-585) quantified the federally reserved water rights of the Southern Utes and Ute Mountain Utes. The two Ute tribes agreed to accept Animas-La Plata (ALP) project water in partial fulfillment of their federally reserved water rights. The Ute agreement

includes a deadline of the year 2000 by which project construction must be completed. The Tribes have until the year 2005 to either re-negotiate or litigate their ALP related water rights.

The total ALP project depletion for Indians and non-Indians would be approximately 149,000 acre-feet. The proposed Ridges Basin Reservoir would have an active capacity of 130,000 acre-feet and an inactive storage of 150,000 acre-feet. The Bureau of Reclamation estimates that the ALP will cost approximately 710 million dollars. Based on the supplement to the 1980 Final Environmental Impact Statement, the ALP would provide the following volumes of water to the two Ute tribes:

Southern Ute	
Municipal and Industrial	26,500 acre-feet
Irrigation	3,300 acre-feet
Ute Mountain Ute	
Municipal and Industrial	6,000 acre-feet
Irrigation	26,400 acre-feet

Another 7,600 acre feet of municipal and industrial water would be available to the Navajo Nation.

The ALP has run into intense, and at times bitter, financial, political and environmental challenges. An entire cottage industry has been developed around support for, and opposition to, the ALP. Recent legal challenges to the ALP have resulted in a stalemate that will make it impossible to complete construction by the year 2000. To resolve this stalemate, the Secretary of the Interior and the Governor of Colorado initiated the Romer Commission to reach a solution to the long standing controversy surrounding the project. Whether or not this commission will reconcile proponents with opponents remains to be seen.

Navajo

Of the four Indian nations, the Navajo Nation's interest in the San Juan River Basin is the most complex. Based on the Winters Doctrine, Indian reservations are entitled to the water needed to create a permanent homeland. One measure of that water claim is practicably irrigable acreage. Based on that standard, the Navajo Nation could develop a claim that would exceed New Mexico's share under the Law of the River. A Navajo water claim could theoretically include almost the entire two million acre-

foot undepleted flow of the San Juan River. By any standard, the Navajo Nation retains the paramount, but not yet fully quantified water right in the San Juan River. This unquantified right has cast a cloud over Indian and non-Indian development in the basin.

In 1962 Congress passed legislation authorizing the Navajo Indian Irrigation Project (NIIP) and the San Juan Chama Diversion (P.L. 87-483). This legislation describes a project diverting 508,000 acre-feet and irrigating 110,630 acres in eleven blocks. Based on this legislation, the San Juan Chama Diversion diverts an average of 110,000 acre-feet of water from the San Juan River Basin to the Rio Grande Basin. The Navajo Nation has objected to the notion that NIIP extinguished the tribes Winter's claim.

In exchange for a completed NIIP, the Navajo Nation did agree to waive its Winter's claim on 110,000 acre-feet of San Juan Chama diversions. The Navajo Nation also agreed that NIIP will share shortages with other Navajo Reservoir water contractors. To date none of the non-Indian projects have been required to share shortages with NIIP. Volumes have been written on the federal government's unfulfilled promise to the Navajo Nation. Although the San-Juan Chama Diversion was completed in a timely manner, NIIP is over twenty years behind schedule and can only irrigate 60 percent of its total project acreage. Additional questions have been raised regarding decisions by the Bureau of Reclamation and Indian Affairs to reconfigure the irrigation delivery system, reducing its diversion requirement from 508,000 to approximately 360,000 acre-feet.

Unemployment on the Navajo Reservation is several times the national average. Many Navajo families live in poverty. Approximately half the homes in the Eastern Agency lack running water. Consequently, economic development is a priority for the Navajo Nation. And, water is a pre-requisite for economic development. A water project from the San Juan River to Window Rock and the City of Gallup is in the planning stages to address this need. The Navajo Nation has aggressively pursued a french fry plant which would vertically integrate the farming enterprise and result in value added processing and jobs. The Navajo Nation retains two billion tons of proven coal reserves in the San Juan Basin. These reserves will require an ample water supply if they are ever to be developed.

THE IMPACT OF THE ENDANGERED SPECIES ACT

In 1973 Congress passed the Endangered Species Act (ESA). According to Section Seven of this act, before the federal government may make an irrevocable commitment of resources, project participants must consult with the U.S. Fish and Wildlife Service (Service). If the Service determines that a proposed action is likely to jeopardize a listed species, it will render a jeopardy opinion. The parties then attempt to develop a reasonable and prudent alternative that adequately protects the listed species.

In the San Juan River Basin two fish species have been listed as endangered, the Colorado Squawfish and the Razorback Sucker. The service is studying several possible causes of their decline. According to the Service, physical changes have eliminated the native fish from the upper reaches of the River. These changes include the construction of Navajo Dam along with several diversion structures across the River. These structures have segmented the range and blocked upstream migration. Water diversions and dam releases have distorted the natural hydrograph and fluvial environment. In 1962 a fish eradication program associated with the completion of Navajo Dam may have taken its toll on the Native, so called trash, species. In addition, exotic species including trout, bass and catfish may compete with and displace the native fish.

Reasonable and Prudent Alternatives

Both the ALP and NIIP were in consultation at the same time. The 1991 ALP biological opinion resulted in the following reasonable and prudent alternative:

1. The ALP deplete were limited to no more than 57,100 acre-feet of water.
2. Reclamation would contribute to the San Juan River Basin Recovery Implementation Program for approximately seven years of research followed by seven years of implementation. The San Juan River Recovery Implementation Program (SJRRIP) was initiated in 1992.
3. Reclamation would re-operate Navajo Dam to mimic a natural hydrography.

Hydrologic modeling indicated that with the 57,100 acre-feet per year of ALP depletion, a flow release of 300,000 acre-feet of water would be available for the fish 96 percent of the water years. Under full compact depletions, this release would be possible during 33 percent of the water years.

The reasonable and prudent alternative for NIIP was to permit construction of NIIP Blocks 7 and 8. However, the Navajo Nation was not allowed any additional depletion from the River. This feat was accomplished by allocating 16,000 acre-feet of water from three smaller Navajo irrigation projects that are in the Baseline to NIIP, maintaining 8,000 NIIP acres in "conservation acreage," and permitting project wide water shortages. This strategy has kept NIIP construction underway during the seven year research period. Now, the research period is nearing its end and the Nation is looking toward construction of Blocks 9, 10 and 11. This curious result occurred despite the fact that NIIP was authorized in Congress over twenty years before the ALP. As implemented by the Service, the ESA has resulted in a de facto prioritization of water projects based on the date of the initiation of Section Seven consultation.

Impact of the Environmental Baseline

The goals of the San Juan River Recovery Implementation Program are:

1. To recover the Razorback Sucker and Colorado Squawfish, and
2. To proceed with water development in the Basin.

As part of the ALP and NIIP biological opinions, a Section Seven Environmental Baseline was established. This baseline includes state, local and private actions already affecting the species and federal actions that are in place or have completed formal or informal consultation. According to the USFW Service, future water development will not be able to proceed until progress has been made on the recovery.

One unintentional impact of this approach to the baseline is that the impact of the ESA falls disproportionately on the Native American communities. For the most part, water development on the Reservations has lagged far behind the non-Indian development. Now that the

baseline is in place, the Native American water projects have an additional obstacle to overcome.

The baseline established in 1991 included approximately 445,000 acre-feet of depletions in New Mexico, of which 133,000 acre-feet were attributed to NIIP. The 1996 baseline was modified to increase NIIP's depletions to 149,000 acre-feet by re-allocating depletions associated with the smaller Navajo irrigation projects. The current baseline depletions are between 200,000 and 300,000 acre-feet less than the State of New Mexico's depletions allowed under the "Law of the River." Under the current baseline, the Navajo Nation's depletions are limited to less than 180,000 acre-feet per year.

These administratively induced water shortages have forced the Navajo Nation into a very complicated situation. Due to these shortages, every acre-foot of water that is subject to a contract represents one less acre-foot of water available for NIIP. The Nation has been forced to object to Bureau of Reclamation contract renewals for water from Navajo Reservoir. Using releases from Navajo Reservoir as a reasonable and prudent alternative to the ALP depletions has resulted in constraints to NIIP development.

The Navajo Nation is on record supporting the Ute Settlement Act of 1988. To the extent that the ALP is the vehicle that will satisfy the Utes claim, the Navajo Nation is also on record supporting that claim. However, if the Utes decide that they need another vehicle to get their reserve water, the Navajo Nation will support that decision. Non-Indian ALP interests should realize that after the Navajo Nation adjudicates its San Juan River water claim, ALP project water may be junior to the Navajo's water.

It has recently been estimated that a completed NIIP will require at least 270,000 acre-feet of depletion. Based solely on the current baseline, other critically needed Navajo water projects, such as the Navajo Gallup Pipeline Project, would have to cannibalize NIIP in order to proceed. This situation is clearly unacceptable to the Navajo Nation. The current baseline also fails to address the depletions included in the water settlement of the Jicarilla Apaches.

AVOIDING A TRAIN WRECK

Characterizing the conflict in the San Juan River as a train wreck is only a slight exaggeration. Whether or not

there is a train wreck will likely depend on:

1. The progress of the recovery program and the final flow recommendations. The SJRRIP will be making preliminary flow recommendations towards the end of 1997 and final recommendations by mid-1998. A seven year implementation period follows the research period.
2. Whether the ALP can evolve into a configuration that will satisfy federal trust responsibilities, environmental concerns, development interests and fiscal realities.
3. Whether the Navajo Nation can resolve its unquantified water rights in the Basin. As a practical matter, once new non-Indian water uses are established it becomes very unlikely that the water will ever be available to satisfy Indian interests. Consequently, time is working against the interests of the Navajo Nation.

Resolving the conflict in the San Juan River Basin will require three distinct tracks: Litigation, Negotiation, and Regional Planning.

Litigation

The San Juan River General Stream Adjudication was filed in 1975. Since then essentially nothing has happened. All parties agree that litigation is expensive and time consuming. And all parties agree that no one has the time and money to pursue litigation. A hydrographic survey report of the San Juan River Basin in New Mexico could take decades and cost the state millions of dollars. Establishing the Navajo Nation's practicably irrigable acreage could also require millions of dollars. Meanwhile, the scrutiny that these claims receive has increased. Much of the money and technical effort that the Navajo Nation would expend on litigation studies would be much more usefully spent on meeting the basic needs of the Navajo people. At the end of the day, even if the tribe "wins" in litigation, it may only receive a paper water right that will require additional years of negotiation to turn into wet water. However, with all of the conflicting interests, it is difficult to imagine that litigation can be completely avoided. Notices to sue and injunctions have become commonplace in the basin.

Negotiation

When possible, negotiations provide a far superior alternative to litigation. However, the appropriate forums for negotiating these issues do not yet exist. The Romer Commission represents an attempt to bridge the gap between the environmental interests that oppose the ALP and the water development interests that support it.

President Hale, the President of the Navajo Nation, offered to initiate discussions of a negotiated settlement with Governor Johnson of New Mexico. The Governor accepted this offer and directed his staff to develop a document that sets forth an understanding as to the scope of the issues. Unfortunately, many of the parties that are in a position to kill any negotiated settlement may not necessarily be part of the initial discussions. Alternative Dispute Resolution has been recommended as a potential process for bringing together the various parties.

Public Participation

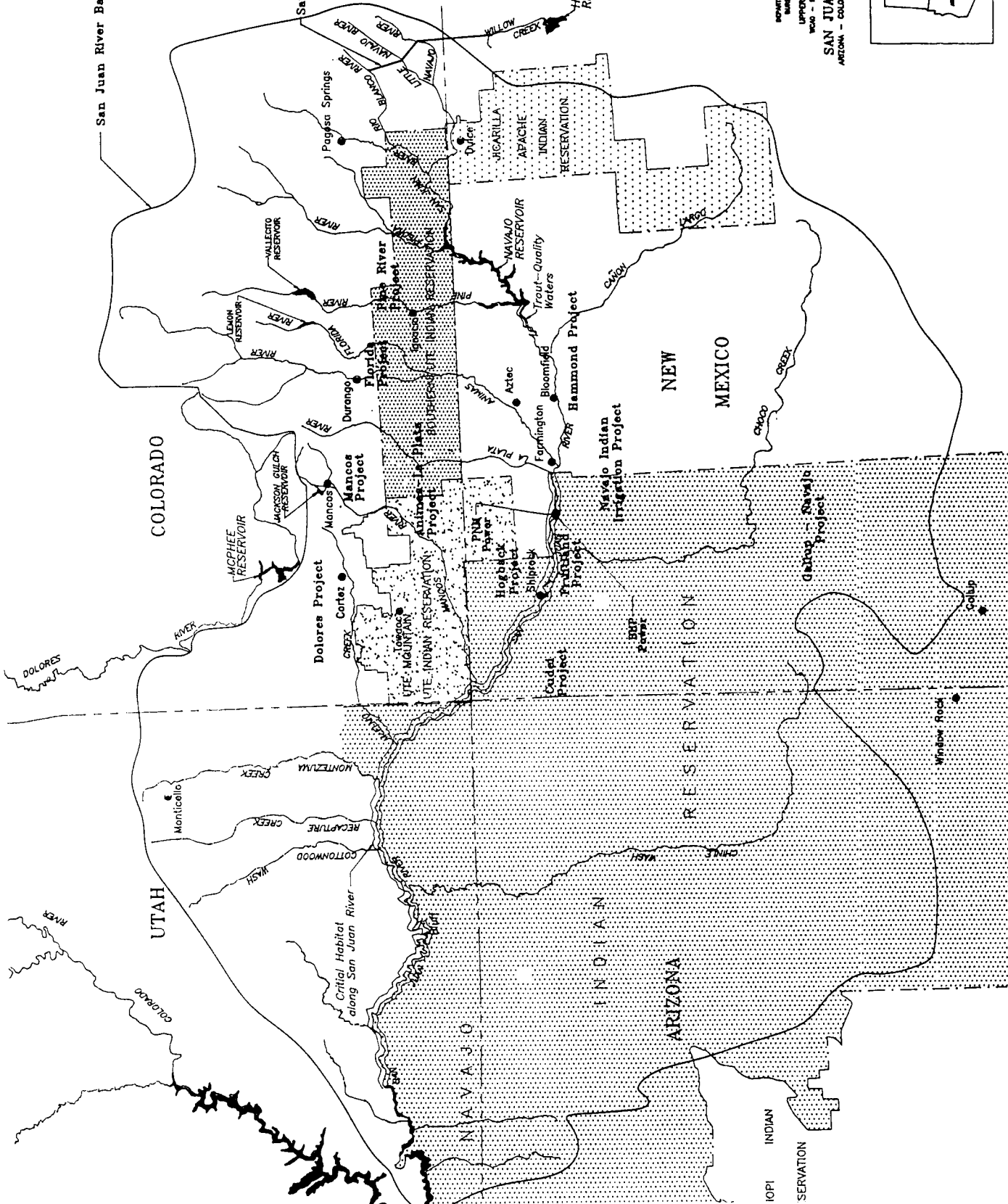
At some point in the water development process public participation and input is crucial. Litigation and negotiation strategies are frequently put together away from broad public scrutiny. The State of New Mexico's

Interstate Stream Commission (ISC) provided limited funding for regional planning workshops. These workshops followed a planning template developed with the support of the ISC. After the first year of effort and dozens of public meetings, the planning team in the San Juan River Basin developed a conceptual framework for Indian and non-Indian public participation. To provide the public with access to the planning process, this effort has been funded for a second year.

John Leeper is a Civil Engineer in the Navajo Nation Department of Water Resources. Over the last ten years as a private consultant, he worked on water rights quantification for several Indian nations, including the Navajo Nation. He received his Ph.D. from Colorado State University.

San Juan River Basin Outline

San Juan - Chama
Project Diversion:



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
UPPER COLORADO REGION
1950 - Revisions Issued - 1946
SAN JUAN RIVER BASIN
ARIZONA - COLORADO - NEW MEXICO - UTAH

