

## WATER LAW AND ECONOMIC DEVELOPMENT

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There is an old saying concerning water and economics indicating that "water either flows downhill or towards money." Indeed, in the Rio Grande Valley of New Mexico, downhill or towards money may well be the same direction. However, regardless of direction, the saying would imply that under the laws of nature, water flows downgrade or downhill; and under the laws of man, water flows towards its highest economic use. This relationship between water law and economic development in New Mexico will be the subject of the remainder of this paper.

### ECONOMIC DEVELOPMENT IN NEW MEXICO

The economic development of a state can be measured in several ways, but probably two of the most widely used indicators are: (1) per capita income, and (2) unemployment rate. New Mexico had an average unemployment rate of 10.1 percent during 1983 compared to a U.S. average of 9.6 percent. As to per capita income, New Mexico ranked 39th in the United States which was lower than all its neighboring states except Utah. Although both the unemployment rate and per capita income have improved of late, these statistics would indicate room for improvement in New Mexico's economy.

If it is desirable to increase New Mexico's economic well being, then four fundamental resources are required. These are natural resources encompassing land, water and energy adequate to support the development desired, and human resources, the trained and willing people who carry out that development. For instance, in order for a utility to generate electricity, it must have land to site its generating station, water to cool and operate the plant, fuel sources to heat the steam, and people to operate the system. Similarly, if the development is agriculture, it will

require land for growing the crop, water to irrigate it, energy to power tractors and pump the water, and, of course, people to operate the system. Although each development requires a different mix of these four resources, each resource is necessary to the enterprise being considered. There are, of course, other considerations affecting economic development, including the quality of life, availability of capital, the quality of universities and many more. However, in the interest of brevity, only those fundamental resources--land, water, energy and people will be discussed here.

How then does New Mexico stack up as being able to provide these resources? As to land, New Mexico is the fifth largest state in the union with a population density that ranks 37th. Compared to other states, it would appear that New Mexico has an abundance of land.

As to energy, in 1981, New Mexico ranked fourth in natural gas production, seventh in crude oil production, thirteenth in coal production, and first in both reserves and production of uranium. Largely because of the coal reserves, New Mexico also has sources of electrical power, which are available and reliable. It would appear that New Mexico is indeed rich in energy resources.

As to human resource requirements, New Mexico has a younger than average work force with lower than average wage rates. Our unemployment rate is usually slightly above the national level while our capability to attract new citizens is enhanced by our sunbelt status. All of these factors would indicate that New Mexico has, or can readily obtain, the human resources required for economic development.

The fourth necessary resource is water. Water availability in arid New Mexico is of paramount importance to all who consider investment in the state. A part of this concern can be attributed to the arid nature of the state, although a part may be attributed to the general perception that there may be a "water crisis" during the 1980s that would rival the "energy crisis" of the 1970s. From a factual standpoint, an estimated 2.2 million acre-feet renewable water supply is available to the state of New Mexico. During 1980, the State Engineer Office estimated that total man-made depletions exceeded 2.5 million acre-feet, indicating a slight

deficit. However, New Mexico is fortunate to have large quantities of ground water in storage. Indeed, it has been estimated that there may be 3 billion acre-feet of fresh ground water in New Mexico. This amount of water would sustain the current deficit for many thousands of years. Admittedly, neither the surface nor ground water supply is uniformly distributed in New Mexico, and local situations differ from statewide averages; but overall, the state would appear to have adequate physical water supplies for economic development.

Of course there have been and will continue to be inherent economic limitations to water related development in New Mexico. New Mexico probably never will enjoy the cheap transportation offered by navigation, and it is doubtful that rain forests will ever be much of a tourist attraction in New Mexico. But despite the obvious limitations of an arid state, New Mexico does have a considerable resource in water for economic development.

There are, however, legal constraints to the development of those water supplies, and it is this relationship that will be investigated in the following section.

#### WATER LAW IN NEW MEXICO

The law that governs water allocation in New Mexico is a mixture of state law, interstate compact, and federal law, each having its own application and area of influence. But regardless of the sources of the law governing water, its major effect on economic development is that of imparting certainty or uncertainty to the acquisition of one of the essential resources in economic development. That essential resource is water, and the certainty factor is one of obtaining the right to develop and maintain a reliable water supply for the duration of the particular development. If methods for acquiring needed water supplies are predictable, then economics will govern economic development. However, if methods are unpredictable, then economic development may be foregone regardless of the economic factors.

The state system of water law is that enunciated by the doctrine of prior appropriation. Prior appropriation has developed throughout the

years to include the following four basic elements that have an impact on economic development:

1. First in time is first in right. The first in time to appropriate water to a beneficial use from a given source obtains a priority of right against all that come later. This appropriation can be to the total exclusion of latecomers if there is only enough water to satisfy the first user.

The element of appropriative right offers a strong incentive to develop a water supply because the initial developer's investment is offered considerable protection against all who come later. This concept also provides the certainty desired for economic development.

2. An appropriative water right is a property right. Although a water right is not an ownership of a certain corpus of water in a stream, it is the right to use a certain quantity of water from the stream. This use right is afforded most of the rights enjoyed by real property in the United States. That is to say, it can be bought, sold, leased, or otherwise transferred, and unlike riparian rights, it can be separated from the land.

The element of an appropriative right provides further incentive for development of a water supply, because once the water right is acquired, it maintains a value beyond its initial use; such as transferring the water rights to other locations and other uses. This element also imparts considerable flexibility to the allocation system in adjusting to changing times and the demand for water.

3. A water right can only be transferred if other water rights are not impaired. Although an appropriative right can be transferred as to type of use, point of diversion, or place of use, it can be transferred only if other existing water right holders are not injured thereby. Even a latecomer has the right to see the stream condition maintained as it existed at the time of his appropriation. Any transfer of a prior right that would impair another existing user's ability to divert will not be allowed or will be conditioned such that the potential injury is alleviated.

The element of an appropriative water right acts to limit transfers of senior water rights to those who will not impair the water rights of juniors. The property transfer concept is subordinated to the desire to provide certainty to the water rights of other appropriators.

4. An appropriative right must be put to beneficial use or it is subject to forfeiture or abandonment. Beneficial use shall be the basis, the measure and the limit of the right to the use of water. Without a use, the water right is subject to statutory forfeiture, or common law abandonment.

The element of an appropriative right requires that the water be put to a beneficial use and maintained in that use or the appropriator will stand to lose the right. This "use it or lose it" concept serves to minimize "dormant" water rights that create uncertainties as to the amount of water actually available in a particular area.

Therefore, from a review of the state prior appropriation system, it is apparent that it has, in the past, provided an incentive to develop the state's water resources; and it currently provides the certainty desired by economic development. If any uncertainties exist in the New Mexico prior appropriation law that might hinder economic development, it would have to be the lack of court adjudication of water rights in developing basins such as the Rio Grande. Other than this uncertainty, the precepts of prior appropriation are largely conducive to furtherance of economic development.

The second level of water law in New Mexico is that of interstate compacts. Eight interstate compacts affect the use of water in New Mexico. These agreements essentially are contracts between states as to the allocation of interstate water. The contracts subsequently have been ratified by the U.S. Congress. Although these compacts do not encourage development as does prior appropriation, they do impart a considerable amount of certainty to the water supplies allocated to each state, whether they are developed immediately or not. Because compacts

essentially are contractual in nature, their terms often are subject to various interpretations that impart some uncertainty in the determination of the water supplies available. This is evident in interpretations of the Pecos River Compact and the Colorado River Compact. Although the various compacts generally create a predictable outcome, the problems associated with the interpretation of those compacts could adversely affect economic development.

A final segment of water law in New Mexico is that of the federal laws affecting water. These laws are exemplified by federal reserved water rights claimed by reservation Indians and the water rights claimed for national forests and national parks. Also to be included in this category are water rights claimed by Pueblo Indians under federal law and the allocation of interstate water under the doctrine of equitable apportionment. It is this category of water rights that imparts the greatest uncertainty to the overall New Mexico water allocation system. Federal reserved and Indian water right claims are, at best, loosely quantified, their flexibility and transferability are largely unknown, and there is no requirement of use. These water rights can lie dormant for centuries only to become valid when a perceived need arises. The water rights themselves are very uncertain and where they coexist with other water rights, that uncertainty is generally transmitted throughout the basin. Likewise, the allocation of interstate waters under the doctrine of equitable apportionment is about as certain as the current consensus of what is equitable. Even with all the factors itemized an "equitable apportionment" is at best a subjective exercise.

To further illustrate the uncertainties involved in the application of federal laws affecting water allocation in New Mexico, let us evaluate the Aamodt and Vermejo cases and their possible effect on economic development.

The Aamodt adjudication suit has been ongoing for some 18 years in an effort to determine the water rights of four Indian pueblos and some 1,000 non-Indians in the Pojoaque River Basin of northern New Mexico. Currently there are about 3,500 acres under irrigation, 1,000 of which is irrigated by Indians and 2,500 by non-Indians. The basin is estimated to

yield slightly in excess of 10,000 acre-feet annually and has been fully appropriated for some time. In addition to the uncertainties associated with the lengthy litigation, the Pueblos claim water rights to more than 30,000 acre-feet per year with a time immemorial priority date. Now, without regard to the merits or the equities of the case, it would seem that those involved in economic development requiring significant water would be prudent in carefully evaluating the situation before investing.

A second example of federal law uncertainty is the pending allocation of interstate waters of the Vermejo River by the U.S. Supreme Court under the doctrine of equitable apportionment. In this case, New Mexico has fully appropriated the waters of the Vermejo River while Colorado belatedly seeks to develop those waters arising in Colorado. Although the case has yet to be resolved, the initial special master's finding would have been an economic windfall for Colorado and an economic burden for New Mexico. Economic development in Colorado would greatly benefit from 4,000 acre-feet of "free" water that could be used for future industrial development, while New Mexico would have to invest heavily in conservation measures just to maintain its existing agricultural economic development. The economic realities of the situation would be in stark contrast to a similar transaction in New Mexico under the doctrine of prior appropriation. Here, an industry could only obtain an agricultural water right if the agricultural interest chose to sell, if the agreed upon price was paid, and if other water rights were not injured by the transfer. It would appear that resolution of this type of conflict under the prior appropriation doctrine would be more certain and equitable than that initially fashioned by the special master.

Therefore, it is apparent that water law can affect economic development in New Mexico depending upon the certainty of acquiring adequate water resources as perceived by the investor. A certain water supply for the life of the project will encourage business to invest according to other economic factors, while an uncertain supply may preclude such investment regardless of other economic factors. It is evident that New Mexico currently has the need for economic development

and the ability to sustain it if our natural resources and human resources are used wisely. However, further definition of federal water rights, especially Indian claims, will be required before the certainty of investment attributed to the prior appropriation system and interstate compacts can again be the cornerstone of economic development in New Mexico.

As this paper began with the old saying that "water either flows downhill or towards money," so should it end with a new one stating that "water law goes downhill if it does not allow for economic development."