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# Legal Restraints and Responses to the Allocation and Distribution of Water

MICHAEL D. WHITE\*

The legal aspects of water allocation and distribution are governed by three variable factors:

1. The law being applied—which could be state, interstate, federal, or international;
2. The legal classification of the water involved—an artificial distinction between surface and underground stream waters on one hand and underground percolating water on the other; and
3. Whether one is dealing with the initial allocation or a second generation allocation of water.

## I. THE LAW BEING APPLIED AND THE LEGAL CLASSIFICATION OF WATER

The first two factors, the law which is being applied and the legal classification of the water involved, are inextricably entangled. As will be explained below, the legal classifications of water depend on the jurisdiction involved. Similarly, how allocation and distribution of waters are made depends in turn on their legal classification. The best way to approach this briar patch is to address in turn each level of law involved: state, interstate, federal, and international.

### A. *State Law*

There are at least 50 different systems of water law in the United States. Although certain jurisdictional types can be fairly easy to identify, no two states are exactly the same. As a starting point, however, most states classify water into two broad categories: stream water and groundwater. Many jurisdictions further divide groundwater into two types: underground streams and percolating water.

#### 1. Stream Water

There are three general types of jurisdictions when it comes to the allocation and distribution of stream water: prior

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appropriation, riparian, and those that mix appropriation and riparian.

(a.) The Appropriation Doctrine

The appropriation doctrine has as its basic tenet the familiar maxim of "first-in-time, first-in-right." This simply means that the person who first uses water will always have the overriding or senior right to continue the use of that water. Similarly, the second person to use water from a stream has the second most senior right. Subsequent users (or "appropriators") are accorded increasingly junior water rights until there is no water available for anyone to use. The phenomenon of a large number of water rights having various degrees of relative seniority is called the priority system.

The prior appropriation doctrine is followed in those portions of the country where water is scarce and, like tax law, it is established primarily by statutes which are frequently interpreted by case law. Nine states recognize a pure prior appropriation doctrine: Alaska, Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming. These nine states are further divided into two jurisdictional types: the mandate version of the prior appropriation doctrine (which now includes only Colorado, but formerly included Montana) and the permit version of the prior appropriation doctrine, which has been adopted by all the other western states.

Under the mandate version as it exists in Colorado, the Constitution establishes an individual right to appropriate water. While water rights may be created by individual acts, the priorities for those rights can be established only by court decree. The process of obtaining a decree or priority for a water right in Colorado is commonly referred to as "adjudication." Adjudications formerly took place in the district courts throughout the State of Colorado. Now, however, they are conducted only in seven "water courts," one for each of the major river basins in the state.

Under the permit version of the prior appropriation doctrine, water rights are not created by individual act but are, instead, awarded in the form of permits and/or certificates by various state administrative officials.

(b.) The Riparian Doctrine

Riparian water right systems exist in approximately thirty

states, most of which are the more humid states in the Midwest and East. In theory, at least, these states are divided into two jurisdictional versions of the riparian doctrine: the natural flow and the reasonable use versions.

The natural flow version, which is rapidly going out of style and may well be extinct in all states by now, embodies the older concept that an owner of land alongside the stream is entitled to the maintenance of that stream in its natural condition with respect to both the quantity and quality of the stream flow.

Since about the turn of the century, courts have acted to modify the harsh rule of the natural flow version which, by its very nature, discouraged or prohibited consumptive uses of water. This judicial tinkering resulted in what is now generally referred to as the reasonable use version of the riparian doctrine. Under the reasonable use version, which is probably applied in all of the riparian jurisdictions by now, each owner of land along a stream is entitled to the reasonable use of the water in the stream. While it does not actively discourage or prohibit consumptive uses of stream water, the reasonable use version does create a great deal of uncertainty, since what is a "reasonable use" is determined on an ad hoc basis and may vary from year to year, depending on the amount of water in the stream as well as the social value of the uses by other riparian owners.

Regardless of the jurisdictional type involved, there are several issues which affect water allocation and distribution in the riparian states. Most of these issues revolve around the question of what is "riparian land." Riparian water rights, of course, are owned only by those persons who own "riparian land," that land which touches a stream. Whether a severed portion of a riparian parcel continues to be considered riparian land regardless of the fact that it no longer touches the stream is a question that is resolved differently in different jurisdictions. In addition, whether water may be used on land which is not riparian is also treated differently among the jurisdictions.

#### (c.) Mixed Jurisdictions

A number of states mix the prior appropriation doctrine and the riparian doctrine. In the West, riparian rights are still

recognized in Kansas, Mississippi, North Dakota, Oklahoma, Oregon, South Dakota, Texas, and Washington. In those states, however, all new water rights are established under the permit version of the prior appropriation doctrine. It appears that in only two western states, California and Nebraska, are new rights perfected under the riparian doctrine.

Finally, many of the states normally thought of as riparian states have recently begun to establish new water rights under some permit system which may incorporate principles from the prior appropriation doctrine. These states include, to some degree, Delaware, Florida, Iowa, Kentucky, Maryland, Minnesota, New Jersey, North Carolina, and Wisconsin.

## 2. Underground Water

In very general terms, underground water is divided into two classifications: underground stream water and percolating water. Underground stream water is generally thought of as that underground water which has discernible flow within ascertainable boundaries. Percolating water is that underground water which oozes through the ground, without perceptible velocity. The presumption in most states, but not in Colorado, is that underground water is presumed to be percolating.

In Colorado, however, all water, including underground water, is presumed to be tributary to a natural stream. The burden of showing the water as nontributary falls on the person who makes that assertion.

In very general terms, underground stream water is treated in most jurisdictions under the same rules that apply to those streams that are on the surface of the earth.

With respect to underground water that is classified as percolating water, however, there are five distinct jurisdictional types which should be considered: the absolute privilege doctrine, the American reasonable use doctrine, the Restatement of Torts reasonable use doctrine, the correlative rights doctrine, and the appropriation doctrine.

The absolute privilege doctrine is the oldest groundwater doctrine in the United States, and appears to provide that the owner of land has an absolute right to pump all the water he can find underneath his land for any purpose whatsoever, whether on or off his overlying land.

The American reasonable use version is similar, but provides that uses off the overlying land may be unreasonable and unlawful if the pumping for those off-site uses injures a neighbor of the overlying landowner.

The Restatement of Torts version of the reasonable use doctrine incorporates a process of balancing between competing uses—regardless of whether or not those uses are on or off overlying land.

The correlative rights doctrine, found primarily in California, involves the concept of sharing in times of shortage, based on the amount of land owned by the competing overlying owners.

The appropriation doctrine as applied to underground water is found in most of the western states which have adopted the appropriation doctrine for surface streams. In most of the appropriation doctrine states, however, there are differences between the way the appropriation doctrine is applied to surface streams and underground waters. For example, in Colorado there are three distinct and different applications of the appropriation doctrine to groundwater. First, most Colorado underground water is presumed to be tributary and is treated exactly the same way as the waters of a natural surface stream. Second, in what are called designated groundwater basins located on the eastern plains of the state, Colorado uses the permit rather than the mandate version of the prior appropriation doctrine, requiring that permits for rights to use underground water be obtained from the Colorado Groundwater Commission. Third, there is also a requirement that permits to construct all wells be obtained from the State Engineer. He will issue such permits to construct wells (the permits not giving any right to use water) only when there is unappropriated groundwater available and when the proposed well would not injure the rights of other water right owners. There are numerous exceptions to the standards for the issuance of well construction permits, including those for smaller wells, those for aquifers which are wholly confined, and those for groundwater which will take more than one hundred years to reach a natural stream.

#### B. *Interstate Allocation and Distribution*

Because so many of our country's major streams or rivers

cross state boundaries, it is necessary to allocate the water of those streams among the various states which they cross. Without such allocation, the old rule of "highority is priority" would apply, with the upper states taking the lion's share, if not all, of the water in the interstate streams. By and large, there are two ways in which water is allocated among those states which happen to be on an interstate stream: interstate compact or a decree of the United States Supreme Court exercising its original jurisdiction in suits among states.

Compacts are essentially treaties or contracts among the states on interstate streams, which take a variety of approaches to the allocation of water among those states. Although those approaches have been skillfully described by Jerome Muys, it may be of interest to know that Colorado is a party to compacts which affect the allocation of water of the Colorado River, the LaPlata River, the Animas-LaPlata Project, the South Platte River, the Rio Grande, the Republican River, Costilla Creek, and the Arkansas River.

When it is impossible for states to agree among themselves, disputes over interstate streams inevitably find their way to the United States Supreme Court. When that happens, the United States Supreme Court acts as a trial court when the litigation is among states and eventually issues a decree allocating the waters of the interstate stream involved. In Colorado, there are two such decrees which affect two of our rivers: the Laramie River and the North Platte River.

There are two significant problems with the interstate allocation of water, whether it be by an interstate compact or a court decree. The terms of those documents often are ambiguous, yet very difficult to change. In addition, interstate allocation generally ignores groundwater, which is a very important component of the hydrologic cycle. Perhaps the most prominent example of this omission today is the Madison formation, which underlies both Wyoming and South Dakota. And yet there is no interstate mechanism at present to resolve the problem.

### C. *Federal*

Although federal law affects water allocation and distribution in a number of ways, there are four principal areas in which the impact of federal law is most strongly felt: the navi-

gation servitude, reserved rights, water pollution control, and reclamation and flood control projects.

### 1. Navigation Servitude

The navigation servitude applies to streams which are classically navigable, those which could support commerce, as well as the tributaries which support them. The servitude is a paramount right in the United States government to the use for purposes of commerce of the waters of navigable streams. This means that water rights under state law which interfere with the use of water for navigation are potentially and alarmingly unstable. Parenthetically, it should be noted that it has been suggested that states have a navigation easement or a navigation servitude that is remarkably similar to that of the federal government.

### 2. U.S. Reserved Rights

Reserved water rights of the United States are associated with all withdrawals and reservations of land from the public domain. The general theory is that at one time the United States owned all the land in the western United States, particularly in those states, such as Colorado, that have come to be known as public domain states. As settlement and development of those public lands increased, the United States began to withdraw or reserve large portions of the public domain for such uses as national forests, national parks, Indian reservations, etc. At the time that these large tracts of land were withdrawn or reserved, little thought was given to where the water would come from to be used to promote the purposes of the reservations. As a result, around the turn of the century the federal courts began to remedy this oversight through the legislative and executive branches of the federal government.

Beginning with Indian reservations, the courts began to enunciate a doctrine which has come to be known as the Federal Reserved Right Doctrine. Under that doctrine, the courts have found an implied reservation of water which necessarily accompanies the reservation or withdrawal of land by the United States. The water so reserved is in that amount which is necessary to effectuate the purposes of the land reservation or withdrawal. In addition, the reserved water right bears a priority as of the date that the land was reserved or withdrawn.



Needless to say, the concept of reserved rights has been in almost continual litigation since the federal courts began to establish the doctrine. Not only is there continued opposition to the general concept of reserved rights, but there also is a growing realization that those reserved rights associated with very old reservations will be senior to those private rights which have been perfected under state law. Presently, there is litigation in progress throughout the Western Slope of Colorado as well as on the North Platte and the South Platte Rivers on the Eastern Slope. That litigation is in fairly early stages in all the trial courts involved.

### 3. Water Pollution Control

In the area of water pollution control, the 1972 Federal Water Pollution Control Act Amendments established two programs which affect water resources. First, the National Pollutant Discharge Elimination System (NPDES) was established to control the discharge of pollutants from point sources through a permit program which can be run either by the U.S. Environmental Protection Agency or those particular states which have obtained federal approval of their own permit program (as is the case in Colorado). Second, with respect to non-point sources of pollution, water quality planning efforts under Section 208 of the 1972 Amendments will eventually result in significant controls on nonpoint sources of pollution. Not only is §208 planning taking place on the state level in all states, it is also taking place at the designated regional planning agency level, of which there are six in Colorado:

1. The greater Denver metropolitan area, comprised of the City and County of Denver, and Adams, Arapahoe, Jefferson, and Boulder Counties, for which the Denver Regional Council of Governments is a designated planning agency.
2. Teller and El Paso Counties (Colorado Springs), for which the Pikes Peak Area COG is a designated planning agency.
3. Pueblo County, for which the Pueblo Area COG is a designated planning agency.
4. Larimer and Weld Counties, for which the Larimer-Weld COG is a designated planning agency.
5. Routt, Jackson, Grand, Summit, Eagle, and Pit-

kin Counties, for which the Northwest Colorado COG is a designated planning agency.

6. Moffat, Rio Blanco, Garfield, and Mesa Counties, for which the Colorado West Area COG is a designated planning agency.

Both the NPDES and the §208 programs raise severe water allocation questions. For example, with respect to those effluent guidelines, standards, and limitations which apply to point sources under the NPDES program, as effluent limitations grow more severe there is an inherent requirement that consumption or evaporation of wastewater increases. As that consumption increases, the amount of available water decreases. For example, for each 500-megawatt coal-fired power plant, we can expect that eight to ten thousand acres of irrigated land will either be dried up or forced to go without water. In addition, under most prior appropriation doctrines, downstream junior owners are entitled to the maintenance of stream conditions as they were at the time of their appropriations. If consumption is increased in order to meet the requirements of the NPDES program, those downstream owners will have legally-recognizable tort claims against the holders of NPDES permits. This situation causes a significant and as yet unresolved conflict between the effluent limitations under federal law and the water rights of downstream owners under state law.

With respect to nonpoint sources regulated under §208, there are also difficulties. The primary problem is that §208 requires land use controls to deal with the nonpoint sources of pollution, such as irrigation return flow. The new irrigation management practices which will be necessary to control the irrigation return flow under §208 may drastically alter the course of western agricultural economics. If, however, irrigators should be required to use more efficient means of irrigation (such as a switch from flood to sprinkler irrigation), less water *may* be consumed by evapotranspiration, increasing the availability of water.

#### 4. Federal Projects

Finally, we are all aware of the pervasive and oftentimes beneficial effects of federal projects throughout the West. The problem with those projects is that their operation usually blithely ignores water right allocations under state law. As a

result, these projects may throw any state allocation plans into a tailspin.

#### D. *International Allocation*

Waters of international rivers are allocated by international treaties which enjoy the benefit of the supremacy clause of the United States Constitution, taking precedence over state and interstate allocations of water. In Colorado, we are primarily concerned with the treaty between the United States and Mexico, which has an effect on both the Colorado River and the Rio Grande.

### II. PROBLEMS OF INITIAL ALLOCATION

Although other levels of government play an important role in water allocation, the primary focus today is still on state levels of government and how they distribute water. The various state agencies raise a number of problems, the most important of which are discussed below.

#### A. *Riparian Jurisdictions*

In riparian jurisdictions, problems are found on either end of the spectrum. Under the natural flow version of the riparian doctrine, water allocation is very inflexible because of the need to maintain the natural flow and quality of the water. As a result, industrial development is not encouraged except through rather extraordinary means.

Under the reasonable use version of the riparian doctrine, where riparian owners share in the use of water based on the relative social value of their particular use, allocations are made on a case-by-case, ad hoc basis which ignores the need for certainty, an essential prerequisite for major capital investment.

#### B. *Appropriation Jurisdictions*

Under the appropriation doctrines, water users enjoy a certain amount of certainty because of the rather absolute nature of initial allocations of water. As will be pointed out later, however, the rational readjustment or secondary allocation following the initial allocation is somewhat difficult.

More specifically, in the jurisdictions which follow the permit version of the prior appropriation doctrine, the initial allocation is generally based on three factors: the availability of unappropriated water, the possibility of injury to other water

rights, and the "public interest." The "public interest" is a fertile field for the wise allocation of water resources. Unfortunately, however, the meaning of "public interest" is usually restricted to economic or utilitarian concerns. Although recent legislation has begun to emphasize environmental concerns in the public interest, the "public interest" still does not generally include other broad concerns, such as the preservation of agricultural lands.

In Colorado, which adheres to the mandate version of the prior appropriation doctrine, the initial allocation of water, at least for a conditional water right, requires only a showing that the water right owner intends to appropriate water and that he actually conduct some first step on the land which is indicative of that intent. There is absolutely no concern with the public interest when priorities are awarded by the water courts. In addition, the water right is essentially a hunting license because the water courts also are not at all concerned with the availability of unappropriated water.

### III. PROBLEMS OF SECOND GENERATION ALLOCATION

In riparian jurisdictions, even those which have adopted the reasonable use version of the doctrine, it is very difficult to make rational allocations of water to new uses. What again is involved is an ad hoc determination of the relative social value of the new competing use. This, of course, has the same infirmity of uncertainty suffered by the first generation allocation.

In those prior appropriation states which have adopted the permit version of the doctrine, it is still usually possible to take advantage of the "public interest" in the administrative approval of change of water rights. The "public interest" concept still must be refined and developed as was true in the first generation allocation of water. In addition to the "public interest" test, the permit states generally do have yet another limitation on reallocation of water: that the change of the water right cannot injure other water rights.

In Colorado, the sole remaining mandate jurisdiction of all the prior appropriation states, the traditional test is that no reallocation or change of water right may be allowed if it will injure other water rights. There is, at least on the face of the statute, no provision for consideration of the "public interest" by the water court when it approves a reallocation or change.

In 1969, however, the Colorado General Assembly recodified the State's water law. With respect to change proceedings and plans of augmentation, the General Assembly did a curious thing. A literal reading of the new statute indicates that the injury prohibited in a change proceeding is injury to the owners or users of water rights rather than the water rights themselves. This, of course, suggests a back-door approach to insertion of the "public interest" in the Colorado water court proceedings involving change of water rights and approval of plans of augmentation. If the proscribed injury is to "owners or users," then that injury might be considered to include such things as environmental, economic, social, aesthetic, and similar considerations. At the present, we have no case law on this new interpretation, and its impact on the course of future Colorado water law remains to be seen.

#### IV. MISCELLANEOUS ASPECTS OF WATER RESOURCE ALLOCATION AND DISTRIBUTION

Although there are innumerable other factors which influence water resource allocation and distribution, there are seven of them which are of particular importance today, especially in Colorado: minimum stream flows, use of developed water, anti-export statutes, basin of origin protection statutes, constitutional preferences for the use of water, condemnation of water rights, and the relationship between water allocation and land use control.

##### A. *Minimum Stream Flows*

The federal government as well as various state governments throughout the West have begun to assert minimum stream flows which are applicable to water heretofore unallocated by the prior appropriation system. The minimum stream flows, in addition to designation of wilderness areas by the federal government, as well as wild and scenic rivers by both state and federal governments, essentially foreclose any future allocation or reallocation of water.

##### B. *Developed Water*

In many of the state courts in the West, concepts of maximization or efficient utilization of water have been growing alongside a strict interpretation of the prior appropriation or priority doctrine. Courts have been under significant pressure to recognize a benefit for those persons who do make more

efficient use of water. When push comes to shove, however, the old prohibition against "extended use" often precludes the enjoyment of such benefit. For example, a recent Colorado case provided that water salvaged by phreatophyte removal could not be used by the person who removed the phreatophytes but instead must be relinquished to the stream for the use of senior water right owners. While the opinion in this case is undoubtedly a victory for environmental values, the decision can probably not be justified from the standpoint of agriculture. With a yearly loss of irrigated agricultural land in Colorado, it might be prudent to encourage the replacement of trees with crops.

#### C. *Anti-Export Statutes*

Roughly one-third of our states have what are called "anti-export statutes," which prohibit or severely restrict the diversion of water from its state of origin to another state. The anti-export statutes are hot topics at this time if for no other reason than their application to coal slurry pipelines. Not only are the statutes of doubtful constitutionality (on the theory that they place an unreasonable burden on interstate commerce), they also do not seem to promote the rational allocation of water resources, without consideration to state lines.

#### D. *Basin of Origin Protection*

Even within states, there is competition between different regions for available water supplies. Several states try to control inter-basin transfers of water by what are called "basin of origin protection statutes," which may prohibit or severely regulate the transfer of water from one river basin to another. In Colorado, we have only one such provision, which is applicable only to water conservancy districts.

#### E. *Constitutional Preferences*

Many state constitutions create preferences among different types of uses. For example, in Colorado, preference is given to domestic use of water over agricultural and to agricultural uses over manufacturing uses. The effect of such preferences varies among different jurisdictions. In some jurisdictions, those preferences mean what they say—essentially establishing a parallel allocation system which, in times of shortage, may override the priority system. In other jurisdictions, the preferences simply provide guidance to the state administrative official who is forced to choose between otherwise identical but

competing applications for the same water. Other states, such as Colorado, simply give to the preferred right the power of private condemnation over water rights for less preferred uses. Even in Colorado, the preference is somewhat of a joke, since it is difficult to imagine that any agricultural user, for example, could come up with enough money to condemn a manufacturing water right.

#### F. *Condemnation of Water Rights*

When money is available for that purpose, condemnation of water rights is a powerful tool. In recognition of the almost unlimited power which has been vested in municipalities in Colorado to condemn water rights, Colorado's General Assembly recently adopted House Bill 1555 (1974), which limits municipal condemnation to the satisfaction of only those needs anticipated within the next fifteen years and which requires that condemnation be preceded by an environmental impact statement as well as substantial community planning. As of yet, unfortunately, House Bill 1555 has not been the subject of recorded litigation. Its effect remains uncertain, and it has become a thorn in the side of those persons who are attempting to plan for municipal water supplies.

#### G. *Relationship Between Water Allocation and Land Use Controls*

We are gradually learning that the manipulation of water resources may be a valuable aspect of any land use control program. By and large, local governments, political subdivisions of their states, are tending to take a lead in this regard. For example, the following solutions have been proposed by local governments to deal with the interrelationship between land and water:

1. Prohibiting the construction of water facilities in certain areas by traditional zoning regulations.
2. Refusing to issue a building permit for construction of any water facilities until the water court makes certain findings, *e.g.*, that water quality and minimum stream flows will not be impaired.
3. Zoning of water rights as an interest in real property similar to land.
4. By adoption of a comprehensive plan, restricting the location of all pipeline facilities to federal lands.

While local governments seem to be the most active in this area, states are also starting to get on the water/land use relationship. For example, in Colorado, House Bill 1041 (1974), which is administered by the state Land Use Commission, included the following two matters of state interest:

1. "Site selection and construction of major new domestic water and sewage treatment systems and major extension of existing domestic water and sewage treatment systems."
2. "Efficient utilization of municipal and industrial water projects."

#### V. CONCLUSION

Today's water law is like an incredibly complicated machine that is held together and added to by odd assortments of baling wire. This means that, to lay persons, water law is an inscrutable system. If it takes a specialist to understand and use the law, have not members of the general public been denied the opportunity to become meaningfully involved in water allocation and distribution decisions?

Part of the confusion, of course, may defy clarification because of the numerous levels of government involved. On the other hand, it should be possible for each level of government (including the State of Colorado) to make the law more understandable and more responsive. In Colorado, it probably would not be advisable to conduct a massive overhaul of our water law—after all, we have built an entire economy on it. On the other hand, there are a number of small ways in which the water law can be greatly simplified from a procedural standpoint. In addition, as a matter of substance, we clearly do need some mechanism by which the water courts, as well as the State Engineer, are required to take into consideration the "public interest," whatever that may be. Until that is done, we will continue to make water allocation decisions in this state without any rational basis except for the energy and foresight of individual appropriators.



