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Better Use of
Water Management Tools

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Is this paper an original attempt to explicate the western states water law and to tell how to improve the legal tools we have at our disposal? No. There is nothing original about what I have written. I am merely trying to be a loyal carpenter to western water users and administrators and the antiwestern water law dogmatists alike, hammering away at the nails of our system of water allocation and administration at spaced intervals of time, hoping that something beneficial and constructive will evolve. Some of the nails (the principles of our water laws) may have been square when the West was being settled, but as with all important tools in constant use, most states went from square to round nails. Now we are finding a great need for the staple and special nail fitted to the local gun and the eastern power hammer.

For all this rhetoric, I wish to make a few simple but fundamental points at the outset. First, as Voltaire said, "Originality is nothing but judicious imitation. The most original writers borrowed one from another." George Eliot went on to say that "One couldn't carry on life comfortably without a little blindness to the fact that everything has been said better than we can put it ourselves." This I say with respect to scholars of water law who have examined and expounded on the many facets of the law and from whom I have borrowed ideas. Second, the system of water law that exists in the West was not a grand conspiracy against the eastern elite and governing powers, but rather a system fraught with subsystems that evolved out of implantation, and trial, error, and acceptance under a wide range of

geoclimatic conditions and subject to a host of well- and not so well-intentioned political interventions from exogenous observers. Third, due to this "system of subsystems" of water laws, generations of people have established a livelihood and economy, the survival of which largely depends upon the foundations and predictability of this system. Fourth, during the past fifteen years many individuals in government and politicians have exhibited an uncanny failure to understand the purpose and basics of the how, why, and when of western water law. Fifth, the system has been evolving over time, susceptible to improvements to meet the challenges of changing conditions and often directing the changes in some systematic and socially acceptable direction.

The title of this paper is rather broad in its application to water management. For those with an engineering background, the range of tools extends from the shovel to the sophisticated computer with a host of options and modifications for the different geoclimatic conditions encountered under a wide variety of uses. The economist, likewise, can immediately focus upon economic theories, the use of water pricing, etc. Sociologists and anthropologists have been examining with great interest local institutions and cultural patterns and the role and influence that they can exert to improve resource use. The water management tools I will discuss are the legal institutions affecting water use. These range from the concepts, rights, duties, and procedures of the law to the organizational structures of both the administration and user of the resource.

Law itself is a very powerful tool, and we in the United States are intimately receptive to legal controls in spite of our international claim of freedom and independence. Bernard Schwartz wrote in the introduction of his book, *The Law in America* (1974):

The true American contribution to human progress has not been in technology, economics, or culture; it has been the development of the notion of law as its check upon power. American society has been dominated by law as has no other society in history. Struggles over power that in other countries have called forth regiments of troops in this country call forth battalions of lawyers. . . . Our rights and obligations . . . are fixed by the law and, if need be, determined by the Courts and ultimately by the highest Courts of the states and

nation. . . . In this sense, we are all consumers of the law, intimately by the Courts and ultimately by the highest Courts of the states and nation. . . . In this sense, we are all consumers of the law, intimately affected in all the details of our lives by the quality of the product consumed.

In the past few decades, we have seen the power of law, both in the sense of curtailing social wrongs at high levels in which it was difficult to determine on which side there were greater numbers of battalions of lawyers and in authorizing and providing for the mechanism of natural and human resources development, the likes of which few countries have ever experienced. One area that has received considerable legislative and judicial attention is control of our water resources.

Water Law As the Foundation of Water Management

In early U.S. history, water, like air and open space, was considered a common or free good. Initially, there was unrestricted use due to the minimal demands on existing supplies. In the eastern part of the United States, natural precipitation negated the needs for major surface diversions. The common law concept of riparian rights that existed in England was recognized by the courts in most all of the eastern states.

The situation in the West was somewhat different due to the lower annual rainfall and the need to supplement the natural precipitation with diversions from streams, lakes, or man-made reservoirs. Initially, there was enough water to meet the needs of all the settlers; but as the uses increased, conflicts began to develop along the river systems as simultaneous uses depleted the flow at particular times of the year. Typical battles ensued between miners, farmers, and other users until finally at various places around the country people began to recognize the need to develop some order and consistency regarding the use and management of this resource. In social terms, there was a willingness for each to give up a little so that all could have more; in economic terms, there was a willingness to internalize the cost of the externalities created through the use of this common resource. In legal terms, the pen proved to be mightier than the gun or shovel. What emerged was the desire on the part of users to develop a set of rules and standards to govern the orderly use of a valuable resource, utilizing the most socially acceptable

tool to implement their objectives. Some of what resulted was borrowed from the many countries represented by the immigrants to the area. The rest evolved from the natural conditions, types of uses, and creative capability of the users.

The result is a federated system of water law in the United States in keeping with our constitutional philosophy of separate state and federal powers. The federal government holds title to public lands in all western states, and many of those lands are withdrawn from entry or reserved for specific purposes—for example, Indian reservations, parks, national forests and monuments, and oil shale reserves. On these lands, the federal government maintains that sufficient water was also reserved from allocation under state laws to carry out the purposes of the reservation. This federal water law is popularly called the Federal Reservation Doctrine. The federal government also exercises certain control, such as interstate commerce, navigation, and other proprietary interests over water. Within the last two decades it has preempted control over water quality.

At the state level, each state was entitled to adopt its own system of water law over waters rising within its jurisdiction but not to conflict with federal laws. As local customs developed and states were formed, each state adopted its own particular system of water law. Consequently, there are significant variations for quantity control of surface and ground waters among the states. State water quality control laws are more uniform, however, and follow the pattern set by federal legislation.

The evolution of state water quantity laws was simple and direct. These laws are a consequence of geoclimatic conditions, source of supply, and need and reflect the varying states of technology that existed at the time that pressure was exerted on the resource. Surface waters developed into two basic philosophies. In the humid eastern half of the country and along the West Coast, the riparian doctrine was adopted. The more arid western half of the country was faced with diversions and return flows and costs involved in constructing new water delivery and application systems. The doctrine of prior appropriation emerged as the basic western water law. Because some states have both humid and arid conditions and varying demands placed upon the resource, they adopted a mixed riparian/prior appropriation system.

Groundwater legislation occurred much later in the growth of the western states due in part to the lack of knowledge of subsurface supplies and in part to adequate surface supplies. The basic principles of use and control often follow the surface doctrines, but again, each state adopted and modified the law to fit its particular needs. Four different systems of groundwater control can be identified.

To fully appreciate the western attitude toward water law, one must accept that without water, the arid West would have a limited productive capability, at least from the agricultural point of view. One must also recall that agriculture was promoted by the federal government to be the future of the West. Through the multitude of federal policies, laws, and programs, people were induced to settle with the assurance that their use of water would be protected. Private and government investments were based upon the security of a continued right to divert water under the various state laws. As such, agriculture became the major user of diverted water in the West, accounting for 90 percent of water consumptively used. Within this agricultural economy, one finds meadows flood-irrigated for cattle raising and water pumped or diverted from streams to fields producing high cash value and forage crops.

Western Water Laws

The seventeen western states have adopted one or both of the basic water quantity law doctrines found in the United States (see **Table 1** for a summary of western water law). The rule adopted by every western state is the doctrine of prior appropriation, with those states on the western seaboard and from North Dakota to Texas also applying the riparian doctrine to lands adjacent to natural water bodies. There is a definite trend to eliminate the riparian doctrine as demands on surface waters increase. For all practical purposes, most of the states with both doctrines have relegated the riparian system of surface water control to an insignificant role.

Those states in the West applying the riparian doctrine follow the American Rule of Reasonable Use. Under this rule, riparian landowners can divert a reasonable amount of water with respect to all other riparians on the stream; and, under certain condi-

TABLE 1
Summary of Western Water Law

State	Legal Feature													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Surface Water	Ground Water	Ownership	Evidence of Water Right	Basis of Allocation	Criteria of Allocation	Preference of Use (Order) ^d	Date of Priority	Appurtenancy	Water Rights Registry ^g	Water Quality In Rights	Forfeiture of Rights ^h	Drainage Rules	Basin of Origin	
1—Ariz	P A	R U ^b	Public	Permit	B U	B U	1-2-3-4-5	D.O.A	Strict	Original	Case	5 yrs	C.E & C.L.J	
2—Calif	P A. & R	C.R.	People	Permit ^c	B & R U	B & R U	1-2-	D.O.A post 1914	Unlimited	Current	Case + Statute	5 yrs < 1914 3 yrs > 1914	Yes	
3—Colo	P A	P A	Public	S W — decre G.W — permit	B U	R.U	1-2 over 5	S W —1st step G.W — D.O.A	None	Original (computerized)	Case	—	C.L (modified)	Yes
4—Idaho	P A	P A	State	Licence	B U	1 cfs/50 a	1-2 ^c	D.O.A	Unlimited	Current (limited)	Case	5 yrs	C.L	
5—Kans	P A & R ^a	P A	People	Permit	B U	1 to 2 a f /a	1-2-5-6-3	D.O.A			Case + Statute	3 yrs	C.L	
6—Mont	P A	P A	State	Permit	B U	1 minims in /a	None	D.O.A.		Original (limited)	Case	—	C.F	
7—Nebr	P A & R ^a	R U. ^b	Public	Permit	B U	1 cfs/70 a or 3 a f /a	1-2 over 5	D.O.A		Case	Case	3 yrs	C.E	Yes
8—Nev	P A	P A	Public	Permit	B U	Conditions & needs	None	D.O.A		Original	Case	5 yrs	C.L	
9—N Mex	P A	P A	Public	Permit	B U	B.U & good agr practices	None	D.O.A		Original	Case	4 yrs + 1 yr after notice	C.L	

10-N-Dak	P A	P A	Public	Permit	B U	1 cfs/80 a	1-2 & 5-6	D B U	Case	3 yrs	R.D	
11-Okl	P A & R ^a	P A	-	Permit ^c	B U	B U	None	D O A	Case	7 yrs	R D	Yes
12-Oreg	P A & R ^a	P A	Public	Permit	B U	B U	1-2-4-	D O A	Case	5 yrs	C L	
13-S Dak	P A & R ^a	P A	People	License	B U	1 cfs/70 a or 3 a f /a	1-	D O A	Case	3 yrs	C L	
14-Tex.	P A & R ^a	A.O	State	Permit ^c	B U	B U	1-5-2-4-3-7-6	D B.U	Case	10 yrs	C L	Yes
15-Utah	P A	P A	Public	Permit	B U	Nature of Use	1-2	D O A	Case	5 yrs	C E	
16-Wash	P A & R ^a	P A	Public	Permit	B U	Reasonably Necessary & B U	None	D B U & D O A for permits	Case	5 yrs	C E	
17-Wyo	P A	P A	State	Permit	B U	1 cfs/70 a	1-5	D O A	Case	5 yrs	Undecided	

Key: P A = Prior Appropriation, R = Riparian, A U = Absolute Ownership, R U = Reasonable Use, C R = Corrective Rights, B U = Beneficial Use, B & R U = Beneficial and Reasonable Use, D O A = Date of Application, D B U = Date of Beneficial Use, C E = Common Enemy, C L = Civil Law, R D = Reasonable Discharge

^a All new water by P A

^b Lack comprehensive ground water laws

^c Different types Not for 1914 rights, riparian rights and percolation ground water

^d In this column, 1 = domestic and municipal, 2 = agricultural (irrigation), 3 = power, 4 = mining, 5 = manufacturing and industrial, 6 = recreation, and 7 = navigation

^e In mining districts, allocation 4 comes before 2 and 5.

^f In this column, Strict = can transfer but criteria are established, Limited = water right for specific parcel but transferable.

^g In this column, Original = initial filing recorded, Current = user must notify agency of name, use, place, etc —transfers unlimited

^h All states recognize loss by abandonment

ⁱ Ten years is evidence of abandonment

^j In this instance C E = flood waters, C L = natural flows

tions, nonriparians may make a reasonable use of remaining waters.

States following the riparian doctrine recognize water as a public resource, held in trust by the state for use by the people of the state. Thus, a landowner whose land borders a stream does not have an ownership right to the waters of the stream but rather only a fundamental right by virtue of his land location to a reasonable use of the water. He is protected from unreasonable uses by others that cause him harm. The riparian is essentially a co-user with all other riparians on the water source, and as between riparian uses, priority of use does not establish priority of right in times of decreased flow. Consequently, his right to use water is not a right for a fixed quantity of flow or volume but rather is a correlative right dependent largely upon the extent of development that takes place.

The riparian right exists perpetually, even without use, so long as the land remains adjacent or "riparian" to the water source. Most states prohibit selling or transferring of riparian rights, and some even limit the size of riparian land to the smallest remaining tract of the original patented holding. Because riparian rights lack precise definition and are a part of the property rights in land, no administrative system was incorporated into the doctrine. If someone complains of a misuse by his neighbor, he has to go to court to protect his right.

Recent changes in law have resulted from the inability of existing water supplies to meet expanding demands on one side and a recognition of the public interest in water resources on the other. The changes have generally been the establishment of a permit system to allocate water among users and the creation of administrative machinery to assess and control water resources through the permit system. Among the western states, modifications are strongly influenced by the simultaneous application of the prior appropriation doctrine, increased demands on surface supplies for in-basin as well as out-of-basin use stimulated in part by large-scale reclamation projects, and heavy reliance upon groundwaters in some states, i.e. California, Nebraska, Oklahoma, and Texas. In all of the dual doctrine states (except California) new claims to the use of surface waters must comply with the statutory requirements of the prior appropriation doctrine.

The doctrine of prior appropriation exists in all of the seventeen western states in some form and like most popular principles, its origin is shrouded by controversy. Some say it evolved out of the mining camps of California. Others say it was introduced by the Spanish or other early settlers of the West. Needless to say, the argument is academic, but the practice of staking mining claims during the California gold rush can at least be authenticated in U.S. history.

Evolution of this doctrine was a fortunate event for it proved as useful for agriculture as it was for mining. As mining became more competitive, many miners and newcomers to the area began farming. The doctrine protected the first settler to use water on his land. Later settlers had to respect the prior ownership of land and the amount of water that the prior settler was using. Hence the establishment of the cliché "first in time, first in right." Although there are many variations of the appropriation doctrine among the various western states, a number of key principles exist to establish commonality, if not relative uniformity. These principles are:

1. There had to be a diversion from a natural stream or body of water. This has been relaxed in most western states during the last decade to allow in-stream use for recreation and fish and wildlife protection.
2. Water must be applied to a beneficial use. Initially, this was defined in constitutions and/or statutes to be domestic, municipal, stock watering, irrigation, and certain industrial and power uses. Some state laws, like Wyoming's, reflect the economic influences of one sector over another, i.e. railroad uses were preferred to agricultural uses. In most of the western states, however, the rural representation insured agriculture a high position as a beneficial user. Beneficial use also referred to the nature of use and will be discussed later.
3. When a diversion and application of water to beneficial use was completed, a water right was created. This right entitled the holder to continued use so long as the use was beneficial.
4. Every water right acquires a priority date such that

priority of right and not equality of right is the basis for distributing water.

The doctrine of prior appropriation is based upon the allocation of water under the concept of a property-right interest in water. Simply put, this doctrine creates the right of private use of a public resource under certain conditions and for uses that have been declared to have a public interest. The right does not automatically exist by virtue of the presence of water upon, flowing through, or under land. In all western states, waters are declared to be the property of the public, people, or state, regardless of whether the state or the public (people) own the water. The state is a trustee for the proper allocation and distribution of water and the administration and implementation of state water laws.

The right so acquired has two legal characteristics. First, the right itself is a real property right. It is an exclusive right that, like other property interests, can be defined, is valuable, and can be sold, transferred, mortgaged, or bequeathed. Wyoming law states, for example, "A water right is a right to use the water of the state, when such use has been acquired by the beneficial application of water under the laws of the state relating thereto, and in conformity with the rules and regulations dependent thereon."¹

In Colorado, the Supreme Court very early in the state's history announced a rule that can be found in the laws of other appropriation-doctrine states. The famous *Coffin v. Leftband Ditch Co.*² was decided in 1882 and held:

Water in the various streams thus acquires a value unknown in moister climates. Instead of being a mere incident in the soil, it rises when appropriated to the dignity of a distinct usufructory estate or right of property . . . the right to property in this country by priority of appropriation thereto, we think it is and has always been the duty of the national and state governments to protect.

The second characteristic is that it is a usufructory right and can only be exercised when water is available and can be put to beneficial use. There is no absolute ownership in the corpus of

the water prior to diversion. The water is still a public resource, and if the right holder cannot put it to beneficial use, he must allow it to flow past his point of diversion to other appropriators. However, if he can use the water and he is in priority, the water diverted into his delivery system is his personal property, until it returns back to the stream or escapes his control.

The water right under the appropriation doctrine consists of several elements that give value, dependability, and security to the holder (see Figure 1). The water right

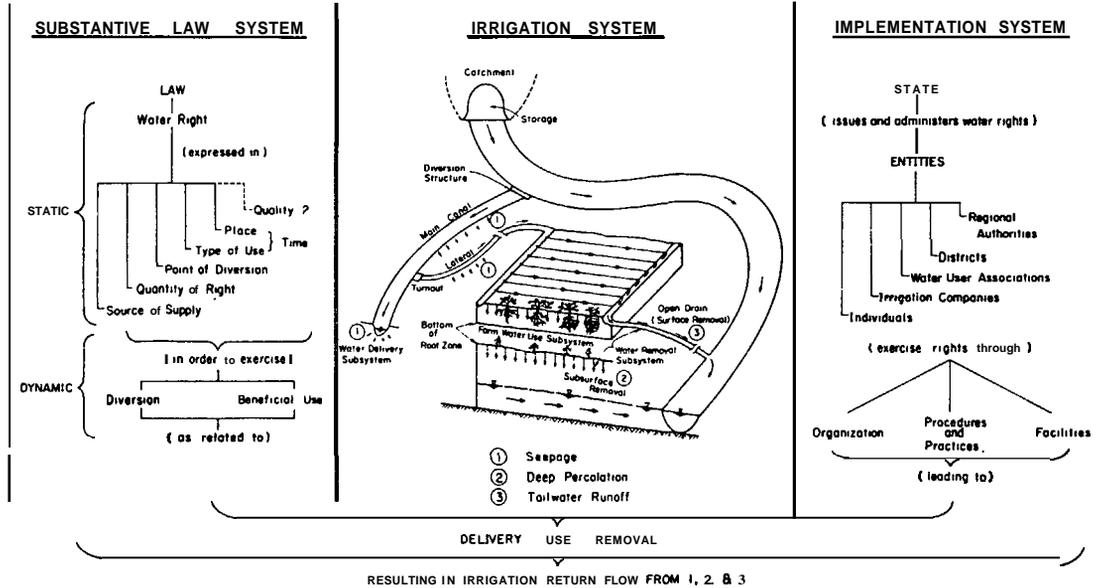
- exists in a definite source of supply;
- has a definite point of diversion;
- is for a fixed and stated quantity;
- is for a specific type and place of use, which together implies the annual time of use; and
- assures the holder of at least an implied protection to the maintenance of water quality necessary to carry out the purposes for which the water was appropriated.

As previously stated, one of the key principles to the prior appropriation doctrine is the "priority of right" that is granted to user over subsequent appropriations. It is most often this priority date, coupled with the dependability of flow in a stream and location of point of diversion that gives water right its value. In most states; the priority date is the date the application for a water right is received by the state water agency.

Several systems were developed by the states to allocate water and provide evidence of water rights. The predominant approach now is the permit system. An application is filed with the appropriate state agency, who then takes the procedural steps of evaluating and determining its disposition based upon availability of unappropriated water and nonimpairment of existing rights. If approved, a permit is issued that may contain conditions of use. If denied, the applicant is entitled to judicial review of the administrative decision. The finalized water right may be called a license, certificate, or decree.

A few states have different classes of permits that greatly enhance their ability to allocate and regulate the use of water

Figure 1
The Agricultural Water Arena



(Radosevich, 1978)

among competing interests. For example, in Texas, there are eight classes of permits:³

- Regular permit—a year-round perpetual right
- Seasonal permit—for a portion of the calendar year (irrigation, season, and perpetual)
 - Temporary permit—for a short-lived specific use, no longer than three years
 - Term permit—for a fixed number of years with an expiration date
 - Contractual permit—authorizes an appropriator to contract the use of his water to another for a term
 - Permit under Section 5.141—authorizes impoundment of nonnavigable stream on permittee's own property of less than 200 acre-feet and use for any specified purpose
- Storage permit—for storage of water for project
- Emergency permit—allows emergency appropriation of not more than thirty days for public health, safety, and welfare.

Oklahoma has two broad categories: permanent and non-permanent. The former is subdivided into regular and seasonal, while the latter is divided into temporary and term.⁴

One of the frustrating problems for water administrators and planners that is often costly to water users under the current high demand for water and increased sales is the recording of water rights. The majority of states have a registry of the originally issued water rights that identifies the original appropriation, point of diversion, source of supply, amount divertable, and type and place of use. In all states, any change or transfer of place, type of use, and point of diversion must be approved by the state agency. This is primarily to protect other appropriators who may be adversely affected by the transfer if conditions of the stream and return flow are not taken into account. But few states maintain a registry of water rights that reflect current ownership. These state laws or regulations require annual notification to the agency of all ownership changes and annual water uses. In some cases, failure to provide this information is *prima facie* evidence of nonuse and could lead to for-

feiture or abandonment of the right. The burden of notice is usually placed upon the current owner.

The cornerstone of water allocation under western law is that "beneficial use is the basis and measure of the right to use water." This is often the extent of definition found in state water laws. The concept has two aspects. In order to use water, it must be taken for a beneficial purpose. The other aspect is the use of water itself must be beneficial and carried out in a beneficial manner. Texas, for example, requires that no more water be allocated and used than that amount "economically necessary for the purpose authorized when reasonable intelligence and reasonable diligence are used in applying the water to that purpose."⁵

In addition to the requirement that water will be allocated to a user for a beneficial use, many states have adopted criteria to be followed in allocating the water to agriculture. This criteria is commonly referred to as the statutory duty of water. Little uniformity exists between states, indicating the different geoclimatic conditions found throughout the West. Idaho, Wyoming, and North Dakota allow one cfs per seventy acres, but no more than three acre-feet per acre. Montana allows one miner's inch per acre, and Kansas varies between one to two acre-feet per acre, depending upon the circumstances. Water used by irrigated agriculture may be used and reused a number of times as it goes through the diversion, application, and removal stages (irrigation return flows can occur from seepage, deep percolations, and tailwater runoff, see Figure 1, center). This dynamic process of water use and return flow gives rise to the adage that one man's waste water (return flow) is another man's water supply. Rights to continued use of return flows, should they continue to occur, can be acquired.

One other aspect of the water right that is often overlooked by those not familiar with the doctrine is that it must be exercised, otherwise it can be lost, totally or partially, through nonuse or misuse. The tool for, losing the right is through abandonment or statutory forfeiture. In addition, the right may be condemned for domestic uses by municipalities or lost through adverse possession by another user. So in order to protect the right, the holder is compelled to divert his full entitle-

ment, often without regard to possible adverse consequences to other users of junior priority or downstream location.

Laws controlling the extraction and use of groundwater have become as complex as those for surface water. As a general proposition, however, the states apply one of four doctrines: absolute ownership, reasonable use, prior appropriation, or correlative rights. The doctrine of absolute ownership had its origin in the United Kingdom. Simply stated, the doctrine holds that a landowner can withdraw any water from beneath his land without liability to his neighbors resulting from such action. In the West, only Texas has retained this rule.

Due to the extreme position of groundwater use without liability as proclaimed under the absolute ownership doctrine, many states began modifying the law into what has become known as the American Rule of Reasonable Use. This change is synonymous to the modifications in the surface riparian doctrine. The rule states that since the rights of adjacent landowners are similar and their enjoyment in the use of **groundwaters** is dependent upon the action of the overlying landowners, each landowner is restricted to a reasonable exercise of his own water rights and reasonable use of water on his own property in view of the similar rights of others. Nebraska applies the reasonable use doctrine, but also allows out-of-basin diversions for municipal use if no damage is done to overlying landowners in the area where the water is extracted. Considerable attention is now directed to the very rapid increase in Nebraska's groundwater use and the problems this may cause to the interstate aquifers common to the high plains states.

The doctrine of correlative rights in groundwater originated in California and is a further refinement of the reasonable use concept. Several states originally adopted this doctrine, then changed to another rule. The doctrine holds that among landowners with lands overlying an underground water supply, each landowner can make a reasonable use of that **supply** so long as the source is sufficient. But when the supply becomes insufficient due to the drought or draw down effect, each landowner is entitled to water in proportion to the percent of his land overlying the underground waters in relation to all other lands so situated. The net effect is to provide flexibility of **ground-**

water use in an effort to maximize the resources, while providing equitable allocation when shortages occur.

Most of the western states found little reason to adopt a different system of law for surface waters and groundwaters. As a consequence, the theory of the prior appropriation doctrine was applied to both surface and groundwater. This does not imply, however, that surface water law was simultaneously extended to groundwater. In fact, several states initially enacted laws to control groundwaters as late as the mid-1950s and 1960s. Kansas applied the absolute ownership doctrine until 1944, then adopted the prior appropriation doctrine. South Dakota and North Dakota have no detailed groundwater laws but merely apply the surface water principles to groundwater use.

The doctrine of prior appropriation provides that groundwater is subject to appropriation for beneficial use providing the intended user complies with the statutory requirements, e.g. wellspring requirements, pumping rates, etc. The administrative official must determine if unappropriated groundwater exists and what adverse effects would occur from approving the application.

In most states, the law allows the state water official to classify the area as a critical or designated groundwater basin upon a determination that a particular groundwater basin or particular aquifer needs close management due to rapid depletion. When this occurs, the users are placed under administrative control for the protection of the aquifer and vested rights.

Western Water Administration

Under the system of government that exists in the United States, laws enacted by legislative bodies and constitutional declarations are to be implemented by the executive branch. Through time, a strong system of administrative and regulatory agencies within this branch has evolved to actually carry the mandates. These agencies have become known as the fourth branch of government due to the vast power and influence gained during the last century. They have authority under most organic (enabling legislation) acts to promulgate rules and regulations that serve to guide the agency personnel in per-

forming their duties and inform the public of procedures and programs to be followed in dealing with the agency. These regulations often fill out the policy directives and general approaches contained in the law. In addition, some state legislatures have passed administrative procedures acts that define the basic conduct to be followed by all state agencies. These agency tools of operation can be very effective in water management.

In the area of water resources, there are three basic functions delegated to agency activities in the western states. They are (1) water quantity control, (2) planning and development of water resources utilization, and (3) water quality control.

Water administration began to evolve in the western United States simultaneously with the legislative enactments creating property rights in the use of water and declaring that it was the states' duty to insure that waters will be allocated and distributed according to the rights so established. This early structuring of government agencies for water control effectively began with water quantity activities as a result of the increased growth of the West in the last half of the 1800s. This growth was stimulated by federal land settlement schemes and the emergence at the turn of the century of a national reclamation program. Water pollution control also became a state agency activity in the late 1800s but initially only as pollution caused diseases. This was one of the activities of the State Public Health Department.

In 1879, Colorado was the first state to create a water rights administration agency, followed by Wyoming in 1890. From the very outset, the distinction between the Colorado and Wyoming approaches has influenced the subsequent organizational patterns of the other western states. Colorado's model has remained virtually unchanged over the years. Allocation of water and adjudication of water rights was the function of courts, while distribution of water and administration of water quantity control laws for exercise and protection of water rights was the duty of the state engineer.

The difficulty of having these four major duties divided between the judiciary and executive branches led Wyoming to adopt an approach in which all four duties were combined into an entity of the executive branch. Wyoming's approach is also

unique and has not been duplicated in any other state, but it has served as the pattern for most of the remaining states. The Office of State Engineer was created (a territorial engineer existed prior to statehood), and the state of Wyoming was divided into four divisions consistent with the hydrologic boundaries of the four major river basins. In each division is appointed a superintendent engineer who is responsible for distribution of water in the division. The state engineer is responsible for administration of the water laws. He, plus the four division superintendents! comprise the State Board of Control, which in a quasi-judicial capacity allocates water and adjudicates water rights. Parties adversely affected by their action have the right to judicial review. The state engineer and his four superintendents are appointed by the governor. All four major water quantity duties—(1) allocation, (2) distribution of water, (3) adjudication of water rights according to the allocation made, and (4) administration of water law—were combined into essentially one agency, the Office of State Engineer. It placed the responsibility of making policy and water management decisions into the hands of those most closely associated with water distribution and administration of the law, rules, and regulations adopted by the board.

As reported by Clark (p. 103):

Nebraska followed the Wyoming system closely in 1895. Variations were adopted by Idaho and Utah in 1903; by Nevada, New Mexico, Utah, North Dakota, South Dakota, and Oklahoma in 1905; by Oregon in 1909; by Texas in 1913; by California in 1914; by Kansas and Washington in 1917; and by Arizona in 1919.

Only in 1971 has Montana adopted an administrative structure in charge of water allocation, distribution of water, administration of water rights, and initiation of adjudication proceedings. Following a trend that began appearing in the 1950s, a Department of Natural Resources and Conservation was created with the Water Resources Division in charge of water matters. The reorganization that took place in 1971–72, however, still lacked the ability to effectively administer water rights under the recording system followed by the state. The water rights

were recorded in the district courts with no central control over either allocation or planning of future use. Consequently, in 1972 a constitutional amendment was adopted, which states: "The legislature shall provide for the administration, control, and regulation of water rights and shall establish a system of centralized records, in addition to the present system of local records."⁶ Following the constitutional amendment, the department was granted the additional powers by legislative enactment.

Colorado is thus the only state in the West in which administrative control over acquisition of surface waters does not exist. In Colorado, the courts, who grant surface water rights, had no real guidance or assistance in establishing priorities until the 1969 Water Rights Determination and Administration Act was passed. This act created special "water courts," one in each of the seven water divisions, to grant surface water rights and hear other water matters.

In addition to the four duties above mentioned, some of the more specific tasks performed by state water quantity agencies include:

- gathering data on water availability and use and unappropriated supplies;
- conducting studies and investigations on extent and potential of ground and surface water development;
- receiving, examining, and granting or denying applications for water rights, changes in place and type of use, point of diversion, or nature of use;
- maintaining registry of water rights;
- licensing of well-drillers;
- reviewing and approving or rejecting formation of irrigation districts;
- providing technical advice;
- carrying out and enforcing rules and regulations adopted by the agency, the policy board, or the commission of the agency;
- inspecting dams and measuring equipment;
- preparing state water plans and basin studies;
- organizing the state into divisions and/or districts;

- appointing division and/or district officers and water masters;
- regulating of groundwater withdrawals; and
- allocating and controlling the development, use, and conservation of geothermal resources.

In many states, the director of the water agency must be a registered engineer (i.e., Nevada and Wyoming). Normally, he has a central office staff and a field staff, including local water masters or commissioners, to assist in the implementation of the law and agency duties.

One particularly interesting feature in Nevada that serves as a tool to insure that the law and resources management is carried out is the power granted the state engineer and his assistants to arrest any person violating the water laws.⁷ The arrested person is turned over to the sheriff or other police officer, and a written complaint is filed by the arresting water official. It is a particularly frustrating experience for water officials to know of violations of the water law (i.e., wasteful or nonbeneficial use practices, stealing water, etc.) and also to know that by the time a complaint is served by the sheriff's office, the violations will have ceased. Often, procedural rules require notice to the violator before any enforcement actions can be taken. A recent change in Colorado law took away the power similar to that granted in Nevada and for practical purposes has hamstrung local enforcement.

In a number of states (i.e., California, Colorado, Texas, and Utah), planning and development of water resources is carried out by an agency independent of the "water rights" office. In others (i.e., Montana, Washington, and Wyoming), this activity is one of the tasks of the central agency.

This function generally carries with it several specific tasks. Among the most important are

- the preparation of state, basin, and local water plans;
- the planning, development, construction, and operation or supervision of water projects;
- the acquisition of water rights for water projects and contracting out the use of water;

- the administration of financial programs for improvement of water delivery and use.

The latter task provides an important tool in improving water management practices of the users. A number of states have incentive programs that provide low- or no-interest loan and grant programs (i.e., Colorado, New Mexico, Utah, and Wyoming). But the present programs often limit the use of funds only to irrigation districts or other public entities for improvement of storage and delivery systems as they relate to improved efficiency in water quantity use. Water quality improvement is normally not one of the objectives of these state programs.

The present status of state agencies charged with water rights administration and planning and development is set out in Table 2.

Since the late 1950s, most states have reorganized the water quality control agencies along the pattern required under federal legislation to comply with federal law (California has done this since 1949). Where in the past water pollution control was one activity of the Public Health Service, under the current reorganizations, it has become one of the major activities being carried out by a state agency. In some cases, the function is still within a Department of Health (i.e., Arizona, Colorado, North Dakota, Utah), whereas in other states it is within the Department of Environmental Quality (i.e., Oregon and Wyoming) or Ecology (Washington), the Environmental Improvement Agency (New Mexico), or directly under the Water Quality Board (Texas). In all cases, a water quality control commission, board, or council is the policy and rule-making body, while the department, service, or bureau of water quality is responsible for implementing the laws, rules, and standards.

Some of the more important tasks of the water quality control agency include

- developing and maintaining comprehensive and effective programs for prevention, control, and abatement of water pollution and protection of water quality;
- classifying water streams and bodies of water;

TABLE 2
State Water Administration, Planning and Development Agencies

<i>State</i>	<i>Water Rights Administration</i>	<i>Planning and Development</i>
1. Arizona	Chief Division of Water Rights State Land Department	State Water Engineer Arizona Water Commission
2. California	Chairman State Water Resources Control Board The Resources Agency	Director Department of Water Resources The Resources Agency
3. Colorado	State Engineer Division of Water Resources Department of Natural Resources	Director Colorado Water Conservation Board Department of Natural Resources
4. Idaho	Director Department of Water Resources Operations Division	Planning Division Department of Water Resources
5. Kansas	Chief Engineer Division of Water Resources Kansas State Board of Agriculture	Chairman Water Resources Board
6. Montana	Administrator Water Resources Division Engineering Bureau Department of Natural Resources & Conservation	Resources and Planning Bureau Water Resources Division Department of Natural Resources and Conservation
7. Nebraska	Director Department of Water Resources	Chairman Natural Resources Commission
8. Nevada	State Engineer Division of Water Resources	Special Projects Aid Planning Section Division of Water Resources

	(Engineering Section) Department of Conservation & Natural Resources	Department of Conservation and Natural Resources
9. New Mexico	State Engineer State Engineers Office	State Engineer State Engineers Office
10. North Dakota	State Engineer State Water Commission (Legal Services Division)	Division of Planning State Engineer State Water Commission
11. Oklahoma	Director Water Resources Board	Director Water Resources Board
12. Oregon	Director Water Resources Department (Water Rights Division)	Policy and Planning Division Water Resources Department
13. South Dakota	Director Division of Water Rights Department of Natural Resources Development	Director Division of Resource Management Department of Natural Resources Development
14. Texas	Chairman Texas Water Rights Commission	Chairman Texas Water Development Board
15. Utah	State Engineer Division of Water Rights Department of Natural Resources	Director Division of Water Resources Department of Natural Resources
16. Washington	Water Resources Management Division (Water Resources Management Section) Office of Water Programs Department of Ecology	Water Resources Policy Development Section Water Resources Management Division Office of Water Programs Department of Ecology
17. Wyoming	State Engineer and Board of Control State Engineers Office and Board of Control	Wyoming Water Planning Program State Engineers Office and Water Planning Section Department of Economics, Planning and Development

- promulgating water quality standards, effluent limitation standards, and control regulations;
- carrying out a permit program for pollutant discharges;
- reviewing and granting permission and funding for location, design, construction, and operation of sewage treatment facilities;
- authorizing and monitoring underground injection of pollutants;
- serving as hearing board or officer in resolving matters of enforcement of the pollution laws;
- ordering the cessation or abatement of discharges;
- receiving and allocating funds or grants and loans made available by federal and state governments; and
- carrying out investigations to determine the nature and source of pollutant discharges.

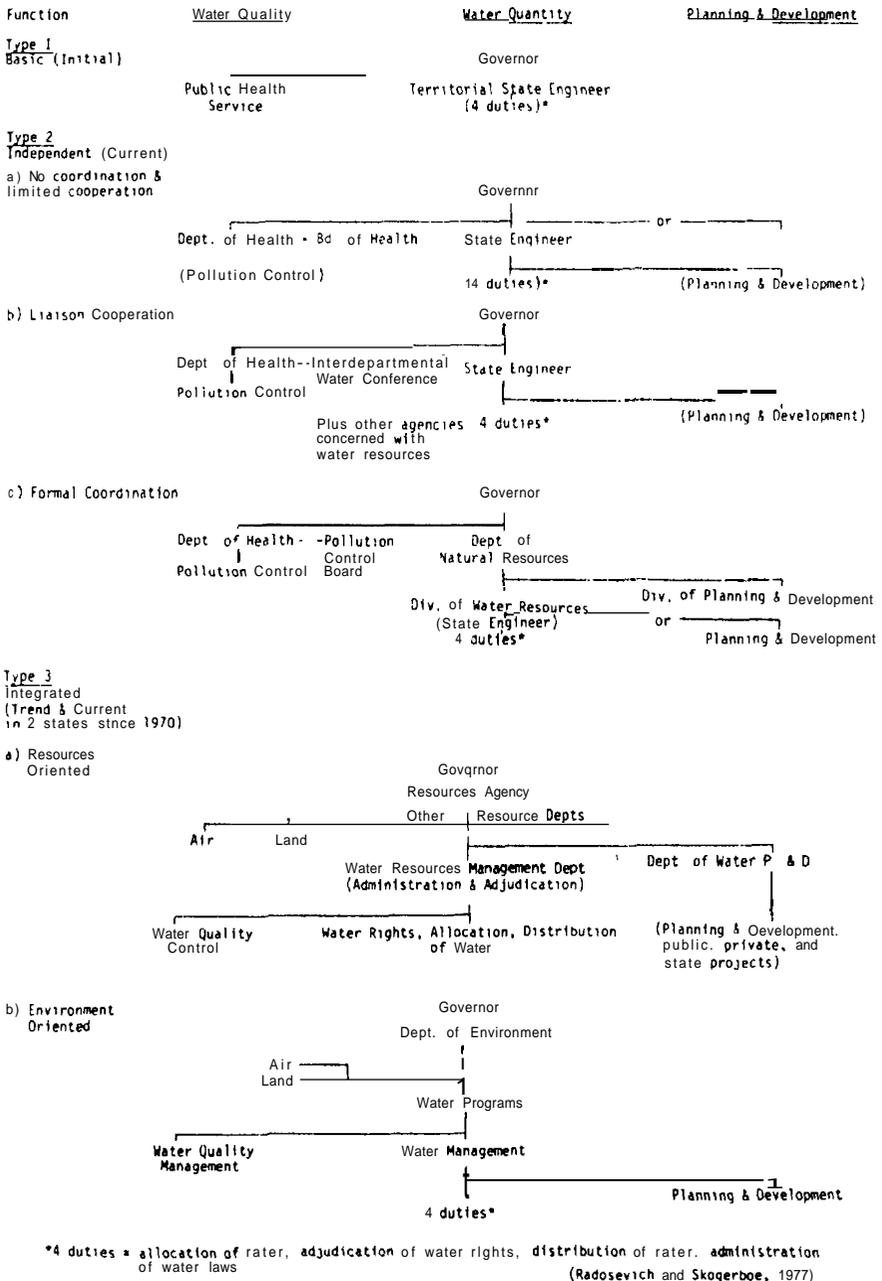
When the original water quantity and quality agencies were created, there was little need, if ever the thought occurred, to focus also upon water planning and development as a state agency function. The two initial agencies of concern were the Public Health Service and the Office of State Engineer.

Figure 2 illustrates the range of organizational arrangements that evolved and exist today, beginning with the Type 1 (Basic) agencies described above. Since 1970, most of the state agencies have been reorganized some number of times. But the basic schemes can be seen in Figure 2 as variations of Type 2 (Independent) and Type 3 (Integrated). The trend is definitely toward the Type 3 structure with contemporary objectives often reflected in the title (i.e., emphasis on the environment or emphasis on the resources). A shift has occurred away from the use of the title "Office of State Engineer" or its equivalent to the more nonpersonal and comprehensive title "Department" or "Division of Water Resources."

Keeping in mind that the emphasis of this paper is on water management tools, the present organizational schemes found in the western states can be classed as Independent (Type 2) or Integrated (Type 3) agencies—that is, classified relative to the performance of the three basic functions of water quantity, quality control, and planning and development. From 1972 to

Figure 2

Types and Evolution of Water Administration Agencies by Three Major Functions



*4 duties = allocation of water, adjudication of water rights, distribution of water, administration of water laws
(Radosevich and Skogerboe, 1977)

1977, a great deal of concern was on agency capability to implement an effective irrigation return flow, quality control program. Unfortunately, this concern was often premised upon a belief that farmers were culprits, injecting pollutants into water courses. In fact, any successful program in water quality control from irrigated agriculture should, by necessity, recognize the inseparable interdependence of the allocation of water, granting a water right, the exercise of the right through diversion, and the application of water—along with the other agricultural inputs such as chemicals—and land use practices that result in return flows (discharges) of a lesser quality.

In the Type 2 (Independent) class, the dominant features are (1) separate agencies for water quantity and quality control, (2) the planning and development carried out, and (3) the existence of a policy and rule-making body in or over either the water quantity or quality agency. These three features do exist to some degree in every western state.

It is also important to explore the degree that agencies interact. The Type 2 arrangement can be subclassified into (a) no coordination and limited cooperation, (b) liaison cooperation, and (c) formal cooperation. In the Type 2(a) organizational structure, the three functions are often performed in a vacuum. The agencies carry out their duties independent of possible impact upon the subject jurisdiction of their sister agencies. In the Type 2(b) structure, which is the current Wyoming arrangement, the agencies act independently of one another, but there exists a mechanism for all agencies dealing with water matters to get together once a month and discuss activities and areas of concern. This scheme is called the Interdepartmental Water Conference. The Type 2(c) organizational structure reflects the majority of state arrangements. Independence of water quantity and quality agencies exists, and in some cases—such as Utah—the planning and development is also independent of the water rights agency. But there is established a water quality control or policy board (Kansas, Oklahoma, Oregon, and Texas), commission (New Mexico), or council (Arizona) whose membership includes representatives from at least the two agencies with jurisdiction over water quantity and quality control.

In 1978 there were only two states that integrated the

administration of water quantity and quality law. These two states have actually reorganized to integrate all resource control (California) or the major resources activities as they affect the environment (Washington) under one supervising agency with subdivisions or departments responsible for planning and development. Type 3(b) reflects the environmental importance of the early 1970s. All three basic functions are under an office of the supervisory agency.

As previously stated, there is a definite trend toward the integrated agency approach. Several states have been contemplating reorganization for a number of years. Hutchins's statement about past changes is clearly applicable today: "They resulted from various causes. Some are changes in name only. Others stemmed from the frequently evidenced impulse to reorganize state agencies in order to meet changing and developing public needs not always confined to water resource problems" (Clark, p. 108).

In addition to the organizational structures of state government for water administration, there also evolved in the West organizations representing the interests of water users. Most of these organizations were originally oriented to the use of water by irrigated agriculture. Within irrigation systems, organizational structures emerged over a time ranging from the informal collaboration of a few individuals in the construction and maintenance of a common barrier ditch to formal irrigation companies and districts to multipurpose conservation and conservancy districts. In many instances, a great variety and multitude of irrigation companies within a given system interact in complex ways to distribute water, providing intricate patterns of optional interorganizational arrangements for improved efficiency in water delivery and management. Although it is beyond the scope of this paper to delve into the peculiarity of each organizational variation, it must be pointed out that these organizations are extremely important tools for water management. Conversely, in some instances, they serve to constrain more effective use of water under changing conditions and needs due to the adherence to tradition.

The more common and important irrigation organizations are the mutual irrigation company, the irrigation district, and the

conservancy, conservation, or water management district. The mutual irrigation company may be incorporated under state law and generally is a private, nonprofit, single-purpose organization, owned by the water users as shareholders to divert and deliver water from the source of supply, often to temporary storage, to the shareholder's headgate. Occasionally, a group of companies sharing a common point of diversion or storage will federate into a water users' association to gain economies of scale while still retaining their separate identity.

Irrigation, conservancy, conservation and other forms of water management districts are quasi-public or public organizations with taxing and assessing powers. They are organized under specific state law requiring the consent of a certain percentage of affected users. The irrigation district is a single purpose entity originally created to facilitate implementation of the 1902 Federal Reclamation Act. The other super districts generally are multipurpose structures, covering the whole or part of a hydrologic basin. Some water management districts confine their activities to surface or ground waters, others to conjunctive use of these waters. A few states, such as Nebraska, have authorized the formation of multiresource management districts. Nebraska designates them as Natural Resource Districts.

Improving the Use of Our Legal Tools

I have stated in many previous papers and presentations that the greatest constraint on more effective use of water in the West is the water right. I stand by that assertion if the thesis is economic effectiveness; but if the thesis is or includes social stability and equity, the result is that the water right is still the fundamental and most effective tool for water management in the West. This right, being a real property right with a value and constitutional protection, affords those owners who wish to capitalize on its value to sell and convey varying state law requirements or enable those who wish to remain in their chosen occupation to have the security of water availability under the particular right.

Aside from the water right, several other tools were previously mentioned. Concepts or doctrines that are significant are

- criteria for allocation (beneficial use and/or reasonable use),
- place and type of use,
- duty of water,
- criteria for use and reallocation of use (beneficial use, priority of right, nonuse leading to forfeiture abandonment, fixed location and transferability of use), and
- rights of downstream users (to return flows, maintenance of level of flows, conditions of upstream/downstream transfers).

The organizations, both governmental and nongovernmental, are important tools to implement a policy of water management. Their effectiveness is enhanced through use of rule and regulation making powers. Tools for interstate and international water management include the compact and treaty. Finally, the courts and procedural processes are essential tools if used properly.

Anyone who is familiar with water law and its operation will quickly admit that there are numerous constraints to improved water use through the exercise of the water right. Nontransferability and the practice of "use it or lose it" are most often cited. However, a number of other concerns have been expressed by policy makers, water administrators, and water users that need to be identified. The improvement in any one or more of the legal tools may have a corresponding adverse impact upon others involved with the resource use. A list of concerns or issues includes:

1. Water allocation and reallocation, namely; competition by and between expanding and current uses, such as demands by growing cities, new uses, and the resurgent water right acquisition for speculative gain.
2. Water quality control and conditions, namely, the control impact upon development and use and the interdependency of water quantity use and resulting quality consequences.
3. Surface and groundwater usage, namely, priority of right, impacts of pumping on tributary surface flows,

- and methods for conjunctive management.
4. Certain groundwater appropriations and uses, namely, the tapping of deep aquifers for coal slurry pipeline and other energy uses and water right speculation.
 5. Instream flow maintenance for aquatic life and habitat and recreation or aesthetic purposes.
 6. Federal reservation doctrine limits and impacts.
 7. Interstate stream administration, namely, quality and quantity impacts from changing use conditions and energy development needs.
 8. In general, federal involvement and intervention in western water use and administration, directly through operation of laws and programs and indirectly through the maze of federal rules and regulations surreptitiously affecting water use and causing financial drains and time for response and protection against such regulations.

all these concerns have spatial and temporal dimensions interlaced with the complexities of differing physical and political boundaries.

How then can we improve our use of the legal management tools? I suggest three major areas of improvement: water right status in use, water law administration, and integrated resources management.

Water Right Improvements

To systematically improve the water management through use of legal tools, changes in state laws must include efforts to

- achieve uniformity within state laws and administration;
- achieve workable uniformity in the laws between states;
- develop criteria for efficiency in water allocation and use according to key principles of beneficial use, waste, and duty of water, and apply this criteria to all uses, private and public;
- recognize and promote the public trust of water agencies and the public duty in the user for use of these public resources;
- specifically incorporate the element of water quality in water rights;

- shift to a term permit or periodic evaluation of effective water use for all new and transferred water rights;
- authorize the state agency in charge with water law implementation or planning and development of waters to appropriate in the name of the state all of the remaining waters and permit the use of these waters under contract water rights; and
- authorize a state water agency or create a new agency or division with hydrologic basin offices to operate a water brokerage.

Some of these conceptual alterations need explanation. The concept of beneficial use is constantly cited in referring to western water law. It is a nebulous concept that defines the measure and limit of a water right. The concept must be conceived and directed not only to the type of uses for purposes of allocating water but also to the nature of the use by each particular user. It must also be viewed with respect to the user's responsibility to other downstream users and the public interest. The concept should be reoriented in most states to encourage the most advanced technologically feasible management program with respect to the type of use. In addition, by adding the element of water quality specifically as a component in a water right, the beneficial use concept can be oriented to improve these practices by analyzing the consequence of the use. In effect, what beneficial use would attempt to accomplish is arriving at the best management practices.

Most states in the West grant perpetual water rights so long as the individual continues to abide by the use conditions. Unfortunately, few western states periodically review the use practices of this valuable property right. A few states have adopted term permits and periodic valuations. This concept should be adopted by all western states. A term of ten years or a term based upon the amortized period of the investment for which the water rights will be used should be considered. More favorable from the point of view of being able to manage the resource in the future would be the authorization of the state to appropriate all remaining and appropriated water in the name of the state and to adopt "contract water rights" as a means for allocating the use of this resource. Contract water rights would

still enable the user to apply for any appropriated water with the advantage that the contract would be for a specific term, provide specific standards of use with respect to the type of use and the ability of the user to employ the most effective means, provide for penalties in the breach of contract or misuse of the resource, and place the burden of effective water use on the user in such a way that the cost of administration will be partly covered by the contract beneficiary. In such a manner, the economic concepts of water pricing can be implemented through the administrative system and can set the standards for private water pricing practices.

Finally, it is recommended that the state be authorized to create a water brokerage system. The operation of the water brokerage system will be discussed below, but the theory behind it is that at present, many water right holders will divert the entire amount that they are entitled to in order to preserve the integrity of their full allocation. This is done regardless of whether a beneficial use of the water is actually being made because the water right holders know that it is administratively impossible to police every water user under the present system of administration in most states. Thus, by creating a water brokerage system, an incentive would be provided the user who may only need half his allocation to offer the balance to a more effective user and receive compensation for his own thriftiness.

Water Law Administration Improvements

Most state agencies find themselves overcommitted with obligations and duties and understaffed. Their operation is often geared to the allocation and distribution of water and handling the more serious water problems. Several improvements to water administration can be made:

- The adoption of a water registry system requiring the water right owner to report annually on the nature, extent, and place of use of the water and requiring water right purchasers to inform the state of any transfer of ownership. Failure to comply with registry requirements would be prima facie evidence of intent to forfeit or abandon the right.

- The authorization of the state agency to issue orders of the compliance, immediately effective, but reviewable by a water or district court.
- The encouragement of the creation of basin or subbasin water management districts to resolve complex water right problems and water deliveries. Such a district may employ the practice of reallocating water among the district's users according to need in order to insure that all users have a usable quantity and quality available.
- The creation of a new agency or the authorization of an existing state agency to operate a water brokerage system at the basin or subbasin level.

Several of the structural alternatives suggested are already in operation in a few states. In some states, irrigation districts are used to circumvent constraints imposed by transfer restrictions. In Colorado, ditch companies operate to rent and transfer water within their system in order to avoid the cumbersome organizational impediments and thus effectively serve to manage their water allocation by taking advantage of location of reservoirs and user requirements.

The problem is that these practices are on a limited scale in the West. A means is needed of allocating or reallocating water within a basin or subbasin that takes into consideration the needs of the water users within the system, the state water development plan, and the basin, interstate and international impact. An entity responsible to the public is suggested to operate as a market center for the exchange, rental, or sale of water rights. This brokerage system would encourage water users to divert only that amount of water necessary for their operation without fear of losing the unused decreed quantity and lease or rent the balance to other users, taking into account carriage losses and adverse impact on other water users in the system. Hence, there would be an economic incentive to implement the most efficient water management practices.

An entity created at the basin or subbasin level with responsibility to the central state water office would list all available water for rent, lease, exchange, or sale. The location of available waters will determine the impact upon other vested rights,

but the responsibility for delivery and protection of such other rights would rest upon either the water right holder or water acquirer. Uniform prices of units of water could be established or the available water could be transacted to the highest bidder. A percentage of the transaction price would be retained for operation and maintenance of the brokerage system.

Integrated Resources Management

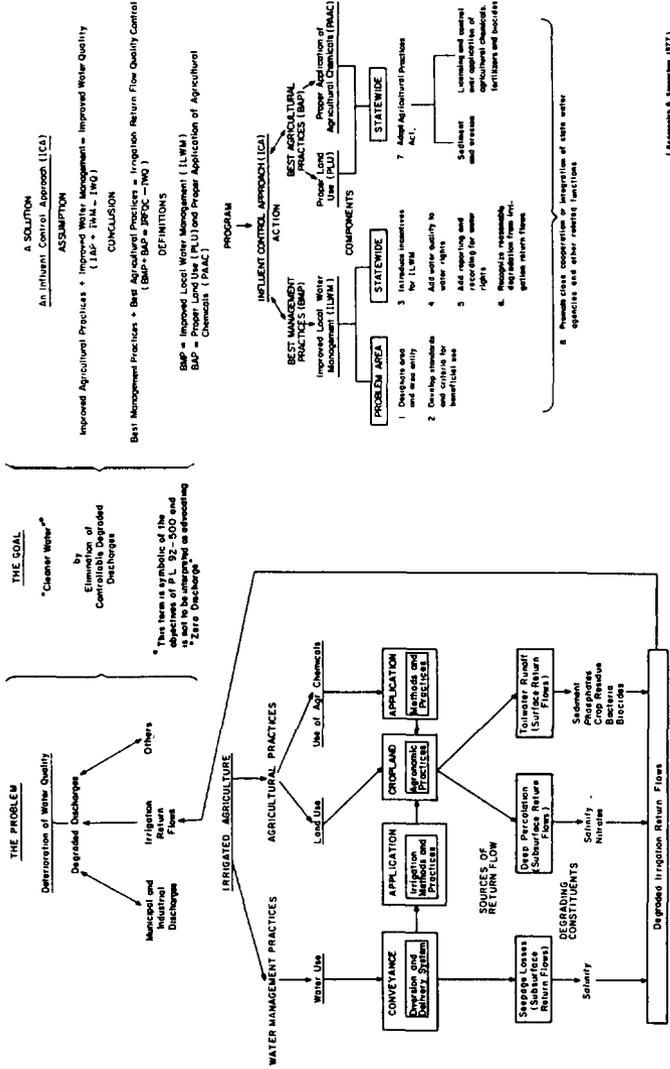
The majority of states treat each resource independently for administrative purposes. As a consequence, conflicts occur between state agencies where the resources are interdependent. For example, land allocation or rezoning may have a significant impact upon watershed management or existing water rights. Often, a particular activity requiring many different resources as factors of input can have adverse consequences, such as the location of industrial plants upstream or upwind from cities and certain agricultural activities that would affect water quality.

Because agriculture is still one of the largest water users in the West, particular attention is directed to it. Since 1972, when the Federal Water Pollution Control Act was adopted, there has been an extensive effort to improve quality of return flows from irrigated agriculture. Several of my colleagues and I have conducted research on this topic for a number of years. As a consequence of that research, we are recommending that states adopt a program of influent control for irrigated agriculture, which includes out-flow analysis with criteria to determine the degree of improvement relative to needs and opportunity costs. The influent control approach is based upon the assumption that improved water management plus improved agricultural practices will significantly contribute to improved water quality. The approach consists of nine specific components:

1. Designate areas for irrigation return flow quality management and designate the responsible area entity.
2. Develop standards and criteria for beneficial use in designated areas.
3. Introduce incentives to use water more efficiently.
4. Include the element of water quality in new, transferred, and changed water rights.

Figure 3

The Goal, Problem and Solution to Irrigation Return Flow Quality Control



5. Adopt and enforce a reporting and recording system for water rights.
6. Recognize reasonable degradation from agricultural water use.
7. Adopt an agricultural practices act to control sediment and erosion.
8. License and control the application of agricultural chemicals, such as fertilizers and biocides.
9. Promote close cooperation or integration of state water agencies or related functions.

Figure 3 illustrates the goal, problem, and proposed solution to the irrigation return flow quality control.

Conclusion

It has not been the thesis of this paper that legal tools for water management in the past have not been effectively used. To the contrary, many states have adopted efficient and effective programs. The difficulty in making better use of our management tools is that changing needs and conditions out-date past practices. As a consequence, it is my conclusion that the most important tool that we have is our ability to employ common sense and equity in meeting the dynamic challenges for water. To be successful will require patience, humility, understanding, and willingness to internalize externalities and accept trade-offs. Before we can improve our legal management tools, all parties must understand the conditions or problems and be willing to accept change.

Notes

1. W.S.A. Sec. 41-20.
2. 6 Colo. 443 (1882).
3. T.W.R.C. Rule 129.02.05.001-.008.
4. O.W.R.B. Rule 350.
5. T.C.A. Sec. 5.002.
6. Montana Constitution Art. IX, Sec. 3.
7. N.R.S. Sec. 533.475.

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