The Doctrine of Prior Appropriation and the Changing West

Prepared by the Staff of the
Western States Water Council

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SUMMARY

The relative scarcity of water in the American West required a different water law than the riparian doctrine used in the eastern states. Shortly after Anglo settlers inhabited the West in significant numbers, the doctrine of prior appropriation was instituted as the water law of the region. This occurred initially on an ad hoc basis and was later formalized under the statutory regimes of the various states. The law of prior appropriation is utilized today in every western state to govern and administer water rights.

Historically, a handful of basic principles formed the foundation of appropriative water law. For example, publicly defined beneficial uses have long been the limit and extent of appropriative water rights. The principle of "first in time is first in right" created chronological hierarchies of appropriative water rights, providing assurance that in times of shortage water would be available for at least some senior uses. Also, appropriative water rights have long been considered constitutionally protected property interests subject to sale and lease. These principles provided the necessary security in water use that enabled the development of the West.

These and other characteristics were recognized early in the establishment of the prior appropriation doctrine. Since these early principles were established, the doctrine has evolved significantly to enhance protection of public interest values and to better facilitate the balancing of competing demands in the use of western water resources.

Traditionally, appropriative water rights were granted in the order applications were made up to the amount of water available in a water course. No regard could be given to which application might portend a "better" water use. Under modern appropriative law in most western states an important part of the permitting process is the consideration of public interest criteria. These criteria allow state agencies to pursue a policy of optimum use of water resources by measuring pending applications against established public interest values.

Another important modification of traditional western water law is the protection of instream uses. Historically, the prior appropriation doctrine required a diversion of water to establish an appropriative water right. Under modern western water law this requirement has several significant exceptions. In all states methods exist to protect instream values and in most states instream uses are recognized as beneficial uses upon which appropriative rights may be based.

A further development with regard to public interest values and water in the West is the reformulation of the "public trust doctrine." Traditionally, this doctrine provided for public

control of navigable waters to the extent necessary to protect trust uses. Recently, one state supreme court held that the public trust doctrine provides a basis outside of the appropriation doctrine to reexamine vested appropriative water rights and, potentially, to modify those rights to protect public uses. Some observers have criticized this result on the basis that public trust values can be protected under the appropriation doctrine and that application of the public trust doctrine in its purest form may result in the taking of property without compensation.

Water transfers, referring to the conveyance of a water right from one use to another, provide another method of promoting public interest values, as well as meeting new water demands, in the management of western water resources. Such transfers promote the public interest by allowing established uses to change in accordance with evolving needs. The transferability of appropriative water rights has been recognized since the 1850's. However, there has been a good deal of interest and media attention focused at such transfers in recent years. Clearly, transfer of water rights is an important facet of the management of water in the West.

Historically, water has been considered a public good. Many western state constitutions provide that waters of the state belong to the people of the state or to the state itself. However, the U. S. Supreme Court decided in Sporhase v. Nebraska that state ownership of water as articulated by Nebraska was a "fiction," that western water is a commodity in commerce, and that state statutes governing the interstate movement of the commodity are subject to federal scrutiny under the Commerce Clause of the U. S. Constitution. The states have reacted to the Sporhase ruling in varying ways.

Appropriative water laws have evolved differently from state to state, reflecting various societal values. However, it is important to note that throughout the West the doctrine of prior appropriation has changed to meet diversified needs as the West has developed. More modification will likely occur in the future. This evolution of appropriation principles has proven to be one of the most important characteristics of the appropriation doctrine.

THE DOCTRINE OF PRIOR APPROPRIATION AND THE CHANGING WEST

INTRODUCTION

Legal institutions which govern water use may take various forms. At their best they respond to natural conditions, reflect social goals, and facilitate prudent, equitable, and efficient use of water resources.

The cultural and economic development of the western United States has relied from its early beginnings on a body of water law called the doctrine of prior appropriation. This report briefly reviews the historical background of the appropriation doctrine, describes the modern protection of the public interest in the allocation of water under that doctrine, comments on water transfers in the West, particularly the law of interstate sales and leases, and describes other recent water/legal developments in the western states. The report is based on information solicited using a questionnaire circulated by the staff of the Western States Water Council. The Council staff is responsible for the content of the report. Charles DuMars, Professor of Law, University of New Mexico, authored Section IV.

I. WATER LAW IN THE WEST - A BRIEF HISTORICAL OVERVIEW

A. The English Legacy in the Eastern States

When the early American colonizers settled the eastern seaboard of the North American Continent they probably gave little thought to a legal framework to govern water use. Their new climate and topography, with plentiful precipitation, closely enough resembled their native England that traditional English water laws and customs, based upon the riparian doctrine, were easily put to use.

Because of the importance of fishing and water based transportation, the King of England held the equivalent of water rights to all navigable English water courses. These were defined as water affected by the ebb and flow of the tide. Non-navigable waters were considered private property. Private landowners owned the banks and beds of non-navigable streams and lakes and were allowed to use the water in them to the extent that the flow was undiminished. Such water rights were known as riparian rights and were considered lesser rights than those held by the Crown.

The riparian laws adopted in the eastern states proved flexible and were modified as needed. For example, the strict protection of natural flow, which could severely restrict water use even by a holder of riparian rights, evolved to allow "reasonable use," or use which created no unreasonable

interference with the rights of other riparians. Another adaptation was the change in the extent of federal jurisdiction in "navigable" waters. The English "tidewater" test was originally assimilated as the measure of federal jurisdiction in the United States. In 1851 federal jurisdiction was expanded to all waters used for foreign or interstate commerce regardless of the effect of the tide.[1]

The evolving status of navigability led to questions concerning ownership of the beds and banks of streams and lakes as well as the subservience of riparian rights to navigation interests. In 1876, the U. S. Supreme Court held that while the English test had laid a foundation for the public interest in navigable waters, the test conflicted with sound public policy and the states were free to adopt different tests of navigability.[2] All states eventually adopted the "navigable in law" test, and waters "navigable in fact" became "navigable in law." This, of course, affected riparian water rights since public rights extended to all waters which supported interstate or foreign commerce or transportation, or were capable of supporting the same, whether inland or coastal. As water use increased, the riparian laws of the eastern states were modified in other ways. These changes promoted social growth and development and reflected the cultural values and economic necessities of water users.

B. The Appropriation Doctrine in the West

Although the arid western United States adopted the "navigable in law" test just described, the development of laws governing water rights in general was markedly different in the West than in the East. Many factors led to this. The single most important one was the difference in climate and geography. In the East precipitation was and is relatively abundant. Water courses are numerous and generally close to areas of need. The necessity of diversion is therefore minimized. In most of the West just the opposite is true. Relatively slight precipitation means fewer water courses. This increases the need to divert water to areas where it will be used. The water law doctrine of prior appropriation, which is currently used to administer water rights in every western state, developed in response to these conditions.

The roots of the prior appropriation doctrine run deeply. Native Americans may have been the first "appropriators" in the West. Prior to the cession to the United States of land under the Treaty of Guadalupe Hidalgo, community ditches, first dug by American Indians, were used to divert, or "appropriate," western water for agricultural purposes. Also, the religious and military outposts of the early Spaniards required a stable supply

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[1] The Propeller Genesee Chief v. Fitzhugh, 53 U.S. 443 (1851).
[2] Barney v. City of Keokuk, 94 U.S. 324 (1876).

of water. They sometimes used the existing canals of the Native Americans and sometimes dug their own. Thus, the Spanish and Mexican settlers who established missions, agricultural pueblos, and military posts in the American Southwest were also early appropriators. A New Mexico Supreme Court opinion states "the law of prior appropriation existed under the Mexican Republic at the time of the acquisition of New Mexico."3/ Referring to water use by Native Americans, the Arizona Supreme Court noted that the right to appropriate water to grow crops predates recorded history.4/

Among the later Anglo settlers of the West, two groups, the miners and the Mormons, have been identified as contributing to the development of the doctrine of prior appropriation. The Mormons settled the Great Basin beginning in 1847. This area, which was described by early American cartographers as the "Great American Desert," was uninviting. A subsistence level of survival was the settler's primary concern. Water was necessary for human consumption, for stock watering, and to irrigate crops. Tradition among the Mormons dictated that the first settlers in an area to put water to these uses would be protected in that use against settlers who came later.

During the same period that the Mormons came West, gold was discovered in California. The miners, like the Indians, ~~Spaniards, and Mormons~~, were dependent on water. Placer claims in particular required the diversion of large amounts of water from rivers and streams. A basic tenet of mining law is that the miner who initially stakes a claim (who is "first in time") is protected in development of the claim as against other miners (he is "first in right"). This practice carried over to the use of water and became not only recognized as tradition but also protected in courts of law. Further, the concepts of prior appropriative water law which developed in the California mining camps spread to other western states as mineral discoveries led miners away from California to other areas. The Montana Supreme Court stated, "all (early) appropriations (in Montana) were made pursuant to the rules and customs of the early settlers of California which had been adopted in Montana territory and given the force of law...."5/

These initial developments in the establishment of the prior appropriation doctrine occurred independently. Yet, looking even at these early times, certain important characteristics of the appropriative water right can be defined. The first is the requirement of beneficial use. Whether they irrigated squash and corn, used water for domestic purposes, or sluiced for gold the

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3/United States v. Rio Grande Dam & Irrigation Co., 9 N.M. 292, 306 (1898)
4/Clough v. Wing, 2 Ariz. 271, 380 (1888).
5/Maynard v. Watkins, 55 Mont. 54, 55 (1918).

Wate Wars

Spaniards, Indians, Mormons, and miners diverted water from its natural location and used it for beneficial purposes. The beneficial uses were the limit and extent of their water rights.

A second characteristic is the principle of priority - "first in time is first in right." A chronological hierarchy was created among the miners and the Mormons where early users who perfected their rights were protected as against subsequent users. They were not, however, protected against the whims of mother nature. In times of shortage senior rights were protected up to the available supply, while junior users, who may have had plenty of water in a "normal year," received no water at all. This assured that some water would be available for some uses.

There was a corollary to the "first in time" principle which was loosely described as the concept of "use it or lose it." Tradition and custom were quick to protect senior water right holders in the exercise of their rights. However, those who purportedly held a water right, but failed to use the water to which they were entitled, received little protection. When a water user relinquished his right through non-use, the water returned to the water course and was available to meet the needs of junior users. There was no toleration under the law for "non-use."

Another characteristic was the need for a diversion. Construction of diversion facilities required the investment of time and capital and demonstrated the sincerity of the prospective water user. Instream uses were not recognized as sufficient to demonstrate the requisite intent. Also, a diversion provided a means, however limited, of measuring the water used. A typical situation might have involved an irrigator who would construct diversion works and, possibly, a ditch or canal, to connect his land to a free flowing stream. The amount of water he could extract from the stream would be based on a "water duty" (the amount of water he needed per acre to successfully irrigate the crops he grew) multiplied by the number of acres he irrigated. Because downstream irrigators depended on the water he did not consume, he "owed" his "return flow," the excess water flowing off his fields, to the water course.

A final characteristic worthy of mention was that an appropriative water right, once vested, became a constitutionally protected property interest. It could be sold, leased, bequeathed, or transferred in other ways. It was a usufructuary right, or a right to use, and was accorded the protection of due process clauses of the Fifth and Fourteenth Amendments to the United States Constitution. This protection was necessary to promote investment of capital and protect the stability of long-term financial arrangements related to economic development which depended on water use.

These characteristics, as mentioned, were established soon after the appropriation doctrine became the water law of the West. As necessity has required, some have been modified. Others have not. Some of the modifications will be discussed below. It is important to note that, because of the constitutional protections just discussed, these modifications have respected the property rights of the holders of vested appropriative water rights, since such rights cannot be taken without due process of law. The administration of appropriative water rights has also been changed. At first, it functioned on an ad hoc basis. Indeed, many appropriative water rights were created before state and territorial legislatures had enacted laws governing water use.

The first appropriative water rights statute was enacted in California in 1873.[6/] It allowed for creation of such rights by posting at the point of diversion a piece of paper stating the intended amount of the right and its purpose of use, filing for the right in the County Recorder's office, and taking the necessary steps to "perfect" the right (put the water to beneficial use) with "due diligence." This procedure was not the exclusive method of creating water rights, because California recognized both appropriative and riparian water rights. Other states also enacted early statutes governing appropriative water rights, with the posting of notice at the point of diversion a main feature. Colorado, Dakota Territory, New Mexico, Texas, and Wyoming enacted laws in the 1880's.[7/] Arizona, Nevada, and Oklahoma enacted laws in the 1890's.[8/]

As water use increased, the simple system for governing appropriative rights under the early statutes proved inadequate. A lack of enforcement of the requirement to record the right in the County Recorder's office made it extremely difficult to enforce priorities. In addition, the posting requirement proved largely ineffectual, because the posting often occurred in remote areas where it could be seen by few other appropriators. Also, the posting was usually done with ephemeral material which, even if a subsequent appropriator had attempted to locate it, may have disintegrated or, at least, become illegible. State governments began to realize that a central administrative system to control appropriative water rights, as well as a centralized office of record to keep track of such rights, would be preferable to the haphazard administration which occurred under the early statutes.

6/Cal. Civ. Code §§ 1410 to 1422 (1872).

7/Colo. Laws 1881, p. 161; Terr. Dak. Laws 1881, Ch. 142; N. M. Laws 1891, p. 130; Tex Gen. Laws 1809, Ch. 88; Wyo. Laws 1886, Ch. 61.

8/Ariz. Laws 1893, No. 86; Nev. Laws 1899, Ch. 97; Okla. Laws 1897, Ch. 19. See generally 1 W. A. Hutchins, Water Right Laws in the Nineteen Western States pp. 166-170 (1971) and 1 R. E. Clark, Ed., Waters and Water Rights pp. 93-124 (1967).

Wyoming was among the first states to enact statutes which gave a state agency a major role in administering appropriative water rights. This occurred in 1890.9/ The key features of the Wyoming system were: (1) the requirement that an application must be filed with a state entity before a right could be created; (2) the necessity of a ruling on a application by the state agency, including denying a permit where no water was available; and, (3) the maintenance of a central bank of public records of the applications which had been made. Although technical capabilities were meager, the new system allowed for application of the technology that was available. Also, it discouraged the filing of unsupportable or excessive claims, gave some notion as to the availability of water in a water course, and made possible the enforcement of priority among water right holders. Other states adopted similar statutory programs in the following order: 1895 Nebraska; 1903 Utah, Idaho; 1905 Nevada, New Mexico, North Dakota, Oklahoma, South Dakota; 1909 Oregon; 1913 Texas; 1914 California; 1917 Kansas, Washington; and 1919 Arizona.10/

The procedures adopted under the early administrative statutes, of course, varied from state to state and have been modified and updated as needed. Also, numerous court decisions have been important in shaping appropriative water law, both by interpreting statutes and filling holes where statutes were silent. Further, the courts defined the relationship between newer and older appropriative rights and between appropriative rights and the riparian rights recognized in a few western states. Today, sophisticated administrative systems exist in every western state to manage appropriative water rights. Under these systems interrelated rights are coordinated and priorities are ~~strictly~~ enforced. Also addressed are requirements relating to the scope of individual rights and the need for continued beneficial use. Some of the refinements in state administrative systems will be discussed below.

Much of the development of western state water law occurred on an intrastate basis. However, interstate matters have also been a focus of attention. Interstate compacts, which divide the use of water in a water course which flows between states, have been negotiated for the following major western rivers: Arkansas, Bear, Canadian, Colorado, La Plata, Pecos, Republican,

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9/Wyo. Laws 1890-91, Ch. 8.

10/Neb. Laws 1895, Ch. 69; Utah Laws 1903, Ch. 100; Idaho Laws 1903, P. 223; Nev. Laws 1905, Ch. 46; N. M. Laws 1905, Chs. 102 and 104; N. D. Laws 1905, Ch. 34; Terr. Okla. Laws 1905, Ch. 21; S. D. Laws 1905, Ch. 132; Or. Laws 1909, Ch. 216; Tex. Laws 1914, Ch. 171; Cal. Stat. 1914, Ch. 586; Kan. Laws 1917, Ch. 172; Wash. Laws 1917, Ch. 117; Ariz. Laws 1919, Ch. 164. See generally I W. A. Hutchins, Water Right Laws in the Nineteen Western States, pp. 170-180 (1971).

Rio Grande, Sabine, Snake, South Platte, and Yellowstone.[11] Compacts have also been negotiated for the following river basins: Arkansas, Klamath, and Upper Colorado.[12] Another method of dividing waters between states is by equitable apportionment, where the division is made judicially, either by a judge or court-appointed special-master whose work is reviewed by the court. Cases such as Nebraska v. Wyoming,[13] in which the North Platte River was apportioned, and Wyoming v. Colorado,[14] in which the Laramie River was apportioned, are examples of where the U.S. Supreme Court has acted to apportion waters between interested states. A third method of dividing interstate waters is the so-called "congressional apportionment." This occurred when Congress, in the Boulder Canyon Project Act,[15] authorized the Secretary of Interior to apportion water between the states of the Lower Colorado River Basin.[16] The share of the river to which the lower basin states were entitled as a group was determined when the river's flow was divided between the upper and lower basins in the Colorado River Compact.[17]

A review of the development of the prior appropriation doctrine would be incomplete without some mention of federal laws which helped shape western water resource management. In the Mining Act of 1866[18] Congress confirmed water rights for mining, agriculture, and other uses which had been acquired by private parties on public land under local customs, laws, and court rulings. In the Desert Land Act of 1877[19] Congress declared that water rights in arid lands of the western United States depended on the prior appropriation doctrine. The effect of this Act was to reconfirm then past and future appropriation of water on public lands which had been made pursuant to local procedures under state law. The Supreme Court recognized the Desert Land Act as having severed the land and water estates in the public domain and having directed that rights to water be established under state law and independently of rights to land.[20] These

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11/ See 63 Stat. 145 (1948); 72 Stat. 38 (1955); 66 Stat. 74 (1950); 45 Stat. 1057, 1064 (70 Cong. Rec. 324 (1928)); 43 Stat. 796 (1922); 63 Stat. 159 (1948); 57 Stat. 86 (1942); 53 Stat. 785 (1938); 68 Stat. 690 (1953); 64 Stat. 29 (1949); 44 Stat. 195 (1923); 65 Stat. 663 (1950).

12/ See 80 Stat. 1409 (1965); 71 Stat. 497 (1957); 63 Stat. 31.

13/325 U.S. 589 (1945), decree modified 345 U.S. 981 (1953).

14/259 U.S. 419, modified, 260 U.S. 1 (1922); See also Wyoming v. Colorado 298 U.S. 573 (1936) and 353 U.S. 953 (1957).

15/45 Stat. 1057, 43 U.S.C. § 617 (1928).

16/ See Arizona v. California, 373 U.S. 546 (1963).

17/ See 45 Stat. 1057, 1064; See also 70 Cong. Rec. 324 (1928).

18/Act of July 26, 1866, Ch. 262, § 9, 14 Stat. 253, 43 U.S.C. § 661.

19/Act of March 3, 1987, Ch. 107, § 1, 19 Stat. 377, 43 U.S.C. § 322.

20/California-Oregon Power Co. v. Beaver Portland Cement Co. 295 U.S. 142 (1935).

laws contributed significantly to the spread of the prior appropriation doctrine in the West. An early Supreme Court decision also recognized that local prior appropriative water rights were "rights which the government had, by its conduct, recognized and encouraged and was bound to protect."[21/] In effect, since land in the arid West was of little value without a dependable water supply, the Congress and the Court said that the proper method of protecting one's interest in western land was to secure accompanying water rights under local prior appropriation procedures.

Another federal law important to the development of the prior appropriation doctrine was the Reclamation Act of 1902.[22/] This Act marked the culmination of years of debate concerning "reclaiming" western land from its arid state to make it productive for agricultural purposes. A key provision of the Act was contained in Section 8 which read:

> Nothing in this Act shall be construed as affecting or intended to affect or to in any way interfere with the laws of any State or Territory relating to the control, appropriation, use, or distribution of water used in irrigation, or any vested right acquired thereunder, and the Secretary of the Interior, in carrying out the provisions of this act, shall proceed in conformity with such laws, and nothing herein shall in any way affect any right of any State or of the Federal Government or of any landowner, appropriator, or user of water in, to, or from any interstate stream or the waters thereof: Provided, That the right to the use of water acquired under the provisions of this Act shall be appurtenant to the land irrigated and beneficial use shall be the basis, the measure, and the limit of the right. (emphasis in original)

This Act again placed Congress' blessing on prior appropriation principles as the water law of the West. However, not until 1978 when the Supreme Court decided California v. United States,[23/] was the language of Section 8 recognized as having the full import Congress intended to give it. Prior to this ruling Section 8 was viewed as being of far less importance. Moreover, implementation of other federal laws, some with language similar or identical to Section 8, has actually conflicted with the management of water under state appropriation laws. These include the Clean Water Act, the Endangered Species Act, and the Federal Power Act.[24/]

[21/] Broder v. Natoma Water and Mineral Co., 101 U.S. 274, 276 (1880).

[22/] Act of June 17, 1902, 32 Stat. 390, 43 U.S.C. §§ 383 et seq.

[23/] 438 U.S. 645 (1978).

[24/] Federal Water Pollution Control Act, 33 U.S.C. §§ 1344 et seq.; Endangered Species Act, 16 U.S.C. §§ 1531 et seq.; Federal Power Act, 16 U.S.C. § 791(a) et seq.; Wild and Scenic Rivers

United States Supreme Court decisions regarding federal proprietary rights to water have also had a bearing on the management of water resources in the West. The most significant example is the recognition and development of the federal reserved water rights doctrine. In 1908, in Winters v. United States,25/ the Supreme Court was asked to resolve a dispute between Montana irrigators who used Milk River water and Indians on the Fort Belknap Indian Reservation. The Court held that when Congress set aside the land for the reservation it impliedly reserved sufficient water to carry out the purpose of the reservation. The result was to carve out an exception from the general rule that western water, even on the public domain, was available for appropriation under state law.

The extent of this exception was not immediately recognized. It was better understood, however, in 1963 when the Supreme Court decided Arizona v. California.26/ In that case the reservation doctrine, as the principle from the Winters case came to be known, was used to award to approximately 2,000 Indian people comprising five tribes a significant portion of the flow of the Colorado River and was held to apply to non-Indian federal reservations. Today the existence of the reservation doctrine is no longer questioned, yet many of its parameters remain undefined. Among the unresolved issues are the quantity of most reserved rights claims, how they are to be administered, whether they may be sold or leased off from the reservation to which they pertain, and how they relate generally to vested appropriative water rights. Jurisdictional questions have also been troublesome. For example, conflicts have raged for years over elementary matters such as whether cases involving reserved water rights should be heard in state or federal court. Because reserved rights are largely unquantified, and because their priority dates (usually the date of creation of the reservation) predate most other appropriations in the West, it is unclear how many appropriative water rights may be affected when all reserved water rights are quantified, but it is expected that the number will be great.

The reserved rights doctrine is a judicial creation and its parameters have been judicially defined. This has been a long and arduous process. However, significant efforts aimed at resolving reserved rights conflicts through negotiation instead of litigation are pending. Unlike the usual result in litigation, negotiation proceedings can be tailored so that the results are advantageous to all of the parties.

(footnote continued from previous page)
Act, 16 U.S.C. §§ 1271 et seq. See External Resolutions No. 132, 140 and No. 150 of the Western States Water Council adopted April 22, 1983, January 13, 1984, and April 16, 1985, respectively.
25/207 U.S. 564 (1908).
26/373 U.S. 564 (1963).

As noted, federal laws have both contributed to and conflicted with the establishment and implementation of the appropriation doctrine. Notwithstanding the conflicts, however, the law of prior appropriation has become firmly entrenched as the water law of the western states, with some riparian rights recognized in a few states. Modifications in appropriation doctrine have made it more responsive to the needs of the West as the West has grown and become more diversified and as the demand for water for various uses has increased. Some of these modifications are discussed in the sections which follow.

II. PROTECTION OF THE PUBLIC INTEREST AND BALANCING COMPETING DEMANDS

A. Public Interest Criteria

Under traditional appropriative law water users were granted water rights up to the amount of water available in a water course in the order applications were made. Sometimes streams were "over appropriated" and rights were granted to high water flows not available every year. When pending applications were processed, no regard could be given under the law to which applications might constitute a "better" water use. The only considerations were the order in which the applications were made and amount of water available - or potentially available - in the water source.

Under modern appropriative law public interest criteria are usually considered as part of the permitting process. For example, in North Dakota, before a water permit may be granted, the state engineer is required to find that the proposed appropriation is in the "public interest."27/ The pertinent statute lists the following factors which must be weighed in determining the public interest:

> (a) benefit to the applicant; (b) effect of resulting economic activity; (c) effect on fish, game, and public recreational opportunities; (d) effect of loss of alternative uses for the water; (e) harm to other persons; (f) intent and ability of the applicant to complete the appropriation.

These criteria allow the state engineer to pursue a policy of optimum use of water resources. Rather than issuing a permit to the applicant next in line, he can measure the pending applications based upon the listed criteria and grant a permit which allows the use which best serves the public.

Alaska is another state where public interest criteria are defined by statute. The criteria apply to evaluation of applications for surface and ground water and for reservations of

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27/N. D. Cent. Code § 61-04-06.

water for instream uses. The Alaska Department of Natural Resources relies heavily on these criteria in evaluating applications. The criteria, which are similar to those in the North Dakota statute, are:

> (1) the benefit to the applicant resulting from the proposed appropriation; (2) the effect of the economic activity resulting from the proposed appropriation; (3) the effect on fish and game resources and on public recreational opportunities; (4) the effect on public health; (5) the effect of loss of alternative uses of water that might be made within a reasonable time if not precluded or hindered by the proposed appropriation; (6) harm to other persons resulting from the proposed appropriation; (7) the intent and ability of the applicant to complete the appropriation; and (8) the effect on access to navigable or public waters.28/

In some states public interest criteria have been judicially defined. For example, the Idaho Supreme Court has confirmed the need to consider the "local public interest" in evaluating applications to appropriate water and has given the term a broad, all inclusive definition. The court stated that, "by using the general term 'the local public interest,' the legislature intended to include any locally important factor impacted by proposed appropriations."29/ With regard to a proposed application, the court specifically noted the following as being among the factors to be considered:

> (1) the benefit to the applicant; (2) its economic effect, benefit, and detriments; (3) its effect on loss of alternative uses of water that might be made within a reasonable time if not prevented or hindered by the proposed appropriation; (4) its harm to others; (5) its effect upon access to navigable or public waters; (6) the intent or ability of the applicant to complete the appropriation; (7) the assurance of minimum stream flows; (8) discouragement of waste; (9) encouragement of conservation; (10) public health and safety; (11) aesthetic and environmental ramifications; and (12) effect upon vegetation, fish, and wildlife.

Based on the court's decision, criteria have been adopted for guiding the determination of public interest for applications to appropriate unappropriated water and for reallocating trust waters. The public interest criteria have been added to the Idaho water statutes as factors to be considered in granting applications to: (1) appropriate unappropriated water; (2) reallocate water held in trust from some existing hydropower

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28/Alaska Stat. § 46.15.80.
29/Shokal v. Dunn, 707 P.2d 441 (1985).

rights; (3) appropriate unappropriated water for minimum instream flow; and, (4) change the place or nature of use or point of diversion of an established water right.30/

These public interest criteria, defined in different ways in most western states by statute or judicial decision, have significantly affected water resource management in the West. For example, in Arizona the Director of the Department of Water Resources must consider the impact of the proposed use of surface water on the interest and welfare of the public and must reject an application when the proposed use is determined to be contrary to the public interest or welfare.31/ This criterion was used by the Arizona State Land Department (the predecessor to the Arizona Department of Water Resources for reviewing applications to appropriate water) as the basis for denying an application which, if granted, would have resulted in the loss of 1.7% of the total recharge of one of Arizona's ground water basins.32/ The Arizona Court of Appeals upheld the denial, emphasizing that in a water short area, even a small reduction in recharge, especially if followed by additional reductions, might cause substantial injury to the public welfare.

The effect of public interest criteria legislation recently enacted in Montana is to require the state, when issuing permits for large new appropriations (i.e. those in excess of 4,000 acre-feet per year and 5.5 cubit feet per second) to give special consideration to public values. The new law also specifies criteria that must be considered if a permit or reservation application involves an out-of-state use.33/ Further, the law amended the procedure for changing the purpose and place of use for large existing appropriations. Such changes must be approved by the Legislature. This requirement will protect public values associated with water uses which will have a substantial impact on water management in the state.

In Nevada, the state engineer, in considering an application to appropriate water, is guided by three basic statutory criteria: (1) the availability of unappropriated water; (2) the effect on existing rights; and (3) the public interest.34/ The state engineer has viewed the public interest requirement as designed to promote strong public policy concepts and protect the public welfare. This, in turn, requires the exercise of broad discretion when ruling on pending permits.

30/Idaho Code § 42-222.
31/Ariz. Rev. Stat. Ann. § 45-143(A).
32/Arizona Game & Fish Dept. v. Arizona State Land Department, 535 P.2d 621 (1975).
33/Mont. Rev. Codes Ann. §§ 85-2-311 and 316.
34/Nev. Rev. Stat. § 533.370(3).

Wyoming law requires the state engineer to reject applications to appropriate water where they are detrimental to the public interest.35/ In 1985 the state engineer promulgated regulations which specify that the state engineer may hold public hearings, if requested by an applicant or on his own motion, to consider applications for new water rights. The purpose of the hearing is to collect information on the public interest to aid the state engineer in granting or rejecting applications. Recently, the new rules have been used to consider conflicting applications to build a reservoir. An applicant proposed to construct the reservoir to provide industrial water and incidental municipal water from a project consisting of other reservoirs and involving an additional reservoir and a pipeline conveying the water to users located a long distance from the source. The ability of the applicant to develop the project and the immediacy of the municipal and industrial demand was questionable. The Wyoming Department of Economic Planning and Development filed an application to construct a reservoir at the same site to supply water to the existing municipalities within the river basin where the source was located. The state engineer denied the initial application in favor of the state's application. The original applicant appealed the decision and the matter is currently pending before the Wyoming Supreme Court.

In New Mexico a new law requires the state engineer to consider the following factors when ruling on applications to appropriate any non-deminimus amount of ground or surface water: (1) whether there is unappropriated water available; (2) whether the proposed use can be accomplished without harm to existing water rights; and (3) whether the proposed use would be contrary to the conservation of water in New Mexico or detrimental to the public welfare of the state.36/

In Washington, the Water Resources Act of 1971 states: "allocation of waters among potential uses and users shall be based generally on the securing of the maximum net benefits for the people of the state." The Act further requires that:

> Perennial rivers and streams of the state shall be retained with base flows necessary to provide for preservation of wildlife, fish, scenic, aesthetic and other environmental values, and navigation values. Lakes and ponds shall be retained substantially in their natural condition. Withdrawals of water which would conflict therewith shall be authorized only in those situations where it is clear that the overriding consideration of the public interest will be served.37/

35/Wyo. Stat. § 41-4-503.
36/N.M. Stat. Ann. § 72-12-1.
37/Wash. Rev. Code § 90.54.020(a).

Another portion of the code simply reads: "expressions of the public interest will be sought at all stages of water planning and allocation discussions."38/

In states where public interest criteria are not specifically spelled out by statute or judicial ruling, the public interest may be considered in other ways. For example, one California court has called "public interest" the touchstone of state actions in allocating water.39/ Throughout California's statutory law defining the state's role in administering modern appropriative water rights runs the theme that state actions must implement the public interest. This is so despite the fact that the public interest concept is not defined by statute. This requires the state to make policy judgments when a public interest finding is at issue. California courts have tended to leave undisturbed the state's public interest findings, as long as there is substantial evidence in the record to support the public interest determination.40/

In Colorado, public interest factors are not explicitly considered in allocating water because no state law authorizes any government official the discretion to do so. The only factors to be considered are priority and harm to the water rights of others. However, in the state's view, the public interest can be indirectly protected through the acquisition of water rights by the state for the purpose of protecting instream flows to preserve the natural environment to a reasonable degree. As described in the information which follows, this method of public interest protection is widely utilized.

B. Instream Flow Laws

In addition to statutes or judicial rulings establishing public interest criteria, other methods of protecting the public interest also exist. One of these is the protection of fish, wildlife, recreation, and aesthetic values under the instream flow laws of the western states. The traditional doctrine of prior appropriation required a diversion of water to establish an appropriative water right. This served many purposes. First, it protected against frivolous or speculative claims by requiring actual water use as well as expenditure of funds for construction of diversion works and conveyance facilities. Also, it allowed for some measurement of the amount of water used. Further, the diversion requirement was simply consistent with the fact that, in most cases, the area of water need was located some distance from the source of supply.

38/Wash. Rev. Code § 90.54.020(g).
39/Johnson Rancho County Water Dist. v. State Water Rights Board, 235 Cal. App. 2d 863, 45 Cal. Rptr. 589 (1965).
40/Bank of America v. State Water Resources Control Board, 42 Cal. App. 3d 198, 116 Cal. Rptr. 770 (1974).

Under modern appropriative law, the requirement to divert water as a prerequisite to the establishment of a water right has several significant exceptions. For example, in Alaska, the Water Use Act allows the reservation of water for the following instream purposes: (1) protection of fish and wildlife habitat, migration, and propagation; (2) recreation and park purposes; (3) navigation and transportation purposes; and, (4) sanitary and water quality purposes. The Alaska instream flow statute[41/] allows local, state, and federal agencies, and private individuals, to apply for reservations for instream uses. The law requires the filing of an application, public notice, evaluation of the effects of the proposed appropriation on prior appropriators and the public interest, the need for the reservation and whether unappropriated water is available for it, issuance of a certificate of reservation, and a mandatory 10-year review of reservation certificates. To aid private entities in applying for water for instream use, the state has published The Instream Flow Handbook which describes in detail the instream reservation program and contains step by step instructions on how to apply for such a reservation.

In Colorado, the Water Conservation Board, a state agency, is authorized by statute to appropriate or acquire through any other method "such waters of natural streams and lakes as the Board determines may be required to preserve the natural environment to a reasonable degree."[42/] The appropriations made by the Board take their place in the prior appropriation priority system like other water rights and, thus, do not necessarily guarantee minimum flows. Rather, the Board, like any other appropriator, can demand water when its rights are in priority as against upstream rights.

In Idaho, statutory law provides two methods of protecting instream flows for public uses. First, an application to appropriate water for any out-of-stream purpose must be evaluated against the "local public interest," which includes a determination of the minimum stream flow which must be retained in the natural channel. This evaluation can prevent the approval of an application to divert water if an adequate streamflow is not retained, or may allow the approval of an application with conditions requiring that an adequate "bypass flow" remain in the channel.[43/]

In the alternative, a minimum streamflow may be assured in Idaho by establishing a recorded right for the flow. The Idaho Water Resources Board, an eight member citizen policy and advisory board, is authorized under Idaho statutes to apply for and hold a water right to protect minimum flow.[44/] An application for minimum flow filed by the board with the Department of Water

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[41/] Alaska Stat. § 46.15.145.
[42/] Colo. Rev. Stat. § 37-92-102.
[43/] Idaho Code § 42-203A.
[44/] Idaho Code § 42-1503.

Resources is processed in a manner similar to that for a diversionary right and, if approved by the Director, becomes a recognized water right with a priority date of the date the Board applied for the permit. Other instream appropriative rights have been established in Idaho by the Board under its constitutional water planning authority and by the legislature by statute. The Idaho Supreme Court has recognized the validity of instream flows established without actual diversion and has recognized instream public uses as beneficial uses when authorized by statute.45/

A reservation procedure also exists in Montana where the means to acquire an appropriative water right for instream flow is by a public entity acquiring a water reservation.46/ Montana law provides that reservations for the maintenance of minimum flow, level, or quality of water are limited to a maximum of 50% of the average annual flow of gauged streams. Ungauged streams may be allocated at the discretion of the Montana Board of Natural Resources and Conservation. The law also allows the Board to modify, where appropriate, an existing reservation decision to reallocate the reservation to an applicant who is a qualified reservant. The purpose of this provision is to maintain options for acquiring water needed to support future consumptive development. The date of the Board's decision reserving water becomes the priority date for the reservation.

In Oregon, instream flows are protected in a variety of ways. Soon after the adoption of the Oregon Water Code of 1909, the Legislature began withdrawing streams from further appropriation. This has continued to the present.47/ Similarly, the State Engineer has withdrawn many streams from further appropriation where it appeared they were about to be fully appropriated. This continued until the 1950's. In 1955, the Water Resources Board was established to formulate policy through basin protection statements which establish the highest and best uses for water in each stream. The authority includes withdrawing streams from further appropriation. This practice was continued by the Water Policy Review Board until 1985 and now is performed by the Water Resources Commission.

Since 1955 Oregon water law has provided for establishment of minimum perennial streamflows to support aquatic life and minimize pollution. The first minimum streamflows were adopted in 1958. There are now 454 minimum flows. Minimum streamflows are administrative rules adopted by the Water Resources Commission. In general, they are administered like water rights. Water rights established before the priority date of a minimum streamflow cannot be regulated for the minimum streamflow. A revision of the law in 1983 made establishment of minimum streamflows a high

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45/ State Dept. of Parks v. Idaho Dept. of Water Admin., 96 Idaho 440, 530 P.2d 924 (1974).
46/ See Mont. Rev. Codes Ann. § 85-2-316.
47/ See Or. Rev. Stat. §§ 538 et seq.

priority of the Water Resources Commission. It also provided a method for the Oregon Departments of Fish and Wildlife and Environmental Quality to apply for minimum streamflows.[48]

Washington also has a strong instream flow program. In 1949, the Legislature declared the policy of the State to be "...that a flow of water sufficient to support game fish and food fish population must be maintained at all times in the streams of the State." This statute provides that the Director of the Department of Ecology "may refuse to issue any permit to divert water..., if in the opinion of the Director of Fisheries or Director of Game, such permit might result in lowering the flow of water in any stream below the flow necessary to adequately support food fish and game fish populations in the stream."[49] As an alternative to the denial of the permit, the Department of Ecology has issued numerous permits with conditions to provide for minimum flows recommended by the Department of Fisheries or the Game Commission. Also, approximately 250 streams, most of them small, have been closed to further appropriation, and low flow provisions have been applied to individual permits, also on approximately 250 streams.

In 1967 the Washington legislature enacted the Minimum Water Flows and Levels Act, which was amended in 1969 to provide a more formal process to protect instream flows.[50] Under this Act, the Department of Ecology, when requested by the Department of Fisheries or the Game Commission, establishes minimum streamflows and lake levels to protect fish, game, birds, or other wildlife resources or recreational or aesthetic values to preserve water quality. The Act sets forth public hearing procedures for the establishment of minimum streamflows and lake levels, but does not define criteria for the determination for such flows or levels. The Department utilized this authority in 1971 to adopt minimum flows for the Cedar River, a major source of water supply for the Seattle metropolitan area.

The Washington Water Resources Act of 1971[51] provides that "perennial rivers and streams of the state shall be retained with base flows necessary to provide for the preservation of wildlife, fish, scenic, aesthetic and other environmental values, and navigational values." The Act further provides that lakes and ponds shall be retained substantially in their natural condition.[52] Further, the Act declares fish and wildlife maintenance and enhancement, recreation, and preservation of environmental and aesthetic values, among others, to be beneficial uses. Under this Act, and the authorities discussed above, the

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[48]/Or. Rev. Stat. § 50.536.235.
[49]/Wash. Rev. Code § 75.050.
[50]/Wash. Rev. Code § 90.22.
[51]/Wash. Rev. Code § 90.54.
[52]/Wash. Rev. Code § 90.54.020(3)a.

Department of Ecology has established instream flows on 172 major streams or stream reaches and has closed over 300 streams and lakes to further consumptive appropriation.

Utah has a new instream flow law, enacted in 1986, which allows the State Division of Wildlife Resources to acquire established water rights and file change applications with the State Engineer to use the rights "for the limited purposes of providing water for instream flows in natural channels necessary for the preservation or propagation of fish within a designated section of a natural stream channel."[53/] The Division must have legislative approval to acquire water rights for instream flows. Another state law[54/] has been amended to allow the state engineer to reject an application to appropriate water that "will unreasonably affect public recreation or the natural stream environment." The statute does not set standards for instream flows nor provide for appropriation of water for maintaining flows, but it has been applied to protect some streams from appropriation.

Wyoming also has a new instream flow law which was adopted in 1986.[55/] The law declares instream flows and storage of water for release for instream flows to be beneficial uses and establishes a procedure for appropriation of water for instream use. The Game and Fish Commission will identify stream segments and flow rates which should be appropriated and will report to the Wyoming Water Development Commission. The Commission will file applications for appropriation of natural flows in the identified stream segments. Further, the Commission will analyze whether natural flow is available for the instream flow purpose, whether storage is required, or whether a combination must be utilized. The date of priority for the instream flow right will be the date the application is received in the State Engineer's office. The State Engineer cannot grant a permit for instream flow until a report is completed by the Water Development Commission and the State Engineer holds a hearing. The State Engineer may condition the instream flow permit to require a future review of the continuation of the permit. The watercourse will be regulated by water commissioners to provide water for the instream water right on the basis of its priority, considering senior appropriations. Only the State may hold the instream flow right.

Even in the states that do not formally grant appropriative water rights for instream flow purposes, there are methods to protect instream values. For example, Arizona law does not explicitly recognize instream appropriations. However, the Arizona Court of Appeals has interpreted the appropriation statutes to authorize *in situ* appropriations for recreation and

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53/ Utah Code Ann. § 73-3-3.
54/ Utah Code Ann. § 73-33-8; *See also* Utah Code Ann. § 73-3-29.
55/ *See* Wyo. Stat. §§ 41-3-1001 through 1014.

wildlife purposes.[56] In April 1983, the Arizona Department of Water Resources issued two permits to the Nature Conservancy to appropriate water for instream use.

Likewise, North Dakota law provides no specific mechanisms for individuals to obtain "instream flow" rights. However, the North Dakota State Engineer, or the State Water Commission, may reserve water for future use.[57] Also the State Engineer may refuse to grant a permit if he finds that the effects on fish, game, and/or recreation would be detrimental.[58] The State Engineer has used these tools to create the equivalent of instream flow rights.

California law does not specifically provide for instream flow water rights. However, the public interest statutes in the state provide a legal basis to protect instream beneficial uses through water right terms and conditions which require maintenance of bypass flows.[59] Also, California law provides for appropriations for:

> The use of water for recreation and preservation and enhancement of fish and wildlife resources (as) a beneficial use of water. In determining the amount of water available for appropriation for other beneficial uses, the Board shall take into account, whenever it is in the public interest, the amounts of water required for recreation and the preservation and enhancement of fish and wildlife resources.[60]

Thus, recreation, fish and wildlife, and other uses are recognized as beneficial uses of water under California law. However, for an appropriative right to be established for fish and wildlife uses, a diversion or impoundment of water must be made. For example, the state could grant a water right to impound water to be used downstream from the impoundment for fish and wildlife enhancement purposes. Such a right could be granted to a public or private entity.

Nevada law also recognizes recreational uses as beneficial. The issue of a diversion requirement was recently addressed when a Nevada state court upheld against objections the State Engineer's grant of a recreation water right without a diversion to the federal Bureau of Land Management. The court stated "the application is for a public recreation use. Therefore a public entity, such as BLM, must make the application rather than a private person. As noted, recreation is a recognized beneficial use of the public waters of the State of Nevada....No diversion is

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[56] McClellan v. Jantzen, 26 Ariz. App. 223, 547 P.2d 494 (1976).
[57] N. D. Cent. Code § 61-04-31.
[58] N. D. Cent. Code § 61-04-06(4)(c).
[59] Cal. Water Code § 1243.5.
[60] Cal. Water Code § 1243.

necessary or would be proper in order to apply the waters to this use."[61] Interestingly, the same decision held that watering of wildlife is not a beneficial use under Nevada water law. The decision will be appealed.

C. The Public Trust Doctrine

Public interest values in the allocation of water resources under the appropriation doctrine are protected by the beneficial use requirement, which assures that water is put only to legislatively or judicially defined beneficial uses. Also, the use of public interest criteria in processing permit and transfer applications, instream flow laws, and other related laws, provide water for nonconsumptive uses and protect the public interest. Further, "preference statutes,"[62] which provide that some water uses are preferred over others, represent an expression of public values. In addition to these protections, recent judicial developments are reformulating a doctrine which has impacted and could further impact public interest values in western water resources. This doctrine, known as the public trust doctrine, provides public control of navigable water to the extent necessary to assure that trust uses, especially navigation and fishing, are maintained. Some observers view the recent developments as a justifiable attempt to rectify a perceived imbalance between historical water use, typically involving consumption, and environmental values, often involving non-consumptive uses. Others view the developments as an unwarranted intrusion into a system of allocating water rights which adequately provides protection for the trust uses.

The public trust doctrine is founded on ancient common law principles. The doctrine is rooted in United States law in the U.S. Supreme Court's decision in Illinois Central Railroad Co. v. Illinois,[63] which involved an unusual factual situation where the Illinois Legislature had conveyed to the railroad company title to the bed of Lake Michigan bordering Chicago. Subsequently, the Legislature, thinking better of its action, rescinded the conveyance. The railroad brought suit to quiet title to the Chicago harbor. Relying on Illinois' sovereign power over navigable waters, the Supreme Court ruled that Illinois could revoke the conveyance because it had been made in violation of the public trust. Indeed, the Court hinted that the conveyance may have been void on its face.

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[61] Nevada v. Morros, Nos. 19404 and 19511 (D. Nev. 5 Feb., 1987), __ P.2d __ (1987).

[62] See e.g. Idaho Const. Act 15 § 3 where domestic uses are given preference over all other uses and agricultural uses are given preference over manufacturing purposes; See generally 1 W. A. Hutchins, Water Rights Laws in the Nineteen Western States pp. 400-419 (1971).

[63] 146 U.S. 387 (1893).

The Illinois Central ruling appeared to be based on federal common law. However, in a later case, Applebee v. City of New York,64/ the Court stated that the decision was actually based on Illinois state law. Thus, the public trust doctrine, while latent in every state, is also, arguably, different from state to state. It is neutral as to choices which are made regarding resource development, but requires that the state make the choices and that trust uses be given adequate consideration when the choices are made. Among the western states, the courts of Alaska, California, Idaho, Montana, North Dakota, Oregon, and Texas appear to have recognized the doctrine and applied it in one way or another.65/

With respect to water resource management, the public trust decision of greatest current interest is the California Supreme Court's ruling in National Audubon Society v. Superior Court of Alpine County,66/ often referred to as the Mono Lake case. Previous to the Mono Lake decision, the California courts had used the public trust doctrine to allow public recreation and access67/ and to safeguard eco-systems and wildlife habitat, among other things.68/ The Mono Lake case arose as follows. Los Angeles constructed the Owens Valley Aqueduct to connect the city to sources of water supply in the Owens Valley approximately 200 miles to the northeast. After utilizing the water available there, the city extended the pipeline another 100 miles to the Mono Lake Basin. In 1940 the state granted the city municipal appropriative water rights to divert water from the Basin. In 1980 the National Audubon Society challenged the diversions as detrimental to the public trust. At that time, the water provided approximately 17% of the city's water supply.

A number of cases before Mono Lake directly or indirectly applied the public trust doctrine to water management activities. However, the Mono Lake case was the first head-on challenge to vested appropriative water rights. The plaintiffs argued that the rights were invalid on their face because they violated trust uses. The defendants argued that the rights were valid as vested property interests under California law, especially considering the municipal and domestic uses to which the water was put. They argued further that California water law, under which the rights

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64/271 U.S. 364 (1926).
65/State Dep't of Natural Resources v. City of Haines, 627 P.2d 1047 (Alaska date); Nat'l Audubon Soc'y v. Superior Court, 33 Cal. 3d 419, 658 P.2d 709 (1983); Kootenai Environmental Alliance v. Panhandle Yacht Club, 105 Idaho 622, 671 P.2d 1085 (1983); Dep't of State Lands v. Pettibone, 702 P.2d 948 (Mont. 1985); United Plainsman v. N. D. State Water Cons. 247 N.W. 2d 457 (N. D. 1976); Morse v. Oregon Div. of State Lands, 34 Ore. App. 855, 581 P.2d 520 (1978); State v. Lain, 349 S.W.2d 579 (Tex. 1961).
66/658 P.2d 709 (1983).
67/Marks v. Whitney, 6 Cal. 3d 251, 491 P.2d 374 (1971).
68/State v. Superior Court of Lake City, 29 Cal. 3d 245, 625 P.2d 239 (1981).

had been granted, supplanted the public trust doctrine. California sided with neither party. It agreed that state water laws had replaced the public trust doctrine to a certain degree. However, the state maintained that it had the authority to weigh and balance competing values and interests in water allocation, which included the retention of jurisdiction to review and, when necessary, revise vested appropriative water rights. The California Supreme Court agreed that the state can balance environmental uses against other uses and held that, in California, the public trust doctrine exists apart from the appropriation doctrine and provides a procedural tool to reexamine and modify appropriative water rights, vested or not.

In Kootenai Environ. Alliance v. Panhandle Yacht Club[69] the Idaho Supreme Court specifically adopted the California public trust doctrine rule of the Mono Lake case. Applying the doctrine, the court held that the issuance of a permit for an encroachment for boating facilities on Lake Coeur d'Alene was not in violation of the public trust, notwithstanding a moratorium on the issuance of such permits by the Board of Land Commissioners which was in effect when the permit was issued. In Shokal v. Dunn[70] the court stated that public interest considerations were part of the public trust doctrine. The court noted that the public trust, as it affects public interest values, should incorporate all considerations affected by the appropriation of water. In a list quoted above,[71] the court provided a number of examples, such as navigation, wildlife and fish, aesthetics, water quality, and recreation.

A recent California case, United States v. Water Resources Control Board,[72] held that water rights owned by the United States Bureau of Reclamation are subject to the continuing jurisdiction of the state under the public trust doctrine. The court rejected arguments that the public trust did not apply to the federal government and that the state had no power to revise vested appropriative water rights. Summarizing its view of the relationship between the prior appropriation doctrine and the public trust doctrine, the court made what is perhaps the most direct and descriptive statement of the present law in California, "...The Board unquestionably possessed legal authority under the public trust doctrine to exercise supervision over appropriators in order to protect fish and wildlife. That important role was not conditioned on a recital of authority. It exists (emphasis in original) as a matter of law itself..."[73]

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[69] 105 Idaho 622, 671 P.2d 1085 (1983).
[70] 109 Idaho 330, 707 P.2d 441 (1985).
[71] See text accompanying Note 29.
[72] 227 Cal. 3d 161 (1986).
[73] United States v. Water Resources Control Bd., 227 Cal. 3d at 201 & 203.

To date only the California Supreme Court has held that the public trust doctrine may be used to retroactively modify a vested appropriative water right, with the Idaho Supreme Court intimating that a similar result could be reached in that state. The public trust doctrine is dormant in the other western states, but its relationship to state water law is not necessarily the same as in California. Worthy of mention is that in Montana recent court decisions have employed the public trust to assure public access to surface waters that are capable of recreational use, without regard to streambed ownership or navigability for nonrecreational purposes.[74] Also, with regard to a request to apply the public trust doctrine in determining boundaries for ground water sub-basins, an Arizona court recently stated that "it would not be appropriate to direct the Department of Water Resources to consider the so-called 'public trust doctrine' along with other factors in determining sub-basin boundaries."[75] And, although there are no cases in Washington directly addressing the application of the public trust doctrine to vested appropriative water rights, the state supreme court has held that state courts will not reverse a State Department of Ecology interpretation of its mandate to act in the public interest in allocating water unless there is a clear showing that the Department has abused its discretion.[76]

Although the argument was made with only limited success in the Mono Lake case with regard to Los Angeles' diversions from the Mono Lake Basin, some states view the public trust doctrine as subsumed within the constitutional, statutory, and regulatory framework upon which the appropriation doctrine operates within the state. North Dakota is one state that takes this view. A State Supreme Court decision in United Plainsman v. North Dakota State Water Commission[77] declared that, with respect to water resource management, a provision of the North Dakota Century Code[78] expressed the public trust doctrine. In effect, the court found that state statutory and constitutional laws establish a policy in favor of long term planning and that the public trust doctrine confirms the state's role as trustee of its water resources and compliments constitutional and statutory authority, rather than imposing an independent obligation on the state which requires continual review of vested appropriative water rights.

Alaska views the following section of its Constitution as explicitly addressing public trust responsibilities: "Wherever occurring in their natural state, fish, wildlife, and water are

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[74]/Montana Coalition for Stream Access, Inc. v. Hildreth, 41 Mont. 906; 684 P.2d 1088 (1984) and Montana Coalition for Stream Access, Inc. v. Curran, 632 P.2d 163 (1984).
[75]/Seven Springs Ranch, Inc. v. State of Arizona, No. 7594 (Maricopa County, Superior Ct., Mar. 20, 1986) (Minute entry).
[76]/Schuh v. State Dept. of Ecology, 667 P.2d 64 (1983).
[77]/247 N.W.2d 457 (N.D. 1976).
[78]/ See N.D. Cent. Code § 61-01-01.

reserved to the people for common use."[79] The Texas Constitution recognizes that public waters are "held in trust for the use and benefit of the public" and provides for state ownership of reservoirs in situations necessary to achieve optimum reservoir development.[80] This, in addition to the state's police powers, the wide variety of purposes recognized as beneficial uses under state water law, and the protection of instream uses, fish and wildlife habitat, and bays and estuaries, make it unclear, in the state's view, that the public trust doctrine has a significant life of its own outside of the Texas Water Code and Constitution. Other states appear, on an informal basis, to take similar views of the public trust doctrine as it relates to appropriative water right law.

As further attempts are made to employ the public trust doctrine to satisfy competing demands for water resources, the interpretation and implementation of the doctrine will undoubtedly be modified, likely in different ways from state to state. One important issue which has yet to be resolved is the question of compensation for appropriative rights which are modified or taken. Although a minority view may be that such rights are inherently subject to modification, the majority view, indeed what many would call the settled law in the West, is that because vested water rights are constitutionally protected property interests they are not subject to modification unless expressly conditioned. Yet, the application of the public trust doctrine in its purest form to rescind or modify a vested water right would be a noncompensable taking, akin to a "taking" under the navigation servitude. Many observers find this objectionable. Even many proponents would see the results of application of the public trust doctrine to modify or destroy vested water rights as equitable only if those who lose such rights, or a portion of them, receive payment for them. Others question any need for application of the public trust doctrine outside of a system of water allocation which they believe presently protects trust uses.

III. WATER RIGHT TRANSFERS

Another method of promoting public interest values, as well as meeting new water demands, in the management of western water resources is the "reallocation" of appropriated water by transfer of water rights. A transfer, in this sense, refers to the conveyance of a water right from one water user to another. It may involve a change in the type of use or the location of use of an existing right. The transferability of appropriative water rights promotes the public interest by allowing established uses to change in accordance with changing needs and values. Such transferability was recognized early in the development of

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[79]/Alaska Con. Art. VIII, § 3.
[80]/Tex. Con. Art. III, § 49d.

appropriative water law. Since that time the states have acted to facilitate the transfer process through legal and administrative means.

In 1859 the California Supreme Court recognized the right to use water under the appropriation doctrine as "substantive and valuable property."[81] The same court also said:

> Under the law of this state as established at the beginning, the water-right which a person gains by diversion from a stream for a beneficial use is a private right, a right subject to ownership and disposition by him, as in the case of other private property. All the decisions recognize it as such.[82]

An important treatise on western water law simply concludes, "The basic right of ownership and divestiture of ownership [of appropriative water rights] was so well established in the early development of the appropriation doctrine in the West, and so consistently confirmed, as to be axiomatic."[83]

Before an appropriative water right may be transferred, certain requirements must be met. First, the right must be vested. In other words, all requirements entitling the applicant to the use of the water must be met. Second, the parties must intend that the transfer take place. Third, the transfer must not detrimentally affect other water rights. This is due to the interrelated nature of the rights to use water on any water course. Fourth, a "change application," or its equivalent, must be filed with and approved by a state administrative body or a water court. This gives the administrative agency, or court, the opportunity to, among other things, notify other parties which may be affected by the transfer and to rule on whether the transfer should be approved. Affected parties may protest the transfer if they believe it will harm their rights. Following a specified time in which objections can be made, the transfer is either approved by the state agency or court, or further hearings and/or proceedings are held. Complex transfers, with the potential to adversely affect a number of vested rights, can be costly and time consuming. On the other hand, more routine transfers are part of "business as usual" in the states where water scarcity has led to active water markets.

The Western States Water Council recently surveyed the western states regarding water right transfers. While the specifics of state law relating to transfers, of course, vary from

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81/McDonald v. Bear River & Auburn Water & Mineral Co., 13 Cal. 220, 232 (1859).

82/Thayer v. California Development Co., 164 Cal. 117, 125, 128 Pac. 21 (1912).

83/I W. A. Hutchins, Water Rights Laws in the Nineteen Western States, p.468 (1971).

state to state, the following generalizations can be made. In every western state appropriative water rights may be severed from the land to which they are appurtenant and transferred. Changes in point of diversion, place, or nature of use, or other changes with the potential to affect the rights of other users, require state agency or court approval. However, a simple change in ownership of a water right usually requires no such approval. The time required to approve a transfer ranges from 30 days to one year (sometimes longer), with an average of 60 to 90 days. Most states charge fees to process transfer applications ranging from $10 to $150, with an average fee of about $50. In a few states the fee depends on the volume of the transferred right, and thus may be large in some cases. In all states the cost associated with contested transfers, of course, can be significant.

In all states injury to other vested water rights, usually junior or senior in priority, is a matter that must be considered in determining whether to approve a transfer application. In a majority of the states "public interest" factors (variously defined by the different states as noted above) must also be considered. Most states allow temporary transfers, or water leases, to be made. Usually, historic consumptive use is the quantity of water which may be transferred. Most states allow out-of-state transfers. Further, most recognize instream flows as a beneficial use to which water may be transferred.

Prices which have been paid for an acre foot or other measured unit of a transferred or conveyed water right vary drastically depending on the location of the water, supply and demand in the area, the use to which the water will be put, the priority date of the right, and other factors. Reported prices in the Council's survey ranged from a low of $30 per acre foot to a high of $12,500 per acre foot. The most drastic range in a state was $300 to $10,000 per acre foot. The annual number of transfers which occurs varies greatly from state to state. For example, in North Dakota new appropriations are apparently available to meet all water needs since state law provides for the transfer of appropriative water rights yet very few, if any, occur. At the other extreme, water rights are freely bought and sold in the open market in Colorado, Utah, Nevada, and other states, where hundreds of transfers occur each year.

A new monthly periodical, entitled Water Market Update, which began publication in January, 1987, reports on business activities and transactions in the water markets of the western states, among other topics. A sampling of the news reported for the first four months of 1987 gives an idea of some of the current water prices in the West. In December of 1986 the city of Aurora, Colorado, acquired approximately one-half of the shares in the Colorado Canal Company at a price of about $2,500 per acre foot of water. Also in 1986 the city of Tucson, Arizona, purchased about 1,350

irrigated acres in the Arva Valley region, with ground water rights, at a price which translated to about $600 to $800 per acre foot of water.

A number of small transactions have occurred in the Reno-Sparks area in Nevada, with typical prices in the $1,800-$2,500 per acre foot range. Eight hundred Twin Lakes water shares were recently offered for sale by an Ordway, Colorado, broker for $9,500 a share. A number of cities in southern Texas have recently purchased surface water rights at $500-$700 per acre foot. In California, current prices for "exchange pool" ground water in the Central Basin of Los Angeles County dropped to $118 per acre foot from the 1986 level of $159.[84] These brief examples, culled from the dozens listed in the first four issues of the Water Market Update, are not necessarily representative of general market conditions in any state or area. They are included to illustrate the activity in various western water markets. Indeed, the publication of the periodical itself indicates strong interest in such activity. In this regard, two other publications, Water Strategist,[85] which focuses on water marketing, finance, legislation, and litigation in the West, and Water Exchange Information Service,[86] which provides detailed information regarding water rights for sale in Colorado, have recently published their inaugural issues.

In some areas measures have been taken to facilitate the marketing of water rights. For example, in Idaho farmers began in the 1930's to "deposit" water allocated to them in federal reservoirs in the Upper Snake River to be "withdrawn" by other farmers that needed the waer. These "deposits" and "withdrawals" were made on a yearly basis using lease agreement.

Questions arose about the continued beneficial use of the water deposited every year so the Idaho Legislature, in 1979, formalized the activity by creating a "waterbank" for marketing purposes.[87] The bank is operated by the Idaho Water Resources Board, which can appoint local committees to oversee the rental of stored water. The bank was created to:

> Provide a source of adequate water supplies to benefit new and supplemental water uses, and provide a source of funding for improving water user facilities and efficiencies.[88]

The principle recent use of the bank has been by the local committee in the Upper Snake River Basin where farmers with entitlements to Bureau of Reclamation water have made "deposits"

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[84] 1 Water Market Update Nos. 1-4 (Jan. - Apr., 1987).
[85] See 1 Water Strategist No. 1 (Apr. 1987).
[86] See 1 Water Exchange Information Service No. 1 (Apr. 1987).
[87] See Idaho Code § 42-1761 et seq.
[88] Idaho Code § 42-1761.

and Idaho Power Company has made "withdrawals" and used water to produce electricity. Both parties benefit since the farmers are paid for water that they do not need, and the Power Company obtains water to produce electricity, thus saving its rate payers money. A water banking program also functions in the Kern County California area.

In Colorado, where water is marketed statewide, a particularly active market exists in the Northern Colorado Water Conservancy District where water rights from the Colorado-Big Thompson Project are actively bought and sold. Market transactions have been simplified by assignment of individual water shares to members of the District. A periodic auction of such shares further facilitates their purchase. Also, a number of real estate professionals in the District's area specialize in water right transactions. Active trading of water rights also occurs within mutual irrigation districts in Utah and other western states.

The California Water Code has clear statements of policy and procedure aimed at water right transfers. A portion of the Code reads:

> ...It is hereby declared to be the established policy of this State to facilitate the voluntary transfer of water and water rights where consistent with the public welfare of the place of export and the place of import. The Legislature hereby directs the Department of Water Resources, the State Water Resources Control Board, and all other appropriate state agencies to encourage voluntary transfers of water and water rights, including, but not limited to, providing technical assistance to persons to identify and implement water conservation measures which will make additional water available for transfer.89/

Another recently enacted California law required the State Department of Water Resources (DWR) to establish a program to facilitate the voluntary exchange of water rights and to report to the legislature by July of 1987 regarding legal and procedural changes which could be made to facilitate water marketing. Also, DWR must prepare a "water transfer guide" and create and maintain a periodically updated list of entities seeking to enter into water transfers, leases, or exchanges.90/

Idaho has recently enacted legislative changes to streamline water marketing activities.91/ For the most part, they are minor modifications to various statutes to simplify the transfer process

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89/Cal. Water Code § 109.
90/Cal. Water Code § 470 et seq.
91/1986 Idaho Sess. Laws Chap. 313, Codified in various sections of the Idaho Code.

and to ensure that those who need to acquire water do so through appropriate state procedures. A number of other states are presently considering legislative changes which would facilitate transfer activity.

IV. INTERSTATE SALE AND LEASE OF WATER

As noted previously, intrastate water transfers have occurred under the appropriation doctrine almost since its inception. Statutes and administrative regulations governing transfers have evolved over the years in each state and are still gradually changing. Legal and administrative procedures related to intrastate transfers were also established over time. However, as the following information explains, recent developments have required significant changes in some state laws.

Justice Marshall, in Wilson v. Blackbird Creek Marsh Co,[92] one of the first opinions relating to the power of the state to regulate water resources intrastate, suggested that the power was plenary. Justice Holms, in Hudson Water Co. v. McCarter,[93] was even more emphatic in holding that a state plainly had the right to control the water resources exclusively within its boundaries. Both of these opinions, however, came out of the East, where the riparian doctrine applied and where water was part and parcel of the land that it abutted.

In the West, a state's right to control water supplies was given its main momentum by two doctrines. The first was enunciated in the Desert Lands Act of 1877[94] which, as noted above, made it clear that the state had the right to control waters on the federal public domain. The second was the doctrine of equitable apportionment, which held that when two states share the surface flows of a stream - where it passes through both - the states have the power to compact for the use of that water; if they fail to do so, the Supreme Court will apportion it between them, giving each a portion of the stream for its exclusive use based on a series of equitable criteria established by the court.[95] Finally, based in part on the above concepts, numerous western state constitutions provided that the waters of the state belong to the people of the state or the state itself.[96]

At the same time that all of the above theoretical public ownership of water pronouncements were taking place, the western water law of prior appropriation was maturing in a somewhat different direction. The courts of the western states were

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[92] 7 L. Ed. 412 (1829).
[93] 209 U.S. 349 (1908).
[94] See discussion in California-Oregon Power Co. v. Beaver Portland Cement Co., 295 U.S. 142 (1935).
[95] See e.g., Kansas v. Colorado, 206 U.S. 46 (1907).
[96] See e.g., N.D. Const. Act XVII, § 210.

concluding that a water right is a property right - that it can be freely sold and transferred like any other commodity. Many commentators and water administrators argued persuasively that if water rights were allowed to be traded in the marketplace as any ordinary commodity, then water rights would pass to the highest and best use.

Thus, there was a great disparity between the spoken language of many state constitutions which declared water a public good subject to planning and control by the state and the actual practice of treating water as a commodity.

This disparity was revealed poignantly in Sporhase v. Nebraska,[97] in which the Supreme Court was asked to decide whether a Nebraska statute was unconstitutional because it prohibited the export of water to a state which would not reciprocate by allowing water to be imported into Nebraska. While, as one author of an amicus brief said, the case should not be used to make precedent because it involved "but a cupful of water," the Supreme Court took this occasion to clarify its view of the nature of water under western prior appropriation law.

The Supreme Court held that state ownership of water as articulated by Nebraska was a "fiction" and that the western water resource is a commodity in commerce. Therefore, the Pike v. Bruce Church[98] analysis of statutes discriminating against interstate commerce must be applied. Simply stated, under this test a statute regulating a resource in interstate commerce must regulate evenhandedly to promote a legitimate local interest and must be narrowly drawn to achieve that purpose. The Nebraska statute failed that test.

The Court did, however, acknowledge that the nature of water resources required a somewhat different and more careful review than the Pike analysis. The Court pointed out that protection of the public welfare and the conservation of water were legitimate bases for regulating the transfer of water rights and that a demonstrably arid state should certainly be able to assert a limited preference for its citizens in times of shortage. It also suggested that, if a state had a real plan for the utilization of its water resources rather than simply a theoretical anticipated future need not based on physical reality, the state could exercise such a limited preference.

Relying on Sporhase v. Nebraska, a federal district court in New Mexico, in El Paso v. Reynolds (I),[99] struck down a New Mexico statute which placed an absolute embargo on out-of-state transfers of New Mexico's ground water resources. The court

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97/458 U.S. 941 (1982).
98/397 U.S. 137 (1970).
99/563 F. Supp. 379 (D.N.M. 1983); See also, El Paso v. Reynolds 597 F. Supp. 694 (D.N.M. 1984).

pointed out that ground water in New Mexico had been treated as a commodity for purposes of intrastate transfers and that New Mexico could not deny that status simply because this particular transfer was to an out-of-state municipality.

The reactions to the above decisions by the states have been varied. No one can ever really know the motivation of a state legislature. Nevertheless, in at least some instances the Sporhase decision has undoubtedly had the effect of encouraging some of the legislation discussed below. Other statutes discussed below may in fact antedate Sporhase; nevertheless, they address similar concerns with respect to out-of-state use of water resources.

Certainly, no state, like no business, is anxious to allow its water resources to be taken without having some control over the ultimate use of the water from a conservation standpoint. It is also likely that a state may seek to acquire some value for the resource as it leaves. These goals seem to have motivated legislation in various western states.

In Colorado, for example, a statute provides in part that "[a]ny diversion of water from this state which is not in compliance with this section shall not be recognized as a beneficial use."100/ This section referred to provides for a complicated set of determinations by the state with respect to impact on surface water compacts and the public welfare when water is transported out of state. It further provides that a fifty-dollar-per-acre-foot charge is to be assessed and collected on out-of-state transfers. The Colorado Attorney General has opined, however, that the fee is probably unconstitutional.101/

South Dakota requires that applications for appropriation of water "in excess of ten thousand acre feet annually" be approved by the legislature.102/ The South Dakota legislation further provides for extensive water planning to achieve a myriad of purposes within the concept of "public welfare" ranging from economic welfare and prosperity to water quality to joint projects with Indian tribes.103/

Idaho also has stated that "[a]ll ground waters in this state are declared to be the property of the state" and has placed a limit on the amount of water that can be taken out of a ground water basin. It further requires legislative approval of any application in excess of that amount.104/

100/Colo. Rev. Stat. § 37-81-101 et. seq. (Cum. Supp. 1985).
101/Ag. alpha No. NR WE AGAON (Sept. 10, 1985).
102/S.D. Compiled Laws Ann. § 46-5-20.1 (1983).
103/S.D. Compiled Laws Ann. § 46A-2-2 (1983).
104/Idaho Code § 42-108 (Cum. Supp. 1986).

California has a history dating back to 1927 of reserving some quantity of water for the state. While plainly not motivated by concern about interstate transfers, it nevertheless deserves mention. The state itself can file applications to appropriate water "required in the development and completion...of a general or coordinated plan looking toward the development, utilization, or conservation of the water resources of the state."105/ State appropriations are exempt from diligence requirements and remain dormant, i.e. reserved, until development occurs. The California Department of Water Resources, as operator of the State Water Project, controls allocation of a significant proportion of state-appropriated water. The California Water Resources Control Board is an independent quasi-judicial body whose regulatory authority includes jurisdiction over the State Water Project and all other appropriators. Board members are appointed by the Governor and must be confirmed by the State Senate.

Although most of these appropriations are held for specific governmental purposes, some are held by the state because the state funded the projects that made the waters available for use. The water, once available, is in the interstate market, but like any other seller, a state can be flexible as to when and how much it wants to sell.

Montana's laws106/ tightly centralize state control over water resources. The Department of Natural Resources has full control over all waters in the state not under the exclusive control of the federal government or vested in private ownership. The Department has a duty to appropriate and conserve water for "the use of the people."107/ Its authority extends to "rights to the natural flows of the waters of th[e] state which it may acquire by condemnation, purchase, exchange, appropriation or agreement."108/ The Department's authority is co-extensive with the purposes of the chapter. Its decisions are subject to approval by the Board of Natural Resources and Conservation.

The state of Montana allows the state to appropriate only amounts greater than 4,000 acre-feet per year and 5.5 cubic feet per second for any consumptive use.109/ Appropriations for such quantities are made by the state in its own name and then leased to users under the State Water Leasing Program.110/ The state may acquire water rights for its leasing program through agreement with, or purchase from, other water right owners, as well as by appropriation.111/ Water from the state leasing program must be

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105/ Cal. Water Code §§ 10500-10507 (West 1971).
106/ Mont. Rev. Codes Ann. § 85-2-204 (1985).
107/ Id.
108/ Id.
109/ Id. § 85-2-301(2)(a)(ii).
110/ Id. § 85-2-141(2)(b).
111/ Id. § 85-2-141(2).

obtained from specified sources,[112] and no more than a total of 50,000 acre feet may be leased.[113] Lease terms may be no longer than 50 years but may be extended for additional terms.[114] Water may be leased for any beneficial use. Special provisions apply to appropriations for large quantities if the water is to be transferred for use out of state.[115]

Provisions for state appropriation of Texas water rights have appeared in a number of fairly recent legislative initiatives. In 1985, the Texas Department of Water Resources was abolished and its authority and duties were divided between the Texas Water Develoment Board and the Texas Water Commission. The Texas Water Development Board is an advisory body whose members are appointed by the Governor. The Board administers financial assistance to political subdivisions for water development projects. Interestingly, recent legislation allows the Board to sell public water acquired by the State. [116]

The Board administers the State's storage acquisition fund. The Board may use the fund for design, acquisition, lease, construction, reconstruction, development, or enlargement, in whole or part, of any existing or proposed water storage project.

The Board may also "sell any unappropriated public waters of the state and other water acquired by the state that is stored by or for it."[117] The Board, however, may not compete with any political subdivision in the sale of water if the competition jeopardizes the ability of the political subdivision to meet obligations incurred to finance its own water supply projects. Political subdivisions also have a preferential, but not an exclusive, right to purchase, acquire or lease facilities and water from facilities. Finally, the statute provides that "[t]he board and the commission shall coordinate their efforts to meet these objectives and to assure that the public water, which is held in trust for the use and benefit of the public, will be conserved, developed, and utilized in the greatest practicable measure for the public welfare.[118]

Wyoming has a water development program administered by the same commission that formulates water resource plans. Under that program, the Commission must provide: "procedures and policies for the planning, selection, financing, construction, acquisition and operation of projects and facilities for the conservation, storage, distribution and use of water necessary in the public interest to develop and preserve Wyoming's water and related

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[112] Id. § 85-2-141(3).
[113] Id. § 85-2-141(4).
[114] Id. § 85-2-141(5).
[115] Id. § 85-2-402(5)(b)(i).
[116] Tex. Water Code Ann. § 15.323(a) (Vernon Cum. Supp. 1986).
[117] Id. § 15.324(a).
[118] Id. § 15.326.

resources."[119]/ The program is intended to "encourage development of water facilities for irrigation, for reduction of flood damage, for abatement of pollution, for preservation and development of fish and wildlife resources and for protection and improvement of public lands."[120]/ The water development program is also intended to make state waters available for all beneficial uses, including protecting the "health, safety and general welfare of the people of the state of Wyoming."[121]/

On the basis of the state water plan or as otherwise directed by the legislature, the Commission identifies and selects potential projects for inclusion in the water development program. The selection process involves a detailed schedule of events. Each step terminates with recommendations to the legislature as to whether a project should be studied further or discarded. The first stage requires that "reconnaissance studies"[122]/ be made. The second stage requires "feasibility studies."[123]/ The studies essentially address economic feasibility, whether a project is socially desirable and, if so, what obstacles might be faced if it were attempted. The third stage requires development plans,[124]/ which include an analysis of economic feasibility along with other factors. If a project is found to be in the public interest and private enterprise does not want to build or operate the project, construction and operating plans proceed as authorized and approved by the legislature under the direction and control of the Construction Division of the Commission. In addition to new projects, the program provides for rehabilitation of existing water projects.

In Wyoming, the Administrator of the Water Development Commission shall, at the direction of the governor, file applications in the name of the state for permits to appropriate water, to construct dams and other works and to take steps necessary to acquire, maintain, or preserve the priority of any right essential to any project which is or may become a project of the state water development program.[125]/

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[119]/Wyo. Stat. § 41-2-112(a) (Cum. Supp. 1985).
[120]/ Id.
[121]/ Id.
[122]/Reconnaissance studies involve preliminary assessment of the various factors that are relevant in seeking to develop a project including need, environmental impact, legal impediments, and so forth.
[123]/Feasibility studies involve more detailed analyses often associated problems and reflect the responses of public comment, test drilling, needed legislation, and the like.
[124]/Both plans and the economic analysis are required.
[125]/Wyo. Stat. § 41-2-116 amended by Chapter 109, Sessions Laws, 1986 (Cum. Supp. 1985).

In February, 1983, the New Mexico legislature passed a water exportation statute replacing the one struck down in El Paso v. Reynolds (I). It legitimizes the interstate transportation use of New Mexico's public waters. This statute, N.M. Stat. Ann. § 172-12B-1(A), reads a follows:

> The state of New Mexico has long recognized the importance of the conservation of its public waters and the necessity to maintain adequate water supplies for the state's water requirements. The state of New Mexico also recognizes that under appropriate conditions the out-of-state transportation and use of its public waters is not in conflict with the public welfare of its citizens or the conservation of its waters.

The exportation statute struck down in El Paso v. Reynolds explicitly banned the out-of-state transport and use of New Mexico ground water. The new statute, in contrast, provides that, "under appropriate conditions," the interstate transportation and use of New Mexico's public waters are not in conflict with the public welfare of the state's citizens or the conservation of the state's waters. In referring to "public waters," the new statute is not limited to ground water but also encompasses surface waters.

The statute requires that the person or entity desiring to export water outside New Mexico shall apply for a permit from the State Engineer approving the withdrawal. In addition to requiring the State Engineer to publish notice of the permit application, the statute stipulates that the State Engineer, prior to granting the permit, must find that the proposed export is neither contrary to water conservation policies within the state nor otherwise detrimental to the public welfare of New Mexico's citizens. In making his decisions, the State Engineer shall consider, but is not limited to the consideration of, the following factors:

(1) the supply of water available to New Mexico;
(2) water demands of New Mexico;
(3) whether there are water shortages within New Mexico;
(4) whether the water that is the subject of the application could feasibly be transported to alleviate water shortages in New Mexico;
(5) the supply and sources of water available to the applicant in the state where the applicant intends to use the water; and
(6) the demands placed on the applicant's supply in the state where the applicant intends to use the water.

The statute further provides that by filing an application to export New Mexico water, the applicant shall abide by the New Mexico laws governing the appropriation and use of the water. The

State Engineer is empowered to condition the permit to guarantee that the water, once out of state, will be used in accordance with the rules and regulations imposed upon in-state users.

In response to the El Paso court's observation that New Mexico law placed no conservation restrictions on in-state ground water permit applicants, the New Mexico legislature amended its in-state ground water withdrawal criteria. Prior to the El Paso decision, the in-state ground water application statute required the State Engineer to issue a withdrawal permit if it found that unappropriated ground water was available and that the withdrawal would not impair existing water rights. Following the El Paso ruling, in-state applicants must meet two additional criteria: the appropriation must not be (1) contrary to water conservation within New Mexico or (2) detrimental to the public welfare of the state's citizens.

The new statute was upheld in El Paso v. Reynolds (II),[126] in which the federal district court found the statute to be evenhanded and nondiscriminatory on its face.

In addition to the above statutory amendments, the New Mexico legislature, after three and one-half years of study, in 1987 authorized the Interstate Streams Commission to fund regional water planning in New Mexico, with the goal of eventual appropriation by the Commission of sufficient water supplies to take care of the needs of each region into the future.[127]

Thus, the range of reaction in the prior appropriation states to the potential for interstate transfers of water has been varied. Some states have attempted to capture some value for water leaving the state by providing for leasing or a charge. Others have attempted to control such activity through legislative approval of transfers. Still others have adopted broad, even-handed criteria related to the conservation of water and the public welfare similar to that referred to as legitimate in Sporhase. Others have attempted to promote bona fide water planning with respect to unappropriated water to ensure that their state has sufficient water supplies in the future. The constitutionality of each of these provisions will undoubtedly depend on the factual contexts in which they are challenged and the evolution of Supreme Court case law.

V. OTHER INNOVATIONS IN WESTERN WATER LAW

A significant development in western water law came in the state of Arizona in response to problems associated with the overdraft of ground water. The allocation and use of ground water is now governed by Arizona's Ground Water Code, which was adopted

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126/ 597 F. Supp. 604 (D.N.M. 1984).
127/ N.M. Laws of 1987, Chapter 182.

in 1980 and has been amended as necessary since.[128/] The allocation of the state's ground water differs from area to area in the state. The Ground Water Code designates certain areas as Irrigation Non-expansion Areas (INAs) or Active Management Areas (AMAs). In areas not so designated, a person may appropriate ground water for reasonable and beneficial use, generally without restriction. However, within both INAs and AMAs special use restrictions apply. In INAs acres that were not irrigated at any time during a five year period prior to the designation of the INA may not be irrigated. A similar restriction applies to AMAs. In AMAs the ground water code establishes four types of ground water rights: grandfathered rights; service area rights; withdrawal permit rights; and, exempt withdrawals. A person may not withdraw ground water for use within an AMA without obtaining one of these rights.

In addition to the restrictions on ground water use and withdrawal, the Director of the Department of Water Resources is required to adopt a management plan for each AMA for each of five management periods between 1980 and 2025. The management plans are intended to achieve goals established by statute. The goal for the three urban AMAs, Phoenix, Tucson, and Prescott, is safe-yield no later than 2025. This means that by 2025 ground water withdrawals may not exceed the amount of natural and artificial ground water recharge. In the Penal AMA, which has a primarily agricultural economy, the goal is to preserve that economy as long as feasible consistent with the need to preserve water supplies for future non-agricultural uses. The statutory goals are to be achieved by a combination of mandatory conservation programs, augmentation, and, if necessary, purchase and retirement of grandfathered rights.

Another major management tool is the prohibition of new residential developments in AMAs in areas without an assured water supply. Before a person may offer land in an AMA for sale or lease for residential development, the person must show that the land has an assured water supply defined as a continuously and legally available supply of sufficient quantity and quality to meet the needs of the development for 100 years. Additionally, the proposed water use must be consistent with the management plan for the AMA in which the development is located and with the achievement of the AMA goals. Another recent development in Arizona ground water law is the recognition of artificial ground water recharge as a beneficial use of surface water.

California has enacted legislation which allows response to infrequent emergency situations involving water use. It authorizes the issuance of temporary water permits to divert and use water under urgent circumstances.[129/] Also, the state has enacted legislation to encourage voluntary transfer of water

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128/ See Ariz. Rev. Stat. Ann. §§ 45-401 through 45-655.
129/ Cal. Water Code §§ 1425 et seq.

rights, including statutes suspending operation of forfeiture laws where water is conserved by implementing water conservation measures or substitute use of reclaimed water.[130] Further, California has acted to expand statutory area-of-origin protections.[131]

Colorado has expanded the state role in the administration of appropriative water rights, with an increased recognition of the state engineer's discretion to make rules and to administer water. The state views this as a fairly recent development in the evolution of the prior appropriation doctrine in Colorado. Instead of being guided solely by the strict priority system, the State Engineer can make rules to achieve the maximum utilization of water.[132] This principle has been expanded and clarified to indicate that maximum utilization does not mean simply "a single-minded endeavor to squeeze every drop of water" from a water source, but rather to make "optimum use" of the resource. The Colorado Supreme Court has stated that "optimum use can only be achieved with proper regard to all significant factors, including environmental and economic concerns."[133] As yet, the State Engineer has adopted only a few regulations. However, the Supreme Court has invited the State Engineer to make more extensive regulations in the public interest.

Another important development in Colorado is stricter enforcement of due diligence requirements on conditional water right holders. Conditional rights, rights established by declaring one's intent to divert water without making a diversion, have, at times, been maintained for many years with only minimal physical effort or investment. Courts are now beginning to impose stricter requirements of due diligence on conditional right holders[134] and are taking a harder look at such rights to ensure there is a genuine intent to appropriate, not merely to speculate.[135] Additionally, Colorado law[136] now requires proof that the project will be completed with diligence before issuance of a decree for a conditional right.[137] Imposing stricter requirements on conditional rights makes more water available for current demands where there is present economic use or need for water to remain perpetually in the stream for public benefit.

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[130] Cal. Water Code § 382.
[131] Cal. Water Code § 1215 et seq.
[132] See Fellhauer v. People, 167 Colo. 320, 447 P.2d 986 (1968), Colorado Springs v. Bender, 148 Colo. 458, 366 P.2d 552 (1961).
[133] Alamosa-La Jara Water Users Protective Ass'n v. Gould, 674 P.2d 914 (Colo. 1983).
[134] Colorado River Water Conservation Dist. v. City and County of Denver, 640 P.2d 1139 (Colo. 1982).
[135] See, e.g., Colorado River Water Conservation Dist. v. Vidler Tunnel Water Co., 197 Colo. 413, 594 P.2d 566 (1979).
[136] Colo. Rev. Stat. § 37-92-305(9)(b) (cum. Supp. 1985).
[137] See Southeastern Colorado Water Conservancy Dist. v. City of Florence, 688 P.2d 715 (1984).

Idaho views its use of the appropriation doctrine as having changed from a strict system of first-in-time, first-in-right to a larger effort to manage the public water resource to achieve the greatest public good. As mentioned,138/ statutes have been enacted to require the interest of the general public to be protected in the allocation and transfer of water rights. Also, as previously noted,139/ a diversion of water is no longer necessary to establish a valid water right and the value of water for general public uses is recognized as a beneficial use. Further, Idaho now issues some appropriative permits for a specific term of years, rather than in perpetuity. This allows still further flexibility in meeting water use needs.

In Oregon a law was passed in 1987 to provide for the sale or lease of "conserved water" which is defined as "that amount...previously unavailable to subsequent appropriators, that results from conservation measures." The term "conservation" is defined as "the reduction of the amount of water (previously) consumed or irretrievably lost...achieved either by improving the technology or method for diverting, transporting, applying or recovering the water or by implementing other approved conservation measures. The person or entity carrying out conservation measures receives 75% of the conserved water, with 25% going to public use. Under the law any water right holder may apply to the Water Resources Commission for approval of a conservation proposal. The Commission approves proposals found to be feasible, productive of conserved water, in the public interest, and not injurious to other vested water rights. The Commission then tentatively allocates the amount of water expected to be conserved, first reserving to the State its 25%. After completion of the conservation measures and demonstration of the appropriate conservation of water, the Commission issues a new water right certificate which maintains the priority of the original water right and establishes a priority to the conserved water "one minute after the priority of the water right held by the person implementing the conservaton measures."140/

In Texas, the addition of conservation as one of the considerations made in deciding whether to grant an appropriative right is a fairly recent modification in appropriative water law.141/ Conservation is defined as "the development of water resources; and those practices, techniques, and technologies which will reduce the consumption of water, reduce the loss or waste of water, improve the efficiency in the use of water, or increase the recycling or reuse of water so that a water supply is made

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138/ See text accompanying Notes 29 and 30.
139/ See text accompanying Note 43-45.
140/ See Senate Bill 24, passed by the 64th Oregon Legislative Assembly, Relating to Water (amending Or. Rev. Stat. § 540.510 and creating new provisions).
141/Tex. Water Code Ann. § 11.134.

available for future or alternative uses."142/ The implementation of this statutory provision will depend on the Texas Water Commission's enactment of rules sufficient to encourage conservation. It is anticipated that these rules will be adopted in the future.

Also in Texas, prior to September 1985, little consideration of the environmental effects of water use under state issued permits was required under the water code. The Commission was only obliged to assess the effects, if any, of the issuance of a permit on the bays and estuaries of Texas and to find that the permit would not be detrimental to the public welfare. New sections have been added to the water code to provide for additional consideration of instream flows, fish and wildlife habitats and water quality, as well as more defined standards for bays and estuaries.143/ The Commission has indicated that future rules and interpretations of these sections will further define and modify the considerations.

In Utah, the Geothermal Resources Conservation Act, passed in 1981,144/ declared the use of water for geothermal purposes a beneficial use. Geothermal resources are defined as the natural heat of the earth at temperatures greater than 120 degrees centigrade. The Act provides that geothermal fluids, both steam and water, must be appropriated according to state law. The law provides for the appropriation to have a priority date of the date the filing was made between it and other water rights. However, there is no priority created among geothermal owners. Another innovation in Utah law allows the State Engineer to approve an application to appropriate water temporarily, not to exceed one year.145/ Processing of the application is accelerated since no public notice is mandated. In some instances, the State Engineer may require that public notice be made.

Recent developments in other states have been previously explained. As future public needs are defined, other modifications to the prior appropriation doctrine will undoubtedly occur. Among other states, Washington is currently involved in an in-depth review of its water allocation and instream flow planning functions. New legislation could be proposed as a result of that review and could alter instream flow authorities, water resources planning, and other parts of state water law.

142/Tex. Water Code Ann. § 11.002(8).
143/Tex. Water Code Ann. §§ 11.147, 11.149, and 11.150.
144/Utah Code Ann. § 73-22.
145/Utah Code Ann. § 73-3-5.5.

CONCLUSION

The doctrine of prior appropriation has evolved to meet changing needs as the West has matured and diversified from its early beginnings. Changes have occurred with different emphasis and at different rates from state to state. More modifications will undoubtedly be made. The flexibility of the appropriation doctrine has proven one of its most important characteristics.