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A Survey of the Evolution of Western Water Law in Response to Changing Economic and Public Interest Demands

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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 based on the doctrine of prior appropriation. This article briefly reviews the historical background of the appropriation doctrine, examines the modern protection of the public interest in the allocation of water under that doctrine, describes water transfers in the West, particularly the law of interstate sales and leases, and describes other recent water law developments in the western states.

WATER LAW IN THE WEST—A BRIEF HISTORICAL OVERVIEW

The English Influence 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, resembled their native England. Hence, 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. Nonnavigable waters were considered private prop-

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erty. Private landowners owned the banks and beds of nonnavigable 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 United States 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 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.

The Appropriation Doctrine in the West

Although the arid western United States adopted the "navigable in law" test, the development of laws governing water rights in general was markedly different in the West from that in the East. The most important factor which led to this difference 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 minimal. 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 of use. The doctrine of prior appropri-

1. Propeller Genesee Chief v. Fitzhugh, 53 U.S. 443 (1851).
2. Barney v. City of Keokuk, 94 U.S. 324, 338 (1876).

ation, which is currently used to administer water rights in every western state, developed in response to this scarcity.

The "appropriation" of water to meet social goals is deeply rooted in the history of the American West. Native Americans were the first "appropriators." Before land was ceded to the United States under the Treaty of Guadalupe Hidalgo, community ditches dug by American Indians were used to divert, or "appropriate," western water for agricultural purposes. The religious and military outposts of the Spaniards in the Southwest required a stable supply of water. They sometimes used the canals of the Native Americans and sometimes dug their own.[3] 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 that "the law of prior appropriation existed under the Mexican republic at the time of the acquisition of New Mexico."[4] Referring to water use by Native Americans, the Arizona Supreme Court noted that the right to appropriate water to grow crops predates recorded history.[5]

Among the later Anglo settlers of the West, miners and Mormons have been identified as contributing to the development of the doctrine of prior appropriation.[6] The Mormons settled the Great Basin beginning in 1847. This was an uninviting area, described by early American cartographers as the "Great American Desert." A subsistence level of survival was the settler's primary concern. Water was necessary for human consumption, stock watering, and irrigation. Mormon tradition dictated that the first settlers in an area to put water to use would have that use protected against later settlers.

During the same period that the Mormons came West, gold was discovered in California. Mining, particularly placer claims, required diverting 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 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.[7] The concepts of prior appropriation 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

3. For a description of the genesis of the appropriation doctrine see 1 W. HUTCHINS, WATER RIGHTS LAWS IN THE NINETEEN WESTERN STATES 159-65 (1971).

4. United States v. Rio Grande Dam & Irrigation Co., 9 N.M. 292, 306, 51 P. 674, 678 (1898).

5. Clough v. Wing, 2 Ariz. 371, 380, 17 P. 453, 455 (1888).

6. *See generally* 1 W. HUTCHINS, *supra* note 3, at 162-65; 1 R. CLARK, WATERS AND WATER RIGHTS 75-78 (1967).

7. Irwin v. Phillips, 5 Cal. 140, 146 (1855).

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."[8]

The initial development of the prior appropriation doctrine in the legal systems of the western states and territories occurred gradually. 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 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 against subsequent users. They were not, however, protected against the whims of 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 "use it or lose it." Tradition and custom were quick to protect senior water right holders in the exercise of their rights. 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 of prior appropriation 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. A diversion provided a means, however limited, of measuring the water used. Typically, an irrigator 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 watercourse.

8. Maynard v. Watkins, 55 Mont. 54, 55, 173 P. 551, 552 (1918).

Finally, an appropriative water right, once vested, became a constitutionally protected property interest. It could be sold, leased, or transferred in other ways. It was a usufructuary right, or a right to use, and was protected as a property right.[9] 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 were established as 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 are discussed below. Because of constitutional protection of water rights, these modifications have historically respected the property rights of the holders of vested appropriative water rights. The administration of appropriative water rights has also changed from when it initially functioned on an *ad hoc* basis. 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 1872.[10] It allowed for creation of such rights by posting, at the point of diversion, a document 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, requiring the posting of notice at the point of diversion. Colorado, Dakota Territory, New Mexico, Texas, and Wyoming enacted laws in the 1880's.[11] Arizona, Nevada, and Oklahoma enacted laws in the 1890's.[12]

As water use increased, the simple system for governing appropriative rights under the early statutes proved inadequate. 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 ineffective, because the posting often occurred in remote areas where it could be seen by few other appropriators. The posting was usually done with ephemeral material which, even if a subsequent appropriator had attempted to locate it, may have disintegrated

9. *See infra* text accompanying notes 112-16.

10. California Water Code, Ch. 424, 1871-1872 Cal. Stat. 622 (amended 1943).

11. Act of Feb. 11, 1881 Colo. Sess. Laws 161; Act of Feb. 28, 1881, ch. 142, 1881 Dak. Laws 201; Act of Feb. 26, 1891, ch. 71, 1891 N.M. Laws 130; Act of Mar. 19, 1889, ch. 88, 1889 Tex Gen Laws 1128; Act of 1886, ch. 61, 1886 Wyo. Sess. Laws .

12. Act of Apr. 13, 1893, no. 86, 1893 Ariz. Laws 119; Act of Mar. 16, 1899, ch. 97, 1899 Nev. Laws 115; Act of Mar. 12, 1897, ch. 19, 1897 Okla. Sess. Laws 187; *see generally* 1W. HUTCHINS, *supra* note 3, 166-70; 1 R. CLARK, *supra* note 6, 93-124.

or 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.

Wyoming was among the first states to enact statutes giving a state agency a major role in administering appropriative water rights.[13] 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 an 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 containing applications which had been made. Although technical capabilities were meager, the new system applied the technology that was available. It also discouraged the filing of unsupportable or excessive claims, gave some notion of 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 this order: Nebraska in 1895; Utah and Idaho in 1903; Nevada, New Mexico, North Dakota, Oklahoma, and South Dakota in 1905; Oregon in 1909; Texas in 1913; California in 1914; Kansas and Washington in 1917; and Arizona in 1919.[14]

The administrative procedures adopted under the early statutes varied from state to state, and have been modified and updated as needed. Numerous court decisions have been important in shaping appropriative water law, both by interpreting statutes and filling gaps where statutes were silent. Today, sophisticated administrative systems exist in every western state to manage appropriative water rights. Under these systems interrelated rights are coordinated and priorities are enforced. The state systems also address requirements relating to the scope of individual rights and the need for continued beneficial use. Some of the refinements which have been made in state administrative systems are discussed below.

While much of the development of western state water law occurred within each state, interstate matters were also a focus of attention. Interstate compacts, which divide the use of water in a watercourse flowing

13. Act of Mar. 14, 1890, ch. 82, 1890 Wyo. Sess. Laws 186.

14. Act of Apr. 4, 1895, ch. 69, 1895, Neb. Laws 244; Act of Mar. 12, 1903 ch. 100, 1903 Utah Laws 88; Act of Mar. 11, 1903, no. 146, 1903 Idaho Laws 223; Act of Mar. 1, 1905, ch. 46, 1905 Nev. Stat. 66; Act of Mar. 16, 1905, chs. 102, 104, 1905 N.M. Laws 270, 284; Act of Mar. 1, 1905, ch. 34, 1905 N.D. Laws 44; Act of Feb. 25, 1905, ch. 21, 1905 Okla. Sess. Laws 274; Act of Mar. 3, 1905, ch. 132, 1905 S.D. Laws 201; Act of Feb. 24, 1909, ch. 216, 1909 Or. Laws 319; Act of Apr. 9, 1913, ch. 171, 1913 Tex. Sess. Law Serv. 358 (Vernon); Act of June 16, 1913, ch. 586, 1913 Cal. Stat. 1012; Act of Mar. 13, 1917, ch. 172, 1917 Kan. Sess. Laws 218; Act of Mar. 14, 1917, ch. 117, 1917 Wash. Laws 447; Act of Mar. 26, 1919, ch. 164, 1919 Ariz. Laws 278; *see generally* 1 W. HUTCHINS, *supra* note 3, at 170-80.

between states, have been negotiated for several major western rivers: the Arkansas, Bear, Canadian, Colorado, La Plata, Pecos, Republican, Rio Grande, Sabine, Snake, South Platte, and Yellowstone.[15] Compacts have also been negotiated for the Arkansas, Klamath, and Upper Colorado River Basins.[16]

Another method of dividing waters between states is by equitable apportionment—a division made by a judge or court-appointed special master whose decision is ordered by the court. *Nebraska v. Wyoming*,[17] in which the North Platte River was apportioned, and *Wyoming v. Colorado*,[18] in which the Laramie River was apportioned, are examples of the United States Supreme Court acting to apportion waters between the party states.

A third method of dividing interstate waters is the so-called "congressional apportionment." This occurred when Congress, in the Boulder Canyon Project Act,[19] authorized the Secretary of Interior to apportion water between the states of the Lower Colorado River Basin.[20] 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 by the Colorado River Compact.[21]

Federal laws also helped shape western water resource law and management. In the Mining Act of 1866 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.[22] In the Desert Land Act of 1877 Congress declared that water rights in arid lands of the western United States depended on the prior appropriation doctrine.[23] The effect of this Act was to confirm past and future appro-

15. *See* Arkansas River Compact, ch. 155, 63 Stat. 145 (1948); Bear River Compact, Pub. L. No. 85-348, 72 Stat. 38 (1958); Canadian River Compact, ch. 306, 66 Stat. 74 (1952); Act of Dec. 21, 1928, ch. 42, 45 Stat. 1057 (1928); Act of Jan. 29, 1925, ch. 110, 43 Stat. 796 (1925); Pecos River Compact, ch. 184, 63 Stat. 159 (1949); Republican River Compact, ch. 104, 57 Stat. 86 (1943); Rio Grande Compact, ch. 155, 53 Stat. 785 (1939); Sabine River Compact, ch. 668, 68 Stat. 690 (1954); Snake River Compact, ch. 73, 64 Stat. 29 (1950); South Platte River Compact, ch. 46, 44 Stat. 195 (1926); Yellowstone River Compact, ch. 629, 65 Stat. 663 (1951).

16. *See* Arkansas River Basin Compact, Kansas-Oklahoma, Pub. L. No. 89-789, 80 Stat. 1409 (1966); Klamath River Basin Compact, Pub. L. No. 85-222, 71 Stat. 497 (1957); Upper Colorado River Basin Compact, ch. 48, 63 Stat. 31 (1949).

17. 325 U.S. 589 (1945), *decree modified*, 345 U.S. 981 (1953).

18. 259 U.S. 419, *modified*, 260 U.S. 1 (1922); *see also* Wyoming v. Colorado 298 U.S. 573 (1936); Wyoming v. Colorado, *decree & order* 353 U.S. 953 (1957).

19. Ch. 42, 45 Stat. 1057 (1928) (codified as amended at 43 U.S.C. §§ 617-619(b) (1982)).

20. *See* Arizona v. California, 373 U.S. 546 (1963).

21. *See* Boulder Canyon Project, ch. 42, 45 Stat. 1057, 1064 (1928); *see also* 70 Cong. Rec. 324 (1928).

22. Act of July 26, 1866, ch. 262, § 9, 14 Stat. 253 (codified as amended at 43 U.S.C. § 661 (1982)).

23. Act of March 3, 1987, ch. 107, § 1, 19 Stat. 377 (codified as amended at 43 U.S.C. § 321 (1982)).

priations 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 severing the land and water estates in the public domain and directing that rights to water be established under state law and independently of rights to land.[24] These 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."[25] Since land in the arid West was of little value without a dependable water supply, the Congress and the Court said in effect 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.[26] 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:

> 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.[27]

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*,[28] was the language of Section 8 recognized as having the full import Congress intended to give it. Moreover, implementation of other federal laws, some with language similar or identical to Section 8, has actually conflicted with water

24. California-Oregon Power Co. v. Beaver Portland Cement Co., 295 U.S. 142 (1935).
25. Broder v. Natoma Water and Mineral Co., 101 U.S. 274, 276 (1880).
26. Ch. 1093, 32 Stat. 390 (codified as amended at 43 U.S.C. §§ 371-616 (1982)).
27. *Id.* at § 8 (codified at 43 U.S.C. §§ 372, 383) (emphasis in original).
28. 438 U.S. 645 (1978).

management under state appropriation laws. These include the Clean Water Act and the Federal Power Act.[29]

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*,[30] 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 fully available for appropriation under state law and that appropriators who held vested rights under state law held secure rights against all subsequent appropriators.

The extent of this exception was not immediately clear. It was better understood in 1963 when the Supreme Court decided *Arizona v. California*.[31] In that case the reservation doctrine, as the principle from the Winters case came to be known, was used to award rights to a significant portion of the flow of the Colorado River to five Indian tribes. The Court said the principle applies to non-Indian federal reservations as well.

While the existence of the reservation doctrine is no longer questioned, many of its limits remain undefined. Among the unresolved issues are the quantity of most reserved rights claims, how they should be administered, whether they may be sold or leased off the reservation to which they pertain, and how they relate generally to vested appropriative water rights. Jurisdictional questions have also been troublesome. For example, despite enactment of the McCarran Amendment,[32] a federal statute designed to allow joinder of the United States in state court suits to administer and adjudicate water rights, including reserved rights, controversy raged for years over whether cases involving Indian reserved rights could be fairly tried in state courts. After more than a decade of litigation, the United States Supreme Court held that state courts have the authority to quantify Indian reserved rights in comprehensive general stream adjudication proceedings.[33] The vast majority of Indian reserved rights, however, remain unquantified. Because of this, and because their priority

29. Federal Water Pollution Control Act, 33 U.S.C. §§ 1251-1376, 1251(g) (1982); Federal Power Act, 16 U.S.C. §§ 791-828, 821 (1982). See External Resolutions No. 132 and No. 140 of the Western States Water Council, adopted April 22, 1983 and January 13, 1984, respectively.

30. 207 U.S. 564 (1908).

31. 373 U.S. 546, 595-602 (1963).

32. 43 U.S.C. § 666 (1982).

33. Arizona v. San Carlos Apache Tribe, 463 U.S. 545 (1983).

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. The number will probably be large.

The reserved rights doctrine is a judicial creation and the judicial definition of its scope and limitations is a long and arduous process. Efforts to resolve reserved rights conflicts through negotiation instead of litigation are pending. Some have been successful.[34] Unlike the usual result in litigation, negotiation proceedings can be tailored so that the results are advantageous to all parties.

In summary, federal laws have both contributed to and conflicted with the establishment and implementation of the appropriation doctrine. Conflicts notwithstanding, the law of prior appropriation has become firmly entrenched as the water law of the western states.[35] Modifications in the 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.

PROTECTION OF THE PUBLIC INTEREST AND BALANCING COMPETING DEMANDS

Public Interest Criteria

Under traditional appropriative law, water users were granted water rights up to the amount of water available in a watercourse 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 by state officials as part of the permitting process and in determining whether to approve applications for water right transfers. For example, the North Dakota state engineer is required to find that a proposed appropriation is in the "public interest" before a water permit may

34. *See* P. SLY, RESERVED WATER RIGHTS SETTLEMENT MANUAL 25-36 (1988).

35. The coastal states, California, Oregon, and Washington, and some of the plains states, Kansas, Nebraska, North Dakota, Oklahoma, South Dakota, and Texas, have recognized limited riparian water rights. The extent and nature of these rights has varied significantly. *See generally* 1 W. HUTCHINS, *supra* note 3, 6-14; 1 R. CLARK, *supra* note 6, 31.

be granted.[36] The factors which must be weighed in determining the public interest are:

> (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.[37]

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 balance the pending applications based upon these criteria and grant a permit which allows the use which best serves the public interest.

In Alaska public interest criteria are also defined by statute. The criteria apply to evaluation of applications for surface and groundwater and for reservations of 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 the effect on access to navigable or public waters.[38]

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 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."[39] The court specifically required the following 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

36. N.D. Cent. Code § 61-04-06 (1985).
37. *Id.*
38. ALASKA STAT. § 46.15.080(b)(1)-(8) (1987).
39. Shokal v. Dunn, 109 Idaho 330, 707 P.2d 441, 449-50 (1985).

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.[40]

Based on the court's decision, criteria have been adopted for guiding the determination of public interest in applications to appropriate unappropriated water and for reallocating trust waters. The public interest criteria added to the Idaho water statutes are considered in granting applications to: (1) appropriate unappropriated water;[41] (2) reallocate water held in trust from some existing hydropower rights;[42] (3) appropriate unappropriated water for minimum instream flow;[43] and (4) change the place or nature of use or point of diversion of an established water right.[44]

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.[45] 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 percent of the total recharge of one of Arizona's groundwater basins.[46] The State Land Department had determined that this drain on a groundwater supply already experiencing substantial overdraft would not be in the public interest.[47] The Arizona Court of Appeals upheld the denial of the application, 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.[48]

The effect of public interest criteria legislation recently enacted in Montana is to require the state, when issuing permits for large new

40. *Id.* at 449.
41. IDAHO CODE § 42-203B(5)(e) (Supp. 1988).
42. *Id.* § 42-203C (Supp. 1988).
43. *Id.* § 42-1503 (Supp. 1988).
44. *Id.* § 42-222 (Supp. 1988).
45. ARIZ. REV. STAT. ANN. § 45-153(A) (1956).
46. Arizona Game & Fish Dep't v. Arizona State Land Dep't, 24 Ariz. App. 29, 535 P.2d 621,622 (1975).
47. *Id.* at 30, 535 P.2d at 622.
48. *Id.* at 31, 535 P.2d at 623.

appropriations (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.[49] The law amended the procedure for changing the purpose and place of use for large existing appropriations to require legislative approval. This requirement will protect public values associated with water uses and will have a substantial impact on water management in the state.

When considering an application to appropriate water, the Nevada state engineer is guided by three basic statutory criteria: (1) the availability of unappropriated water; (2) the effect on existing rights; and (3) the public interest.[50] The state engineer views the public interest requirement as designed to promote strong public policy concepts and protect the public welfare. This requires the exercise of broad discretion when ruling on permit applications. For example, the state engineer used this discretion when he granted appropriative water rights to the U.S. Bureau of Land Management and the U.S. Forest Service for recreation, fishery, and wildlife watering, including instream flow rights. In upholding the issuance of these rights, the Nevada Supreme Court rejected the argument that non-diversionary appropriative water rights are contrary to the public interest in Nevada.[51]

Wyoming law requires the state engineer to reject applications to appropriate water where they are detrimental to the public interest or welfare.[52] 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. He proposed 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. Based on public welfare considerations, the state engineer

49. MONT. CODE ANN. §§ 85-2-311, 316 (1988).
50. NEV. REV. STAT. § 533.370(3) (1986).
51. State v. Morros, 766 P.2d 263 (Nev. 1988); *see infra* text accompanying notes 89 and 90.
52. WYO. STAT. § 41-4-503 (1977).

denied the initial application in favor of the state's application. The original applicant appealed the decision to the Wyoming Supreme Court, which remanded the matter to the state Board of Control.[53] The matter was later settled when the initial applicant signed over all rights to develop the project to the Wyoming Water Development Commission.

In New Mexico, a law requires the state engineer, when ruling on applications to appropriate any non-de minimis amount of groundwater, to determine that: (1) there is unappropriated water available; (2) the proposed use can be accomplished without harm to existing water rights; and (3) the proposed use is not contrary to conservation of water within New Mexico or detrimental to the public welfare of the state.[54] When such a determination is made, and other statutory conditions are met, the engineer will "issue the permit to the applicant to appropriate all or part of the water applied for."[55]

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."[56] 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.[57]

Another portion of the code simply reads: "[e]xpressions of the public interest will be sought at all stages of water planning and allocation discussions."[58]

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 called "public interest" the "primary statutory standard guiding the Water Rights Board in acting upon applications to appropriate water."[59] Throughout California's statutory law defining the state's role in administering modern appropriative

53. Wyoming Water Inc. v. Christopulos, No 86-177 (Wyo. Sup. Ct., Dec. 3, 1987) (summary order of remand).

54. N.M. STAT. ANN. § 72-12-1 (Supp. 1988).

55. *Id.*

56. WASH. REV. CODE ANN. § 90.54.020(3)(a) (Supp. 1989).

57. *Id.* § 90.54.020(3)(a).

58. *Id.* § 90.54.020(9).

59. Johnson Rancho County Water Dist. v. State Water Rights Bd., 235 Cal. App. 2d 863, 45 Cal. Rptr. 589, 596 (1965).

water rights runs the theme that state actions must implement the public interest. This is so notwithstanding that the public interest concept is not defined by statute, thus requiring state officials to make policy judgments when a public interest determination 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.[60]

In Colorado, no law authorizes state officials to consider public interest factors when allocating water rights. 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 state's acquisition of water rights for protecting instream flows to preserve the natural environment to a reasonable degree. This method of public interest protection is used widely in the West.

Instream Flow Laws

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

Under modern appropriative law, the requirement to divert water to establish a water right has several significant exceptions. For example, the instream flow protection portion of the Alaska Water Use Act allows the reservation of water for the following instream uses: "(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."[61] This statute 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

60. Bank of Am. v. State Water Resources Control Bd., 42 Cal. App. 3d 198, 208, 116 Cal. Rptr. 770, 775 (1974).

61. ALASKA STAT. §46.15.145 (1987)

appropriators and the public interest; determination of 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 a booklet which describes the instream reservation program and contains detailed instructions on how to apply for a reservation.[62]

The Colorado 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 for minimum stream flows or for natural surface water levels or volumes for natural lakes to preserve the natural environment to a reasonable degree."[63] 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. The board, like any other appropriator, can demand water when its rights are senior to 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,"[64] 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.[65]

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.[66] An application for minimum flow filed by the board with the Department of Water Resources is processed like one for a diversionary right. If approved by the Director, it becomes a recognized water right with a priority date as of the date the board applied for the permit. The board has established other instream appropriative rights in Idaho under its constitutional water planning authority. The legislature has established such rights by statute. The Idaho Supreme Court has recognized the validity of instream flows established without actual diversion, and has

62. ALASKA DEPARTMENT OF NATURAL RESOURCES, STATE OF ALASKA INSTREAM FLOW HANDBOOK—A GUIDE TO RESERVING WATER FOR INSTREAM USE (1985).

63. COLO. REV. STAT. § 37-92-102(3) (Supp. 1987).

64. IDAHO CODE § 42-203 A(5) (Supp. 1988).

65. *Id.* § 42-1501 (Supp. 1988).

66. *Id.* § 42-1503 (Supp. 1988).

recognized instream public uses as beneficial uses when authorized by statute.[67]

In Montana, a public entity may acquire a water reservation to secure an appropriative water right for instream flow.[68] Montana law provides that reservations for the maintenance of minimum flow, level, or quality of water are limited to a maximum of 50 percent of the average annual flow of gauged streams.[69] 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.

Instream flows in Oregon 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. Withdrawal has continued to the present.[70] Similarly, the state engineer withdrew streams until the 1950's where it appeared they were about to be fully appropriated. 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 board's authority included withdrawing streams from further appropriation. The Water Policy Review Board continued this practice until 1985, and now the Water Resources Commission performs this function.

Since 1955 Oregon water law has provided for establishment of minimum perennial streamflows to support aquatic life and minimize pollution. The first minimum streamflow levels were adopted in 1958. There are now 454 minimum flows. Minimum streamflows are established through administrative rules adopted by the Water Resources Commission. In general, they are administered like water rights. A revision of the law in 1983 made establishment of minimum streamflows a high 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.[71]

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

67. State Dep't of Parks v. Idaho Dep't of Water Admin., 96 Idaho 440, 530 P.2d 924, 928-29 (1974).

68. *See* MONT. CODE ANN. § 85-2-316 (1987).

69. *Id.* § 85-2-316(6).

70. *See* OR. REV. STAT. §§ 538 .110-.300 (1988).

71. *Id.* § 536.235 (1988).

sufficient to support game fish and food fish populations be maintained at all times in the streams of th(e) State."[72] This statute provides that the director of the Department of Ecology "may refuse to issue a permit to divert water if, in the opinion of the director of fisheries or director of wildlife, issuing the permit might result in lowering the flow of water in a stream below the flow necessary to adequately support food fish and game fish populations in the stream."[73] As an alternative to denying permits, 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. Approximately 250 streams, most of them small, have been closed to further appropriation. 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.[74] 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 or 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 of the flows or levels. The Department used 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[75] 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.[76] The Act declares that fish and wildlife maintenance and enhancement, recreation, and preservation of environmental and aesthetic values, among others, are beneficial uses for water. Under this Act and other authorities, the Department of Ecology has established instream flows on over 170 major streams or stream reaches and has closed over 300 streams and lakes to further consumptive appropriation.

Utah enacted an instream flow law in 1986 which allows the State Division of Wildlife Resources to acquire established water rights and

72. WASH. REV. CODE § 75.20.050 (1989).
73. *Id.*
74. *Id.* § 90.22 (Supp. 1989).
75. *Id.* § 90.54 (1989).
76. *Id.* § 90.54.020(3)(a)(1989).

file change applications with the state engineer. The rights are used "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."[77] The Division must have legislative approval to acquire water rights for instream flows. Another state law 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."[78] The statute does not set standards for instream flows nor does it provide for appropriation of water for maintaining flows, but it has been applied to protect some streams from appropriation.

Wyoming also adopted an instream flow law in 1986. 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 identifies stream segments and flow rates which should be appropriated, and reports them to the Wyoming Water Development Commission. The commission files applications for appropriation of natural flows in the identified stream segments. The commission analyzes whether natural flow is available for the instream flow purpose, whether storage is required, or whether a combination must be used. The date of priority for the instream flow right is the date that the application is received in the state engineer's office. The state engineer cannot grant a permit for instream flow until the Water Development Commission completes a report and the state engineer holds a hearing. The state engineer may condition an instream flow permit to require a future review of the continuation of the permit. The watercourse is 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 an instream flow right.[79]

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 interpreted state appropriation statutes to authorize *in situ* appropriations for recreation and wildlife purposes.[80] In April 1983, the Arizona Department of Water Resources issued two permits to the Nature Conservancy to appropriate water for instream use.[81]

77. UTAH CODE ANN. § 73-3-3(11) (Supp. 1988).
78. *Id.* § 73-3-8(1); *see also id.* § 73-3-29.
79. *See* WYO. STAT. §§ 41-3-1001-1014 (Supp. 1988).
80. McClellan v. Jantzen, 26 Ariz. App. 223, 547 P.2d 494, 496 (1976).
81. Letter from Kathleen Ferris, Director, Arizona Department of Water Resources to Norman K. Johnson (20 June 1986).

North Dakota law also provides no specific mechanisms to establish instream flow rights. However, the North Dakota Water Commission may direct the state engineer to reserve water for future use.[82] The state engineer may also refuse to grant a permit if he finds that the effects of a proposed diversion on fish, game, and/or recreation would be detrimental.[83] The state engineer has used these tools to create the equivalent of instream flow rights.

While California law does not specifically provide for instream flow water rights, the state's public interest statutes provide a legal basis to protect instream beneficial uses through water terms and conditions which require maintenance of bypass flows.[84] California law also provides for appropriating:

> [t]he 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.[85]

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 can be granted to a public or private entity.

Nevada law also recognizes recreational uses as beneficial, but contains no specific recognition of instream flow rights. However, the Nevada Supreme Court recently upheld the state engineer's issuance of appropriative water rights to the U.S. Bureau of Land Management and the U.S. Forest Service for recreation, fishery, and stock and wildlife watering purposes, including those rights that allowed an *in situ* use of water.[86] The Nevada Attorney General, representing the State Department of Agriculture, argued unsuccessfully that a diversion of water was a prerequisite to a water right under Nevada law. The court also rejected arguments that the non-diversionary rights were contrary to the public interest. The court noted that "applications by United States agencies to appropriate water for application to beneficial uses pursuant to their land management

82. N. D. CENT. CODE § 61-04-31 (1985).
83. *Id.* § 61-04-06(4)(c)(1985).
84. CAL. WATER CODE § 1243.5 (West 1971).
85. *Id.* § 1243 (West 1971).
86. State v. Morros, 766 P.2d 263 (Nev. 1988).

functions must be treated on an equal basis with applications by private landowners."[87]

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. The use of public interest criteria in processing permit and transfer applications, instream flow laws, and other related laws, provides water for nonconsumptive uses and also protects the public interest. "Preference statutes,"[88] 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 affected 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.[89] 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 was first articulated in the United States Supreme Court's decision in *Illinois Central Railroad Co. v. Illinois.*[90] The Illinois Legislature had conveyed to the railroad company title to the bed of Lake Michigan bordering Chicago. Later the legislature reconsidered its action and rescinded the conveyance. The railroad brought a quiet title suit to settle its ownership of the Chicago harbor. The Supreme Court relied on Illinois' sovereign power over navigable waters and 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.[91]

The *Illinois Central* ruling appeared to be based on federal common law. However, in *Appleby v. City of New York,* the Court stated that the

87. *Id.* at 269.

88. See, for example, IDAHO CONST. Art. 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. HUTCHINS, *supra* note 3, at 400-19.

89. *See generally* Walston, *The Public Trust and Water Rights: National Audubon Society v. Superior Court,* 22 LAND AND WATER L. REV. 701 (1987).

90. 146 U.S. 387 (1892).

91. *Id.* at 453.

decision was actually based on Illinois state law.[92] Thus the public trust doctrine likely exists in some form in every state and is different from state to state. It is neutral as to choices made about resource development, but requires that the state make the choices and that trust uses be given adequate consideration when the choices are made. Western state courts which have recognized and applied the doctrine include those in California, Idaho, Montana, North Dakota, Oregon, and Texas.[93]

With respect to water resource allocation and the public trust doctrine, *National Audubon Society v. Superior Court*,[94] often referred to as the Mono Lake case, is of great current interest. Before the Mono Lake decision, the California courts had used the public trust doctrine to allow public recreation and access[95] to watercourses and to safeguard ecosystems and wildlife habitat,[96] among other things. The Mono Lake case arose because diversions from the Mono Lake Basin had resulted in adverse environmental impacts in the basin. Los Angeles had constructed the Owens Valley Aqueduct to access sources of water supply in the Owens Valley approximately 200 miles to the northeast. After using 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. Because the city diversions contributed to lowering the lake level, in 1980 the National Audubon Society challenged the diversions as detrimental to the public trust. At that time, the water diverted from the basin provided approximately 17 percent of the city's 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 Audubon Society argued that the rights were invalid on their face because they violated trust uses. The city 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. Los Angeles argued further that California water law, under which the rights had been granted, supplanted or subsumed the public trust doctrine.

92. 271 U.S. 364, 395 (1926).

93. National Audubon Soc'y v. Superior Court, 33 Cal. 3d 419, 658 P.2d 709, 189 Cal. Rptr. 346 (1983); Kootenai Environmental Alliance v. Panhandle Yacht Club, 105 Idaho 622, 671 P.2d 1085 (1983); Dep't of State Lands v. Pettibone, 216 Mont. 361, 702 P.2d 948 (1985); United Plainsmen Ass'n v. North Dakota State Water Conservation Comm'n 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, 162 Tex. 549, 349 S.W.2d 579 (Tex. 1961).

94. 33 Cal.3d 419, 658 P.2d 709, 189 Cal. Rptr. 346 (1983).

95. Marks v. Whitney, 6 Cal.3d 251, 491 P.2d 374, 98 Cal. Rptr. 790 (1971).

96. State v. Superior Court, 29 Cal.3d 210, 625 P.2d 239, 172 Cal. Rptr. 696 (1981).

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.[97]

In *Kootenai Environmental Alliance v. Panhandle Yacht Club*[98] the Idaho Supreme Court 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 the construction of boating facilities on Lake Coeur d'Alene was not in violation of the public trust, notwithstanding that a moratorium on the issuance of such permits by the Board of Land Commissioners was in effect when the permit was issued.

In *Shokal v. Dunn*[99] the Idaho Supreme Court intimated 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. The court provided a number of examples, such as navigation, wildlife and fish, aesthetics, water quality, and recreation.[100]

In a recent California case, *United States v. State Water Resources Control Board,* the California Court of Appeals 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.[101] 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 said, "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. . . ."[102]

To date only the California Supreme Court has held that the public trust doctrine may be used to retroactively modify a vested appropriative

97. National Audubon Soc'y, 33 Cal.3d at 446-47, 658 P.2d at 728-9, 189 Cal. Rptr. at 364-65.
98. 105 Idaho 622, 671 P.2d 1085, 1094 (1983).
99. 109 Idaho 330, 707 P.2d 441, 447-50 (1985).
100. *See supra* text accompanying note 45.
101. 182 Cal. App. 3d 82, 227 Cal. Rptr. 161 (1986).
102. *Id.* at 150, 227 Cal. Rptr. at 201.

water right.[103] The Idaho Supreme Court has suggested that a similar result could obtain in that state.[104] As it relates to reconsideration of vested appropriative water rights, the public trust doctrine may be dormant in the other western states, but its relationship to state water law is not necessarily the same as in California. Recent Montana court decisions have employed the public trust doctrine to assure public access to surface waters that are capable of recreational use, without regard to streambed ownership or navigability for nonrecreational purposes.[105] Answering a request to apply the public trust doctrine in determining boundaries for ground water subbasins, an Arizona court 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."[106] 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.[107]

Although the argument that the public trust doctrine is subsumed within the constitutional, statutory, and regulatory framework upon which the appropriation doctrine operates in California was made with very limited success in the Mono Lake case, some officials in other states hold this view. North Dakota is one such state. A state supreme court decision in *United Plainsman v. North Dakota State Water Commission*[108] declared that, with respect to water resource management, a provision of the North Dakota Century Code[109] 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. The court also found that the public trust doctrine confirms the state's role as trustee of its water resources and complements constitutional and statutory authority, rather than imposing an independent obligation on the state which requires continual review of vested appropriative water rights.

The Texas Constitution recognizes that public waters are "held in trust

103. National Audubon Soc'y v. Superior Court, 33 Cal.3d 419, 658 P.2d 709, 189 Cal. Rptr. 346 (1983).

104. Shokal v. Dunn, 109 Idaho 303, 707 P.2d 441, 447-50 (1985).

105. Montana Coalition for Stream Access, Inc. v. Hildreth, 211 Mont. 29, 684 P.2d 1088 (1984); Montana Coalition for Stream Access, Inc. v. Curran, 682 P.2d 163 (1984).

106. Seven Springs Ranch, Inc. v. State of Arizona, No. 7594 (Maricopa County Superior Ct., Mar. 20, 1986) (Minute entry).

107. Schuh v. State Dep't of Ecology, 667 P.2d 64, 68 (Wash. 1983).

108. 247 N.W.2d 457, 462 (N.D. 1976).

109. *See* N.D. CENT. CODE § 61-01-01 (1985).

for the use and benefit of the public"[110] and provides for state ownership of reservoirs in situations necessary to achieve optimum reservoir development.[111] This provision, 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, suggests to some state officials that the public trust doctrine may have a life of its own related to water resource allocation outside the Texas Water Code and Constitution.

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 in different ways from state to state. One important issue which is not yet resolved is the question of compensation for appropriative rights which are modified or taken. A minority view may be that such rights are inherently subject to modification. The majority view, indeed what some 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. The theory is that no compensable taking occurs because the holder of the right could never have possessed a property interest contrary to the public trust. Many observers find this objectionable. Even some proponents of applying the public trust doctrine to modify or, as necessary, rescind vested water rights see the result as equitable only if those who lose such rights, or a portion of them, receive payment for them. Others may question the need for application of the public trust doctrine outside a system of water allocation which they believe presently protects trust uses.

WATER RIGHT TRANSFERS

The "reallocation" of appropriated water by transfer of water rights is another method of promoting public interest values as well as meeting new water demands. The use of this method varies from state to state in the West. A transfer refers to the conveyance of a water right from one water user to another or to a change in the location or type of use by the holder of an appropriative water right. The transferability of appropriative water rights promotes the public interest by allowing established uses to change in accordance with changing needs and values. This characteristic

110. TEX. CONST. art III, § 49d (Supp. 1989).
111. *Id.*

of appropriative water rights was recognized early in the development of appropriative water law.[112] As the appropriation doctrine has developed, some 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."[113] That 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.[114]

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."[115]

Before an appropriative water right may be transferred, certain criteria must be met. First, the right must be vested, that is, all requirements entitling the applicant to the use of the water must be fulfilled. Second, the parties must intend that the transfer take place. Third, the transfer must not detrimentally affect other water users. This requirement stems from 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 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. After a time period for objections, the transfer is either approved by the state agency or court, or further hearings or proceedings are held. Complex transfers, with the potential to adversely affect many vested rights, can be costly and time consuming. More routine transfers are part of "business as usual" in many states.[116]

112. *See* Thayer v. California Dev. Co., 164 Cal. 117, 128 Pac. 21 (1912).

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

114. Thayer v. California Dev. Co., *supra* note 112, at 164 Cal. 125.

115. 1 W. HUTCHINS, *supra* note 3, at 468.

116. *See* K. HIGGINSON & J. BARNETT, WATER RIGHTS AND THEIR TRANSFER IN THE WESTERN UNITED STATES—A REPORT TO THE CONSERVATION FOUNDATION (1984). This report indicates that in 1982 (the final year for which information is included) more than 100 transfer applications were filed in California, Colorado, Idaho, Kansas, Montana, Nevada, Oregon, and Utah. *Id.* at 8.

In 1986, the Western States Water Council surveyed its members requesting information on water right transfer activity.[117] While the specific state laws relating to transfer vary, the following generalizations can be made. In virtually 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. 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 more than one year, with an average of 60 to 90 days. Most states charge fees to process transfer applications. They range 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. In all states the cost associated with contested transfers can be significant. In all states, injury to other vested water rights must be considered in determining whether to approve a transfer application. In most of the states "public interest" factors (variously defined) must also be considered. Most states allow temporary transfer, or water leasing. Usually historic consumptive use determines the quantity of water which may be transferred. Most states allow out-of-state transfers, and most recognize instream flows as a beneficial use to which water may be transferred.

Prices 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 range from a low of $30 per acre-foot for a sale which occurred in Utah to a high of $12,500 per acre-foot for a sale in New Mexico. The most drastic range in a state was $300 to $10,000 per acre-foot which was reported by Nevada.

The annual number of transfers also varies greatly from state to state. In North Dakota new appropriations are apparently available to meet all water needs. While state law provides for the transfer of appropriative water rights, very few occur. Alaska, Nebraska, and South Dakota also reported a paucity of transfers and no sales or purchases of water rights. At the other extreme, water rights are bought and sold frequently in other states. Colorado, Idaho, Nevada, New Mexico, Utah, Washington, and Wyoming reported that 50 or more transfers occur annually. Colorado, Nevada, and Utah reported that more than 300 transfers occur each year.

The monthly periodical *Water Market Update*, which began publication

117. A matrix summarizing the results of this survey was published as an appendix to WATER EFFICIENCY TASK FORCE, REPORT TO THE WESTERN GOVERNOR'S ASS'N, WESTERN WATER: TUNING THE SYSTEM (B. Driver ed. 1986).

in January 1987, reports on business activities and transactions in the water markets of the western states. A sampling of the news reported in the January 1989 issue, reviewing information for 1988, gives an idea of trends in water marketing in the West. For example, while the drought in many western states contributed to marketing pressures, prices for water rights generally remained steady through the year. Interest in western water rights by institutional investors increased sharply. Environmental activists, state departments of game and fish, sportsmen's clubs, and others who desired to protect instream habitat, used water markets and water transfers together with other strategies to meet their goals. Controversy surrounding the protection of rural communities from indiscriminate water transfer activity and the ability of Indian tribes to market their water rights off-reservation continued.[118]

Prices paid per acre-foot of permanent water right ranged from a low of $15 per acre-foot for certain sales in Idaho, to more than $4,000 per acre-foot in the Denver, Colorado area. In the Reno, Nevada area a number of senior rights on formerly irrigated land that has been urbanized were sold for $2,000 per acre-foot. Along the Colorado Front Range many Colorado-Big Thompson project water rights were marketed within the district at prices ranging from $1,000 to $3,000. Water immediately south of the district sold for three to four times that amount. Irrigation rights transferred to municipal and domestic use along the lower Rio Grande in southern Texas brought prices between $400 and $600. Marketing of groundwater rights in the Tucson and Phoenix, Arizona, area continued to be active, with prices ranging from $700 to $1,000 per acre-foot. Albuquerque, New Mexico maintained its program of purchasing water rights for future growth needs. The average price paid by the city was $1,000 per acre-foot of water.[119]

These brief examples, culled from many listed in the *Water Market Update*, are not necessarily representative of market conditions in any state or area. They are included to illustrate the activity in various western water markets. Indeed, publication of this monthly periodical indicates strong interest in such activity. Two other periodicals have performed functions similar to those of the *Water Market Update*. *Water Strategist*[120] focuses on water marketing, finance, legislation, and litigation in the West. *Water Exchange Information Service*[121] provides detailed information on water rights for sale in Colorado.

Measures have been taken in some states to facilitate the marketing of water rights. In Idaho, for example, farmers began in the 1930s to "de-

118. 3 WATER MARKET UPDATE, Jan. 1989, at 1.
119. *Id.* at 2-4.
120. *See* WATER STRATEGIST, Apr. 1987.
121. *See* WATER EXCHANGE INFORMATION SERVICE, Apr. 1987.

posit" water allocated to them in federal reservoirs in the Upper Snake River to be "withdrawn" by other farmers. These "deposits" and "withdrawals" were made on a yearly basis using lease agreements. Because questions arose about the continued beneficial use of water deposited every year, in 1979 the Idaho Legislature formalized the activity by creating a "waterbank" for marketing purposes.[122] 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.[123]

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

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. A number of real estate professionals in the district 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 encouraging 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.[124]

122. *See* IDAHO CODE § 42-1761 (Supp. 1988).
123. *Id.*
124. CAL. WATER CODE § 109 (West 1971)

California recently enacted a law requiring 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 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.[125]

In 1986 Idaho enacted legislative changes to streamline water marketing activities.[126] Minor modifications were made to various statutes to simplify the transfer process and to ensure that those who need to acquire water do so through appropriate state procedures. Other states are considering legislative changes which would facilitate transfer activity.

INTERSTATE SALE AND LEASE OF WATER

Intrastate water transfers have occurred under the appropriation doctrine almost since its inception. Statutes and administrative regulations governing transfers have evolved in each state and are still gradually changing. Legal and administrative procedures related to intrastate transfers also evolved through time. Recent developments, however, have required significant changes in some state laws.

Justice Marshall, in *Wilson v. Blackbird Creek Marsh Co.*,[127] suggested the states have plenary power to regulate water resources within state boundaries. Justice Holmes, in *Hudson Water Co. v. McCarter*,[128] 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 cases, however, occurred in the East where the riparian doctrine applied and water was part of the land it abutted.

A western state's right to control water supplies is based on two doctrines. The first was enunciated in the Desert Lands Act of 1877[129] which 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 provides that when two states share the surface flows of a stream the states have the power to compact for the use of that water.[130] If they fail to do so, the Supreme Court gives each state a portion of the stream for its exclusive use.[131] Finally, based on these concepts, numerous west-

125. *Id.*, §§ 470-483 (West 1989).

126. Ch. 313, 1986 Idaho Sess. Laws, 763.

127. 27 U.S. (2 Pet.) 245 (1829).

128. 209 U.S. 349 (1908).

129. 43 U.S.C. §§ 321-339 (1983); See discussion in California-Oregon Power Co. v. Beaver Portland Cement Co., 295 U.S. 142 (1935).

130. *See, e.g.*, Upper Colorado River Basin Compact, ch. 48, 63 Stat. 31 (1949).

131. *See e.g.*, Kansas v. Colorado, 206 U.S. 46 (1907).

ern state constitutions provide that the waters of the state belong to the people of the state or the state itself.[132]

While all of these theoretical public ownership of water pronouncements were taking place, the western water law of prior appropriation was maturing in a somewhat different direction. Since the turn of the century, the courts of the western states have been concluding that a water right is a property right that can be freely sold and transferred like any other commodity.[133] 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.[134] Thus, there was a great disparity between the language of many state constitutions which declared water to be 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 ex rel. Douglas*,[135] in which the United States 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 the late Frank Trelease stated, the case should not have been used to make precedent because it involved "but a cupful of water," the Supreme Court took this opportunity to clarify its view of the nature of water under western prior appropriation law.[136]

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.[137] Therefore, the *Pike v. Bruce Church, Inc.*[138] analysis of statutes discriminating against interstate commerce must be applied. 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.[139] 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

132. *See e.g.*, N.D. CONST. art. XI, § 3.
133. *See infra* p. 38 and accompanying notes.
134. *Id.*
135. 458 U.S. 941 (1982).
136. Conversation of Charles T. DuMars with Frank Trelease (June 1983).
137. *Sporhase*, 458 U.S. at 958.
138. 397 U.S. 137 (1970).
139. *Spohase*, 458 U.S. at 956.

be able to assert a limited preference for its citizens in times of shortage.[140] It also suggested that, if a state had a real plan for using its water resources rather than simply a theoretical anticipated future need, the state could exercise such a limited preference.[141]

Relying on *Sporhase v. Nebraska ex rel. Douglas,* a federal district court in New Mexico in *City of El Paso v. Reynolds* [El Paso I][142] struck down a New Mexico statute which placed an absolute embargo on out-of-state transfers of groundwater. The court pointed out that groundwater 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.[143]

States have responded variously to this decision. No one can ever really know the motivations of a state legislature. Nevertheless, in at least some instances the *Sporhase* decision has undoubtedly had the effect of encouraging water planning legislation of the kind discussed below. Other statutes discussed below may antedate *Sporhase;* however, they address similar concerns with respect to out-of-state water use.

Certainly no state is anxious to allow its water resources to be taken without 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 the state. 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."[144] This section provides for complicated determinations by the state of the impact on surface water compacts and the public welfare when water is transported out of state. It further provides a charge of fifty dollars per acre-foot to be assessed and collected on out-of-state transfers. The Colorado Attorney General has opined, however, that the fee is probably unconstitutional.[145]

South Dakota requires that applications for appropriation of water "in excess of one thousand acre feet annually" be approved by the legislature.[146] The South Dakota statute provides for extensive water planning to achieve a myriad of purposes within the concept of "public welfare." These range from economic welfare and prosperity to water quality to joint projects with Indian tribes.[147]

140. *Id.* at 956-57.
141. *Id.*
142. 563 F. Supp. 379 (D.N.M. 1983), *later proceeding,* 597 F. Supp. 694 (D.N.M. 1984).
143. 563 F. Supp. at 391.
144. COLO. REV. STAT. § 37-81-101 (Cum. Supp. 1987).
145. Ag. alpha No. NR WE AGAON (Sept. 10, 1985).
146. S.D. CODIFIED LAWS ANN. § 46-5-20.1 (1983).
147. S.D. CODIFIED LAWS ANN. § 46A-2-2 (1983).

Idaho also has stated that "[a]ll ground waters in this state are declared to be the property of the state"[148] and has placed a limit on the amount of water that can be taken out of a groundwater basin. It further requires legislative approval of any application exceeding that amount.[149]

California has a history, dating back to 1927, of reserving some quantity of water for the state. The state through its agencies 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."[150] State appropriations are exempt from diligence requirements and remain dormant (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. If the water is owned by the state, it is available to the interstate market, but like any other seller, a state can be flexible about when and how much it wants to sell.

Montana's laws[151] 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. Since there is a great deal of unappropriated water in Montana, this statute has a significant effect. The Department has a duty to appropriate and conserve water for "the use of the people."[152] 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."[153] Its decisions are subject to approval by the Board of Natural Resources and Conservation.

Montana laws allow 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.[154] The state appropriates such quantities in its own name and then leases them to users under the State Water Leasing Program.[155] The state

148. IDAHO CODE § 42-108 (Supp. 1988).
149. *Id.*
150. CAL. WATER CODE §§ 10500-10507 (West 1971).
151. MONT. CODE ANN. § 85-2-101 (1988).
152. *Id.*
153. *Id.*
154. *Id.* § 85-2-301(2)(a)(ii).
155. *Id.* § 85-2-141(1).

may acquire water rights for its leasing program through agreement with, or purchase from, other water right owners, as well as by appropriation.[156] Water from the state leasing program must be obtained from specified sources,[157] and no more than 50,000 acre-feet may be leased by any entity.[158] Lease terms may be longer than 50 years but may be extended for additional terms.[159] Water may be leased for any beneficial use. Special provisions relating to the evaluation of the impact on Montana apply to appropriations for large quantities if the water is to be transferred for use out of state.[160]

In Texas, provisions for appropriation by the state have appeared in a number of fairly recent legislative initiatives.[161] In 1985, the Texas Department of Water Resources was abolished and its authority and duties were divided between the Texas Water Development 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. Recent legislation allows the board to sell public water acquired by the state.[162]

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."[163] 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."[164]

Wyoming has a water development program administered by the same

156. *Id.* § 85-2-141(2).
157. *Id.* § 85-2-141(3).
158 *Id.* § 85-2-141(4).
159. *Id.* § 85-2-141(5).
160. *Id.* § 85-2-402(5)(b)(i).
161. *See, e.g.*, TEX. WATER CODE ANN. § 15.323(a) (Vernon 1988).
162. *Id.*
163. *Id.* § 15.324(a).
164. *Id.* § 15.326.

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 resources."[165] 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."[166] 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."[167]

On the basis of the state water plan or as directed by the legislature, the Commission identifies and selects potential projects for inclusion in the water development program. The selection process includes several steps. 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"[168] be made. The second stage requires "feasibility studies."[169] The studies address economic feasibility, whether a project is socially desirable, and if so, what obstacles might be faced if it is attempted. The third stage requires development plans,[170] 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, at the direction of the governor, files applications in the name of the state for permits to appropriate water, to construct dams and other works. He is also directed 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.[171]

In February of 1983, the New Mexico legislature passed a water ex-

165. WYO. STAT. §41-2-112(a) (Supp. 1988).

166. *Id.*

167. *Id.*

168. Reconnaissance studies involve preliminary assessment of the various factors that are relevant in seeking to develop a project including need, environmental impact and legal impediments.

169. Feasibility studies involve more detailed analyses often associated problems and reflect the responses of public comment, test drilling and needed legislation.

170. Both plans and the economic analysis are required.

171. WYO. STAT. §41-2-116 (Supp. 1988).

portation statute replacing the one struck down in *El Paso I*. That statute legitimizes the interstate transportation and use of New Mexico's public waters. This statute reads as 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.[172]

The exportation statute struck down in *El Paso I* explicitly banned the out-of-state transport and use of New Mexico groundwater. In contrast, the new statute provides that "under appropriate conditions" the interstate transportation and use of New Mexico's public waters may not be in conflict with the public welfare of the state's citizens or the conservation of the state's waters.[173] The new statute is not limited to groundwater but also encompasses surface waters.

The statute requires that the person or entity who wants to export water outside New Mexico shall apply for a permit from the state engineer. In addition to requiring the State Engineer to publish notice of the permit application, the statute stipulates that the state engineer, before 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 must consider, among others, 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.[174]

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

172. N.M. STAT. ANN. § 72-12B-1, -2 (1988).
173. *Id.* § 72-12B-1(B).
174. *Id.* § 72-12B-1(B)(C).

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 groundwater permit applicants, the New Mexico legislature amended its in-state groundwater withdrawal criteria. Before the *El Paso* decision, the in-state groundwater application statute required the state engineer to issue a withdrawal permit if it found that unappropriated groundwater was available and that the withdrawal would not impair existing water rights. As discussed above, 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.[175] The new statute was upheld in *El Paso II*,[176] in which the federal district court found the statute to be evenhanded and nondiscriminatory on its face. In addition to the statutory amendments, after three and one-half years of study, the New Mexico legislature in 1987 authorized the Interstate Streams Commission to fund regional water planning in New Mexico. The goal was to allow the various regions of the state to plan for the future use of water supplies for time horizons up to forty years.[177]

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 economic value as water is transferred out of the state by assessing export fees or by establishing a lease system. Others have attempted to control the activity through legislative approval of transfers. Still others have adopted broad, evenhanded 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.

OTHER INNOVATIONS IN WESTERN WATER LAW

Arizona's response to problems associated with the groundwater overdraft signals significant development in western water law. The allocation and use of groundwater is now governed by Arizona's Ground Water Code, which was adopted in 1980 and has been amended as nec-

175. *Id.* § 72-12-3E.
176. 597 F. Supp. 694 (D.N.M. 1984) (1985 Repl.).
177. Act of Apr. 8, 1987, ch. 182, 1987 N.M. Laws 1039.

essary since.[178] The allocation of the state's groundwater differs from area to area within the state. The groundwater code designates certain areas as Irrigation Non-Expansion Areas (INAs) or Active Management Areas (AMAs). In areas not so designated, a person may appropriate groundwater for reasonable and beneficial use, generally without restriction. Within INAs and AMAs, special use restrictions apply. In INAs or AMAs acres that were not irrigated at any time during a five year period before the designation of the INA or AMA may not be irrigated. In AMAs the groundwater code establishes four types of groundwater rights: grandfathered rights; service area rights; withdrawal permit rights; and exempt withdrawals. A person may not withdraw groundwater for use within an AMA without obtaining one of these rights.

In addition to the restrictions on groundwater 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 the year 2025. This means that by 2025, groundwater withdrawals may not exceed the amount of natural and artificial groundwater 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 anyone may offer land in an AMA for sale or lease for residential development, the offeror must show that the land has an assured water supply. "Assured supply" is 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. The recognition of artificial groundwater recharge as a beneficial use of surface water is another recent development in Arizona groundwater law.[179]

California has enacted legislation allowing it to respond to infrequent emergency situations involving water use.[180] It authorizes the issuance of temporary water permits to divert and use water under urgent circum-

178. *See* ARIZ. REV. STAT. ANN. §§ 45-401 to 655 (1987).
179. *See id.* §§ 45-801 to 818.
180. CAL. WATER CODE §§ 1425 Cum. Pocket Part 1989 (West, Supp. 1989).

stances.[181] The state has also enacted legislation to encourage voluntary transfer of water rights, including statutes suspending operation of forfeiture laws where water is conserved by implementing water conservation measures or substituting use of reclaimed water.[182] California has also acted to expand statutory area-of-origin protections.[183]

Colorado has expanded the state role in administration of appropriative water rights, with an increased recognition of the state engineer's discretion to make rules and administer water. Instead of being guided solely by the strict priority system, the state engineer can make rules to maximize the use of water.[184] This principle has been expanded and clarified to indicate that "maximum utilization" does not require "a single-minded endeavor to squeeze every drop of water" from a water source, but rather to make "optimum use" of the resource.[185] The Colorado Supreme Court further stated that "(o)ptimum use can only be achieved with proper regard for all significant factors, including environmental and economic concerns."[186] The state engineer has adopted only a few regulations so far. However, the Supreme Court has invited the state engineer to make more extensive regulations in the public interest.[187]

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 sometimes 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[188] and are scrutinizing such rights to ensure that there is a genuine intent to appropriate, not merely to speculate.[189] Additionally, Colorado law[190] now requires proof that the project will be completed with diligence before a decree for a conditional right can be issued.[191] 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.

181. *Id.*

182. *Id.* §§ 382-386.

183. *Id.* § 1215.

184. *See* Fellhauer v. People, 167 Colo. 320, 447 P.2d 986, 994 (1968); Colorado Springs v. Bender, 148 Colo. 458, 366 P.2d 552, 555 (1961).

185. Alamosa-La Jara Water Users Protection Ass'n v. Gould, 674 P.2d 914, 935 (Colo. 1983).

186. *Id.*

187. *Id.* at 936.

188. Colorado River Water Conservation Dist. v. City and County of Denver, 640 P.2d 1139 (Colo. 1982).

189. *See, e.g.*, Colorado River Water Conservation Dist. v. Vidler Tunnel Water Co., 197 Colo. 413, 594 P.2d 566, 568 (1979).

190. COLO. REV. STAT. § 37-92-305(9)(b) (Supp. 1987).

191. *See* Southeastern Colorado Water Conservancy Dist. v. City of Florence, 688 P.2d 715, 718 (Colo. 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. Statutes have been enacted to require the interest of the general public to be protected in the allocation and transfer of water rights.[192] 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.[193] Idaho now issues some appropriative permits for a specific term of years, rather than in perpetuity. This allows increased flexibility in meeting water use needs.

Oregon passed a law in 1987 to provide for the sale or lease of "conserved water." Conserved water is defined as "that amount . . . previously unavailable to subsequent appropriators, that results from conservation measures."[194] 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."[195] The person or entity carrying out conservation measures receives 75 percent of the conserved water, with 25 percent going to public use. 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 25 percent to the state. After the conservation measures are completed and conservation of water has been demonstrated, the commission issues a new water right certificate to the conserving party. The certificate 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 conservation measures."[196]

Texas has recently modified its appropriative water law to include conservation as one of the considerations in deciding whether to grant an appropriative right.[197] 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

192. *See supra* text accompanying notes 44-47.
193. *See supra* text accompanying notes 67-70.
194. Act of June 9, 1987, ch. 264, 1987 Or. Laws 411.
195. *Id.*
196. *Id.*
197. TEX. WATER CODE ANN. § 11.134 (Vernon 1988).

reuse of water so that a water supply is made available for future or alternative uses."[198] Implementing this statutory provision will depend on the Texas Water Commission enacting and enforcing rules sufficient to encourage conservation.

Before September 1985, the Texas Water Code required little consideration of the environmental effects of water use under state issued permits. 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.[199]

In Utah, the 1981 Geothermal Resources Conservation Act[200] 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. There is no priority created, however, among geothermal owners. Another innovation in Utah law allows the state engineer to approve an application to appropriate water temporarily, for less than one year.[201] Because no public notice is required, processing of the application is accelerated. In some instances the state engineer may require public notice.

As future public needs are defined, states will undoubtedly further modify the prior appropriation doctrine. Washington and other states have been involved in reviewing their water allocation and instream flow protection planning functions. New legislation may be proposed as a result of these reviews.

CONCLUSION

The doctrine of prior appropriation has evolved to meet changing needs as the West has matured and diversified. 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 been proven one of its most important characteristics. It evolved as a method for adapting to change in mining and irrigation practices, and it will flourish if that adaptation process continues.

198. *Id.* § 11.002(8).
199. *Id.* §§ 11.1491, 11.1152.
200. UTAH CODE ANN. § 73-22 (Supp. 1988).
201. *Id.* § 73-3-5.5 (Supp. 1988).