Montana Law Review

Volume 55 Issue 2 Summer 1994

Article 1

July 1994

The Prior Appropriation Doctrine in Montana: Rooted in Mid-Nineteenth Century Goals—Responding to Twenty-First Century Needs

Donald D. MacIntyre

Follow this and additional works at: https://scholarship.law.umt.edu/mlr



Part of the Law Commons

Recommended Citation

Donald D. MacIntyre, The Prior Appropriation Doctrine in Montana: Rooted in Mid-Nineteenth Century Goals—Responding to Twenty-First Century Needs, 55 Mont. L. Rev. (1994).

Available at: https://scholarship.law.umt.edu/mlr/vol55/iss2/1

This Article is brought to you for free and open access by The Scholarly Forum @ Montana Law. It has been accepted for inclusion in Montana Law Review by an authorized editor of The Scholarly Forum @ Montana Law.

ARTICLES

THE PRIOR APPROPRIATION DOCTRINE IN MONTANA: ROOTED IN MID-NINETEENTH CENTURY GOALS—RESPONDING TO TWENTY-FIRST CENTURY NEEDS

Donald D. MacIntyre*

I. Introduction

The prior appropriation doctrine is the law of Montana as it is in rest of the arid West. It is a legal doctrine rooted in customs that developed from the practical needs of those who settled the vast expanses of a rich and untamed land. The prior appropriation doctrine is the framework within which the West's natural resources have been developed. Since the California gold rush of the 1850s, this doctrine of "first in time, first in right" has been the cornerstone for water resource allocation in the West.

The doctrine of prior appropriation has played an integral role in the settlement of the American West, including Montana. The

^{*} Chief legal counsel, Montana Department of Natural Resources and Conservation; L.L.M., agricultural law, University of Arkansas School of Law, 1987; J.D., University of Montana School of Law, 1973; B.S., engineering, Montana College of Mineral Science and Technology, 1970. The views expressed are solely the author's and not necessarily those of the Montana Department of Natural Resources and Conservation or the State of Montana.

^{1.} For a general discussion of the development of the appropriation doctrine, see 2 ROBERT E. BECK, WATERS AND WATER RIGHTS pt. III (1991).

^{2.} Eighteen western states recognize appropriative water rights in one form or another: Alaska, Arizona, California, Colorado, Idaho, Kansas, Montana, Nebraska, Nevada, New Mexico, North Dakota, Oklahoma, Oregon, South Dakota, Texas, Utah, Washington, and Wyoming. See 2 Beck, supra note 1, at 83.

^{3.} For a summary of water rights systems in the western states, see 3 Wells A. Hutchins, Water Rights Laws in the Nineteen Western States 141-243, 261-649 (1977).

^{4.} Settlement depended upon assurance that those who put the water to use first could depend upon the relative priority of such first use. Priority is an essential element of the doctrine of prior appropriation. The security of the right to use water by prior appropriation, recognized by decree or by statute, provides certainty in the water resource. The per-

doctrine developed according to the values of the mid-nineteenth century—an era of relative plenty. Today, that is neither the situation in the West nor in Montana.

A major beneficiary of water being treated as a free good was western irrigation, spurred by the availability of low-cost water. The only costs to the water user were those associated with transporting the water from the source to the place of use. In addition, federal irrigation projects provided large subsidies for much of the water development of the West's irrigated acreage. Historically, low energy prices also kept water transportation costs minimal. Because groundwater development required energy to pump the water to its intended place of use, low water costs were particularly important for the development of groundwater.

The era of inexpensive water is drawing to a close. In many areas of the West, irrigators now depend on essentially non-renewable water supplies. Western aquifers are experiencing declining groundwater tables and rising energy prices that result in higher pumping costs. Surface water is not a viable alternative since the demands on the water courses of the West's major irrigated areas commonly exceed available supplies. Also, nonagricultural water demands are increasing and diverting water away from agriculture.

The competition for use of water has changed dramatically since the 1850s. This competition challenges the appropriation doctrine to meet the demands of the twenty-first century. Water users demand clean water for municipal development and industrial use. As increased salinity and point source pollutant discharges decrease crop yields, agriculture insists on better water quality. Maintaining essential stream flows for aquatic and wildlife habitat, water-based recreation, and aesthetic enjoyment is in demand. Water is being diverted from the area of origin to water-short areas that are experiencing growth, giving rise to regional eq-

son whose appropriation is first in time has the highest priority and, hence, a right to use the water superior to all those who appropriate water thereafter. This doctrine of "first in time, first in right" provides incentive for water users to invest in expensive diversion works by assuring a water supply in times of shortage. The security of the right to use water by prior appropriation gives assurance of water supply to investors. Because the senior water right is strictly enforceable against future diverters, the certainty regarding relative rights is guaranteed. Farmers and ranchers have built their families, homes, and operations on water rights they believed to be certain.

^{5.} Irrigation in the West accounts for over 80% of the national irrigated acreage and produces in excess of 50% of the value of western crops. Kenneth D. Fredrick, *Irrigation and the American Agriculture*, in The Future of American Agriculture as a Strategic Resource 157, 158 (Sandra S. Batie & Robert G. Healy eds., 1980).

^{6. 2} U.S. WATER RESOURCES COUNCIL, SECOND NATIONAL WATER ASSESSMENT, THE NATION'S WATER RESOURCES 1975-2000, pt. II, 3 (1978).

uity questions. Additionally, varied environmental concerns challenge water developments that affect wildlife habitats, dry up streams, alter landscapes, or limit land use options. Finally, society places an increasing value on unaltered natural river systems. The bottom line is that the social goals and policies of the mid-nineteenth century conflict with those of the twenty-first century. Thus, the growing interest in western water law in transition is not surprising.

The growing interest in transition does not mean that the time has come for Montana to cast the appropriation doctrine aside. But query: Is there a need to slavishly adhere to mid-nineteenth century goals in the implementation of the prior appropriation doctrine? The answer is "No." In fact, Montana has made constructive strides in tailoring the doctrine. An instrumental part of the Montana response in recent years has been the state water plan process. Over the next biennium Montana will be evaluating its state water plan program. One of the objectives will be an assessment of whether the state water planning program should continue. One of the objectives will be an assessment of whether the state water planning program should continue.

The purpose of this Article is to focus the attention of lawyers, legislators, ranchers, farmers, sportsmen, government and private water resource managers, and all others concerned on the continued viability of the prior appropriation doctrine in Montana in a changing society. More narrowly, the Article draws attention to the concern for a viable water planning process. A viable planning process must consider issues related to efficiency, time-conditioned permits, integration of water resources, instream flows, water qual-

^{7.} Id.

^{8.} See generally Terry L. Anderson, Water Crisis: Ending The Policy Drought (1983); John D. Musick, Jr., Reweave the Gordian Knot: Water Futures, Water Marketing, and Western Water Mythology, 35 Rocky Mtn. Min. L. Inst. 22-1 (1990); John E. Thorson, Water Marketing in Big Sky Country: An Interim Assessment, 29 Nat. Resources J. 479 (1989); Charles F. Wilkinson, Western Water Law in Transition, 56 U. Colo. L. Rev. 317 (1984); Steven J. Shupe, Waste in Western Water Law: A Blueprint for Change, 61 Or. L. Rev. 483 (1982); George W. Pring & Karen A. Tomb, License to Waste: Legal Barriers to Conservation and Efficient Use of Water in the West, 25 Rocky Mtn. L. Inst. 25-1 (1979); John Kramer & Kenneth Turner, Prevention of Waste or Unreasonable Use of Water: The California Experience, 1 Agric. L.J. 519 (1979-80); Charles W. Howe et al., The Performance of Appropriative Water Rights Systems in the Western United States During Drought, 22 Nat. Resources J. 379 (1982).

^{9.} Section 85-1-101(10) of the Montana Code provides: "To achieve these objectives and to protect the waters of Montana from diversion to other areas of the nation, it is essential that a comprehensive, coordinated multiple-use water resource plan be progressively formulated, to be known as the 'state water plan.'"

MONT. CODE ANN. § 85-1-101(10) (1993).

^{10.} Montana Dep't of Natural Resources & Conservation, Evaluating the State Water Plan Program—Objectives and Options (Aug. 30, 1993).

ity, and transferability of water rights. These issues, in addition to such issues as may develop over time, will have to be debated in a consensus-building atmosphere. The Montana water planning process will need to operate in this atmosphere.

Part II of this Article presents the historical backdrop to the development of the prior appropriation doctrine in the West and in Montana. Part III focuses on the reasons for adjusting an appropriation system developed over a century ago in response to the needs of a changed society. Finally, Part IV examines Montana's response to its challenge to constructively adapt the prior appropriation doctrine to meet the needs of a changed and changing society.

II. THE ROOTS OF THE DOCTRINE

With the settlement of the West, the settlers' notion of water law embodied the common-law doctrine of riparian rights.¹¹ Indigenous to areas of abundant rainfall, the riparian rights doctrine provides that riparian landowners¹² are entitled to the reasonable use of the natural flow of watercourses.¹³ However, the reasonable use of water is restricted under the principle that downstream riparians not be impaired by such use.¹⁴ Given the heavy rainfall and the perennial nature of the numerous eastern streams, the limitation on riparian use accommodated agricultural development in the East.¹⁵ However, as the farmers and miners pressed across the arid West, they soon recognized the need to scrap their riparian notions for ones better suited to nonriparian development. The combination of the vast land expanse, the nonriparian character of the agricultural and mining lands, and the lack of rainfall made the riparian doctrine an impediment to industries that were depen-

^{11.} The riparian system is the dominant water rights system in the United States, except in the western states. Riparian water rights attach to the land adjoining bodies of water. Generally, under the riparian doctrine, the right of a person to make use of the water that flows through the land is part of the interest in the land. An owner may insist upon the ordinary flow of the water, undiminished in quantity and unpolluted in quality except as it may be diminished by the corresponding rights of other riparians. On the riparian doctrine, see generally 2 HUTCHINS, supra note 3, at 1-144 (1974); William H. Farnham, The Permissible Extent of Riparian Land, 7 Land & Water L. Rev. 31 (1972).

^{12.} Riparian land is acreage contiguous to a natural water course.

^{13.} See, e.g., United Paper Bd. Co. v. Iroquois Pulp & Paper Co., 123 N.E. 200, 204 (N.Y. 1919); Stratton v. Mt. Hermon Boys' Sch., 103 N.E. 87, 87-88 (Mass. 1913).

^{14.} Stratton, 103 N.E. at 87-88.

^{15.} In the eastern United States, rainfall generally provides sufficient moisture for farming, whereas the West receives about 27% of the average annual rainfall of the lower 48 states. Fredrick, *supra* note 5, at 167.

dent on secure and sufficient supplies of water.16

The force behind the development of a substitute to riparian law is found in the customs developed by the California gold rush miners.¹⁷ In the early days of the West, people came from all over the world to mine for precious metals. During this time, the United States lacked a clear-cut policy of establishing ownership of minerals and mining claims in the remote western area of the United States.¹⁸ Consequently, the 1849 California miners' rules evolved, based on early Spanish concepts of mining claims, discovery, and possession, modified by English and other European concepts of law.19 To protect the mineral discoverers' rights, the miners organized mining districts and adopted rules and regulations.²⁰ The mining law that applied to the minerals on the public domain was that of first in time is first in right. Since water was a vital tool of the miner, it naturally followed that the first miner to claim the right to work an area gained an absolute right of priority. Likewise, the miners considered the first user of water to have the prior right to appropriate the water. In 1855, the Supreme Court of California embraced this prior appropriation doctrine in Irwin v. Phillips.²¹ By looking to the then-current societal values, the court found that the practice of respecting senior uses of water had been "firmly fixed" by "a universal sense of necessity and propriety" in the mining camps.²² Thereafter, in 1866 and 1870, Congress enacted a uniform set of miners' rules.23 Judicial recognition soon followed—first by Colorado,24 later by Montana.25 Finally, the United

^{16.} See generally 1 Hutchins, supra note 3, at 158-59 (1971).

^{17.} Today, the prior appropriation doctrine is exclusively applied by eight states: Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming. In all of these states, a close relationship exists between the adoption of the doctrine and the development and settlement of those states through mining. Ted J. Doney, Montana Water Law Handbook 8 (1981).

^{18.} See 2 BECK, supra note 1, § 11.03(a).

^{19.} See 2 Beck, supra note 1, § 11.02(c).

^{20.} To clarify and make uniform the miners' rules, which varied from mining district to mining district, Congress enacted the first mining laws in 1866 and relied heavily on the California miners' rules. See Act of July 26, 1866, ch. 262, 14 Stat. 251, 253 (1866) (confirming rights-of-way and appropriations of water on the public lands, as against claims by the United States, if established pursuant to state law or local custom); Act of July 9, 1870, ch. 235, 16 Stat. 217-18 (1870) (providing that all subsequent federal patents would be subject to rights established under the Act of 1866).

^{21. 5} Cal. 140, 147 (1855).

^{22.} Irwin v. Phillips, 5 Cal. at 146.

^{23.} See supra text accompanying note 20.

^{24.} Coffin v. Left Hand Ditch Co., 6 Colo. 443, 447 (1882). The Colorado Supreme Court relied on "the imperative necessity for artificial irrigation of the soil" as the basis for accepting the prior appropriation doctrine. *Id.* at 449.

^{25.} Mettler v. Ames Realty Co., 61 Mont. 152, 169, 201 P. 702, 707 (1921). The court

States Supreme Court, in California Oregon Power Co. v. Beaver Portland Cement Co.,²⁶ held that local laws generally govern the allocation of water in the West.

The prior appropriation doctrine represented a practical approach to orderly water use.²⁷ Additionally, the doctrine dealt necessarily with the problems created by the federal government's control of the major sources of water on the public domain—federally owned lands.²⁸ The doctrine also solved the problem of the great distances that separated most productive uses from the streams. Requiring miners and irrigators to own land along streams before they could use water from a watercourse made no sense. Fairness required that the first person putting water to use should have a priority in that use of the water.

The doctrine of "prior in time, prior in right" proved to be easily understood and administered in the pioneer society that had little political organization, sparse populations, and very limited technical capacity. The doctrine also provided the security necessary for development.²⁹ As the West populated, the irrigators needed to cooperate with one another to develop systems of ditches and canals that required capital investment. The security of the right to use water by prior appropriation, recognized by court decree and statute, gave the necessary assurance to investors. Because the senior water right was strictly enforceable against future diverters, the certainty regarding relative rights was guaranteed.³⁰

stated: "Our conclusion is that the common-law doctrine of riparian rights has never prevailed in Montana since the enactment of the Bannack Statutes in 1865." *Id.* at 170-71, 201 P. at 708.

^{26. 295} U.S. 142, 154 (1935). The court held that "following the [Desert Land] act of 1877, if not before, all non-navigable waters then a part of the public domain become publici juris, subject to the plenary control of the designated states." California Oregon Power Co., 295 U.S. at 163-64.

^{27.} However, Montana's first "water case" decided that it was not justifiable homicide for a miner to shoot a man who stole the miner's water. Territory v. Drennan, 1 Mont. 41, 43 (1868).

^{28.} See 2 BECK, supra note 1, at 75-78.

^{29.} See supra text accompanying note 4.

^{30.} Donald D. MacIntyre, Quantification of Indian Reserved Water Rights in Montana: State ex rel. Greely in the Footsteps of San Carlos Apache Tribe, 8 Pub. Land L. Rev. 33, 34 n.9 (1987). Uncertainty under the prior appropriation system is introduced by the existence of unquantified federal reserved water rights. In 1908, in a case arising out of the Fort Belknap Reservation in Montana, the United States Supreme Court held that in creating an Indian reservation, the United States reserved water for the Indians on the reservation from appropriation under state law. Winters v. United States, 207 U. S. 564 (1908). In 1963, the Court extended this so-called Winters Doctrine to include non-Indian federal enclaves. Arizona v. California, 373 U. S. 546 (1963). The courts commonly recognize federal reserved water rights as having a priority date coinciding with the date the reservation was

Clearly, the prior appropriation doctrine was conceived and nourished to meet the goal of the latter half of the nineteenth century—to settle the West, which meant overcoming the significant problem of providing access to water across wide expanses of the public domain.

III. A NEED TO RESPOND TO TWENTY-FIRST CENTURY GOALS

Today, the West is settled. The challenge of the next century is different from the challenge faced by the early settlers. The challenge faced today in states such as Montana is to administer a limited resource for the benefit of all of the people of the state through more efficient water resource management. This requires the state to implement a system wherein the limited water resources are best used to meet the needs of a changed society.³¹ When addressing the future of the appropriation doctrine in Montana, the focus of need for change centers on: the utilization of water to serve an expanding array of purposes, the need to maximize the benefits of limited water supplies, and the transferability of rights to more valuable and more beneficial uses.³²

established, thereby providing a means to integrate federally reserved rights with appropriative rights under state law. However, settling reserved water rights claims, especially Indian reserved water rights, entails the tremendous challenge of blending two different sets of legal principles for water allocation—the state doctrine of prior appropriation and the federal reserved water rights doctrine. As an alternative to litigation, Montana enacted a procedure for negotiating compacts for the apportionment of waters between the state and the various entities claiming federal reserved water rights in Montana. Mont. Code Ann. §§ 85-2-701 to -705 (1993). To date, three state-federal compacts have been negotiated. Mont. Code Ann. §§ 85-2-706, 85-20-201, -301 (1993). Nevertheless, because of the typically early priority of reserved water rights, a cloud of uncertainty exists over many water rights perfected under state law.

- 31. See supra text accompanying notes 6-8.
- 32. Argument may be made that the public trust doctrine is a driving force behind the remolding of the prior appropriation doctrine. Unfortunately, the mere mention of the term "public trust doctrine" tends to polarize the stakeholders in any water resource debate. As such, it can have a chilling effect on the progress of debate in a consensus-building forum. Regardless of one's particular view of the doctrine, the changes in Montana's water laws over the past few decades are legitimate applications of the trust responsibilities the state of Montana has over its water resources.

For purposes of this Article, discussion of the public trust doctrine is limited to this note so as not to unduly focus the reader's attention away from the prior appropriation doctrine. Suffice it to note that the public trust doctrine is essentially a common-law doctrine. Many states have codified the doctrine. Some states constitutionally or statutorily provide that water is the "property" of the people. See, e.g., Colo. Const. art. XVI, § 5; IDAHO CODE § 42-101 (1993). Montana, like other states, provides by constitution that the "waters within the boundaries of the state are the property of the state for the use of its people and are subject to appropriation for beneficial uses as provided by law." Mont. Const. art. IX, § 3(3); see also Cal. Const. art. X(A), § 5; Wash. Const. art. XXI, § 1. Although the varying provisions define the nature of state interests, either as a paramount proprietary right in water or a paramount regulatory interest, they each make clear that the

A. The Expansive Array of Purposes

Strict adherence to the prior appropriation doctrine can and has resulted in a water development scheme that at times dries up a source of supply or diverts most of the flows of a stream to another region. Under this scheme, one rarely finds a balance struck between water development and the value to society of instream flows, endangered species, water quality, or the needs of the area of origin. However, with the shifting of societal goals, legal rights to water, like other legal rights,38 have become subject to legislative and judicial refinement.³⁴ Essentially, the issue is an economic one: What is the relative value society places on the competing uses? This issue can be left for the marketplace to determine, 35 but, apparently, society has not accepted economics as the basic test of highest and best use.³⁶ Rather, the citizenry generally has opted to establish policies and priorities on the use of water through regulation to satisfy the needs of society.⁸⁷ Generally, regulation is deemed necessary where the market does not adequately reflect society's values or where it simply is more efficient to impose restrictions and regulatory requirements than to leave the determination of relative value to the marketplace.

B. Maximization of Benefits

A second major focus of the need for change is on maximiza-

state has unique interests in navigable waters.

^{33.} Changes in contract law, property law, and other areas of law have marked the history of jurisprudence. Refinements in the law occur to reflect modern thinking and needs of society, and the changes are universally accepted. Water law has also responded to social change, but it must continue to adapt to keep pace with the modernizing western culture.

^{34.} See, e.g., National Audubon Soc'y v. Superior Court, 658 P.2d 709 (Cal.), cert. denied, 464 U.S. 977 (1983) (popularly referred to as the Mono Lake case, this case is often used in the application of the public trust doctrine to the allocation of water rights); see also Galt v. State ex rel. Dep't of Fish, Wildlife & Parks, 225 Mont. 142, 731 P.2d 912 (1987); Montana Coalition for Stream Access, Inc. v. Hildreth, 211 Mont. 29, 684 P.2d 1088 (1984); Montana Coalition for Stream Access, Inc. v. Curran, 210 Mont. 38, 682 P.2d 163 (1984).

^{35.} See Anderson, supra note 8.

^{36.} See, e.g., Albert W. Stone, Privatization of the Water Resource: Salvage, Leases and Changes, 54 Mont. L. Rev. 99, 103 (1993). The author states:

Western states are seeking better means of water allocation, particularly reallocation. A free market place for water is seductively attractive partly because of its seeming simplicity. But can economics—the highest monetary value—be the principal criterion at a time when environmental and intangible human values are increasingly pressing for recognition?

Id.

^{37.} Legislation is the mode of action advocated by those who feel that the use of water that results in the greatest economic return is not necessarily the use that best serves society.

tion of the benefits of limited water resources. A key factor in this concern is conservation of agricultural water.³⁸ For example, in Montana over ninety-five percent of the water withdrawn from Montana drainages is used for irrigation.³⁹ Total water use for irrigation amounts to 12.4 million acre-feet of water over a six-month irrigation season each year.⁴⁰ The Montana Department of Natural Resources and Conservation estimates that only forty-seven percent of the water diverted actually reaches the irrigated lands.⁴¹ Of this forty-seven percent, crops consume fifty-two percent and delivery and on-farm inefficiencies result in the loss of the other forty-eight percent.⁴² Certainly the technology is available⁴³ for agriculture to conserve some portion of the forty-eight percent of the water that is lost.

The problem is that the appropriation doctrine seemingly rewards inefficiency or at least does not reward efficient use. Although the prior appropriations doctrine does not grant an irrigator right to waste water, 44 efficiency has never been the standard. Under the traditional understanding of the prior appropriation doctrine, no incentive to conserve existed at the time the initial diversion was made. Since the water was free, appropriators had no reason to build efficient irrigation systems. If the ditch lost a high

^{38.} The Soil Conservation Service has estimated that in excess of 24,000,000 acre-feet of water a year is wasted in agricultural irrigation. National Analysis, Second National Water Assessment app. at 17 (1976) (U.S. Soil Conservation Service, Crop Consumptive Irrigation Requirements and Irrigation Efficiency Coefficients for the United States) (estimating irrecoverable losses to the stream system). This amount is more than the entire storage capacity of the Fort Peck Reservoir on the mainstem of the Missouri River in eastern Montana, which is approximately 20,000,000 acre-feet. In the last few decades, the nation has witnessed both success in increasing significant supplies of oil through conservation and success in conserving energy resources through the recycling of cans and bottles. It is, therefore, shocking that so little public attention has been given to water conservation.

^{39.} DEPARTMENT OF NATURAL RESOURCES & CONSERVATION, MONT. CONSERVATION DISTS. DIV., RESOURCE CONSERVATION PLAN 1981-1985, 9 (Dec. 1981).

^{40.} Id.

^{41.} Id.

^{42.} Id.

^{43.} Drip irrigation systems, for example, originally developed in Israel, provide the capability for replacing imprecise flood irrigation techniques. Laser leveling of fields can reduce runoff. Water users can mitigate seepage, evaporation, and evapotranspiration prevalent in open ditches by using gated pipes. As a final example, computers can be used to schedule more efficient irrigation practices. However, each of these has a cost associated with its implementation. An irrigator will necessarily have to consider the nature of the soils, the lay of the land, the type of crop being raised, and the technology involved and balance these factors against the costs associated with implementation of the new technology.

^{44.} See, e.g., Mont. Code Ann. § 85-2-114 (1993) (authorizing the Montana Department of Natural Resources and Conservation to bring a civil action against a person whom the agency ascertains is wasting water).

percentage of flow to seepage, more water could be diverted from the stream. If two alternatives for irrigating were available, no incentive existed to choose the more efficient method. In fact, the doctrine actually encourages the development of inefficient techniques in areas where greed and speculation are commonplace—the greater the appropriation, the greater the water right claimed.⁴⁵

The prior appropriation doctrine continues to promote inefficient use even after an appropriator has established a water right. Courts commonly have held that the doctrine protects the level of diversion, even after the adversely impacted water user has established that the quantity of water withdrawn exceeded that reasonably needed under modern irrigation practices.⁴⁶ Only in cases of extreme wastefulness have courts required that irrigation appropriations conform to the customary practices of the region.⁴⁷ Therefore, most irrigators faced no pressure to implement more efficient technologies. Consequently, inefficient irrigation methods of the nineteenth century persist despite the growing strain on limited water supplies.

Even though the prior appropriation system inhibits optimum utilization of waters, the doctrine is not completely lacking in safeguards against irresponsible use of water. Under the prior appropriation system, an irrigator can only establish a right to waters that are beneficially used.⁴⁸ This requirement should embody two basic components. First, beneficial use defines the purpose for which water may be appropriated. Second, and more significant, beneficial use incorporates a policy against waste. Water may be applied only to the extent that the water creates a benefit to the user.⁴⁹ If a portion of an initial diversion is wasted through ineffi-

^{45.} One of Montana's leading water law authorities has pointed out, "In Montana, as elsewhere, waters have been notoriously over-appropriated. Claims and decrees have resulted in paper record rights to more water than many of the appropriators ever put to a beneficial use. These errors may be perpetuated by the decrees in the current statewide adjudication process." Stone, *supra* note 36, at 99.

^{46.} See, e.g., Enterprise Irrigation Dist. v. Willis, 284 N.W. 326 (Neb. 1939).

^{47.} For example, courts have curtailed water use practices as "unreasonable" to defeat extreme agricultural practices. Fairfield Irrigation Co. v. White, 416 P.2d 641 (Utah 1966) (curtailing the irrigation of fields during the non-growing season); Warner Valley Stock Co. v. Lynch, 336 P.2d 884 (Or. 1959) (dealing with flood irrigation that utilized an entire stream to deliver a lesser amount of water); Tulare Irrigation Dist. v. Lindsay-Strathmore Irrigation Dist., 45 P.2d 972 (Cal. 1935) (dealing with winter flooding of fields to control gophers).

^{48.} E.g., Oscarson v. Norton, 39 F.2d 610, 613 (9th Cir. 1930); Toohey v. Campbell, 24 Mont. 13, 17, 60 P. 396, 397 (1900).

^{49.} The traditional rule is that an appropriator may take only the amount of water that is reasonably and efficiently needed for the purpose of the appropriation. Brennan v.

ciency, it is not a beneficial use, and no right to that portion is established.⁵⁰ Historically, the courts in arid states have recognized that the actual beneficial use, initiated within a reasonable time after the appropriation has been made, is the test of the extent of the right.⁵¹

Consequently, as a nonbeneficial use, waste should be an important element in determining and, in some extreme cases, modifying the extent of water rights.⁵² The concept now provides the means to update current water law to meet the need for conservation. A modern application of the policy against waste can remove the protection traditionally afforded inefficient irrigation appropriations.

C. Transferability of Rights

A third major focus of the need for change is on the transferability of water rights to more valuable and more beneficial uses. Transferability is essential if water is to migrate to the most valuable uses in society. The problem is that some prior appropriation states impose a variety of legal restrictions on transfers.⁵⁸ The change-of-use procedure is a challenging regulatory hurdle today in Montana, as in the other western appropriation doctrine states.⁵⁴ Some state laws expressly limit transfers,⁵⁵ most notably from agricultural to other uses.⁵⁶

Jones, 101 Mont. 550, 567, 55 P.2d 697, 702 (1936).

^{50.} E.g., Crandall v. Water Resources Dep't, 626 P.2d 877, 880 (Or. 1981).

^{51.} McDonald v. State, 220 Mont. 519, 529, 722 P.2d 598, 604 (1986). See generally Wheat v. Cameron, 64 Mont. 494, 210 P. 761 (1922); Conrow v. Huffine, 48 Mont. 437, 138 P. 1094 (1914); Drach v. Isola, 109 P. 748 (Colo. 1910); Farmers' Coop. Ditch Co. v. Riverside Irrigation Dist., 102 P. 481 (Idaho 1909); Hough v. Porter, 95 P. 732 (Or. 1908); Roeder v. Stein, 42 P. 867 (Nev. 1895); Barrows v. Fox, 32 P. 811 (Cal. 1893).

^{52.} E.g., Simpson v. Moon, 237 P.2d 93, 98 (Idaho 1951) (noting "policy of the law to encourage the most efficient, and least wasteful, use of the waters of the state"); Scherck v. Nichols, 95 P.2d 74, 78 (Wyo. 1939) (stating that "waters should be put to the highest possible use").

^{53.} Arizona, Kansas, and North Dakota at one time had statutes prohibiting or severely restricting the transfer and changes of water rights. 1919 Ariz. Sess. Laws ch. 64, § 48; 1891 Kans. Sess. Laws ch. 133, art. 2, § 5; 1905 N.D. Laws ch. 34, § 51. Nebraska water rights are generally thought to be nontransferable apart from the land and incapable of being changed to a different place of use. See Clayton K. Yeutter, A Legal-Economic Critique of Nebraska Watercourse Law, 44 Neb. L. Rev. 11, 35 (1965). But see 1 Hutchins, supra note 3, at 463-66 (analysis of statutes and cases indicating that all such changes are not definitely foreclosed).

^{54.} E.g., MONT. CODE ANN. § 85-2-402 (1993).

^{55.} E.g., Wyo. STAT. § 41-3-104 (1977).

^{56.} E.g., Mont. Code Ann. § 85-2-402(3) (1983) (repealed in 1985) (providing that an "appropriator of more than 15 cubic feet per second may not change the purpose of use of an appropriation right from an agricultural or irrigation use to an industrial use").

Additionally, requirements imposed to protect other users encumber the free transferability of water. For instance, most prior appropriation states require that any change in the place, purpose, or manner of use be supported by a showing that no other water users, senior or junior, will suffer any harm to their rights.⁵⁷ The Montana statute offers a typical example. Subsection 85-2-402(2)(a) of the Montana Code provides that the regulating agency may approve a proposed change if a determination is made that "[t]he proposed use will not adversely affect the water rights of other persons." When the determination is made through contested-case proceedings, requiring fact finding in an adversarial setting, this requirement often calls for expensive engineering and legal determinations. The added costs can allow relatively unimportant, unproductive uses to block transfers that are potentially more valuable and more beneficial.

IV. Transition of the Prior Appropriation Doctrine

A. Issues and Responses

Flexibility is needed if the prior appropriation doctrine is going to measure up to the challenge of the twenty-first century. The prior appropriation doctrine is a basically sound doctrine that has demonstrated its flexibility over the years. The doctrine will and should remain the framework for Montana water law. Fortunately, the transition process in Montana is taking place, but it remains speculative. However, one can reasonably expect the involvement of some combination of the following measures in the continuing process of shaping the prior appropriation doctrine in Montana as it grows to meet the challenges presented by a changing society.

1. Efficiency

Montana must actively encourage efficient water use. Although a number of different approaches may exist to meet this goal, three measures are worthy of attention: encourage a greater cooperative utilization of water resources, allow use or sale of water saved

^{57.} Farmers Highline Canal & Reservoir Co. v. City of Golden, 272 P.2d 629, 631 (Colo. 1954).

^{58.} MONT. CODE ANN. § 85-2-402(2)(a).

^{59.} In addition to remaining the framework for western states, the prior appropriation doctrine is being looked at as the framework for a system of water law that will eventually replace the riparian system of the eastern states. See, e.g., Fla. Stat. chs. 373.203 to .249 (West 1988 & Supp. 1994).

through efficiency, and refine the definition of beneficial use. 60

Reviewing the cooperative utilization measure first, potential exists for basin-wide water resource management. Basin-wide management involves using reservoirs jointly, exchanges for use and reuse of water, and any other measure that achieves maximum use of the water as it passes through the system. The roots for basin-wide management are firmly established in the prior appropriation doctrine. The doctrine is premised on successive use and reuse of the same water. The system needs only to be perfected to allow for more efficient uses of the available water.

A second measure would be to allow for the use and sale of water saved by an efficient appropriator. Until recently, an appropriator who invested time and money to conserve water in Montana often just made a contribution to the stream and, consequently, to "free riders" (junior appropriators). This happened because the law did not allow the conservation-minded appropriator to use the conserved water. As a result, no incentive to save water existed. Incentive is the key. An incentive for investment in conservation would be to allow the appropriator who saves water

^{60.} Commentators argue for less reliance on administrative regulation and more emphasis on redefining property rights. See, e.g., Anderson, supra note 8; Stephen F. Williams, The Law of Prior Appropriation: Possible Lessons for Hawaii, 25 NAT. RESOURCES J. 911, 924-28 (1985). These commentators propose a property rights system for the water resource characterized by rights that are well-defined, enforced, and transferable. Critics of this property rights approach raise a number of objections: (1) it is difficult, if not impossible, to enforce property rights in public value water uses by excluding those who do not pay; (2) water rights are not always sufficiently well-defined for the market to work as a reallocator—bargaining is made difficult because purchasers are unsure of what they would be purchasing; (3) unregulated appropriation of water under the prior appropriation doctrine (first in time, first in right) would award rights based on a race to use water, and the resulting initial allocation would not likely maximize benefits; and (4) it is doubtful that the market forces would adequately reflect public values for future generations because the private sector is likely to use too high a discount rate in making investment decisions and therefore value future benefits too low. See, e.g., Alan Randall, Resource Economics: An Economic APPROACH TO NATURAL RESOURCE AND ENVIRONMENTAL POLICY 187-88 (1981); George Gould, Water Use and the Prior Appropriation Doctrine 21 (June 2-4, 1986) (paper presented at Western Water: Expanding Uses/Finite Supplies Conference, Natural Resource Center, University of Colorado). The response to the above-noted criticisms is generally that the property rights approach is more likely than administrative regulation to approximate an optimal allocation of water. In other words, the risk of government failure is greater than the risk of market failure. However, an analysis of the property rights approach reveals two major hurdles to gaining acceptance: (1) documentation that people have shown a great interest in treating water as purely a market commodity; and (2) justification for using the more radical approach as opposed to the deep-rooted public interest review approach.

^{61.} Salt River Valley Water Users' Ass'n v. Kovacovich is a striking example wherein the Arizona court stated: "Certainly any effort by users of water in Arizona tending toward conservation and more economical use of water is to be highly commended. However, commendable practices do not in themselves create legal rights." 411 P.2d 201, 202-03 (Ariz. Ct. App. 1966).

to put the water to use on other land or to sell it to those who would use it elsewhere without loss of priority.⁶² In 1991, Montana made a substantial positive change in its water law to provide a necessary incentive.⁶³ Although the appropriator must still prove that the new uses will not adversely affect other water uses, an appropriator who salvages water retains the right to the salvaged water for beneficial use.⁶⁴ The salvaged water may be sold or leased for instream flow purposes.⁶⁵

An example of the positive attributes of providing incentives is the scenario in which a city in need of water for an expanding water-thirsty population pays a farmer for implementing water conservation measures, such as ditch lining. The farmer makes available to the municipality the water saved through the conservation activity, and the farmer continues farming at the same level, but uses less water. The efficient farmer remains productive, and urban needs are met.

A third consideration related to efficient water use concerns a refinement of the definition of beneficial use. Rather than defining beneficial use in absolute terms, 66 resource managers would be given the power to determine whether water is necessary for the purpose for which it is to be applied. Water rights, or that portion of water rights that are beyond the amount required for the purpose of the appropriation, would lose their status as "beneficial use" and would be forfeited. In making a determination as to how much water is necessary, efficiency is a prime requirement. To achieve this goal, the legislature establishes standards based on modern technology after exhaustive review with public input to

^{62.} See Cal. Water Code §§ 380-386, 1009-1011 (West 1984) (an example of one state that has legislatively acted to implement such a policy).

^{63. 1991} Mont. Laws 704 (codified at Mont. Code Ann. § 85-2-419 (1993)).

^{64.} The term "salvage" means "to make water available for beneficial use from an existing valid appropriation through application of water-saving methods." MONT. CODE ANN. § 85-2-102(16) (1993).

^{65.} Section 85-2-419 of the Montana Code provides:

It is the declared policy of the state in 85-1-101 to encourage the conservation and full use of water. Consistent with this policy, holders of appropriation rights who salvage water, as defined in 85-2-102, may retain the right to the salvaged water for beneficial use. Any use of the right to salvaged water for any purpose or in any place other than that associated with the original appropriation right must be approved by the department as a change in appropriation right in accordance with 85-2-402. Sale of the right to salvaged water must also be in accordance with 85-2-403, and the lease of the right to salvaged water for instream flow purposes must be in accordance with 85-2-436.

MONT. CODE ANN. § 85-2-419 (1993).

^{66.} Agricultural, industrial, domestic, recreational, and municipal uses are examples of beneficial uses categorized in absolute terms.

guide decision-makers in establishing efficiency standards for any particular water use.

As a result of technology, the potential exists to efficiently use water. While an old earth-and-brush dam may have been state of the art at the turn of the nineteenth century, that is not the case today. Consequently, those who choose not to use water efficiently by modern legislatively-imposed standards would be required to reduce or forfeit their rights. Similarly, in change-of-use proceedings, an inefficient use would not defeat a change that results in greater efficiency.

2. Water Right Permits Conditioned with Time Limits

Montana, like most appropriation doctrine states, has implemented a permit process for the allocation of water rights.⁶⁷ This permit process gives the state the power to condition the granting of a permit on a schedule for completing the appropriation.68 The state should be aggressive in conditioning rights limited in time. If the water user fails to develop the water right within a fixed period of time, the water user should forfeit the right, and the water should be made available to junior users. This would force prompt transfers to economic uses or would free rights for use elsewhere. Although such laws exist in most states, including Montana, states have allowed water rights to persist undeveloped for many years. resulting in a distorted pattern of water development and frustrating protection of nonconsumptive uses. 69 Montana requires a fixed period of time in the permits⁷⁰ and authorizations for change in appropriation rights, 71 but frustrates the necessary limiting condition with a liberal extension of time policy.72

3. Integration of Ground Water and Surface Water Resources Generally, when one thinks in terms of water rights, one tends

^{67.} In 1973, Montana became the latest of the appropriation doctrine states to implement a permit system. 1973 Mont. Laws 1121-1143 (codified at Mont. Code Ann. §§ 85-2-301 to -343 (1993)).

^{68.} MONT. CODE ANN. § 85-2-312(2) (1993).

^{69.} Nine Colorado decisions over the past decade have tended to limit relatively openended conditional rights. See, e.g., Bunger v. Uncompandere Valley Water Users Ass'n, 557 P.2d 389 (Colo. 1976). Also, Colorado courts have been unwilling to yield to pro forma demonstrations of "due diligence" in perfecting one's water rights. See, e.g., Colorado River Water Conservation Dist. v. City of Denver, 640 P.2d 1139, 1142-43 (Colo. 1982) (finding litigation and political activities are not due diligence).

^{70.} MONT. CODE ANN. § 85-2-312(2).

^{71.} MONT. CODE ANN. § 85-2-402(7) (1993).

^{72.} MONT. CODE ANN. § 85-2-312(3) (1993).

to visualize that which can be readily perceived—a stream, a river, or a lake. Ground water, however, is a water resource of far greater volume.78 Although the quantity of ground water in storage is an extremely important factor, use of that water at rates exceeding natural recharge hastens the time when alternative sources must be found or sound decisions must be made concerning the continued operation of water-dependent industries, irrigation developments, and the implementation of proposed community expansion plans. As with surface water, aquifers do not respect political boundaries. Although water rights laws cover ground waters, the same problems exist for managing surface waters that cross political boundaries. Logically, one might wonder whether ground water and surface water should be considered as distinct resources. However, it is not logical to consider ground water a distinct resource from surface water. Where ground water is tributary to a surface water source, it can be an important alternative means of diversion. Storage in alluvial aquifers can eliminate the need for expensive and wasteful reservoir projects that lose water to evaporation and seepage.

Where water is not tributary, it generally should be conserved as a backup supply to hedge against droughts and to make the transition to surface water sources. This approach protects longterm supplies, minimizing the need to build storage and delivery projects large enough to meet heavy demands during droughts and peak periods.

Montana has a distinct ground water code that is concerned with the establishment of controlled ground water areas. An order establishing a controlled ground water area can close that area to further appropriation; limit appropriation to a permissible total withdrawal; establish a preference system of use without reference to relative priorities; reduce withdrawals from existing wells; establish rotational use; or make such other requirements as are necessary to protect the public health, safety, and welfare of the state. In addition, Montana's permitting process does not significantly differentiate between surface and ground water resources. By definition, the water allocation statutes include all water of the

^{73.} The ground water of the United States is a vast resource estimated to have a volume far greater than that of all of its surface water. The United States Water Resource Council has estimated a volume that is equivalent to about 35 years of surface runoff nationwide, which amounts to more than the volume of all the nation's lakes and reservoirs, including the Great Lakes. 2 U.S. WATER RESOURCES COUNCIL, SECOND NATIONAL WATER ASSESSMENT, THE NATION'S WATER RESOURCES 1975-2000, pt. II, 11 (1978).

^{74.} MONT. CODE ANN. §§ 85-2-501 to -520 (1993).

^{75.} MONT. CODE ANN. § 85-2-507(4) (1993).

state—surface and subsurface, regardless of its character or manner of occurrence, as water subject to appropriation for beneficial use.⁷⁶ As a consequence, whether a change in appropriation right⁷⁷ or permit for a new water right⁷⁸ is involved, the state looks to the issue of whether the ground water is tributary to the surface water.

Montana needs to continue to manage ground water and surface water as part of the same system where ground water is tributary water. Where it is not tributary water, Montana should be looking to manage ground water under a special management regime that allows it to be used in conjunction with the surface water resource in a manner that recognizes the unique aspects of each.

4. Instream Flows

In 1973, Montana made a policy decision that additional instream flows were in need of protection.79 In recognition of this need, Montana acted legislatively to protect instream flows as water rights under the prior appropriation system.80 Montana made the policy choice to protect instream flows in recognition of a powerful economic reality: recreation and tourism, built on water sports and fish and wildlife that demand instream flows, are a growing part of Montana's economy. Instream flows provide for scenic beauty, as well as ensuring higher quality water. These are two attributes that appear high on the list of intangibles that attract and bind Montanans to Montana. Although, the reservation of flows in Montana protects instream flows. Montana could also protect instream flows by appropriations allowed under statutory modifications of prior appropriation law, as other western states have done.81 In fact, the Montana Legislature flirted with the idea during the 1993 legislative session in Senate Bill 346, which would have allowed a marketplace for willing buyers and willing sellers to

^{76.} MONT. CODE ANN. § 85-2-102(19) (1993).

^{77.} A change in appropriation right is a change in the place of diversion, the place of use, the purpose of use, or the place of storage. Mont. Code Ann. § 85-2-102(5) (1993). Changes in appropriation rights are governed by statutory proceedings. See Mont. Code Ann. § 85-2-402 (1993).

^{78.} A permit for a new water right means a permit to appropriate water issued by the Department of Natural Resources and Conservation. Mont. Code Ann. § 85-2-102(12) (1993). The permit process is the exclusive means of acquiring a new use of water in Montana. Mont. Code Ann. § 85-2-301 (1993). The process for acquiring a permit is set out at Mont. Code Ann. § 85-2-301 to -315 (1993).

^{79.} Montana previously had the statutory authorization to file rights that claimed instream flows for the preservation of fish and wildlife habitat. Mont. Rev. Code § 89-801(2) (1947 & Supp. 1977) (repealed) (see compiler's notes).

^{80. 1973} Mont. Laws 1121 (codified at Mont. Code Ann. § 85-2-316 (1993)).

^{81.} See, e.g., Colo. Rev. Stat. §§ 37-92-102(3), -103 (1973).

transfer water rights to instream flows.⁸² The bill passed the Senate but was tabled in the House Natural Resources Committee after much debate, thus ending the opportunity for statutory modification until at least 1995 when the legislature again will meet in regular session.

5. Water Quality

Historically in the West, water quality and water quantity have been artificially segregated. Because the main impetus behind the development of the prior appropriation doctrine was encouragement of settlement and growth, the early laws and policies necessarily focused on the unbridled use of the water and did not consider the quality of that water as an essential ingredient to the continued use.

Although water quality in the last half of this century has been a national issue and laws have been passed to protect water quality in response to public concerns about water pollution, so integration of water quality protection and water allocation has been lacking. With the realization that maintaining water quality is im-

^{82.} Senate Bill 346, introduced by Senator Yellowtail was a bill entitled: "An act allowing the change of previously appropriated water to and from instream uses; integrating instream use water rights into Montana's prior appropriation system; amending sections 85-2-102, 85-2-301, and 85-2-402, MCA; and providing an immediate effective date." S.B. 346, 53rd Mont. Leg., Reg. Sess. (1993) (bill tabled in House Committee on Natural Resources).

^{83.} Section 404 of the Clean Water Act, 33 U.S.C. § 1344 (1988), is evidence of what is sometimes referred to as a modern public right provided by federal law. The first statutory involvement of the federal government in the control of discharges into the nation's waters began with the enactment of the Rivers and Harbors Act of 1889. 55th Cong., 3d Sess., 30 Stat. 1152 (1899). Congress attempted to broaden protections of the nation's waters by enacting the original federal Water and Pollution Control Act of 1948. Act of June 30, 1948, 80th Cong. 2d Sess., 62 Stat. 1155 (1948) (presently codified at 33 U.S.C. §§ 466 to 466g (1988)). Congress amended the Act five times between 1942 and 1972. A comprehensive system for pollution control was ultimately enacted in the 1972 amendments to the Act.

A change in the point of diversion often requires the deposit of dredge and fill materials in navigable waters, the construction of an impoundment, or both. Because § 404 of the Clean Water Act authorizes the Army Corps of Engineers to regulate these activities through the issuance of permits, any application to change the point of diversion will have to accommodate the requirements of this section. Additionally, in spite of the Clean Water Act's policy of deferring to state water law, 33 U.S.C. § 1251(g) (1988), courts have held that the Corps' jurisdiction under the Clean Water Act is much broader in that "the statute focuses not merely on water quality, but rather on all of the effects on the 'aquatic environment' caused by replacing water with fill material." Riverside Irrigation Dist. v. Andrews, 758 F.2d 508, 512 (10th Cir. 1985) (citations omitted).

A second modern public right provided by federal law and relied on in Riverside Irrigation Dist. is the Endangered Species Act, 16 U.S.C. §§ 1531-1544 (1988). Riverside Irrigation Dist., 758 F.2d at 512. On the relation of the Act to western water law, see generally A. Dan Tarlock, The Endangered Species Act and Western Water Rights, 20 Land & Water L. Rev. 3 (1985).

possible without impacting opportunities for additional and alternative water uses, and conversely that every use of water affects water quality, prior appropriation states such as Montana are taking positive steps to include water quality as a substantive decision-making criteria in water allocation systems.

Since 1973, Montana has acted legislatively in response to its constitutional mandates⁸⁴ to develop a policy and a regulatory framework to integrate the management of water use and the protection of water quality. In terms of integrating water quality into the water allocation system, the state has acted in a number of specific ways. First, Montana adopted reasonable use criteria⁸⁵ in the processing of permits and changes-in-appropriation-right applications for large developments.⁸⁶ Montana implemented the reasonable use criteria in its permitting system in 1983.⁸⁷

Second, Montana initiated a water reservation system. Adopted in 1973,88 the state water reservation process permits un-

- 84. Article IX, § 1 of the Montana Constitution requires the state to "maintain and improve a clean and healthful environment" and to "provide adequate remedies for the protection of the environmental life support system from degradation and provide adequate remedies to prevent unreasonable depletion and degradation of natural resources." Article IX, § 3 provides that "[a]ll existing rights to the use of any waters for any useful or beneficial purpose are hereby recognized and confirmed," and "[t]he use of all water that is now or may hereafter be appropriated for . . . beneficial use . . . shall be held to be a public use." Also, Article II, § 3 describing inalienable rights includes "the right to a clean and healthful environment and the rights of . . . acquiring, possessing and protecting property."
- 85. The reasonable use criteria is included in the permit statutes at §§ 85-2-311(3)(c) and 85-2-402(4)(b) of the Montana Code. In pertinent part § 85-2-311(3)(c) provides that: the proposed appropriation is a reasonable use. A finding must be based on a consideration of the following:
 - (i) the existing demands on the state water supply, as well as projected demands such as reservations of water for future beneficial purposes, including municipal water supplies, irrigation systems, and minimum streamflows for the protection of existing water rights and aquatic life;
 - (ii) the benefits to the applicant and the state:
 - (iii) the effects on the quantity and quality of water for existing beneficial uses in the source of supply;
 - (iv) the availability and feasibility of using low-quality water for the purpose for which application has been made;
 - (v) the effects on private property rights by any creation of or contribution to saline seep; and
 - (vi) the probable significant adverse environmental impacts of the proposed use of water as determined by the department pursuant to Title 75, chapter 1, or Title 75, chapter 20.

MONT. CODE ANN. § 85-2-311(3)(c) (1993). Section 85-2-402(4)(b) sets forth nearly identical language.

- 86. A large development is one that involves an appropriation of 4,000 or more acrefect of water a year and 5.5 or more cubic feet per second of water. Mont. Code Ann. §§ 85-2-311(3), -402(7) (1993).
 - 87. 1983 Mont. Laws 1746, 1746-47.
 - 88. Montana Water Users Act, 1973 Mont. Laws 452, 526, 1121, 1134-35 (codified at

appropriated water to be reserved by public entities for existing and future beneficial uses, including maintenance of water quality. Montana used this mechanism initially in the Yellowstone River basin⁸⁹ and then in the upper Missouri River basin above Fort Peck Reservoir.⁹⁰ A third mechanism concerning ground water involves the ability to administratively close a ground water aquifer to further appropriation or to restrict or condition existing and future ground water allocations on the basis of water quality concerns by establishing a controlled ground water area.⁹¹

The fourth and most recent legislative response came during the 1993 legislative session. This legislation integrating water quantity and quality developed as a result of the state water planning process. The legislature devoted one section of the 1992 Montana water plan to a consideration of the integration of water quality and quantity management. The resulting legislation included the integration of the following criteria when raised by a valid objection in either a permit or change in appropriation right: (1) the water quality of a prior appropriator will not be adversely affected, (2) the proposed use will be substantially in accordance with the classification of water set for the source of supply, and (3) the ability of a discharge permit holder to satisfy effluent limitations of a permit issued by the state will not be adversely affected.

In addition, the 1993 legislature enacted a law to limit permit activity in highly appropriated basins. Find This legislation empowered the Department of Health and Environmental Sciences to petition the Department of Natural Resources and Conservation to adopt rules either to reject permit applications or to modify or

MONT. CODE ANN. § 85-2-316 (1993)).

^{89.} Order of the Montana Board of Natural Resources and Conservation Establishing Water Reservations in the Yellowstone River Basin (Dec. 1987).

^{90.} Final Order of the Board of Natural Resources and Conservation Establishing Water Reservations Above Fort Peck Dam (July 1, 1992).

^{91.} Mont. Code Ann. § 85-2-506(2)(f) (1993). Although originally enacted prior to the adoption of Montana's 1972 Constitution, the statute remains as part of the state's comprehensive water allocation scheme. Of the two controlled ground water areas created since the law was passed, neither was created due to water quality concerns.

^{92.} See infra text accompanying notes 105-31.

^{93.} MONTANA DEP'T OF NATURAL RESOURCES & CONSERVATION, MONTANA WATER PLAN, SECTION: INTEGRATED WATER QUALITY AND QUANTITY MANAGEMENT (Nov. 2, 1992).

^{94.} A valid objection pursuant to this subsection may only be raised by the Department of Health and Environmental Sciences or a local water quality district. 1993 Mont. Laws 1616, 1616-18 (codified at Mont. Code Ann. § 85-2-311(2) (1993)).

^{95. 1993} Mont. Laws 1616, 1616-18, 1619-26 (codified at Mont. Code Ann. §§ 85-2-311(i), -402(g) (1993)).

^{96. 1993} Mont. Laws 1616, 1618-19 (codified at Mont. Code Ann. § 85-2-319 (1993)).

condition permits issued in highly appropriated basins or subbasins. Rejection, modification, or addition of condition had to be based on the newly enacted water quality criteria.

Finally, the legislature strengthened the controlled ground water area statute in two distinct ways. First, state or local public health agencies may petition for designations of controlled ground water areas for identified public health risks. Fecond, the legislature added two new grounds for seeking designation: (1) that ground water withdrawals adversely affecting ground water quality within the ground water area are occurring or are likely to occur, and (2) that water quality within the ground water area is not suited for a specific beneficial use. Fes

6. Transferability of Water Rights

A number of commentators identify the marketing of water as a mechanism through which a state can achieve efficiency of water use and reallocation of water. Generally, they perceive the need to facilitate marketing through unrestricted transferability of water. Where a transfer restriction exists, it inhibits the marketability of water. Any adversarial process involving a determination of water rights creates high costs and restricts transfers in the operation of a free market in water rights. It logically follows, then, that the large transaction costs to hire engineers and lawyers in the pursuit of judicial decrees should be minimized. Similarly, permit systems that require complicated technical demonstrations by those who would transfer water rights lead to inefficiency.

Because Montana claims the public, not the appropriator, owns the underlying fee to all of the water in the state, ¹⁰⁰ Montana has never allowed the free and unrestricted transfer of water. The state regulates changes in purpose, place, and ownership of a water right to assure that the public resource is used in the public interest and without injury to other private interests. ¹⁰¹ In 1993, Montana passed legislation providing an incentive to salvage water. ¹⁰²

^{97. 1993} Mont. Laws 1616, 1626-27 (codified at Mont. Code Ann. § 85-2-506 (1993)).

^{98. 1993} Mont. Laws at 1626-27 (codified at Mont. Code Ann. § 85-2-506)).

^{99.} See, e.g., Anderson, supra note 8, at 119; Musick, supra note 8, at 22-42 to -43; Thorson, supra note 8, at 488; David H. Getches, Water Use Efficiency: The Value of Water in the West, 8 Pub. Land L. Rev. 1, 17-23 (1987); Pring & Tomb, supra note 8, at 25-54 to -55; Note, The Efficient Use of Utah's Irrigation Water: Increased Transferability of Water Rights, 1975 Utah L. Rev. 158, 167-69.

^{100.} MONT. CONST. art. IX, § 3(3); MONT. CODE ANN. § 85-2-101(1) (1993).

^{101.} MONT. CODE ANN. §§ 85-2-402 to -403 (1993); see Stone, supra note 36, at 102.

^{102.} Mont. Code Ann. § 85-2-419 (1993). For further explanation see supra text accompanying notes 63-65.

The statute allows for the sale of water, albeit subject to the legislative standards involving a change in appropriation right. At least one commentator argues that this legislative enactment goes beyond just allowing changes in water rights; rather, it allows the creation of new water rights with preexisting earlier priority dates.¹⁰³ As a consequence, the water right takes on attributes of ownership not only of the right, but also of the water itself. Thus, the water becomes a private commodity rather than a public resource.¹⁰⁴

B. Water Planning

Sound planning is essential to the water security of the future. The days of expensive dams and reservoirs that are not cost effective are gone. While water projects have contributed significantly to the well-being of the West in general and of Montana, most watersheds are approaching their maximum development from both physical and economic standpoints. Severe cutbacks in federal assistance for water project development also coincide with environmental realities. Western water allocation is far more complex today than when the early settlers conceived the prior appropriation doctrine. The state cannot allocate water wisely, and a state's goals that are significantly affected by water use and development cannot be carried out without careful forethought and broad public involvement. Thus, Montana must give meaningful thought to comprehensive statewide goals. Just as comprehensive planning guides land use and development without destroying operation of the free enterprise system in real property, so, too, should comprehensive planning guide the use of water resources.

Montana has a unique history of water planning efforts. 105 Its

^{103.} Stone, supra note 36, at 102.

^{104.} Stone, supra note 36, at 102.

^{105.} In addition to state water planning efforts, the federal government has long been involved in water planning in Montana. Such federal efforts in Montana began in 1884, when Congress established the Missouri Basin Commission to oversee regional planning of federal flood control and navigation projects. Act of July 5, 1884, ch. 229, § 2, 23 Stat. 133. With the expansion of the West, Congress passed the Carey Land Act in 1894 which granted one million acres to each of the western states on the condition that the states develop the granted lands. Carey Act, ch. 304, § 4, 28 Stat. 422 (1894). The concept of regional multipurpose basin planning became a reality in Montana when Congress passed the 1944 Flood Control Act. Act of Dec. 22, 1944, Pub. L. No. 78-534, 58 Stat. 887. This Act authorized a system of six mainstem Missouri flood control dams, including the Fort Peck Dam in Montana, and required that their operation for navigation could not interfere with upper basin water development. Other regional planning was completed between 1946 and 1967 by the Columbia Basin Interagency Commission, which set guidelines for the study of water development and conservation needs in the Columbia River Basin. With the passage of the Water Resources Planning Act, federal river basin planning gained momentum. Pub. L. No. 89-80, 79 Stat. 244 (1965). River basin commissions were established throughout the United States

initial planning efforts were humble at best. 108 Montana's first attempt at water planning followed passage of the federal Carey Land Act. 107 In 1897, the Montana Legislature created the State Arid Land Grant Commission, 108 which became the Carey Land Act Board in 1903. 109 The Carey Land Act charged the board with surveying and constructing a number of irrigation projects on federal lands. During this same period in 1903, the Montana Legislature created a second state water management agency—the State Engineer's Office. 110 The State Engineer's Office administered surface and ground water rights and administered water agreements between Montana and other states. 111 Also, the Montana Irrigation Commission produced county-by-county plans for irrigation developments in the period 1919 to 1921. 112

Following this comprehensive planning endeavor, the next serious planning effort in Montana resulted from the creation of the State Water Conservation Board in 1934.¹¹³ This planning program

to oversee interstate basin-wide water resources planning. Montana was a member of the Missouri River Basin Commission and the Pacific Northwest River Basins Commission. The river basin commissions were terminated in 1981 pursuant to Executive Order No. 12,319, 46 Fed. Reg. 45,591 (1981), but the Water Planning Resources Act had laid the groundwork for the development of a continuous water planning program in Montana.

106. For a complete historical understanding of state and federal water planning activities in Montana, see Montana Water Resources Bd, Water Resources Inventory Series No. 4 (Oct. 1968); 1 Montana Dep't of Natural Resources & Conservation, The Framework Report, A Comprehensive Water and Related Land Resources Plan for the State of Montana (1976); Montana Dep't of Natural Resources & Conservation, Montana's Water Planning Program, A Report to the Forty-Ninth Session of the Montana Legislature (Jan. 1985).

107. Act of Aug. 17, 1894, ch. 299, 28 Stat. 338 (1894) (amended June 11, 1896, and Mar. 3, 1901).

108. 1897 Mont. Laws 180-81. In 1965, the Montana Legislature abolished the office of the Carey Land Act Board and transferred its functions to the State Water Conservation Board. 1965 Mont. Laws 882-91. In 1967, the functions of the State Water Conservation Board were transferred to the Montana Water Resources Board. 1965 Mont. Laws 882-91. Then, in 1971, the legislature transferred functions of the Montana Water Resources Board to the Department of Natural Resources and Conservation. 1971 Mont. Laws 1146.

- 109. 1903 Mont. Laws 211-12.
- 110. 1903 Mont. Laws 212.
- 111. In 1965, the Montana Legislature abolished the Office of the State Engineer and transferred its functions to the Water Conservation Board. 1965 Mont. Laws 882-91. In 1972, the legislature transferred functions of the Water Conservation Board to the Department of Natural Resources and Conservation.
- 112. Montana established the Montana Irrigation Commission in 1905 to promote cooperation between the state and federal government and to enable Montana to receive the full benefit of national irrigation law. The legislature charged the commission with the initial responsibility to develop a revised irrigation code for the state of Montana. 1905 Mont. Laws 184.
- 113. 1933-34 Mont. Laws 94. The State Water Conservation Board is the predecessor in interest to the Montana Department of Natural Resources and Conservation. The State Water Conservation Board was empowered "to make such investigations as may be neces-

involved, primarily, a project-by-project irrigation-oriented effort. Further, as a result of federal agency demands, this effort undertaken by the State Water Conservation Board had as its basic goal the provision of economic relief during the depression of the 1930s. The nationwide depression of 1933 coincided with severe drought conditions in the central plains, threatening to destroy Montana's farming and livestock industries.

With the creation of the State Water Conservation Board, Montana embarked on the construction of a system of works, through state and federal funding, for the conservation, development, storage, distribution, and utilization of water. Nearly all water storage or distribution projects currently administered by the Department of Natural Resources and Conservation were constructed during the thirty-three-year tenure of the Water Conservation Board.¹¹⁴ Comprehensive planning during this period, however, was nowhere to be found. Nevertheless, throughout the years the State Water Conservation Board accumulated a large amount of background data and experience basic to any planning effort.

In Montana, one of the most important factors in supplying background data on water development was the inauguration of the Water Resources Survey by the State Engineer's Office in 1943.¹¹⁵ Between 1943 and 1977, the State Engineer's Office prepared a survey for almost every county in Montana. The surveys contain reliable information concerning Montana's water use including the number of acres irrigable under existing systems and an inventory of water rights for the protection of individual water users in the state. Each survey contains an examination of water rights, water uses, and irrigation development.¹¹⁶ Today, the surveys continue to provide basic information for many planning and regulatory efforts.¹¹⁷

sary to plan and carry out a comprehensive state-wide program of water conservation." 1933-34 Mont. Laws 97.

^{114.} Approximately 180 projects were developed and are managed today for recreation, flood control, irrigation, municipal supply, and hydropower generation. The primary purpose is irrigation, and local water-users associations now manage most of the projects.

^{115.} So far as is known, this water survey was the first survey of its kind ever attempted in the United States. The work gave Montana its first accurate and verified information concerning its water rights and their use for the counties in which the surveys were completed.

^{116.} See, e.g., State Eng'rs Office, Water Resources Survey: Lewis and Clark County Montana (reprint 1965) (1957).

^{117.} For example, the information is invaluable for preparing applications for permits for beneficial water use and for preparing objections to applications for permits. Also, the information is used as evidence for claims of existing water rights in Montana's ongoing general stream adjudication.

More significant action to coordinate development of the state's water resources commenced in 1967 with the enactment of the Water Resources Act. 118 Under the mandates of the Water Resources Act, the Water Conservation Board was abolished and its powers transferred to the Water Resources Board. 119 The Water Resources Act outlined the several water management goals for the state and established a state water planning process as the mechanism for achieving these goals. 120 These management goals included both designing a comprehensive state water plan and encouraging coordinated development and use of Montana's water. In addition, the state water plan is to provide for multiple uses; set out a progressive program for conserving, developing, and using the state's water; and propose the most effective ways of using Montana's water to benefit the people, while considering alternate uses and combinations of uses. 121

From its inception until 1987, efforts to develop the state water plan focused on basin plans in conformance with federal principles and guidelines and with federal grant assistance.¹²² The result was that volumes of valuable technical information were produced, but inadequate consideration was given to the institutional and political feasibility of implementing any plan recommendations.¹²³ In effect, the plans did little more than add to the technical library of the Department of Natural Resources and Conservation.

In 1987, confronted with the growing critical water management problems facing the state, such as interstate water allocation, federal reserved water rights, water use efficiency, instream flow protection, ground water management, and nonpoint source pollution, and with limited resources to solve these problems, Montana more directly focused its planning efforts. The Montana Department of Natural Resources and Conservation launched a revised water planning process to aid in the development of a state water plan. The Montana Department of Natural Resources and Conservation Resources Resour

^{118. 1967} Mont. Laws 277 (codified at Mont. Code Ann. §§ 85-1-101 to -704 (1993).

^{119. 1967} Mont. Laws 227 (codified at Mont. Code Ann. §§ 85-1-101 to -704). In 1971, pursuant to the Executive Reorganization Act, the legislature abolished the Montana Water Resources Board and transferred its functions to the Montana Department of Natural Resources and Conservation. 1971 Mont. Laws 1090-1162.

^{120.} MONT. CODE ANN. § 85-1-101(10) (1993).

^{121.} Mont. Code Ann. § 85-1-203(2) (1993).

^{122.} DEPARTMENT OF NATURAL RESOURCES & CONSERVATION, MONTANA STATE WATER PLAN HANDBOOK 2 (Jan. 29, 1993) [hereinafter Handbook].

^{123.} HANDBOOK, supra note 122.

^{124.} After reviewing the water planning processes of other western states, the Department of Natural Resources and Conservation adopted an approach similar to that used in

servation designed a revised planning process to allow individuals and groups affected by water management decisions to participate directly in policy and program development and management decisions. The state agency devised the process to transcend jurisdictional boundaries and bring all affected parties into a collaborative problem-solving process. Additionally, the natural resource agency conceived the planning process as an ongoing process that would adapt to changing public needs and desires. Finally, the Department of Natural Resources and Conservation designed the planning process to result in a variety of actions, including proposed legislation, program guidelines, management decisions, collaborative projects, and research and education activities.

The state water planning process resulted in major legislative modifications in Montana's water allocation system. These modifications include: integration of water quality and quantity management;¹²⁶ encouragement of the mediation of local water right disputes;¹²⁷ clarification of the right to beneficially use, sell, or lease salvaged water;¹²⁸ and clarification of state law to allow voluntary, temporary changes of water rights and contract exchanges.¹²⁹

Over the next biennium, Montana will evaluate the state water planning process.¹³⁰ The objectives of evaluating the state water planning process are to: (1) determine whether there are water resource problems or opportunities that should be addressed by government; (2) evaluate the success of the state water planning process in addressing water resource problems and opportunities; (3) examine alternative forums or mechanisms for addressing water resource problems and opportunities; and (4) assess whether the state water planning process should continue and, if so, how it could be improved.¹³¹

Montana must continually rise to the challenge and make the tough decisions connected with water planning. Water planning is necessary to protect rights and interstate allocations, as well as to

Kansas. Handbook, supra note 122, at 3.

^{125.} The core of the process consists of a repetition of a single planning cycle consisting of five phases: (1) issue identification and selection, (2) issue analysis, (3) public review and comment, (4) adoption and approval, and (5) implementation and evaluation. Handbook, supra note 122, at 13-17.

^{126.} See supra text accompanying notes 83-98.

^{127. 1989} Mont. Laws 1599 (codified at Mont. Code Ann. § 85-5-110 (1993)).

^{128.} See supra text accompanying notes 63-65.

^{129. 1991} Mont. Laws 1411-12 (codified at Mont. Code Ann. § 85-2-407 (1993)); Stone, supra note 36, at 103.

^{130.} DEPARTMENT OF NATURAL RESOURCES & CONSERVATION, EVALUATING THE STATE WATER PLANNING PROCESS: OBJECTIVES AND METHODS (May 7, 1993).

^{131.} Id.

make the wisest use of water for the greatest number of people.

V. Conclusion

The rugged individualism that characterized the settlement of Montana stands in stark contrast to the more complex, more urbanized society of this century. The Montana that breathed life into the prior appropriation doctrine now prides itself in its natural resource wealth—a wealth that includes wilderness and "free-flowing" wild rivers, as well as minerals, forests, farms, and industries. It is this new Montana that water law is seeking to accommodate and serve.

Since at least 1973, Montana has reshaped the prior appropriation doctrine in a responsive and responsible way. The prior appropriation system is serving the needs of Montana, but important changes are taking place that foster the continued successful operation of the doctrine. In an ever-changing world, Montana does not regard the prior appropriation of water rights systems as perfect and inflexible. The doctrine is responsive to modification. The knowledgeable water people in Montana continue to bring to fruition constructive changes in the administration of water rights that result in broader benefits to the people for more efficient water resource management. The most efficient manner for constructive change is through a continued consensus building dialogue—the kind of dialogue fostered by the state water plan process.