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Appropriation For Instream Flow Maintenance:  
A Progress Report On "New" Public Western Water Rights  

A. Dan Tarlock*  

Three years ago I published an Article in this law review enti-
tled Recent Developments in the Recognition of Instream Uses in Western Water Law.¹ In 1975 the dedication of water to instream 
uses such as fish and wildlife maintenance and recreation was a 
growing but still minor factor in western water law. The question of 
whether instream uses would be recognized in the prior appropria-
tion and western riparian systems was open. The Article argued that 
these new uses were entitled to equal weight with the conventional 
beneficial uses. Since 1975, it has become clear that instream uses 
will be recognized in western water law. Instream withdrawals² are 
a potential major constraint on the use of water for energy conver-
sion since the dedication of water for instream uses has become an 
important factor in water allocation and planning in the Far West. 
The issues are now how and to what extent these new uses will be 
recognized. This Article carries forward the analysis of instream use 
recognition and protection. Post-1975 developments are emphasized 
while enough background is provided to point out to the general 
reader the important steps in the evolution of this most significant 
development in western water law.

In the Far West a water right is based on the use of water to 
satisfy basic human needs or to produce goods and services valued 
in the market.³ Prior appropriation has always been a relatively

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Omaha, Nebraska. This Article is a revised version of a paper delivered at the Rocky Moun-
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2. "Withdrawal" and "reservation" are two terms derived from public land law that 
are often used to describe the means of recognizing instream uses. A withdrawal is a decision 
which closes public land to entry or mineral location pending final classification. Reservation 
has a less precise meaning but implies a permanent decision classifying public land for a 
single purpose such as a national park. See 1 AMERICAN LAW OF MINING § 2.1 (C. Martz ed. 
1960). In this Article I have used the term withdrawal to describe any recognition of instream 
uses since the net effect of a recognition will be to deny the use of the flow to consumptive 
use appropriation.
3. "The right is a practical one. It is not a personal right or an incident of land owner-
ship to be exercised at will; for if the water is not used, the right never comes into existence; 
and if it is once used, the right can be lost if the use is discontinued." P. MAXFIELD, M. 
utilitarian doctrine because the mission of regional settlement and development mandated an attempt to promote maximum utilization of water resources. This goal has been accomplished by according security to priority, limiting speculative claims, promoting widespread access to the resource, and prohibiting arguably wasteful uses, although maximum utilization of water has sometimes given way to distributional goals.\(^4\) The reservation of large quantities of water in place was thought to be inconsistent with the goal of maximum utilization because a reservation in place was simply not a "use" as the custom of the region had come to define the term. Reservation in place smacked of the inefficient common law of riparian rights, and the law of prior appropriation consistently sought to purge western water law of riparian elements precisely because of the tension between utilitarian and non-utilitarian principles in the common law.\(^5\) Specifically, the recognition of rights to the flow of the stream apart from a consumptive use and the confinement of rights to the ownership of land along a stream were thought to be detrimental to the development of this region. In the famous case of Schodde v. Twin Falls Water Co.,\(^6\) the United States Supreme Court rejected the claim that an appropriation included a right to the flow apart from the amount applied to a beneficial use. Plain-

\(^4\) For example, to achieve a fair distribution of water rights, inefficient means of use have been protected. The most celebrated example is the doctrine which charges carriage losses against the junior appropriator's share when a senior makes a call. State ex rel Cary v. Cochran, 138 Neb. 163, 292 N.W. 239 (1940). Recently, one state held that carriage losses equalling 5/6 of the appropriated flow are not a beneficial use, Erickson v. Queen Valley Ranch Co., 22 Cal. App. 3d 678, 99 Cal. Rptr. 446 (1971), but Cary would still seem to be good law in many states. 1 W. Hutchins, Water Rights in the Nineteen Western States 579 (1971). The impact of the drive for water conservation on inefficient use practices is discussed at notes 119-23 infra and accompanying text.

\(^5\) For a useful historical analysis of the evolution of the tension between utilitarian and non-utilitarian principles, see Horwitz, The Transformation in the Conception of Property in American Law, 1780-1860, 40 U. Chi. L. Rev. 248, 251-78 (1973). The common law of riparian rights protects only private rights since one must own land adjacent to a stream to qualify as a riparian. The right to flows for instream uses has been recognized under the natural flow theory, Collens v. New Canaan Water Co., 155 Conn. 477, 234 A.2d 825 (1967), and rejected under the reasonable use theory, Dunlap v. Carolina Power & Light Co., 212 N.C. 814, 195 S.E. 43 (1938). Arguments have been advanced in those states that recognize riparian rights that the state could assert its riparian status to require minimum flows for lands such as parks owned by the state. See Garton, South Dakota's System of Water Management and Its Relation to Land Use and Economic Development, 21 S. Dakota L. Rev. 1, 35-36 (1976). However, in all western states except California and Nebraska, riparian rights have been cut back to those actually put to a beneficial use on a certain date. 5 Waters and Water Rights? § 429.1 (R. Clark ed. 1972). Thus, unless it is held that establishment of a park or a related land use is a riparian use, riparian rights to future flows would seem possible only in California and Nebraska.

\(^6\) 224 U.S. 107 (1912). See 2 W. Hutchins, supra note 4, at 210-11 for a more extended discussion of the decision.
tiff’s assertion that he had a right to the flow of the Snake River to lift a proportionately small quantity of water for a consumptive use was rejected because it was wasteful compared to other potential claims. *Schodde* is the leading precedent for the rule that the reservation of large quantities of water in place is not a use for which an appropriation can be made.7

It is a slight exaggeration to assert that instream uses have not been recognized in western water law for there has always been limited recognition of these uses, although not on the scale contemplated today. The right to appropriate just the amount of water necessary to support a commercial pleasure ground was recognized as early as 1913,8 and Oregon began to withdraw streams from appropriation in 1929.9 But these reservations remained secondary to the promotion of the use of water for agricultural, mining, and municipal purposes, and the amounts withdrawn did not often compete with consumptive use claims. Today instream use withdrawals are increasingly based on the ecological and philosophical arguments advanced by environmentalists that large ecosystems be preserved in some state of equilibrium. Withdrawals for this purpose require much larger quantities of water than do withdrawals to preserve selected scenic waters and the geographic scale of these withdrawals is, of course, broad. As a result, traditional consumptive use appropriators must now face a new competing use of already scarce western waters.10 The net result of new state and federal statutes and precedents supporting the recognition of instream uses is that an energy developer contemplating an appropriation package must now consider these “new” public water rights as a significant constraint on the use of water for mineral exploitation.11 For example, flow appropriations may place a floor on the amount of water available for application to conventional beneficial uses; a state may compete with energy developers for unappropriated flows as is now occurring on the Yellowstone River in Montana; and instream flow maintenance conditions may control the operation of federal, state,
and private water projects. Further, the federal government is claiming the right to establish minimum flows on public lands under the reserved rights doctrine.

This Article surveys western state laws and federal laws and procedures which recognize and protect instream flow rights. Its thesis is that instream uses are entitled to equal footing with the traditional consumptive beneficial uses, but that these new uses should be recognized and protected only as public rights. Further, whenever possible, flow preservation, recognition, and protection should occur within state-created appropriation systems pursuant to strict legislative standards. The public is entitled to the withdrawal of flows for instream uses, but energy developers are equally entitled to notice of state and federal claims and to have them established by standards which subject instream use claimants to the same anti-waste and anti-speculative policies to which other appropriators are subject. Energy developers and environmental interests must share the western waters available for new uses as widespread access to waters by diverse user groups should remain the cardinal policy of western water law.

I. THE PHILOSOPHY OF INSTREAM PRESERVATION

In 1973, the Final Report of the National Water Commission recommended “that State laws should be improved to provide greater protection of social values in water.” Specifically, the Commission urged that legal rights should be created for the benefit of the public “for such social uses as aesthetics, recreation, fish and wildlife propagation.” The Report is likely to influence considerably the future of state and federal laws. The Commission’s recommendation rests on diverse reasons which reflect four decades of

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13. Discussions of instream uses often use the term “minimum flows,” but the United States Fish and Wildlife Service has developed a standardized nomenclature that uses the term “preservation flow” and this Article adopts that terminology. Preservation flows are defined as “that range of flows within a stream required to preserve the existing levels of fish, wildlife, other aquatic organisms and related recreational activities.” Minimum flows are defined as the lowest recorded discharge over a specified period of time. Arnette, Nomenclature for Instream Assessments, in METHODOLOGIES FOR THE DETERMINATION OF STREAM RESOURCE FLOW REQUIREMENTS: AN ASSESSMENT (C. Stalnaker & J. Arnette eds. 1976) [hereinafter cited as METHODOLOGIES].

14. NATIONAL WATER COMMISSION, supra note 12, at 271.
criticism of federal and state water policies. On a general level, the recommendation reflects a societal attitude that human activities should be conducted more in harmony with natural systems than has been the case in the past. On a more concrete level, it recognizes the need to preserve fish and wildlife habitats, to enhance food supplies, and to provide diverse recreational opportunities. The recommendation also accords weight to the economic and engineering arguments which have been advanced against large scale water resources projects. Each of these reasons, of course, is debatable, but for present purposes it is sufficient to observe that each provides a sufficient justification for the state’s decision to recognize these uses. The important question is whether instream public rights are discretionary with the states or whether, in some cases, recognition is mandatory. Part I argues that instream values are discretionary with the state and thus are not fundamental constitutional or natural rights. The source of the state’s power to withdraw waters in order to recognize instream uses is the state’s quasi-sovereign power over its natural resources. The exercise of this sovereignty must always be discretionary for, absent a constitutional provision, the state cannot be estopped in the exercise of its police powers.

Most contemporary environmental theories are utilitarian and thus are consistent with the discretionary basis of the state’s power to protect environmental values. They assert that resource allocations for environmental reasons such as instream uses are valuable to man. In the past decade, society has incorporated these arguments into resource allocation processes in two stages. First, it was established that environmental values were entitled to equal weight with non-environmental values. Second, as society gained a greater appreciation of the benefits of diversity in natural ecosystems, activities which threatened to degrade the environment had to assume a high burden of justification in contrast to the historic placement of the burden on those opposing an activity. But utilitarian based theories of environmental protection do not deny the value of alternative resource uses. The opportunity cost of a withdrawal is always a relevant factor to be considered. These theories assert only that non-economic costs, as they have traditionally been defined, should be fully taken into account in all decision-making. This can be done

15. For a more extended discussion of the justifications for state recognition of instream uses, see Tarlock, supra note 1.
17. See Meyers, An Introduction to Environmental Thought: Some Sources and Some Criticisms, 50 Ind. L.J. 426 (1975); Tarlock, A Comment on Meyers’ Introduction to Environmental Thought, 50 Ind. L.J. 454 (1975).
on a case-by-case basis or on a per se level, such as wild and scenic river programs. Consistent with this analysis, the new environmental laws are ultimately procedural for they require only a good faith weighing of environmental and non-environmental values by an agency or a legislature; no a priori weight is assigned to one set of values over the other until the legislature chooses to rank the competing values. The National Environmental Policy Act of 1969 is a prime example of this theory.\textsuperscript{18}

There are, however, non-utilitarian theories of environmental protection which assert that environmental values are paramount to non-environmental ones. These theories rest on assertions of natural or constitutional rights which require the incorporation of radical new philosophical premises into the law. One non-utilitarian theory, for example, proceeds on the assumption that inanimate objects have rights. One Idaho environmental attorney asserts that: "It is just as logical to recognize the right of animate and inanimate objects to an adequate instream flow of water to a national forest as on an Indian reservation."\textsuperscript{19} This argument is bad economics and bad philosophy. As John Passmore has suggested, "[i]f it is essential to a community that members of it have common interests and recognize mutual obligations then plants, animals and soil do not form a community . . . . The idea of 'rights' is simply not applicable to what is non-human."\textsuperscript{20} Other non-utilitarian theories attempt to surmount the objections to animism by arguing that the Constitution protects natural objects in order to reinforce paramount societal values. One philosopher has argued:

\begin{quote}
Our proposal is this: We have an obligation to protect natural environments insofar as we respect the qualities they express. We have seen that these qualities do actually belong to some environments, which are their paradigms; and the discovery or identification of these qualities is effected in our language and by our arts. Preserving an environment may be compared to maintaining an institution, for symbols are to values as institutions are to our legal and political life. The obligation to preserve nature, then, is an obligation to our cultural tradition, to the values which we have cherished and in terms of which nature and this nation are still to be described. It is difficult
\end{quote}

\begin{footnotes}
\item[20.] J. \textsc{Passmore}, \textsc{Man's Responsibility for Nature} 116 (1974) (emphasis in original). This masterful book is a most lucid and balanced discussion of the case for discretionary recognition of environmental values.
\end{footnotes}
and indeed unnecessary to argue that fulfilling this obligation to our national values, to our history, and, therefore, to ourselves, confers any kind of benefit; perhaps fulfilling a responsibility is itself a benefit, but this view requires not that we define “responsibility” in terms of “benefits”, as the utilitarian does, but that we define “benefits” in terms of “responsibilities”. In any case, preservation of the qualities, and accordingly the values, that this nation, as a nation, has considered peculiarly its own — and these are the qualities of nature — certainly obliges us to do otherwise than follow our pleasure and our profit. Consequently, there may be reason to think that fidelity to our historic values imposed both a “benefit” and a “cost.”

This argument by a non-lawyer is bad constitutional law, although it may be ingenious philosophy. Serious students of constitutional law have concluded that the primary function of the fundamental rights guaranteed by the Constitution is to prevent malfunctions in the democratic process. Environmental degradation is not a case where a powerful majority is attempting to deny a powerless minority access to the political process to claim its share of public benefits. For this reason, it is hard to conclude that the Constitution contains a sufficient ranking of the competing values at stake in environmental controversies to allow the courts to define fundamental rights.

This brief discussion of the philosophy of environmental resource allocations will, I hope, put to rest the naive and romantic arguments that “we” have a right to these uses which can contradict a legislative or administrative refusal to recognize them. Taken as a whole the laws this Article surveys increasingly accord instream uses equal footing with traditional beneficial uses and require the state to justify a refusal to recognize them; but the laws do not and should not afford more, for otherwise the real opportunity cost of these uses will be ignored and the ability of western water law to incorporate these new uses in a manner which will be tolerable to existing users will be lost.

II. INSTREAMFLOW PRESERVATION STANDARDS

The procedures and standards used for the establishment of preservation flows are important to lawyers. These flows are established by standards which are based on debatable technical and

policy judgments, and thus the standard setting process is open to
callenge in appropriate administrative and judicial proceedings.
The work of the Cooperative Instream Flow Group established by
the United States Fish and Wildlife Service in 1975 will substan-
tially influence the standard setting process through the assembly
of information and the development of preservation flow methodolo-
gies. But it is important to realize that existing preservation flow
methodologies do not answer many of the important questions
which will concern lawyers. For example, they neither assess "the
magnitude and range of effects resulting from a series of changes in
discharge through a natural stream channel" nor do they address
"the cumulative effects of permanent reductions of augmentations
in flows." This section of the Article summarizes the assumptions
behind current instream flow preservation methodologies.

Flow preservation standards measure the hydraulic and hydrol-
ogic components of stream flow and focus on maintaining the hy-
draulic and associated stream parameters necessary to meet a given
objective. Stream velocity is generally acknowledged to be the most
important limiting factor on the life stages of aquatic organisms,
and it is widely assumed that flows sufficient to maintain fish,
aquatic insects, and riparian vegetation are adequate proxies for all
other instream uses. Species preservation is increasingly being ac-
cepted as a legitimate proxy for environmental damages generally,
as the Endangered Species Act illustrates, for focusing on the sur-
vival of endangered species avoids the hard questions that more
philosophical discussions of the virtues of preserving natural envi-
ronments must confront. But the use of fish and wildlife proxies
must be accepted with extreme caution because the existence of an
ecosystem carries with it no moral imperatives. The decision to
base an environmental allocation decision on fish and wildlife prox-

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23. In 1976, the group published a series of papers, in Methodologies, supra note 13, which summarizes the literature on instream flow methodologies, and is an invaluable starting point to understand both the technical and judgmental aspects of preservation flow standards. The purpose of the study is to advise those setting flow standards, but the papers contain a balanced presentation of the strengths and weaknesses of present methods.


25. The Endangered Species Act of 1973, 16 U.S.C. §§ 1531-1543 (1976), has been interpreted to impose a substantive duty upon federal agencies to insure that their actions do not jeopardize the continued existence of a protected species or modify or destroy a critical habitat. Thus, existence of an endangered species or critical habitat in the path of a federal water resources project may make it impossible to build the project as planned. Hill v. T.V.A., 549 F.2d 1064 (6th Cir. 1977), aff'd, 46 U.S.L.W. 4673 (1978). See Note, Obligations of Federal Agencies Under Section 7 of the Endangered Species Act of 1973, 28 Stan. L. Rev. 247 (1976).

ies is therefore open to question.

Preservation flow requirements vary with the time of the year and the reach of the stream. In states which give explicit weight to water quality enhancement and recreation, the preservation flow requirements will vary as to these uses of the stream. Most methodologies, however, focus on fishlife maintenance. Preservation flow calculation methodologies have been developed in each area of the country and necessarily vary according to local conditions. Because flow needs vary according to the reach of the stream, the next stage in the standard setting process is to identify critical areas of the stream. Transcet measurements of hydraulic parameters and subjective evaluations of stream cover are used to relate stream habitat loss to stream discharge reductions. Aesthetic measurements can also be added to this procedure. Spawning areas require special calculations. Depth-velocity criteria are the most important factors in the establishment of spawning discharge flows. Incubation and rearing flows follow from these calculations.

Reliance on the developing preservation flow establishment methodologies gives withdrawal quantification decisions an aura of objectivity, but of necessity the formulas are quite arbitrary, even

27. Stalnaker & Arnette, supra note 24, at 89.
28. The following method was one developed for the Northern Great Plains area: The first step in this method assembled all available flow data for the streams under consideration and segregated the information by calendar month. Mean discharge for each month was computed. When a normal distribution for flow data (over years) was evidence, the "t" statistic was used in establishing an upper and lower limit for the mean monthly values. From initial testing on several stream reaches (relatively stable over years), it was found that 70 percent of the yearly flows for a given month clustered about the mean and are considered as representative of average hydrologic conditions. The 30 percent of recorded flows lying outside the range were eliminated and assumed to represent abnormally high and low flows. When a normal distribution of flow data was not evident, abnormally high and/or low values were arbitrarily eliminated. The second step arrays, from the highest to the lowest, remaining daily values for a particular month for all the years of record. This results in a flow duration curve for the month in question. This process is repeated for each month of the year. The recommended instream flow was set at that flow exceeded 90 percent of the time as determined from the flow duration curves for each month of the year. This flow is referred to as the 10 percentile flow. This technique resulted in a series of monthly flow estimations. The third step divided the stream into sections based upon tributaries entering, or diversions leaving, the reach being examined, and additions or subtractions from the 10 percentile flow were made according to the volume of flow in the tributaries and/or diversions. Lastly, adjustments were made upwards for spawning times, for the period of spring runoff (May, June and July when the mean annual flow of record was recommended, and for ease of operation [e.g. 105, 95 and 100 would be adjusted to 100 for three months]).

Id. at 90-91.
30. Stalnaker & Arnette, supra note 24, at 102-10.
accepting the legitimacy of fish and wildlife proxies. The formulas make the heroic assumption that there is a correlation between historic flow conditions and the conditions necessary for species survival. There may, in fact, be a correlation in many cases; but more site specific ecological studies must be done before it is possible to predict the impact of incremental flow reductions on species survival. The significance of this defect in existing flow methodologies has become apparent in the Yellowstone Basin withdrawal hearings.\(^{31}\)

The State of Washington adds even more subjective parameters. Aesthetics, water quality, and navigation are used to rate streams, and summer flows are determined by the importance rating of the stream. It has been noted that “[t]his concept is apparently functional in a ‘water-right’ state; however, in arid regions, a more technical, less subjective approach may be needed.”\(^{32}\) Flows to maintain fishlife, for example, may be less than those necessary to meet minimum aesthetic protection and enhancement standards.

III. Elimination Of Per Se Barriers To Flow Preservation Appropriations

Part III argues that the law of prior appropriation as reflected in state constitutions, statutes, and judicial precedents permits instream use appropriations; that the reasons for the refusal to recognize these appropriations are no longer applicable; and that instream uses are presumptively beneficial. For years it has been assumed that the elements of a valid appropriation are (1) notice of an intent to appropriate; (2) an actual diversion; and (3) an application to a beneficial use. The actual diversion requirement has historically barred instream appropriations. Substantial doubt has also existed as to whether instream flow uses are beneficial,\(^{33}\) but courts have not had to reach this issue because appropriators could not overcome the actual diversion requirement.\(^{34}\) The law of property has moved beyond reduction to possession by capture as the basis for a right. Capture theories can now only be justified if a reduction to possession requirement serves some clearly articulated resource

31. See notes 110-14 infra and accompanying text.
32. Stalnaker & Arnette, supra note 24, at 94.
33. However, it is doubtful that these uses were ever non-beneficial. See, e.g., Empire Water & Power Co. v. Cascade Town Co., 205 F. 123 (8th Cir. 1913).
allocation function. Most western water experts agree that the actual diversion requirement serves no function that cannot be served by other water law doctrines and statutory procedures. Thus the real issue is whether these uses are beneficial. In light of the modern and widespread appreciation of instream use values, it can no longer be argued that instream uses are per se grossly inefficient and thus should be denied in favor of other claimants such as energy developers. Because water is scarce in the West and must be shared among diverse users, the states have always asserted the right to determine who can use how much. Private rights remain the foundation of western water law, but these rights are subordinate to collective allocation decisions which reflect a societal consensus about the optimum use of a state's water resources.35 So long as vested rights remain unimpaired, a state may exercise its police power to decide among whom water should be allocated. A state may choose between public and private allocations and between instream and traditional consumptive uses. Thus a state can withdraw all of the water from appropriation and reserve it for instream uses; it can appropriate the water itself for beneficial uses; or it can choose to rely upon private initiative operating within state designated ground rules. For these reasons, instream uses should be valid without the requirement of an actual diversion, and these uses should be presumed beneficial. The amount of water needed to support a use is always subject to judicial review or to administrative evaluation when other users claim that the use is non-beneficial. The standards states are using to make the determination that an instream use is beneficial are discussed in Part IV.

If this analysis is correct, the only possible barriers to the recognition of instream flow rights are either state constitutional provisions which provide that the right to appropriate shall never be denied, or judicially recognized anti-speculative policies which would block large scale withdrawals. Both of these possible objections were addressed and rejected in an instructive case, State Department of Parks v. Idaho Department of Water Administration.36

36. 96 Idaho 440, 530 P.2d 924 (1974), noted in Comment, Instream Appropriation for Recreation and Scenic Beauty, 12 IDAHO L. REV. 263 (1975). Accord, McClellan v. Jantzen, 26 Ariz. App. 223, 547 P.2d 494 (1976). In State Department of Parks, narrow statutory authorization to appropriate specific springs was before the court, but the opinion's broad analysis of the objections suggests that instream uses will not be held per se inconsistent with the appropriation system and that state flow preservation procedures will be upheld in the far West.

No case, however, has yet upheld an instream appropriation absent a statutory authorization, and a California trial court has recently held that the State Water Resources Board
In this case, the Idaho Supreme Court considered Idaho Code Section 67-4307 which allowed the state to appropriate certain unappropriated waters in Malad Canyon, Idaho. The legislature had declared the use of these waters beneficial and had determined that the public use of the waters was of greater priority than any other, save domestic uses. All parties conceded that there were unappropriated waters so the issues were whether the state could appropriate the springs, whether the use of the waters for recreation and the preservation of scenic beauty was beneficial, and whether there could be a perfected appropriation in the absence of a physical diversion.

State agencies in the West have traditionally appropriated water for state institutions, including parks, as well as for ultimate consumption by agricultural users and municipalities. State appropriations in California, for example, are an integral part of state water planning because they insure that water will be used in a manner consistent with the goals of the state water plan. In Idaho, however, there was contrary precedent. Intervening water users associations in State Department of Parks argued that state appropriations were inconsistent with the constitutional guarantee of the right to appropriate because such appropriations represented “an insidious scheme in an attempt to monopolize the state’s unappropriated waters or to condemn already appropriated waters.” The court rejected the monopolization argument because the waters would be available downstream which suggests that this challenge might be more persuasive where large quantities of water are involved and users in the basin of origin are precluded from appropriating the water. But the logic of the state’s right to appropriate should overcome these objections for states have powers — subject to express constitutional and statutory constraints — to develop and

may reject a public instream use appropriation because the appropriation lacks possession of the water. Fullerton v. State Water Resources Control Bd., Civil No. 61136 (Cal. Super. Ct., Humboldt County, Nov. 3, 1977). The California State Water Resources Board rejected the appropriation application of the Department of Fish and Game not on the ground that an appropriation requires a diversion from the stream, but on the ground that dominion and possession over the water is needed. For example, if the water had been stored, the Board would have found possession. There are many statements in western water law that a right depends on the reduction of water to possession. The Board relied upon 2 C. Kinney, IRRIGATION AND WATER RIGHTS § 719 (2d 1912). However, appropriate rights have always been usufructory and not based on ownership or possession of the corpus of the stream so the issue should be whether an instream use is a beneficial use, not whether the appropriation has possession or dominion.

37. 1 W. HUTCHINS, supra note 4, at 250-51.
39. 530 P.2d at 927.
implement comprehensive water resource management programs and scale is no barrier to implementation of a program which includes protection of preservation flows.

One dissenting justice was sympathetic to the monopolization argument. Justice McFadden first made the technical argument that water for instream uses could not be appropriated because the state would not be acting in a proprietary capacity. "If the state were to hold unappropriated waters in trust for these purposes, it certainly would not be acting in a proprietary capacity; it would be doing nothing more than it already has the duty to do in its sovereign capacity." Because the state has the right to use public waters for a beneficial use "it cannot 'acquire' a right that it already has." The flaw in this logic is the conclusion that the power to withdraw water from appropriation and the power to make an appropriation are separate and mutually exclusive. The distinction between sovereign and proprietary powers stems from the nineteenth century when settlement of the West was the primary land and water policy. Government property rights were seen as inconsistent with the promotion of widespread access to natural resources because public property rights were "a prerogative for the advantage of the government as distinct from the people." Justice McFadden appreciated the weakness of his technical argument, for his major contention was that the Idaho Constitution denies the state the power to reserve water for public instream uses to the exclusion of prior appropriators. Justice McFadden would, somewhat surprisingly however, allow the state to deny a conventional appropriation which impaired scenic values by concluding that the use was not beneficial. While the statutes of a number of western states allow the denial of appropriation permits where a proposed use is deemed not in the public interest, Idaho's permit statutes make no provision for such consideration, although there is no state constitutional barrier to legislation allowing public interest denials. A more telling objection to the argument is that it is undesirable to limit the state

40. Id. at 936.
41. Id.
43. This objection is well answered by Justice Bakes' concurring opinion. See notes 46-48 infra and accompanying text.
to this method. When a state files for an instream use, it has made
the decision that this use of the water is the highest beneficial use.
Direct filings are a preferable method of making this judgment be-
cause uncertainty is decreased and other claimants are thereby
given notice that water in a particular reach of the stream will be
unavailable for appropriation.

In *State Department of Parks*, classification of instream uses as
beneficial was opposed on the grounds that the Idaho Constitution
lists five uses and only these five can be beneficial. More generally,
it can be asked whether the reservation of a large quantity of flow
can ever be beneficial in light of the consistent rejection of a right
to the flow as an incident of an appropriative right. The majority
held that the use was beneficial on the grounds that (1) the Idaho
Constitution establishes only a preference system, not an exclusive
listing of beneficial uses, and thus the state is free to recognize new
valuable uses of water; and (2) there was no basis to disturb the
legislative judgment that the use was beneficial. In a concurring
opinion, Justice Bakes advanced a narrower ground for classifying
the use as beneficial which gives energy appropriators, for example,
a basis for challenging a public instream appropriation. By analogy
to the cases holding that an excessively wasteful use is not benefi-
cial, Justice Bakes asserted that the court is always the final arbiter
of whether a use is beneficial and can weigh the reasonableness of
each use:

I would restrict today's holding to the narrow proposition that
the use before us is beneficial so long as, and only so long as, the
circumstances of water use in the state have not changed to the
extent that it is no longer reasonable to continue this use at the
expense of more desirable uses for more urgent needs . . . . This
supports the legislative determination that non-consumptive appro-
priations of water in natural waterways for scenic and recreational
purposes, among others, can under proper circumstances be a benefi-
cial use . . . .

Although this reasoning gives insufficient deference to the legisla-
tive judgment and represents an assertion of a power beyond that
customarily exercised by courts in beneficial use disputes, it cor-
rectly recognizes the need to subject instream uses to standards.

Courts have assumed that an actual diversion is a necessary
condition of a valid appropriation, either because state constitu-
tions authorizing appropriation incorporate the diversion require-
ment or because the policy promoted by the requirement is essential

46. 530 P.2d at 932.
to carry out the purposes of the appropriation system. The latter argument can be easily rejected. The purpose of the actual diversion requirement was to impart notice to subsequent appropriators. Modern filing systems — imperfect as they are — now perform this function better than the actual diversion requirement does. A stronger policy behind the doctrine might be the prevention of monopolization and, for this reason, it could be argued that the actual diversion requirement is a constitutional one; but three justices of the Idaho Supreme Court agreed that the actual diversion requirement was not a constitutional one. The majority in *State Department of Parks* simply asserted that an actual diversion was not required by the language of the state's constitution that "the right to divert shall never be denied" and that the requirement had been expressly eliminated by Idaho Code Section 67-4307. Justice Bakes suggested a better and more general rationale: state constitutional provisions sanctioning private appropriations were meant to assert the rejection of the common law of riparian rights. There is a certain irony in using this argument to re-inject the most obnoxious element of riparianism — the natural flow theory — into western water law, but the reasoning Justice Bakes used to sustain the statute is right: Where an appropriator does not require a diversion to make an appropriation effective and beneficial, there appears to be no practical reason to require a diversion. Non-constitutional arguments that the law of prior appropriation does not allow the use of water for speculative purposes are often urged, but these are not applicable to instream uses. Again the relevant issue is whether the use is beneficial. The general power of courts to review the amounts used in addition to state statutes and procedures giving content to the reasonableness requirement are sufficient checks on the power of the state to maintain preservation flows at the expense of other water claimants.

IV. Flow Preservation Strategies

Richard Dewsnup and Dallin Jensen have recently completed a survey of state laws which protect instream flows. The classification of the instream use recognition and protection strategies this Article will follow is adapted from their very useful paper. Instream

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47. *Id.* at 933-34.
uses can be protected directly in the following ways:

1. Direct legislative withdrawal of certain waters from appropriation such as federal and state wild and scenic river programs;
2. Expanded legislative and judicial definitions of navigability to limit withdrawals which impair the navigable capacity of a river;
3. State agency filings for instream flow appropriations on the state or on designated waters;
4. Instream flow use considerations mandated as part of state appropriation license proceedings or state water planning generally;
5. Consumptive use and storage appropriation permits subject to instream flow preservation conditions; and
6. Federal flow preservation on withdrawn lands through assertion of reserved rights.

Instream use recognition and protection can also be accomplished by direct private purchases of water rights for instream purposes as well as by a number of indirect methods which adapt traditional water law doctrines by disallowing selective appropriations. As examples of indirect methods, Dewsnup and Jensen list restrictions on transfers, limited term permits, demands of greater diligence in completing appropriations, imposition of more stringent criteria on large applications, and water conservation requirements which mandate the consideration of re-use alternatives prior to tapping new supplies. Because these strategies are indirect, however, their use to promote instream uses might so distort traditional water law that the costs of using this strategy would far outweigh the gains. The remainder of this Article will concentrate on the direct methods of recognizing and protecting instream uses. Attention will also be given to the impact of the growing federal and state insistence on more efficient water use patterns as a prerequisite for acquiring new rights on instream use recognition. This indirect means of flow preservation may be a significant factor in future conflicts between energy and environment.

Because the strategies outlined by Dewsnup and Jensen overlap to some extent, the following discussion is organized into five parts: A. Wild and Scenic River Programs and Federal Reserved Rights; B. Expanded State Definitions of Navigable Waters; C. Public Interest Qualifications on Appropriation Applications; D. Direct State Instream Use Filings; and E. Water Conservation Programs.
A. Wild and Scenic River Programs and Federal Reserved Rights

In 1968, Congress passed the Wild and Scenic Rivers Act, and several states have since enacted their own river preservation acts. These acts have two purposes: the prevention of impoundments and other diversion works and the control of the land along the river corridor. The designated river stretches have generally been confined to the upper reaches so few conflicts among prior right holders have arisen. Thus, although it has not been necessary to develop a clear water rights theory of the basis for withdrawing and reserving water from appropriation, the statutes are clearly valid. At the state level, wild and scenic river programs are exercises of the state's police power. In the West, the federal government has the authority under the property power to withdraw water for these purposes and may also have the authority to set preservation flows on streams not included in the federal act. Fortunately, to date, the placement of a river in a state or federal wild and scenic rivers system can be viewed as a prospective rather than a retroactive constraint on the use of water; but the importance of these acts in water use controversies is just beginning to be appreciated.

California and Oregon have enacted legislation following the federal model. Even prior to the adoption of its act, Oregon had a long history of withdrawing specific streams from appropriation. California's wild and scenic rivers legislation designates five specific streams, declares that preservation of them "is the highest and most beneficial use and is a reasonable and beneficial use of water within the meaning of Section 3 of Article XIV of the State Constitution," and prohibits impoundments and other diversion works on the designated streams. Both California and Oregon provide limited diversion exceptions. California water users in the area of origin may tap the stream for domestic purposes provided that the Secretary of the Resources Agency determines that the water diversion is necessary to supply domestic needs and will not adversely affect the free flowing condition of the river. Oregon allows withdrawals for domestic, municipal, and livestock uses on selected creeks. Designation of a federal or state wild and scenic river would seem clearly to preclude energy development that is dependent on the supply of water or the

reach of the river. Designation also limits the right to use the river for waste disposal.

In 1976, a substantial number of western rivers were added to the federal system. There are a number of stages from initial survey to legislative classification, when a river can be included in the system. Only two stages, however, preclude the construction of diversion or impoundment works on the river. Either a river must be designated by Congress as part of the system or Congress must have designated it as a study river. Study river designation effectively freezes new development pending a final determination on inclusion.

Federal legislation rests on the power to assert reserved water rights necessary to support the use for which land was withdrawn from entry. The water must be used on the withdrawn land to support the original purpose of the withdrawal. Water can be withdrawn for environmental purposes and there is no balancing of federal need against state created rights if the state rights were created subsequent to the date of the withdrawal. The major issue in the West is not the federal government's power to claim reserved water rights for wild and scenic rivers, but the priority date of the reserved right. Fairness suggests that state created expectations should only be denied when the claimant was given notice of the federal government's intent to assert a superior power, and thus the date of designation of the river should be the priority date of a wild and scenic river.

In addition to reserved right claims to support wild and scenic rivers, the federal government can claim the right to set preservation flows on any withdrawn lands if these flows are included in the purpose of the withdrawal. In *Mimbres Valley Irrigation Co. v. Salopek*, the United States Forest Service asserted the right to set minimum flows under the 1897 Organic Act on the theory that the act established multiple use as the policy of forest management and that preservation flows are consistent with multiple use. The New Mexico Supreme Court held that multiple use did not become For-

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55. 16 U.S.C. § 1274 (1976). Major energy projects on an undesignated river will often stimulate efforts to have a river designated as a wild or scenic river.

56. *See* North Carolina v. Federal Power Comm'n, 553 F.2d 702 (D.C. Cir. 1976) (state was proposing a river for inclusion in the federal system as FPC license proceedings were pending). There were also numerous study river additions in 1977. 16 U.S.C. § 1276 (1976).


est Service policy until 1960 and that the original purpose of forest withdrawals was limited to protection of downstream water users from flooding and sedimentation. Thus, the court concluded that a national forest created under the 1891 and 1897 organic acts had no implied federal reserved rights and that any rights had to be perfected under New Mexico law. The Supreme Court has granted certiorari and a decision is pending.

*Mimbres Valley* may be an unduly narrow reading of the reserved right doctrine since it is seemingly at odds with the Supreme Court’s historic practice of inferring federal intent to reserve from the broad purpose of the withdrawal. Since *Winters v. United States*, the Supreme Court has determined the federal purpose not by analyzing the specific intent of Congress but by determining the broad federal purpose of the withdrawal. Writing for a unanimous Court in 1976, Chief Justice Burger synthesized the reserved rights doctrine: “This Court has long held that when the federal government withdraws its land from the public domain and reserves it for a federal purpose, the government by implication, reserves appurtenant water then unappropriated to the extent needed to accom-


60.5. The United States Supreme Court affirmed by a 5 to 4 vote, the New Mexico Supreme Court’s opinion after this article was written. United States v. New Mexico, 46 USLW 5010 (1978).

61. 207 U.S. 564 (1908). Indian water rights may also be a source of expanded reserved rights for instream uses. Under *Winters*, Indian rights date from the creation of the reservation and have been measured by non-Indian policies. Now Indian lawyers are arguing that *Winters* rights are a substantive bill of environmental and cultural rights for the Indians and that the rights are measured by historic Indian cultural practices. Thus, the Indians can claim the right to the whole flow of the stream for uses such as preservation of fisheries resources and maintenance or restoration of status quo ante generally.

Non-Indian interests wishing to obtain the use of water will be well advised to make their plans and schedules with an eye towards the unique cultural setting which an Indian tribe, as a governing entity and potential contracting party presents.

Prominent in the political make-up of most tribes is a traditional faction which is generally opposed to economic development. 


plish the purpose of the reservation." Under this analysis, it would be possible to conclude that the policy of multiple use management has constantly been followed and that instream uses are implied by a withdrawal for multiple use purposes. Instream uses enhance the recreational and aesthetic uses of a forest. Subsequent enactments of express multiple use legislation can be seen as congressional confirmation of Forest Service past practices rather than grants of new management authority.

B. Expanded State Definitions of Navigable Water

Navigable waters have historically been open to members of the public for water dependent uses. The right to use navigable waters is the oldest public water right, but until recently this right has not been an important factor in western water law because public rights were confined to rivers which were commercially navigable in fact. Outside of the coastal bays of California, Oregon, and Washington, there are few waters in the Far West capable of supporting commercial navigation. Public navigation rights, however, are no longer confined to waters which are commercially navigable in fact. Western states are adopting the theory that small streams, where the beds are privately owned, capable of supporting small pleasure craft, are navigable and are thus open to the public. Expanding the historic definition of navigability imposes an easement of passage against the owner of the bed of the stream and gives members of the public a privilege of access to overlying waters.

More significantly, the justification advanced by the states for the public rights of passage may also support limitations on withdrawals to protect these public rights. Many early cases reasoned that the riparian right did not include the right to exclude other riparians or the public; but recent western cases rest the recognition of the public right on the theory that the state owns the waters in trust for the public. Thus the expanded definitions of navigability could limit an appropriator's right to call or to make a new appropriation. Navigability has historically been used to define the federal government's jurisdiction under the commerce clause to allocate

bed titles between the states (and their patentees) and the federal government (and its patentees), and to determine public rights of use. The first two uses involve federal questions, but once the bed titles have been allocated between state and federal interests, the states are free to adopt a rule of public use which deviates from title rules of bed ownership so long as the federal government's paramount authority to regulate commerce is not impaired. In choosing a use rule, a state is exercising the right historically exercised by the Crown of England which inheres in the states as an incident of their sovereignty. Thus the state may choose to integrate public use rules into its water allocation law.

At the turn of the century a number of states adopted the "saw log test" of navigability to promote the lumber industry, and this test has been adapted to the recognition of recreational rights. Courts in California and Idaho have recently adopted a broader test of navigability and held that the public can use streams at any point below the high water mark "which are capable of being navigated by oar or motor craft." The public's rights include boating, fishing,


71. The "saw log" test of navigability was adopted by eastern and mid-western states in the mid-nineteenth century to promote the timber industry. Streams were declared navigable if logs could be floated on them either continually or seasonably. The recognition and expansion of this doctrine in Wisconsin is traced in J. HURST, LAW AND ECONOMIC GROWTH 166-69 (1964). An intermediate court of appeals in Michigan rejected the saw log test as the limit of navigability in 1974. Kelly ex rel MacMillan v. Hallden, 51 Mich. App. 176, 214 N.W.2d 856 (1974), holds that evidence of past use of float logs need not be shown if the river is capable of being navigated by oar or small craft. However, the Michigan Supreme Court still applies the narrower saw log test. Piqosh v. Fahner, 386 Mich. 508, 194 N.W.2d 343 (1972).

72. People v. Mack, 19 Cal. App. 3d 1040, 1050, 97 Cal. Rptr. 448, 454 (1971); Southern Idaho Fish & Game Ass'n v. Picabo Livestock, Inc., 96 Idaho 360, 528 P.2d 1296, (1974). The Idaho court relied upon Idaho Code Section 36-901 and Section 36-907, which define navigable fishing streams as those capable of floating six inch logs during the high water season of the year. A statutory basis, however, is not necessary for a court to adopt the pleasure boat test of navigability. Picabo also relied on People v. Mack, which states that "[t]he legislature's failure to include a watercourse within its listing of public waterways does not preclude adoption of the pleasure boat test of navigability." 19 Cal. App. 3d at 1049, 97 Cal. Rptr. at 453. Cf. Marks v. Whitney, 6 Cal. App. 3d 351, 491 P.2d 374, 98 Cal. Rptr. 790 (1971), which said, in dictum, that states may preserve tidelands in their natural state so that they may serve as ecological units for scientific study, as open space, and as environments that provide food and habitat for birds and marine life, and favorably affect the scenery of the area.
swimming, and hunting. No case has yet held that an existing appropriator must cease or limit his diversion to protect the navigable capacity of a stream or that a prospective appropriator's application may be denied for the same reason. However, physical obstructions which interfere with the public's right of navigation have been enjoined. For example, in *Ritter v. Standal*, the owners of a fish farm filled in an estuary in the Thousand Springs area on the Snake River. The fill prevented riparians from reaching the stream through the estuary and prevented the public from reaching the foot of a spectacular falls. The estuary was found navigable, and the fill was found to be both a public nuisance and an infringement of the riparian owners' right to "have . . . unobstructed access to the navigable waters along the entire length of their waterfront." The defendants in *Ritter* argued that classification of the estuary as navigable abridged their constitutional right to appropriate. Rejection of this argument by both the trial court and state supreme court suggests that an appropriation may be denied to protect the navigable capacity of the stream.

There is no reason to distinguish between a fill which impairs public access to navigable waters and a diversion which interferes with the public's right to float the stream. Both are instream uses and the injury to the public is the same in both cases. Further, were the state to invoke the navigation servitude, the state could curtail existing diversions without the duty to pay compensation as well as prohibit new diversions. There are, however, powerful fairness arguments against using expanded theories of public rights to curtail

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73. 98 Idaho 446, 566 P.2d 769 (1977). Compare State v. Deetz, 66 Wis. 2d 1, 224 N.W. 2d 407 (1974). Landowners developed a bluff over a navigable lake and the resulting erosion and run-off formed a 6,000-square-foot delta in the lake which allegedly impeded navigation. The Wisconsin Supreme Court held that the public trust doctrine only gave the state standing to sue and did not create a substantive cause of action apart from the common law remedies the state could assert. Landowners argued that they were exercising their right to dispose of surface water under the common enemy doctrine, but the supreme court adopted the reasonable use rule and remanded for a trial which would give landowners the opportunity to submit evidence on the social utility of their conduct. Statutes prohibiting deposits in navigable waters were found not to be applicable because they contemplated intentional fills.

74. 556 P.2d at 773.

75. The plaintiff's attorney has written:
The water from the spring was unappropriated . . . . If the water had been put in a pipeline and taken to distant lands, and if it were only water in the estuary, the appropriation of the water would necessarily have dried up the stream and destroyed the public's instream uses. However, we were able to avoid that problem in this case, because the Snake River would have entered the estuary and made it navigable, even if the spring water had been diverted.


diversions. The federal and state navigation servitudes can only be justified, if at all, on the theory that both levels of government have long put water claimants on notice that private rights in navigable streams are always subordinate to public rights. To extend the navigation servitude theory to streams which have not been historically classified as navigable so that rights previously vested under state law may be curtailed would be to reduce the notice justification to an arbitrary fiction. Under this analysis, however, the future use of navigable recreational streams clearly may be limited, for western appropriators have always run the risk that an appropriation will be rejected because it is not in the public interest. In short, expanded definitions of navigability are simply another method of asserting the public interest limitation on private appropriations.

C. Public Interest Qualifications on Appropriations Applications

Because water has always been scarce in much of the West, the states have long asserted a substantial interest in the uses to which this resource may be put. The state interest in water extends beyond the comparatively narrow conservation interests that have been asserted against private exploration of both renewable and non-renewable resources such as timber, oil, and gas. In most states, appropriation applications may be rejected on the ground that they are incompatible with the public interest. This power has historically been used sparingly, for an applicant has only had to prove

77. Modest support for this argument can be found in United States v. Kaiser Aetna, 408 F. Supp. 42 (D. Hawaii 1976), which held that the owner of a non-navigable body of water may subject it to commerce clause jurisdiction by opening it to navigable waters by means of an artificial channel, but that the water does not become subject to the navigation servitude. Thus, "while Congress may provide for the improvement and regulation of navigation, and take necessary action to prevent interference or obstruction to navigation, it cannot impose a public navigation servitude upon such a privately constructed waterway without paying a reasonable compensation for the use thereof." Id. at 54 (emphasis in original). Kaiser Aetna, however, is of limited applicability because the water body was non-navigable only because fishponds subject to tidal flows are private property under pre-annexation Hawaiian law.

78. Morreale, Federal Power in Western Waters: The Navigation Power and the Rule of No Compensation, 3 NAT. RESOURCES J. 1, 24-25 (1963). "To justify the no compensation rule by the idea of notice of a paramount federal right in navigable streams would require that navigability be defined as of the time the private right in question was acquired." Professor Morreale also contends that the recognition of a right to compensation based on lack of notice is to estop the government from exercising the full reach of its sovereign authority. Id. at 25. However, this objection proves too much, as the existence of a constitutional right to just compensation forces the courts to distinguish between compensable and noncompensable exercises of the police power. Thus, recognition of the state's right to redistribute water resources to the public is not inconsistent with compensating those property owners who were justifiably surprised by the redistribution.
that unappropriated water is available and that vested rights will not be impaired by the appropriation. But today the definition of public interest is expanding. This expansion is being accomplished in the following ways: (1) environmental values have been added to the list of relevant criteria in considering appropriation applications; (2) state environmental policy acts have been held applicable to water appropriation applications, thereby enlarging the water agency's jurisdiction for taking public interest considerations into account; and (3) new interpretations of the scope of the public trust have mandated greater attention to alternative uses of water including instream uses. This section will discuss legislative and judicial decisions from Utah, California, Washington, and North Dakota which illustrate these approaches.

1. Utah—In 1943, the Utah Supreme Court rendered a landmark decision holding that a prior filing could be displaced by a subsequent one to assure the storage of water in a public project that would put the water to a higher use. Doubts, however, were expressed about whether *Tanner v. Bacon* allowed applications to be rejected because instream uses were a higher beneficial use. To remove those doubts, the relevant statute was amended in 1971 to allow the state engineer to deny appropriation applications that would "unreasonably affect the public recreation or the natural stream environment." Since 1971, the state engineer has diligently considered environmental uses in appropriation applications, but most surface streams are fully appropriated during periods of peak demand, so preservation flows are generally not possible to recognize given the necessity to protect vested rights. No appropriation application has been denied under the statute. Flow conditions on Utah's streams have been improved by the construction of upstream reservoirs, and flow releases for environmental reasons are requested in the bargaining between appropriation applicants and the state engineer prior to project approval. But preservation flows have not yet been made a license condition of any Utah project.

2. California—The California Department of Fish and Game has the right to intervene in State Water Resources Control Board proceedings, and the Board has long imposed flow preserva-

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79. 103 Utah 494, 136 P.2d 957 (1943).
80. UTAH CODE ANN. § 73-3-8 (Supp. 1977). Similarly, the Washington Supervisor of Hydraulics is authorized to deny an appropriation application if the withdrawal or storage would diminish the flow of water needed to maintain fish populations. WASH. REV. CODE ANN. § 75.20.050 (1962).
81. Telephone interview with Mr. Dee Hansen, Utah State Engineer (Feb. 11, 1978).
82. Id.
83. CAL. WATER CODE § 1243-43.5 (West 1971). See A. SCHNEIDER, supra, note 12, at 30-
tion conditions on appropriation permits. Storage appropriations have been conditioned on fish preservation flow releases. Similarly, direct withdrawals have been conditioned to provide minimum fisheries flows. These decisions have a firm precedent in western water law because the right to appropriate is subject to the qualification that the appropriation be in the public interest. No right is vested because no expectations are legitimate until this condition is fulfilled. In the Delta Water Rights decision, however, the Board went beyond its practice of conditioning new uses on the protection of fish and wildlife and, for the first time, required the release of water already stored behind Oroville Dam for delivery to Central and Southern California. The releases were ordered to preserve the fresh-salt water balance in the Sacramento-San Joaquin Delta. The Board reasoned that various California statutes mandated the protection of all beneficial uses—including water quality and fish and wildlife enhancement—in the Delta. This conclusion is significant but not surprising. The difficult issue is determining who must pay for the flow releases. Arguably, state water service contract holders have vested rights in that water behind Oroville Dam necessary to fulfill their contracts, and at a minimum are entitled to payment from the Delta beneficiaries or the state generally for the flow releases. The Water Resources Board simply refused to address the problem, noting only that "hopefully [sic], the legislature and Congress will give high priority to this matter."

In California, the current instream use issue is whether the state can enforce environmental water use permit conditions against the federal government. This question is now before the United States Supreme Court in United States v. California. It is hoped that the Court's opinion will clarify the law of federal-state relations by limiting the federal exemption from state law. In the pending case, the Bureau of Reclamation filed for direct state permits and assignments of state priorities to construct the New Melones project on the Stanislaus River. The State Water Resources Control Board granted the permits and made the assignments but attached twenty-five conditions, the most important of which prohibit the federal government from filling the reservoir until a definite plan for use of the water is formulated, and limiting the right to store water

56, for a thorough discussion of California law.
86. Id. at 16.
87. 558 F.2d 1347 (9th Cir.). The United States Supreme Court reversed the Ninth Circuit after this article was written. 46 U.S.L.W. 4408 (1978).
to four purposes: water quality control, fish and wildlife protection, power, and recreation. The State of California imposed conditions because it desired to protect, at least temporarily, a nine-mile stretch of whitewater, which will be inundated by the dam, and because the irrigation project, which would have purchased the water from the reservoir, has not yet been funded by Congress.

*United States v. California* will require the Court to clarify the meaning of section 8 of the Reclamation Act of 1902, which requires the Bureau to proceed in conformity with state law in constructing water distribution projects. Until 1958 it was assumed that the states could veto a federal project if Congress did not specifically exercise its constitutional power to allocate western waters. *Ivanhoe Irrigation District v. McCracken* held that section 8 did not allow California to distribute water in a manner inconsistent with a specific federal reclamation policy, the 160-acre limitation. Confined to this holding, *Ivanhoe* is a logical and entirely justified application of federal supremacy principles. In dictum, however, the Court limited section 8 to defining vested state interests for the purpose of determining the measure of compensation when the United States condemns water rights. Unfortunately, this dictum has become frozen into a rule which reverses the intent of section 8, for now federal law always controls, even if the state policy is not inconsistent with the purpose of the federal project. The better rule, as Dean Meyers has argued, is that the Secretary of the Interior is presumptively bound under section 8 to follow state law, in form and in substance. The presumption could be overridden, however, by a provision in the project's authorizing legislation which either explicitly or implicitly states a federal objective that would be frustrated by conforming to state law.

This rule comports with state and federal efforts to maintain instream uses. Federal policy is according increased weight to instream uses, and thus state instream use policies ought to be presumed consistent with federal law. The commerce and spending powers combined with the supremacy clause give the federal government complete authority to override state policy, but there is no need for the courts to do so where Congress has not recently spoken, especially with regard to projects authorized when environmental values were not accorded great weight. The broad reading of *Ivanhoe* unjustifiably denies the state the right to redefine its water

priorities in situations where no clearly superior federal interest has been asserted. 91

3. Washington—The enactment of state environmental policy acts has changed the ground rules for the perfection of an appropriation application by both private parties and public agencies. No longer is it sufficient for a private applicant to show that there is unappropriated water available and that no vested consumptive right will be impaired. Furthermore, even if the state water resources agency does not contest the permit on the ground that the water should be reserved for instream uses, an applicant cannot be assured that the use permit will be issued. State environmental policy acts impose an affirmative obligation on the state permit-granting agency to consider reservation as an alternative in all applications subject to the state’s act. As construed by the courts, this obligation extends to the review of most water right applications.

_Stempel v. Department of Water Resources_ 92 illustrates the impact of a state environmental policy act. In _Stempel_, an application to appropriate water from a small lake north of Spokane was challenged by cabin owners on a lake who argued that numerous pollution problems were imminent if the lake level were lowered further. The Department of Ecology, successor agency to the Department of Water Resources, concluded that the statutory language which required a determination of whether the proposed appropriation would be a “detriment to the public welfare” referred only to the rights of those who might be injured by withdrawal of the water (a traditional definition of the term) and that pollution controls were irrelevant. The Washington Supreme Court, however, disagreed and held that pollution problems raised by the riparian owners must be considered. The court further held that the Department of Ecology had to file an environmental impact statement on the basis that the State Environmental Policy Act of 1971 93 obligated the Department “to consider the total environmental and ecological factors to the fullest in deciding major matters.” 94 _Stempel_ is consistent with the federal precedents which have held that the National Environmental Policy Act of 1969 95 broadens the

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94. 82 Wash. 2d at 114, 508 P.2d at 171.
mandate of federal licensing agencies.\textsuperscript{86} If \textit{Stempel} is followed in those states with similar acts, any doubts about the state's power to reserve water for instream uses, pursuant to general statutes permitting public interest denials, will be resolved in favor of expanding "public interest" to include environmental as well as traditional economic considerations. In addition, the range of factors to be considered by state agencies in small-scale diversions will be broadened.

Washington is a water rich and resource poor state. The state legislature has chosen to go further than \textit{Stempel} by systematically incorporating preservation flow requirements into all water rights applications. The Washington Department of Ecology now has the authority to "establish minimum water flows or levels for streams, lakes or other public waters for the purposes of protecting fish, game, birds or other wildlife resources or recreational or aesthetic values of said public waters whenever it appears to be in the public interest to establish the same."\textsuperscript{87} Subsequent appropriations must not interfere with established preservation flows.\textsuperscript{88}

4. North Dakota—Almost all states have some form of water planning process, and instream uses are often recognized as an allocation option in planning studies and final plans. If a diversion were inconsistent with a state water planning choice that the waters be reserved for instream uses, it might be possible to invalidate a permit application on this ground. State plans, however, seldom establish allocation priorities with the specificity necessary to resolve concrete conflicts. Such plans are generally characterized


\textsuperscript{97} \textit{Wash. Rev. Code Ann.} § 90.22.010 (Supp. 1976). In addition, the section provides that upon a request from the Department of Fisheries or the Game Commission, the Department of Water Resources shall "establish such minimum flows or levels as are required to protect the resource or preserve the water quality described in the request."

A recent study of the Washington procedure reports:

Partly as a result of various time-consuming procedural requirements, the Department of Ecology has established a \textit{minimum} flow on only one stream. In an apparent attempt to provide a more expeditious method of establishing desired flows, another statute was passed. This statute provides that the state must maintain the \textit{base} flows of all perennial streams to the extent necessary "to provide for preservation of wildlife, fish, \textit{[Wash. Rev. Code Ann.} § 90.54.020 (Supp. 1976)] scenic, aesthetic, and other environmental values and navigation values." The use of "minimum flow" in the earlier statute and the use of "base flow" in the latter statute have created a problem of statutory construction. The Washington Department of Ecology and Department of Fish and Game have interpreted "base flow" as the flow needed to \textit{conserve} fish, aesthetic, and other instream values. They have interpreted "minimum flow" as the flow needed to \textit{enhance} these values.

A. Schneider, \textit{supra} note 12, at 119 (emphasis in original).

as advisory and thus have little or no legal weight, except perhaps in Oregon. The federal and state environmental impact assessment process is changing this somewhat because discussion of the preservation of a river in its natural state is a required element of a valid environmental impact statement (EIS), but the EIS process does not mandate substantive results so states and the federal government are free to plan and allocate water as long as there is an adequate discussion of the preservation option in the EIS. Perhaps to stimulate state planning efforts, the North Dakota Supreme Court has recently rendered an opinion that judicially imposes a duty to consider preservation flow needs in state planning and permit granting.

United Plainsmen Association v. North Dakota State Water Conservation Commission held that the public trust doctrine requires the state to consider the potential impact of an energy conversion appropriation application on present water supply and the future water needs of the state. Plaintiffs sought to enjoin all future energy conversion appropriation applications until the state prepared a comprehensive long- and short-range plan for the conservation and development of the state's water resources. Although North Dakota law requires the preparation of state water plans, the court reasoned that such plans constitute "a significant advisory policy statement," but do not limit the state's power to grant individual permits. Therefore the statute provided no basis for the suit. The court, however, reached substantially the same result with the sweeping declaration that the state's discretionary allocation authority is circumscribed by the public trust doctrine. The public trust doctrine, as enunciated by the United States Supreme Court
in *Illinois Central Railroad v. Illinois*,\(^\text{104}\) prevents the wholesale alienation of tidelands that impair the public’s right of navigation. The doctrine has historically been only a narrow, though significant, restraint on state disposition of submerged lands. In the past decade it has been argued that the doctrine extends to all state resource allocation choices,\(^\text{105}\) by imposing a duty upon states to consider the environmental consequences of important resource use and allocation decisions. The North Dakota Supreme Court adopted this theory on the ground that the state holds the waters in trust for the people of the state.

North Dakota’s new definition of the public trust raises the issue of what resource use choices are now constrained by the trust. The problem with using the public trust doctrine to structure state resource allocation decisions is that the history of the doctrine provides no basis to derive a comprehensive ranking of competing resource use values. If the doctrine is to have an impact on water allocation, the impact must be primarily procedural. The court recognized this by holding that the trust requires, at a minimum, a determination of the potential effect of the allocation of water on the present water supply and long term water needs of the state. This necessarily involves planning responsibility.\(^\text{106}\) Thus, although *United Plainsmen* can be read simply as a restatement of the state’s right to deny permits which are not in the public interest, such a reading is too narrow. The decision adopts a common law environmental impact analysis approach which places a higher burden than has previously been imposed on the state to demonstrate that it has considered alternative uses of water before it grants an appropriation permit for energy conversion.\(^\text{107}\) The EIS process has focused on studies justifying specific projects, but the ultimate goal of the process is to encourage agencies to take environmental values into account in the planning process because the potential for accommodation is greater at the early stages of project consideration. *United Plainsmen* has accelerated and strengthened the achievement of this goal in North Dakota. The case may also provide a basis from which energy appropriation applications can be attacked because there has been insufficient consideration of instream use alternatives.

\(^{104}\) 146 U.S. 387 (1892).

\(^{105}\) Sax, supra note 66.

\(^{106}\) 247 N.W.2d at 462.

D. Direct State Instream Use Filings.

Two states—Colorado and Montana—presently authorize a state agency to file for instream use appropriations, and an initiative to allow state filings is being circulated among voters in Idaho. Colorado’s procedure,\(^{108}\) which is currently being challenged,\(^{109}\) functions not so much to reserve water but to preserve the status quo on certain streams. The state's streams are, in theory, overappropriated so a late priority instream use appropriation serves only to give the state standing to contest changes of use or diversion point applications which might affect the stream flow. Section 89-890 of the Montana Code\(^ {110}\) provides a procedure for the reservation of water for all beneficial uses including preservation flows under standards which give the state virtually unlimited discretion to choose among conflicting allocations, thereby controlling the development of a region. In contrast to Colorado, Montana has unappropriated waters, and instream use appropriations have become a major factor in water use conflicts in the Yellowstone Basin.

The Montana legislature imposed a moratorium on water appropriations in the Yellowstone Basin and provided that when the moratorium ends all reservations will have priority over permits subsequently issued.\(^ {111}\) In 1974 all appropriations were frozen pending a determination of the need for section 89-890 reservations for instream uses. Thirty applications for agricultural, municipal, industrial, and instream flow reservations have now been filed. The Fish and Game Commission has filed for 8.2 million acre feet an-
nually at Sidney, Montana, where the Yellowstone flows into North Dakota. The average annual run-off of the Yellowstone River is only 8.8 million acre feet. The Department of Natural Resources and Conservation estimates that basically all consumptive reservation for agricultural and energy development can be satisfied, but that these consumptive uses must be subordinated to some unknown degree to the requested instream use appropriations. For example, in the Upper Yellowstone Sub-basin, the Commission's reservation "could virtually eliminate all new full-service irrigation from the Yellowstone mainstream. Irrigation could expand only if new irrigators would be willing to accept water shortages in the late fall in all years and most of the season in a few years." The EIS prepared for the applications delineates many other foregoing alternatives if the "instream uses option" is adopted.

The general significance of the Yellowstone Basin reservations proceedings is that for the first time a western state is using its power to reserve waters for instream uses to protect an existing basin-wide ecosystem. Previous instream flow reservations have involved the preservation of selected watercourses which have generally had a long history of public enjoyment of their natural state.

The Yellowstone Basin reservations proceedings raise a number of difficult questions which the western states are just beginning to face. Since the Fish and Game Commission based its proposed reservations on the need to preserve an entire river ecosystem by maintaining the status quo, the reservations are based on historic seasonal flows and do not reflect any data on the impact of incremental flow reductions on fish and wildlife. There is no evidence in the record which would allow the Montana Department of Natural Resources to make an informed decision that less water will serve the purposes of the reservation. Like most state agencies, neither the Fish and Game Commission nor the Department of Natural Resources has the technical capability or the financial resources to gather the ecological information necessary to make such a determination. The Fish and Game Commission is clearly the appropriate agency to initiate a reservation because of its statutory duty to protect these resources; but at some point, instream use withdrawals must be integrated into the state's general allocation priorities.

112. Montana Department of Natural Resources and Conservation, Environmental Impact Statement for Water Reservation Applications: Yellowstone River 10-13 (Dec. 1976) (draft). In May of 1978 the Department of Natural Resources "recommended that only 4.3 million acre-feet be divided among agencies and cities for purposes that include irrigation and municipal consumption as well as instream uses." High County News, May 19, 1978, at 13.

113. Id. at 195.

One step in this direction might be to assign the burden of proof on the issue of the need to support the reservation to the single purpose agency. Assignment of the burden of proof, however, is an ineffective solution where decisions must be made in the face of uncertainty. Because it is not yet possible to project with sufficient precision the consequences of ecosystem modification, it is justifiable to give those seeking to protect the status quo some discretion to err on the side of caution. In the long run the best solution to the problem lies in state planning programs that classify rivers according to their use and thus balance competing demands for water on a state-wide basis. For example, in Montana most of the energy development will take place on the Powder River which is quite polluted, so storing the water for energy development will improve the quality of the Yellowstone mainstream. Similar trade-offs can be made in other situations.

An initiative pending in Idaho illustrates the possibility of integrating instream use protection with a state's overall water allocation policies. As of March, 1978, signatures are being collected to support the submission of The Hydropower Protection and Water Conservation Act to the state's voters. One of the major uses of the state's water is hydropower generation, which requires substantial regular flows. The pending legislation attempts to link hydropower and preservation flow protection. The Hydropower and Water Conservation Act declares that the use of water in place "for the protection, use and preservation of fish and wildlife habitat, aquatic life, transportation and navigation, recreation, aesthetic values, water quality and scenic beauty" are beneficial uses. To protect hydroelectric generation, the Act would appropriate in trust for the people of Idaho an amount of water "which is equivalent to the average flow for the month of August for the five consecutive driest years between 1927 and 1977, adjusted to conditions of use and appropriation existing on the effective date of this Act." Building on State Department of Parks v. Department of Water Administration, the proposed Act would authorize the Idaho

115. Idaho's major water controversy pits hydroelectric power interests against irrigators, and thus allows environmental groups to align themselves with those seeking to promote hydroelectric power. The state water plan advocated the development of 850,000 new and 250,000 supplemental acres of irrigated land in the Snake River Basin. According to one economic analysis, "each acre of newly irrigated development consumes or prevents the production of 6,053 KWH of electricity which would cost $200 to generate by alternative means." Hamilton, Energy and the Growth of Irrigated Agriculture in Southern Idaho 10 (paper prepared for the Agricultural Conference of the Idaho Conservation League, College of Southern Idaho, Twin Falls, Idaho, Feb. 25, 26 (1977).

Water Resource Board to file on unappropriated waters for hydro-
power and environmental instream uses upon a showing that appro-
priation is “necessary to conserve the flow” for these uses. No physi-
cal diversion of water would be required. In addition, the Director 
of Water Resources would be given the power to deny appropriation 
permits on the ground that they are not in the public interest. Idaho 
and its northern neighbor Montana are the only western permit 
states which do not delegate this power to the permit granting 
agency.

E. Water Conservation Programs

Instream uses can be promoted by water conservation, for every 
time water applied to a conventional beneficial use is conserved 
more water is made available for instream uses. Financial savings 
often provide substantial incentives to conserve, and the Bureau of 
Reclamation is beginning to impose conservation restrictions in its 
contracts. But in general the law of prior appropriation has always 
been reluctant to mandate the conservation of water. The require-
ment that a water right depends upon continuous application to a 
beneficial use occasionally prohibits wasteful uses, but beneficial 
use has been defined by the custom of the community. This use of 
custom protects inefficient carriage and use practices. Further, 
the law provides disincentives to conserve. In most states, an appro-
riator who salvages water may retain the salvaged water; but in 
Colorado and Arizona the water returns to the public and may be 
appropriated by others. And, in all states implementation of con-
servation practices may represent a subsequent permanent loss of a 
portion of an historic right. An appropriation depends upon use, and 
non-used water—for whatever reason—is subject to forfeiture or 
abandonment. Despite these formidable barriers to reform, how-
ever, the right to be inefficient appears to be slowly giving way to 
the duty to conserve. The Carter Administration threatens to make 
water conservation the focus of its federal policy, which means that 
the right to receive project water and the funding of federally fi-
nanced projects would be dependent upon the application of higher 
levels of technology to conserve water. The technology-forcing poli-
cies of federal air and water pollution legislation might serve as

117. Tulare Irrigation Dist. v. Lindsay Strathmore Irrigation Dist., 3 Cal. 2d 489, 45 
P.2d 972 (1935).
1321 (1975). See generally C. Lee, Legal Aspects of Water Conservation in California 39-
48 (Governor’s Commission to Review California Water Rights Law, 1977).
models for a new federal conservation policy.\textsuperscript{119} There also are indications that the courts may impose some form of conservation duty by rejecting custom as a defense to waste and by imposing re-use

\textsuperscript{119} An emerging problem in the West is the relationship between the establishment of preservation flows and the attainment of pollution abatement policies. The California Water Resources Control Board imposed flow release requirements in the \textit{Delta Water Rights} decision, see notes 85-86 \textit{supra}, to preserve the salinity balance in the Sacramento-San Joaquin Delta. The Montana Department of Health has petitioned the Department of Natural Resources to reserve some six million acre feet in the Yellowstone Basin for water quality maintenance purposes.


In the Colorado River Basin, for example, the basin states have been required to set receiving water quality standards (including numeric criteria) for salinity and a "no salt return wherever practicable" policy has been established by the EPA. This policy will require substantial alteration of drainage patterns and the construction of drainage and retention works. For a discussion of the salinity problem on the Colorado River and the United States' obligation to deliver usable flows of the river to Mexico, see Dreye, \textit{Salinity Aspects of the Colorado River}, 15 NAT. RESOURCES J. 43 (1975); Johnson, \textit{Our Salty Rivers: Legal and Institutional Approaches to Salinity Management}, 13 LAND & WATER L. REV. 441 (1978); Weatherford & Jaboc, \textit{Impact of Energy Development on the Law of the Colorado River}, 17 NAT. RESOURCES J. 171, 202-04 (1975). Because the imposition of a no-discharge policy on non-point source run-offs will be costly to irrigated agriculture and because the elimination of agricultural run-offs may decrease flows used by vested water right holders, there will be pressures to meet some receiving water quality standards by maintaining sufficient flows to dilute the pollutants. The EPA is just now coming to grips with the possible tension between federally mandated water pollution control requirements and water law. The agency is required by the 1977 amendments to the 1972 Act to report to Congress on the conflicts between water quality and water quantity law. Pub. L. No. 95-217, § 5(b), 91 Stat. 1567 (1977). The same section provides: "It is the policy of Congress that the authority of each State to allocate quantities of water within its jurisdiction shall not be superceded, abrogated or otherwise impaired by this Act." Id. at § 5(a), 91 Stat. 1568 (1977), codified at 33 U.S.C.A. § 1251(g) (Supp. 1978). The Report, due in the summer of 1978, is expected to delineate the direction of federal policy with respect to this issue and should provide the states with some basis for deciding the extent to which instream flow maintenance programs can be used to achieve water pollution abatement objectives. Ultimately a policy must be formulated which allows the states to incorporate water quality considerations into their preservation flow maintenance programs. Efficiency considerations would dictate that dischargers be given some credit for the dilution benefits of these flows, but rigid criteria must be established to insure that reliance on preservation flows does not become a means of avoiding compliance with the no-discharge goals of the 1972 Act.
duties on new appropriators.\textsuperscript{120}

In 1975, an intermediate California appellate court broke new ground by refusing to dismiss a complaint urging a mandatory conservation duty. The Environmental Defense Fund sought to block a proposed contract between a utility and the Bureau of Reclamation on the ground that the utility's failure to reuse existing supplies constituted an unreasonable use of water under the California constitutional provision requiring that all waters be put to a reasonable beneficial use. The California Supreme Court recently reversed, holding that the plaintiffs could not raise the reclamation issue because the doctrine of primary jurisdiction required that the issue first be presented to a regional water quality board as the State Water Quality Board and the regional boards were in the process of developing a state waste water reclamation policy:

Due to the danger to public health and to the problems of feasibility connected with waste water reclamation, the statutory provisions prohibit use of reclaimed waste water until the Department of Health establishes statewide criteria and the regional boards establish reclamation requirements. The careful consideration demanded by the Legislature prior to permitting reclamation of waste water is evidenced by its decision to make violations of its statutes criminal. The broad powers given to boards toward obtaining injunctions and enforcing compliance with adopted criteria and requirements also reflect legislative intent to vest regulation of waste water reclamation in the boards.\textsuperscript{121}

The court also rejected the utility's claim that imposition of a state law duty to reclaim before a utility could contract for federal project water was preempted by federal reclamation law so it is only a matter of time before the duty to reclaim will be raised again, and a trial on the merits of a reclamation duty will be held. A similar duty could be imposed under the public trust theory adopted by North Dakota in \textit{United Plainsmen Association v. North Dakota State Water Conservation Commission}.\textsuperscript{122}

Beyond the imposition of judicially-created legal duties to consider conservation alternatives in developing new water supplies, western states must anticipate that the federal government may impose higher use conservation standards for delivery of Bureau of Reclamation project water; set minimum standards for mandated state water conservation programs as a condition for obtaining fed-

\textsuperscript{120} Erickson v. Queen Valley Ranch Co., 22 Cal. App. 3d 578, 99 Cal. Rptr. 446 (1971).


\textsuperscript{122} 247 N.W.2d 457 (N.D. 1976) See notes 92-97 supra and accompanying text.
eral funds for water resources projects; and set higher prices for federal water, which will force users to resort to greater efficiency in the transportation and application of the water. In short, the growing concern for water conservation will provide powerful arguments for instream flow proponents to assert against projects proposing to tap new supplies and against the failure of large users to recycle existing supplies.\textsuperscript{123}

V. Conclusion

This survey illustrates the astonishing extent to which the recognition of instream uses has evolved within the past five years: from a secondary factor in western water allocation to a factor which is increasingly incorporated into all major western public and private allocations. Most western states have some form of direct instream use mechanisms, and others are considering them.\textsuperscript{124} The task now facing western water lawyers is to devise the legislative, administrative, and judicial standards for the recognition of these uses, and to establish on a state-by-state basis the allocation of institutional responsibility for preservation flow establishment. This can be done by confining recognition to public agencies acting pursuant to precise delegations of power. States should consider standards that vary according to the purpose of the flow preservation reservation. Fish and wildlife maintenance flows can be based on somewhat technical criteria, whereas flow reservations for aesthetic enhancement above and beyond fish and wildlife maintenance cannot. Thus an agency might have to meet a higher burden of justification for the second kind of reservation. The authority to protect instream flows should be accompanied by a charge to incorporate instream uses into all major water planning and allocation decisions at the earliest stages. A final decision to withdraw waters, however, should only be made after the maximum feasible information on the environmental needs for the withdrawal and its opportunity cost have been collected and assessed. This will not be easy. As the great western novelist, Wallace Stegner and his son Page recently observed in their survey of the Rocky Mountain Region: “Among the forces bent on resource exploitation, the forces bent on preservation of wilderness, the forces panting for escape from industrial cities, and the forces determined to bring art and ideas into the isolated and half-educated hinterlands, the future will be hammered out. The noise is going to be something to hear.”\textsuperscript{125}

\begin{itemize}
  \item \textsuperscript{123} Water Policy Review, National Water Resources Policy Study (Nov. 11, 1977) (working drafts of the Task Force Reports).
  \item \textsuperscript{124} E.g., Wyo. Stat. § 41-1.12 to .17 (Supp. 1975).
  \item \textsuperscript{125} Stegner & Stegner, Rocky Mountain Country, ATLArmc, April 1978, at 45.
\end{itemize}