STATE "TOOLS"

TO PROVIDE WATER FOR

ENDANGERED SPECIES

A Report Compiled by the

Western States Water Council

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June, 2003

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INTRODUCTION

With the ever increasing demand on water resources in the West, providing sufficient water for threatened and endangered species has unfortunately become a common cause of conflict between water users, state and federal governments, environmentalists, and various other interest groups. While Endangered Species Act (ESA) litigation increases, it is also becoming obvious that actions at state and local levels are often the most successful in dealing with water issues involving endangered species. In their primary role in managing water resources, states have employed various "tools" (laws and programs within state regimes) to provide needed water for species listed under the ESA. These tools differ from state to state.

In this context, it is important for western states to consider various approaches for obtaining water necessary for threatened and endangered species. It is likewise important for the federal government, particularly the U.S. Fish and Wildlife Service (FWS), National Marine Fisheries Service, now known as NOAA Fisheries, and action agencies, to recognize the availability of state tools to acquire water for species protection. Indeed, it is a central premise of this report that the federal government should avail itself of these tools in order to provide greater protection for species where required while avoiding the conflicts which have too often characterized the implementation of this Act.

To these ends, this report discusses various state tools for providing water required for endangered species. Though this report evaluates several tools by which water needed for species can be obtained or preserved, it is not an attempt at an exhaustive analysis, as methods and approaches to using water resources will inevitably evolve as the demands on this scarce resource continue to increase.

The report begins with a description of the current context of state water management in the West. It then contains an analysis of: (1) the use of public interest standards/criteria as a means to protect water for species; (2) state approaches to using instream flow laws as a tool to provide water for aquatic species; (3) other instream protection strategies, such as flow release conditions, or the creation of state wild and scenic rivers; (4) water "banking" and market approaches; (5) an analysis of cooperative state and federal efforts in river reoperation to provide water for species; and (6) the merits of federal action to help expedite state general stream adjudications as a means to enhance the protection of species.

EXECUTIVE SUMMARY

The prior appropriation doctrine has evolved so that federal interests can be accommodated within the framework of western state water laws. Today, a considerable variety of state laws and programs ("tools") can be used for this purpose. These tools are available to protect federal interests, including those established by the Endangered Species Act.

All western states have laws that enable instream flow protection. Most states statutorily authorize the appropriation or creation of a minimum or instream flow right, and in every state water administrators may utilize other methods to provide instream flow protection. For example, in many states approval of applications to appropriate water may be conditioned on meeting minimum flows.

The development and application of broad public interest criteria provides the ability to deny new applications, and in most states, proposed transfers which would jeopardize the public interest as defined by federal as well as state and local laws and policies. The assertion of detriment to the public interest may be made by an appropriate public entity, such as a state or federal agency, or by a private party.

Water may also be obtained for minimum or instream flows by the acquisition of existing rights. Water banks have been developed in several states in the West, and have facilitated transfers to instream uses in several instances.

In those instances where federal interests cannot be accommodated under state law, a process of negotiated compromises resulting in formal agreements is the most desirable approach to resolve conflicts. A common component of such agreements consists of changes in releases from federal and state dams.

All interests will receive greater protection and certainty as general adjudications are completed. To further this end, federal agencies should adopt a policy to pay related filing fees, as do all other claimants, and to otherwise help fund and expedite the settlement of all claims.

CONTEXT

Western water planning, development, and management have traditionally been carried out under the auspices of state water law. However, the federal government has asserted a growing interest in the management of scarce western water resources. The Clean Water Act of 1972,[1] the Endangered Species Act of 1973,[2] the National Forest Management Act of 1974,[3] the Federal Land Policy and Management Act 1976,[4] the Safe Drinking Water Act,[5] and others were created in the space of a few years. As a consequence, traditional state authority has been challenged. State water planning and management must now, more than ever, take place within the constraints imposed by various federal laws and policies.

This is not to suggest that conflicts dominate the federal/state relationship in water resources. Nevertheless, existing conflicts impede the efficient and effective use of the West's limited water resources and should be reduced. Some tension in the relationship is inevitable in the West, where the federal government is a major landowner and water purveyor, but where the states have the primary authority for allocating water. However, when this tension gives rise to open conflicts, the situation becomes debilitating.

The report of the National Water Commission in 1973 cited one of its consultants to describe how such conflicts occur:

> "If [federal law] fits with the state law into a single pattern, it creates no problems. When it and state law clash, and when gaps appear, when federal law upsets that which state law has set up, when federal law undoes the tenure security that states give to property rights, when federal rights override instead of mesh with private rights, then there is a federal-state conflict in the field of water rights. There is confusion, uncertainty, bad feeling, jealousy and bitterness. To a substantial degree, this is what exists today."[6]

A similar statement could be made today. The recent history of the Klamath and Middle Rio Grande Basins exemplify such conflicts. In the Klamath Basin during the summer of 2001, state water rights in Oregon and California could not be satisfied due to the water being withheld under federal law for upstream endangered fish. Water to the Klamath Basin was shut off after biological opinions by the National Marine Fisheries Service (NMFS) and the United States Fish and Wildlife Service (FWS) determined that low water levels in the basin were threatening endangered sucker fish and threatened coho salmon.[7] Subsequently, a National Academy of Sciences report concluded that the non-delivery of water was unsupported by available science.

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[1] 33 U.S.C. §§ 1251-1387 (2002).

[2] 16 U.S.C. §§ 1531-1544 (2002).

[3] 16 U.S.C. § 1600 (2002).

[4] 43 U.S.C. §§ 1701-1784 (2002).

[5] 42 U.S.C. §§ 300f-300j-26 (2002).

[6] National Water Commission, Water Policies for the Future. p. 459 (1973).

[7] *See Western States Water* #1407 (On file at Western States Water Council).

The ongoing controversy over the Rio Grande's endangered silvery minnow likewise illustrates the problem that arises when federal and local water demands clash. On September 18, 2002, U.S. District Court Judge James Parker ordered the Fish and Wildlife Service (FWS) and the Bureau of Reclamation (BOR) to release water from storage to secure flows in the Rio Grande for the silvery minnow. Due to extreme drought, hydrologists predicted that a 170-mile stretch of the Middle Rio Grande would dry-up by month's end, unless BOR released more water from the San Juan-Chama Project.

According to a September 12, 2002, Biological Opinion (BiOp), the FWS was against releasing more water, even though not doing so would have likely killed many silvery minnow. The FWS argued that it was more important to have the water for next spring when the fish spawn. However, Judge Parker ruled that the BiOp was arbitrary and capricious. The water in storage was already under contract for delivery to farmers and municipalities, but Judge Parker ruled in April 2002 that BOR had the power to release the water to increase streamflow regardless of the contracts.[8]

Avoiding such conflicts through increased federal/state cooperation rather than conflict is the primary motivation behind this report. In order to do so, an understanding of the current water laws of the West is key.

The prior appropriation doctrine has served the West well for over 150 years, and there are reasons it has endured. One point should be emphasized. An important characteristic of the appropriative water right is that once vested, it becomes a constitutionally protected property interest which can be sold, leased, or otherwise alienated. This characteristic, like the protection of senior users from encroachment by subsequent users, provides protection to investments. This means that appropriate restraints exist so that these property rights cannot be abrogated without just compensation.

For this and other reasons, the prior appropriation doctrine has often been criticized as outdated, inflexible, or otherwise unable to meet current water resource management needs, particularly the protection of "public values." For example, in 1975 the National Water Commission reported that state laws were "...in many instances...inadequate to protect important social uses of water." Not all observers would concede that this view was accurate in the early 1970s. But in any event, all would agree that the states have since modified the appropriation doctrine to enhance public interest protection. This evolution in state laws and institutions has direct relevance to the subject of this report, particularly since ESA interests are normally associated with enhancing and protecting instream uses.

Traditionally, in determining whether to grant a water right, the state official considered the date of application, the amount of water available, and the potential damage that the newly created right might do to existing rights. Maximizing potential economic benefit often equated with public interest protection. However, as this report will show, since these early times the western states have significantly enhanced protection of public interest values. Both state legislatures and state courts have established and defined public interest criteria that must be met when an application to appropriate water, or to transfer a vested water right is considered.

Another method of enhancing public interest protection in western water resource management is through establishment and maintenance of instream flows. The traditional law of prior appropriation favored off stream uses. However, now in every western state, legal mechanisms are in place to provide some protection for instream flows.

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[8] *Id.* Issue #1477, Rio Grande Silvery Minnow v. Keys, 2002 U.S. Dist. LEXIS 9246.

In addition to appropriation under state law, federal interests may be protected by purchase and transfer of existing state water rights. Some states have simplified the marketing of water rights through establishment of water banks. Most states recognize instream flows as a beneficial use to which water may be transferred, although in some states only state entities are authorized to obtain transfer approval of a diversionary water right to an instream right. Appropriation and purchase of water rights for federal purposes are, in other words, options which are increasingly viable as alternatives to the costs of litigation, conflict, and acrimony often associated with the assertion of federal interests outside state law. Such acquisitions may be permanent or take the form of a temporary or conditional lease.

Thus, the appropriation doctrine has evolved in the West to provide protection and enhancement of public interest values. Secretary of Interior Gale Norton recognized this in recent remarks at the American Bar Association's annual water law conference. After noting an exception for Indian water rights, she stated that federal interests can be protected under state law in the same way as other water users. The Secretary noted that 30 years ago things were different, but that now most states have instream flow laws and public interest standards that are conducive to federal interests. In this context, there is no reason for the federal government and the states to fight. States "have found innovative ways to work with the federal government to protect endangered species," she noted. "Accordingly," she said, "we hope to explore a variety of ways to resolve water issues with states, and we hope to avoid protracted litigation."[9]

Secretary Norton's recognition of the vital state role in water management is critical. It echoes a core concept; namely,

> State government is the pivotal level for leadership, authority, and accountability in water resource management. The state role includes allocation of water supplies, administration of water rights, implementation of water quality protection programs, and protection of public water resource values. States are in the best position to integrate related aspects of water management, such as surface water and groundwater, water quantity and quality, and economic development and environmental protection, and to balance water uses. Further, states should assist and enable watershed groups to solve complex problems at the watershed, or problemshed, level.[10]

The importance of state involvement in protecting endangered and threatened species was stressed in a 1998 policy resolution of the Western Governors' Association (WGA). Supporting state conservation agreements, the position recognizes that state efforts are necessary for the success of the Endangered Species Act (ESA). It states in part:

> Two primary purposes of the [ESA] are to provide a program for the conservation of endangered and threatened species and to provide a means for the conservation of the ecosystems upon which those species depend. The Act declares that a key to its success will

[9]Address, Gale Norton, Secretary of Interior, given Feb. 20, 2003, at the American Bar Association Annual Water Law Conference.

[10]D. Craig Bell, ET AL., *Retooling Western Water Management: The Park City Principles*, 31 Land & Water L. Rev. 303, 307-08 (1996).

be encouraging states and other interested parties to develop and maintain conservation programs through financial assistance incentives.

> [M]ost declining species can be restored to health only through federal/state partnerships that involve private landowners and interested parties in decision making and that provide them with technical assistance, guidance, and resources to support their efforts.[11]

If there is recognition of the importance of the state role and an approach that favors such partnerships, then even where state tools appear to be inadequate, recent experience has shown that there are opportunities, nevertheless, to settle conflicts through negotiation rather than litigation. Successful negotiations have occurred in several western states.

One example occurred at Zion National Park in southern Utah. On December 4, 1996, a water rights agreement was reached protecting streamflows and ground waters in and around Zion National Park, which is located in the southwest corner of Utah, northeast of the rapidly growing city of St. George. Zion was set aside originally as a 15,200-acre national monument in 1909. It was made a national park in 1919, and with additions over the years, it now covers 147,000 acres. The Virgin River and other pristine streams flow through the park, and have sculpted deep canyons and towering sandstone formations. Also, ground water seeping from cliffs form weeping gardens. Much of the water flowing through the park is later diverted to satisfy downstream water rights, and growing demands have led to reservoir development proposals upstream from the park.

In 1987, the National Park Service filed a claim for both federal reserved rights and state appropriative rights for surface and ground waters to protect streamflows and seeps in the park in an adjudication of the Virgin River Basin. Such reserved federal water rights claims had not been defined by statute or case law and the parties recognized that litigating such claims could take decades. Therefore, the United States, the State of Utah, and Washington County and Kane County Water Conservancy Districts decided to try negotiating a settlement. Meetings began in 1992.

Briefly, the settlement agreement recognizes a federal reserved water right for Zion National Park, with a 1996 priority date, for instream flows and other non-consumptive purposes and for administrative uses such as campgrounds, visitors centers, park ranger residences, and similar uses. Rather than try to quantify such rights, the parties decided to limit allowable upstream development. The agreement precludes construction of dams and reservoirs at a number of possible sites considered by the water districts to meet their growing water demands. In return, all relevant state appropriative rights are recognized by the federal government, which also agreed not to raise objections to the construction of an off-stream reservoir below the park and to swap needed federal lands.

On the North Fork of the Virgin River, the agreement allows the construction of only small impoundments (no larger than 20 acre-feet) and an annual depletion of no more than 6,000 acre-feet of water from surface and ground water sources. Another 4,000 acre-feet may be diverted from Crystal Creek to the existing Kolob Reservoir. In addition, within a "buffer zone," ground water withdrawals are limited to no more than 35 gallons per minute. On the East Fork, up to 5,000 acre-feet in new depletions are allowed, with no more than 3,250 acre-feet from surface water. One or more active storage reservoirs with a total capacity of up to 6,750 acre-feet may be built.

Utah Governor Mike Leavitt exclaimed, "This agreement is an excellent example of what can be

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[11] *Id.*

accomplished when parties with divergent views and interests sit down to solve problems. In this case, local, state, and federal governments showed a willingness to respect one another's concerns and compromise where necessary to achieve win-win results." Zion National Park Superintendent Donald Falvey called it a "major settlement," which demonstrates that "government[s] can and do work together to solve difficult issues, without resorting to litigation."

Cooperative agreements have great potential to resolve federal/state conflicts. Considering the adverse effects and the drawbacks of other alternatives for resolving such conflicts, efforts to reach such agreements are clearly worthwhile.

It is in this context that the following discussion of state tools must be understood.

PUBLIC INTEREST CRITERIA FOR OBTAINING AND TRANSFERRING WATER RIGHTS

As previously indicated, the western states have significantly enhanced protection of public interest values in water. Both state legislatures and state courts have established and defined public interest criteria that must be met when an application to appropriate water or to transfer a vested water right is considered. These criteria vary from state to state. Among the member states of the Western State Water Council every state but one, Colorado, has some statutory public interest review provisions in its laws governing new appropriations of water. Most states also require consideration of public interest factors in determining whether to approve a proposed water right transfer.

Idaho law, for example, requires public interest protection in the consideration of applications to: (1) appropriate unappropriated water; [12] (2) reallocate water held in trust from some existing hydropower rights; (3) appropriate unappropriated water for minimum stream flows; and (4) change the place or nature of use or point of diversion of an established water right, either permanently or temporarily. The Idaho Supreme Court interpreted the term "public interest" broadly to require consideration of numerous variables including assurance of minimum streamflows, encouragement of conservation, protection of aesthetics and the environment, and the effect of the appropriation upon vegetation, fish, and wildlife.[13] The court defined the state legislature's use of the term "local public interest" by saying the legislature "...intended to include any locally important factor impacted by proposed appropriations."[14] It is noteworthy that the Idaho legislature passed H. 284 on April 7, 2003, limiting the consideration of "local public interest" issues to the effects on the local water resource.

A Utah statute requires the state engineer to determine whether approval of an application for a new water use will adversely affect the "...natural stream environment..." or "unreasonably affect public recreation..."[15] In Nevada, three statutory criteria guide the State Engineer when he considers applications to appropriate water. They are: (1) the availability of unappropriated water; (2) the effect on existing rights;

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[12]IDAHO CODE ANN. § 42-203A(5)(e)(1987).

[13]Shokal v. Dunn, 109 Idaho 330, 707 P.2d 441, 449 (1985).

[14]*Id.* 707 P.2d at 444-50.

[15]UTAH CODE ANN. § 73-3-8 (Supp. 1986).

and (3) the public interest.[16] The public interest criterion, in the State Engineer's view, protects the public welfare by requiring the exercise of broad discretion when ruling on permit applications.[17]

Using similar discretion, the Nevada State Engineer issued appropriative water rights to the United States Bureau of Land Management and Forest Service for recreation, fishery, and wildlife watering, including instream flow rights. He did so even though the statute used to grant the rights did not clearly define the uses as beneficial and contained no specific authority for recognition of instream flow rights. The Nevada Supreme Court upheld this protection of public interest values by the State Engineer notwithstanding arguments by the state Department of Agriculture that issuance of non-diversionary appropriative water rights was contrary to the public interest in Nevada.[18]

Arizona statutes require the Director of the Department of Water Resources to consider the potential effect on the public interest and welfare when considering applications to use surface water and to reject such applications where a proposed use is contrary to public values.[19] The Arizona State Land Department (the predecessor to the Arizona Department of Water Resources for reviewing application to appropriate water) used public interest criteria to deny an application which, if granted, would have resulted in the loss of 1.7 percent of the total recharge of one of Arizona's ground water basins.[20]

The State Land Department determined that it would not have been in the public interest to place additional strain on a source of ground water supply experiencing substantial overdraft. The Arizona Court of Appeals upheld the denial of the application. It emphasized that, in a water short area, even a small reduction in recharge might cause substantial injury to the public welfare, particularly if followed by additional reductions. Arizona has also used its administrative authority to protect public interest values by recognizing instream uses, as noted in the next section.

The development and application of broad public interest criteria provides the ability to consider interests as defined by federal, state, and local laws and policies. Thus, the state administering agency may disallow new appropriations where wildlife or aesthetic values would be harmed. In some states under certain circumstances, a new appropriation may be allowed only where a by-pass flow can be assured. Additionally, a transfer of an existing right may also be disallowed if it is detrimental to the public interest. The assertion of detriment to the public interest can be made by a public entity, such as a state or federal agency, or by a private party.

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[16]NEV. REV. STAT. § 533.370(3) (1989).

[17]Memorandum letter from Peter G. Morros, Nevada State Engineer, to Roland D. Westergard, Director, Nevada Department of Conservation and Natural Resources, (Jun. 12, 1986) (copy on file at the Western States Water Council office).

[18]Nevada v. Morros, 766 P.2d 263 (Nev.1988).

[19]ARIZ. REV. STAT. ANN. § 45-153(A) (1956).

[20]Arizona Game & Fish Dept. v. Arizona State Land Dept., 24 Ariz. App. 29, 533 P.2d 621 (1975).

INSTREAM FLOW LAWS AND STRATEGIES

State Instream Flow Laws

All western states have laws to provide some type of instream flow protection. While most states statutorily authorize the appropriation or creation of an instream flow right, New Mexico, North Dakota, Oklahoma, and South Dakota deal with instream flows indirectly. These laws are of recent origin, protecting stream flows against rights which are relatively junior. Some states protect flows further by putting conditions on new permits to prevent the permittee's use of water in ways which would adversely affect endangered species. Obviously, most older permits do not contain such restrictions.

The following is a brief summary of state instream flow laws:

Alaska

Authorized in 1980, Alaska's statute allows "[t]he state, an agency or political subdivision of the state, an agency of the United States or a person" to apply for the right "to reserve sufficient water to maintain a specified instream flow or level of water at a specified part of a stream, throughout the year or for specified times" for a variety of instream flow uses: the protection of fish and wildlife habitat, migration purposes, propagation purposes, recreational and park purposes, navigation and transportation purposes, and sanitary and water quality purposes. In order to obtain a permit reserving an instream flow, there must be unappropriated water sufficient for the reservation, the rights of prior appropriators may not be affected by the reservation, and the applicant must demonstrate a need for the reservation.[21]

The instream flow reservation is subject to review every ten years to verify that the purpose for the reservation continues to be valid, that the need for the reservation continues to exist, that there remains unappropriated water sufficient to fulfill the reservation, and that the rights of prior appropriators continue to be unaffected.[22]

Arizona

Arizona law allows instream flow appropriations to be made in the same manner as other water rights appropriations. The AZ Surface Water Code states that "[a]ny person, the State of Arizona or a political subdivision thereof may appropriate unappropriated water for... stock watering... recreation, wildlife, including fish..." Properly submitted applications must be approved unless the application for the proposed use "conflicts with vested rights, is a menace to the public safety, or is against the interest and welfare of the public." The statute also provides a hierarchy of uses as between two or more pending conflicting applications if the water supply is not sufficient for all applications. In the hierarchy of values, recreation and wildlife rank fourth out of five recognized uses, and are preceded by domestic and municipal uses, irrigation and stock watering uses, and power and mining uses.[23]

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[21]ALASKA STAT. § 46.15.145(a) (1997).

[22]Portions of the instream flow information for the western states was in part reprinted with permission of the University of Denver Water Law Review from *A Survey of State Instream Flow Programs in the Western United States* by Cynthia F. Covell, 1 U. Denv. Water L. Rev. 177 (1998).

[23]ARIZ REV. STAT. ANN. § 45-151.A (1997).

The Arizona statutes neither expressly authorize nor expressly exclude instream appropriations. However, the Arizona Court of Appeals determined that "in 1941 when 'wildlife, including fish' and in 1962 when 'recreation' were added to the purposes for appropriation, the concept of *in situ* appropriation of water was introduced it appeared to us that these purposes could be enjoyed without a diversion." [24] Having no statutory guidelines, the Arizona Department of Water Resources (ADWR) needed to determine how to evaluate instream flow applications. An instream flow task force, organized in 1986, developed information that enabled the ADWR to issue a guide to filing applications for instream flow water rights, thereby providing useful assistance to those seeking to appropriate instream flows. The ADWR has issued permits to appropriate water for instream use. For example, in April 1983 it issued two permits to the Nature Conservancy and one permit to the federal Bureau of Land Management in March 1989.[25] Of note, recent litigation brought against the ADWR contends that the Arizona Legislature must expressly recognize instream flow as a beneficial use.[26] The suit alleges that because there is no express authority in Arizona statute to grant instream flow permits, they are not lawful. The matter is currently before the trial court.

California

In 1991, California enacted legislation which allowed an existing appropriator to dedicate to instream flow purposes water rights that were previously appropriated for other uses. The statute allows "[a]ny person entitled to the use of water, whether based on an appropriative, a riparian, or other right" to petition for a change of the water right "for purposes of preserving or enhancing wetlands habitat, fish and wildlife resources, or recreation in, or on, the water." The California statute requires that the proposed change meet certain requirements: it must not increase the amount of water available under the original appropriation, and it must "not unreasonably affect any legal use of water."[27]

The board, in acting on applications to appropriate water, shall consider streamflow requirements proposed for fish and wildlife purposes pursuant to Sections 10001 and 10002 of the Public Resources Code. The board may establish such streamflow requirements as it deems necessary to protect fish and wildlife as conditions in permits and licenses in accordance with this division.[28]

Colorado

Colorado's instream flow program was created by statute in 1973 in response to concerns that the aquatic habitat required some legislative protection. It has been broadened slightly over time, but continues to provide that instream flow rights may only be appropriated or held by the Colorado Water Conservation Board (CWCB). The CWCB may appropriate "such water of natural streams and lakes as the board

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[24] *McClellan v. Janzten*, 547 P.2d 494 (Ariz. Ct. App. 1976).

[25] Letter from Kathleen Ferris, Director, Arizona Department of Water Resources to Norman K. Johnson (Jun. 20, 1986) (copy on file at the Western States Water Council office). Telephone conversation between Laurence Linser, Arizona Department of Water Resources and Norman Johnson (Dec. 19, 1989).

[26] Phelps Dodge v. Arizona Department of Water Resources et al., LC2003-000243-001DT.

[27] CAL. WATER CODE § 1707 (1998).

[28] CAL. WATER CODE § 1257.5 (1998).

determines may be required for minimum stream flows or for natural surface water levels or volumes for natural lakes to preserve the natural environment to a reasonable degree." The CWCB, in order to initiate an appropriation, must determine that the natural environment will be preserved to a reasonable degree by the water available for the appropriation to be made: that there is a natural environment that can be preserved to a reasonable degree with the Board's water right, if granted; and that such environment can exist without material injury to water rights.[29] The Colorado instream flow right is subject to both senior decreed water rights and to undecreed water uses, exchanges or "water practices" in existence when the instream flow appropriation is made.

A 1986 amendment to the statute permits the CWCB to acquire water rights for instream flow purposes by "grant, purchase, bequest, devise, lease, exchange or contractual agreement." Though Colorado already had an extensive instream flow program, administered by the Colorado Water Conservation Board, the law has been further refined by recent legislation. The original instream flow statute codified at Colorado Revised Statutes § 37-92-102(3), provides that the state is the only entity that can own an instream flow. Since the inception of the instream flow law, hundreds of minimum instream flows have been decreed throughout the state. Due to the fact that the instream flow law is fairly new, most of the instream flows are quite junior in the states's appropriative system. Over the years, some older water rights have been changed to instream flow uses by donation to the state. In order to deal with the relatively new concern over the ability of individuals to change existing senior water rights to instream flow rights, the instream flow law was altered in 2002 by SB 156 to explicitly name the state as the sole owner of the instream flow rights. The bill expands the purpose for which the state can hold an instream flow right. Formerly, the law gave the state the ability only to prevent the loss of aquatic life, but with passage of SB 156, the state may "preserve or improve" stream ecosystems with instream flows.[30]

Idaho

In Idaho, the first minimum stream flows and lake levels were appropriated by legislative enactment as early as 1925. By 1978, a statutory minimum stream flow program was established. Under the current statutory scheme, it is the exclusive responsibility of the Idaho Water Resources Board to file applications for minimum stream flow water rights, although other interested parties may petition the Board to do so. Flows may be appropriated "for the protection of fish and wildlife habitat, aquatic life, recreation, aesthetic beauty, transportation and navigation values and water quality." If an application is approved by the Department of Water Resources, the permit is sent to the legislature for ratification. Those appropriations that are granted are limited to the minimum flow required to sustain the resource for which the flow is requested.[31]

Kansas

In 1980, Kansas enacted minimum stream flow legislation, and provided a method for legislative reservation of instream flows. The statute required the state to identify "minimum desirable stream flows to preserve, maintain, or enhance base flows for in-stream water uses relative to water quality, fish, wildlife,

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[29]COLO. REV. STAT. § 37-92-102 (1997).

[30]Taken from *Western Water Law and Policy Reporter* Volume 6, Number 8, June 2002. Additional information regarding bill status was obtained from the Colorado Legislature web site: http://www.state.co.us/gov_dir/stateleg.html.

[31]IDAHO CODE ANN. § 42-1501, *et seq.* (1997).

aquatic life, recreation, general aesthetics, and domestic uses and for the protection of existing water rights...." The Kansas legislature was to approve a minimum desirable stream flow, and the state's Chief Engineer was authorized to "withhold from appropriation that amount of water deemed necessary to establish and maintain for the identified water course the desired minimum stream flow." The amount of water to be reserved in any particular stream system was negotiated by key water agencies for the State of Kansas, was based on the needs of the stream ecosystem and the actual availability of water. Appropriative rights applied for after April 12, 1984, the statute's effective date, are subject to the minimum desirable stream flow requirements, although a junior water right for domestic purposes can take priority over an instream flow reservation.[32]

Montana

Montana first initiated efforts to protect instream flows in 1969 with legislation allowing the then Fish and Game Commission to appropriate instream flows to preserve fish and wildlife habitat on a number of the state's blue ribbon trout streams. Before that legislation expired it successfully resulted in instream flow "Murphy Rights" in twelve streams. Subsequent legislation in 1973 provided for the reservation of instream flows. Now both federal and state agencies may request a reservation on any stream for instream flows as well as for future consumptive uses (which may include future irrigation, storage and municipal needs).[33]

State instream flow reservations are limited to a maximum of fifty percent of the average annual flow of the stream for which the application is submitted, as shown by stream gauge records. The reservation applicant must establish the purpose of the reservation, the need for the reservation, the amount of water necessary for the purpose of the reservation, and that the reservation is in the public interest. Water reservations have been successfully completed under this law on the Yellowstone River, the Upper Missouri River Basin, and the Lower Missouri River Basin for instream flows for fish and wildlife and water quality, as well as for future municipal and conservation district (irrigation) consumptive uses. As part of a political compromise water reservations are not allowed in the Clark Fork Basin,[34] but in return the basin was virtually closed to new appropriations to prevent further depletions.[35] Under certain circumstances, the Montana Department of Natural Resources and Conservation (DNRC) may order that a state water reservation be subordinated to water use permits or certificates for groundwater development. Moreover, instream flow reservations, unlike conventional appropriations, are subject to mandatory review every ten years subsequent to their issuance. Upon review, instream flow reservations may be modified or eliminated if the DNRC decides their original purpose is no longer being met.

Additionally, if the DNRC finds that the original reservation is no longer required by the original purposes, and that the need for reallocation outweighs the need of the original reservation, an instream flow may be modified to reallocate the reservation or a portion thereof to another qualified reservation. In other words, since state water reservations may be made for consumptive uses, an instream flow could theoretically be reallocated to future municipal needs. Reallocation of any particular reservation may occur only once every five years. Conversely, because a state water reservation may be transferred from one authorized

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[32]KAN. STAT. ANN. § 82A-703, *et seq.* (1997).

[33]MONT. CODE ANN. § 85-2-316 (2001).

[34]MONT. CODE ANN. § 85-2-336 (4) (2001).

[35]MONT. CODE ANN. § 85-2-336 (1) (2001).

reservation to another, a reservation originally made for consumptive purposes could perhaps be transferred to instream flow uses.

Recognizing the biggest drawback to a state water reservation is its late priority date, Montana enacted statutes for instream flow leasing in 1989,[36] and temporary changes for instream flow in 1995,[37] to provide for instream flow protection with the same priority date as the right being leased. Instream flow leasing and temporary changes can be for periods up to 30 years if water conservation or storage are involved, but otherwise the instream flow lease or temporary change can be for 10 years, with a renewal process for another 10 years. Montana's Department of Fish, Wildlife and Parks (DFWP) primarily engages in instream flow leases, but private entities are allowed to engage in streamflow leases and temporary changes for instream flows as well depending on the basin involved. DFWP has found the foregoing instream flow statutes to be most effective on smaller streams because the cost would be prohibitive on larger streams or rivers.

Nebraska

Nebraska's instream flow legislation was first passed in 1984. In its current form, the legislation authorizes only the Nebraska Game and Parks Commission or a Nebraska Natural Resources District to obtain an instream appropriation. An "instream appropriation" is defined as "the undiverted application of the waters of a natural stream within or bordering upon the state for recreation or fish and wildlife purposes.[38]

It is the duty of the Game and Parks Commission and each Natural Resources District to conduct studies to identify specific stream segments which they consider to have a critical need for instream flows. Each study must quantify the instream flow needs in identified stream segment. Following notice and a public hearing the Game and Parks Commission or a Natural Resources District may file with the Director of Natural Resources an application for a permit to appropriate water for instream flows.

Before approving an instream appropriation, the Director of the Division of Water Resources must find that there is unappropriated water available for appropriation, that the requested instream appropriation is necessary to maintain the instream use or uses for which the appropriation has been requested, that the appropriation will not interfere with any senior surface water appropriation, that the rate and timing of the flow is the minimum necessary to maintain the instream use for which the appropriation has been requested, and that the instream appropriation is in the public interest. In making the public interest determination, the Director must consider the following factors: (1) The economic, social, and environmental value of the instream use or uses including but not limited to recreation, fish and wildlife, induced recharge from municipal water systems, and water quality maintenance; and (2) The economic, social, and environmental value of reasonably foreseeable alternative out-of-stream uses of water that will be foregone or accorded junior status if the appropriation is granted. Instream flows in Nebraska are identified by stream reaches and times of the year, and are limited to the amount of water "necessary to provide adequate instream flows." The Director of Water Resources must modify existing instream appropriations or pending applications to

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[36]MONT. CODE ANN. § 85-2-436, 439 (2001).

[37]MONT. CODE ANN. § 85-2-408 (2001).

[38]NEB. REV. STAT. § 46-2,107 et. seq. (1997).

avoid interference with other water right applications that have been deemed by the legislature to be more important.

A recent amendment to the statute requires the Director to hold a hearing every fifteen years from the date of granting a permit to appropriate water for instream flows. The purpose of the hearing is to receive evidence regarding whether the water appropriated under the permit still provides the beneficial uses for which the permit was granted and whether the permit is still in the public interest. The hearing is to proceed under the rebuttable presumption that the appropriation continues to provide the beneficial uses for which the permit was granted and that the appropriation is in the public interest. After the hearing, the Director may, by order, modify or cancel, in whole or in part, the instream appropriation.

In addition, the 1997 amendments changed the approval standards for instream flow applications by requiring the Director of Water Resources to find, with regard to applications pending or filed after January 1, 1997, that there is unappropriated water available to provide the approved instream flow rate at least twenty percent of the time during the period requested. The Director must also find that the appropriation is necessary to maintain the existing recreational uses or needs of existing fish and wildlife species. Finally, the statute makes clear that the application may be granted for a rate of flow that is less than that requested by the applicant or for a shorter period of time than requested by the application.

Nevada

Nevada's appropriation statute contains a general statement that "[s]ubject to existing rights, and except as otherwise provided in this section, all water may be appropriated for beneficial use as provided in this chapter and not otherwise."[39] The use of water for any recreational purpose is specifically declared to be a beneficial use. In 1988, the Nevada Supreme Court recognized that the recreational use of water mandates recognition of an *in situ* water appropriation for recreation, and that wildlife watering is encompassed in the definition of recreation as a beneficial use of water, holding that Nevada law recognizes the recreational value of wildlife and the need to provide wildlife with water. [40] The Court said: "Applications by the United States' agencies to appropriate water for applications to beneficial uses pursuant to their land management functions must be treated on an equal basis with applications by private landowners."[41] Thus, instream rights were provided for use on federal lands under state regulatory authority, not federal proprietary claims. These rights will enjoy the protection of state law and will be integrated into the regimen of rights administered by the State Engineer.

New Mexico

For many years, the New Mexico State Engineer took the position that actual diversion of water was legally required in order to appropriate a water right in New Mexico, so there could be no valid instream water rights. Recently, the State Engineer determined that under appropriate circumstances, an existing water right can be changed to instream uses if statutory criteria for a change are met. In 1998, the New Mexico Attorney General issued an opinion (Opinion) in which he concluded that New Mexico law "permits the State Engineer to afford legal protection to instream flows for recreational, fish or wildlife, or ecological

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[39]NEV. REV. STAT. § 533.030 (1995).

[40]Nevada v. Morros, 766 P.2d 263 (Nev. 1988).

[41]*Id.*, 766 P.2d at 268.

purposes."[42] The Opinion is carefully reasoned, and addresses only changes of water rights from traditional diversionary uses to instream flows, noting that since New Mexico's surface waters are already fully appropriated, the issuance of new appropriations for instream flow uses need not be addressed. The Opinion concludes that New Mexico's Constitution and statutes do not require actual diversion or impoundment in order to validly appropriate a water right, and distinguishes several cases that had been the basis of the previous State Engineer's contrary opinion. Moreover, the Opinion asserts the Attorney General's belief that a court will recognize recreational, fish and wildlife, and "ecological" uses as proper beneficial uses of water.

Although the New Mexico statutes governing applications for new appropriations appear to contemplate construction of dams, ditches, or other "works," the Opinion determines that this condition would be satisfied by imposition of the State Engineer's announced requirement of "accurate and continuous gauging" of instream flows throughout the permitted stream reach. Since the State Engineer indicated that such gauging would be a requirement of any change to instream flow uses, the Attorney General's Opinion assumes that such measuring devices will be required. It does not address other sorts of "works" that might also meet the statutory requirement.

North Dakota

North Dakota continues to follow the doctrine that a diversion is required for a water right to exist and has no statutory provision for establishing instream flows. The State Engineer, in making permit decisions, may deny a permit on grounds that the appropriation may conflict with public interest criteria, but this creates no right to water. North Dakota's change of use statute may allow for an existing water right to be changed to instream purposes, but such a change has not yet been attempted.

Oklahoma

Oklahoma law does not require diversion to happen as an element of a water right, but it does encourage development of water resources "to the maximum extent feasible for the benefit of Oklahoma so that out-of-state downstream users will not acquire vested rights therein to the detriment of [Oklahoma] citizens...," which could be construed as prohibiting a right to such an instream flow. "Scenic river areas" can be preserved to protect the diminishing resource of free-flowing streams and rivers. New appropriations cannot interfere with domestic uses and can be conditioned to protect water quality standards, although water quality is not considered a beneficial use and an appropriation for that purpose would not be possible.

The question of whether riparian landowners may claim an instream flow use is not yet settled in Oklahoma, as a statute passed to abolish riparian rights was found to be unconstitutional by a state district court.

Oregon

One of the older state statutory schemes, Oregon's current statute reaffirms its early policy stating that "[t]he maintenance of minimum perennial stream flows sufficient to support aquatic life, to minimize pollution and to maintain recreational values shall be fostered and encouraged if existing rights and priorities under existing laws will permit." Under a 1955 law, these minimum perennial stream flows were established administratively based on applications by state agencies.

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[42] 98-01 Op. Att'y. Gen. (1998).

Additional protection of instream flow values in Oregon is now provided by the In-Stream Water Rights statute enacted in 1987. An instream flow in Oregon is the minimum quantity of water necessary to support the requested use. Instream flow rights may be requested by the Department of Fish and Wildlife for the "conservation, maintenance and enhancement of aquatic and fish life, wildlife and fish and wildlife habitat," by the Department of Environmental Quality to protect and maintain water quality standards, and by the Parks and Recreation Department for recreation and scenic attraction uses. The instream flow rights, when approved, are held by the Water Resources Department as trustee, and have the same status as other water rights. The 1987 instream flow legislation required conversion of the minimum perennial stream flows to instream flow rights with the priority date of the original minimum perennial stream flow.[43]

Instream flows may also be created by changing, or transferring, another existing water right. Instream transfers must show that no injury to other water rights will occur and that a beneficial use will be made of the water, such as fishery habitat or flow augmentation for diluting contaminants or pollution. These transferred rights become instream water rights with the priority date of the original right. Water right holders may also lease all or a portion of their water rights to instream purposes. The water right that is leased and converted to an instream water right during the term of the lease carries the priority date of the unexercised out-of-stream water right. Oregon also has a program for allocation of conserved water to provide an incentive for water right holders to implement conservation measures. Water right holders participating in this program are able to utilize a portion of the conserved water for new uses while also permanently dedicating a minimum of twenty-five percent of the conserved water to an instream water right.

Like the instream flow rights in many other states, Oregon's originally appropriated instream flow rights can be subordinated. The right to use water for multipurpose storage projects, municipal uses by municipal applicants, or hydroelectric projects can take precedence over instream rights. This subordination does not apply to instream rights obtained by conversion of minimum perennial stream flows or to instream rights obtained by conversion of other rights.

South Dakota

South Dakota also has no specific statutory provisions for appropriating water for instream use. However, certain existing water rights may be converted to instream uses under South Dakota law. Water rights serving irrigation purposes may not be converted to instream flows, while industrial water rights may.[44]

Texas

The Texas Water Code allows for water to be appropriated for any beneficial purpose, which is defined as "the amount of water which is economically necessary for a[n authorized purpose]..., when reasonable intelligence and reasonable diligence are used in applying the water to that purpose and shall include conserved water."

When making allocation decisions, the Texas Commission on Environmental Quality must consider

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[43]OR. REV. STAT. § 537.332-360 (1997).

[44]S.D. CODIFIED LAWS § 46-5-30.4, 46-2A-12 (2000).

the effects of granting a water right permit on existing uses, instream flow, estuaries, water quality, and fish and wildlife and their habitat. However, there is no statutory provision granting either state agency or private entity the authority to make an instream flow reservation.[45] This has the same effect as allowing an instream flow appropriation, but the process is inverted since Texas law only allows for instream flows to be used to refuse an application.

Utah

Utah permits its Division of Wildlife Resources or Division of Parks and Recreation to file applications for permanent or temporary changes in order to "provide water for instream flows in natural channels necessary for the preservation or propagation of fish within a designated section of a natural stream channel."[46] Instream flow rights may not be appropriated from unappropriated water. The statute makes clear that an actual diversion is not required to implement a change to an instream flow use.

Change to an instream flow rights may not allow enlargement of the water right sought to be changed, and the change may not impair any vested water right. The change application must include a legal description of instream flow reach, appropriate studies, reports, or other information as required by the State Engineer to demonstrate the necessity for the instream flow in the reach, and the projected benefits to the public that will result from the change.[47]

Washington

Washington began enacting instream flow legislation in 1949. Over time, through a series of legislative acts, instream flow protection broadened in scope. Today, Washington's Department of Ecology may set minimum stream flow levels for the purposes of protecting fish, game, birds, or other wildlife resources, or recreational or aesthetic values of public waters whenever it appears to be in the public interest to do so. Water quality may also be protected. Under the current legislative scheme, the Department of Ecology prefers to establish instream flows by a rule making process, but can, when necessary, deny or condition water rights to preserve instream flows for fish even where rules have not been adopted.[48]

Wyoming

Wyoming's statute allows instream flow appropriations to establish or maintain new or existing fisheries. Appropriations for such instream flow uses may be made from unappropriated waters of the state "if such use does not impair or diminish the rights of any other appropriator in Wyoming." The amount of water that can be appropriated for fisheries is the minimum amount necessary to establish or maintain fisheries, or, in the case of existing fisheries, the minimum amount necessary to maintain or improve such existing fisheries. The statute includes a complicated methodology for determining where and how much water to appropriate for instream flows.

The state is the only entity allowed to appropriate instream flows. Applications are filed by the

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[45]TEXAS WATER CODE § 11.023, 11.147, 11.150, 11.152 (2000).

[46]UTAH CODE ANN. § 73-3-3(11) (1997).

[47]*Id.*

[48]WASH REV. CODE § 75.20.050, 90.22.010, 90.54.020(3)(A) (1998).

Water Development Commission in the name of the state and are based on recommendations by the State Game and Fish Commission. The date of priority of the appropriative right is the date of the Commission's application. Water commissioners regulate the water course to provide water for the instream use on the basis of its priority.[49]

APPLICATION OF INSTREAM PROTECTION STRATEGIES[50]

Instream Appropriations

State instream flow laws are not inclusive of the means to protect and enhance flows. This is important in analyzing the potential within any given state to protect instream values. For example, it may be possible to supply appropriated water to preserve instream flows. Instream appropriations have been upheld against the argument that a physical diversion is necessary, that the use is non-beneficial, and that such appropriations violate the constitutional guarantee of the right to divert.[51] With regard to enforceability in those states that require ownership by a state entity, third party enforceable agreements have been fashioned to assure them protection in priority.[52]

State water administrators may also utilize several methods to effect ad hoc instream flow withdrawals. In most states, a permit to appropriate may be denied if it would contravene the public interest.[53] Although seldom used, this power may be used with greater frequency in the future. Courts are

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[49]WYO. STAT. ANN. § 41-3-1001 to 1014 (Supp. 1998).

[50]The section on current strategies is a modified version of a section of *Instream Flow Protection in the West*, Natural Resources Law Center, University of Colorado School of Law, pp. 138 - 144, 1989, modified in June 2002.

[51]The leading case is Idaho Dept. of Parks v. Idaho Dept. of Water Admin., 96 Idaho 440, 530 P. 2d 924 (1974).

[52]*See* Potter, *The Public's Role in the Acquisition and Enforcement of Instream Flows*, in Instream Flow Protection in the West, Natural Resources Law Center, University of Colorado School of Law, ch. 3, 1989.

[53]*See, e.g.*, ALASKA STAT. § 46.15.080(b)(1987); IDAHO CODE § 42-203(A) (5) (Supp.1988); KAN. STAT. ANN. § 82a-711 (Supp. 1988); WASH. REV. CODE ANN. § 90.54.020 (2) (Supp. 1989).

increasingly deferential to a state engineer's decision to deny permits or to condition them to require environmental mitigation, and the concept of the public interest has been expanded to include fish and wildlife considerations.[54]

Flow Release Conditions

The network of federal reservoirs, as well as smaller state and private retention structures, are designed to moderate these extremes on a regional scale. They can capture waters otherwise lost to the state and store them for release later to provide added stream flow to benefit fish and wildlife.

Reservoir releases are an important potential source of instream flows. Both state and federal agencies have long conditioned new appropriations and approvals on minimum flow release conditions. Although the integration of reservoir operations with instream flow protection programs, especially at the federal level, is still incomplete, reservoir reoperation to affect flow conditions have been a major part of negotiated solutions to conflicts between species needs and state water management. Indeed, some states see reservoir flow releases as a major instream flow protection strategy because it will be less disruptive of existing uses.[55]

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[54]*See* Bank of America, Nat'l Trust & Sav. Ass'n. v. State Water Resources Control Bd., 42 Cal. App. 3d 198, 116 Cal. Rptr. 770 (1974) (state may condition permits to enhance fish and wildlife; remanded in this case because record insufficient to support Board's conditions); Shokal v. Dunn, 109 Idaho 330, 707 P.2d 441 (1985) (public interest includes environmental values) ALASKA STAT. § 46.15.080(b) (1987) ("In determining the public interest, the commissioner shall consider.... (3) the effect on fish and game resources and on public recreational opportunities...."); NEV. REV. STAT. § 533.367 (1986) ("Before a person may obtain a right to the use of water... he must ensure that wildlife which customarily uses the water will have access to it."); *Id.* § 533.370(3) (State engineer may reject application if detrimental to the public interest). *See also* Robie, *Some Reflections on Environmental Considerations in Water Rights Administration*, 3 Ecol. L. Q. 695 (1972) and Grant, Public Interest Review of Water Right *Allocation and Transfer in the West: Recognition of Public Values*, 1987 Ariz. St. L. J. 681.

[55]Colorado, Montana, and Wyoming specifically authorize by statute the construction of impoundments with protected releases for fish and game. While the number of these structures actually built is unknown, the answer is probably few because of state budgetary limits. Other alternatives, including the purchase of existing rights, may be more cost-effective. Existing water rights are expensive, but not quite so expensive when compared with the enormous costs of impoundment structures. Yet faith in engineering solutions such as dams seems to provide comfort to western landowners, whereas purchasing existing water rights is tantamount to admitting the present system is fundamentally flawed. Also, there is a political pork barreling dimension to be considered. The purchase of individual water rights here and there may have little immediate effect and brings home less tangible bacon to the local voters than a water project. Finally, detention structures may still be built because dams are viewed as good things because they prevent water that otherwise would run out of the state from leaving, whereas purchases of rights not only curtail economic (translation: truly beneficial) use of the water, but allow even more water to escape out of the state unutilized.

Wild And Scenic Rivers

At least four western states protect the free-flowing character of streams for recreation and wildlife through wild and scenic rivers acts[56] which restrict dams, impoundments, and other obstructions. California, Oklahoma, Oregon, and South Dakota require the consideration of fish and wildlife in designating these rivers,[57] and all four prohibit detrimental obstructions.[58] The state acts are patterned after the national Wild and Scenic Rivers Act,[59] which similarly seeks to preserve unique streams in free-flowing condition.[60]

It is difficult to evaluate the effectiveness of current state strategies aimed at protecting instream flows.[61] Since most of the preservation flow statues were passed since 1980, several more years may elapse before any accurate assessment can be made. A systematic analysis of the use of the public interest to deny application on fish and wildlife bases may never be done because the information is not readily accessible.[62] Nevertheless, there is sufficient anecdotal evidence of the use of state instream flow laws and strategies to enhance flows to predict their increasing use to this end.

Five major questions remain for the future of instream flows: "(1) how should instream flows be assessed and measured; (2) how will instream flow protection be integrated into all water management decision making; (3) how will federal and state strategies be meshed; (4) how will protected instream flows stand up to stresses such as drought and demands for new urban, industrial and agricultural supplies; and (5)

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[56]CAL. PUB. RES. CODE §§ 5094.50 to -.69 (West Supp. 1988); OKLA. STAT. ANN. tit. 82 §§ 1451 to-58 (West Supp. 1989); OR. REV. STAT. §§ 390.805 to -.925 (1987); S.D. CODIFIED LAWS ANN. §§ 46a-1-9 to-16 (1987).

[57]CAL. PUB. RES. CODE § 5093.50 (West Supp. 1984); OKLA. STAT. ANN. § 82-1452 (West Supp. 1989); OR. REV. STAT. § 3930.835(1) (1987); S.D. CODIFIED LAWS ANN. § 46A-1-16(1987).

[58]CAL. PUB. RES. CODE § 5093.55 (West Supp. 1989); OKLA. STAT. ANN. § 82-1452 (West Supp. 1989); OR. REV. STAT. § 3930.835(1) (1987); S.D. CODIFIED LAWS ANN. § 46A-1-15(1987) (no detrimental "development").

[59]16 U.S.C. §§ 1271-1287 (1985).

[60]16 U.S.C. §§ 1271 (1985) *Cf.* OKLA. STAT. ANN. § 82-1452 (West Supp. 1989) and S.D. CODIFIED LAWS ANN. § 46A-1-16 (1987) (statements of purpose in *haec verba*).

[61]A number of withdrawals in Oregon have been codified, OR. REV. STAT. §§ 538.110 to -.450 (1988), although how many is unclear from the statutes. Kansas has steadily added minimum stream flow requirements since 1984. KAN. STAT. ANN. § 82a-70c (1985 & Supp. 1987). Colorado officials apparently have filed instream appropriations on most of the remaining unappropriated streams and tributaries. *See* Comment, *Wyoming's New Instream Flow Act; An Administrative Quagmire*, 21 Land & Water L. Rev. 455, 482 (1986).

[62]Many denials of applications are made by unpublished administrative order, or rejected even more informally. Because of the potential widespread impact, water reservations are almost certainly tabulated and listed in the state's appropriation records system. Further, in Kansas, and frequently in Oregon, the withdrawals are codified. Instream appropriations, by their very nature, are maintained as an integral part of the appropriation records system.

how will the instream flow protection agenda be shared between government agencies and private citizens?"[63]

WATER TRANSFERS TO INSTREAM USE

Water may also be obtained for instream flows by the acquisition of existing rights. Colorado and Wyoming statutes specifically authorize the state to purchase or otherwise reacquire existing water rights for instream flow protection.[64] California appears to permit condemnation of rights.[65] Although other states do not explicitly address sale or purchase of rights for instream purposes, whether by individuals or by the state, such sales take place in the absence of such explicit statutes. But, the frequency and conditions under which these sales take place is not readily accessible because the decisions are made internally and often informally, and state water agencies themselves may not systematically collect the information.[66] In any event, given the increasing and conflicting demands for water, more states will likely address this issue in the future and may enact statutes explicitly permitting the purchase or of water rights for instream flows.

Government involvement in this process may be particularly important in the context of endangered species preservation. Water markets may prove to be otherwise flawed, because other demands may often outweigh species' needs in an open marketplace. This situation is exacerbated by the inherent difficulty in assessing the value of instream flows, such as for species needs, relative to other demands. Thus, government involvement in acquiring water rights for instream flows may be necessary.[67]

WATER BANKING

Water banking is the practice of storing surplus water in pools, tanks, or underground for future purchase or trade, or to lease water rights for natural flow or groundwater from one use to another use. Water banking provides states with a market based mechanism to reallocate water resources, and it has proven successful as a tool for providing water for endangered species.

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[63]*Instream Flow Protection in the West*, Natural Resources Law Center, University of Colorado School of Law, P. 138, 1989.

[64]WYO. STAT. ANN. § 41-3-1007(a) (Supp. 1988); COLO. REV. STAT. § 37-92-102(3) (Supp. 1988); Kansas debated H.B. 2036 in 1987, which would have allowed purchase of rights on a cost-share basis, but the bill did not pass.

[65]CAL. CIV. PROC. CODE § 1230.010 to 1268.728 (West 1982 & Supp. 1989). *Cf.* City of Los Angeles v. Aitken, 10 Cal. App. 2d 460, 52 P.2d 585 (1935).

[66]Kansas, for example, has permitted the sale of some water rights, even though its appropriation statutes do not explicitly provide for this. Any such decisions are made by unpublished administrative order.

[67]Colorado and Wyoming specifically prohibit acquisition through condemnation, prompted by local agricultural users' concerns about state control and interference in matters traditionally viewed as a matter of private property rights. Kansas has sought a partial resolution of this tension by authorizing local groundwater management districts to purchase or condemn water rights, an option more politically palatable because these water districts are governed by local water users. Other states allow purchase and condemnation of water rights through local districts.

The potential benefit of a market-based water bank has been described as follows:

> A water banking...system, could potentially provide a centralized and specialized source of information about water availability and water needs. A state of individuals having technical understanding of the hydrologic, economic, and legal impacts and economic externalities that accompany changes in water use, could be effective in negotiating cost-effective and resource efficient match-ups of buyers and sellers of water. The bank... may provide any or all of the following:
>
> a) A listing or registry of water rights for sale or lease, the location of those rights, the asking price, and the physical characteristics of the entitlement available to the public market.
>
> b) A registry of potential purchasers of water rights shares or lease-holds, the use intended, the quantity, quality, and regimen requirements, and the location of proposed use.
>
> c) Information about local water institutions, their supply availabilities, their service areas, storage and distribution facilities, and potentials for participation or involvement in accomplishing specific transfer options.
>
> d) Analysis of the "conditioning" implication and constraints in transferring a particular right from present use to new location and use situations.
>
> e) Clarification and possibly certification of legal status and title of water rights of interest to prospective buyers." [68] Though few states have used these techniques to change the use of large amounts of water, it is growing more popular in the West as demands increase.[69]

State Water Banking

Water banks have been developed in several states in the West.[70] Below is a brief overview of water banking in five western states.

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[68] *Feasibility Study of Establishing a Water Rights Banking/Brokering Service in Utah*, Jay M. Bagley, ET. AL. (1980).

[69] Lawrence J. MacDonnell ET. AL., *Water Banks in the West*, Natural Resources Law Center, Univ. Of Colo. School of Law, (1994).

[70] Though private entities and state pilot programs have been implemented in California, Colorado, Nevada, Oregon, and Utah, this section deals primarily with established state-run water banking programs. *See Western Water Law & Policy Reporter* Vol.6 No. 11, 2002.

Idaho

Unlike many other Western states, water banking is nothing new in Idaho. In fact, the Idaho Legislature formally authorized the creation of a water bank in 1979.[71]

Idaho operates a statewide water supply bank, including local rental pools for storage water.[72] Water right holders can deposit water rights for future withdrawals by purchasers.[73] To remove the hesitance to deposit water rights, which may be caused by the fear of forfeiture, such rights deposited with the state bank are specifically exempt from forfeiture under Idaho statute.[74]

Though Idaho's water bank was formally established in 1979, an informal bank has been issued since the 1930s and its utilization is increasing.[75] In addition to uses for irrigation, the transferred water has been used to enhance instream flows for migrating salmon and hydroelectric power production, as well as for aquifer recharge.[76] Though local rules for transfers were based on irrigation as the priority, most of the water in the local banks has been used for such environmental purposes.[77]

The 2001 Conservation Agreement in the Lemhi River Basin represents a recent example of successful cooperative efforts to obtain water for listed species, including use of the water supply bank. The agreement was entered into by Idaho's Office of Species Conservation, Department of Water Resources (IDWR), Department of Fish and Game (IDFG), the Upper Salmon Basin Watershed Project (Project), the Lemhi Irrigation District, Water District No. 74, the National Marine Fisheries Service (NMFS), and the U.S. Fish and Wildlife Service (FWS). The agreement includes provisions to enhance instream flow in the Lemhi River and Hayden Creek, as well as to increase planning and monitoring. Non federal water users provide rental water to ensure a minimum of 20 cfs flow in the Lemhi River, and an average of 8 cfs for Hayden Creek. Participants use the state water supply bank on a willing-lessor, willing-lessee basis.

The parties further committed to "participate in the negotiation of a long-term agreement for the conservation of ESA-listed fish species in the Lemhi River Basin." The agreement addresses enhancing instream flows by way of water banking and other mechanisms to identify and implement projects to improve fish migration, and other enhancement measures. The agreement has received wide-ranged praise from federal agencies, state water resource personnel, farmers, and other interest groups.

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[71]*See* IDAHO CODE ANN. §§ 42-1761 *et seq.* (2002).

[72]*See* MacDonnell ET AL. *supra* note 66, at 2-3.

[73]IDAHO CODE ANN. §§ 42-1762 to 1765 (2002).

[74]IDAHO CODE ANN. § 42-1764 (2002).

[75]MacDonnell ET AL., *supra* note 66, at 2-19 to 2-22.

[76]*Id.* at 2-6.

[77]*Id.*

Texas

In comparison to other western water banks, Texas has created a water bank which has wide legal latitude in both design and operation.[78] The water bank's enabling legislation gives it authority to market both surface and ground water.[79]

The Texas water bank functions as a type of depository for water. Water held in the bank can be held for use in time of need. The bank has many options in how it operates. The bank can facilitate typical water transactions like transfers, it can also be managed as an informational water bank, providing water information to both potential buyers and sellers. [80] The water bank works as an emergency drought management bank to augment low supply in dry years.[81] The bank can function as an environmental water bank as well, storing life giving water for endangered species and their habitat.[82] In reality, the water bank is used as a combination of the above mentioned uses, changing focus to adapt to the present needs of the market, farmers, and wildlife.[83]

New Mexico

As with other western states, New Mexico's Legislature has been prompted by many fronts to create innovative approaches to freeing up additional water supplies. The water banking system along the Pecos River in eastern New Mexico was one such piece of inventive legislation passed in 2002. Like other river systems in the state, new appropriations on the Pecos River have seen a significant increase over the last 50 years. The increasing appropriations have made it essentially impossible to deliver promised water to Texas, as outlined in the Pecos River Compact of 1948. (This led to a United States Supreme Court ruling in 1987 that chastised New Mexico for its deficient river regulations and ordered the State to pay economic reparations to Texas.[84]) Along a 200-mile stretch of the Pecos River, a water banking pilot project allows farmers to lease their water rights at current market prices into a bank without the usual prerequisite of a lengthy hearing before the state engineer's office and the appeals process that often follows, and without forfeiting their long-term rights. Since the state legislature appropriated the necessary funds to compensate the farmers along the Pecos for their leased water rights, a substantial amount of available water can help satisfy New Mexico's delivery obligations pursuant to the Pecos River Compact.[85]

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[78]MacDonnell ET AL., *supra* note 2, at 4-79.

[79]TEX. WATER CODE ANN. §§ 15.701 to 703 (2002).

[80]TEX. WATER CODE ANN. §§ 15.703(a)(3) (2002). This role of the water bank can encourage water marketing, another strategy for supplying endangered species with needed water (discussed later in this report).

[81]TEX. WATER CODE ANN. §§ 15.703(a)(2) (2002).

[82]TEX. WATER CODE ANN. §§ 15.703(a)(4) (2002).

[83]*See* Ronald A. Kaiser, Texas Water Development Board, *Some potential roles for the Texas Water Bank*, 8-12, (1994).

[84]*See* Texas v. New Mexico, 482 U.S. 124 (1987).

[85]*Western Water Law and Policy Reporter*, Vol 6, No. 11, pp. 314-15 (Sept. 2002).

The Middle Rio Grande Conservancy District's Water Bank became effective in late 1995. The Water Bank is essentially a water management system and a method by which the conservancy district manages the distribution of water by moving water from areas where it is not being used to areas of need. The concept is simple; holders of current water rights within the district that are not using their water rights can place the rights in the water Bank; persons or entities can "withdraw" water from the Bank. These water bank transactions do not result in a new appropriation of water but rather serve to create flexibility in a fully appropriated system.[86]

New Mexico also has a Water-Use Leasing Act, which allows a water right owner to lease all or part of the right, and the owner's water right will not be affected by the lease of the use.[87] Upon termination of the lease, the water use and location of use subject to the lease revert to the original owner's use and location.

Arizona

In 1994, the Arizona legislature adopted the Underground Water Storage Savings and Replenishment (UWS) Act, which recodified and integrated previously adopted recharge projects into a single, comprehensive program[88]. This state program covers water reuse, groundwater recharge and water banking. Just as the California water banking program, Arizona's UWS program can be used to meet the needs of endangered species. Since 1996, the Water Bank has stored over approximately on million acre-feet of water in the State of Arizona.[89]

COOPERATIVE STATE/FEDERAL RIVER OPERATION

Water for species can be provided through a variety of means. In the context of complex multistate challenges, reservoir reoperation is a common component of collaborative solutions. Two examples involve the Platte River and the Colorado River.

There are four threatened and endangered species that depend upon the Central Platte River: the whooping crane, which migrates through the Central Platte in the spring and fall; the piping plover and interior least tern, which both hatch their young in the Central Platte; and the pallid sturgeon, a fish that lives primarily in the Missouri and Mississippi Rivers. Formal ESA Section 7 consultation requirements are triggered by myriad federal actions in the basin, such as federal hydropower project licensing, Clean Water Act Section 404 permits for diversion works, and U.S. Forest Service special use permits. Any of these actions have the potential to impose substantial burdens on individuals and projects through consultations to protect endangered species and their habitat, sometimes hundreds of miles downriver.

As a result, the governors of Colorado, Nebraska, and Wyoming initiated discussions leading to the formation of the Platte River Endangered Species Partnership and an agreement with the U.S. Fish and Wildlife Service to develop a plan and process that would comprise a Reasonable and Prudent Alternative

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[86] *Id.*

[87] N.M. STAT. ANN. §§ 72-6-1 to 72-7-7 (2001).

[88] ARIZ. REV. STAT. §§ 45-801.01 *et seq.* (2001).

[89] Id.

(RPA) to any jeopardy opinion on permitted development and ongoing project operations. The FWS long-term goal is to provide an additional 29,000 acres of habitat and increase average annual flows by 417,000 acre-feet of water -- with actions focused on the Big Bend area near Grand Island in central Nebraska.

Finding such a goal too ambitious for some of the Platte River partners, a phased incremental approach is being used to attempt to secure 130,000 to 150,000 acre-feet of water for endangered wildlife. The agreement seeks to increase water flow and habitat in and around the Central Platte River by releasing additional water during spring time from upstream dams and other water projects within the states of Colorado, Nebraska, and Wyoming, and by purchasing land from willing sellers along the river.

Each state is taking a little different approach to reaching the interim goals. Wyoming and the Bureau of Reclamation are looking to increase storage at Pathfinder Dam and use uncontracted water in Glendo Reservoir, both on the North Platte River, to increase flows. Colorado plans to use groundwater recharge opportunities to change the timing of discharges to the South Platte River to help meet target flows. Nebraska plans to use water stored in Lake McConaughy behind Kingsley Dam on the North Platte, together with habitat acquisition (including some 2,650 acres already purchased), to help meet the goals. Additional actions will be needed to achieve FWS long-term goals. In addition to funding and water and land acquisition challenges, there are hurdles to be overcome with respect to the integrated management of surface and ground waters, concern over impacts on the local tax base, potential third party impacts, and other issues. Nevertheless, the agreement provides a basis for optimism that solutions will be found, which will serve all of the interests in the basin, including the endangered species.

Another example of a successful cooperative approach involving changes in dam operation to provide water for endangered species is represented by the Upper Colorado River Endangered Fish Recovery Program.[90] A coalition of agencies and organizations came together in 1988 to work towards recovering endangered Colorado River basin fish and provide for future uses. The program involves federal, state, and private organizations and agencies in Colorado, Utah, and Wyoming.

An important component of the program is providing adequate instream flows. According to a U.S. Fish and Wildlife report, "This strategy seeks to mimic more natural flow patterns, providing high flows during natural spring runoff, and lower, more stable flows the rest of the year. Large volumes of water carve out the riverside nooks and crannies, or 'backwaters and side channels,' that endangered fish need to feed, grow and survive."[91]

To this end, the program has resulted in management of releases of 30,000 acre-feet of surplus water from Green Mountain Reservoir and coordinated releases from Ruedi and Wolford Mountain Reservoirs. Colorado State Parks, the Colorado Water Conservation Board, and the U.S. Fish and Wildlife Service reached an agreement to release up to 3,300 acre-feet of water annually from Steamboat Lake for endangered fish in the Yampa River. Agreements have been signed with the Colorado River Water Conservation District and the Denver Water Board to coordinate water releases from several Colorado reservoirs to benefit the endangered fishes. The Bureau of Reclamation has altered the timing and magnitude of releases from Flaming Gorge Dam on the Green River and the Aspinall Unit dams on the Gunnison River. This will help researchers better determine habitat requirements of the endangered fishes downstream of

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[90]The information in this summary was provided primarily by the USFWS. For more information, see their web site: *http://coloradoriverrecovery.fws.gov/Crrpovvu.htm.*

[91]*Id.*

these dams, and will be used in preparing new biological opinions on dam operations and in determining future dam operations.

The Utah State Engineer has established water rights policy for the Green River to protect releases from Flaming Gorge Reservoir for endangered fish. Pursuant to this policy, river flows will be protected from Flaming Gorge Dam downstream to the Duchesne River for endangered fish. New water right requests will be considered in this stretch, but only after these flows have been maintained for endangered fish.

THE ROLE OF STATE GENERAL STREAM ADJUDICATIONS

Completing state general water rights adjudications is another means to protect water for endangered and threatened species. Once a water right is defined under state law, that right can be administered to provide greater protection to a listed species than is now available. While an adjudicated water right can be protected by state watermasters, a water right that has not been adjudicated requires additional litigation before it can be enforced.

Western states must conduct lengthy, complicated and expensive proceedings to define the elements of relative rights to water in water rights adjudications. Congress recognized the necessity and benefit of requiring the United States' claims to be adjudicated in these state adjudications by adoption of the McCarran Amendment.[92] These adjudications are typically complicated, expensive, civil court and/or administrative actions that involve hundreds or even tens of thousands of claimants. Such adjudications give certainty to water rights, provide the basis for water right administration, reduce conflict over water allocation and water usage, and facilitate important market transactions for water rights in the West.

Federal agencies are among the primary beneficiaries of adjudication proceedings by having states officially quantify and record their water rights. However, the Supreme Court has held that the McCarran Amendment does not require the United States to pay fees for processing federal water right claims even though federal claims are typically the most complicated and largest of claims in state adjudications.[93] This holding means that the cost of adjudicating some of the most difficult claims in a state general adjudication has shifted entirely to private water users and state taxpayers. This drain on the resources of states and lack of federal government financial support significantly inhibit the ability of both state and federal agencies to protect private and public property interests.

This is nowhere more evident than in the Klamath Basin where approximately 400 of the 700 claims being adjudicated are federal claims.[94] The complexity of these federal claims, coupled with a series of lawsuits filed in federal court by federal agencies, has significantly delayed the state adjudication. Further, because they are not subject to fees and costs like other water users in the adjudication, federal agencies have filed questionable claims that may have been otherwise tempered. In Idaho, for example, the Forest Service initially filed 3,700 last-minute claims in the Snake River Basin adjudication just prior to the initial court action on the adjudication fee issue. After the Forest Service used these last-minute claims to

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[92]43 U.S.C. §666.

[93]United States v. Idaho, 508 U.S. 1 (1992).

[94]*See infra* note 95, Letter from Karl Dreher, Chairman, Western States Water Council, to Bennett Raley, Assistant Secretary for Water and Science, U.S. Department of Interior (October 9, 2002) (Copy on file at Western States Water Council office).

quantify the fiscal impact of paying fees and after the State of Idaho incurred considerable expense investigating these claims, the Forest Service withdrew all but 61 of the claims, and the state adjudication court has since dismissed all but 9 of the claims.[95]

It is in the best interest of state and federal governments, as well as other parties involved, to support the timely completion of adjudications. Federal agencies should pay a proportionate share of the costs, as do all other claimants, through an appropriate mechanism, which may require further congressional action.

Other steps can be taken by the federal government to expedite general stream adjudications. In the fall of 2002, the Western States Water Council sent a letter to the U.S. Department of Interior with suggestions on how the federal government could help expedite state general stream adjudications in the West. Besides recommending federal funding, the Council letter calls on the federal government not to pursue separate actions in federal court that deal with the subject matter of a state court adjudication during the pendency of the adjudication, assure there is high level federal involvement in negotiations within the context of ongoing adjudications, that federal agencies be given policy direction to ensure that federal claims filed in state adjudications have a sound basis in fact and law, and require that the federal government provide whatever evidence it may have to substantiate its claims at the time of filing.

CHALLENGES

Although many states have modified the appropriation doctrine to provide water for endangered species, there remain significant challenges under the doctrine to satisfy the increasing demand for the scarce resource. For example, without a fully integrated management of surface and groundwater, instream reservations for listed species may not result in water being left in a stream channel. Surface and groundwater management need to be coordinated sufficiently to ensure that groundwater pumping will not diminish surface flows in the same way as an upstream diversion. Another challenge for state water resource agencies is obtaining meaningful instream flow rights. Often times an instream flow right is relatively new, having a relatively junior priority date as compared to other water right holders in a watershed. What can states do to avoid issuing instream flow rights that become obsolete in times of scarcity? Most instream flow laws are relatively recent. For example, Alaska and Kansas enacted instream flow laws in 1980, Colorado in 1973, and Nebraska adopted an instream flow law in 1984.[96] Idaho's first instream flow protection was adopted by the legislature in 1925, but a statutory minimum stream flow program was not established until 1978.[97] As mentioned above, Montana has enacted leasing statutes that enable lessees to have the same priority date apply to the leased water as applied to the original water right being leased. [98] Similarly, in Oregon, a water right user can transfer water from a consumptive use to an instream flow, and yet maintain the same priority date.[99] Although these provisions help, many water rights will remain senior to instream flow rights, and will be first in line for water in low water years. Although some states have provisions that

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[95] *Id.*

[96] *See Supra* Instream flow section of this paper.

[97] *Id.*

[98] *Id.*

[99] *Id.*

extend the priority date of a water right to a lessee, as water resources continue to face increasing demands, states will likely have to derive innovative ways to protect relatively junior instream rights.

CONCLUSION

In summary, the prior appropriation doctrine has evolved in the West to provide protection and enhancement of public interest values. This is accomplished pursuant to: (1) provisions requiring consideration of the public interest in water allocation and transfer decisions; (2) laws and programs that enable establishment of instream flows and protection of instream values; and (3) provisions and policies that facilitate water transfers to instream uses. These mechanisms are available to the federal government to protect federal interests in water resources. Where such tools prove to be inadequate, recent experience has shown that there are opportunities to settle conflicts through negotiation rather than litigation. Successful negotiations have occurred in several western states.

Of course, the ability to accommodate federal interests does not equate to a willingness to uphold all federal claims of interest. Nevertheless, if federal representatives can recognize the opportunities afforded them under state law, then a great many conflicts in federal/state relationships can be avoided. Secretary Norton demonstrated this attitude in recent remarks reiterating her commitment to resolve conflicts relative to water for ESA purposes in cooperation with states, and to avoid litigation.

Once defined under state law, greater protection can be afforded water rights used to achieve federal interests than is otherwise available. For example, federal agencies would have greater opportunities to object to new appropriations and/or transfers could injure federal rights and interests. Federal agencies would be better equipped to protect water releases from storage for instream flows from subsequent diversion, if those interests are recognized under state law. Indeed, such flows could be protected by state watermasters.

States continue to face many challenges in providing water for listed species. These challenges include such things as the conjunctive management of surface and groundwater, and protecting relatively new instream flow rights that may be at the bottom of the chain in times of shortage. Although some states have provisions that extend the priority date of a water right to a lessee, as water resources continue to face increasing demands, states will likely have to find new ways to protect relatively junior instream rights.

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