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A Reconsideration of Instream Appropriate Water Rights in California

Brian E. Gray*

INTRODUCTION

In 1979, two California Courts of Appeal ruled that the state's water rights system does not recognize the appropriation of water for the purpose of maintaining minimum instream flows. *Fullerton v. State Water Resources Control Board* held that the State Department of Fish and Game had no authority to appropriate water for instream flows to protect the state's beneficial interest in its fisheries. Similarly, *California Trout, Inc. v. State Water Resources Control Board* decided that private parties may not appropriate water for instream uses. Justice Cruz Reynoso, then a member of the Court of Appeal for the Third District in Sacramento, dissented. According to Justice Reynoso, "neither diversion, possession, or physical control is an essential element of a valid appropriation right," and a private, nonprofit organization such as California Trout "may appropriate water for the public use" and "may assert the public trust contained within the fish and wildlife resources of the state."

I was still a law student in 1979 and paid no attention to these decisions or to the broader debate over the wisdom of recognizing instream appropriations of water in California. Like many Californians, I knew

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3. Id. at 820-23, 153 Cal. Rptr. at 675-76.
4. Id. at 823, 153 Cal. Rptr. at 676 (Reynoso, J., dissenting).
5. Id. at 825, 153 Cal. Rptr. at 677.
6. Id. at 824, 153 Cal. Rptr. at 677.
little more about water than that it was always there when I turned on the tap. Three years later, however, Justice Reynoso had been appointed to the California Supreme Court, and I had become a water lawyer. With a majority of the court receptive to the idea of public rights in the state's water resources,8 I planned to bring a new instream appropriation case with the hope of persuading the state supreme court to overturn Fullerton and California Trout and to recognize the appropriation of water for the protection of instream flows. I envisioned that, based on his dissent in California Trout, the opinion of the court would be authored by Justice Reynoso.

Unfortunately, I became preoccupied with other water resources issues, entered academia, and never brought the instream appropriation case. Today, I fear, the time for judicial reevaluation of Fullerton and California Trout has passed. Justice Reynoso is no longer a member of the supreme court, and the present court is unlikely to find authority for the appropriation of water for instream purposes in the California Water Code. Thus, instead of a lawsuit, I offer this essay with the hope that it will persuade the legislature or a future supreme court to recognize instream appropriative water rights.

I ARE INSTREAM WATER RIGHTS NECESSARY?

In recent years, the California Legislature, the courts, the State Water Resources Control Board (the Board),9 and other state agencies have sought to protect instream water uses and to preserve minimum stream flows as required to serve such instream uses. These terms embrace a variety of in situ uses of water. The instream uses most commonly discussed are protection of fisheries and wildlife, recreational uses, and preservation of aesthetic values associated with the water resources of the state.10 Indeed, the legislature has declared that "[t]he use of water for recreation and preservation and enhancement of fish and wildlife resources is a beneficial use of water."11

9. Created in 1967, the State Water Resources Control Board (the Board) is the primary state agency charged with managing the water rights system for appropriations of surface water, administering the federal and state water pollution control laws, and ensuring that all uses of California's water resources comply with California's constitutional requirement of reasonable and beneficial use. See Robie, The Delta Decisions: The Quiet Revolution in California Water Rights, 19 PAC. L.J. 1111, 1123-25 (1988).
10. See A. Schneider, Legal Aspects of Instream Water Uses in California 5 (Governor's Comm'n to Review California Water Rights Law Staff Paper No. 6, 1978).
These instream uses depend on a complex set of hydrological relationships. For example, California's fisheries need an adequate quantity of water to support an adequate food supply, to maintain the temperature of the river, and to provide a suitable habitat for migration and spawning. Fish populations also may be affected by pollutants discharged into the water and by variations in the flow of the river produced by impoundments and diversions upstream. Commercial navigation and recreational boating are highly dependent on the depth and flow of the river. Riparian vegetation supports hundreds of species of birds and other animals. And, after serving these uses, instream flows remain available for downstream consumptive and nonconsumptive uses, including the supply of fresh water to the bays and estuaries of the state.

The objective of instream appropriated water rights is to ensure the protection of these instream uses. There is substantial uncertainty, however, whether such rights are necessary to accomplish this purpose. Even without instream water rights, California has one of the most diverse and sophisticated systems in the United States for the protection of stream flows and instream uses of water. The Board has broad authority to protect instream uses both through its grants of water rights permits and through its regulation of existing water rights. Moreover, alone among the Western States, California has consolidated its regulation of water rights with its administration of federal and state water pollution control laws, which enables the Board to protect more effectively instream uses.

14. See id. at 165-70.
15. See id. at 160.
16. See Water Quality Control Plan, supra note 12, at 4-54.
18. See infra text accompanying notes 25-63.
that are threatened by deterioration of water quality.\textsuperscript{19} The judiciary has authority to protect instream flows through its powers to enforce the prohibition against wasteful, unreasonable, or nonbeneficial uses of water set forth in the California Constitution, and pursuant to its powers to enforce the public trust doctrine.\textsuperscript{20} Finally, the legislature has withdrawn certain rivers from further development by including them in the California Wild and Scenic Rivers System.\textsuperscript{21}

In view of this broad regulatory system, private appropriative rights may not seem necessary, or even desirable, for the protection of instream uses. Indeed, in 1978 after an extensive study of the question, the Governor's Commission to Review California Water Rights Law concluded that “permanent instream appropriations not involving physical control [should] be prohibited except for stockwatering purposes.”\textsuperscript{22} The Commission recommended instead that the State Water Resources Control Board establish comprehensive “instream flow standards” on a stream-by-stream basis, believing that such a procedure would allow for better consideration of the public interest than would the granting of permits for instream appropriations.\textsuperscript{23}

Although there is considerable merit to this view, I have become convinced both that the present methods of preserving instream flows in California are inadequate and that instream appropriations would be the most effective means of protecting instream uses. As the demand for water increases,\textsuperscript{24} the competition between consumptive uses and instream uses also will increase. This competition will be particularly acute in the summer and fall months and during sustained periods of drought. For instream uses to compete effectively under these circumstances, they must have the same legal status as consumptive uses. This will occur only if instream flows are recognized as water rights.

To evaluate this thesis I will first explore, in Part II of this essay, the various ways that California law currently protects instream flows. In

\begin{itemize}
\item \textsuperscript{19} See infra text accompanying notes 64-87.
\item \textsuperscript{20} See infra text accompanying notes 88-91.
\item \textsuperscript{21} See infra text accompanying notes 92-99.
\item \textsuperscript{22} Governor's Commission Report, supra note 7, at 119.
\item \textsuperscript{23} Id. at 118-19. In response to the deluge of applications to construct small hydroelectric power dams that followed the enactment of the Public Utility Regulatory Policies Act of 1978, 16 U.S.C. §§ 2601-2708 (1982), the legislature adopted the Commission's recommendation in 1982. The California Public Resources Code now requires the Department of Fish and Game to “identify and list those streams and watercourses throughout the state for which minimum flow levels need to be established in order to assure the continued viability of stream-related fish and wildlife resources,” Cal. Pub. Res. Code § 10001 (West 1986), and to “prepare proposed streamflow requirements . . . for each stream or watercourse identified.” Id. § 10002. Before it grants an application to appropriate water from a stream designated under section 10001, the State Water Resources Control Board must “consider” the Department's streamflow standards. Id.; Cal. Water Code § 1257.5 (West Supp. 1989); see also infra text accompanying notes 25-63.
\item \textsuperscript{24} See infra note 153.
\end{itemize}
Part III, I will show how the existing laws undervalue instream uses and threaten to diminish the amount of water reserved for in situ values over time. Part IV proposes a solution to the bias against instream flows—recognition of instream uses as water rights. In Part V, I address a series of questions that challenge the efficacy of instream appropriative rights.

II

PROTECTION OF INSTREAM USES UNDER EXISTING LAW

As mentioned above, California has one of the most comprehensive systems for protecting instream flows in the United States. This system may be divided into four categories: administrative protection through water rights management, administrative protection through water quality management, direct legislative protection, and direct judicial protection. Of the four, the administrative system affords the most thorough and diverse benefits for instream uses.

A. Administration of Water Rights

The primary mechanism for protecting instream flows in California is the State Water Resources Control Board’s administration of the state’s water rights system. The Board has direct jurisdiction over all appropriative rights acquired since December 19, 1914 and over all water rights based on prescriptive uses. Thus, all surface water rights obtained since December 19, 1914, except for riparian rights, must be based on a permit or license issued by the Board. Technically, a permit from the Board is a temporary license to construct water impoundment and diversion facilities and to appropriate water. After the permittee completes construction, applies the water to the beneficial uses set forth in the permit, and otherwise fulfills the terms and conditions of the permit, the permittee may apply for a permanent license to appropriate water. See CAL. WATER CODE §§ 1375-1397, 1600-1610 (West 1971 & Supp. 1989); see also infra note 48.

Although the Board has no authority to require permits for riparians and pre-1914 appropriators, it has four types of indirect jurisdiction over such users. First, the Board has the power to regulate riparian and pre-1914 appropriative rights to prevent waste and unreasonable use of water. See Imperial Irrigation Dist. v. State Water Resources Control Bd., 186 Cal. App. 3d 1160, 231 Cal. Rptr. 283 (1986); People ex rel. State Water Resources Control Bd. v. Forni, 54 Cal. App. 3d 743, 751, 126 Cal. Rptr. 851, 855 (1976). Second, it may regulate appropriative rights pursuant to its authority under the public trust doctrine. United States v. State Water Resources Control Bd., 182 Cal. App. 3d 82, 149-50, 227 Cal. Rptr. 161, 200-02 [hereinafter Delta Water Cases] (1986). Third, the Board may assume direct jurisdiction over riparians and pre-1914 appropriators when it invokes its powers to conduct a statutory adjudication of all water rights in a surface stream system. In re Waters of Long Valley Creek


26. Riparian rights are an incident of the ownership of riparian land—i.e., land that is adjacent to a natural watercourse. See J. SAX & R. ABRAMS, LEGAL CONTROL OF WATER RESOURCES 155-56 (1986). As real property rights, riparian rights generally are not subject to regulation by the Board. Cf. infra note 27.

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The Board is authorized to protect instream uses of water in three phases of regulation within its direct jurisdiction: (1) the granting of permits and licenses; (2) the regulation of permittees and licensees; and (3) the consideration of petitions to change the terms of an existing permit. In addition, the Board has newly recognized, and apparently substantial, authority to regulate water rights over which it has no direct jurisdiction for the purpose of preventing undue harm to instream uses.\textsuperscript{28}

1. Direct Jurisdiction: Granting Permits

The Board's authority to protect instream uses includes the power both to deny a permit application, if it concludes that the proposed appropriation would unreasonably impair instream flows, and to place conditions on permits it decides to grant, to ensure that the new appropriation is compatible with instream uses above or below the point of diversion.

Before the Board may grant a permit, it must perform three tasks.\textsuperscript{29} First, it must notify the California Department of Fish and Game of the permit application and consider the Department's recommendation of "the amounts of water, if any, required for the preservation and enhancement of fish and wildlife resources."\textsuperscript{30} Second, the Board must determine how much water is available for appropriation, "taking into account, whenever it is in the public interest, the amounts of water required for recreation and the preservation and enhancement of fish and wildlife resources,"\textsuperscript{31} as well as "the amounts of water needed to remain in the source for protection of . . . any uses specified to be protected in any relevant water quality control plan."\textsuperscript{32} Third, the Board must weigh

\textsuperscript{28} See infra text accompanying notes 51-63.

\textsuperscript{29} This discussion is limited to the procedures that the Board must follow to protect instream flows during the permit process. An analysis of how the Board actually considers applications to appropriate water is set forth infra text accompanying notes 100-33.

\textsuperscript{30} CAL. WATER CODE § 1243 (West Supp. 1989). After receiving notice from the Board, the Department of Fish and Game shall "recommend the amounts of water, if any, required for the preservation and enhancement of fish and wildlife resources and shall report its findings to the Board." \textit{Id.} This process differs from the adoption of comprehensive stream flow standards discussed supra note 23 in that the Department discharges its responsibilities under section 1243 of the Water Code on a case-by-case basis.

\textsuperscript{31} CAL. WATER CODE § 1243 (West Supp. 1989). The California Legislature has declared that "[t]he use of water for recreation and preservation and enhancement of fish and wildlife resources is a beneficial use of water." \textit{Id.}

\textsuperscript{32} \textit{Id.} § 1243.5 (West 1971). Section 1258 provides that "[i]n acting upon applications to appropriate water, the board shall consider water quality plans which have been established
the relative benefits of the proposed appropriation against the benefits of alternative uses of the water, including the "preservation and enhancement of fish and wildlife, recreational [uses] . . . and any uses specified to be protected in any relevant water quality control plan." If the application is to appropriate water from rivers for which the Department of Fish and Game has established streamflow standards, the Board also must "consider" those standards.

If the Board decides to grant an application to appropriate water, it may issue a permit "under such terms and conditions as in its judgment will best develop, conserve, and utilize in the public interest the water sought to be appropriated." In accordance with this directive, the Board commonly includes in its permits terms and conditions designed to protect streamflows and instream uses. Typical terms require the applicant to do the following: (1) bypass water under specified flow conditions for the protection of fish and wildlife, (2) release water to augment natural stream flows downriver of the project, and (3) release relatively large quantities of water, usually during periods of high water supply, to cleanse the riverbed of accumulated sediment. The Board also has the authority to require that the point of diversion for a new appropriation of water be moved downstream from the location originally proposed to protect instream flows in the river between the proposed point of diversion and the downstream location.

2. Direct Jurisdiction: Regulating Permittees

Once the Board issues a permit, it retains significant jurisdiction over the actual appropriation of the water, which it may exercise to protect instream flows. The Board has continuing authority to modify the terms and conditions of any permit if further investigation indicates that additional water is needed to protect public trust uses, to prevent waste or unreasonable use of water, or to meet water quality objectives set forth in the applicable water quality control plan. Pursuant to this reserved

pursuant to Division 7 . . . of this code, and may subject such appropriations to such terms and conditions as it finds are necessary to carry out such plans." Id. § 1258.

33. Id. § 1257.
34. See supra note 23 and accompanying text.
36. Id. § 1253 (West 1971).
37. Such terms and conditions may be found in many water rights decisions and permits issued by the Board. See, e.g., In re South Fork American River Project Water Rights 91-103, State Water Resources Control Bd., Decision 1587 (1982) [hereinafter Decision 1587]. The Board maintains a catalog of frequently used terms and conditions, copies of which are available upon request. CAL. CODE REGS. tit. 23, § 780 (1987) (describing State Water Resources Control Bd., Permit Term Index (1982) [hereinafter Standard Permit Terms]). Standard Permit Terms 60-69 address protection of fish, wildlife, and recreational uses. Id.
39. CAL. CODE REGS. tit. 23, § 780 (1987). The continued authority of the Board is
jurisdiction, the Board may amend the permit to alter the protection of instream uses by changing terms such as the season of diversion, the quantities that may be diverted, and the minimum release requirements. The Board also occasionally requires the permittee to conduct studies, in conjunction with the California Department of Fish and Game and the United States Department of Fish and Wildlife, to determine what additional flows may be necessary to support fish, wildlife, recreation, and other instream uses.

Independent of its reserved powers, the Board also may modify the terms of a permit "to prevent waste or unreasonable use or methods of diversion of water." This authority, which is derived from the California Constitution, allows the Board to balance the permittee's use of the water against competing "statewide considerations." The competing considerations are not limited to other water rights, but embrace other potential uses of the water as well. These uses include the achievement and maintenance of ambient water quality standards, protection of the public trust, and supply of instream beneficial uses. If, on balance, the Board determines that more water is needed for instream uses, it may modify the permit accordingly.


40. E(800)g., In re Permits 19259 and 19260 (Rock Creek Limited Partnership), State Water Resources Control Bd., Order 87-2 (1987) [hereinafter Order 87-2] (increasing minimum by-pass requirement and lengthening season of diversion to protect fisheries (citing CAL. WATER CODE § 1394 (West Supp. 1989)).

41. See, e.g., Decision 1587, supra note 37, at 97-98.


43. See id. (construing CAL. CONST. art. X, § 2). The California Constitution declares: 

[T]hat because of the conditions prevailing in this State the general welfare requires that the water resources of the State be put to beneficial use to the fullest extent of which they are capable, and that the waste or unreasonable use or unreasonable method of use of water be prevented, and that the conservation of such waters is to be exercised with a view to the reasonable and beneficial use thereof in the interest of the people and for the public welfare.


45. Delta Water Cases, 182 Cal. App. 3d at 129-30, 227 Cal Rptr. at 187-88; see infra text accompanying notes 64-87.

46. Audubon, 33 Cal. 3d at 445-49, 658 P.2d at 727-29, 189 Cal. Rptr. at 364-66; see infra text accompanying notes 57-63.


48. Until recently, the Board's reserved jurisdiction formally terminated when the Board granted a license for the completed water project. See CAL. WATER CODE §§ 1394, 1600-1610
3. **Direct Jurisdiction: Water Transfers and Other Changes in Permits and Licenses**

The Board's authority to protect instream uses is also triggered whenever a permittee or licensee requests permission to change its existing practices in a way that could adversely affect stream flows. Before an appropriator may sell water to users outside its service area, transfer water rights, or change its point of diversion, point of return flow, place of use, or purpose of use, the appropriator must obtain the Board's approval. The Board may grant permission only if it "finds that the change may be made without injuring any legal user of the water and without unreasonably affecting fish, wildlife, or other instream beneficial uses."  

4. **Indirect Jurisdiction: Reasonable and Beneficial Use and the Public Trust Doctrine**

Along with the direct authority over its permittees and licensees, the Board has considerable indirect jurisdiction over all water users—including riparians and pre-1914 appropriators—which it may employ for the purpose of protecting stream flows and other instream uses. Although riparian and pre-1914 rights are not based on permits issued by the Board, the exercise of such rights must conform to the constitutional and statutory mandate of reasonable and beneficial use and to the public (West 1971 & Supp. 1989). In 1984, however, the Board adopted a standard permit term to extend its reserved jurisdiction to apply to licenses as well:

Pursuant to California Water Code Sections 100 and 275 and the common law public trust doctrine, all rights and privileges under this permit and under any license issued pursuant thereto . . . are subject to the continuing authority of the State Water Resources Control Board in accordance with law and in the interest of the public welfare to protect public trust uses and to prevent waste, unreasonable use, unreasonable method of use or unreasonable method of diversion of said water.  

**CAL. CODE REGS.tit. 23, § 780(a) (1987); Standard Permit Terms, supra note 37, term 12 (adopted Oct. 30, 1984) (emphasis added).** Thus, for permits granted after 1984, the Board's reserved jurisdiction continues throughout the life of the water right. For permits granted before 1984, the Board has significant authority under the reasonable and beneficial use and public trust doctrines to modify the terms of the license as required to protect instream uses. See infra text accompanying notes 51-63.

49. **CAL. WATER CODE §§ 384, 386, 1701, 1727, 1736 (West 1971 & Supp. 1989).**  
50. **Id. § 386 (West Supp. 1989); see id. §§ 1725, 1726.**  
51. Article X, section 2 of the California Constitution provides in relevant part:  

"The right to water or to the use or flow of water in or from any natural stream or water course in this State is and shall be limited to such water as shall be reasonably required for the beneficial use to be served, and such right does not and shall not extend to the waste or unreasonable use or unreasonable method of use or unreasonable method of diversion of water. Riparian rights in a stream or water course attach to, but to no more than so much of the flow thereof as may be required or used consistently with this section, for the purposes for which such lands are, or may be made adaptable, in view of such reasonable and beneficial uses."  

**CAL. CONST. art. X, § 2 (West Supp. 1989); see also CAL. WATER CODE §§ 100-101 (West 1971) (reiterating the reasonable and beneficial use requirements).**
trust doctrine.\textsuperscript{52} Furthermore, the California Legislature has directed the Board "to take all appropriate proceedings or actions . . . to prevent waste, unreasonable use, unreasonable methods of use, or unreasonable methods of diversion of water."\textsuperscript{53} Based on these authorities, California Courts of Appeal have held that the Board has the power both to impose conditions on the exercise of riparian and pre-1914 appropriative rights for the purpose of preventing waste or unreasonable use,\textsuperscript{54} and to declare, following an adjudication, that a particular use of water pursuant to such rights is unreasonable.\textsuperscript{55}

The Board may use its indirect jurisdiction over all water rights to protect instream uses. If the Board finds that the exercise of a water right is unreasonable because of its adverse effects on an instream use, it may place conditions on the water right to augment stream flows or to reallocate water from the consumptive use to the instream use.\textsuperscript{56}

As the California Supreme Court recognized in \textit{National Audubon Society v. Superior Court},\textsuperscript{57} the Board has similar authority under the public trust doctrine.\textsuperscript{58} According to the court, the Board must consider the public trust "in the planning and allocation of water resources."\textsuperscript{59} This directive does not alter significantly the Board's responsibility to protect instream uses when it grants new permits to appropriate water. "[F]or 'at least the past 25 years' the board, pursuant to its constitutional mandate and its statutory public interest authority, 'has considered val-

\textsuperscript{53} \textit{CAL. WATER CODE § 275} (West Supp. 1989). The Board shares this responsibility with the Department of Water Resources. \textit{Id}.
\textsuperscript{56} \textit{CAL. WATER CODE § 1243} (West Supp. 1989).
\textsuperscript{58} \textit{Id} at 446-48, 658 P.2d at 728-29, 189 Cal. Rptr. at 364-66. At issue in \textit{Audubon} was the applicability of the public trust—an ancient doctrine that establishes public rights to use the navigable waters of the state—to the appropriative water rights of the City of Los Angeles in four streams that supply Mono Lake. The court held that the National Audubon Society's allegations that the city's diversions impaired the public trust in Mono Lake stated a cause of action. According to the court, the values protected by the trust include navigation, commerce, fisheries, recreational uses, and preservation of the resource in its natural state. \textit{Id} at 434-35, 658 P.2d at 719-20, 189 Cal. Rptr. at 355-57.
\textsuperscript{59} \textit{Id} at 446, 658 P.2d at 728, 189 Cal. Rptr. at 364. If the Board fails to consider public trust values in making water resources decisions, members of the public may petition the Board to force proper consideration. \textit{See} \textit{CAL. CODE REGS. tit. 23, § 745(c) (1987)} (authorizing protests of water rights applications by persons alleging that the proposed appropriation "would not be[s]t conserve the public interest or public trust uses [or] would have an adverse effect on the environment"); \textit{Audubon}, 33 Cal. 3d at 448-49, 658 P.2d at 729-30, 189 Cal. Rptr. at 366-67 (persons not holding water rights may petition Board to investigate waste and unreasonable use or to convene a statutory adjudication to protect the public trust).
ues that also are protected by the public trust.'” 60 Audubon substantially expands, however, the Board’s authority over older water rights, including licensed appropriators, pre-1914 appropriators, and riparians. 61 "Once the state has approved an appropriation," the court held, "the public trust imposes a duty of continuing supervision over the taking and use of the appropriated water.” 62 It concluded that the state “accordingly has the power to reconsider allocation decisions even though those decisions were made after due consideration of their effect on the public trust. . . . No vested rights bar such reconsideration.” 63

B. Administration of Water Quality

In addition to its direct and indirect jurisdiction over water rights, the Board may protect instream uses through its administration of the federal and state water pollution control laws.

The California Legislature has designated the Board as “the state water pollution control agency for all purposes stated in the Federal Water Pollution Control Act.” 64 Acting either directly or through the Regional Water Quality Control Boards under its jurisdiction, 65 the State Board is empowered to establish regional water quality control plans and, based on the standards set forth in the plans, to regulate point and


61. See id. at 17-42.

62. Audubon, 33 Cal. 3d at 447, 658 P.2d at 728-29, 189 Cal. Rptr. at 365.

63. Id. (footnote omitted). Neither the Board nor the courts have had the opportunity to decide whether the public trust doctrine in fact limits Los Angeles’s water rights because the Audubon litigation has languished in a procedural quagmire for the past six years. For the subsequent history of Audubon, see National Audubon Soc’y v. Department of Water & Power, 858 F.2d 1409 (9th Cir. 1988). The Board has exercised its continuing jurisdiction under the doctrine, however, to investigate whether appropriative rights of the Turlock and Modesto Irrigation Districts should be modified to provide additional releases for instream uses in the lower Tuolumne River. See State Water Resources Control Bd., Proposed Resolution Authorizing Acceptance of an Offer For Voluntary Interim Flow Release at La Grange Dam on the Tuolumne River Proposed By Modesto and Turlock Irrigation Districts (Apr. 21, 1988) (Board meeting agenda, Item 13).

64. CAL. WATER CODE § 13160 (West Supp. 1989).

65. According to the Porter-Cologne Act of 1969, CAL. WATER CODE §§ 13100-13389 (West 1971 & Supp. 1988), the State Water Resources Control Board has supervisory power over the nine Regional Water Quality Control Boards. The regional boards are primarily responsible for issuing permits to point source dischargers of pollution both under California law and the National Pollutant Discharge Elimination System created by the federal Clean Water Act. CAL. WATER CODE § 13377 (West Supp. 1989); Clean Water Act § 402(b), 33 U.S.C. § 1342(b) (1982). The regional boards also must adopt ambient water quality control plans for all surface water basins under their jurisdiction, CAL. WATER CODE § 13240 (West 1971), subject to approval by the state board, which may adopt its own plan for an individual basin. Id. § 13170 (West Supp. 1989). For a general discussion of the relationship between the State Water Resources Control Board and the regional boards, see Attwater & Markle, Overview of California Water Rights and Water Quality Law, 19 PAC. L.J. 957, 994-1012 (1988).
nonpoint sources that contribute to water pollution. The Board must formulate the water quality control plans "to attain the highest water quality which is reasonable, considering all demands being made and to be made on those waters and the total values involved, beneficial and detrimental, economic and social, tangible and intangible." As in the water rights area, the California Legislature has defined the beneficial uses that the Board must protect to include "recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources."

This consolidation of water rights and water quality administration in a single state agency has two important consequences. First, the Board has the authority to protect instream uses from the effects of both water diversions and water pollution. Second, it has the power to regulate water rights for the protection of water quality and to regulate point and nonpoint sources of pollutants to protect both water rights and instream beneficial uses.

Application of the Board's water quality jurisdiction to protect instream uses is best illustrated by the hearings to establish water quality standards for the San Francisco Bay and the Sacramento-San Joaquin Delta Estuary (the Bay-Delta hearings), which will occupy the Board from 1987 through at least 1991. These hearings are an extension of the Board's Water Quality Control Plan for the Sacramento-San Joaquin Delta and Suisun Marsh and Water Right Decision 1485, in which the Board exercised its reserved jurisdiction to place operating conditions on the Central Valley Project and the State Water Project for the

67. Id. § 13000 (West 1971); see also id. § 13241 (West Supp. 1989) (listing criteria for water quality plans established by regional boards).
68. See supra text accompanying notes 29-35.
70. See WORKPLAN, supra note 27, at 34-35.
71. Id. at 3.
72. Id.
73. The Central Valley Project (CVP) is an integrated system of reservoirs, canals, and water distribution facilities operated by the United States Bureau of Reclamation. Its principal components are: Lake Shasta Reservoir, which impounds the waters of the upper Sacramento River and its tributaries; Claire Engle Reservoir, which impounds the waters of the Trinity River for transbasin diversion into the Sacramento River; Folsom Reservoir on the American River; New Melones Reservoir on the Stanislaus River; the Tracy Pumping Plant, which diverts water from the Delta for export to the San Joaquin Valley; and Friant Dam, which impounds the waters of the San Joaquin River for export to the southern San Joaquin Valley and to the Tulare Basin. See W. KAHL, THE CALIFORNIA WATER ATLAS 46-50 (1979). The CVP's projected net water supply capacity beyond 2010 is approximately 9.45 million acre-feet per year. DEPARTMENT OF WATER RESOURCES, CALIFORNIA WATER: LOOKING TO THE FUTURE 25 (1987) (Bull. 160-87). At that time agricultural users, with a projected need of 28.7 million acre-feet per year, will claim the lion's share of this water. See id. at 11.
74. The State Water Project (SWP) complements the CVP. As its name indicates, the SWP is owned by the state and is operated by the California Department of Water Resources.
purpose of maintaining water quality in the Delta. The goal of the Bay-Delta hearings is to protect instream and consumptive beneficial uses of water in the Delta, and the Bay-Delta Estuary itself, from (1) the adverse effects of water diversions upstream of the Delta, which damage water quality by diminishing the amount of freshwater that flows into the Delta, and (2) point and nonpoint sources of pollutants located in and upstream of the Delta.\footnote{5} To accomplish this task, the Board may place additional conditions on the water rights of the major appropriators from the Bay-Delta system and may limit the amounts of pollutants that can be discharged into the system.\footnote{6}

Although the scope of the Board's authority to employ its water quality jurisdiction to protect instream uses will become clearer after the

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75. The Board has divided the Bay-Delta hearings into three parts:

Phase One, which ran from July 1987 through February 1988, was a quasi-judicial proceeding. During this phase, the Board took evidence on the following subjects: (1) the hydrologic conditions of the Bay-Delta Estuary, "including water quality conditions under the present level of development upstream and in the Estuary"; (2) the beneficial uses, both consumptive and instream, within the Bay-Delta Estuary and on the numerous rivers that are tributary to the estuary; (3) the locations and types of point and nonpoint sources of pollutants and their effects on these beneficial uses and on the Bay-Delta Estuary itself; (4) the effects of saltwater intrusion from the Bay on the beneficial uses in the Delta; (5) the "levels of protection in terms of flow and salinity, which should be afforded these beneficial uses"; and (6) possible means of implementing this reasonable protection and of mitigating the adverse effects of pollutants on beneficial uses in the Bay-Delta Estuary. State Water Resources Control Bd., Draft Revised Workplan for the Hearing Process on the San Francisco Bay/Sacramento-San Joaquin Delta Estuary 22-23 (1989).

Based on the evidence gathered during Phase One, the Board commenced Phase Two in November 1988 by promulgating a draft Water Quality Control Plan for Salinity and a draft Pollutant Policy Document. During the Phase Two hearings, which will be conducted as quasi-legislative proceedings, the Board will receive comments on the draft reports. Phase Two will conclude with the Board's adoption of final water quality standards for the Bay-Delta Estuary and a program of implementation. \textit{Id.} at 23-25.


Phase Four, which is scheduled to begin in 1990, will be a quasi-judicial proceeding. \textit{See id.} at 20. During this phase of the hearings, the Board will take testimony on the draft EIR and on "related water right matters." \textit{Id.} The Board has stated that "[w]ater right holders may be required to share in the responsibility of meeting those objectives needed for the reasonable and balanced protection of beneficial uses on the Estuary's waters." \textit{Id.} Following the Phase Four hearings, the Board will issue its water rights decision and certify the final EIR. \textit{Id.}

76. \textit{Id.} at 5.
Bay-Delta hearings are completed, the potential uses of this jurisdiction is apparent in United States v. State Water Resources Control Board (Delta Water Cases), in which the California Court of Appeal reviewed, and for the most part upheld, the Board’s Water Quality Control Plan for the Delta and Water Rights Decision 1485. The court first observed that “[i]n its water quality role of setting the level of water quality protection, the Board’s task is not to protect water rights, but to protect ‘beneficial uses.’” Thus, if beneficial uses—including instream uses such as recreation, fisheries, and wildlife—require more water than needed by riparians and senior appropriators in the Delta, the Board must order upstream water rights holders to release flows sufficient to provide reasonable protection for the beneficial uses. As a corollary to this holding, however, the court emphasized that beneficial uses for water quality purposes do not trump competing beneficial uses upstream of the Delta that are based on water rights. According to the court, the Board has broad discretion to establish reasonable water quality standards for the protection of beneficial uses, “‘considering all demands being made and to be made on those waters and the total values involved, beneficial and detrimental, economic and social, tangible and intangible.’”

The court next addressed the question of how the water rights of the various parties to the Bay-Delta hearings could be modified if necessary to protect water quality in the Delta. In Decision 1485, the Board reviewed only the water rights permits of the United States Bureau of Reclamation for the Central Valley Project and of the California Department of Water Resources for the State Water Project. The court approved the Board’s authority to impose conditions that required the two projects to release water from storage and to time their diversions from the Delta so as to maintain levels of water quality that would be present if the projects did not exist. Consistent with its earlier ruling, the court concluded that “[u]nder its reserved jurisdiction to modify the permits, the Board was authorized to impose upon the projects water quality standards at whatever level of protection the Board found reasonable, whether ‘without project’ or greater.” The court also held that under the reasonable use and public trust doctrines the Board could compel other water users—permittees, licensees, riparians, and pre-1914 appro-

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78. Id. at 97-98, 227 Cal. Rptr. at 165-66; see supra text accompanying notes 72-74.
79. Delta Water Cases, 182 Cal. App. 3d at 116, 227 Cal. Rptr. at 178 (emphasis in original) (citing CAL. WATER CODE § 13000 (West 1971)).
80. See id.
81. Id. (emphasis in original) (citing CAL. WATER CODE § 13000 (West 1971)).
82. See supra text accompanying notes 72-74.
84. Id. at 129, 227 Cal. Rptr. at 187.
85. Id. at 141, 227 Cal. Rptr. at 195 (citing CAL. WATER CODE §§ 1394, 13241 (West 1971)).
priators—to contribute to the maintenance of reasonable water quality in the Delta. Moreover, along with regulating the diversion of water, the court ruled that the Board must consider the effects of the discharge of pollutants into tributaries of the Delta on water quality-based beneficial uses within the Delta.

Thus, in fulfillment of its statutory duty of establishing and maintaining water quality standards adequate to protect all beneficial uses of water in the San Francisco Bay-Delta Estuary, the Board has extensive authority over all sources of pollution, all water rights, and all water users in the Sacramento-San Joaquin River system. By integrating pollution control and water rights jurisdiction in one state agency, California has significantly enhanced the Board’s ability to protect instream uses (along with the other beneficial uses recognized by the water quality laws) from pollutants, upstream diversions, and alterations in stream flows.

C. Judicial Protection

In California, the courts share in the broad regulatory and adjudicatory powers of the Board. The California Supreme Court has held that the courts have concurrent jurisdiction with the Board to adjudicate claims of waste and unreasonable use and to decide whether a consumptive use of water violates the public trust doctrine. Private litigants may seek judicial protection of instream uses directly, without having to rely on a state agency such as the Board or the Department of Water Resources. In these cases, if the court determines that a challenged use of water is unreasonable in view of its deleterious effects on instream uses or impairment of the public trust, the court may adjust the

86. Id. at 129-30, 149-51, 227 Cal. Rptr. at 187-88, 201-02. The court stated that the reasonable use and public trust doctrines provide additional authority for the Board to require the two projects to maintain water quality in the Delta beyond the “without project” standards. Id.
87. Id. at 120, 227 Cal. Rptr. at 181.
88. Environmental Defense Fund v. East Bay Mun. Util. Dist., 26 Cal. 3d 183, 605 P.2d 1, 161 Cal. Rptr. 466 (1980). In reaching this conclusion, the court relied on the fact that article X, section 2 of the California Constitution is self-executing and therefore confers jurisdiction directly on the courts to enforce the constitutional requirement that all uses of water be reasonable and beneficial. Id. at 198-99, 605 P.2d at 8-9, 161 Cal. Rptr. at 473-74. The court maintained one exception to concurrent jurisdiction when it did not disturb its earlier holding that claims that a water user be required to substitute reclaimed wastewater for potable supplies must be presented in the first instance to the Board, because of the technical complexities and the public health implications involved. Id. at 198-200, 605 P.2d at 9-10, 161 Cal. Rptr. at 474-75, aff'g Environmental Defense Fund v. East Bay Mun. Util. Dist., 20 Cal. 3d 327, 341-44, 572 P.2d 1128, 1135-37, 142 Cal. Rptr. 904, 911-13 (1977).
90. See id. at 448-52, 658 P.2d at 729-31, 189 Cal. Rptr. 366-69; Environmental Defense Fund, 26 Cal. 3d at 200, 605 P.2d at 10, 161 Cal. Rptr. at 475.
water rights of the consumptive user as necessary reasonably to protect instream values.\(^9\)

D. Legislative Protection

Finally, the California Legislature has protected instream uses by establishing the California Wild and Scenic Rivers System.\(^9\) The Wild and Scenic Rivers Act states that "[i]t is the policy of the State of California that certain rivers which possess extraordinary scenic, recreational, fishery, or wildlife values shall be preserved in their free-flowing state, together with their immediate environments, for the benefit and enjoyment of the people of the state."\(^9\) As of this writing, the Legislature has designated five rivers or river segments as "wild and scenic." They are the American River—its north fork and the lower stretch of the main river from Nimbus Dam to its confluence with the Sacramento River—and the four North Coast rivers—the Smith, Klamath, Eel, and Trinity Rivers—and many of their tributaries.\(^9\)

To implement the policies of the Act, the Legislature generally has prohibited the construction of dams and other water impoundment and diversion facilities on wild and scenic rivers.\(^9\) It also has directed that no state agency or department may assist, "whether by loan, grant, license, or otherwise," any federal, state, or local governmental entity "in the planning or construction of any dam, reservoir, diversion, or other water impoundment facility that could have an adverse effect on the free-flowing condition and natural character" of a protected river.\(^9\) Under this provision, the State Water Resources Control Board would be prohibited from granting a permit for any water development project that is located upstream or downstream of a river or river segment included in the wild and scenic rivers system and that would submerge or unreasonably diminish the flow of the river.\(^9\)

91. *Audubon*, 33 Cal. 3d at 443-44, 658 P.2d at 725-26, 189 Cal. Rptr. at 362-63.
93. *Id.* § 5093.50 (West 1984).
94. *Id.* § 5093.54 (West Supp. 1989); see *id.* §§ 5093.541, 5093.545 (West 1984).
95. *Id.* § 5093.55(a) (West Supp. 1989). In 1988, this section of the Act was amended to include both the river and its segment. *Id.* Moreover, the Act explicitly prohibits the construction of dams or reservoirs on rivers that have been designated for study by the Secretary of the Resources Agency; the study is to be completed January 1, 1990. *Id.* § 5093.55(b). There are two exceptions to this general prohibition. See *id.* §§ 5093.55(a), 5093.57 (West 1984 & Supp. 1989) (construction of temporary flood control facilities on the Eel River); *id.* § 5093.55(a) (West Supp. 1989) (Secretary may authorize construction of water diversion facility to supply domestic needs of the residents of the counties through which river flows, if the Secretary determines that such a facility is necessary and "will not adversely affect the free-flowing condition and natural character of the river and segment"). Neither exception appears to allow the construction of dams or reservoirs.
96. *Id.* § 5093.56 (West Supp. 1989).
97. Under the Supreme Court's holding in *California v. United States*, 438 U.S. 645 (1978), the Board would have the authority to deny an application by the United States Bureau
In addition to these restrictions on water development, the legislature has declared that the inclusion of a river in the wild and scenic rivers system "is the highest and most beneficial use and is a reasonable and beneficial use of water within the meaning of Section 2 of Article X of the California Constitution."98 With this declaration, the legislature apparently intended to ensure that protection of wild and scenic river values would take precedence over conflicting uses in a dispute over the right to divert water from a designated river.99

These provisions of the California Wild and Scenic Rivers Act contain strong protections for instream uses on those rivers included in the system. Because the state grants all water rights permits and regulates all surface water use, the legislative mandate to preserve the natural, free-flowing character of component rivers is applicable in practice to all
water users. Thus, the effect of the Act is to prohibit—or at least to create a strong presumption against—water development projects that potentially threaten instream flows and instream uses in the state’s wild and scenic rivers.

III
HOW THE EXISTING SYSTEM FAILS TO PROTECT INSTREAM USES

The California scheme has many positive attributes. All three branches of government play a part in protecting instream uses: the administrative agencies, pursuant to their regulation of water rights, fish and wildlife, and other public resources; the courts, through their jurisdiction to prevent waste and unreasonable use of water and to promote the public trust; and the legislature, by designating wild and scenic rivers. Again, the question arises: why should the state provide the additional protection of instream appropriative rights?

The answer to this question depends on an understanding of the inadequacies of the existing means by which the three branches of government actually exercise their authority to protect instream uses. As this analysis will show, the deficiencies in the current regulatory scheme are the product of two factors: (1) lack of clarity in the statutory and public trust directives to protect instream values, and (2) the lesser status accorded to instream flow rights in relation to riparian and appropriative rights.

A. The Board’s Discretionary Protection of Instream Uses

The most striking feature of the laws discussed in the preceding section is the absence of a categorical directive to the Board from either the legislature or the courts to protect instream uses. Rather, at all stages of its jurisdiction, the Board must only “consider” instream values in relation to the competing consumptive use.

1. The Regulatory Process

The protection of instream uses under the California water rights and water quality laws is entirely dependent on the broad discretion of the Board. For example, when deciding whether to grant a permit for a new appropriation, the Board must “take into account” the amount of water that should remain in the river for instream uses. In making this determination and in placing appropriate conditions on the permits that it does grant, the Board is required to act “in the public interest.”

100. Cal. Water Code §§ 1243, 1243.5 (West Supp. 1989); see supra text accompanying notes 29-35.
Although the California Court of Appeal has declared that the public interest is "the primary statutory standard guiding the Water Rights Board in acting upon applications to appropriate water," neither the legislature nor the Board has attempted to define the term with any degree of precision.

Similarly, when the Board establishes water quality standards for the various river basins of the state, it is directed "to attain the highest water quality which is reasonable." To determine what level of protection for instream beneficial uses is reasonable, the Board must consider all present and future demands on the water resource, as well as the "total values involved, beneficial and detrimental, economic and social, tangible and intangible." As the court of appeal observed in the Delta Water Cases, "in carrying out its water quality planning function, the Board possesses broad powers and responsibilities.

Thus, neither the water rights system nor the water quality laws require the Board to provide any certain protection of instream uses. Rather, "the Legislature has conferred broad discretion upon the Board to impose terms and conditions upon appropriation permits which 'in its judgment will best develop, conserve, and utilize in the public interest the water . . . appropriated.'"

accompanying notes 31-36.


103. In the Delta Water Cases, 182 Cal. App. 3d 82, 227 Cal. Rptr. 161 (1986), the court of appeal observed that "[t]he nature of the public interest to be served by the Board is reflected throughout the statutory scheme." Id. at 103, 227 Cal. Rptr. at 169. Citing a number of sections of the Water Code that help to give content to the public interest standard, the court stated:

As a matter of state policy, water resources are to be used "to the fullest extent . . . capable" (§ 100) with development undertaken "for the greatest public benefit" (§ 105). And in determining whether to grant or deny a permit application in the public interest, the Board is directed to consider "any general or co-ordinated plan . . . toward the control, protection, development . . . and conservation of [state] water resources . . . " (§ 1256), as well as the "relative benefits" of competing beneficial uses (§ 1257). Finally, the Board's actions are to be guided by the legislative policy that the favored or "highest" use is domestic, and irrigation the next highest. (§ 1254).

Id. at 103, 227 Cal. Rptr. at 169-70. The court added that "[n]onconsumptive or 'instream uses,' too, are expressly included within the category of beneficial uses to be protected in the public interest." Id.

104. CAL. WATER CODE § 13000 (West 1971).

105. Id.; see also supra text accompanying notes 77-81.


2. The Public Trust

The decision of the California Supreme Court in *National Audubon Society v. Superior Court*\(^{108}\) indicates that the public trust doctrine also fails to require any particular level of protection for instream uses. Although the public trust has enhanced the Board's authority to promote instream values, especially vis-à-vis appropriative rights and uses of water that are not subject to the Board's direct jurisdiction,\(^{109}\) it does not limit significantly the Board's discretion to balance instream and consumptive needs.

The supreme court's strongest directive regarding the Board's responsibilities was its declaration that "[t]he state has an affirmative duty to take the public trust into account in the planning and allocation of water resources, and to protect public trust uses whenever feasible."\(^{110}\) Standing alone, this language suggests that the Board must give great weight to instream values in determining whether to allow a new appropriation and in deciding what conditions should be placed on the appropriator. Indeed, this directive can be read to require the Board to resolve all streamflow, water quantity, and water quality questions in favor of providing maximum protection for public trust uses.

Elsewhere in its opinion, however, the court emphasizes that the public trust does not take precedence over other competing uses. Recognizing that the "population and economy of this state depend upon the appropriation of vast quantities of water for uses unrelated to in-stream trust values,"\(^{111}\) the court held that the Board has the authority to grant permits that enable an appropriator "to take water from flowing streams and use that water in a distant part of the state, even though this taking does not promote, and may unavoidably harm, the trust uses at the source stream."\(^{112}\) When the Board or other state authority chooses to allocate water for purposes that impair the public trust, the court ruled, the agency "must bear in mind its duty as trustee to consider the effect of the taking on the public trust . . . and to preserve, so far as consistent with the public interest, the uses protected by the trust."\(^{113}\)

The court seems to give the public trust even less weight later in the opinion. Discussing Los Angeles' entitlement to appropriate the waters of Mono Basin, the court suggested that the interests of the respective parties should be balanced. It noted that neither the Board nor any other

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109. See Dunning, *supra* note 60, at 17-41 to 17-42; *supra* text accompanying notes 57-63.
110. *Audubon*, 33 Cal. 3d at 446, 658 P.2d at 728, 189 Cal. Rptr. at 364-65 (emphasis added).
111. *Id.* at 446, 658 P.2d at 727, 189 Cal. Rptr. at 364.
112. *Id.*
113. *Id.* at 446-47, 658 P.2d at 728, 189 Cal. Rptr. at 365 (emphasis added).
state authority had ever "determined that the needs of Los Angeles outweigh the needs of the Mono Basin, that the benefit gained is worth the price."

The court concluded that the public trust doctrine "imposes a continuing duty on the state to take [trust] uses into account in allocating water resources." Perhaps to underscore that the public trust is simply one factor among the many that must be considered in allocating water among competing uses, the court declared that "[a]ll uses of water, including public trust uses, must now conform to the standard of reasonable use."

These disparate standards give the Board wide-ranging discretion to prefer public trust values over consumptive uses or vice versa. Regardless of how the question is phrased, the ultimate determination of how to apply the public trust doctrine will be left to the judgment of the Board. Thus, the Board's responsibilities under the public trust doctrine do not appear to differ significantly from its statutory authority to protect instream uses in its administration of the water rights and water quality laws.

3. The California Wild and Scenic Rivers Act

The legislative designation of a river as wild and scenic would seem to offer an alternative to the uncertain protections afforded by the administrative process and the judicially created public trust doctrine. The California Wild and Scenic Rivers Act contains clear directives that the "free-flowing" character of component rivers be preserved for the

114. Id. at 447, 658 P.2d at 728, 189 Cal. Rptr. at 365.
115. Id. at 452, 658 P.2d at 732, 189 Cal. Rptr. at 369.
116. Id. at 443, 658 P.2d at 725, 189 Cal. Rptr. at 362.
117. Several alternative characterizations of the Audubon holding are possible: Is it "feasible" to protect public trust uses? Is harm to the public trust "unavoidable"? What balance should be struck between the competing interests? Would protection of public trust uses be reasonable under the circumstances? Would preservation of the public trust be "consistent with the public interest"?
118. The Board's amendment of its regulations to incorporate the directives of the Audubon decision confirms this limited interpretation of the public trust doctrine. For example, the Board added to the regulation that asserts its continuing jurisdiction over all permits and licenses the statement that such jurisdiction "may be exercised by imposing further limitations on the diversion and use of water . . . to protect public trust uses." CAL. CODE REGS. tit. 23, § 780(a) (1987). The regulation provides, however, that "[n]o action will be taken pursuant to this paragraph unless the board determines . . . that such action is consistent with California Constitution Article X, Sec. 2; is consistent with the public interest and is necessary to preserve or restore the uses protected by the public trust." Id. The Board also amended the regulation that governs releases of stored water from water impoundment facilities for maintenance of water quality and minimum stream flows. That regulation now states that "the board may require releases of water diverted and stored whenever such releases are determined by the board to be in the public interest or are needed to protect public trust uses of water, if such requirement is reasonable under Article X, Section 2 of the California Constitution." Id. § 784(a).
119. See supra text accompanying notes 92-99.
protection of their "extraordinary scenic, recreational, fishery, [and] wildlife values." Unfortunately, the Board has not interpreted the Act to provide such increased protections.

The only application of the Wild and Scenic Rivers Act to a claim that an appropriation of water would impair the instream uses protected by the statute came in the Board's decision as court-appointed referee in litigation between the Environmental Defense Fund and several other plaintiffs and the East Bay Municipal Utility District (EBMUD) regarding the Lower American River. The plaintiffs sought to require EBMUD—a contractor with the United States Bureau of Reclamation—to divert water below the confluence of the Lower American and Sacramento Rivers. EBMUD had proposed to divert its water from the Bureau of Reclamation's Folsom-South Canal Project, which is located on the American River just above the wild and scenic "lower" segment.

One of the many questions addressed by the Board was the effect of the Lower American River's status as a California Wild and Scenic River on EBMUD's proposed upstream point of diversion.

The Board concluded that the legislature's designation of the Lower American River as a Wild and Scenic River "does not preclude the Bureau from entering into additional contracts for the delivery of water via the Folsom South Canal so long as the recreational and anadromous fishery values for which the lower American River was designated are not unreasonably diminished." While acknowledging the legislature's declaration of state policy that designated rivers be preserved in their free-flowing state, the Board concluded that "[r]ead closely, the Act appears to promise more protection than is actually delivered." The Board based this conclusion on its interpretation of the Act as "prohibit[ing] neither the construction nor operation of water diversion . . .

120. CAL. PUB. RES. CODE § 5093.50 (West 1984); see supra text accompanying note 93.
122. See generally TECHNICAL REPORT, supra note 13.
124. Id. at 151-52 (citing CAL. PUB. RES. CODE § 5093.50 (West 1984)).
125. Id. at 153.
facilities upstream of designated streams”126 and on its assessment that the legislature did not intend “to assure any particular quantity of water in a designated stream.”127 The Board also noted that its reading of the statute “is reinforced by the 1982 amendments to the Act.”128 As originally enacted in 1972, section 5093.55 of the Act prohibited the construction of any facility “on or directly affecting” a component river.129 In the 1982 amendments, the legislature deleted the words “or directly affecting.”130 The Board concluded that, by this change, “the Legislature appears to have intended to circumscribe the application of the Act.”131

The Board’s narrow reading of the Act in the Lower American River case indicates that the designation of a river as wild and scenic does not give instream uses any greater protection from competing consumptive uses than does either the administrative system or the public trust doctrine.132 The Act does prohibit the construction of dams—and severely restricts the construction of “run-of-the-river” diversion

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126. Id.
127. Id. at 154.
130. Act of Sept. 27, 1982, ch. 1481, 1982 Cal. Stat. 5707. As amended, section 5093.55 prohibits the construction of any water impoundment facility on a wild and scenic river or on any designated segment. It provides that no water diversion facility may be constructed on any [component] river and segment unless and until the [Secretary of the Resources Agency] determines that the facility is needed to supply domestic water to the residents of the county or counties through which the river and segment flows, and unless the secretary determines that the facility will not adversely affect the free-flowing condition and natural character of the river and segment.

131. Legal Report, supra note 123, at 154.
132. The Board’s crabbed interpretation of the Act is erroneous in two respects. First, although the legislature did not establish specific minimum stream flows on component rivers, that does not mean that it did not intend “to assure any particular quantity of water in a designated stream.” Id. As with most environmental statutes, the legislature set forth general directives as to the management of component rivers under the Wild and Scenic Rivers Act, leaving the administrative agencies to implement those directives through specific standards. Compare, e.g., CAL. PUB. RES. CODE §§ 5093.55, 5093.56 (West 1984 & Supp. 1989) (mandating study by the Secretary to determine what free flow is necessary to maintain the “natural character” of the river) with Clean Water Act § 303(c)(2)(A), 33 U.S.C. § 1313(c)(2)(A) (1982 & Supp. V 1987) (ambient water quality standards “shall be such as to protect the public health or welfare, enhance the quality of water and serve the purposes of this chapter”). That the Act does not reserve fixed quantities of water or stream flows does not, however, authorize the Board to ignore the legislature’s explicit policy directive.

The legislature declared it to be state policy that California’s wild and scenic rivers “shall be preserved in their free-flowing state . . . for the benefit and enjoyment of the people of the state,” CAL. PUB. RES. CODE § 5093.50 (West 1984), and stipulated that the use of water for this purpose “is the highest and most beneficial use and is a reasonable and beneficial use of water within the meaning of Section 2 of Article X of the California Constitution.” Id.; cf. State ex rel. Dept of Parks v. Idaho Dept of Water Admin., 96 Idaho 440, 530 P.2d 924 (Idaho 1974) (upholding declaration by Idaho Legislature that appropriation of waters in Malad Canyon by Department of Parks to preserve stream flows is a beneficial use of such water). Contrary to the Board’s construction, this language indicates that the Legislature intended to reserve a sufficient quantity and flow of water to preserve the free-flowing character
works—on designated rivers. According to the Board's interpretation, however, the statute does not significantly affect its evaluation of whether to permit an upstream appropriation that could be harmful to instream uses in the designated portion of the river below.

B. The Inherent Bias Against Instream Uses

As the foregoing analysis shows, the water rights and water quality laws, the public trust doctrine, and the California Wild and Scenic Rivers Act all vest the Board with extensive discretion to decide, on a case-by-case basis, what level of protection of instream uses is reasonable under the circumstances. In general, this discretion is both inevitable and appropriate because allocation of the state's water resources among the competing domestic, agricultural, industrial, instream, and other uses must be the product of policy choices that cannot be made by simple adherence to a preordained set of legal priorities.

For this allocation process to work effectively, however, all beneficial uses must be able to compete on an equal footing. Unfortunately, existing law does not treat instream uses on a par with competing consumptive uses because only the latter are entitled to the security of the water rights system. Without the ability to claim instream flows based on a water right equal to the rights of consumptive users the advocates of instream uses are at a perennial disadvantage in water allocation pro-

The Board also failed to consider section 5093.56, which directly addresses its authority to approve of diversions of water upstream of a wild and scenic river. This section prohibits the Board from assisting or cooperating with "the planning or construction of any dam, reservoir, diversion, or other water impoundment facility that could have an adverse effect on the free-flowing condition and natural character" of a component river. CAL. PUB. RES. CODE § 5093.56 (West Supp. 1989). The terms of this proscription are precautionary, rather than flatly prohibitory. Yet, fairly construed, section 5093.56 requires the Board to deny an appropriation if it finds a significant risk that the diversion of water from the river could impair the instream uses that originally brought the river under the purview of the wild and scenic rivers system. The Board must evaluate the effects of the appropriation on such values as fisheries, recreational uses, and aesthetics and can only approve a diversion that would not unreasonably diminish those values. In making this determination, however, section 5093.56 requires the Board to be cautious and to err on the side of protecting the river, rather than facilitating the appropriation.

It can be argued that, because the two dams for the Folsom-South Canal Project—Folsom Dam and Nimbus Dam—had already been constructed, section 5093.56 should not apply. However, the Board reserved jurisdiction over the water rights permits for the project for the purpose of maintaining instream flows below Nimbus Dam. In re Applications 18721, 18723, 21636 and 21637 (U.S. Bureau of Reclamation), State Water Resources Control Bd., Decision 1400, at 22 (1972). Therefore, its decision in the Lower American River Court Reference should be viewed as a continuation of its reserved authority and hence "assistance" or "cooperation" with the construction of the project within the meaning of section 5093.56.


134. Perhaps the best examples of this allocation process are the Bay-Delta hearings described above. See supra text accompanying notes 70-87.
ceedings. It is for this reason that the state must recognize instream appropriative water rights.

A review of how the Board evaluates an application to appropriate water illustrates the disparity between the legal status of senior water rights and instream uses.

I. Disparity in the Permit Process

In considering an application to appropriate water, the Board makes two determinations. First, the Board must decide preliminarily that there is unappropriated water available to supply the applicant. To make this finding, the Board examines the existing riparian and appropriative rights and makes an initial assessment of the requirements of instream uses.

If it concludes that there is unappropriated water available, the Board then reviews the application on the merits to determine whether and under what conditions to issue the permit. Before it may grant a permit, the Board must decide that the appropriation would be in the "public interest." The public interest test essentially requires the Board to consider an array of factors, including the effects of the proposed appropriation on instream uses and on water quality standards established pursuant to state and federal pollution control statutes.

If the Board chooses to issue a permit, it does so "under such terms and conditions as in its judgment will best develop, conserve, and utilize in the public interest the water sought to be appropriated."

At both of these stages—when the Board decides whether there is unappropriated water available, and when it evaluates the public interest—the Board distinguishes between the protection of existing water rights and the protection of instream uses.

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137. See, e.g., Order 87-2, supra note 40, at 18-19 (applications to appropriate water had been approved only on condition that permittee submit further studies of effect of bypass on fisheries to compensate for deficient application study).
138. The California Supreme Court has held that the Board's determination that there is unappropriated water available confers no right on the applicant. The Board's decision is simply "a prerequisite to any exercise of its discretion in the issuance of a permit." Temescal, 44 Cal. 2d at 103, 280 P.2d at 9. Nor does this determination adjudicate the water rights of the respective parties: "[T]he rights of the riparians and senior appropriators remain unaffected by the issuance of an appropriation permit." Delta Water Cases, 182 Cal. App. 3d 82, 103, 227 Cal. Rptr. 161, 169 (1986) (citing Duckworth v. Watsonville Water Co., 170 Cal. 425, 431, 150 P. 58, 60-61 (1915)).
139. Cal. Water Code § 1253 (West 1971); see supra text accompanying notes 29-35.
141. Cal. Water Code § 1253 (West 1971); see supra text accompanying notes 29-38.
a. Protection of Senior Water Rights

To determine how much water is available in a river, the Board initially reviews the permits and licenses issued to prior appropriators and evaluates the existing needs of riparians and pre-1914 appropriators. Depending on its evaluation, the Board then may deny or permit the appropriation outright, limit the amount of water the appropriator can divert during certain months, grant the appropriator a lesser amount of water than requested in the application, or order a physical solution to any conflict. In assessing the needs of senior water rights holders, the Board measures the existing uses of water made pursuant to the senior rights. The Board ordinarily does not evaluate, however, the reasonableness of these existing uses in light of the proposed appropriation.

At the public interest stage of its review, the Board does not even consider the water rights of senior users. Rather, the focus of the analysis is on the applicant and on alternative uses for the water. During this phase, it is presumed that following the appropriation the senior water rights will be unimpaired.

142. See CAL. WATER CODE § 1350 (West 1971).
144. CAL. CODE REGS. tit. 23, § 698 (1987); see also Standard Permit Term 6 (1976), reprinted in Standard Permit Terms, supra note 37 (“The amount authorized for appropriation may be reduced in the license if investigation warrants.”).
146. The Board may consider, for example, whether the proposed use is for a beneficial purpose, see CAL. CODE REGS. tit. 23, § 659; whether the applicant has alternative sources of supply, see id. § 700; whether the applicant has a water conservation program in place, see id. § 780(a); and whether reclaimed waste water could be substituted for the proposed appropriation, see id. § 651.
147. These alternatives could include supplying other applicants, see CAL. WATER CODE § 1243.5 (West 1971 & Supp. 1988); preserving the water for users within the area of origin, see id. §§ 1215-1219.5; providing for instream uses, see id. § 1243; and maintaining water quality standards, see generally WATER QUALITY CONTROL PLAN, supra note 12.
148. For example, the Board’s standard permit form includes a printed declaration that the permit is granted “subject to vested rights.” DIVISION OF WATER RIGHTS, STATE WATER RESOURCES CONTROL BOARD, PERMIT FOR DIVERSION AND USE OF WATER (1972).
b. Protection of Instream Uses

In contrast, no such presumption protects instream uses: when the Board evaluates an application for a new appropriation in light of instream uses of the water resources, the Board weighs the reasonableness of the proposed appropriation against the reasonableness of maintaining a certain level of instream flow protection. Thus, the Board decides on a case-by-case basis how best to accommodate the competing consumptive and instream uses. With each application, the Board must decide anew the same questions related to instream uses: (1) Should stream flows reserved to protect fish, wildlife, and recreational uses be reduced in order to facilitate the new appropriation? (2) In view of the new consumptive use, what constitutes reasonable protection of instream beneficial uses? (3) Considering the current needs of the state, what balance should be struck between consumptive and public trust uses of the available water? And, (4) What is the “relative benefit to be derived from . . . all beneficial uses of the water concerned”? This system of continual reevaluation of the reasonableness of instream uses with each new proposal for a competing consumptive use is inherently prejudicial to the protection of instream flows. Unlike senior consumptive uses, which are insulated from the case-by-case assessment of reasonable use, instream uses are continuously subject to reevaluation. Instream uses are particularly vulnerable to this reassessment during periods of shortage when the Board must reallocate among existing uses to meet increasing water demand.

2. The Inevitable Diminution of Instream Flow Protection

Well into the foreseeable future, the statewide demand for water will increase. Most of this increase will occur in the municipal and industrial sectors. Population growth continues unabated in many regions of California, and history shows that wherever people locate, provisions for a water supply will follow. Thus, as population increases, the Board is likely to grant many applications for new appropriations.

If a new domestic appropriation for urban and industrial use potentially will interfere with existing uses of the available water, it is likely

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149. See e.g., Workplan, supra note 27 (setting out procedures for the Bay Delta hearings described supra notes 71-87 and accompanying text).
151. See id. § 1243.5.
152. See id. § 1257.
153. California’s Department of Water Resources recently projected a 39% increase in California’s population between 1985 and 2010 and a concomitant 32% rise in urban applied water demand. DEPARTMENT OF WATER RESOURCES, supra note 73, at 5. It estimated that the demand for agricultural uses will remain relatively constant over this period. Id. at 11.
154. See W. KahrI, supra note 73, at 28-57 (describing municipalization of water supplies for the many communities established far from water sources).
that the Board would seek to facilitate the new use by reallocating some water from those existing uses to the new use. The reason for this is twofold. First, political pressures make it difficult for the Board to deny urban and suburban populations water that they need for domestic purposes and commercial development.\textsuperscript{155} Second, the Legislature has directed the Board to give preference to domestic consumers by requiring that, in acting on applications to appropriate water, the Board be “guided by the policy that domestic use is the highest use of water”\textsuperscript{156} and “consider the state goal of providing a decent home and suitable living environment to every Californian.”\textsuperscript{157} Although these directives coexist with the requirement that the Board also protect instream and public trust uses, the Board’s ultimate duty is to devise an allocation that best serves the statewide public interest in light of the relative benefits of the various possible uses of the water.\textsuperscript{158}

As demands exceed available supplies, existing allocations should be reconsidered and, if appropriate, altered to accommodate changes in societal values and priorities.\textsuperscript{159} This reconsideration must be conducted, however, in a manner that fairly evaluates all of the competing uses. Over time, the current allocation system will tend to diminish unduly the level of instream flow protection vis-à-vis consumptive uses. Because the Board reevaluates the reasonableness of existing instream uses with each new appropriation, but does not similarly reconsider the reasonableness of senior water rights, it will tend to reallocate water from instream uses rather than from consumptive uses based on the senior water rights. Except in rare cases, a reordering of water use that places the burden predominantly, if not exclusively, on instream uses will neither represent the most socially valuable allocation of water nor accomplish the paramount state policies embodied in article X, section 2 of the California Constitution,\textsuperscript{160} the state Water Code,\textsuperscript{161} and the public trust doctrine.\textsuperscript{162}

\textsuperscript{155} See, e.g., \textit{CAL. WATER CODE} § 1254 (West 1971) (designating domestic use as the “highest use” for the Board’s consideration in applications to appropriate water).

\textsuperscript{156} Id.

\textsuperscript{157} Id. § 1259 (West Supp. 1989).


\textsuperscript{159} As the California Supreme Court has stated:

\textit{[T]he public trust imposes a duty of continuing supervision over the taking and use of . . . appropriated water. In exercising its sovereign power to allocate water resources in the public interest, the state is not confined by past allocation decisions which may be incorrect in light of current knowledge or inconsistent with current needs.}

\textit{Audubon}, 33 Cal. 3d at 447, 658 P.2d at 728, 189 Cal. Rptr. at 365.

\textsuperscript{160} See supra notes 43 & 51.

\textsuperscript{161} See supra notes 150-52 and accompanying text.

\textsuperscript{162} See supra notes 88-91 and accompanying text.
Even if the Board were to evaluate the reasonableness of senior water rights as part of the public interest determination, the process would remain biased against instream flow protection. As long as senior water rights have a superior status to instream uses, the former will enjoy an inherent and decisive advantage. When an applicant for a new appropriation seeks to divert water from existing instream uses to fulfill its needs, the appropriator must demonstrate that, on balance, its proposed use of water would be more socially valuable than would maintenance of current streamflow levels and, accordingly, that it would be reasonable to encroach on the instream uses to serve the new appropriation.\(^{163}\)

In contrast, if the applicant were to request the Board to reallocate water from senior water rights holders to the new appropriation, the applicant would have to demonstrate not only that its use of the water, all factors considered, would be reasonable and socially valuable, but also that the competing uses made pursuant to the senior water rights are unreasonable.\(^{164}\) Proof that an existing water right is being exercised in an unreasonable manner is, to say the least, exceedingly difficult.\(^{165}\) Thus, it is unlikely that in any but the most egregious cases of waste water would be reallocated from existing water rights to support new appropriations. Instead, the burden would continue to fall inordinately upon instream flows.

The systemic bias against instream uses raises serious concerns because it illustrates the risk that instream flow protection, and hence the quality of instream uses, may be eroded over time. The solution to this problem is to afford instream uses the same legal protections granted to the consumptive water rights with which they compete. To confer equal status on instream uses, it is necessary to recognize instream appropria-tive rights.

\(^{163}\) See supra text accompanying notes 100-18.

\(^{164}\) The Board retains jurisdiction to impose conditions on all water rights holders to prevent waste or unreasonable use. See supra notes 51-56 and accompanying text.

\(^{165}\) Indeed, in only a handful of cases have the Board and the courts found the exercise of an existing water right to be unreasonable, and in each situation the inefficiency of the use was extreme. See, e.g., Joslin v. Marin Mun. Water Dist., 67 Cal. 2d 132, 429 P.2d 889, 60 Cal. Rptr. 377 (1967) (plaintiff demanded use of riparian right to unimpaired flow of stream to carry suspended sand and gravel); Peabody v. City of Vallejo, 2 Cal. 2d 351, 40 P.2d 486 (1935) (plaintiff’s use of riparian right was for purpose of having full flow of river carrying silt for deposition on riparian land and for washing salts from soil); Erickson v. Queen Valley Ranch Co., 22 Cal. App. 3d 578, 99 Cal. Rptr. 446 (1971) (five-sixths of water diverted from stream lost in transmission); In re Alleged Waste and Unreasonable Use of Water by Imperial Irrigation Dist., State Water Resources Control Bd., Decision 1600 (1984) [hereinafter Decision 1600] (tailwater losses to Salton Sea in excess of one million acre feet per year).
THE NEED FOR INSTREAM APPROPRIATIVE RIGHTS

Establishment of instream uses as water rights, rather than simply as factors the Board must consider before it may grant a new appropriation, offers at least four benefits to the administration of California's water resources. First, it would solve the problem caused by the inferior status of instream uses vis-à-vis consumptive uses. Second, public acquisition of water rights to support instream flows would address the concern raised by Justice Reynoso in his dissent in *California Trout Inc. v. State Water Resources Control Board* that under the present system the public is "left in a position of nay saying every private application for appropriation." Third, instream appropriations would be an excellent means of implementing the public trust in the state's water resources. Fourth, recognition of instream appropriative rights would allow for the transfer of water from current consumptive uses to instream uses. This type of voluntary reallocation of water, which offers perhaps the best means of enhancing existing instream flows, currently cannot be accomplished in California.

A. Parity Between Consumptive and Instream Uses

The principal benefit of creating an appropriative right for instream flows would be the establishment of parity between instream uses and consumptive uses, which currently are recognized as water rights. As described in greater detail below, instream appropriative rights would be based on permits issued by the Board, subject to various terms and conditions to ensure that the in situ appropriation serves the public interest and is consistent with senior water rights. Both private parties and government agencies such as the California Department of Fish and Game and the United States Park Service could acquire instream appropriative rights.

Under this proposal, on rivers where instream appropriative rights have been granted, the Board would treat instream rights like any other senior water right, following the procedure described above. When reviewing applications for new consumptive appropriations, the Board initially would decide whether unappropriated water is available. Unlike the present system, the Board would estimate the amount of water necessary to satisfy both existing consumptive uses made pursuant to riparian and appropriative rights and existing in situ uses made pursuant to the instream appropriative rights. If unappropriated water were available after these senior rights are satisfied, the Board then would evaluate the

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167. *See supra* notes 134-48 and accompanying text.
proposed appropriation on its merits and decide whether it would be in the public interest to issue a permit.

As under existing law, the analysis of the public interest would include an assessment of the amount of water required to supply instream uses and to comply with the applicable water quality standards. To the extent that instream uses were not already protected by existing instream appropriative rights, the Board would have to decide how much additional water would be needed reasonably to serve these uses in light of the competing demands on the resource. If justified by the evidence, the Board then would issue a permit subject to such terms and conditions as necessary to protect the senior water rights and instream uses not embodied in an instream appropriative right.

The recognition of instream rights as part of the category of senior water rights protected by permit would be a significant change because it would insulate instream appropriative rights from the process of balancing that frequently occurs under the present system. The Board would set aside the amount of water needed to fulfill the senior water rights (consumptive and instream) and allow the new appropriation only to the extent that it would not infringe on these senior rights. Instream uses undertaken pursuant to these senior water rights would receive the same protection presently accorded consumptive uses made pursuant to senior rights. Recognition of instream appropriative rights also would ensure that, in the rare cases in which the Board considered the reasonableness of senior water rights, instream rights and consumptive rights would be treated equally. For a new appropriator to claim water from the allotment of instream appropriators, the applicant would have to prove that the existing instream uses are unreasonable under the circumstances, just as today the applicant must establish that existing senior consumptive water rights are unreasonable in light of the competing alternative uses for the available water.

Recognition of instream appropriative rights therefore would allow members of the public and governmental agencies to acquire water supplies and flow rights for instream uses that are more secure than the instream protections afforded by the existing allocation system. By conferring on certain instream uses the legal status of water rights, the state would ensure that, when reallocations from existing to new uses occur, instream water rights are treated on a par with water rights for consumptive purposes.

B. The “Nay Say” Problem

The adoption of instream appropriative rights also would redress the “nay say” problem to which Justice Reynoso alluded in his California is R.
Trout dissent. In its *amicus curiae* brief in that case, the Department of Water Resources argued that the case-by-case process for deciding how much water to reserve for instream uses is inadequate because it relies principally on protests filed by the Department of Fish and Game and other interested parties. This protest, or "nay say," procedure is defective for two reasons. First, "[t]he Department of Fish and Game is not adequately staffed or funded for this purpose, which makes continual protesting almost impossible." Second, even in those cases where Fish and Game is able to participate, its protests must succeed in every case or lose the desired instream flows:

"When Fish and Game protests a particular application . . . if Fish and Game is successful, the . . . Board will require the diverter to by-pass a minimum flow of water past his point of diversion or make releases from a dam. This by-passed water in most cases is subject to appropriation downstream and becomes a target over and over again for would-be appropriators. This [results in] the Department of Fish and Game continually [protesting] each subsequent application and [making] its case anew, hopefully with the same result each time. Fish and Game could be successful nine times out of ten and, on the tenth water [rights] application, lose. Thus, nine out of ten wins could result in the total destruction of a stream's fishery resource." The same could be said of protests by private individuals and organizations.

If proponents of instream flow protection could acquire a water right, they would be relieved of this Sisyphean task. Rather than having to establish continually the quantities and flows needed to protect instream uses and bearing the complete risk of one adverse decision, instream appropriators would be able to establish a right to a certain flow that, except in cases in which the Board sought to reconsider the reasonableness of existing water rights, would be off-limits to new appropriations.

C. The Public Trust

Justice Reynoso also argued in his *California Trout* dissent that private parties, as appropriators, "may assert the public trust contained within the fish and wildlife resources of the states." This statement foreshadowed the California Supreme Court's recognition in *National...*
Audubon Society v. Superior Court of the public trust doctrine as a constraint on the consumptive use of the state’s water resources.\textsuperscript{173} Instream appropriations would be an excellent means of implementing the public trust.

Although the court did not address the issue of instream appropriations in Audubon,\textsuperscript{174} both the purposes of the public trust and the logic of the court’s opinion support the acquisition of private instream water rights to accomplish the goals of the public trust doctrine. The court held that members of the public may assert the public trust before both the courts and the Board.\textsuperscript{175} The court defined the purposes of the public trust as protection of navigation and fisheries, promotion of recreational uses, and preservation of ecological and aesthetic values.\textsuperscript{176} In a water rights setting, the court ruled, these trust uses must be balanced with the need to use the available water to supply consumptive demands, preserving “so far as consistent with the public interest, the uses protected by the trust.”\textsuperscript{177}

Acquisition by private individuals, environmental organizations, and government agencies of instream appropriative rights would further these purposes by enabling the people of California to enforce their common right\textsuperscript{178} without having to wait until the public trust is imperiled. Application of the public trust doctrine to potential instream appropriators would offer an important advantage over the present system, in which the public trust is considered only when threaten by an existing consumptive use or by a new water rights application. Acting on instream applications, the Board would consider the benefits of setting aside water for public trust uses at an early stage in the development of the water resource, rather than waiting to evaluate the public trust in the context of competing consumptive demands that tend to skew the balancing process.\textsuperscript{179} Implementation of the public trust through instream appropriations would enable the Board to establish “ideal” stream flow standards, unencumbered by concern for the pressures of population


\textsuperscript{174} The court limited its holding to the facts before it, allowing the plaintiffs to challenge an existing appropriation on the ground that the diversions unreasonably impaired the public trust in Mono Lake. Audubon, 33 Cal. 3d at 448-49, 658 P.2d at 729-30, 189 Cal. Rptr. at 366-67. It did not decide whether the members of the public also could rely on the public trust to justify private appropriations of water for public instream uses.

\textsuperscript{175} 33 Cal. 3d at 452, 658 P.2d at 732, 189 Cal. Rptr. at 369 (relying on, inter alia, Marks v. Whitney, 6 Cal. 3d 251, 491 P.2d 374, 98 Cal. Rptr. 790 (1971)).

\textsuperscript{176} Id. at 434-35, 658 P.2d at 719, 189 Cal. Rptr. at 356.

\textsuperscript{177} Id. at 447, 658 P.2d at 728, 189 Cal. Rptr. at 365.

\textsuperscript{178} See generally Stevens, The Public Trust: A Sovereign’s Ancient Prerogative Becomes the People’s Environmental Right, 14 U.C. Davis L. Rev. 195 (1980).

\textsuperscript{179} See supra text accompanying notes 155-58.
growth, economic development, and projected water shortages. These standards could be adjusted at a later time, to allow for greater consumptive use of the water as demands increase, as Audubon makes clear. As described above, however, public trust uses embodied in instream appropriative rights would receive greater protection—and would be treated more fairly—in subsequent reallocation proceedings than are public trust values that do not have the legal status of water rights.

D. Transfers to Instream Uses

A final benefit of recognizing instream appropriative rights would be to facilitate the voluntary transfer of water from existing uses to instream uses. Transfers occur when water users agree to reallocate water voluntarily from relatively low-value existing uses to new uses that are of greater economic or social value. Many observers view transfers as a way to supply new demands for water without building additional water projects. Although it is likely that most transfers will occur between consumptive users, instream uses could benefit from this process as well. Indeed, in view of the extensive development of California’s water resources, this may be the most important future use of instream appropriations.

Transfers of water from present consumptive uses to instream uses could occur in two ways. First, proponents of greater instream flows could purchase water or water rights from existing users and dedicate the water to flow enhancement. Second, existing users could be encouraged to donate all or a portion of their water rights to instream uses in exchange for the tax benefits applicable to charitable contributions.

An example of the latter type of transfer recently occurred in Colorado. In March 1988, the Pittsburgh & Midway Coal Mining Co. (P &

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180. See 33 Cal. 3d at 443, 658 P.2d at 725, 189 Cal. Rptr. at 362 (noting that all uses of water must conform to the reasonable use standard).
181. See C. MEYERS & R. POSNER, MARKET TRANSFERS OF WATER RIGHTS: TOWARD AN IMPROVED MARKET IN WATER RESOURCES 2-7 (National Water Commission Legal Study No. 4, 1971).
182. See, e.g., R. STAVINS, TRADING CONSERVATION INVESTMENTS FOR WATER (1983) (proposing that the Metropolitan Water District of Southern California finance Imperial Valley water conservation to obtain additional Colorado River water); see Z. WILLEY, ECONOMIC DEVELOPMENT AND ENVIRONMENTAL QUALITY IN CALIFORNIA’S WATER SYSTEM 8-10 (1985).
183. For example, the Imperial Irrigation District and the Metropolitan Water District of Southern California recently reached a tentative agreement on a long-term transfer of 100,000 acre feet per year of conserved water previously used by Imperial for agricultural supply. See WESTERN NETWORK, WATER MARKET UPDATE, Dec. 1988, at 4.
M Mining conveyed decreed storage rights to 20,000 acre feet per year and flow rights to 300 cubic feet per second to the Nature Conservancy for the purpose of maintaining instream flows in the Black Canyon of the Gunnison River.

Although Colorado recognizes instream appropriative rights, they may be held only by the Colorado Water Conservation Board (CWCB), a state agency. Private parties such as the Nature Conservancy may transfer water rights to the CWCB or obtain dedication to instream uses. Thus, in its agreement with P & M Mining, the Nature Conservancy promised to "attempt to obtain, through negotiation and joint action with the Colorado River Conservation Board, a change of water rights decree for the purpose of maintaining minimum stream flow of 300 cfs" in the Gunnison River as it flows through Black Canyon.

This type of transfer would not be possible in California. Under current law, water cannot be donated or sold for instream purposes because instream flows cannot be held in the form of a water right by any entity, private or governmental. Rather, the water foregone by the transferor simply would return to the pool of unappropriated water in the river where it would be available for future appropriations authorized by the Board.

Thus, unlike in Colorado, there would be no way to ensure that the water the transferor intended to dedicate to instream uses would actually be put to such a purpose.

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187. The Colorado Water Conservation Board is vested by statute "with the exclusive authority, on behalf of the people of the state of Colorado, to appropriate . . . such waters of natural streams and lakes as the board determines may be required for minimum stream flows or for natural surface water levels . . . . to preserve the natural environment to a reasonable degree." Colo. Rev. Stat. § 37-92-102(3) (1988 Cum. Supp.). For a description of the Colorado system of protecting instream flows, see Potter, supra note 17, at 428-33.
189. P&M-TNC Agreement, supra note 184, § 4.2.
190. California Trout, Inc. v. State Water Resources Control Bd., 90 Cal. App. 3d 816, 153 Cal. Rptr. 672 (1979) (denying a private attempt to make an instream appropriation by finding no supportable right under the California Water Code); Fullerton v. State Water Resources Control Bd., 90 Cal. App. 3d 590, 153 Cal. Rptr. 518 (1979) (denying California Department of Fish and Game an instream appropriation for the same reasons such an appropriation was denied to plaintiffs in California Trout).
192. Although under the Colorado system there is no guarantee that the water transferred by P & M Mining to the Nature Conservancy will be used for its intended purpose, once procedural hurdles are passed, the state ultimately may take title to the decreed storage rights. The Nature Conservancy must convince the Colorado Water Conservation Board to accept the water right and to dedicate the water to instream uses. P&M-TNC Agreement, supra note...
If California recognized instream appropriative rights, a private organization such as the Nature Conservancy could receive donations of water or water rights from existing users and hold the water in the form of an appropriative right dedicated to instream uses. Alternatively, the Nature Conservancy could broker a transfer of water rights from an existing consumptive user to a state or federal agency, such as the California Department of Fish and Game, the United States Fish and Wildlife Service, or the United States Park Service, which would hold the instream appropriative right. Of course, any such transfer would have to be approved by the Board under the state laws governing water and water rights transfers.

New appropriations for instream purposes would have little effect on the preservation of vital stream flows of many of the state's rivers, which presently are over-appropriated or nearing their capacity to support the demands that will be placed on them in the near future. Instream water rights on these rivers would be of little value, because they would carry relatively late priorities. Accordingly, transfers of existing water rights may hold the key to the implementation of a system of

184, §§ 2.3, 4.2. In turn, the Board must petition the water court, as with any change in a water rights decree, to permit the water to be used for instream purposes. See generally 2 G. Vranesh, Colorado Water Law 441-47 (1987).

193. Moreover, with minor amendments to California's Conservation Easement law to include water rights, a consumptive user such as P & M Mining also could simply dedicate the water to instream flow purposes in the form of a conservation easement, retain the appropriative right, and obtain the variety of tax benefits afforded by the acceptance of a conservation easement. See T. Barrett & P. Livermore, The Conservation Easement in California 45-78 (1983) (discussing Cal. Civ. Code §§ 815-816 (West 1982)).

194. In both cases, the parties would have to petition the Board to amend the transferor's permit to change both the place and purpose of use and to delete the point of diversion. See Cal. Water Code §§ 380-387, 1700-1706, 1735-1737 (West 1971 & Supp. 1989). This requirement would not apply to transfers of water by riparians and pre-1914 appropriators, however, because the Board has no permit jurisdiction over them. Id. § 1706; see supra note 25 and accompanying text.

To approve the transfer, the Board would have to find that the proposed instream use of the water was reasonable, that the change would not injure other legal water users, and that the transfer would not “unreasonably affect[] fish, wildlife, or other instream beneficial uses [or] unreasonably affect the overall economy of the area from which the water is being transferred.” Cal. Water Code § 386 (West Supp. 1989). Inasmuch as transfers of water to instream uses necessarily augment stream flows, there could be no injury to other water users or to instream beneficial uses. Assessment of the reasonableness of the new instream use, as well as the determination that it would not harm the economy of the transferor area, would be left to the judgment of the Board.

Although the Board has never addressed the latter issue, a transfer of water to an instream use is unlikely to affect adversely the economy of the area in which the transferor appropriator is located. The proscription against unreasonable harm to the area from which the water is transferred was enacted to prevent an exporter from depriving the area of origin of water reasonably needed for its own economic development. See 1984 Cal. Stats., ch. 1655, § 1. In contrast, transfers for instream uses would preserve the water supply of the area of origin.

195. But see infra text accompanying notes 246-49.
instream appropriation because the transferee's instream use would receive the earlier and more senior priority carried by the transferor's use.

V

SOME PRACTICAL QUESTIONS

The recognition of instream appropriative rights, used as a supplement to the existing instream flow and water quality laws described in Part II, would enhance California's present scheme of protecting instream uses. But can instream appropriations be integrated into the existing system of water rights? Or do doctrinal and practical problems associated with the definition and administration of instream appropriative rights render their creation inadvisable?

The thesis that instream appropriations are a necessary component of California instream use law has evoked a number of specific challenges to its efficacy and administrability. What follows is a series of questions that underlie most of these challenges. This dialogue will show that instream appropriations could be administered in harmony with existing California water rights law.

Who should be allowed to apply for a permit to appropriate water for instream uses?

There are two options. California could follow Colorado, as well as most other states that recognize instream appropriative rights, and authorize only designated government agencies to appropriate water for instream purposes. Or, California could adopt the broader approach

196. For example, the Idaho Legislature has empowered the State Water Resources Board to appropriate water for the purpose of "preserv[ing] the minimum stream flows required for the protection of fish and wildlife habitat, aquatic life, recreation, aesthetic beauty, transportation and navigation values, and water quality." Idaho Code § 42-1501 (Cum. Supp. 1988); see id. § 42-1503. Although the Board is the only agency authorized to hold an instream water right, any member of the public may request the Board to apply for such a permit. Id. § 42-1504.

Montana employs a somewhat broader system of instream appropriation. There, the state, any state agency, any political subdivision, or the United States may apply to the Board of Natural Resources and Conservation to reserve the waters of six designated rivers and their tributaries "for existing or future beneficial uses or to maintain a minimum flow, level, or quality of water throughout the year or at such periods or for such length of time as the board designates." Mont. Code Ann. § 85-2-316 (1987).

Oregon allows the Department of Fish and Wildlife, the Department of Environmental Quality, and the Parks and Recreation Division of the Department of Transportation to request the Water Resources Commission "to issue water right certificates for instream water rights" on any watercourse in which there are public uses relating to (1) "the conservation, maintenance and enhancement of aquatic and fish life, wildlife and fish and wildlife habitat;" (2) water quality; and (3) "recreation and scenic attraction." Or. Rev. Stat. § 537.336 (1988). The statute also authorizes any person to purchase, lease, or accept as a gift "an existing water right or portion thereof for conversion to an in-stream water right." Id. § 537.348.

Utah has a much more limited system. The Division of Wildlife may apply to the State
taken by Arizona and allow any member of the public, along with appropriate government agencies, to claim instream appropriative rights.\textsuperscript{197} The choice depends on one's view of the effectiveness of the state in representing the interests of the public and of the desirability of using private rights of action to complement state authority. I previously have expressed my preference for private rights in the field of environmental law\textsuperscript{198} and adhere to that view in the present context.

Authorization of private parties to appropriate water for instream uses would ensure that diverse interests in protecting stream flows are presented directly to the State Water Resources Control Board. One reason we recognize the private acquisition of water rights, rather than rely exclusively on governmental apportionment of water, is to allow the actual users to initiate claims for water and to define for themselves the purposes for which the water will be used. Individual appropriators are better able than the government to project their future water needs, choose a source of supply, and assess the benefits of allocating water to their chosen uses. Although the Board makes the ultimate determination whether to grant the appropriation, if there is water available for appropriation and the proposed use is reasonable and beneficial, the decision—whether to use the water to grow almonds or wine grapes, to generate hydroelectric power, or to supply domestic uses—rests with the private appropriator.

\textsuperscript{197} Engineer for permission to convert existing perfected water rights to instream uses if the Division already owns the right or has acquired the right from another appropriator. UTAH CODE ANN. § 73-3-3(11)(a) (Cum. Supp. 1988). The legislature specifically prohibited the Division from appropriating unappropriated water “for the purpose of providing instream flows.” Id. § 73-3-3(11)(e).

In Washington, the Department of Ecology and the Department of Water Resources are authorized to “establish minimum water flows or levels for streams, lakes, or other public waters for the purposes of protecting fish, game, birds or other wildlife resources, or recreational or aesthetic values of said public waters whenever it appears to be in the public interest to establish the same.” WASH. REV. CODE ANN. § 90.22.010 (Cum. Supp. 1988). The Departments also have the power to set minimum flow levels to protect water quality. Id. These administrative reservations of water are defined as appropriations for purposes of Washington’s permit system, carrying priority dates “as of the effective dates of their establishment.” Id. § 90.03.345.

Finally, the Wyoming Division of Water Development of the State Economic Development and Stabilization Board may appropriate, in the name of the state, water for instream flows in rivers or river segments recommended by the Game and Fish Commission. WYO. STAT. § 41-3-1003(c) (Supp. 1987). The state also may acquire existing water rights for conversion to instream appropriations. Id. § 41-3-1007(a).

For more complete descriptions of these laws, see Western States Water Council, supra note 17; B. Gray, supra note 17.

\textsuperscript{197} “Any person or the state of Arizona or a political subdivision thereof [may] appropriate unappropriated water for . . . recreation [and] wildlife, including fish.” ARIZ. REV. STAT. ANN. § 45-151A (1987). The Arizona Court of Appeals has held that this statute allows for the “in situ appropriation of water” without a physical diversion. McClellan v. Jantzen, 26 Ariz. App. 223, 225, 547 P.2d 494, 496 (1976).

\textsuperscript{198} Gray, supra note 97, at 593-96.
Private instream appropriators should be accorded the same right to initiate the application process and to select, subject to approval by the Board, the place and purposes of the instream use. Local fishermen, rafting companies, recreational users, and conservation organizations are likely to be far more aware both of the benefits of preserving a certain level of stream flow and of impending threats to a particular river than would a government agency charged with managing all instream appropriations in the state.

Granting private parties the right to appropriate water for instream uses independent of governmental action also finds support in the public trust doctrine. As described previously, instream appropriative rights represent an important means of implementing the public trust. Inasmuch as the people of California need not depend on the government to enforce their rights under the trust, neither should they be required to rely on a state agency to effectuate the public trust through instream appropriations. As the beneficiaries of the public trust, all members of the public should have the opportunity to protect the trust in the form of a water right, just as they now share with the state the power to assert the trust as a defense to water resources development projects. Accordingly, private parties along with government agencies should be empowered to apply for permits to appropriate water for instream uses.

Does this mean that anyone may acquire an instream appropriative right?

No. Authorizing all members of the public to apply for an instream appropriative right does not mean that the Board must grant a water right to just anybody. As part of its evaluation of the application, the Board must consider the qualifications of the applicant to manage the appropriative right. In making this determination, the Board should review the past commitment of the applicant to the protection of instream uses, satisfy itself that the application is for a bona fide instream purpose, and determine that the applicant would use the water both for its own benefit and for the benefit of the public generally.

This process may be illustrated by a situation parallel to that in *California Trout, Inc., v. State Water Resources Control Board.* Suppose that following the recognition of instream appropriative rights, California Trout, Inc., renewed its application for a permit to appropriate water for the purpose of maintaining instream flows in Redwood Creek in Marin County. Before turning to the merits of the application, the Board

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199. See supra notes 172-80 and accompanying text.
201. See supra notes 88-91 and accompanying text.
first should determine whether California Trout is a "suitable" appropriator for instream flow purposes. The Board would learn from California Trout's application that the applicant is a nonprofit corporation that has devoted itself for the last nineteen years to the protection of native trout and steelhead habitats.\textsuperscript{203} California Trout's 3,500 members include conservationists, biologists, and fishing clubs.\textsuperscript{204} According to the application, many of these members use Redwood Creek for recreation, scientific study, aesthetic enjoyment, and—where stocks are sufficient—fishing. California Trout seeks to appropriate three cubic feet per second as the "minimum flow needed to maintain suitable fisheries habitat so that juvenile anadromous fish can survive and migrate to the sea."\textsuperscript{205}

This evidence would give the Board ample grounds for concluding that California Trout would be capable of managing the instream water right. Members of the organization regularly use Redwood Creek and therefore would benefit directly from the instream appropriation. The organization has a track record of protecting instream uses on behalf of both its own members and the public generally.\textsuperscript{206} As an established nonprofit corporation with a large and active membership, California Trout could hold and maintain the appropriative right indefinitely. Accordingly, the Board would be justified in finding California Trout to be a suitable instream appropriator and could proceed to the merits of the application.

In her recent article, \textit{The Public's Role in the Acquisition and Enforcement of Instream Flows},\textsuperscript{207} Lori Potter has compiled a partial catalog of the environmental, fishing, and recreational groups that are interested in preserving instream flows. The list shows the array of organizations that potentially qualify as instream appropriators:\textsuperscript{208} sport fishing groups, such as Trout Unlimited and the Izaak Walton League, which have played a major role in the enactment of state instream flow legislation, as well as local angling associations; commercial fishing companies that operate on rivers or in bays and estuaries, which rely on "inflows of fresh water to maintain the proper salinity and nutrients for the production of fish and shellfish;" conservation organizations, such as the Sierra Club and the Wilderness Society, and wildlife protection groups, such as the National Audubon Society and Defenders of Wildlife, which "favor instream flows both for the recreational and aesthetic enjoyment

\textsuperscript{203} Telephone interview with James Hamilton, Regional Manager, Central Coast Region, California Trout, Inc. (May 19, 1989).
\textsuperscript{204} \textit{Id.}
\textsuperscript{205} \textit{California Trout}, 90 Cal. App. 3d at 818, 153 Cal. Rptr. at 673.
\textsuperscript{207} 23 \textit{LAND & WATER L. REV.} 419 (1988).
\textsuperscript{208} \textit{Id.} at 420-21.
of their members and for the preservation of wildlife and its essential habitat;” and commercial and nonprofit canoeing, kayaking, and rafting organizations, which depend on instream flows to support their recreational uses.209

This list focuses on private organizations because they likely would be the primary applicants for instream appropriations. In general, commercial or nonprofit organizations would be better suited to appropriate water for instream uses than would individuals. When the Board considers an application for a new appropriation, it must decide whether the proposed use is justified in light of competing demands for the available water and, in the case of consumptive uses, whether the benefits of diverting water from the river outweigh the harm to instream uses.210 An application to appropriate water for a consumptive purpose may be for vast quantities of water—the permits for the Central Valley Project and the State Water Project are examples—or for very small amounts, such as to supply a single house or a small orchard. In the latter case, an individual would be a suitable appropriator, because the amount of water granted in the permit would represent a tiny fraction of the total quantity of water in the river. There would be little doubt that the benefit gained by the individual appropriator, using the water for his or her own purposes, was worth the small cost to the resource. In contrast, instream appropriations normally would represent a significant percentage of the total flow of the river. If the applicant were an individual, it might be difficult for the Board to assess whether the great amount of water requested would benefit a sufficiently large number of persons to be justified under the circumstances. Thus, to ensure that the benefits of such relatively large appropriations are enjoyed by more than a few, the Board should prefer organizational applicants, representing a multiplicity of users, over individual appropriators.211

Individual applicants should not necessarily be precluded from appropriating water for instream uses, however. On a small coastal or mountain stream, for example, the Board might well conclude that an individual appropriator would benefit sufficiently from the flow rights for fishing, boating, and aesthetic enjoyment to justify creation of a private water right. The Board also could decide that certain individual applicants would be capable of holding an instream water right as a trustee for the public generally.212 But these circumstances will be rare. In most

209. *Id.*
210. See supra notes 29-35 and accompanying text.
211. An additional reason to prefer organizations over individual appropriators is that business associations are legally immortal. Thus, the Board would be relieved of the task of ascertaining, following the death of an individual appropriator, whether the decedent’s heirs or devisees would continue to use and to benefit from the instream water right.
212. Wallace Stegner and Norman MacLean come to mind. As examples of their sensitivity to the western environment and its effect on humanity, see N. MACLEAN, A RIVER RUNS
cases, fishing groups, commercial rafting companies, environmental organizations, and local associations of citizens will offer the best assurances that the water appropriated for instream purposes will be enjoyed by many and used to benefit the public interest.

Would recognition of instream water rights allow private appropriators to tie up all of the unappropriated water in the river for instream uses?

This common concern is based on a misapprehension of the nature of instream appropriative rights. Instream flow rights would be based on permits issued by the Board, which would ensure that the appropriation is for a beneficial purpose and is a reasonable use of the available water, taking into account the competing demands on the resource. They would be established and regulated in the same manner as other types of appropriative water rights. Thus, before granting an instream right, the Board would have to address two important questions: how much water should be allocated to the instream use, and along what stretch of the river? The answers to both will depend on the nature and extent of the alternative uses of the available water.

In deciding how much water, if any, to allocate to the new instream appropriation, the Board first would make an assessment of the amount of water available in the river and of the flow requirements of the various instream uses set forth in the application. It then would review the existing consumptive uses of the water and determine whether there is unappropriated water available to serve those instream uses.213 In most cases, the Board would not encroach upon senior water rights to allow for the new instream appropriation, although it would have the power to do so under the reasonable and beneficial use and public trust doctrines.214 The Board also would evaluate any competing applications to appropriate water from the river that would be inconsistent with the proposed instream appropriation and make some assessment of the projected future consumptive demands on the resource.215

Taking all of these factors into account, the Board then would decide how much water reasonably should be allocated to the instream uses


213. The Board would not have to concern itself with existing instream uses recognized under sections 1243 and 1243.5 of the California Water Code, see supra text accompanying notes 29-35, because the proposed instream appropriation would be wholly compatible with other instream uses.


215. See supra notes 100-07 and accompanying text.
set forth in the application. This would not necessarily be all of the water for which the applicant applied. Indeed, as with other water rights applications, the Board might reject certain instream flow applications altogether.

If the Board decided to apportion some water to the applicant, it then would have to determine the stretch of river that would be protected by the instream water right. As with the amount of water granted to the instream appropriation, the definition of the place of use would be left to the judgment of the Board. The Board first should consider whether the uses for which the water is to be appropriated are present along the entire stretch of river described in the application. For example, if the appropriation is for the purpose of supporting rafting and kayaking, the Board should limit the place of use to the stretch of river between the put-in and turn-out points for the boaters. Similarly, if the purpose of the appropriation is to preserve a scenic waterfall, the Board could define the place of use of the instream appropriative right as extending along the river upstream of the waterfall to a point below the falls that is out of view from the vistas of the falls. On the other hand, if the appropriation is for preservation of the fisheries of a river, the Board could designate the entire river, or the segment described in the application, as the place of use of the instream right.

The place of use is an important aspect of the instream appropriative right because it defines the scope of the right vis-à-vis other competing uses. An instream right held by a commercial rafting company, for example, would prevent a subsequent appropriator from constructing water impoundment facilities along the stretch of river described in the instream permit or downstream of the designated segment if the impoundment would back water up into the instream place of use. It also would prohibit a subsequent appropriator from operating diversion and impoundment facilities upstream of the instream place of use in a way that would interfere with the instream appropriator’s flow rights.

Not all later appropriations would be incompatible with the instream water right, however. The Board could grant a permit to another instream appropriator, such as a fishing organization, in the same water appropriated by the commercial rafting company. Similarly, the Board could approve a later appropriation for diversion and storage upstream of the place of use of the instream water right, if the new appropriator agreed to release water to satisfy the senior flow rights of the rafting company. Or, if this were not possible, the Board could allow the new

216. As with other appropriations, the flow levels established in the permit could vary by season of use. See text accompanying supra notes 36-38. If other demands on a particular river are relatively large during the summer and fall months, for example, the flow level granted to the instream appropriation could be scaled back during those months to accommodate all uses.
consumptive use, but only on the condition that the new appropriator move its point of diversion to a location downstream of the place of use set forth in the instream appropriative right.\textsuperscript{217}

As these examples illustrate, the concern that instream appropriators somehow would monopolize the waters of the state is unfounded. Just as it does in reviewing applications to appropriate water for consumptive purposes, the Board would evaluate the reasonableness of both the quantity of water and the place of use requested in the application.\textsuperscript{218}

As with other types of water rights, we could rely on the Board to ensure that instream appropriations are socially beneficial and do not claim an inordinate amount of the state's water supplies.

\textit{Assuming that the initial allocation to instream appropriators is consistent with the public interest, what happens when things change? Wouldn't the existence of instream appropriations make it impossible to reallocate water to more socially valuable uses?}

Recognition of instream water rights would not render it impossible to shift water from instream uses to new consumptive uses if future demands and social values warrant such a change. Pursuant to the California Constitution as well as the public trust doctrine, both the Board and the courts have the power to reallocate water from riparians and prior appropriators to accommodate new demands on the resource.\textsuperscript{219} This same authority would permit future reallocation of water from instream water rights to new consumptive uses.

Although the extent of the state's power to declare existing uses of water unreasonable is not yet well-defined, two cases are illustrative. In Joslin v. Marin Municipal Water District,\textsuperscript{220} riparians along Nicasio Creek in Marin County sued the water district in inverse condemnation, claiming that the district's upstream impoundment and diversions for domestic water supply interfered with their water rights. The district's appropriations were authorized by a permit from the State Water Rights Board, the predecessor of the State Water Resources Control Board.\textsuperscript{221} For over ten years the Joslins had relied on the natural flow of the stream to deposit onto their property suspended rock, sand, and gravel, which they sold commercially.\textsuperscript{222}

\textsuperscript{217} The complainants in Environmental Defense Fund v. East Bay Mun. Util. Dist. have proposed this type of physical solution to the conflict between EBMUD's diversions and instream uses in the Lower American River. \textit{Technical Report, supra} note 13, at 1.
\textsuperscript{218} \textit{Cal. Water Code} § 1257 (West 1971).
\textsuperscript{219} \textit{Cal. Const.} art. X, § 2 (West Supp. 1989), \textit{quoted supra} notes 43 & 51. As to the public trust doctrine, see \textit{supra} notes 108-18 and accompanying text.
\textsuperscript{220} 67 Cal. 2d 132, 429 P.2d 889, 60 Cal. Rptr. 377 (1967).
\textsuperscript{221} \textit{Id.} at 135, 429 P.2d at 891, 60 Cal. Rptr. at 379.
\textsuperscript{222} \textit{Id.} at 134, 429 P.2d at 891, 60 Cal. Rptr. at 379.
The California Supreme Court rejected the Joslins' claim that reduction of the water flow by their land constituted a taking of property on the ground that their use of their riparian rights was unreasonable under the circumstances. Reasoning that "riparian rights attach to no more of the flow of the stream than that which is required for [a reasonable] use," the court concluded that "since there is no property right in an unreasonable use there has been no taking of property by the deprivation of such use."  

Joslin established that the state has the power to reallocate water from existing uses to new uses, without paying compensation to the water rights holder from whom the water is divested, if the existing use is unreasonable. On its face, this holding is unremarkable. The principle that all water rights must be exercised in a reasonable manner is set forth explicitly in article X, section 2 of the California Constitution and has been applied by both the courts and the Board.

The significance of Joslin lies in the supreme court's description of the way in which an existing water right may be found unreasonable. The court held that, although the determination of the reasonableness of a particular use "depends on the circumstances of each case, such an inquiry cannot be resolved in vacuo isolated from state-wide considerations of transcendent importance." It saw as "paramount" among these considerations the "ever increasing need for the conservation of water." Thus, Joslin seems to empower the Board to reallocate water from existing water rights to new water rights if it determines that the existing use is unreasonable in light of competing demands on the resource that are of greater societal value. This will be particularly true where, as in Joslin, the existing use requires an inordinately large portion of the flow of the river.

The California Supreme Court reaffirmed this aspect of Joslin in its opinion in National Audubon Society v. Superior Court. As described previously, the court ruled that an appropriator may not acquire a vested right to use water in a manner that violates the public trust. Although the Board may approve appropriations "despite foreseeable

223. Id. at 143, 429 P.2d at 897, 60 Cal. Rptr. at 385.
224. Id. at 145, 429 P.2d at 898, 60 Cal. Rptr. at 386.
226. Joslin, 67 Cal. 2d at 140, 429 P.2d at 894, 60 Cal. Rptr. at 382.
227. Id.
229. See supra notes 51-63, 108-18 and accompanying text.
harm to public trust.\textsuperscript{231} The court held that the Board and the courts retain the power at a later date "to reconsider allocation decisions even though those decisions were made after due consideration of their effect on the public trust."\textsuperscript{232} Thus, the public trust doctrine complements the Board's authority under its reasonable use powers to reallocate water from existing uses to new, more highly valued uses.

While \textit{Audubon} involved a potential reallocation from a consumptive use to an instream use, the court's analysis is germane to the question under consideration here. The court reiterated that "[a]ll uses of water, including public trust uses, must . . . conform to the standard of reasonable use."\textsuperscript{233} Accordingly, just as the Joslins' instream use of their riparian rights was adjusted to allow for a new, more valuable appropriation for domestic water supply, under both article X, section 2 and the public trust doctrine an instream appropriative right may be reallocated to a new consumptive use if statewide conditions so warrant.

Although instream appropriations could be required to give way to new consumptive uses as population increases and available water supplies decrease relative to demand, such reallocations should not occur easily. After all, the purpose of recognizing instream appropriative water rights is to make it more difficult for the Board to encroach upon instream flows to accommodate new consumptive demands on the available water.\textsuperscript{234}

Once water is allocated to instream uses in the form of an instream permit, the Board should have authority to reallocate it to other uses only if five criteria are met. First, the applicant must establish that it has no alternative sources of supply for the new use, including transfers from existing consumptive uses, water conservation, and use of reclaimed waste water.\textsuperscript{235} Second, there must be no physical solution—such as moving the point of diversion for the new use to a location downstream of the instream use—\textsuperscript{236}—that would allow the new use to occur without impairing the instream appropriative right. Third, the Board must find that it would be more socially valuable to supply the new consumptive use than to continue the instream use. The Board must determine that, in light of the proposed appropriation, the existing instream appropriation is unreasonable.\textsuperscript{237} Fourth, the Board must evaluate other existing water rights and determine whether they too are unreasonable in light of the pending application and should be adjusted to free up water for the

\begin{itemize}
\item \textsuperscript{231} \textit{Id.} at 446, 658 P.2d at 728, 189 Cal. Rptr. at 365.
\item \textsuperscript{232} \textit{Id.} at 447, 658 P.2d at 728, 189 Cal. Rptr. at 365.
\item \textsuperscript{233} \textit{Id.} at 443, 658 P.2d at 725, 189 Cal. Rptr. at 362.
\item \textsuperscript{234} \textit{See supra} notes 166-68 and accompanying text.
\item \textsuperscript{235} \textit{See supra} note 147 and accompanying text.
\item \textsuperscript{236} \textit{See supra} note 145.
\item \textsuperscript{237} \textit{See supra} notes 163-65 and accompanying text.
\end{itemize}
new appropriation.\textsuperscript{238} The Board would be able to reduce the entitlement of the instream appropriator only after concluding that preservation of the senior consumptive uses is more valuable than continuation of the instream use. Fifth, if all of these criteria are satisfied, the Board could reallocate water from instream appropriators to new consumptive uses based on its finding that the reapportionment would be in the public interest.\textsuperscript{239}

In sum, while recognition of instream water rights would not render it impossible to reallocate water from instream uses to new uses as social conditions and values change, it should be as difficult to alter an instream appropriative right as it is presently to adjust other types of senior water rights for this purpose. In a system of prior appropriation, senior water rights should be granted substantial (but not absolute) protection from alternative uses that are later in time and therefore junior in priority. The raison d'etre of instream appropriative rights is to afford those rights the same protections given to the consumptive water rights with which they compete.\textsuperscript{240}

\textit{Would instream appropriative rights be transferable between uses and between users, as are other types of appropriative rights?}

This important question raises the issue of whether an instream appropriator should be allowed to profit by putting its water right to a new, and presumably more valuable, consumptive use, or by selling the water right to a consumptive user. Although other types of appropriative rights may be freely transferred in California, instream water rights should not be convertible to consumptive uses or transferable to a consumptive user. Two reasons exist for treating instream water rights differently than other appropriative rights are treated.

The first is to prevent speculation, which could undermine the efficacy of the instream appropriation system. California law encourages the voluntary transfer of appropriative rights\textsuperscript{241} on the principle that water can be most efficiently allocated by the free market.\textsuperscript{242} Whenever a

\textsuperscript{238} See supra notes 159-62 and accompanying text.
\textsuperscript{239} CAL. WATER CODE § 1253 (West 1971), quoted supra text accompanying note 36.
\textsuperscript{240} See supra notes 167-68 and accompanying text.
\textsuperscript{241} See CAL. WATER CODE § 382 (West Supp. 1989).
\textsuperscript{242} See generally C. MEYERS & R. POSNER, supra note 181, at 2-7. Private transactions, however, frequently ignore the costs they impose on third parties. The California Water Code addresses the externalities problem by requiring an appropriator that seeks to transfer its permit to another user to obtain authorization from the State Water Resources Control Board. See CAL. WATER CODE §§ 386, 1736 (West 1971 & Supp. 1989). The Board may approve the change or transfer only if it finds that there would be no injury to any other legal user of the water or unreasonable effects on fish, wildlife, or other beneficial instream uses. Id. This review process could resolve the problems described in the text. For the reasons given there, however, an outright prohibition on the transfer of instream appropriative rights to consumptive uses would better serve the public interest.
resource may be sold for a profit, however, there is a risk that certain individuals will acquire the resource for the primary purpose of speculating on its market value, rather than putting the resource to a productive use.

With consumptive appropriations, the requirement that the water be put to a reasonable and beneficial use within the time limits set forth in the permit\textsuperscript{243} represents a powerful check on such speculation. To satisfy this requirement, the appropriator must make a substantial financial investment to use the allotted water by building a dam or investing in crops and irrigation works. The Board then limits the appropriator's entitlement to the amount of water actually used in these facilities.

In contrast, instream appropriations are essentially free. Because the water is left in place, the appropriator need invest little or no capital or labor to perfect its rights. As a consequence, speculators could easily acquire instream water rights and either convert the rights to consumptive uses or sell them to another user at a future date. The speculation presumably would wait to convert the instream use into a consumptive use until the value of its appropriative right was greater than the value of an appropriative right that could be acquired from the Board. This would occur when the priority date of the instream right entitled the existing appropriator to a water supply not available to a new appropriator. By changing the purpose of use of the water right from instream to consumptive, or by selling the right to another user, the speculator would receive a profit—the value of the early priority date—that it would not have earned by investing in facilities to develop the water and by putting the water to a reasonable and beneficial use. Indeed, because an instream appropriator usually would be entitled to a relatively high percentage of the flow of the river,\textsuperscript{244} the potential windfall available to such a speculator could be quite large.

The second reason for restricting the transfer of instream water rights is to protect the public's enjoyment of the instream flows for which the appropriation was established. As discussed above,\textsuperscript{245} in many cases an instream appropriation would be established not just to serve the actual appropriator but also for the enjoyment of the public generally as beneficiaries of the public trust. Allowing the appropriator to convert its water rights to a consumptive use not only would deprive the public of instream flows embodied in the right, it also would be inconsistent with the public interest that the private water right represents.

Accordingly, subject to the approval of the Board, instream water rights should be freely transferable from one instream appropriator to

\textsuperscript{244} But see supra text accompanying notes 213-18.
\textsuperscript{245} See supra text accompanying notes 202-14.
another. They should not be transferable to a different kind of use, however, either by the original appropriator or by a transferee.

*In view of the extensive development of California's water resources, isn't the proposal to recognize instream appropriative rights too little and too late?*

Implicit in this question is the assumption that there is little water left in California to be appropriated for instream uses. The argument follows that adoption of instream appropriative rights at this late date would not be worth the effort. There are two responses to this concern.

First, as with any proposal to reform California's water laws (be it water conservation, transfers, or stricter enforcement of the waste and unreasonable use laws), instream appropriations do not have to offer a panacea. Rather, if they could enhance the protection of instream uses along a few rivers of the state, then the law should be changed to recognize instream water rights. There are a number of coastal streams and many more Sierra Nevada rivers along which there exist no present consumptive water rights or in which unappropriated water remains available. That these rivers may be fully appropriated in their lower reaches is of no consequence. Unlike other appropriations, instream rights do not diminish the amount of water available to downstream users.

Second, even on those rivers that have been developed extensively, instream water rights can be of value. As discussed above, one of the great benefits of recognizing instream appropriations would be to allow for the transfer of water rights from existing consumptive uses to instream uses. This would be a very effective means of enhancing stream flows in areas such as the Sacramento-San Joaquin Delta and its principal tributaries, where instream beneficial uses have suffered from over-appropriation.

Thus, far from being too little, too late, the recognition of instream uses today would aid in the effort to preserve those rivers and streams that retain healthy fisheries, abundant recreational opportunities, and other instream values, and in the effort to restore those rivers in which instream uses have declined.

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246. Examples include the South Fork of the Tuolomne River, the South Fork of the Merced River and its tributaries, and Dinkey Creek, all of which ultimately flow into the San Joaquin River.

247. See supra text accompanying notes 213-18.

248. See supra notes 181-95 and accompanying text.

249. See generally In re Permit 12720, State Water Resources Control Bd., Decision 1485 (1978) (ordering release and reduction of appropriations by two major water projects to maintain water quality in the Sacramento-San Joaquin Delta and Suisun Marsh).
VI
CONCLUSION

I began this essay as a tribute to an innovative and courageous judge whose tenure, sadly, was cut short by the California electorate. I would like to end with a tribute to a great writer, whose career tragically was cut short by cancer. As many of his works indicate, throughout his often troubled life Raymond Carver found solace in the sounds, smells, and solitude of flowing water. And, in a very pragmatic way, that is what this essay is about: finding an effective means of preserving the unique resources of our free-flowing rivers, their wetlands and aquatic habitat, their fisheries and whitewater, and their recreational and aesthetic values. Far better than I, Raymond Carver was able to articulate the redemptive qualities of rivers. So I will conclude with a poem that he wrote five years before his death in August 1988:

Where Water Comes Together With Other Water

I love creeks and the music they make.
And rills, in glades and meadows, before
they have a chance to become creeks.
I may even love them best of all
for their secrecy. I almost forgot
to say something about the source!
Can anything be more wonderful than a spring?
But the big streams have my heart too.
And the places streams flow into rivers.
The open mouths of rivers where they join the sea.
The places where water comes together
with other water. Those places stand out
in my mind like holy places.
But these coastal rivers!
I love them the way some men love horses
or glamorous women. I have a thing
for this cold swift water.
Just looking at it makes my blood run
and my skin tingle. I could sit
and watch these rivers for hours.
Not one of them like any other.
I’m 45 years old today.
Would anyone believe it if I said
I was once 35?
My heart empty and sere at 35!
Five more years had to pass
before it began to flow again.

I'll take all the time I please this afternoon
before leaving my place alongside this river.
It pleases me, loving rivers.
Loving them all the way back
to their source.
Loving everything that increases me.