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Alexandra E. Viscusi

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CONFLICTING DIRECTIVES: WATER QUALITY AND APPROPRIATIVE WATER RIGHTS IN THE WEST

ALEXANDRA E. VISCUSI*

With the Clean Water Act ("CWA" or "Act"),¹ Congress established a comprehensive system for the control and elimination of water pollution from the nation's navigable waters. In its declaration of goals and policies for the Act, Congress announced that the Act is "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters."² The CWA aims to eliminate the discharge of pollutants into streams and rivers and to provide protection for fish and wildlife.³ In order to accomplish this goal, the Act requires states to set and enforce water quality standards ("WQS"), consisting of "designated uses" and "water quality criteria," for intrastate waters.⁴ States must also adopt and implement an "antidegradation policy" designed to protect existing beneficial uses.⁵

Prior to May 1994, jurisdictions differed in their interpretations of the Act's WQS mandate. Some courts viewed the "use" and "criteria" elements of the WQS as discrete, independently enforceable components,⁶ while others considered the "use" component as a statement of general policy enforceable only through the implementation of the objectively determined "criteria."⁷ Still others held that a state's antidegradation policy was independently enforceable.⁸

The United States Supreme Court granted certiorari in *PUD No. 1 of* Jefferson County v. Washington Department of Ecology in order to resolve these conflicts.⁹ The Court in *PUD* held that: (1) states can enforce designated uses included in their WQS independently of water quality criteria, (2) states can enforce their antidegradation policies independently of water quality criteria, and (3) states can impose minimum streamflow conditions to protect designated uses or to implement antidegradation policies upon those seeking water quality

^{*} Ms. Viscusi received her A.B. in Biological Sciences from the College of Arts and Sciences at Cornell University in 1993 and expects to receive her J.D. from the Marshall-Wythe School of Law at the College of William and Mary in May of 1996.

^{1. 33} U.S.C. §§ 1251-1376 (1988).

^{2.} CWA § 101, 33 U.S.C. § 1251.

^{3.} CWA § 101(a)(1)-(2), 33 U.S.C. § 1251(a)(1)-(2).

^{4.} CWA § 303(a), (c)(2)(A), 33 U.S.C. § 1313(a), (c)(2)(A); 40 C.F.R. § 131.3(i) (1994).

^{5. 40} C.F.R. §§ 131.6, 131.12(a). See CWA § 303(d), 33 U.S.C. § 1313(d).

^{6.} See, e.g., Bangor Hydro-Elec. Co. v. Board of Envtl. Protection, 595 A.2d 438, 442 (Me. 1991).

^{7.} See, e.g., In re Power Auth. of N.Y. v. Williams, 457 N.E.2d 726, 730 (N.Y. 1983).

^{8.} See, e.g., Washington Dep't of Ecology v. PUD No. 1 of Jefferson County, 849 P.2d 646, 650 (Wash. 1993), aff'd, 114 S. Ct. 1900 (1994).

^{9.} PUD No. 1 of Jefferson County v. Washington Dep't of Ecology, 114 S. Ct. 1900, 1908 (1994), cert. granted, 114 S. Ct. 55 (1993).

certification in their pursuit of a federal license or permit.¹⁰

As a result of *PUD*, states may now control the *quantity* of water that must remain in a stream bed through the implementation and enforcement of water *quality* standards under the CWA. This decision has potentially farreaching effects in the arid and semi-arid states of the West. Most western states base their systems of water allocation on the doctrine of prior appropriation, the diversion of water for beneficial use. Due to the scarcity of water in these states, most river systems are completely appropriated—that is, the state has promised every drop of water within the system to a beneficial user by granting a water right. In many states, streams are over-appropriated; not enough water exists in years of average rainfall to supply all holders of rights with water. Under *PUD*'s interpretation of the CWA, however, states may now require that a certain amount of water remain instream. Should western states include instream uses of water in their WQS and antidegradation policies, as indeed the CWA requires them to do,¹¹ such action would directly infringe upon the water rights held by beneficial users.

This Note addresses the potential impact of the PUD decision on water rights in the western states and proposes a possible solution whereby states may satisfy both their duties under the CWA and their obligations to holders of water rights. Part I of this Note examines the PUD decision. Part II explains the dilemma in which western states find themselves and the decision's ramifications for appropriative water rights in those states. Finally, Part III suggests a potential solution for the difficult position of the western states modeled on California's approach.

I. THE PUD DECISION

A. A Quick Review of the Clean Water Act

1. Water Quality Standards

To accomplish its goals of restoring and maintaining "the chemical, physical, and biological integrity of the Nation's waters," the Act sets up a regulatory framework whereby each state may determine WQS for its own waters.¹² These standards must meet a minimum level of protection set forth in

^{10.} Id. at 1912-13.

^{11.} See 40 C.F.R. §§ 131.2, 131.10 (both requiring states to take into account value and use of navigable waters as habitat for fish and wildlife when determining designated uses); *id.* § 131.12(a)(2) (emphasizing protection of existing habitat); CWA § 303(c)(2)(A), 33 U.S.C. § 1313(c)(2)(A) (requiring states to take into account fish and wildlife when setting WQS). See also CWA § 101(a)(2), 33 U.S.C. § 1251(a)(2) (setting as goal of Act protection of fish and wildlife). 12. CWA §§ 101, 303(a), 33 U.S.C. §§ 1251, 1313(a).

the CWA, but they may exceed this level.¹³ The state must then submit these standards to the United States Environmental Protection Agency ("EPA") for review.¹⁴ The EPA may approve the standards or require the state to make changes to bring the proposed standards into compliance with the CWA's minimum requirements.¹⁵ Should the state refuse to make the required changes within a specified period of time, the EPA may promulgate revised standards which then become the standards for that state.¹⁶ The state must review these standards every three years and submit any modifications to the EPA for approval.¹⁷ Once such standards are in place, it is the state's duty to enforce them, although the EPA will intervene in cases in which the state is clearly failing to take enforcement actions.¹⁸

The CWA grants the states a great deal of flexibility in setting their WQS in order to accommodate the varying types of, and uses for, waters in each state. The CWA's implementing regulations define "water quality standards" broadly as "provisions of State or Federal law which consist of a *designated use or uses* for the waters of the United States and *water quality criteria* for such waters based upon such uses."¹⁹ States are to set these standards so that they "protect the public health or welfare, enhance the quality of water and serve the purposes of the Act."²⁰ In determining the "designated uses" of each body of water, the EPA directs states to take into consideration not only the agricultural, industrial, and navigational uses of the water, but also the value of the water as habitat for fish and wildlife.²¹ A state may express the required water quality criteria in either numerical or narrative terms, but the criteria must represent "a quality of water that supports a particular use."²²

In addition to the WQS, the CWA and its implementing regulations require that each state adopt and implement an antidegradation policy.²³ At a minimum, the policy must mandate the maintenance and protection of "[e]xisting instream water uses and the level of water quality necessary to protect the existing uses."²⁴

- 15. Id.
- 16. CWA § 303(a)-(b), 33 U.S.C. § 1313(a)-(b).
- 17. CWA § 303(c), 33 U.S.C. § 1313(c).
- 18. CWA § 309, 33 U.S.C. § 1319.

- 20. 40 C.F.R. § 131.3(i). See also CWA § 303(c)(2)(A), 33 U.S.C. § 1313(c)(2)(A).
- 21. 40 C.F.R. § 131.10(a); CWA § 303(c)(2)(A), 33 U.S.C. § 1313(c)(2)(A).
- 22. 40 C.F.R. § 131.3(b).
- 23. Id. §§ 131.6, 131.12(a). See CWA § 303(d), 33 U.S.C. § 1313(d).
- 24. 40 C.F.R. § 131.12(a)(1).

^{13. 40} C.F.R. § 131.4(a). See CWA § 510, 33 U.S.C. § 1370.

^{14.} CWA § 303(a), 33 U.S.C. § 1313(a).

^{19. 40} C.F.R. § 131.3(i) (emphasis added). See also CWA § 303(c)(2)(A), 33 U.S.C. § 1313(c)(2)(A).

2. Section 401 Certification

Section 401 of the CWA ensures that the federal government does not unwittingly issue a permit or license of any kind to an applicant who would, through the activity, fail to comply with a state's WQS. Section 401(a)(1) provides:

Any applicant for a Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities which may result in any discharge into navigable waters, shall provide the [Federal] agency a certification from the State in which the discharge originates or will originate . . . that any such discharge will comply with . . . sections 1311 [CWA § 301, effluent limitations], 1312 [CWA § 302, water quality related effluent limitations], 1313 [CWA § 303, state WQS], 1316 [CWA § 306, national standards of performance], and 1317 [CWA § 307, toxic and pretreatment effluent standards].²⁵

Under section 401(a), a state may deny water quality certification if the proposed activity's discharges will violate any of the listed sections, including the state-determined WQS. Many agencies will not issue federal permits or licenses unless the state grants section 401 certification.²⁶ Section 401 is thus a powerful mechanism to ensure that applicants for federal permits and licenses comply with the CWA.

Section 401(d) allows a state to issue a conditional water quality certification imposing limitations on the applicant's activity in order to ensure compliance with the CWA. The state's authority to condition certification appears to be broader than its ability to deny certification.²⁷ Section 401(d) provides: "[a]ny certification provided under this section shall set forth any effluent limitations and other limitations, and monitoring requirements necessary to assure that any applicant for a Federal license or permit will comply with [sections 1311, 1312, 1316, and 1317] and with any other appropriate requirement of State law.²⁸ This too provides states with a strong tool to ensure compliance with state WQS. Any conditions or limitations placed upon the certification are automatically incorporated into any federal license or permit granted.²⁹

^{25. 33} U.S.C. § 1341(a)(1).

^{26.} For instance, the Federal Energy Regulatory Commission ("FERC"), which oversees hydroelectric projects, requires § 401 certification. 18 C.F.R. § 4.38(a) (1995).

^{27.} See infra notes 60-67 and accompanying text.

^{28. 33} U.S.C. § 1341(d).

^{29.} Id.

B. PUD: Facts and Proceedings Below

The *PUD* case centered upon the City of Tacoma's ("Tacoma") application for a section 401 water quality certification, a prerequisite to obtaining a federal license for the construction of a hydroelectric project on the Dosewallips River. The Dosewallips is a pristine unappropriated river in Washington that supports populations of salmon, steelhead, and trout.³⁰ Washington's WQS classify the Dosewallips as a Class AA river and specify that its designated uses include fish "migration, rearing, spawning, and harvesting" as well as "wildlife habitat."³¹ In addition to these WQS, Washington has adopted an antidegradation policy which provides in part:

(a) Existing beneficial uses shall be maintained and protected and no further degradation which would interfere with or become injurious to existing beneficial uses will be allowed.

. . . .

(f) In no case, will any degradation of water quality be allowed if this degradation interferes with or becomes injurious to existing water uses and causes long-term and irreparable harm to the environment.³²

In 1982, Tacoma planned to construct a "run-of-the-river" hydroelectric project which would divert (but not store) water from the river, run it through turbines to generate electric power, and then return the water to the stream bed 1.2 miles downstream from the point of diversion.³³ Due to the diversion, the project would cause a seventy-five percent reduction in streamflow through the bypass reach, the section of the river between the point of diversion and the point of return.³⁴ To construct and operate the plant, Tacoma was required to obtain a license from the Federal Energy Regulatory Commission ("FERC") which in turn required section 401 water quality certification from the Washington Department of Ecology ("WDE").³⁵

Tacoma accordingly applied to the state for a section 401 water quality certification. As part of its application, Tacoma, in conjunction with state and

^{30.} Washington Dep't of Ecology, 849 P.2d at 648; Brief for Petitioners at *11, PUD, 114 S. Ct. 1900 (No. 92-1911), 1993 WL 632338 [hereinafter Brief for Petitioners].

^{31.} WASH. ADMIN. CODE §§ 173-201-080(32), 173-201-045(1) (1992).

^{32.} Id. § 173-201-035(8).

^{33.} Brief for Petitioners, supra note 30, at *4.

^{34.} Brief for Respondents at *4, PUD, 114 S. Ct. 1900 (No. 92-1911), 1993 WL 632337.

^{35.} Washington Dep't of Ecology, 849 P.2d at 648-49.

federal agencies, conducted a study on the potential effects of the project on the fish habitat within the bypass reach.³⁶ The WDE ultimately granted the water quality certification but, as a result of the study's findings, imposed a condition requiring the project to release between one hundred and two hundred cubic-feet per second ("cfs") of water, depending on the season, through the bypass reach in order to protect the fish populations.³⁷

Tacoma appealed the imposition of the condition to the Pollution Control Board.³⁸ The Pollution Control Board ruled that the WDE had the authority, under section 401(d) of the CWA, to impose the minimum streamflow condition to preserve the river's use as a fishery, but it reversed the WDE's imposition of the streamflow requirement because it believed that the condition would enhance the river's use as fish habitat rather than simply preserve it.³⁹

All parties appealed to the trial court.⁴⁰ The court held: (1) the state could set minimum streamflows as a condition of a section 401 certification, (2) the minimum streamflow required (100-200 cfs) would preserve rather than enhance the river's use as a fishery, and (3) even if the requirement would enhance the use, the state has the authority to impose the condition. The Supreme Court of Washington upheld the lower court's ruling.⁴¹

C. The United States Supreme Court Decision

1. Petitioners' Argument

Tacoma presented several issues before the United States Supreme Court. The first involved the state's authority to impose the minimum streamflow requirement as a condition of section 401 certification. Tacoma argued that section 401(a) grants to the state the authority to impose conditions *only* upon the "discharges" associated with the applicant's activity and *only* to ensure that these discharges comply with sections 301, 302, 303, 306, and 307 of the CWA.⁴² The CWA fails to define "discharge" clearly, stating only that "discharge" when used without qualification includes a discharge of a pollutant."⁴³ Turning to the common dictionary definition, Tacoma asserted that the only "discharges" that would result from the project were dredge and fill materials during construction and the return of the diverted water at the end of the bypass reach.⁴⁴ As the

- 42. Brief for Petitioners, supra note 30, at *22.
- 43. Id.; CWA § 502(16), 33 U.S.C. § 1362(16).
- 44. PUD, 114 S. Ct. at 1909.

^{36.} Id. at 649.

^{37.} Id.

^{38.} Id.

^{39.} Id.

^{40.} *Id*.

^{41.} Id. at 659.

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streamflow requirements were, by definition, directed at the diversion of water rather than any discharge of water, Tacoma argued that, because the condition did not relate to the proposed activity's discharges, the state exceeded its authority and thus the streamflow condition was invalid.⁴⁵ In addition, Tacoma argued that a state can only impose conditions under section 401(d) to ensure compliance with state WQS adopted pursuant to section 303 and any other water quality limitations listed in section 401(a).⁴⁶ According to Tacoma, the phrase "and with any other appropriate requirement of State law" refers exclusively to WQS adopted under section 303.⁴⁷

Tacoma then averred that a state cannot enforce the "use" component of WQS adopted pursuant to section 303 independently of the "criteria" element.⁴⁸ Under Tacoma's analysis, "designated uses" in the WQS express laudable goals which the state can only achieve through the implementation and enforcement of the objective "criteria," the "operative regulatory requirements" of the CWA.⁴⁹ Tacoma pointed to the EPA regulations concerning WQS as support for its argument. Although the EPA accepts WQS in either numerical or narrative form, the WQS must nonetheless have a basis in "sound scientific rationale."⁵⁰ According to Tacoma, a designated use lacks this foundation, for it does not reflect objective fact but rather a societal goal.⁵¹ As a logical extension of this argument, Tacoma asserted that a state cannot enforce its antidegradation policy independently of its water quality criteria.⁵²

As another leg of its argument, Tacoma proposed that a state can never regulate water quantity under the guise of protecting water quality under the CWA.⁵³ It pointed to sections 101(g) and 510(2) of the CWA in support of its argument.⁵⁴ These sections prevent federal interference, through the operation of the CWA, with water allocation decisions, a traditional preserve of state authority.⁵⁵ Tacoma argued that these provisions prevent any interference through the CWA with the "proprietary diversion of water."⁵⁶

Tacoma's final argument dealt with the Federal Power Act ("FPA").⁵⁷ Tacoma asserted that the FPA preempts a state from imposing conditions on

- 46. Id. at *26.
- 47. Id. at *42-43.
- 48. Id. at *31.
- 49. Id. at *31-32.
- 50. Id. at *33-34 (citing 40 C.F.R. § 131.11).
- 51. Id. at *34.
- 52. Id. at *36.
- 53. Id. at *37-38.
- 54. Id. at *38.
- 55. CWA §§ 101(g), 510(2), 33 U.S.C. §§ 1251(g), 1370(2).
- 56. Brief for Petitioners, supra note 30, at *38.
- 57. See 16 U.S.C. §§ 791a-828c (1988).

^{45.} Brief for Petitioners, supra note 30, at *25.

section 401 certifications based on the maintenance of instream flow for the purpose of preserving fish and wildlife habitat.⁵⁸ Although many commentators view FPA preemption as the strongest argument in Tacoma's favor, this issue falls outside the scope of this Note.⁵⁹

2. The Court's Opinion

The United States Supreme Court rejected all of Tacoma's arguments and upheld the minimum streamflow condition as a valid exercise of a state's authority under the CWA. The Court clearly distinguished section 401(a), which enumerates the situations in which a state may deny certification, from section 401(d), which addresses conditional grants of certification.⁶⁰ The Court explicitly rejected Tacoma's argument that a state may only impose conditions that relate directly to discharges.⁶¹ According to the Court, section 401(a) requires that all discharges must comply with the listed sections of the CWA.⁶² In contrast, section 401(d) "expands the State's authority to impose conditions on the certification of a project."⁶³ Under section 401(d), a state must assure not only that any discharge meets the requirements and limitations of the CWA, but also that the applicant complies with these limitations.⁶⁴ Thus, section 401(d) grants a state the authority to impose conditions "on the project in general to assure compliance with various provisions of the Clean Water Act and with 'any other appropriate requirement of State law."⁶⁵ The Court also cited EPA regulations as support for its contention that, once section 401 applies due to the possibility of a "discharge," the entire activity must comply with the CWA.⁶⁶ The Court declined to address Tacoma's related argument that the phrase "any other appropriate requirement of State law" in section 401(d) refers solely to WQS adopted under section 303 because it ruled that the streamflow condition fell within the scope of state WQS under section 303.67

In concluding that the minimum streamflow requirement was consistent with ensuring compliance with section 303 WQS, the Court held that the

^{58.} Brief for Petitioners, supra note 30, at *46-50.

^{59.} For an analysis of the FPA issue, see Christiaan D. Horton, Note, *State Control over the Destiny of Hydropower Development:* PUD No. 1 v. Washington Department of Ecology, 15 ENERGY L.J. 463 (1994). The Court summarily rejected Tacoma's FPA argument. *PUD*, 114 S. Ct. at 1914.

^{60.} PUD, 114 S. Ct. at 1908.

^{61.} Id. at 1909.

^{62.} Id. at 1908.

^{63.} Id. at 1908-09 (emphasis added).

^{64.} Id. at 1909.

^{65.} Id.

^{66.} Id.

^{67.} *Id.* "We do not speculate on what additional state laws, if any, might be incorporated by this language." *Id.*

"designated use" and "water quality criteria" elements are independently enforceable.⁶⁸ The Court flatly rejected Tacoma's proposition that a state can only protect designated uses through the implementation and enforcement of water quality criteria:

We think the language of § 303 is most naturally read to require that a project be consistent with *both* components. . . . Accordingly, under the literal terms of the statute, a project that does not comply with a designated use of the water does not comply with the applicable water quality standards.⁶⁹

In this case, the Court found Dosewallips's designated use of fish habitat to be consistent with the overall goal of the CWA.⁷⁰ In addition, the Court noted that a reduction in streamflow fit within the CWA's broad definition of "pollution:" "man-made or man-induced alteration of the chemical, physical, biological, and radiological integrity of the water."⁷¹ Thus, the minimum streamflow requirement was valid because it was designed to ensure compliance with the river's designated use, which formed part of the state's WQS under section 303.⁷²

As a basis for its decision, the Court explained that each component of the WQS plays an important role in maintaining the integrity of the nation's waters. In most cases, specific water quality criteria provide a state with an efficient way to protect the existing uses of the water.⁷³ However, the criteria cannot always guarantee sufficient protection due to the diversity of waters, uses, and sources of pollution.⁷⁴ For this reason, states must have the authority to protect uses independent of water quality criteria.⁷⁵ The Court also noted that a state's WQS include, as an independently enforceable element, its antidegradation policy.⁷⁶ In this case, Washington's antidegradation policy protected existing beneficial uses, including the Dosewallips's use as fish habitat, and the state had the authority to impose the minimum streamflow requirements necessary to ensure the project's compliance with this policy.⁷⁷

The Court also rejected Tacoma's argument regarding water rights. Stressing that water quantity and water quality are inextricably linked, the Court

77. Id.

^{68.} *Id.* at 1910, 1913. 69. *Id.* at 1910.

^{70.} *Id*.

^{71.} Id.; CWA § 502(19), 33 U.S.C. § 1362(19).

^{72.} PUD, 114 S. Ct. at 1910-11.

^{73.} Id. at 1911-12.

^{74.} Id.

^{75.} Id. at 1912.

^{76.} Id.

explained that the CWA's definition of pollution included man-induced flow reduction and pointed out that section 304 acknowledged that pollution may result from man-made changes in the movement and flow of water.⁷⁸ According to the Court, Tacoma's argument had two major flaws. The first involved the interpretations of sections 101(g) and 510(2). Contrary to Tacoma's assertion that these provisions prevented any interference with diversions of water, the Court explained that these sections simply preserve state authority over water allocation; "they do not limit the scope of water pollution controls that may be imposed on users who have obtained, pursuant to state law, a water allocation."⁷⁹ The legislative history of the amendment adding section 101(g) supports this contention:

"The requirements [of the Act] may incidentally affect individual water rights... It is not the purpose of this amendment to prohibit those incidental effects. It is the purpose of this amendment to insure that State allocation systems are not subverted, and that effects on individual rights, if any, are prompted by legitimate and necessary water quality considerations."⁸⁰

Here, the state's conditions did not threaten any proprietary rights in water.⁸¹ The water quality certification granted no such proprietary right, and Tacoma had to apply for an appropriation permit from the state in order to acquire such a right.⁸²

In summary, the Court held that a state can enforce, independently of one another, the designated use, water quality criteria, and antidegradation components included in its section 303 WQS. In so holding, the Court accepted as a valid exercise of a state's enforcement authority the imposition of minimum streamflow requirements. In addition, the Court expressly acknowledged that a state's protection of water quality could have incidental effects on proprietary water rights. Because the Dosewallips River was unappropriated, this case did not present a conflict between water rights and water quality. In most western states, however, rights to the use of nearly all navigable waters within the state have been appropriated. In such a situation, the CWA will inevitably clash directly with such appropriative water rights.

82. Id.

^{78.} Id. at 1913.

^{79.} Id.

^{80.} *Id.* at 1913-14 (quoting 3 LEGISLATIVE HISTORY OF THE CLEAN WATER ACT OF 1977, at 532 (1978)) (emphasis added).

^{81.} Id. at 1913.

II. THE IMPACT OF THE PUD DECISION ON WESTERN STATES

A. The Doctrine of Prior Appropriation

Most of the western states have arid or semi-arid climates. Water is thus a precious commodity. The western states have adopted systems of water allocation based upon the doctrine of prior appropriation. The Desert Land Act of 1877 severed water from land, thereby separating the use of water from the ownership of land.⁸³ At that time, water became available for public use regardless of land ownership.⁸⁴ Under the doctrine of prior appropriation, individuals who divert water from its source and put it to beneficial use acquire a water right—a property right not in the water itself, but in the *use* of the water.⁸⁵ Due to scarcity, the system rewards productive and efficient use of water. The holder of a water right may divert only as much water as he can put to a beneficial use.⁸⁶ As soon as he can no longer put the water to such a use, he loses the water right.⁸⁷

The doctrine of prior appropriation also establishes a priority system for the use of water: those first in time are first in right.⁸⁸ Senior appropriators (those who perfected their water rights first) may use the amount of water which they have demonstrated they can put to beneficial use before junior appropriators may take their allotted amount.⁸⁹ In times of shortage, senior appropriators take their full allocation (if possible) regardless of the claims of junior appropriators.⁹⁰ Although easy to apply in theory, in reality the system poses practical difficulties, for junior appropriators are usually located *upstream* from senior appropriators. By law, junior appropriators must leave enough water in the riverbed to allow senior appropriators downstream to satisfy their water rights.⁹¹

Most western states have developed permitting systems for the allocation of water.⁹² One who diverts water and puts it to beneficial use perfects her water right by obtaining an "appropriation" or "water rights" permit, usually from the state engineer's office.⁹³ These appropriation permits specify the exact amount

^{83. 43} U.S.C. §§ 321-329 (1988); California v. United States, 438 U.S. 645, 657-58 (1978).

^{84.} California, 438 U.S. at 658.

^{85.} United States v. State Water Resources Control Bd., 182 Cal. App. 3d 82, 100 (Cal. Ct. App. 1986).

^{86.} Id.

^{87.} Id. at 102.

^{88.} Id.

^{89.} Id.

^{90.} Id.

^{91.} Id.

^{92.} AMERICAN WATER WORKS ASSOCIATION, WATER RIGHTS OF THE FIFTY STATES & TERRITORIES 32-33 (Kenneth R. Wright ed., 1990).

^{93.} Id. at 26.

of water that the applicant has demonstrated she can put to beneficial use.⁹⁴ In many states, the only limitations on the issuance of such permits, aside from proving beneficial use, are the availability of unappropriated water and the protection of the rights of prior appropriators.⁹⁵

B. Impact of PUD on State Governments

Due to the scarcity of water, intense pressure exists to allow appropriation of all water within a state. Many state constitutions explicitly declare that all unappropriated water within the state is available for appropriation for beneficial use.⁹⁶ As a result, the waters in many states are either fully or over-appropriated. In New Mexico, for instance, appropriators have acquired the water rights to all "reliably available" water in the entire Rio Grande system.⁹⁷

At the same time, the CWA requires states to implement WQS which preserve existing beneficial uses of the waters, including *instream* uses such as habitat for fish and wildlife. When establishing designated uses, states must take into account "the use and value of water for . . . protection and propagation of fish, shellfish, and wildlife" in addition to agricultural and industrial uses.⁹⁸ The WQS as a whole must also reflect this consideration.⁹⁹ In addition, a state's antidegradation policy must protect existing beneficial uses, including instream uses for the protection of fish and wildlife.¹⁰⁰

Not only must states adopt these standards, but they must also enforce them.¹⁰¹ The *PUD* decision announced that a state could enforce the components of its WQS (designated uses, water quality criteria, and antidegradation policy) independently of one another.¹⁰² In addition, the Court explained that a state could protect existing instream uses through the imposition of minimum streamflow requirements.¹⁰³

^{94.} Id. at 25-26.

^{95.} See, e.g., MONT. CODE ANN. § 85-2-311 (1995); N.M. STAT. ANN. §§ 72-5-6, 72-5-7 (Michie 1978).

^{96.} See, e.g., CAL. CONST. art. 10, § 2 (Supp. 1995) ("It is hereby declared that 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 "); MONT. CONST. art. IX, § 3, cl. 3 ("All surface, underground, flood, and atmospheric waters within the boundaries of the state . . . are subject to appropriation for beneficial uses "); N.M. CONST. art. XVI, § 2 ("The unappropriated water of every natural stream, perennial or torrential, within the state of New Mexico, is hereby declared . . . to be subject to appropriation for beneficial use.").

^{97.} Jicarilla Apache Tribe v. United States, 657 F.2d 1126, 1132 (10th Cir. 1981).

^{98. 40} C.F.R. § 131.10(a) (1994).

^{99.} CWA § 303(c)(2)(A), 33 U.S.C. § 1313(c)(2)(A).

^{100. 40} C.F.R. § 131.12.

^{101.} CWA § 309, 33 U.S.C. § 1319.

^{102.} PUD, 114 S. Ct. at 1913.

^{103.} Id. at 1912.

In states with separate agencies monitoring water allocation and water quality, a serious conflict can arise as a result of these contradictory directives. On the one hand, state law often requires the state engineer's office to consider only the availability of unappropriated water when deciding whether to grant an appropriation permit. If available water exists and no prior appropriator would be injured by the allocation, the state engineer must grant the permit. The state engineer thus cannot take into account either the state's WQS or the need to keep a certain amount of water in the stream to protect an existing beneficial instream use such as fish or wildlife habitat. On the other hand, the state agency in charge of monitoring and maintaining water quality must protect existing beneficial uses of the waters, including those requiring the maintenance of instream flows. By granting an appropriation permit without checking to make sure that doing so will not injure an existing instream beneficial use, the state has failed to comply with its own WQS.

C. Impact of PUD on Appropriative Water Rights

The potential also exists for a serious clash between the CWA and water rights. As explained above, many river systems in the West are completely appropriated. Each state has already granted rights to the beneficial use of all of the water in the system; none remains for instream uses. In such a situation, should the state (or the EPA) require the maintenance of instream flows to comply with the CWA, the requirement would directly infringe on water rights held by appropriators. Because these rights constitute vested property interests, an instream flow requirement could trigger the Fifth Amendment's taking clause and similar provisions in state constitutions requiring just compensation.¹⁰⁴

1. Bay/Delta System

Just such a conflict between water quality and water rights arose in California in 1978. In that state, 70% of the available water is located north of Sacramento, while 80% of the demand for that water is located in the south.¹⁰⁵ The Sacramento-San Joaquin Delta ("Delta") system provides over 40% of California's drinking water, irrigates over two hundred crops (including 45% of the country's produce), and supports over 120 species of fish.¹⁰⁶ At 1600 square-

^{104.} State Water Resources Control Bd., 182 Cal. App. 3d at 101.

^{105.} Id. at 98.

^{106.} Implementation of the Central Valley Project Improvement Act of 1992, and Coordination of Activities of Federal Agencies on California Water Resource Issues: Hearings Before the Subcomm. on Water and Power of the Senate Comm. on Energy and Natural Resources, 103d Cong., 2d Sess. (1994), available in LEXIS, NEWS File (statement of Elizabeth Rieke, Assistant Secretary for Water and Science, U.S. Department of the Interior).

miles, it is the largest estuary on the west coast.¹⁰⁷ Two massive water projects divert water from the Delta system: the Central Valley Project ("CVP"), run by the federal Bureau of Reclamation, and the State Water Project ("SWP"), run by the California Department of Water Resources.¹⁰⁸ Together, the projects hold thirty-four water appropriation permits and divert over 60% of the natural flow of water through the Delta.¹⁰⁹ This large diversion of the natural flow caused a major environmental problem: saltwater intrusion.¹¹⁰ Without the diversions, the flow of freshwater out from the Delta formed a barrier that kept the ocean tides from pushing saltwater into the estuary.¹¹¹ With the increasing diversions from tributaries feeding into the Delta increased dramatically.¹¹² The increased salinity severely depleted several populations of endangered and threatened fish species and damaged their spawning grounds.¹¹³

In response to these increasing environmental problems, California's Water Resources Control Board ("Board") issued a Water Quality Control Plan ("Plan") for the Delta which established new WQS under the CWA, including maximum salinity levels for the Delta.¹¹⁴ In conjunction with the Plan, the Board issued Decision 1485, modifying the CVP and SWP appropriation permits "to compel the projects to release enough water into the Delta or to reduce their exports from the Delta so as to maintain the water quality standards set in the Plan."¹¹⁵

In this case, water quality clashed directly with appropriative water rights.¹¹⁶ To enforce the salinity levels found in its WQS, the state had to set minimum instream flow requirements. Since the flow of unappropriated water through the Delta system proved inadequate to meet these requirements, the state found itself infringing on the vested water rights of the projects. In challenging the Board's decision, the CVP made just such an argument.¹¹⁷

2. Watershed Protection

A similar conflict arises between water rights and water quality in the

^{107.} Id. See also Robert Reinhold, U.S. Proposes To Divert Fresh Water To Restore Damaged California Delta, N.Y. TIMES, Dec. 16, 1993, at A18.

^{108.} State Water Resources Control Bd., 182 Cal. App. 3d at 97.

^{109.} Id.; Reinhold, supra note 107.

^{110.} State Water Resources Control Bd., 182 Cal. App. 3d at 107.

^{111.} Id.

^{112.} *Id*.

^{113.} Jane Kay, New U.S. Water Standards for Bay, Delta, S.F. EXAMINER, Dec. 15, 1993, at A-1.

^{114.} State Water Resources Control Bd., 182 Cal. App. 3d at 111.

^{115.} Id.

^{116.} Although this case occurred before the *PUD* decision, California courts already interpreted the CWA to allow the state to enforce the "use" and "criteria" components independently.

^{117.} State Water Resources Control Bd., 182 Cal. App. 3d at 111.

context of watershed protection legislation. Such legislation prevents a state from granting appropriative rights when this action would deprive the county-of-origin of water reasonably necessary for the country's development.¹¹⁸ The legislation establishes, for the watershed, a right to the water prior to any other appropriators, although it does not create a "water right" per se.¹¹⁹ Once an inhabitant of the watershed puts water to a beneficial use, he must follow normal procedures and apply to the state for a water appropriation permit.¹²⁰ In this case, however, a state *must* issue the permit regardless of the needs of other appropriators.¹²¹ A water rights-water quality conflict could arise if a state were to impose a minimum flow requirement to ensure compliance with its WOS. If a watershed inhabitant then applied for a water appropriation permit that would deplete the river below the mandated minimum flow, a state would find itself in a no-win situation. It would have to follow one of three courses: (1) grant the permit and violate its own WOS, (2) deny the permit and violate the watershed legislation, or (3) grant the permit but modify permits held by appropriators outside the watershed, decreasing their water allotments and opening up the state to potential takings claims.

III. A POSSIBLE SOLUTION: CALIFORNIA'S APPROACH

One possible solution to the CWA's clash with appropriative water rights in the western states exists in California. Although the conflict, of course, remains, California has developed mechanisms and adopted doctrines which serve to minimize the contradictory directives under which the state must operate and to support coordinated state action to meet WQS when necessary.

A. Combining Water Allocation and Water Quality Authorities

Unlike most states, California has combined its water quality and water allocation authorities into a single body, the State Water Resources Control Board ("Board"). According to the California Legislature, the merger "provide[s] for consideration of water pollution and water quality, and availability of unappropriated water whenever applications for appropriation of water are granted or waste discharge requirements or water quality objectives are established."¹²² The Board must take into account the state's WQS, and any minimum streamflow requirements necessary to comply with these standards, whenever it considers an application for a water appropriation permit. California thus avoids granting

- 120. Id.
- 121. Id.

^{118.} Id. at 138.

^{119.} Id. at 139.

^{122.} CAL. WATER CODE § 174 (West 1971).

appropriative rights that would deplete the river's natural flow to such a level that the water fails to meet the prescribed WQS.

Through this mechanism, California escapes the predicament of many other states. Because of the Board's dual functions, California does not experience the conflicting directives of those states with separate water allocation and water quality authorities. Although the pressure to make all unappropriated water available for beneficial consumptive use remains,¹²³ the state legislature in California requires the Board to balance this pressure against water quality concerns and the necessity of maintaining instream uses when required.¹²⁴ The state thus often avoids the pitfalls of granting appropriative rights in violation of the CWA section 303 WQS and subjecting itself to possible takings claims when it seeks to impose minimum flow conditions on already existing permits.

B. Factors Considered in Allocation Decisions

In addition to combining its water allocation and water quality authorities, California requires the Board to take into account a number of factors when making water allocation decisions. Unlike other states, which require only that the allocation authority determine that sufficient unappropriated water is available and that granting an appropriation permit would not hurt the water rights of prior appropriators, California requires the Board to consider the public interest in addition to WOS and accompanying beneficial instream uses. California law provides: "The board shall allow the appropriation for beneficial purposes of unappropriated water 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."¹²⁵ According to state law, the public interest requirement includes a consideration of "any general or co-ordinated plan looking toward the control, protection, development, utilization, and conservation of the water resources of the State."126 This requirement encompasses any WOS established by the state. 127 When granting water rights permits, the Board may also impose conditions consistent with the public interest.¹²⁸

In addition, state law requires the Board to compare the relative benefits of possible competing uses of the water when considering an application for a water rights permit. The Board must "consider the relative benefit to be derived from . . . all beneficial uses of the water concerned including . . . preservation

128. Id.

^{123.} Consumptive use is a use requiring the diversion of water. In contrast, nonconsumptive uses are instream uses.

^{124.} CAL. WATER CODE § 174 (West 1971); State Water Resources Control Bd., 182 Cal. App. 3d at 126.

^{125.} CAL. WATER CODE § 1253 (West 1971) (emphasis added).

^{126.} Id. § 1256.

^{127.} Id. § 1258.

and enhancement of fish and wildlife."¹²⁹ The state must thus balance instream uses against competing consumptive uses when making allocation decisions. California must also take into account the possible use of the water as fish and wildlife habitat when determining the *availability* of unappropriated water: "In determining the amount of water available for appropriation for other beneficial uses, the board shall take into account, whenever it is in the public interest, the amounts of water required for ... the preservation and enhancement of fish and wildlife resources."¹³⁰

By expressly requiring the consideration of not only the state's WQS but also the public interest and the relative benefit of instream uses, California attempts to safeguard further its water allocation decisionmaking process. Under most circumstances, these additional factors will ensure that any appropriative rights granted will not interfere with WQS or beneficial instream uses such as fish and wildlife habitat. Inevitably, however, these precautions cannot prevent every conflict between already existing water rights and the need to impose instream flow requirements to preserve water quality. For example, changes in circumstances may require the imposition of minimum streamflow requirements after the state has granted water rights to most, if not all, of the available water. Changes in WOS may also require a minimum streamflow condition after the state has granted water rights. In such instances, the ability to modify existing water rights permits is crucial. Without such an ability, virtually any attempt by the state to require minimum flows to protect water quality will result in possible takings claims and liability for just compensation.

C. Modifying Existing Water Rights Permits

Unlike most other western states, California courts have recognized the state's ability to modify existing water rights permits.¹³¹ In California, three sources exist for the state's authority to amend such permits: the California Constitution, the reservation of jurisdiction within the permits, and the public trust doctrine.

1. Constitutional Limitation on Water Rights

The Constitution of California imposes a limitation of reasonable use on all appropriations of water. Article 10, section 2, provides in part:

It is hereby declared that . . . the waste or unreasonable use or

^{129.} Id. § 1257.

^{130.} CAL. WATER CODE § 1243 (West Supp. 1995).

^{131.} See, e.g., State Water Resources Control Bd., 182 Cal. App. 3d at 127-50.

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 The right to water or to the use or flow of water . . . 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.¹³²

As is evident from this passage, the framers strongly and repeatedly emphasized that water rights were based upon and limited by reasonable use. According to the California Court of Appeals, this constitutional limitation supports state law which authorizes the Board "to institute necessary judicial, legislative or administrative proceedings to prevent waste or unreasonable use, including imposition of new permit terms."¹³³

The Board exercised this power in 1978 when it issued a decision modifying the water appropriation permits (and thus the holders' water rights) of the CVP and SWP to require the maintenance of instream flows sufficient to meet the salinity levels in the state's WQS.¹³⁴ The court discussed the constitutional restriction on water rights and concluded that, due to a change in circumstances—the dissipation of the freshwater barrier in the Delta, the increased salinity, and the new WQS—the projects' use of the water granted in the appropriation permits had become unreasonable.¹³⁵ It then upheld, partly on constitutional grounds, the state's authority to modify these permits.¹³⁶

Although a constitutional limitation on water rights provides a strong basis for the state's authority to amend existing water rights permits in light of changed circumstances, most states' constitutions lack such an explicit limitation.¹³⁷ Due to political realities, a solution to the rights-quality conflict involving the amendment of a state's constitution may prove unrealistic. In states whose case law supports a reasonableness limitation on appropriative water rights, however, such a limitation could provide an analogous basis for the authority to modify existing water rights permits in light of changed circumstances.

2. Reserving Jurisdiction To Amend

A more direct way for states to acquire the ability to modify existing water rights permits to include minimum flow requirements involves the

^{132.} CAL. CONST. art. 10, § 2 (Supp. 1995) (emphasis added).

^{133.} State Water Resources Control Bd., 182 Cal. App. 3d at 129.

^{134.} See supra notes 105-15 and accompanying text.

^{135.} State Water Resources Control Bd., 182 Cal. App. 3d at 129-30.

^{136.} Id. at 130.

^{137.} See, e.g., MONT. CONST. art. IX; N.M. CONST. art. XVI.

reservation of jurisdiction to amend within the permits themselves. California law grants the Board the authority to include within appropriation permits the right to modify permit terms and impose conditions in certain situations.¹³⁸ One such situation concerns the insufficiency of information needed to set final permit terms at the time of issuance.¹³⁹ Thus, if the Board concludes that minimum streamflow requirements may be required at some point in the future, it may reserve jurisdiction to amend the permit to include such a condition at a later date. States could avoid liability for unconstitutional takings that stem from rights-quality conflicts by granting their water allocation authority the power to include in appropriation permits reservations of jurisdiction to amend and to impose conditions based on water quality concerns.

3. Public Trust Doctrine

The public trust doctrine provides additional support for a state's authority to modify existing water appropriation permits. The doctrine recognizes that the government holds the navigable waters in trust for the people of a state.¹⁴⁰ As the public's trustee, a state has a duty "to protect the people's common heritage of streams, lakes, marshlands and tidelands."¹⁴¹ This obligation remains even when a state transfers use rights in the waters to individuals: "The state as sovereign retains continuing supervisory control over its navigable waters and the lands beneath those waters. This principle . . . prevents any party from acquiring a vested right to appropriate water in a manner harmful to the interests protected by the public trust."¹⁴² These protected interests include ecological values such as the preservation of fish and wildlife habitats.¹⁴³ A state's power, as protector of the public trust, "extends to the revocation of previously granted rights."¹⁴⁴ Since the public trust encompasses water, the public trust doctrine supports a state's authority to revoke appropriative rights when the holder of the right uses it to the detriment of the public trust. Surely this doctrine provides authority for a state to act in a more restrained manner by simply requiring the modification of an existing water rights permit in order to protect public trust interests such as fish and wildlife habitat.

Although the doctrine provides a compelling basis for state authority to

141. Id. at 724.

^{138.} State Water Resources Control Bd., 182 Cal. App. 3d at 128 & n.23 (citing CAL. WATER CODE § 1394 (West 1971)).

^{139.} Id. at 128 n.23 (quoting CAL. WATER CODE § 1394(a) (West 1971)).

^{140.} National Audubon Soc'y v. Superior Court of Alpine County, 658 P.2d 709, 718 (Cal. 1983) (citing Colberg, Inc. v. State *ex rel.* Dep't of Pub. Works, 432 P.2d 3 (Cal. 1967)).

^{142.} Id. at 727 (emphasis added).

^{143.} Id. at 719.

^{144.} Id. at 723 (emphasis added).

modify existing water rights permits, California is the only state to have used it to support such a modification. In 1979, environmental groups sought to enjoin the City of Los Angeles from diverting, in accordance with a valid water rights permit, almost all of the water from four of five rivers flowing into Mono Lake, the second largest lake in California.¹⁴⁵ The saltwater lake supports a large population of shrimp that in turn feeds huge numbers of nesting and migratory birds.¹⁴⁶ The water supplying the lake comes from five freshwater streams.¹⁴⁷ As a result of Los Angeles's large diversions from these feeder streams, the lake became shallower, its surface area shrank by one-third, and its salinity increased.¹⁴⁸ The increased salinity threatened to destroy the shrimp and the bird populations that depend upon them.¹⁴⁹ In addition, the lower level of the lake transformed one of the lake's islands into a peninsula, thereby opening the bird population nesting there to devastation by the invasion of coyote predators.¹⁵⁰ The Supreme Court of California held that the public trust doctrine supported the modification of the City of Los Angeles's water rights through amendment of its appropriation permit.¹⁵¹ The court declared that "[t] he state . . . has the power to reconsider allocation decisions even though those decisions were made after due consideration of their effect on the public trust."152

Although the public trust doctrine provides a compelling basis for state authority to amend existing appropriation permits, elements of the court's discussion of its application of the doctrine suggest why other states have failed to embrace it.¹⁵³ In applying the doctrine to water allocations, the court explained:

Once the state has approved an appropriation, the public trust imposes a duty of continuing supervision over the taking and use of the 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.¹⁵⁴

147. Id. at 711.

152. Id. at 728-29 (emphasis added).

^{145.} Id. at 716.

^{146.} Id. at 711. In fact, the lake provides nesting grounds for 95% of California's gull population—25% of the total population of the species. Id. at 716.

^{148.} Id. at 711, 715.

^{149.} Id. at 715.

^{150.} Id. at 711.

^{151.} Id. at 728.

^{153.} Some states acknowledge the public trust doctrine but fail to apply it in the context of water appropriations. *See, e.g.*, Kootenai Envtl. Alliance, Inc. v. Panhandle Yacht Club, Inc., 671 P.2d 1085 (Idaho 1983).

^{154.} National Audubon Soc'y, 658 P.2d at 728 (emphasis added).

The court explicitly referred to a state's authority—indeed its duty—to consider the public interest when making allocation decisions.¹⁵⁵ As discussed above, California is unique among western states in requiring that the Board take into account the public interest when determining whether to grant water rights.¹⁵⁶ Perhaps this difference explains other states' lack of enthusiasm for the doctrine. The incorporation of such a public interest requirement, however, would not only support the application of the public trust doctrine in the water appropriation context; it also would help alleviate other problems associated with water rightswater quality conflicts.¹⁵⁷

IV. CONCLUSION

Through the *PUD* decision, the United States Supreme Court resolved a conflict among jurisdictions regarding the states' authority under the CWA. The Court held that states could enforce the "designated uses" component of section 303 WQS independent of the water quality "criteria." In addition, the Court suggested that, because the CWA also requires states to adopt and implement antidegradation policies that protect existing beneficial uses, states could enforce these policies independently of numerical criteria. For those jurisdictions that previously allowed a state to protect designated uses only through the implementation and enforcement of criteria, the Court's decision in *PUD* greatly expanded a state's authority to protect water quality. These states now have both the obligation to protect instream uses when water quality concerns require it and the ability to impose minimum instream flow levels to afford such protection.

With this power, however, comes conflict. Although the CWA grants states such authority, western states allocating water according to the doctrine of prior appropriation will face serious practical problems in imposing instream flow requirements. Water scarcity has forced these states to adopt policies maximizing the diversion and beneficial use of water while water quality concerns increasingly require the maintenance of instream flows.

States already interpreting the CWA to allow the independent enforcement of the "use" and "criteria" components of section 303 WQS have had time to modify their systems of water allocation to accommodate water quality concerns. One such state is California. California's experience can provide valuable suggestions to states just beginning to struggle with the conflicting goals of maximum water utilization and protection of water quality.

The essential element of California's approach to water allocation is cooperation. Although they need not necessarily merge into one agency, those

^{155.} Id.

^{156.} See supra notes 119-24 and accompanying text.

^{157.} See supra notes 119-24 and accompanying text.

government entities responsible for water allocation and those protecting water quality must communicate. Each must take into account the concerns of the other when making decisions. Water quality issues must be considered before water rights are granted.

In addition, the ability to modify existing water rights permits is crucial. Without such authority, states will likely be reluctant to play an active role in protecting water quality through the implementation of new WQS. On the one hand, states may worry that they will be subjecting themselves to takings claims if they acknowledge growing water quality problems due to insufficient instream flows, set more protective WQS, and attempt to fashion instream flow requirements. On the other hand, they may fear that if they fail to set such standards, the EPA may intervene and establish standards that are not in the best interests of the state.¹⁵⁸ The power to amend existing water rights permits would go far toward ameliorating the states' difficult position. It would lessen the threat of successful takings claims while simultaneously encouraging the formulation of more protective WQS.

Modifications in the western states' systems of water allocation will, of course, take time. Any changes associated with the allocation of a commodity as precious and rare as water in the West will probably be viewed with suspicion and hostility. California, however, has proved that such changes can soften the clash between water quality concerns and appropriative water rights. States must stop viewing water quality as an impediment to maximum water use and instead view these elements for what they are: equally important considerations that must be balanced in order to achieve the allocation of water that is in the public's best interest.

^{158.} This occurred in the Delta situation. Governor Pete Wilson ordered the Board to suspend their work in setting new WQS to address the environmental problems in the Delta system. Steve La Rue & Dana Wilkie, *U.S. Plan for Delta to Peril Water Supply?*, SAN DIEGO UNION-TRIBUNE, Nov. 2, 1993, at A-3. In response, the EPA intervened (under the pressure of a civil suit filed by environmental groups) and proposed a set of standards that were more stringent than the State would have preferred. *Id.*; Reinhold, *supra* note 107.