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Submerged in the Yuba River: The State Water Resources Control Board's Prioritization of the Governor's Commissions Proposals

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I. INTRODUCTION

The Yuba River watershed has been the setting for several epic events in the history of California's water law and policy. While hydraulic gold mining greatly impacted many California rivers, it impacted the Yuba River most: "Between 1849 and 1909, nearly 44% of the total of some 1,555,000,000 cubic yards of gold-bearing material mined by the hydraulic method was washed into the Yuba River."[1] The 684 million cubic yards of gold-bearing material that washed into the Yuba River were "more than triple the volume of earth excavated during construction of the Panama Canal."[2] These extraordinary activities caused the Yuba River's channel near Yuba City to rise ninety feet, until the channel's bed was higher than the streets of Yuba City and Marysville.[3] The damage caused by hydraulic mining eventually resulted in what is perhaps California's first environmental-law decision, the famous January 7, 1884 decision by Judge Lorenzo Sawyer that enjoined the North Bloomfield mine's deposition of debris into the Yuba River's tributaries.[4]

The miners' legacy in the Yuba River watershed was not limited to litigation over flooding. In the early to mid-1900s, the Yuba River's flooding problems were a primary impetus for the creation and work of the California Debris Commission and the state and federal efforts that eventually led to the creation of the Sacramento Valley's system of flood bypasses.[5] As part of these efforts, the California Debris Commission built a number of debris-barrier dams in the Yuba River. These dams included Daguerre Point Dam, completed in 1906, and Englebright Dam, completed in 1941.[6] In order to maximize Daguerre Point Dam's ability to retain debris, the California Debris Commission dredged a new channel for the Yuba River that was defined by training walls and cleared of its foliage.[7]

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1. JOSEPH J. HAGWOOD, JR., THE CALIFORNIA DEBRIS COMMISSION: A HISTORY 21 (1981).

2. Ronald M. Yoshiyama et al., *Historical and Present Distribution of Chinook Salmon in the Central Valley Drainage of California*, *in* 1 CONTRIBUTIONS TO THE BIOLOGY OF CENTRAL VALLEY SALMONIDS: FISH BULLETIN 179, at 122 (Randall L. Brown ed., 2001).

3. JEFFREY R. MOUNT, CALIFORNIA RIVERS AND STREAMS 49, 206 (1995).

4. Woodruff v. N. Bloomfield Gravel Mining Co., 18 F. 753 (C.D. Cal. 1884). For the history of the *Woodruff* lawsuit and a description of Judge Sawyer, see HAGWOOD, *supra* note 1, at 23-26.

5. *See* ROBERT KELLEY, BATTLING THE INLAND SEA 230-36, 244-46, 277-78 (1989); *see also* Gray v. Reclamation Dist. No. 1500, 163 P. 1024, 1027-28 (Cal. 1917) (discussing the California Debris Commission's formation).

6. HAGWOOD, *supra* note 1, at 47-49, 79-80; S.W.R.C.B. Revised Decision No. 1644, at 15 (July 16, 2003) [hereinafter RD-1644]. Englebright Dam is a 260-foot high barrier that blocks navigation of humans and fish up the Yuba River. HAGWOOD, *supra* note 1, at 80; RD-1644, *supra* at 15, 32.

7. HAGWOOD, *supra* note 1, at 47-49.

The results of this activity have been dramatic and are still occurring today. Mining debris "totally obliterated the former channel" of the Yuba River.[8] A "gravel moonscape" of thousands of acres of mining debris is strewn along the Yuba River's south bank.[9] Litigation concerning the failure, during the 1986 flood, of a levee built on mining debris is still on-going.[10] During the 1997 flood, three people died and 35,000 people were evacuated from the Marysville area and 75,000 people were evacuated downstream in Sutter County.[11]

In the upper Yuba River watershed, the miners' elaborate system of flumes, canals, and dams provided the foundation for the construction of some of the world's first hydroelectric powerhouses—beginning with the completion of the Nevada powerhouse on the South Yuba River in 1896, and continuing with the completion of the Yuba and Colgate powerhouses in 1898 and 1899, respectively.[12] Some of these flumes, dams, and powerhouses, along with later-constructed facilities, still enable the diversion of up to forty percent of the Yuba River watershed's runoff to the Feather River watershed to the north and the Bear and American River watersheds to the south.[13]

These human activities seriously impacted the Yuba River's population of anadromous fish. Mining debris covered the Yuba River's salmon spawning beds, with debris covering the River's floodplain up to one and one-half miles from the River with sediments five to ten feet thick.[14] At first Daguerre Point Dam, and later Englebright Dam, blocked the migration of salmonids to their historic spawning grounds in the upper Yuba River watershed.[15] As the Narrows Powerhouse at Englebright Dam was incorporated into Pacific Gas & Electric's hydroelectric generation system in the 1950s and 1960s, streamflows in the lower

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8. KELLEY, *supra* note 5, at 202 (stating that the debris "had overflowed so widely over farms that had lined the river that its bed was now two miles wide").

9. *See* W. Aggregates, Inc. v. County of Yuba, 130 Cal. Rptr.2d 436, 440 (Ct. App. 2002).

10. *See* Paterno v. State, 6 Cal. Rptr.3d 854, 857-58 (Ct. App. 2003).

11. 2 DEP'T. OF WATER RES., CALIFORNIA WATER PLAN UPDATE 1998, at 8-12 (Bulletin 160-98) [hereinafter BULLETIN 160-98].

12. *See generally* CHARLES M. COLEMAN, P.G. AND E. OF CALIFORNIA: THE CENTENNIAL STORY OF PACIFIC GAS AND ELECTRIC COMPANY: 1852-1952, at 128-44 (1952); David J. Larson, *Historical Water-Use Priorities and Public Policies*, *in* 2 SIERRA NEVADA ECOSYSTEM PROJECT: FINAL REPORT TO CONGRESS, ASSESSMENTS AND SCIENTIFIC BASIS FOR MANAGEMENT OPTIONS 169-70 (1996). Electricity generated by the Colgate powerhouse was transmitted 140 miles to Oakland, making it "the world's first long-distance transmission line." Larson, *supra* at 170. In addition, the Pelton wheel, which enabled significant development of hydroelectric generation, was invented in Camptonville, in Yuba County between the North and Middle Yuba Rivers. *See* COLEMAN, *supra* note 12, at 112-15; Larson, *supra* at 165, 169.

13. *See* BULLETIN 160-98, *supra* note 11, at 3-41 to 3-42; S.W.R.C.B. 2000 Lower Yuba River Hearing Exhibit S-YCWA-19, at 3-2 to 3-4; S.W.R.C.B. 2000 Lower Yuba River Hearing Exhibit S-YCWA-16, at 2-3 to 2-4; *see also* E. Clemens Horst Co. v. New Blue Point Mining Co., 171 P. 417, 418 (Cal. 1918) (water conveyed from South Yuba River watershed to Bear River watershed for use by city of Grass Valley). For a graphical depiction of the facilities that conveyed water among the watersheds of the Yuba, Bear and American Rivers as of 1928 see Larson, *supra* note 12, at 172.

14. Ronald M. Yoshiyama et al., *Historical Abundance and Decline of Chinook Salmon in the Central Valley Region of California*, 18 N. AM. J. FISHERIES MGMT. 487, 500 (1998).

15. Yoshiyama et al., *supra* note 2, at 122-23. Daguerre Point Dam was constructed in 1906. Englebright Dam was completed in 1941. RD-1644, *supra* note 6, at 15.

Yuba River varied significantly during the summer and fall, creating highly adverse conditions for adult salmon.[16] In 1959 and 1960, conditions became so serious that the California Department of Fish and Game ("DFG") agreed to build a barrier across the Yuba River's mouth to keep salmon from migrating into the river at certain times.[17]

In light of the Yuba River's dramatic history, it is not surprising that a significant test of the concepts embodied in the Final Report of the Governor's Commission to Review California Water Rights Law occurred in relation to that River. Specifically, in 2001 and 2003, the State Water Resources Control Board ("SWRCB") ordered Yuba County Water Agency to comply with much-increased instream-flow requirements and other measures intended to enhance conditions for the River's anadromous fisheries.

Although both the SWRCB's Yuba River decision and the Governor's Commission's proposals contain general fishery-enhancement measures,[18] the SWRCB's decision is contrary to the Commission's goals. Specifically, by ascribing no value to the terms of Yuba County Water Agency's water-right permits that have allowed the Agency to implement water transfers and conjunctive use, and instead using such measures as evidence that water was available to satisfy the SWRCB's new long-term instream-flow requirements, the SWRCB prioritized the implementation of such requirements over the Governor's Commission's other proposals and created just the kind of uncertainty that the Commission sought to wring out of California water law. Also, the SWRCB's decision is contrary to the Commission's goal of equitably apportioning responsibility for instream-flow requirements because it will interfere with the one process where that goal can be achieved: re-licensing proceedings before the Federal Energy Regulatory Commission ("FERC").

II. THE GOVERNOR'S COMMISSION'S APPROACH FOR MAXIMIZING THE UTILITY OF CALIFORNIA'S WATER AND LATER DEVELOPMENTS

The Governor's Commission recognized that the utilization of riparian and appropriative water rights results in uncertainties and inefficiencies that hamper overall management of water resources.[19] The Commission concluded that one way

16. T.W. WOOSTER, FISH AND WILDLIFE IN RELATION TO PROPOSED WATER DEVELOPMENTS ON THE LOWER YUBA RIVER 37, app. A (1963).

17. T.W. WOOSTER & RUSSELL H. WICKWIRE, A REPORT ON THE FISH AND WILDLIFE RESOURCES OF THE YUBA RIVER TO BE AFFECTED BY THE MARYSVILLE DAM AND RESERVOIR AND MARYSVILLE AFTERBAY AND MEASURES PROPOSED TO MAINTAIN THESE RESOURCES: PRELIMINARY DRAFT ENVIRONMENTAL SERVICES ADMINISTRATIVE REPORT NO. 70-4, at 52 (1970).

18. In terming such measures "general," the authors suggest that the measures are not tied to any specific water project's fishery impacts and apologize if congruity between the term and the concept is not perfect.

19. GOVERNOR'S COMMISSION TO REVIEW CALIFORNIA WATER RIGHTS LAW, FINAL REPORT 11-12 (Dec. 1978) [hereinafter FINAL REPORT].

to remedy these deficiencies was to make existing water rights more secure and to utilize those rights more efficiently.[20] The Commission addressed environmental issues through proposed measures for comprehensive management and the equitable apportionment of resulting burdens.

A. The Governor's Commission's Recommendations

1. Increase Certainty in Appropriative Rights to Enable More Efficient Use Through Voluntary Water Transfers

The Governor's Commission sought to increase the efficiency of water use by recommending ways to encourage voluntary transfers of water.[21] The Commission recognized that ensuring the security of water rights, reducing the risk of their forfeiture, and preserving their flexibility are essential to voluntary transfers.[22] The Commission therefore proposed measures to increase the security of water rights because a lack of security in a water right will reduce the amount of investment in developing that right and ultimately diminish its value.[23]

In addition, the Commission recommended increasing incentives to transfer water by proposing statutes to counter the perception that transfers created risks of forfeiture by implying that water-right holders did not need all of the water to which they were entitled.[24] The Commission recommended that the law state explicitly "that the transfer or exchange of water or water rights, in itself, should not be considered as evidence of waste and unreasonable use . . . and that such a transfer or exchange should not result in forfeiture."[25] In addition, the Commission recommended the adoption of statutes stating that reductions in the use of appropriated water due to water conservation efforts should be deemed to be a reasonable beneficial use of the conserved water, and that the water-right holder be allowed to transfer such water.[26]

Finally, the Governor's Commission sought to increase the flexibility of existing water rights to encourage voluntary transfers that would make the most

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20. *Id.* at 13.

21. *Id.* at 62-69. The Governor's Commission made extensive recommendations intended to result in more extensive regulation and management of groundwater. *Id.* at 135-250. This article focuses on the interaction of the Governor's Commission's recommendations concerning water right security and instream-flow considerations. Accordingly, the only groundwater related issue discussed extensively in this article is conjunctive use of groundwater and surface water. *See infra* text accompanying notes 48, 132, 133. Otherwise, the Governor's Commission's recommendations in relation to groundwater are beyond this article's scope.

22. *Id.* at 62-69.

23. *Id.* at 62.

24. *Id.* at 66.

25. *Id.* at 60, 66. The forfeiture doctrine provides that an appropriator who uses less water than the amount to which it is entitled, for a certain number of years when that amount is available, could lose its rights in the unused water. *Id.* at 60.

26. *Id.*

efficient use of water, especially in times of shortages.[27] The Commission proposed an expedited temporary transfer process for voluntary transfers lasting one year or less.[28]

2. *Create Comprehensive Procedures to Set and Implement Instream-Flow Programs*

The Governor's Commission was not satisfied with the project-specific, piecemeal approach to instream flows that results from the water-right application process administered by the SWRCB.[29] Instead, the Commission proposed a program to implement general instream-flow requirements.[30] The Commission recommended that the Legislature grant the SWRCB authority to set general instream-flow standards on streams independent of individual water-right applications and that the SWRCB be prohibited from granting a water-right permit or approving a change in an existing permit that would not comply with the instream-flow standard.[31] Compliance measures required by the SWRCB would not have been allowed "to cause substantial harm to any lawful user of water."[32] Compliance with an instream-flow standard that would require existing water users to be affected would have utilized physical solutions, such as water exchanges and changes in points of diversion, to avoid or mitigate the impact of compliance on such existing users.[33] Additionally, any losses or impairments of existing water rights were to be equitably distributed among all the water users on the stream.[34] Where the weight of existing or potential economic values prevented substantial instream protection in the standard-setting procedure, the Governor's Commission envisioned that the Secretary of the Resources Agency could be given authority to purchase water rights for instream uses.[35] The Commission identified the public trust doctrine as a basis for reallocating water to instream uses and thus, implicitly, for its proposed instream-flow proceedings.[36]

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27. *Id.* at 66-69.

28. *Id.* at 67, 88.

29. *Id.* at 112. The report further states that "[t]he Commission believes that permanent instream protection should be the product of a comprehensive approach undertaken by agencies acting in the public interest. It does not believe that the permit application process is a proper vehicle to institute such protection, even though the public interest does enter into this process." *Id.* at 118.

30. *Id.* at 112-13.

31. *Id.* at 112-19. The Governor's Commission did not state whether it believed that temporary change petitions that implement water transfers should be barred if there was non-compliance with instream-flow standards or whether it contemplated only that such petitions that implement physical changes to a water project would be barred. *Id.*

32. *Id.* at 114, 126.

33. *Id.*

34. *Id.*

35. *Id.* at 117.

36. *Id.* at 110.

B. Overview of the Governor's Commission's Approach

The Commission did not recommend a restructuring of California water law:

> Although many of the criticisms of riparian and appropriative rights may be valid, members of the Commission urge that the established structure of water rights be retained. The existing system performed in much better fashion than might have been anticipated during two of the driest years in California history. Riparian and appropriative rights have served as the foundation for billions of dollars worth of investment. They are property rights subject to constitutional protection. Their deficiencies are better remedied by making them more secure and their utilization more efficient than by eliminating them in favor of an untried system.[37]

The increased efficiency that the Governor's Commission sought to develop was not limited to making beneficial uses more efficient physically. Instead, the Commission sought to improve the law itself, and thus make more water available in equitable ways.

Perhaps the best example of this approach was the Governor's Commission's incorporation of the concept of physical solutions into its recommended instream-flow proceedings. The Commission intended those proceedings to address two operational inefficiencies in California water law. First, instream needs for water were not considered generally, but rather on a project-specific basis.[38] Second, the imposition of measures addressing instream needs on individual project operators could cause "costly delays and difficult modifications in project plans."[39]

The Governor's Commission's solution was to propose proceedings in which both instream needs and project owners' responsibility for meeting them would be considered on a stream-by-stream basis.[40] All project owners in a watershed would contribute to meeting instream needs through "physical solutions such as water exchanges, modification of project operation, changes in points of diversion, changes in time and rate of diversion, and uses of water from alternative sources" with no water user suffering "substantial harm."[41] California law has long approved of such physical solutions in situations where senior water users' rights can be accommodated without forcing junior right-holders to cease diversions, so long as the senior is not forced to incur substantial costs.[42] While the Governor's Commission did not make this connection explicitly, its concept of watershed-wide, multi-user plans for taking efficiency measures to make more

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37. *Id.* at 12-13.

38. *Id.* at 105-08.

39. *Id.* at 111.

40. *Id.* at 113-14.

41. *Id.*

42. *See* City of Barstow v. Mojave Water Agency, 5 P.3d 853, 869 (Cal. 2000); City of Lodi v. E. Bay Mun. Water Dist., 60 P.2d 439, 449-50 (Cal. 1936).

water available for instream uses expanded the concept of traditional physical solutions among senior and junior water-right holders, while retaining the principle that no water-right holder should be substantially injured. The Commission's expansion of equitable physical solutions to meet the need for more general considerations of instream needs was perhaps the best example of its overall approach of attempting to use legal structures to wring inefficiencies out of water uses and gain more overall benefits.

C. *Intervening Developments*

1. *Extensive Legislative Action to Increase Certainty in Rights and Enable Transfers*

The Legislature embraced the Governor's Commission's recommendations for increasing certainty in water rights to enable voluntary water transfers. In this area, the Legislature adopted many recommendations verbatim or without substantial changes.[43] The Legislature also built upon those recommendations by enacting additional legislation designed to encourage efficient use and voluntary transfers of water.

For example, the Legislature adopted Water Code section 1011 to codify the Commission's proposal to preserve an appropriator's right to water even though part of it goes unused due to conservation efforts.[44] The Legislature also enacted, as Water Code section 109, the Commission's proposed declaration that it is "the established policy of this state to facilitate the voluntary transfer of water and water rights where consistent with the public welfare of the place of export and the place of import."[45] In 1980, the streamlined process for temporary water transfers recommended by the Commission was also enacted.[46]

Moreover, the Legislature has extended the Governor's Commission's recommendations to other measures for making water available for transfer. Water Code section 1011.5, enacted in 1992, declares that conjunctive use of groundwater and surface water is a beneficial use of the relevant surface-water right and authorizes holders of those rights to transfer water they make available through conjunctive use.[47] Water Code section 1011.5 was an explicit extension of the principle underlying Water Code section 1011.[48] The Legislature also has

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43. *See* FINAL REPORT, *supra* note 19, at 80-96; *see also* CAL. WATER CODE, §§ 109, 1011, 1210, 1244, 1725-1730 (West Supp. 2004).

44. CAL. WATER CODE § 1011 (West Supp. 2004).

45. *Id.* § 109.

46. *Id.* §§ 1725-1727.

47. *Id.* § 1011.5.

48. SENATE COMMITTEE ON AGRICULTURE AND WATER RESOURCES, COMMITTEE ANALYSIS OF AB 231, at 1 (July 2, 1991) ("Under present law, under a prescribed set of conditions, there is no loss of an appropriative right to water when a person implements water conservation practices. . . . AB 231 broadens the law to apply to the conjunctive use of surface water and groundwater."); ASSEMBLY COMMITTEE ON WATER, PARKS AND WILDLIFE, COMMITTEE ANALYSIS OF AB 231 (Feb. 25, 1991).

clarified that a water-right holder may sell, trade, or transfer water that it no longer uses because it has substituted reclaimed, polluted, or recycled water.[49] Finally, the Legislature has provided additional flexibility to encourage more water transfers during drought conditions by adopting procedures to expedite urgent applications for temporary changes in points of diversion.[50]

2. Developments Concerning Instream Flows

In contrast to the Legislature's enactment and extension of the Governor's Commission's proposals concerning water-right security and transfers, the Legislature has not adopted the Commission's recommendations for developing a comprehensive instream flow program administered by the SWRCB. Instead, in 1982, the Legislature enacted Public Resources Code sections 10000 through 10005, known as the Streamflow Protection Standards Act, which authorizes DFG to conduct studies and develop general streamflow standards for particular streams.[51] Three years later, the Legislature incorporated those standards into the SWRCB's permitting process by enacting Water Code section 1257.5, which provides in part that the SWRCB "in acting on applications to appropriate water, shall consider streamflow requirements proposed for fish and wildlife purposes pursuant to Sections 10001 and 10002 of the Public Resources Code."[52] However, contrary to the Governor's Commission's recommendations, these statutes do not authorize the modification of water rights.[53] Instead, they apply only to applications for new water-right permits.

As it was interpreted in judicial decisions issued after the Commission's Final Report, federal energy policy precludes the Legislature from authorizing the modification of water-right permits to include higher instream-flow requirements for hydroelectric projects. In its 1990 *California v. FERC* decision, the United States Supreme Court held that the SWRCB is preempted from imposing streamflow requirements that are more stringent than those in a FERC license issued under the Federal Power Act.[54] *California v. FERC* effectively prevents the SWRCB from holding basin-wide streamflow proceedings because many California watersheds include FERC-licensed hydroelectric projects.[55]

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49. CAL. WATER CODE § 1010(b) (West Supp. 2004).

50. *Id.* § 1435.

51. CAL. PUB. RES. CODE §§ 10000-10005 (West Supp. 2004).

52. CAL. WATER CODE § 1257.5 (West Supp. 2004).

53. FINAL REPORT, *supra* note 19, at 114, 126. In addition, the SWRCB does not have statutory authority to adopt general instream-flow standards. *See* 63 Op. Cal. Att'y Gen. 95 (1980) (disapproving regulations proposed by the SWRCB that would have set minimum instream-flow standards outside of the water-right application process).

54. California v. Fed. Energy Regulatory Comm'n, 495 U.S. 490, 506 (1990).

55. BULLETIN 160-98, *supra* note 11, at 2-12 to 2-13 (discussing California hydroelectric projects subject to FERC relicensing between 2000 and 2010 and noting affected streams).

In addition, by identifying the public trust doctrine as a device for reopening water rights, the Governor's Commission largely anticipated the California Supreme Court's *National Audubon Society v. Superior Court* decision, which held that a water user cannot gain a vested right to water use if that use harms the public trust.[56]

Consistent with the Governor's Commission's proposed limitations on streamflow proceedings, recent takings jurisprudence has emphasized similar limitations on agencies' regulatory powers by requiring that burdens placed on private property for a public benefit have an "essential nexus" to the legitimate public purpose used to justify the burden and that the burden must be "roughly proportional" to the impact the property use would have on the public purpose.[57] Finally, the Governor's Commission proposed that, where regulatory measures could not be used to reallocate water, the State could buy water to satisfy instream uses.[58] This proposal anticipated the Cal-Fed Bay-Delta Program's Environmental Water Account ("EWA"). The Cal-Fed Bay-Delta Program is a state-federal partnership that develops comprehensive water management programs for the San Francisco Bay/Sacramento-San Joaquin Delta. Cal-Fed's EWA uses State and Federal funds to purchase and convey additional water needed for fishery purposes.[59]

III. THE SWRCB'S YUBA RIVER PROCEEDINGS

A. *Yuba County Water Agency's Background*

In 1959, the Legislature specially created the Yuba County Water Agency ("Yuba"), finding that "water problems in the County of Yuba require countywide water conservation, flood control and development of water resources."[60] That action was in response to massive flooding that occurred in Yuba County during the 1950s,[61] a serious groundwater overdraft in southern Yuba County[62] and the exclusion of any flood-control or water-supply dam in the

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56. Nat'l Audubon Soc'y v. Superior Court, 658 P.2d 709, 732 (Cal. 1983).

57. *See, e.g.,* Nollan v. Cal. Coastal Comm'n, 483 U.S. 825 (1987) (applying the "essential nexus" test between the purpose of the law and the burden on property); Dolan v. City of Tigard, 512 U.S. 374 (1994) (applying the "rough proportionality" requirement); Ehrlich v. City of Culver City, 911 P.2d 429 (Cal. 1996) (following *Nollan* and *Dolan*); San Remo Hotel, L.P. v. City and County of San Francisco, 41 P.3d 87 (Cal. 2002) (also following *Nollan* and *Dolan*).

58. FINAL REPORT, *supra* note 19, at 118.

59. CALFED BAY-DELTA PROGRAM, PROGRAMMATIC RECORD OF DECISION 54-55 (Aug. 28, 2000).

60. CAL. WATER CODE app. § 84-26 (West 1999). For a discussion of the legislatures' findings, see Yuba County Water Agency Act. *Id.* §§ 84-1 to 84-26.

61. *See* HAGWOOD, *supra* note 1, at 82-84 (describing floods on the Yuba River in 1950 and 1955). The Christmas Eve flood of 1955 killed 38 people, and flooded 100,000 acres in the Yuba City area. *Id* at 84.

62. S.W.R.C.B. 1992 Lower Yuba River Hearing Exhibit YCWA-2, at 1-2, 12, Figures 8A-9B; *cf.* DEP'T OF WATER RES., HISTORICAL GROUND WATER LEVELS IN YUBA COUNTY (1991). Much of Yuba County north of the Yuba River long has relied on river water for irrigation. *See* RD-1644, *supra* note 6, at 10.

Yuba River watershed from the plans for the State Water Project.[63] Upon its creation, Yuba began to plan a locally-funded, multi-purpose water project, with a large dam at Bullards Bar on the North Yuba River as its primary component. After a contested water-right hearing, two published Court of Appeal decisions,[64] and many financial difficulties, Yuba spent about $180 million building most of the components of its Yuba River Development Project ("Yuba Project"), including New Bullards Bar Dam and Reservoir.[65] Fishery-enhancement measures, including instream-flow requirements, that applied to the Yuba Project were specified in a 1965 agreement between Yuba and DFG, and then were included in Yuba's 1966 amended FERC license.[66]

Yuba completed New Bullards Bar Dam and Reservoir in 1970 which was built large enough to serve Yuba County's future water-supply needs.[67] Yuba's three consumptive-use water-right permits give Yuba until December 1, 2010 to fully apply Yuba Project water to beneficial use.[68]

The temporary gap between New Bullards Bar Reservoir's yield and the present water demands of Yuba's service area allowed Yuba to become the largest transferor of water in California. During the first four years of the 1987-1992 drought, Yuba transferred approximately 290,000 acre-feet of water to other water users, including the Department of Water Resources ("DWR"), the City of Napa, and East Bay Municipal Utility District.[69] In 1991, Yuba transferred 99,000 acre-feet to the Governor's Emergency Drought Bank and 28,000 acre-feet to DFG for instream and wildlife-refuge uses.[70] Of the water that Yuba transferred to the Governor's Emergency Drought Water Bank, 82,018 acre-feet was made available through Yuba County's farmers' agreement to pump groundwater in lieu of receiving Yuba Project water.[71] In addition, Yuba transferred 114,052 acre-feet of water to DWR as part of DWR's Dry Year Water Acquisition Program in 2001 and became the most significant transferor of water to environmental uses under the EWA, transferring a combined amount of

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63. *Cf.* MARC REISNER, CADILLAC DESERT 202-07 (1986) (discussing the State of California's unsuccessful attempt to arrange for construction of a Marysville Dam as a CVP facility). Marysville Dam would have been located between Daguerre Point and Englebright Dams. WOOSTER & WICKWIRE, *supra* note 17, at 5, 9.

64. *See* Johnson Rancho County Water Dist. v. State Water Rights Bd., 45 Cal. Rptr. 589 (Ct. App. 1965); Johnson Rancho County Water Dist. v. County of Yuba, 35 Cal. Rptr. 828 (Ct. App. 1963).

65. *See* S.W.R.C.B. 1992 Lower Yuba River Hearing Exhibit YCWA-8. Due to financial constraints, Yuba was forced to delete irrigation canals from the Yuba Project's initial plans. *Id.* at 9.

66. S.W.R.C.B. 1992 Lower Yuba River Hearing Exhibit YCWA-2.

67. *See* RD-1644, *supra* note 6, at 15 (indicating that New Ballards Bar Reservoir has a storage capacity of 966,000 acre-feet).

68. *Id.* at 154.

69. *See* Morris Israel & Jay R. Lund, *Recent California Water Transfers: Implications for Water Management*, 35 NAT. RESOURCES. J. 1, 14-15 (1995).

70. *See id.* at 5; *see also* WATER EDUC. FOUND., LAYPERSON'S GUIDE TO WATER MARKETING AND TRANSFERS 15 (1996).

71. S.W.R.C.B. 1992 Lower Yuba River Hearing Exhibit S-YCWA-19, at Figure 5.

272,050 acre-feet of water to the EWA after 2000.[72] Yuba has obtained over $50 million in compensation for its transfers, which it has devoted primarily to flood-control, water-supply, and fishery-enhancement projects in Yuba County.[73]

B. The SWRCB's Proceedings and Decision

The prelude to the SWRCB's proceedings began in 1986 when DFG started an Incremental Instream Flow Methodology[74] study of the lower Yuba River, relying on the Streamflow Protection Standards Act.[75] In March 1991, DFG sent its Lower Yuba River Fisheries Management Plan to the SWRCB with a memorandum stating that DFG had "reviewed the existing streamflow conditions on the lower Yuba River and proposes that the [SWRCB] revise the existing requirements in accordance with . . . this report."[76] In 1992, the SWRCB held a fourteen-day hearing to consider the DFG Plan.[77] In 1999, the SWRCB released a 1996 draft decision to the parties and noticed a supplemental hearing concerning that draft decision, which the SWRCB held over a span of thirteen days in 2000.[78]

On March 1, 2001, the SWRCB adopted Water Right Decision 1644 ("D-1644"), which amended Yuba's consumptive-use water-right permits[79] to include long-term instream-flow requirements much higher than those in Yuba's FERC

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72. *See* Dep't of Water Res., Environmental Water Account Water Acquisitions for Fiscal Years 2000-2003, *available at* http://www.watertransfers.water.ca.gov/water_trans/water_trans_index.cfm (last visited Nov. 8, 2004) (copy on file with the *McGeorge Law Review*); Dep't of Water Res., Dry Year Water Acquisitions for Fiscal Years 2000-2003, *available at* http://www.watertransfers.water.ca.gov/water_trans/water_trans_index.cfm (last visited Nov. 8, 2004) (copy on file with the *McGeorge Law Review*).

73. S.W.R.C.B. 1992 Lower Yuba River Hearing Exhibit YCWA-2, at Figure 6; S.W.R.C.B. 2000 Lower Yuba River Hearing Exhibit S-YCWA-11, at 8, 11, Attachment 5; Telephone Interview with Page Hensley, Yuba's Assistant Manager-Administration (Apr. 29, 2004) (concerning amount of compensation) (notes on file with the *McGeorge Law Review*).

74. This methodology, commonly known as "IFIM," involves three major steps: (1) defining the habitat characteristics that different lifestages of different fish species prefer; (2) developing a physical profile of a stream; and (3) identifying how much habitat (expressed in square feet of surface area called "weighted usable area") would be available at various streamflows in the stream for various fish lifestages. *See generally* KEN D. BOVEE, A GUIDE TO STREAM HABITAT ANALYSIS USING THE INSTREAM FLOW INCREMENTAL METHODOLOGY: INSTREAM FLOW INFORMATION PAPER: NO. 12 (1982).

75. *See supra* text accompanying notes 50-53.

76. Memorandum from Pete Bontadelli, Director of DFG, to W. Don Maughan, Chairman of the SWRCB (Mar. 22, 1991) (copy on file with the *McGeorge Law Review*). The Streamflow Protection Standards Act itself does not contemplate that recommendations developed under it will be used as the basis for modifying water-right permits. *See supra* text accompanying notes 50-53. However, it appears that DFG has only published two fisheries management plans under the Act—the Yuba River plan and the 1991 Mokelumne River fisheries plan—each of which involved streams with significant existing diversions. *See* CAL. DEP'T. OF FISH & GAME, LOWER MOKELUMNE RIVER FISHERIES MANAGEMENT PLAN 1, at 25-29 (1991) [hereinafter DFG Plan].

77. RD-1644, *supra* note 6, at 2, 49-54, 101.

78. *Id.* at 2-3.

79. The SWRCB did not attempt to amend Yuba's separate water-right licenses for hydroelectric-power generation. The SWRCB's initial notice of hearing did not limit its proceedings to Yuba's consumptive-use water-right permits, but the SWRCB issued a supplemental notice establishing that limit after Yuba sued the SWRCB in federal court, alleging preemption by the Federal Power Act. *Id.* at 136-37. Yuba's contention that RD-1644 is preempted by the Federal Power Act is beyond the scope of this Article.

license.[80] Yuba filed petitions for writs of mandate and, on May 5, 2003, the Superior Court of Yuba County issued an order admitting certain new evidence, a judgment, and a peremptory writ of mandate commanding the SWRCB to vacate D-1644 and reconsider it in light of new evidence admitted during the litigation.[81] On June 5 and 6, 2003, the SWRCB held a hearing to admit the new evidence identified by the Court and other evidence offered in response to that evidence.[82] On July 16, 2003, the SWRCB vacated D-1644, adopted Water Right Order WR 2003-0016, stating that none of the new evidence required any significant changes to D-1644, and adopted D-1644 with minor edits as Revised Water Right Decision 1644 ("RD-1644").[83]

RD-1644 imposed long-term instream-flow requirements on Yuba that are much higher than those stated in Yuba's FERC license.[84] RD-1644 contains three major components: (1) the SWRCB's analysis of the instream-flow and water-temperature conditions that DFG contended were necessary to enhance the lower Yuba River's anadromous fisheries; (2) the SWRCB's analysis of the impact of new instream-flow requirements on Yuba's beneficial uses of water; and, (3) the SWRCB's legal analysis.

RD-1644's fishery analysis did not address the Yuba Project's impacts, but instead sought to define the streamflows that the SWRCB believed were necessary to optimize the lower Yuba River's Chinook salmon, steelhead, and American shad populations.[85] The SWRCB built its analysis around the concept that Chinook salmon and steelhead prefer one particular set of streamflows, no matter how wet or dry the water year.[86] The SWRCB therefore initially defined what it believed were the fishes' generally preferred streamflows in different seasons and then adjusted those streamflows to attempt to reflect the lower availability of water in drier years.[87]

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80. S.W.R.C.B. Decision 1644, at 173-75, 191 (Mar. 1, 2001); *see also* S.W.R.C.B. 1992 Lower Yuba River Hearing Exhibit YCWA-3, at 11-12 (instream-flow requirements stated in Yuba's FERC license).

81. Browns Valley Irrigation Dist. v. State Water Res. Control Bd., No. YCSCCVPT 01-0000224 (Super. Ct. Yuba County May 5, 2003) (order after hearing); *see also* State Water Res. Control Bd. v. Superior Court, 118 Cal. Rptr. 2d 784, 786-87 (Ct. App. 2002) (discussing procedural history of the dispute).

82. S.W.R.C.B. Order WR 2003-0016, at 2-3 (July 16, 2003) [hereinafter Order WR 2003-0016].

83. *Id.* at 51-57.

84. *Compare* RD-1644, *supra* note 6, at 18-19 (stating requirements of 1965 Yuba-DFG agreement, which were incorporated in Yuba's FERC license) *with id.* at 173-74 (RD-1644's long-term instream-flow requirements). As a measure to avoid exacerbating California's electricity crisis, the SWRCB imposed interim instream-flow requirements that were lower than RD-1644's long-term requirements and that will apply until April 20, 2006. *Id.* at 175-76.

85. RD-1644's fishery analysis also discussed the issue of what water temperatures are necessary to optimize habitat for salmonids. *Id.* at 78-87. As a result of this discussion, RD-1644 imposed on Yuba several requirements to reduce water temperatures in the lower Yuba River, although RD-1644 did not impose maximum water-temperature requirements on Yuba because compliance with such requirements would not have been feasible. *Id.* at 84-87, 176-78. Because Yuba's operations already have substantially improved water temperatures in the lower Yuba River for salmonids, *see infra* note 113, Yuba is challenging RD-1644's water-temperature provisions. A discussion of these issues, however, is beyond the scope of this Article.

86. S.W.R.C.B. Order No. WR 2001-08, at 26 (May 17, 2001) [hereinafter Order WR 2001-08].

87. RD-1644, *supra* note 6, at 67-70, 75-78.

RD-1644's water-supply analysis focused on the impacts of the new instream-flow requirements on the SWRCB's "reasonable estimate" of Yuba's demands for water for other uses. During the SWRCB's hearings, Yuba presented a water-demand analysis that quantified Yuba's "present development" and "full development" levels of demand.[88] The SWRCB rejected Yuba's water-demand estimates.[89] The SWRCB instead found that a "reasonable estimate" of Yuba's water demand was the sum of the following components: (1) the average of the five highest years of Yuba's irrigation deliveries between 1987 and 1999; and (2) an allowance of one acre-foot per acre of waterfowl habitat to which Yuba delivered water.[90] The SWRCB's "reasonable estimate" of Yuba's water demand was 273,847 acre-feet per year.[91]

In computer modeling based on this "estimate," the SWRCB found that its preferred long-term instream-flow requirements would require water-supply deficiencies exceeding twenty percent of that estimate in some dry, critical, and extremely critical years.[92] The SWRCB then adopted a "Deficiency Clause" that would allow Yuba, in dry, critical, and extremely critical water years, to apply to the SWRCB to reduce RD-1644's long-term instream-flow requirements if Yuba consulted with DFG about instream conditions first and showed that Yuba's water-supply deficiencies would exceed twenty percent of its "projected demand."[93] For these purposes, the SWRCB defined "projected demand" to include about 57,000 acre-feet of projected future demands.[94] However, RD-1644 did not require that the SWRCB apply the Deficiency Clause.[95]

The SWRCB stated that its water-supply modeling, when considered with the Deficiency Clause, showed that Yuba's future deficiencies "will always be less than the additional 82,018 acre-feet of groundwater that [Yuba's] water users pumped in 1991 to enable a water transfer to outside [Yuba's] service area."[96] The SWRCB stated "the record indicates that any deficiencies in surface water supplies that may occur due to [RD-1644's] instream flow requirements could be offset through implementation of a groundwater conjunctive use program."[97] According to the SWRCB, "[d]eficiencies in the amount of water available for offstream use could also be offset through increased water conservation measures. Despite successful water conservation measures in some instances, the

88. S.W.R.C.B. 2000 Lower Yuba River Hearing Exhibit S-YCWA-15, at 2, Tables 1, 2. This exhibit used the same methodology that DWR used in its 1998 bulletin on statewide water usage. *Id.* (citing Bulletin 160-98). *See generally* BULLETIN 160-98, *supra* note 11, at 4-17 to 4-33.

89. RD-1644, *supra* note 6, at 111.

90. *Id.* at 104, 111-14.

91. *Id.* at 114.

92. *Id.* at 119-25.

93. *Id.* at 129-32, 181-83.

94. *Id.* at 181-82.

95. *Id.* at 181-83.

96. *Id.* at 125.

97. *Id.*

record establishes that water users in [Yuba's] service area could adopt additional reasonable but more stringent water conservation measures."[98] RD-1644 does not contain any detailed findings regarding the effects of the SWRCB's preferred instream-flow requirements on Yuba's ability to transfer water.[99]

In its legal analysis,[100] the SWRCB concluded that it could modify Yuba's consumptive-use water-right permits under the public trust doctrine.[101] In arriving at this conclusion, the SWRCB stated that: (1) by impeding or blocking anadromous fishes' migration up the Yuba River, the U.S. Army Corps of Engineers' Daguerre Point and Englebright Dams inflict a continuing injury on those fishes; (2) Yuba's water users divert deliveries from behind Daguerre Point Dam; and, (3) Yuba uses Englebright Dam and Reservoir in some of its hydroelectric operations.[102]

The SWRCB rejected Yuba's argument that RD-1644's modification of Yuba's water-right permits was a taking under the United States and California Constitutions, stating that the public trust doctrine and the limitations of Article X, Section 2 of the California Constitution "inhere in the title" of Yuba's water rights and thus "applying these limitations cannot constitute a taking."[103]

Yuba argued the SWRCB could not impose on Yuba sole responsibility for maintaining streamflows that the SWRCB concluded were appropriate to enhance the lower Yuba River's anadromous fisheries because of the number of water projects that divert significant amounts of water out of the watershed. The SWRCB instead concluded:

> The fact that there are water diversions from the upper reaches of the Yuba River under earlier priority rights does not prevent the SWRCB from determining appropriate conditions to be included in YCWA's water right permits for protection of public trust resources in the lower Yuba River. The SWRCB was not required to conduct a statutory

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98. *Id.* RD-1644 does not cite evidentiary support for this statement. *Id.* This evidentiary dispute, however, is beyond the scope of this Article.

99. In its 2001 order dismissing the parties' petitions for reconsideration of D-1644, the SWRCB stated that transfers would be possible because "[c]omputer modeling results show that at the existing level of demand, the amount of water remaining in storage at the end of the irrigation season is frequently above minimum carryover storage requirements." Order WR 2001-08, *supra* note 86, at 37. The SWRCB did not define what it considered "minimum carryover storage" for transfer-related purposes.

100. The SWRCB's legal analysis covered a wide variety of issues raised by the parties, including, for example: (1) Yuba's evidence concerning SWRCB staff members' interests in the proceedings; (2) FERC's preemption of the SWRCB's authority to impose more stringent instream-flow and temperature conditions on the Yuba Project; and (3) southern Yuba County water districts' agreement with DFG about the adequacy of a fish screen. RD-1644, *supra* note 6, at 133-153. Many of these issues are beyond the scope of this Article, which focuses those arguments that are relevant to the contents of the Governor's Commission's Report.

101. *Id.* at 30-34.

102. *Id.* The SWRCB did not reconcile its finding that RD-1644 was not preempted by the Federal Power Act with its finding that Yuba's hydroelectric operations justified modifying the instream-flow requirements that apply to Yuba's operations generally. *Id.* at 136-39.

103. *Id.* at 141-42.

> adjudication of all rights within the watershed when it initially established instream flow requirements in YCWA's permits, nor is it required to adjudicate all water rights within the basin in order to revise those requirements. . . .
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> . . . .
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> New Bullards Bar Reservoir has a capacity of nearly one million acre-feet which is substantially larger than the combined storage of all the upstream reservoirs. The storage and release of water from New Bullards Bar Reservoir for consumptive uses significantly modifies the streamflow of the lower Yuba River. . . . Consequently, it is reasonable for the SWRCB to determine appropriate instream flow and temperature conditions to be included in YCWA's water right permits without attempting to adjudicate all prior rights of senior . . . appropriators.[104]

C. *The SWRCB's Prioritization of General Instream-Flow Requirements Over the Other Concepts Developed by the Governor's Commission*

In RD-1644, the SWRCB prioritized the implementation of general instream-flow requirements in the lower Yuba River over the other water-management concepts proposed by the Governor's Commission. This point is best demonstrated by reviewing the Governor's Commission's concepts at issue in the SWRCB's proceedings and the manner in which the SWRCB addressed them.

The general nature of the SWRCB's fishery analysis in RD-1644 is best understood in comparison with the SWRCB's other decisions and actions that reallocated water to instream flows based on project impacts on the affected fisheries. For example, the SWRCB's 1994 Mono Lake Basin decision emphasized the pre-1941 conditions that existed before the City of Los Angeles began diverting water from Mono Lake's tributaries.[105] Similarly, the first sentence of the SWRCB's 1995 order reallocating water to instream flows in Lagunitas Creek states: "[t]his order addresses measures needed to protect fishery resources in Lagunitas Creek . . . from the effects of water diversion by Marin Municipal Water District . . . , North Marin Water District . . . and Waldo Giacomini."[106] Likewise, the impetus for the SWRCB's 1995 Bear Creek order was Big Bear Municipal Water District's adoption of a policy of only allowing leakage and seepage from its dam to flow downstream, thus supporting an instream flow of only 0.106 cubic feet per second.[107] In contrast, while RD-1644

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104. *Id.* at 150.

105. S.W.R.C.B. Decision 1631, at 33, 36-37, 45, 52, 54-55, 57, 64, 74, 83-89, 97, 182-83 (Sept. 28, 1994) (Mono Lake Basin decision).

106. S.W.R.C.B. Order No. WR 95-17, at 1 (Oct. 26, 1995) (Lagunitas Creek decision).

107. S.W.R.C.B. Order No. WR 95-04, at 2, 5, 22 (Feb. 16, 1995) (Bear Creek decision). Similar to the SWRCB's Mono Lake, Lagunitas Creek, and Bear Creek decisions, the California Endangered Species Act

discussed the streamflow conditions that the SWRCB believed were necessary to enhance the lower Yuba River's fisheries, it contained little discussion of the Yuba Project's impacts on those fisheries and even conceded that "the record show[ed] that overall fish populations have stabilized or slightly increased following YCWA's construction of New Bullards Bar Dam."[108]

While the general instream-flow requirements in RD-1644 are in some ways consistent with the Governor's Commission's proposal to determine a stream's overall fishery needs, the SWRCB's handling of other concepts proposed by the Commission shows that the RD-1644 is inconsistent with those other concepts.

First, contrary to the Governor's Commission's recommendations, the SWRCB did not allocate the burden of complying with RD-1644's long-term instream-flow requirements among the users of Yuba River water. The Commission recommended that any basin-wide reallocations of water to instream uses be accompanied by compliance programs that implemented physical solutions to limit the impact of such reallocations:

> The programs would include any physical solutions as may be required to avoid or mitigate the impact of . . . the standards on existing uses. *Where restrictions of existing water uses are necessary, the compliance programs would provide for the equitable distribution of losses or impairment incurred among all the users on the stream. No measure would be allowed to cause substantial harm to any lawful user of water.*[109]

Under the Governor's Commission's approach, numerous factors would have indicated that it would not be appropriate to impose on Yuba the entire burden of enhancing the lower Yuba River's fisheries. There are a number of other water projects that divert significant amounts of water from the Yuba River watershed to the watersheds of the Feather, Bear, and American Rivers.[110] These diversions can reach up to forty percent of the Yuba River watershed's runoff in some years.[111] In addition, Yuba built its Yuba Project decades after the U.S. Army

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focuses on a project's impacts in determining what the appropriate mitigation measures are. *See* CAL. FISH & GAME CODE § 2052.1 (West Supp. 2004) (mitigation measures shall be "roughly proportional" to project impacts). In addition, Fish and Game Code section 5937 requires dam owners to allow "sufficient water" to pass their dams "to keep in good condition any fish that may . . . exist below the dam." *Id.* § 5937. Aside from the implication that "keeping fish in good condition" means retaining pre-project conditions, that statute is part of a statutory scheme that imposes "duties upon dam owners to preserve and protect the fish population," but does "not require dam owners to forego their own authorized uses of impounded water in order to enhance the fishing opportunities of the public." Golden Feather Cmty. Ass'n v. Thermalito Irrigation Dist., 257 Cal. Rptr. 836, 844 (Ct. App. 1989) (discussing California Fish and Game Code section 5943 and citing sections 5931, 5933, 5938, and 5942).

108. RD-1644, *supra* note 6, at 32.

109. FINAL REPORT, *supra* note 19, at 114 (emphasis added).

110. *See supra* text accompanying notes 12-13.

111. *See supra* text accompanying notes 12-13.

Corps of Engineers built Englebright Dam,[112] so the Yuba Project's facilities have never impeded the migration of anadromous fish. Moreover, by storing cool water in New Bullards Bar Reservoir for subsequent release during the irrigation season, the Yuba Project has improved conditions for the lower Yuba River's anadromous fish by providing higher, more stable, and cooler streamflows during those periods.[113] These factors presented equitable considerations that probably would have been considered in the proceedings proposed by the Governor's Commission's Report.

However, in RD-1644, the SWRCB concluded that it did not have to consider these sorts of factors because it was not required to conduct a full stream adjudication in order to set appropriate instream-flow requirements in Yuba's consumptive-use water-right permits.[114] This conclusion was contrary to the Governor's Commission's proposal that the implementation of general instream-flow requirements must be linked with physical solutions to equitably distribute such requirements' burdens without substantially injuring any water user. The Governor's Commission's point was that project-specific proceedings cannot appropriately address the total effects of water uses on a stream's overall condition.[115]

Rather than attempt an equitable distribution of the burdens of its new instream-flow requirements, RD-1644 instead imposed the sole responsibility for enhancing the lower Yuba River's fisheries on Yuba. RD-1644 concluded that the SWRCB may do this under the public trust doctrine because Yuba's operations rely, in part, on the U.S. Army Corps of Engineers' Daguerre Point and Englebright Dams, which adversely affect fish.[116] The SWRCB also stated that it could impose sole responsibility on Yuba because Yuba owns the largest reservoir in the watershed, New Bullard Bar Reservoir, which can substantially affect the lower Yuba River's streamflows.[117] Contrary to the extensive procedures and concepts that the Governor's Commission recommended as tools for implementing fishery-enhancement measures equitably, the SWRCB simply ordered Yuba to operate its project to make water available to implement the SWRCB's preferred long-term instream-flow requirements. The SWRCB made

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112. *See supra* text accompanying notes 15, 64-68.

113. This factor alone may make RD-1644's operative terms a taking under the federal and California Constitutions. *See supra* text accompanying note 57; *see also* David R.E. Aladjem, *Is Water Ripe for the Taking? The SWRCB's Lower Yuba River Decision and the Public Trust Doctrine*, *in* CAL. WATER L. & POL'Y REP. 261 (July 2001). Yuba's operation of New Bullards Bar Dam and Reservoir generally has improved conditions for salmonids in the lower Yuba River by making higher and colder streamflows available in the summer and fall. *See* Memorandum from DFG, Region 2, to Files-Yuba River, Yuba County 2 (Mar. 2, 1984) (concerning "Yuba River Steelhead Run During Winter of 1976-77") (copy on file with the *McGeorge Law Review*). Yuba's operations "have maintained summer water temperatures below 21°C (70°F), creating ideal young steelhead nursery habitat." *Id.*

114. RD-1644, *supra* note 6, at 150.

115. FINAL REPORT, *supra* note 19, at 106-08, 111-13.

116. RD-1644, *supra* note 6, at 31-34, 150.

117. *Id.*

no attempt to relate those requirements to the Yuba Project's impacts or to allocate the burden of implementing those requirements on any other project.

The second major problem with RD-1644 in relation to the Governor's Commission's Report is that the SWRCB did not recognize any value in the unique aspects of the Yuba Project that have made water available for others in ways proposed by the Commission. The SWRCB did not reconcile the fact that Yuba's water right permits give Yuba until at least 2010 to apply water to beneficial use with its finding that a "reasonable estimate" of Yuba's on-going water usage focuses solely on past deliveries.[118] While RD-1644's Deficiency Clause leaves open the possibility that the SWRCB may allow for some of Yuba's future demands in drier years, RD-1644 provides no guarantee that the SWRCB will apply the clause and contains no analysis that applying the clause would significantly reduce the deficiencies. While the SWRCB admitted that Yuba's water demands will grow beyond their 1987-1999 levels,[119] the SWRCB never analyzed RD-1644's long-term instream-flow requirements' impact on any future water-demand level. In fact, the SWRCB cited the fact that Yuba had been able to transfer water while developing its beneficial uses as evidence that water could be reallocated to instream flows.[120] By doing this, the SWRCB severely penalized Yuba for taking advantage of the gap between the construction of its facilities and the full development of its local uses to transfer water to other consumptive users and for environmental needs for compensation.

In contrast, the Governor's Commission recognized that the security and flexibility of water rights are key conditions that allow water users to voluntarily maximize water usage.[121] As Yuba's transfers to environmental users like DFG and the EWA show,[122] such voluntary maximization not only benefits consumptive uses, but also environmental uses.

In fact, RD-1644 contains no findings concerning its impact on Yuba's ability to transfer water.[123] While the SWRCB noted that it had approved all of Yuba's petitions for proposed water transfers,[124] the larger point is that, in RD-1644, the SWRCB attributed practically no value to the Yuba Project's unique physical and legal aspects that allow Yuba to transfer water. The SWRCB considered this issue to be outside the scope of its proceedings.[125] This failure to

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118. RD-1644, *supra* note 6, at 7, 101-14, 154-55.

119. Order WR 2003-0016, *supra* note 82, at 25.

120. RD-1644, *supra* note 6, at 133 n.52.

121. FINAL REPORT, *supra* note 19, at 62 ("One requirement of transferability is that the acquired water right be a certain and secure right."); *id.* at 66 ("In addition to security, a market system requires property rights with sufficient flexibility to allow the transfer of the resource. . . .").

122. *See supra* text accompanying notes 69-72.

123. The SWRCB's 2001 order dismissing the parties' petitions for reconsideration contains only a brief statement regarding the impact on the SWRCB's long-term instream-flow requirements on "minimum carryover storage requirements." *See* Order WR 2001-08, *supra* note 86, at 37.

124. RD-1644, *supra* note 6, at 21-22.

125. *Id.* at 152.

recognize the value of Yuba's current ability to make transfers resulted in the SWRCB's failure to address RD-1644's effects on the principles that the Governor's Commission identified as necessary to maximize the value of California's water resources.[126] As aptly stated in one of the Governor's Commission's staff papers:

> An effective market system requires definite and certain property rights. Lack of security may reduce investment in the resource by reducing the value of the right. Similarly, a market system requires a property right with sufficient flexibility to allow transfer of the resource from less to more highly valued uses. To the extent that the existing water rights system creates property rights which are uncertain and inflexible, it reduces the potential for water rights transfers.[127]

A failure to recognize market principles produces significant disincentives to reallocate any water voluntarily. For prospective transferors, if the terms of their water-right permits and licenses are not secure, even where their operations do not injure natural resources, there will be a significant disincentive to transfer water to others and thus implicitly show a lack of immediate need for all water that can be diverted. The flip side of this concern is the transferees' concern about what they are buying. California's Legislative Analyst has identified the possibility that water could be reallocated away from water-right holders for environmental purposes as a major concern of prospective transferees.[128]

The third major problem with RD-1644 in relation to the Governor's Commission's Final Report is that the SWRCB treated measures taken pursuant to statutes that implemented that Report as evidence that water could be reallocated to instream uses. The Governor's Commission persuaded the Legislature to adopt Water Code section 1011 in order to give water users incentives to conserve. Section 1011 allows water users to transfer the amount of water that they conserve and thus prevents their resulting lower water usage from causing a forfeiture of a portion of their water rights.[129] In 1992, the Legislature extended Water Code section 1011's approach of creating incentives for voluntary efficiency measures to conjunctive use by allowing water users to transfer the amount of surface water conserved through groundwater pumping.[130]

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126. CAL. WATER CODE § 109 (West Supp. 2004). Water Code section 109, subdivision (a), reads exactly as the Governor's Commission proposed. *See* FINAL REPORT, *supra* note 19, at 85.

127. CLIFFORD T. LEE, GOVERNOR'S COMM'N TO REVIEW CAL. WATER RIGHTS LAW, THE TRANSFER OF WATER RIGHTS IN CALIFORNIA 11 (Staff Paper No. 5, Dec. 1977).

128. CAL. LEGISLATIVE ANALYST'S OFFICE, THE ROLE OF WATER TRANSFERS IN MEETING CALIFORNIA'S WATER NEEDS 12 (Sept. 8, 1999).

129. *See* FINAL REPORT, *supra* note 19, at 60, 80-81; *see also supra* text accompanying note 43.

130. *See supra* text accompanying note 48; *see also* SENATE COMMITTEE ON AGRICULTURE AND WATER RESOURCES, COMMITTEE ANALYSIS OF AB 231, at 1 (July 2, 1991); ASSEMBLY COMMITTEE ON WATER, PARKS AND WILDLIFE, COMMITTEE ANALYSIS OF AB 231 (Feb. 25, 1991).

In contrast, the SWRCB used the availability of water conservation measures and conjunctive use to attempt to justify its reallocation of Yuba Project water to instream flows:

> In view of the Deficiency Clause . . . , the impact of the flow requirements established in this decision on offstream water deliveries *will always be less than the additional 82,018 acre-feet of groundwater that YCWA water users pumped in 1991 to enable a water transfer* outside of the YCWA service area. . . . Thus, the record indicates that any deficiencies in surface water supplies that may occur due to the instream flow requirements established in this decision could be offset through implementation of a groundwater conjunctive use program. *Deficiencies in the amount of water available for offstream use could also be offset through increased water conservation measures.* Despite successful water conservation measures in some instances, the record establishes that water users in the YCWA service area could adopt additional reasonable but more stringent water conservation measures.[131]

The SWRCB's approach was essentially the opposite of the approach advocated by the Governor's Commission and now reflected in Water Code sections 1011 and 1011.5. The Governor's Commission's approach was to create incentives for more efficient water usage by ensuring that water users would not forfeit any portion of their water rights if they adopted measures to make surface water available for more uses and by allowing those water users to transfer the water they saved in return for compensation.[132]

Where water cannot be made available from storage, water for transfers can be made available instead by reducing the transferor's surface-water usage. Conjunctive use and increased water conservation measures are key methods of doing this. However, the SWRCB's assumption that the existence of such measures shows that water is available to be reallocated to instream uses would eliminate a key incentive to implement those measures. The Governor's Commission recognized a similar risk.[133] Moreover, the SWRCB's approach in RD-1644 creates an even greater risk. Under RD-1644's logic, *the mere possibility that such programs could be implemented* is evidence that water is available for reallocation to instream uses. This logic creates a disincentive for water users to even study the possibility of such programs. This point is best

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131. RD-1644, *supra* note 6, at 124-25 (emphasis added). The SWRCB did not explain how water-supply deficiencies "will always be less than . . . 82,018 acre-feet" in light of the fact that the SWRCB's future application of the Deficiency Clause is optional and it did not analyze RD-1644's effects on any future levels of water demands. *See id.* at 181-83. In addition, as discussed above, the SWRCB did not cite evidence to support its finding about the availability of the cited water conservation measures. *See supra* text accompanying notes 96-98.

132. *See supra* text accompanying notes 24-26; *see also* FINAL REPORT, *supra* note 19, at 60, 81-82.

133. FINAL REPORT, *supra* note 19, at 60.

highlighted by the SWRCB's citation of a study of possible water sources in finding that "a large portion" of Yuba County's future water demands could be "met through more efficient use of existing water supplies or with water from other sources."[134]

Conjunctive-use and water-conservation measures within Yuba's service area—and the transfer of some of the water made available by those measures—were the kind of voluntary efficiency measures that the Governor's Commission sought to promote. By relying on those measures as evidence that water could be reallocated to instream flows, the SWRCB implicitly concluded that implementation of general instream-flow requirements has a higher priority than implementation of the Governor's Commission's other proposals, even those that the Legislature has enacted.

By devaluing the express terms of water right permits—even where the permittee's operations have not injured natural resources—and by using measures that make water available for transfers as evidence that water can be reallocated to enhance such resources, the SWRCB created significant uncertainties in the exercise of water rights, the kind of uncertainties that the Governor's Commission sought to eliminate.[135]

The SWRCB's findings concerning the public trust doctrine will exacerbate these uncertainties. In RD-1644, the SWRCB found that it could impose on Yuba all responsibility for meeting long-term instream-flow requirements intended to enhance the lower Yuba River's fisheries because Yuba benefits from the U.S. Army Corps of Engineers' Daguerre Point and Englebright Dams, which adversely affect those fisheries.[136] Within the highly interdependent world of California's water resources, such a test would be nothing more than a minor limit on the SWRCB's discretion.[137] Even in specific relation to Daguerre Point and Englebright Dams, the SWRCB's theory hardly limits its discretion because those dams exist to stabilize the extraordinary amount of mining debris that was washed into the Yuba River watershed, thus benefiting water users throughout the region. Specifically, "[t]he result of the work on the Yuba in and around Daguerre Point has been to hold millions of cubic yards of mining debris in the Yuba River which would otherwise have passed into the navigable channels of the Feather and Sacramento Rivers."[138]

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134. RD-1644, *supra* note 6, at 107.

135. *See* FINAL REPORT, *supra* note 19, at 12-13, 16-27, 62-63, 66, 71.

136. *See supra* text accompanying note 103 (citing RD-1644, *supra* note 6, at 30-34).

137. *See* Aladjem, *supra* note 113, at 264.

138. HAGWOOD, *supra* note 1, at 49. It has been estimated that Daguerre Point Dam alone impounds 300 million cubic yards of mining debris. Thomas Harsha Pagenhart, Water Use in the Yuba and Bear River Basins, California 158 (1970) (unpublished Ph.D. dissertation, University of California, Berkeley) (on file with the *McGeorge Law Review*); *see also* HAGWOOD, *supra* note 1, at 42-49 (discussing the California Debris Commission's development of early debris dams in the Yuba River, culminating in Daguerre Point Dam's construction). While Englebright Dam has not fulfilled its initial purpose of allowing the reinitiation of some hydraulic mining, it has "no doubt . . . held in place mining debris from an earlier time as well as detritus from

Even today, a key part of the Sacramento area's flood-control system, the Fremont Weir that routes floodwaters into the Yolo Bypass, suffers from excessive sedimentation.[139] If the millions of cubic yards of mining debris present in the Yuba River watershed were not impounded by Daguerre Point and Englebright Dams, that debris presumably would flow down the Feather and Sacramento Rivers, worsening downstream sedimentation. Moreover, Englebright Dam and Reservoir probably act as a sink for mercury that continues to leach from gold mines in the Yuba River watershed, probably preventing that mercury from flowing into downstream waterbodies.[140] The benefits of Daguerre Point and Englebright Dams thus extend beyond the Yuba River watershed and provide little basis for uniquely identifying Yuba as an entity that equitably can be required to mitigate their effects.

Unlike the SWRCB's previous impact-driven decisions,[141] RD-1644's "benefit" test would open wide the possible scope of liability for enhancement of public trust resources, and therefore would introduce very significant uncertainty into the security of many water users' water rights. Moreover, in RD-1644, the SWRCB implied that any action it chooses to take while citing the public trust doctrine is, by definition, not a taking of property rights compensable under the federal and California Constitutions because the application of that doctrine "inheres in the title" of California water rights.[142]

The overall picture that emerges from RD-1644 then is that the SWRCB has asserted, under the public trust doctrine, the power to impose upon essentially any water user with a large reservoir in a watershed the responsibility to implement general instream-flow requirements to enhance downstream fisheries, regardless of that water user's permit terms, its investments in reliance on those terms, the extent of its responsibility for injuries to those fisheries, its reliance on statutes in implementing efficiency measures, or its claims for takings compensation. While the idea of implementing general instream-flow requirements is consistent with the Governor's Commission's Report, RD-1644's means of implementing such requirements largely would eliminate any limitations on the SWRCB's ability to

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natural erosion." *Id.* at 80. "Since 1935, when Daguerre Point Dam was completed, more than 140 million cubic yards of mining debris have been held in check and not allowed to clog the channels of the Sacramento River." *Id.* at 89; *see also* JONATHAN R. CHILDS ET AL., U.S. GEOLOGICAL SURVEY OPEN-FILE REPORT 03-383: BATHYMETRIC AND GEOPHYSICAL SURVEYS OF ENGLEBRIGHT LAKE, YUBA-NEVADA COUNTIES, CALIFORNIA (2003) (discussing the amount of sediments deposited behind Englebright Dam).

139. *See* Stuart Leavenworth, *Defenses Decayed: Neglected Levees Pushed Past Limits*, SACRAMENTO BEE, Mar. 28, 2004, at A1, A20.

140. *See* Gary Pitzer, *Mercury Rising: Dealing with the Gold Rush's Toxic Legacy*, *in* W. WATER 4, 12 (May/June 2004).

141. *See supra* text accompanying notes 105-07.

142. RD-1644, *supra* note 6, at 142. The SWRCB did not address the portions of *National Audubon* and other cases that indicate that the State will be liable for the taking of property in certain circumstances under the public trust doctrine. *See* Nat'l Audubon Soc'y v. Superior Court, 658 P.2d 709, 721-22, 723 n.22 (Cal. 1983); *see also* State v. Superior Court (Fogerty), 625 P.2d 256, 262 (Cal. 1981); State v. Superior Court (Lyon), 625 P.2d 239, 252 (Cal. 1981).

impose responsibility for them and therefore would introduce exactly the kind of uncertainty into California water-right law that the Governor's Commission sought to reduce in the pursuit of efficient management of California's water resources.

IV. THE POSSIBLE EFFECT OF RD-1644 ON EQUITABLE FISHERY-PROTECTION PROGRAMS

The SWRCB's priorization of general instream-flow requirements over the Governor's Commission's other proposals conflicts with the possibility of implementing such requirements equitably in the one forum that is available to do so, namely the FERC relicensing process.

A. *FERC Relicensing Process and the SWRCB's Certification Authority*

Under the United States Supreme Court's 1990 decision in *California v. FERC,* the Federal Power Act preempts the SWRCB from imposing its own instream-flow requirements on hydroelectric projects.[143] This fact, however, does not mean that it is impossible to implement fishery-enhancement measures for such projects. In fact, an opportunity to consider implementing such measures has opened in many watersheds through FERC's processes.

Under the Federal Power Act, initial hydroelectric licenses are issued for a specified term of years. A licensee then applies to FERC for a new license to commence at the end of the initial license's term.[144] This "relicensing" process generally starts about five years before the end of the initial license's term[145] and involves complex consultations between the licensee, state and federal resources agencies, other interested public agencies, and citizen groups.[146] The Federal Power Act requires FERC to only issue licenses that are best adapted to a comprehensive plan for the affected waterbodies for beneficial uses, including fish and wildlife protection provisions, and requires FERC to give environmental values equal consideration with hydropower development.[147] The Federal Power Act also requires that FERC include in licenses certain conditions prescribed by federal resource agencies.[148]

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143. California v. Fed. Energy Regulatory Comm'n, 495 U.S. 490, 506 (1990). As discussed above, there is substantial dispute about whether the SWRCB retains any power to impose its own instream-flow and other fishery-enhancement measures on multi-purpose hydroelectric projects that are regulated by FERC. *See supra* text accompanying note 100.

144. 16 U.S.C.A. §§ 791a-823c (West 2000 & Supp. 2004).

145. An existing licensee must file its notice of intent to apply for a new license with FERC at least five years before its existing license expires. *Id.* § 808(b)(1).

146. *See generally* Hydropower Licensing Under the Federal Power Act; Proposed Rule, 68 Fed. Reg. 13,988 (Mar. 21, 2003) [hereinafter Hydropower Licensing Notice].

147. 16 U.S.C.A. §§ 797(e), 803(a)(1).

148. *See* Hydropower Licensing Notice, *supra* note 146, at 13,989; *see also* Escondido Mut. Water Co. v. La Jolla Band of Mission Indians, 466 U.S. 765, 772-79 (1984).

The SWRCB has a statutorily-defined role in this process. Section 401 of the federal Clean Water Act provides that:

> [a]ny applicant for a Federal license or permit to conduct any activity . . . which may result in any discharge into the navigable waters, shall provide the licensing or permitting agency a certification from the State in which the discharge originates or will originate . . . that any such discharge will comply with the applicable provisions of [Clean Water Act sections 301, 302, 303, 1316 and 1317.][149]

The primary purpose of "401 certificates" is to ensure that activities authorized by a federal license or permit are consistent with a state's water quality standards.[150] Water quality standards consist of the uses of waterbodies within a state that the state has designated and the water quality criteria that the state has identified as necessary to support those designated uses, as well as an anti-degradation policy.[151] Section 401 requires that states issue 401 certificates that:

> 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 any applicable effluent limitations and other limitations . . . standard of performance . . . or prohibition, effluent standard, or pretreatment standard . . . and with any other appropriate requirement of State law set forth in such certification, and shall become a condition on any Federal license or permit subject to the provisions of this section.[152]

The SWRCB is the agency designated to issue 401 certificates in California.[153] Accordingly, while the SWRCB is preempted from independently regulating FERC-licensed hydroelectric projects, the SWRCB may impose some conditions on such projects in the FERC relicensing process through 401 certificates.

The exact scope of state agencies' authority under Clean Water Act section 401 is unclear. Section 401 allows state agencies to impose at least some instream-flow requirements in 401 certificates on the theory that "[i]n many cases, water quantity is closely related to water quality; a sufficient lowering of the water quantity in a body of water could destroy all of its designated uses, be it

149. 33 U.S.C.A. § 1341(a) (West 2000).

150. *See* P.U.D. No. 1 of Jefferson County v. Wash. Dep't of Ecology, 511 U.S. 700, 704-08, 712-13 (1994); *see also* 40 C.F.R. § 121.2(a)(3) (2003).

151. *See P.U.D. No. 1*, 511 U.S. at 704-05 (discussing 33 U.S.C.A. § 1313).

152. 33 U.S.C.A. § 1341(d).

153. CAL. WATER CODE § 13160 (West 1992).

for drinking water, recreation, navigation, or . . . a fishery."[154] It is not clear, however, how broad a set of state laws Congress intended to include under the key phrase "any other appropriate requirement of State laws."[155] In the United States Supreme Court's 1994 *P.U.D. No. 1 of Jefferson County v. Washington Department of Ecology* decision, the Court held that a 401 certificate could include instream-flow requirements for the portion of an unappropriated stream between a proposed dam and a proposed hydroelectric powerhouse that otherwise would have been subject to about seventy-five percent flow reductions.[156] However, *P.U.D. No. 1* did not concern the type of issue presented by RD-1644, the extent to which a hydroelectric project may be compelled to release previously stored water to attempt to enhance fisheries.

B Opportunities Presented by Upcoming FERC Relicensing Proceedings in California

FERC relicensing proceedings present a unique opportunity to implement equitable fishery-enhancement measures because there will be a large number of hydroelectric projects that are subject to relicensing in the next fifteen years.[157] The FERC license for DWR's Feather Project, which is the headwaters of the State Water Project, expires in January 2007.[158] The FERC licenses for the Yuba River watershed's four major hydroelectric projects expire between March 2009 and April 2016.[159]

In light of the many opportunities for a large number of parties to participate in the FERC relicensing process, and the broad balancing that FERC is authorized to undertake in issuing renewed licenses for hydroelectric projects, the FERC relicensing process will be a forum in which such projects' environmental

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154. *P.U.D. No. 1*, 511 U.S. at 719.

155. *Id.* at 713 ("[L]imitations to assure compliance with state water quality standards are also permitted by § 401(d)'s reference to 'any other appropriate requirement of State law.' We do not speculate on what additional state laws, if any, might be incorporated by this requirement.").

156. *See id.* at 709 (describing the proposed project).

157. *See* BULLETIN 160-98, *supra* note 11, at 2-12 to 2-13 (stating that 26 hydroelectric projects with generation capacities over one megawatt have FERC licenses that expire between June 2000 and April 2009).

158. *Id.* at 2-13. DWR has established a World Wide Web site devoted to the relicensing process for Oroville Dam and related facilities. *See* Department of Water Resources, Oroville Facilities Relicensing, *at* http://orovillerelicensing.water.ca.gov (last visited July 13, 2004) (copy on file with the *McGeorge Law Review*).

159. Pac. Gas & Elec. Co., 73 F.E.R.C. 62,109 (1995) (PG&E's license for the Drum-Spaulding Project expires in April 2013); Yuba County Water Agency, 31 F.E.R.C. 62,186 (1985) (Yuba's license for the Yuba Project expires in April 2016); Pac. Gas & Elec. Co., 3 F.E.R.C. 61,041 (1978) (Nevada Irrigation District's license for its Yuba-Bear Project expires in April 2013); BULLETIN 160-98, *supra* note 11, at 2-13 (noting that Oroville-Wyandotte Irrigation District's license expires in March 2009). Oroville-Wyandotte Irrigation District recently changed its name to South Feather Water and Power Agency. That agency diverts water into the Feather River watershed. BULLETIN 160-98, *supra* note 11, at 3-41 to 3-42. PG&E and Nevada Irrigation District divert water into the American and Bear Rivers' watersheds. *Id.*

requirements can be adjusted to address project impacts and instream conditions for fisheries.

What makes the FERC relicensing process best for the equitable fishery-enhancement proceedings proposed by the Governor's Commission is FERC's power to consolidate proceedings for several projects in the same watershed. FERC's jurisdiction over projects extends to all project facilities, even where electricity generation is only a minor project function.[160] By consolidating proceedings involving all projects with hydroelectric facilities in the same watershed, FERC can regulate all major water users whose operations impact fisheries and other natural resources in that watershed. In fact, FERC has conducted such consolidated proceedings in a number of watersheds.[161]

In 1994, FERC issued a policy statement to address the cumulative impacts of hydroelectric projects in the same watershed.[162] That policy statement was strikingly similar to the recommendations of the Governor's Commission concerning the implementation of general instream-flow requirements. FERC sought to balance the need to address multiple projects' cumulative impacts in a comprehensive way with the need to handle the large number of relicensing applications being filed with FERC while "providing project developers and financiers as much certainty as possible when [FERC] issues a license . . . ."[163] FERC's solution was a regulation that states:

> The Commission will address and consider cumulative impact issues at original licensing and relicensing to the fullest extent possible consistent with the Commission's statutory responsibility to avoid undue delay in the relicensing process and to avoid undue delay in the amelioration of individual projects impacts at relicensing. To the extent, if any, that it is not possible to explore and address all cumulative impacts at relicensing, the Commission will reserve authority to examine and address all such impacts after the new license has been issued, but will define that reserved authority as narrowly and with as much specificity as possible, particularly with respect to the purpose of reserving that authority. The Commission intends

160. Escondido Mut. Water Co. v. Fed. Energy Regulatory Comm'n, 692 F.2d 1223, 1229-31 (9th Cir. 1982), *aff'd in part, rev'd in part, on other grounds sub. nom.* Escondido Mut. Water Co. v. La Jolla Band of Mission Indians, 466 U.S. 765 (1984). The parties did not seek to have the Supreme Court review the Ninth Circuit's interpretation of FERC's jurisdiction over project facilities. *See Escondido Mut. Water Co.*, 466 U.S. at 772 n.12.

161. *See, e.g.*, FPL Energy Maine Hydro LLC, 88 F.E.R.C. 61,116, at 61,270 (1999) (consolidated environmental impact statement for four projects); Town of Madison, Dep't of Elec. Works, 81 F.E.R.C. 61,252, at 62,154 (consolidated proceeding for 10 projects); Duke Power Co., 73 F.E.R.C. 61,330, at 61,911 (preparation of "Multiple Project Environmental Assessment" for three projects); Public Service Co. of New Hampshire, 68 F.E.R.C. 61,177, at 61,851, 61,855-61,856, 61,865-61,866 (1994) (consolidated proceeding for seven projects).

162. Use of Reserved Authority in Hydropower Licenses to Ameliorate Cumulative Impacts; Policy Statement, 59 Fed. Reg. 66,714 (Dec. 28, 1994).

163. *Id.* at 66,714-66,715.

> that such articles will describe, to the maximum extent possible, reasonably foreseeable future resource concerns that may warrant modifications of the licensed projects.[164]

Similar to the Governor's Commission's proposal to integrate general consideration of instream needs and water-right certainty through physical solutions, FERC's regulation allows for the equitable distribution of responsibility for mitigating project impacts on, and enhancing conditions for, fisheries and other natural resources.

The procedures set up by FERC for relicensing proceedings have begun to bear fruit in the form of multi-party agreements that address the impacts of multiple hydroelectric projects in a watershed. For example, on March 1, 2004, project owners, environmental groups, and resources agencies, including the SWRCB, involved with two hydroelectric projects on the Middle Fork Stanislaus River that are subject to relicensing, filed with FERC a set of "Recommended Resource Measures" for one of those projects that included instream-flow requirements as well as a term requiring the project owners to develop an agreement to coordinate their operations.[165]

C. *Possible Effects of the SWRCB's Approach in RD-1644 on FERC Relicensing Proceedings*

In RD-1644, the SWRCB stated: "[t]he findings and conclusions in this decision will be utilized by the SWRCB in commenting on hydropower applications before FERC and in exercising the State's water quality certification authority."[166] Through this statement, the SWRCB implied that it may apply its own interpretation of the public trust doctrine in the 401 certification process. If the SWRCB does assert such authority in future 401 certifications, then the SWRCB may disrupt multi-party, multi-project proceedings under FERC's cumulative-impacts policy in at least three ways.

First, the SWRCB's 401 certification process could undermine those proceedings by preventing FERC from requiring already licensed projects to share responsibility for resource-related measures equitably. The balance struck in FERC's 1994 policy statement depends on FERC having the ability to consider how to equitably distribute responsibility among project owners in consolidated proceedings concerning the relicensing of later-arising projects and

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164. *Id.* at 66,718 (adopting 18 C.F.R. § 2.23).

165. Letter from Pacific Gas and Electric, to the Honorable Magalie R. Salas, Secretary, Federal Regulatory Commission, RE: Consensus on PM&E Measures ("SPLAT Recommended Resource Measures"), (Mar. 1, 2004) (copy on file with the *McGeorge Law Review*); SPLAT Recommended Resources for Tri-Dam Project's Beardsley/Donnells Project filed docket No. P-2005-0012, Accession No. 20040301-5086, *available at* http://www.ferc.gov/docs-filing/elibrary.asp (copy on file with the *McGeorge Law Review*); Ron DeLacy, *Utilities, Groups Praise Accord for Stanislaus River*, MODESTO BEE, Mar. 2, 2004, at B2.

166. RD-1644, *supra* note 6, at 139.

the reopening of new licenses issued to earlier-arising projects. In contrast, in RD-1644, the SWRCB asserted the authority to impose all responsibility for enhancing downstream fisheries on any water user whose facilities are large enough to substantially affect the streamflows that feed those fisheries.[167] The SWRCB thus may attempt to use the 401 certification process to impose responsibility for fishery enhancement measures on individual hydroelectric projects in a manner similar to its approach in RD-1644. If the SWRCB were to take such an approach, then the SWRCB could prevent FERC from revising the terms of the licenses for other projects and thus prevent FERC from allocating equitably, among a watershed's hydroelectric projects, the responsibility for addressing those projects' cumulative impacts in consolidated relicensing/reopener proceedings under its 1994 policy statement.

Second, if the SWRCB asserts the power to independently allocate responsibility to enhance public trust resources in 401 certification proceedings, then parties to FERC's relicensing proceedings will be discouraged from collaborating to resolve related issues in the consultations related to those proceedings. In essence, parties will believe that they can get a second bite at the apple through the SWRCB's 401-certification proceedings if FERC's consultation proceedings do not achieve the results that they prefer. Those parties will be less likely to view FERC's cumulative impacts process as the forum in which they should resolve disputes concerning resource enhancement measures. Certain parties already seem to have this point of view. A DFG representative has stated that the SWRCB's 401-certification proceedings are DFG's "ace in hole" in FERC's relicensing process: "[i]f the collaborative process doesn't work, I can run to the State Board."[168]

Third, because parties injured by the terms of 401 certifications are required to challenge those terms in court and outside of the FERC relicensing process,[169] implementation in individual projects' 401 certifications of fishery-enhancement measures similar to those in RD-1644 could lead to litigation simultaneously, or nearly simultaneously, with the relicensing/reopener proceedings on which FERC's cumulative-impact-analysis policy depends. Litigation among the parties to those proceedings, particularly among project owners, may hinder the negotiation of measures for allocating responsibility for resource enhancement.

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167. *Id.* at 149-50.

168. Oral Comments of Mike Meinz, DFG, at Dam Relicensing: Technical and Regulatory Overview seminar, University of California, Davis Extension (Feb. 18, 2003) (notes on file with the *McGeorge Law Review*). Mr. Meinz was involved in the SWRCB's lower Yuba River proceedings. As a DFG employee, Mr. Meinz was involved in the preparation of the DFG Plan for the lower Yuba River. *See* DFG Plan, *supra* note 76, at 115. The SWRCB then employed Mr. Meinz as its environmental specialist during and after the Board's 1992 lower Yuba River hearing, which concerned the DFG Plan, in large part. *See* Order WR 2003-0016, *supra* note 82, at 31-34.

169. Am. Rivers Inc. v. FERC, 129 F.3d 99, 112 (2d Cir. 1997).

States cannot independently regulate the environmental-protection measures that apply to hydroelectric projects.[170] Relicensing proceedings held in accordance with FERC's 1994 cumulative impact policy statement therefore represent the best available forum for implementing the Governor's Commission's vision of proceedings in which the needs of a watershed's fisheries can be addressed in a general manner and responsibility for implementing measures to satisfy those needs can be allocated equitably among water projects. In order for such proceedings to fulfill this potential, however, FERC and the parties to FERC's processes must have the ability to address projects' cumulative impacts comprehensively in accordance with FERC's 1994 policy statement. If the SWRCB follows through with its statement in RD-1644 that it intends to apply that decision's findings and conclusion in future 401 certification proceedings, then the availability of such a broad opportunity to impose full responsibility for fishery-enhancement measures on individual projects through their 401 certificates may seriously impair the ability of FERC to achieve equitable results similar to what the Governor's Commission sought to achieve.

V. CONCLUSION

The Governor's Commission presented a vision for how water rights in California could evolve so that they could be better managed to serve the needs of California's people and environment. The Commission suggested that, while California water law generally works well, it could be improved to allow water users to maximize the economic and environmental utility of the state's water. Accordingly, the recommendations of the Commission emphasized the certainty of water rights, transfers between other water users, and a water-right holder's right to transfer water saved through efficiency measures.[171] Moreover, the Commission integrated its proposed general fishery-protection proceedings with the implementation of physical solutions and a "no substantial harm" limitation on reallocations from water users.[172]

California water law has evolved to incorporate many of the Commission's proposals. The Legislature adopted the transfer-related statutes that the Commission proposed, and has extended the Commission's related recommendations.[173] Through Cal-Fed's creation of the EWA, the Commission's proposal that the state buy water for instream use has been realized.[174]

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170. *See* Cal. v. FERC, 495 U.S. 490, 506 (1990); Sayles Hydro Assocs. v. Maughan, 985 F.2d 451, 453 (9th Cir. 1993); *see also supra* text accompanying notes 54-55.

171. *See supra* Part II.A.1.

172. *See supra* Part II.B.

173. *See supra* Part II.C.1.

174. *See supra* Part II.C.2.

The SWRCB's lower Yuba River decision, RD-1644, conflicts with this evolution of California water law. The SWRCB ascribed no value to the permit terms—particularly, the 2010 date for Yuba's application of water to beneficial use—and efficiency measures, primarily conjunctive use, that made Yuba's significant water transfers possible.[175] Instead, the SWRCB simply used the facts that Yuba's water demands had not reached their full development and that conjunctive use and water conservation could free water for uses other than local irrigation to attempt to justify its conclusion that Yuba could make water available to satisfy the SWRCB's preferred long-term instream-flow requirements.[176]

The uncertainty created by the SWRCB's approach is substantively greater than that created by the *National Audubon* decision. For all of its import, *National Audubon* concerned diversions that alone had severely injured public trust resources.[177] The idea that the state may order modifications of a project's operation in order to address its adverse impacts is consistent with the simple idea that property owners may not use their property to create a public nuisance, an idea reflected in Judge Lorenzo Sawyer's *Woodruff v. North Bloomfield* decision regarding hydraulic mining.[178] This idea is also consistent with recent takings jurisprudence that requires state and local agencies to demonstrate how project impacts justify the agencies' actions when they order project owners to dedicate resources for public benefit.[179] By emphasizing that general instream-flow requirements should be implemented through basin-wide physical solutions that do not "substantially harm" any particular water user, the Governor's Commission implicitly recognized these concepts. In contrast, RD-1644's theory that Yuba may be compelled to bear full responsibility for enhancing the lower Yuba River's fisheries because it benefits from some of the facilities that injured those fisheries and owns the biggest reservoir in the watershed effectively would obviate the need for a nexus between a particular water user's activities and its potential responsibility for mitigating environmental impacts.[180]

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175. *See supra* Part III.C.

176. *See supra* Part III.C.

177. Nat'l Audubon Soc'y v. Superior Court, 658 P.2d 709, 712-16 (Cal. 1983).

178. Woodruff v. N. Bloomfield Gravel Mining Co., 18 F. 753, 769 (C.C.D. Cal. 1884). Similarly, in *Lucas v. South Carolina Coastal Commission*, 505 U.S. 1003 (1992), the United States Supreme Court held that states are not required to pay compensation when they proscribe uses of property that were always barred by nuisance law, but must pay compensation when their acts do not enforce such "background principles" of property law and instead eliminate a property's economic use for other purposes. *Id.* at 1029-31. It is noteworthy in this regard that, in discussing the scope of the public trust doctrine in *National Audubon*, the California Supreme Court discussed in some detail its previous decision in *People v. Gold Run D. & M. Co.*, 4 P. 1152 (Cal. 1884), a decision concerning the discharge of mining debris similar to Judge Sawyer's decision in *Woodruff*. *See National Audubon*, 658 P. 2d at 720-21 ("If the public trust doctrine applies to constrain *fills* which destroy navigation and other public trust uses in navigable waters, it should equally apply to constrain the *extraction* of water that destroys navigation and other public trusts interests") (quoting Johnson, *Public Trust Protection for Stream Flows and Lake Levels*, 14 U.C. DAVIS L. REV. 233, 257-58 (1980)).

179. *See, e.g.*, Dolan v. City of Tigard, 512 U.S. 374, 386-96 (1994).

180. *See supra* Part III.C.

In essence, RD-1644 suggests that the SWRCB does not accept the Governor's Commission's premise that California water law can best be improved through refining its existing structure. While the Governor's Commission emphasized project owners' investments in reliance on their water rights as a reason to focus on refining existing law,[181] RD-1644 does not address the fact that Yuba relied on its permits' 2010 date for applying water to beneficial use in building the Yuba Project.[182] Based on the fact that the SWRCB analyzed the impacts of RD-1644 only on past levels of Yuba's water demands, it appears that the SWRCB does not consider project owners' investments, and the permit terms that support those investments, to be significant concerns when it orders new instream-flow requirements.

Ironically, by attempting to create a very broad power for the SWRCB to reallocate water to instream uses, RD-1644 may hinder the implementation, through the FERC relicensing process, of the Governor's Commission's concept of more equitable, basin-wide reallocation proceedings. Because FERC is the only entity that has the ability to hold consolidated proceedings of all significant water projects in a particular watershed, FERC's relicensing proceedings present a unique opportunity in which the overall needs of watersheds' fisheries and other natural resources can be considered and responsibility for those resources' improvement can be allocated equitably, as the Governor's Commission proposed.[183] However, if, as RD-1644 suggests, the SWRCB may make its own project-specific allocations of responsibility for resource enhancement under Clean Water Act section 401, then the promise of consolidated FERC relicensing proceedings, and a key proposal of the Governor's Commission, may be thwarted.

181. FINAL REPORT, *supra* note 19, at 12-13.

182. *See supra* text accompanying notes 118-20.

183. *See supra* Part IV.B.