The Rebirth of California Fish & Game Code Section 5937: Water for Fish

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INTRODUCTION

> Swarms of living creatures will live wherever the river flows. There will be large numbers of fish, because this water flows there and makes the salt water fresh; so where the river flows everything will live. Fishermen will stand along the shore; from En Gedi to En Eglaim there will be places for spreading nets.[1]

In an average year, California receives inflows and imports of water totaling around 200 million acre-feet,[2] enough water to cover the entire state twenty-three inches deep.[3] But California is a state of spatial and temporal water extremes. Spatially, precipitation varies wildly: Death Valley in the Southeast averages less than three inches per year,[4] yet the northwestern corner of the state averages over 140 inches per year.[5] More than 70% of California's stream flow originates north of Sacramento, but more than 80% of the water is used south of Sacramento.[6] Temporally, precipitation varies both seasonally and annually. California's wet season typically runs from October or November to April or May, with little or no precipitation during the growing season, from May to September.[7] Annual rainfalls of 40% or more below average and 36% or more above average each typically occur once every six to seven years.[8] To balance these extremes, over 1,300 dams store water across the state,[9] supplying water for urban,

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[1] *Ezekiel* 47:9-10 (New International Version).

[2] CAL. DEP'T OF WATER RES., 1 CALIFORNIA WATER PLAN UPDATE 2005, at 3.7 (2005), *available at* http://www.waterplan.water.ca.gov/previous/cwpu2005/index.cfm.

[3] CAL. DEP'T OF FIN., CALIFORNIA STATISTICAL ABSTRACT, at ix (2003). The state totals 163,696 square miles, or 104,765,440 acres. An acre-foot is enough water to cover one acre one foot deep, so 200,000,000 acre-feet over 104,765,440 acres gives an average of 1.91 acre-feet per acre, or 23 acre-inches per acre.

[4] *Monthly Climate Summaries*, W. REG'L CLIMATE CTR. (Jan. 15., 2010), http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?cadeat+sca.

[5] CAL. DEP'T OF WATER RES., *supra* note 2, at 3.1.

[6] *Climate of California,* W. REG'L CLIMATE CTR. (Jan. 15, 2010), http://www.wrcc.dri.edu/narratives/CALIFORNIA.htm.

[7] Michael D. Pitt & Harold F. Heady, *Response of Annual Vegetation to Temperature and Rainfall Patterns in Northern California*, 59 ECOL. 336, 336 (1978).

[8] Orman Granger, *Increasing Variability in California Precipitation*, 69 ANNALS ASS'N AM. GEOGRAPHY 533, 539 (1979). Water years at less than 60% of normal challenge California's ability to provide sufficient water to meet demands, while water years above 145% of normal may cause flooding and increased landslides. *Id.*

[9] *Division of Dam Safety, Listing of Dams*, CAL. DEP'T OF WATER RES., (Nov. 18, 2010), http://www.water.ca.gov/damsafety/damlisting/index.cfm (listing a total of 1390 dams in either the California Jurisdictional Dams list or the Federal Dams list).

industrial, and agricultural uses. While these uses sustain a tremendous part of California's economy, they also come at high, often unappreciated costs.

Fish also need water, so dams that alter water flows for human benefits may also have marked negative impacts on fish. A dam[10] produces myriad changes in downstream river ecology and geomorphology,[11] and may reduce or eliminate downstream fish populations. Fish assemblages — the number and kind of fishes present in a stretch of water — change dramatically when a dam alters a river or stream's hydrograph.[12] Generally speaking, non-native fishes benefit from the lower and more "even" flows typically found below a dam,[13] while native fishes suffer under these conditions.[14]

This excludes dams below the height or capacity requirements established for dam safety jurisdiction and so underestimates the number of dams in the state. *Division of Dam Safety, Jurisdiction Chart*, CAL. DEP'T OF WATER RES., (June 18, 2008), http://www.water.ca.gov/damsafety/jurischart/index.cfm.

[10] "Dam" includes any "artificial obstruction." CAL. FISH & GAME CODE § 5900(a) (West 2010).

[11] Changes can include changes in riparian vegetation, dewatering of auxiliary channels, shallowing of pools, loss of spawning gravel, loss of woody debris and loss of access to floodplain habitat, among other changes. *See, e.g.*, JEFFERY F. MOUNT, CALIFORNIA RIVERS AND STREAMS: THE CONFLICT BETWEEN FLUVIAL PROCESS AND LAND USE (1995) (providing a broad and detailed overview of changes in rivers and riparian areas resulting from water diversion); Gordon E. Grant, John C. Schmidt & Sarah L. Lewis, *A Geological Framework for Interpreting Downstream Effects of Dams on Rivers in American Geophysical Union*, *in* WATER SCIENCE AND APPLICATION 7: A PECULIAR RIVER 213 (James E. O'Connor & Gordon E. Grant eds., 2003) (describing changes in channels downstream from the dam); Geoffrey E. Petts & Angela M. Gurnell, *Dams and Geomorphology: Research Progress and Future Directions*, 71 GEOMORPHOLOGY 27 (2005) (same); Jack A. Stanford & J.V. Ward, *Revisiting the Serial Discontinuity Concept*, 17 REGULATED RIVERS – RES. & MGMT. 303, 303 (2001) (describing several case studies explaining results in areas downstream of dam).

[12] A hydrograph plots a rivers discharge level on a vertical axis against a specific period of time, generally months or years, on the horizontal access.

[13] Michael P. Marchetti & Peter B. Moyle, *Effects of Flow Regime on Fish Assemblages in a Regulated California Stream*, 11 ECOLOGY APPLICATION 530, 537 (2001).

[14] *See generally* David L. Galat & Robin Lipkin, *Restoring Ecological Integrity of Great Rivers: Historical Hydrographs Aid in Defining Reference Conditions for the Missouri River*, 422 HYDROBIOLOGIA 29 (2000) (explaining that variable flow is important to maintaining native fish populations). Dammed rivers tend to have more consistent temperatures and flow levels throughout the year. The more consistent temperatures and water levels result in rivers that are generally cooler and higher than undammed rivers during natural low flow periods, and warmer and lower during natural high flow periods. Over the long term, this consistency generally benefits non-native fish over the native fish adapted to a more widely variable environment. *Id.*

The reduction in native fish numbers is not solely an environmental concern. Fishing is culturally and economically significant in California: recreational fisherman spent a combined total of 5.5 million days fishing California rivers and streams in 2006 and spent an average of roughly $90 per day of fishing, for a total of almost $500 million direct river and stream-related fishing expenditures.[15] While California has prohibited commercial fishing for salmon in rivers and streams since the mid-1950s,[16] the commercial ocean fishery averaged roughly $8.4 million in landings every year from 1990 to 2007, when the ocean fishery closed due to low salmon population levels.[17]

California's Legislature and courts recognize the inherent conflicts between dams and native fishes.[18] Long ago, in 1915, the California Legislature struck a balance that, on its face, requires protection of below-dam fish. Under California Fish and Game Code section 5937 ("5937"), "The owner of any dam shall allow sufficient water at all times to pass through a fishway, or in the absence of a fishway, allow sufficient water to pass over, around, or through the dam to keep in good condition any fish that may be planted or exist below the dam."[19]

Despite 5937's clear language giving priority to below-dam fish, dam owners and the state agencies charged with its implementation and

[15] U.S. FISH & WILDLIFE SERV., 2006 NATIONAL SURVEY OF FISHING, HUNTING, AND WILDLIFE-ASSOCIATED RECREATION 19, 27 (2007).

[16] CAL. DEP'T OF FISH & GAME, CALIFORNIA'S LIVING MARINE RESOURCES: A STATUS REPORT at 407 (2001).

[17] *Annual Commercial Landings Statistics*, NAT'L OCEANIC & ATMOSPHERIC ADMIN. (Jan. 15, 2010) http://www.st.nmfs.noaa.gov/st1/commercial/landings/annual_landings.html (searching from years 1990 to 2007; select "Salmon, Chinook" under "Species;" and "California" under "State").

[18] *See* Cal. Trout v. State Water Res. Control Bd., 255 Cal. Rptr. 184, 192 (Ct. App. 1989) ("Compulsory compliance with a rule requiring the release of sufficient water to keep fish alive necessarily limits the water available for appropriation for other uses."); *infra* Part II (discussing history of the minimum flow requirement).

[19] In full, CAL. FISH & GAME CODE § 5937 (West 2010) states:

> The owner of any dam shall allow sufficient water at all times to pass through a fishway, or in the absence of a fishway, allow sufficient water to pass over, around, or through the dam to keep in good condition any fish that may be planted or exist below the dam. During the minimum flow of water in any river or stream, permission may be granted by the department to the owner of any dam to allow sufficient water to pass through a culvert, waste gate, or over or around the dam, to keep in good condition any fish that may be planted or exist below the dam, when, in the judgment of the department, it is impractical to detrimental to the owner to pass the water through the fishway.

enforcement have not always respected this requirement.[20] The Fish and Game Commission ("Commission") and the California Department of Fish and Game ("CDFG")[21] are the state agencies responsible for protecting California's freshwater fisheries resources.[22] These water rights agencies, however, have never enforced 5937 in a way that is consistent with the statute's plain language, requiring the maintenance of below-dam fish in good condition.[23] While the root causes of this failure remain unclear, the Commission's inability to integrate 5937 into California's emerging water law system in the 1920s and the growth of politically popular and well-funded water projects from the late 1920s through the 1970s appear to have made

[20] *See generally* Joel C. Baiocchi, *Use It or Lose It: California Fish and Game Code Section 5937 and Instream Fishery Resources*, 14 UC DAVIS L. REV. 437, 448-49 (1980) (describing failure of state agencies to effectively protect instream fish with 5937).

[21] The Fish Commission was renamed the Fish and Game Commission in 1909, reflecting its expanded obligations. 1909 Cal. Stat. § 344, *in* JAMES HENRY DEERING, THE POLITICAL CODE OF THE STATE OF CALIFORNIA: ADOPTED MARCH 12, 1872, WITH AMENDMENTS UP TO AND INCLUDING THOSE OF THE THIRTY-EIGHTH SESSION OF THE LEGISLATURE 84 (1909). The Fish and Game Commission took on the powers and responsibilities of the Fish Commission; this Article will refer to both commissions by the same term, "Commission," in order to avoid confusion. In 1927 a Division of Fish & Game was created within the state's Department of Natural Resources, and the Fish Commission became part of this division. STATE OF CAL., DEPT. OF NATURAL RES., DIV. OF FISH & GAME, THIRTIETH BIENNIAL REPORT FOR THE YEARS 1926–1928, at 9 (1928) [hereinafter 1928 BIENNIAL REPORT]. In 1940, the Commission was added to California Constitution article IV, section 25 ½ (now article IV, section 20), which mandated staggered six-year terms for commissioners and appointment of commissioners by the governor. CAL. CONST. art. IV, § 25 1/2 (amended 1948, repealed 1966), *id.* Art IV, § 20. In 1948 the Legislature gave the Commission regulatory responsibility for sport fishing and hunting, and although it lost the direct delegation when the Legislature again amended the Constitution in 1966, *id.*; *id.* art. IV, § 20, the Commission now creates policy for CDFG. *Strategic Plan*, STATE OF CAL., FISH & GAME COMM'N 10-13 (Dec. 4, 1998), *available at* http://www.fgc.ca.gov/strategic_plan/overview.pdf. Generally, "The Commission sets policy for the Department, while the Department is the lead state agency charged with implementing, safeguarding and regulating the uses of wildlife." *Id.* at 12. For example, the Commission regulates taking of fish and wildlife, including setting season dates and take limits, but does not enforce the regulations. *Id.* at 13. The Division of Fish and Game, created in 1927, became today's Department of Fish & Game in 1951, under the Charles Brown Fish and Game Reorganization Act, legislation that also moved the Commission out of the Division of Fish and Game, making it a separate entity in the Resources Agency. 1951 Cal. Stat. 1613; CAL. DEP'T OF FISH & GAME, FORTY-SECOND BIENNIAL REPORT OF THE DEPARTMENT OF FISH AND GAME FOR THE YEARS 1950-1952, at 11 (1952) [hereinafter 1952 BIENNIAL REPORT]. For clarity, this article will refer to both the Division of Fish and Game and the Department of Fish and Game as the CDFG.

[22] *See* discussion *infra* Part I.

[23] *See generally* Baiocchi, *supra* note 20, at 448-49.

5937 enforcement both administratively and politically difficult.[24] By the early 1950s, 5937 was largely dead law, entirely unenforced.[25]

Perhaps unsurprisingly, this lack of enforcement significantly impacted California's native below-dam fish. A 1990 study found that 57% of California's native fishes needed of special management and 41% were either extinct or in need of immediate attention.[26] Artificial factors most strongly affected these native species. And, "Of the artificial factors that have had an adverse effect on the fishes, the most important is water diversions."[27] A review of the thirty-one trout and salmon species living in California reveals that "65% are in danger of extinction within the next century."[28] Reduced or altered below-dam flows contributed to the declines of twenty-three of these imperiled trout or salmon species.[29] Of all 129 California inland fish species, 56% face significantly increased risk of extinction due to major dams.[30] "[R]estoration of natural flow regimes, in company with other restoration measures, is necessary if the continued downward decline of native fish populations in the western United States is to be reversed."[31] Thus, the survival of native fish stocks in California, including commercially and socially vital species such as salmon and steelhead, requires restoration of the natural flow regimes that should have been protected under 5937.[32]

But even as 5937 floated in California's legal backwaters, the California Legislature continued its efforts to protect the state's fish resources in the face of continued water development. Changing public perceptions of California's natural resources, including fish, led to the birth of the modern public trust doctrine. The Legislature's

[24] *See* discussion *infra* Part I.

[25] *See* discussion *infra* Part III.

[26] Peter B. Moyle & Jack E. Williams, *Biodiversity Loss in the Temperate Zone: Decline of the Native Fish Fauna of California*, 4 CONSERV. BIOLOGY 275, 278 (1990).

[27] *Id.* Not every diversion is coupled with a dam, but the study did not separate out these two factors.

[28] PETER B. MOYLE, JOSHUA A. ISRAEL & SABRA E. PURDY, SALMON, STEELHEAD, AND TROUT IN CALIFORNIA: STATUS OF AN EMBLEMATIC FAUNA 4 (2008).

[29] *See generally id.* This article's authors reviewed the "Factors Affecting Status" section for each of the 31 extant species to determine which were affected by dams.

[30] Peter B. Moyle, Jacob V. E. Katz & Rebecca M. Quiñones, *Rapid Decline of California's Native Inland Fishes: A Status Assessment*, 144 BIOLOGICAL CONSERVATION 2414, 2419 (2011) (finding that 56% of California's inland fish species faced critical, high, or medium negative effects from dams). Moyle et al. defined major dams as those over 50 feet, so this statistic probably underestimates the impacts of dams on California fish.

[31] Marchetti & Moyle, *supra* note 13, at 530.

[32] *Id.* at 538.

continuing efforts, coupled with the public trust doctrine, began to revive 5937 in the 1970s.[33] Key holdings in early public trust cases reinforced the State's responsibilities in safeguarding trust resources and broadened private standing to protest violations of the public trust. Courts recognized 5937 as the legislative expression of the State's public trust obligation to protect below-dam fish.[34] While state agencies stood idle, private attorneys general began using public trust doctrine standing to enforce 5937. Consequently, an emerging consensus from the state and federal trial courts revived 5937 and led to the rebirth of several native fish communities. These private attorney general enforcement actions have shown the fruit of a dutiful reading and application of 5937: preservation of California's below-dam fish communities.

In spite of 5937's rebirth over the last thirty years, and potential for broader future application, very little 5937 scholarship exists. Section 5937 presents a compelling story of the death and rebirth of a water rights statute, coupled with administrative and political intrigue. Section 5937 raises important takings questions, both historical and modern, but only two articles currently focus on the law, and neither provides a comprehensive history of 5937 or analysis of the current state of the law.[35] These components are essential to California water law scholarship and the future practical development of 5937. In seeking to fill this void, this Article analyzes the role of 5937 in the context of California water law through a detailed historical examination of the law followed by a normative discussion of its current interpretation. Part I provides a historical analysis of 5937 and discusses long-standing efforts by the California Legislature to provide a legal framework for minimum flow protection. Part II scrutinizes the reasons underlying early 5937 enforcement and implementation failures. Part III explores the rebirth of the minimum flow requirement by revisiting all court cases and most Water Board hearings that address 5937. Finally, Part IV provides suggestions for the proper interpretation of 5937 in a question-and-answer format.

[33] *See* discussion *infra* Part III.

[34] Cal. Trout v. State Water Res. Control Bd. (*CalTrout I*), 255 Cal. Rptr. 184, 209 (Ct. App. 1989).

[35] *See generally* Baiocchi, *supra* note 20 (discussing 5937 and its history); Robert Firpo, *The Plain "Dam!" Language of Fish and Game Code Section 5937*, 11 HASTINGS W.-NW. J. ENVTL. L. & POL'Y 101, 165 (2005) (same).

I. HISTORY OF THE MINIMUM FLOW REQUIREMENT

A. Early History of the Minimum Flow Requirement: 1852 to 1917

The minimum flow requirement's history reveals the California Legislature's repeated attempts to ensure the survival of the state's fisheries. The legislation reveals gradually increasing protection for fish in California's river systems.

On April 12, 1852, less than two years after its admission to the Union, California criminalized the act of creating instream obstructions to salmon migration,[36] reflecting longstanding English prohibitions on instream obstructions.[37] The initial instream obstruction law offered limited protection[38] and did not explicitly

[36] *An Act to Prohibit Erection of Weirs, or Other Obstructions to the Run of Salmon*, 1852 CAL. COMP. LAWS 62 (1852) [hereinafter 1852 Salmon Act]. Section 2 stated:

> Any person who may erect, or in any manner directly or indirectly, aid in the erection of any weir or other obstruction aforesaid, to the passage of salmon, an any river of this state, shall be deemed guilty of a misdemeanor, and be fined by any court of competent jurisdiction, in a sum not less than one hundred dollars, nor exceeding one thousand dollars, and shall immediately destroy the impediment to the running of salmon aforesaid; in default of which the fine imposed by this act shall be doubled.

Id. In 2009 dollars, the fine ranged from $2,860 to $28,600. Samuel H. Williamson, *Seven Ways to Compute the Relative Value of a U.S. Dollar Amount*, *1774 to Present*, MEASURING WORTH (Jan. 15 , 2010), http://www.measuringworth.com/uscompare/.

[37] The earliest known law referencing instream obstructions to salmon migrations is the Magna Carta, which ordered: "All fish-weirs shall be removed from the Thames, the Medway, and throughout the whole of England, except on the sea coast." Magna Carta, 1297, 25 Edw., c. 23 (Eng.)*; see also* Weld v. Hornby, [1806] 103 Eng. Rep. 75, 76 (K.B.)

> The erection of weirs across rivers was reprobated in the earliest periods of our law. They were considered as public nuisances. The words of Magna Carta (1297) (chapter 23) are: 'All weirs from henceforth shall be utterly pulled down by Thames and Medway, and through all England,' etc. This was followed up by subsequent Acts (see 12 Edw 4, c 7) treating them as public nuisances, forbidding the erection of new ones, and the enhancing, straitening or enlarging of those which had aforetime existed. I remember that the stells erected in the river Eden by the late Lord Lonsdale and the corporation of Carlisle, whereby all the fish were stopped in their passage up the river, were pronounced in this court, upon a motion for a new trial, to be illegal and a public nuisance.

Id. See generally Commonwealth v. Ruggles, 10 Mass. 391 (1813) (seeking enforcement of Massachusetts's instream obstruction statute that codified English law).

[38] This initial obstruction law exempted mining, milling and agricultural dams

require water for downstream fish.[39] In 1870, the Legislature amended its approach to fisheries protection, adding a broader fish passage requirement and creating a mechanism to enforce the law.[40] Perhaps most importantly, the 1870 Fish Act introduced the requirement that passage for fish around obstructions — fishways — be maintained such that "at all seasons of the year, fish may ascend above such dam."[41] Thus, the 1870 Fish Act created a de facto year-round minimum flow requirement for dams with fishways.[42]

In 1872, California made it a crime to obstruct fishways. Specifically, the Legislature codified a fishway requirement similar to the 1870 Fish Act under section 637 of California's first Penal Code.[43]

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and protected only salmon. 1852 Salmon Act § 6.

[39] *Id.*

[40] An Act to provide for the restoration and preservation of fish in the waters of this State, 1870 Cal. Stat. 663 [hereinafter 1870 Fish Act]. A fishway permits fish passage around the obstruction, akin to a modern fish ladder. The 1870 Fish Act created the Commission to implement a new law mandating construction of fish passages. 1870 Fish Act § 3. The 1870 Fish Act also allowed instream obstructions if, upon the request of the Commission, the obstructer constructed a fishway, a route around or through the obstruction that permitted migrating fish to pass. Section 3 reads in full:

> It shall be the duty of the Commissioners to require, as far as practicable, all persons, firms and corporations who have erected mill-dams, water weirs or other obstructions on rivers or streams within the waters of this State, within six months after the passage of this Act, to construct and keep in repair fish ways or fish ladders at such mill-dams, water weirs or obstructions, so that, at all seasons of the year, fish may ascend above such dam, weir or obstruction to deposit their spawn. Any person, firm or corporation, owning such mill-dam or obstruction, who shall fail or refuse to construct or keep in good repair such fish way or fish ladder, after having been notified and required by the Commission to do so, shall be deemed guilty of a misdemeanor.

Id. This Act extended protection beyond salmon to all fish and removed the mining, milling, and agricultural exemptions. The Act was also revised in 1854, when the Legislature expanded the law to cover obstructions in bays, straits, rivers, streams, creeks, and sloughs, but left the mining, milling and agricultural exemptions in place. *See* An Act to Amend an Act entitled 'Act to prohibit erection of Weirs, or other obstructions to the run of Salmon,' 70 Cal. Comp. Laws, § 1 (1854).

[41] *Id.*

[42] Fish are unable to pass through a dry fishway.

[43] California's first Penal Code took effect July 1, 1872. CAL. PENAL CODE § 2 (Gelwick 1871). Among other changes, the 1872 Penal Code section on fish passage dropped a requirement in the 1870 Fish Act that fishways only be required when "practicable," neglected to mention the 1870 law's fine amount (not to exceed $500), and left out directions for the distribution of collected fines (which had been one-half to District Attorney and one-half to county's Common School Fund). *Id.* § 637

This fishway requirement both empowered and required the Commission to enforce fishway requirements.[44] The codification of the fishway requirement in 1870, however, failed to include the 1870 Fish Act's requirement that fish be allowed to pass "at all seasons of the year," thereby eliminating the de facto minimum flow requirement. The requirement did not reappear in the statutes until passage of a new act in 1880 ("1880 Act").[45]

The 1880 Act did not directly amend Penal Code Section 637,[46] but instead added new statutes to establish the duties of the Commission and dam owners with respect to instream obstructions.[47] Specifically, the 1880 Act required the Commission to examine all dams in the state that were "naturally frequented by salmon, shad, or other migratory fish," and then order the construction of a fishway if no fish passage existed.[48] The 1880 Act further required the fishways be kept "in repair, and open, and free from obstructions to the passage of fish at all times,"[49] thereby reinstating de facto minimum flow requirements. In addition to the 1880 Act, Penal Code section 637 remained in force for many years — Section 637 survived an early

(Gelwick 1871). In 1872, the full text of California Penal Code section 637 reads: "Every owner of a dam or other obstruction in the waters of this state, who, after being requested by the Fish Commissioners so to do, fails to construct and keep in repair sufficient fishways or ladders on such dam or obstruction, is guilty of a misdemeanor."

[44] *Id.* § 642 (Whitney 1881) ("It is the duty of the Fish Commissioners . . . to furnish plans for and direct the construction and maintenance of fish ladders and ways upon dams and obstructions.").

[45] An act to provide for the construction, maintenance, and regulation of fish ways in streams naturally frequented by salmon, shad, and other migratory fish. 1880 Cal. Stat. 121. Failure to provide the passage was deemed a misdemeanor. *Id.*

[46] In 1872, California codified its laws into a set of codes, consisting of a Civil, Criminal, Political, and Civil Procedure Code. Lewis Grossman, *Codification and the California Mentality*, 45 HASTINGS L.J. 617, 617, 637 (1994). However, the codification was incomplete and many of the underlying statutes were never repealed, which created a bifurcated morass of conflicting law. Ralph N. Kleps, *Revision and Codification of California Statutes, 1849-1953*, 42 CALIF. L. REV. 766, 780 (1954). Courts did not find an implied repeal of conflicting California statues when the code system was passed. The system of codification as a whole quickly fell into disrepair, making subsequent changes to the law more difficult to track. For example, "the volume of statues not directed to the codes far exceeded the volume of amendments to the code from the beginning," meaning that many portions of the code were obviated or indirectly amended via statues that never became part of the code. *Id.*

[47] 1880 Cal. Stat. 121.

[48] *Id.*

[49] *Id.*

legal challenge in 1882 when the California Supreme Court upheld the authority of a District Attorney to enforce it.[50]

In 1903, California significantly strengthened the requirements in Section 637[51] by incorporating the 1880 Act requirements into that section, including the requirement that waterways be "open . . . to the passage of fish at all times."[52] This amendment also echoed the 1880 Act's mandatory approach, requiring the Commissioners to order construction of a fishway whenever there was no free passage around an obstruction.[53]

Despite the Legislature's efforts to protect fish passage, reports first surfaced in 1892 describing rivers bled dry due to dams and other associated diversions.[54] Deputy Fish Commissioner W.H. Shelby

[50] Taylor v. Hughes, 62 Cal. 38, 38 (1882) (convicting Samuel P. Taylor under section 637 and fining him $50 for failure to install fishway around dam on Papermill Creek, Marin County).

[51] An Act to amend sections 628, 629, 632, 635, and 637 of the Penal Code of the State of California, all relating to the preservation and protection of fish, and to repeal all Acts and parts of Acts in conflict with this Act, 1903 Cal. Stat. 23. The Act cleaned up the legislative debris of older fishway requirements, explicitly repealing, "all acts and parts of acts in conflict with this act." *Id.* at 26. The Commission requested this amendment, calling for revision of 637 to make violations a misdemeanor and to add a fine and jail time, with fines paid into state treasury credited to fish commission fund. STATE OF CAL., STATE BD. OF FISH COMM'RS. SEVENTEENTH BIENNIAL REPORT FOR THE YEARS 1901–1902, at 46 (1902). Section 637 was also amended in 1891 and 1901. *See* an Act to amend section six hundred and thirty-seven of the Penal Code of the State of California, relating to the construction and repairing of fish ladders on dams and other obstructions on the running waters of the State, 1891 Cal. Stat. 93 (adding that the Commission must formally order and notify violators of section 637; reestablishing fines and the allocation thereof; setting imprisonment durations). The 1901 Amendment was part of the recodification of all three then-extant codes, and the Legislature made a substantive change to restrict fishing near fish ladders. 1901 Cal. Stat. 47. The re-codification as a whole was declared unconstitutional on technical grounds in *Lewis v. Dunne*, 134 Cal. 291, 291 (1901) (stating that re-codification violated California Constitution article IV, section 24, for failure to reenact and republish the entirety of the code, and for inclusion of more than one subject in a single piece of legislation).

[52] An act to amend sections 628, 629, 632, 635, and 637 of the Penal Code of the State of California, all relating to the preservation and protection of fish, and to repeal all acts and parts of acts in conflict with this act, ch. 22, § 5, 1903 Cal. Stat. 25-26 (1903) [hereinafter "1903 Act"]The 1870 Fish Act stated that fishways should be kept in good repair so that at "all seasons of the year, fish may ascend above such dam, weir or obstruction to deposit their spawn." 1870 Fish Act, *supra* note 40, § 3.

[53] 1903 Act (requiring Fish Commissioners to order a fishway if there is not free passage for fish around an obstruction; prohibiting fishing close to fishways; increasing fines and imprisonment terms).

[54] STATE OF CAL., STATE BD. OF FISH COMM'RS, BIENNIAL REPORT FOR THE YEARS 1891–1892, at 22 (1892).

described a river diverted entirely into flumes for more than a mile and reported that the actual streambed remained dry for approximately 1.5 miles. Shelby required the owner of the flume to build fish ladders in the flumes so that "every ambitious fish can go around the break."[55]

The Commission again raised the problem of a lack of instream flow in 1912, noting that, many companies, particularly power companies, refused to comply with the fish passage laws "because they do not want to allow sufficient water to pass through the ladders to make them operative."[56] Only a few companies "made it a rule to allow sufficient water to pass through their dams to keep the fish in good condition during the period of the minimum flow of water in the streams."[57]

In 1914, the Commission issued a Biennial Report discussing at length the impacts of low water flows on fish.[58] In its report, the Commission called for legislatively mandated minimum below-dam flows[59] and emphasized the need to protect minimum flows rather

[55] *Id.* Shelby made no mention of any litigation associated with the order.

[56] STATE OF CAL. FISH & GAME COMM'N, TWENTY-SECOND BIENNIAL REPORT FOR THE YEARS 1911–1912, at 20, 25 (1912) [hereinafter 1912 BIENNIAL REPORT].

[57] *Id.* at 26. Shelby's discussion of the need for sufficient water to keep fish in "good condition" appears to be the first by the Commission, but it quickly grew into a refrain.

[58] STATE OF CAL. FISH & GAME COMM'N, TWENTY-THIRD BIENNIAL REPORT FOR THE YEARS 1912–1914, at 23, 29, 30-33 (1914) [hereinafter 1914 BIENNIAL REPORT] (noting that San Joaquin and Kings rivers are dry for part of the fall; noting the trend toward building large reservoirs and discussing the benefits of year round water for fish; and discussing threat to trout fisheries from water diversion). A note of exasperation creeps into the Commissioners' report: "The whole of the present and future of the fish life of the state depends upon our water resources. Without this natural element of fish life they would entirely disappear from the face of nature; for no artificial method of sustaining fish without water has yet been discovered." *Id.* at 107.

[59] *Id.* at 33. A.D. Ferguson, Assistant Commissioner for the Fresno Division, stated:

> The matter is so important that the right of the people to insist upon the preservation of the fish life in our mountain streams, must be jealously guarded, and if necessary, *more* firmly established by further legislative acts. The principle should be fixed by law, that there must at all times, in all trout streams, be a sufficient minimum flow of water passing any diverting dam or intake canal to insure the perpetuation of the fish life from the point of diversion to the point where the diverted water is returned to the natural channel.

Id. This passage highlights the Commission's position that the un-amended section 637 included a minimum flow requirement, but that more explicit provisions would be useful. Additionally, W.H. Shelby, Superintendent of Hatcheries, stated:

than merely requiring the dam owner to bypass some portion of the stream's natural flow. For example, the Commission suggested that construction of upstream reservoirs would allow for sufficient below-dam flows during dry seasons and proposed that a minimum flow of ten percent of the average annual stream flow pass through the dam at all times.[60] The distinction between maintaining minimum flows and bypassing natural flows is significant; if the legislation only required that dam owners bypass some natural inflows, then dry seasons or years could still result in dry streambeds below dams. In contrast, a minimum flow requirement mandates water for fish, even in dry years or during dry seasons, which may require that outflows exceed natural inflows.

One year later, in 1915, the Legislature embraced the Commission's request, amending section 637 to require that enough water flow through each fishway to maintain below-dam fish in good condition ("1915 Flow Act" or "5937").[61] The 1915 Flow Act provided that "the owners or occupants of any dam or artificial obstruction shall allow sufficient water at all times to pass through such fishway to keep in good condition any fish that may be planted or exist below said dam or obstruction."[62] The purpose[63] and language[64] of 5937 anticipate that

> One important matter relative to fishways should be taken up by the next Legislature, and an act passed to compel the owners of fish ladders to allow sufficient water to pass through their fishways at all times to allow the fish a free passage through the ladders as well as to support the fish life below the dams during the minimum flow of water. It is useless to construct fishways if there is not to be sufficient water in the streams below the dams to keep the fish alive during the minimum flow in the summer and fall.

Id. at 56-57; *id.* at 77 (urging passage of a minimum flow law, arguing that "[t]his is a vital subject when the preservation of the trout and salmon are taken into consideration").

[60] *Id.* at 77.

[61] An Act to amend section six hundred thirty-seven of the Penal Code, providing for the construction and maintenance of fishways over or around dams and artificial obstructions, 1915 Cal. Stat. 820 [hereinafter 1915 Flow Act or "5937"].

[62] *Id.*

[63] 1914 BIENNIAL REPORT, *supra* note 58, at 33. A.D. Ferguson, Assistant Commissioner, discussed the dam owner's ability to store water in a reservoir such that there would be enough water to pass a minimum flow during dry periods. *Id.*

[64] The 1915 Flow Act permitted dam owners to pass water through conduits other than a fishway during times of low stream flow. *Id.* This demonstrated the Legislature's willingness to exempt dam owners from fish passage requirements when they became impractical, which contrasts with the Legislature's unwillingness to exempt dam owners from the minimum flow requirement in periods of low flow. The statute requires "sufficient water at all times to pass through" and goes on to spell out

a dam owner's obligation to below-dam fish may at times exceed the quantity of water reaching the dam, in keeping with the Commission's request for a minimum flow requirement, not merely a bypass requirement. Still, in spite of its generally strong protection for fisheries, the 1915 Flow Act also permitted an interpretation extending its application only to those dams where the Commission ordered a fishway.[65]

In 1917, the Legislature again amended 5937 to allow construction of a hatchery instead of a fishway where the Commission determined that a dam's height made fishway construction impracticable.[66] While

the method for passing water in dry conditions. 1915 Flow Act, *supra* note 61. No drought exception is included in the statute. *Id.* at 820. The term "pass" does not imply "bypass;" both terms were used at the time, and "pass" was used for the general movement of water through structures, while in contrast "bypass" indicated allowing the natural flow to pass by a structure. *Compare* Mokelumne River Power and Water Co., No. D-100, 1926 Cal. ENV LEXIS 7, at *92 (Div. of Water Res. Apr. 17, 1926) (emphasis added) (discussing waters that would be stored for a period of time before the dam owner could "*pass* them through the lower power house"), *with* Keyston and Leib, No. D-298, 1931 Cal. ENV LEXIS 4, at *6 (Div. of Water Res. Dec. 9, 1931) (permitting water storage conditioned on a water *bypass* requirement tied to the volume of natural flow in the stream at a given time). Had the Legislature intended only to require dam owners to bypass a portion of the natural inflow at any given time, it would have written the law differently.

[65] The 1915 Flow Act required the Commissioners to:

> [Inspect] all dams and artificial obstructions in all rivers and streams in this state *naturally* frequented by salmon, shad or other fish; and if, in their opinion, there is not free passage for fish over and around any dam or artificial obstruction, to notify the owners or occupants thereof, to provide the same . . .

1915 Flow Act, *supra* note 61 (emphasis added). Because this order was compulsory, any dam in a location that naturally had fish would be ordered to have fish passage. In contrast, the minimum flow requirement requires water flows "to keep in good condition any fish that *may be planted or exist* below said dam or obstruction . . . ." *Id.* (emphasis added). This presumably includes locations fish do not *naturally* frequent, perhaps those locations where the dam creates a fishery by changing the river's hydrology.

[66] An Act to amend section six hundred thirty-seven of the Penal Code, relating to fishways, 1917 Cal. Stat. 1524, 1524-25. The 1916 Biennial report noted some problems with the fish passage laws as then written, in light of the difficulty in building functional fish ladders over high dams. Per the Commission's request for new legislation, the added language stated:

> Whenever in the opinion of the state fish and game commission it shall be impracticable, because of the height of any dam . . . to construct a fishway . . . the fish and game commission may order in lieu of said fishway . . . a hatchery . . . [which] shall not be of a size greater than necessary to supply the said stream or river with a reasonable number of fish.

the 1917 amendments did not explicitly address minimum flow requirements for dams that were exempted from the fish passage requirement, the minimum flow requirement likely still applied, based on the legislative history and the purposes of the fish passage law.[67]

B. Early Implementation and Enforcement of the Minimum Flow Requirement

This early history of the minimum flow requirement reveals increasing legislative concern for ensuring fish survival after dam construction. Nevertheless, Commission reports indicate it failed to enforce the minimum flow requirement from the very beginning. The Commission's Biennial Reports following 5937's passage in 1915 discuss of the impact of low flows on fish,[68] but make no mention of

STATE OF CAL. FISH & GAME COMM'N , TWENTY-FOURTH BIENNIAL REPORT FOR THE YEARS 1914–1916, at 78 (1916) [hereinafter 1916 BIENNIAL REPORT]; *see also* 1917 Cal. Stat. 1524, 1524-25.

[67] The code amendment arguably permits interpretation excusing such dam owners from the minimum flow requirement, but such a reading is incorrect. The legislative history underlying the new fish passage law argues against an implicit exemption to minimum flow requirements for dams without fish passage. The hatchery exemption was written with a focus on providing continuing fishing opportunities in spite of the lack of fish passage. *See* 1917 Cal. Stat. 1525. For example, the 1917 amendment required dam owners to construct a hatchery of sufficient size "to supply the said stream or river with a reasonable number of . . . fish," and to provide the land, water, and sometimes power for the hatchery, free of charge. *Id.* In the alternative, the Commission could simply order the owner to plant fish, and then "sell, at cost to it, to such owners or occupants of such dam or other artificial obstruction, the young of fish ordered to be planted in such stream or river." *Id.* Planting hatchery fish below the dam would be, at best, an exercise in futility without minimum flow protections; without sufficient water, the planted fish would not survive. Providing water for downstream fish remained an expectation of all dam owners, fishways or not. *But see* JIM LICHATOWICH, SALMON WITHOUT RIVERS: A HISTORY OF THE PACIFIC SALMON CRISIS 8 (2001) (arguing that "[w]e thought we could have salmon without rivers" and suggesting that implausible approaches to fisheries protection were not uncommon).

[68] *See, e.g.*, STATE OF CAL. FISH & GAME COMM'N, TWENTY-SEVENTH BIENNIAL REPORT FOR THE YEARS 1920–1922, at 84 (1922) [hereinafter 1922 BIENNIAL REPORT] (noting continuing problems getting water appropriations for fish); STATE OF CAL. FISH & GAME COMM'N, TWENTY-SIXTH BIENNIAL REPORT FOR THE YEARS 1918–1920, at 19-21 (1920) [hereinafter 1920 BIENNIAL REPORT] (noting the low water in the Eel river preventing fish from entering spawning ground, the drying up due to diversions on the Sacramento River near Redding, and the low water of the San Joaquin River at the Kerckhoff Dam); STATE OF CAL. FISH AND GAME COMM'N, TWENTY-FIFTH BIENNIAL REPORT FOR THE YEARS 1916–1918, at 36 (1918) (noting low flows on the Eel River, in a location downstream of the Van Arsdal Dam. The dam was completed in 1907); STATE OF CAL., DEP'T. OF WATER RES., DIV. OF DAM SAFETY, DAMS WITHIN THE JURISDICTION OF THE STATE OF CALIFORNIA 73 (2011), *available at*

successful (or even unsuccessful) enforcement of 5937. The omission is perplexing.[69] Despite its failure to address or enforce 5937, the Commission actively enforced other fish and game codes and reported their enforcement in the Biennial Reports.[70] As early as 1920, the Commission again called for legislation requiring minimum instream flows, seemingly ignoring 5937's passage a mere five years prior. For example, in the 1920 Biennial Report, the Commission's Legal Department warned:[71]

> [U]nless laws are enacted . . . whereby the corporations taking water from these rivers can be compelled to permit sufficient water to pass down the natural channel of the rivers in question at all times sufficient to sustain fish life, the fun of fish will be ultimately exterminated and that shortly.

The Commission reiterated this plea in 1924, requesting "[l]egislation requiring sufficient flow of water in a stream to maintain fish life."[72] It

http://www.water.ca.gov/ damsafety/docs/Juris(T-Z)1.pdf),

[69] The Commission noted passage of the requirement in 1915 in its new quarterly magazine — California Fish and Game — so the Commission was certainly aware of its existence. California Fish and Game Commission, *Quarterly Report*, 1 CAL. FISH & GAME 173, 173 (1915) (noting amendment of section 637 of the California Penal Code: "It provides for a sufficient flow of water through the fishway or through or around the dam to allow for the passage of fish or to prevent the destruction of fish below the dam by cutting off the entire flow of water").

[70] For example, the Commission took an active enforcement role on fish passage and fish screening. It began reporting on its efforts to do so as early as 1875, in its Biennial Reports. COMM'RS OF FISHERIES OF THE STATE OF CAL., REPORT OF THE COMMISSIONERS OF FISHERIES OF THE STATE OF CALIFORNIA FOR THE YEARS 1874 AND 1875, at 14 (1875). The Commission reported initiating suits in 1879 and in many years thereafter to enforce the fishways requirement. *See, e.g.*, COMM'RS OF FISHERIES OF THE STATE OF CAL, REPORT OF THE COMMISSIONERS OF FISHERIES OF THE STATE OF CALIFORNIA FOR THE YEAR 1880, at 3, 13, 67 (1880) (noting the 1880 "Biennial" Report only covered one year, to align the reporting with the creation of the California state constitution and discussing efforts to enforce fish passage and fish screen requirements); COMM'RS OF FISHERIES OF THE STATE OF CAL., REPORT OF THE COMMISSIONERS OF FISHERIES OF THE STATE OF CALIFORNIA FOR THE YEARS 1878 AND 1879, at 15 (1879) (reporting on implementation of fish passage and fish screen laws); STATE OF CAL., STATE BD. OF FISH COMM'RS, BIENNIAL REPORT FOR THE YEARS 1886–1888, 6 (1888) (same). The Board was still enforcing these codes directly after passage of 5937. 1916 BIENNIAL REPORT, *supra* note 66, at 115; 1920 BIENNIAL REPORT, *supra* note 68, at 46-49.

[71] 1920 BIENNIAL REPORT, *supra* note 68, at 86 ("The appropriation of the river waters of the State of California for irrigation and power purposes and the erection of large dams for impounding purposes has become a serious menace to the run of fish.").

[72] STATE OF CAL. FISH & GAME COMM'N, TWENTY-EIGHTH BIENNIAL REPORT FOR THE YEARS 1922–1924, 13 (1924).

is difficult to understand why, in the span of ten years, the Commission requested minimum flow legislation, achieved the legislation in 5937, ignored the legislation, and then once again requested minimum flow legislation despite existing requirements.[73] The Commission's professed concerns regarding minimum flows were inconsistent with its failure to implement 5937.

II. PRIMARY IMPEDIMENTS TO IMPLEMENTATION AND ENFORCEMENT OF THE MINIMUM FLOW REQUIREMENT

What explains the Commission's lack of 5937 implementation and enforcement? Certainly the Commission believed that enforcing fish and game laws was in part the responsibility of the local district attorney.[74] The Commission noted that district attorneys sometimes failed to pursue these cases, particularly in cases related to fish passage and fish screens.[75] Nevertheless, the Commission directly enforced other fish and game law violations,[76] and nothing indicates that it

[73] In spite of the historical resources in the Biennial Reports, they provide little information on this lack of enforcement and inability to implement 5937. Perhaps the Commission was reticent to publicize its failure; regardless, little primary information is available on this issue.

[74] COMM'RS OF FISHERIES OF THE STATE OF CAL., REPORT OF THE COMMISSIONERS OF FISHERIES OF THE STATE OF CALIFORNIA FOR THE YEAR 1880, at 13, 67 (1880) [hereinafter 1880 REPORT] (noting that if an order to place a fishway was refused, the Commission placed the matter in the hands of the local District Attorney).

[75] The Commission stated:

> In some instances we have found the district attorneys were not in favor of prosecution for violation of these laws [laws addressing fishways and screening], but it was generally found to be a matter of politics more than any just reason for not standing by the rights of the people.

1920 BIENNIAL REPORT, *supra* note 68, at 52; *see also* STATE OF CAL., DEPT. OF NATURAL RES., DIV. OF FISH & GAME, THIRTIETH BIENNIAL REPORT, FOR THE YEARS 1926–1928, 26 (1928) [hereinafter 1928 BIENNIAL REPORT] (noting that the CDFG does undertake some litigation while generally relying on District Attorneys.); STATE OF CAL. FISH & GAME COMM'N, 1920 BIENNIAL REPORT, *supra* note 68, at 86:

> [U]nder the law as it now stands the District Attorney is the officer whose duty it is to bring an action to abate this nuisance [lack of fish passage on the Sacramento River above Redding] and prevent the destruction of one of the most valuable run [sic] of salmon in California.

[76] The Biennial Reports each contain a list of prosecutions, generally at the end of the report, although they do not indicate who undertook the prosecutions. *See, e.g.*, 1920 BIENNIAL REPORT, *supra* note 68, at 137 (listing prosecutions undertaken over the prior two years). As early as 1879, the Commission was hiring attorneys to prosecute fishway cases. 1880 REPORT, *supra* note 70, at 67 (recording payment on Nov. 23,

lacked the power to undertake minimum flow litigation. Moreover, other Commission reports acknowledged the Commission's lack of 5937 enforcement.[77] The Biennial Reports indirectly suggest that budgetary constraints and lack of personnel may have limited 5937 enforcement,[78] but those factors did not prevent its enforcement of other fish and game laws. Reading between the lines of the Biennial Reports, the primary factors in the Commission's non-enforcement appear to have been the concurrent emergence of California's modern water law system and the growth of federal water projects in California; both of these factors may be indicative of a third cause, an underlying societal shift toward exploitation of water resources and

1879, to "Cowdery and Preston, attys, in suits fishways, Stanislaus and Merced, $23.00."); *see also* 1928 BIENNIAL REPORT, *supra* note 75, at 26 (noting that the CDFG does undertake some litigation while generally relying on District Attorneys). The Report of the Legal Department in 1928 discussed the CDFG's responsibility for litigation related to fishways, and its resume of cases lists several fish ladder suits. *Id.* at 123, 124-27.

[77] STATE OF CAL. FISH & GAME COMM'N, TWENTY-EIGHTH BIENNIAL REPORT FOR THE YEARS 1922–1924, at 47 (1924) [hereinafter 1924 BIENNIAL REPORT]. It is difficult to ascertain if "the provisions of this law [were] not drastic enough to compel" compliance, given that the provisions were not enforced:

> A great many owners of water rights have refused to allow any water to pass through the fishways, closing them entirely in defiance of the law which provides that sufficient water must be allowed to pass through fishways at all times to keep in good condition any fish life that may exist below the dam, and that during the minimum flow of water in any river or stream sufficient water must be allowed to pass each dam, culvert, or waste gate to maintain fish life. This provision of the law has been disregarded by a great many persons and corporations who do not consider that the fish destroyed are equal in value to the value of the water for other purposes. Such a small amount of water is necessary to maintain fish life below these dams that this law should be enforced strictly. If the provisions of this law are not drastic enough to compel persons who are diverting water from our rivers and streams to allow sufficient water to remain in the beds of the streams to maintain fish life, the law should be amended by the next Legislature so as to maintain fish life. This is only fair to people who are interested in the preservation of fish and enjoy the fishing that these streams afford.

Id.

[78] The CDFG often discussed its lack of funds. *See, e.g.*, STATE OF CAL., DEPT. OF NATURAL RES., DIV. OF FISH & GAME, THIRTY-SECOND BIENNIAL REPORT FOR THE YEARS 1930–1932, at 34 (1954) (noting long-term budget and personnel challenges in the Hydraulics Department, which oversaw fishway matters); STATE OF CAL., DEPT. OF NATURAL RES., DIV. OF FISH & GAME, TWENTY-FIRST BIENNIAL REPORT FOR THE YEARS 1909–1910, at 5 (1910) (noting the Commission lacked funds to print the 1908 report in 1908 and so included it as an appendix to the 1910 report).

away from preservation of fisheries.[79] The following discusses the emergence of California water law and the roadblocks it presented to 5937 enforcement. It also discusses the growth of California's federal water projects and efforts to apply 5937 to those federal dams.

A. California's Water Law

Early California water law incorporated aspects from multiple water law systems, creating a confusing mix of water rights. Before California joined the United States, the California Legislature adopted English common law, including the English rule of riparian rights.[80] But even as the Legislature imported the English approach, California miners pioneered a new approach — allocating water based on prior appropriation. The California Legislature endorsed the miners' approach just a year later, without rejecting riparianism.[81] The Legislature's adoption of both ripariansim and prior appropriation left California water law development to the courts,[82] which generally endorsed a prior appropriation doctrine based on the "first in time, first in right" principle,[83] albeit without rejecting riparianism. The two-system approach ultimately led to uncertainty in water ownership, limiting development of important water resources.[84]

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[79] *See, e.g.*, MARC REISNER, CADILLAC DESERT (1986) (providing historical analysis of water development in the West); John F. Hart, *Fish, Dams, and James Madison: Eighteenth Century Fish Protection and the Original Understanding of the Takings Clause*, 63 MD. L. REV. 287 (2004) (showing examples of such a societal shift).

[80] *See* William R. Attwater & James Markle, *Overview of California Water Law*, 19 PAC. L.J. 957, 962 (1988).

[81] *Id.* at 962. In prior appropriation, those perfecting their right first hold a right superior to those who secure their appropriative right at a later date. *Id.*

[82] *Id.*

[83] Irwin v. Shaw, 5 Cal. 140, 147 (1855) (explaining the importance of prior appropriation and endorsing the "first in time, first in right" approach, using the Latin, "*qui prior est in tempore potior est in jure*"). Over the next 31 years, California courts laid the foundations of the prior appropriation doctrine, creating an appropriation based on three elements: "1) intent to apply water to a beneficial use; 2) physical diversion of water from the natural channel, or assumption of control and 3) an actual application of water to a beneficial use." Gregory A. Thomas, *Conserving Aquatic Biodiversity: A Critical Comparison of Legal Tools for Augmenting Streamflows in California*, 15 STAN. ENVTL. L.J. 3, 13 (1996).

[84] Although the Legislature created a Civil Code provision in 1872 that offered a statutory method to establish water rights, the provision was based on the common law and was not exclusive. The common law approach remained at the forefront of early California water rights. Attwater & Markle, *supra* note 80, at 966-67, 969-70. The common law approach, centered on the prior appropriation doctrine, controlled water rights in California until 1886, when riparianism unexpectedly roared back onto the legal landscape. In *Lux v. Haggin*, 69 Cal. 255 (1886), the state's Supreme Court

In 1913 the Legislature responded to this uncertainty[85] with the Water Commission Act, which sought to create a new water rights framework.[86] The Water Commission Act's impacts were myriad, but two aspects particularly affected early 5937 implementation and enforcement: limits on water use and requirements established for acquisition of new water rights.

1. Limits on Water Use: Riparians, Reasonableness, and the Constitutional Amendment

To guarantee water would be available for appropriation, section 42 of the Water Commission Act ("section 42") limited water use to particular quantities, varying by use.[87] For example, although riparian water users traditionally had been entitled to all of the water they could use, section 42 limited diversions to predetermined quantities designed to support the intended use of the water. *Herminghaus v. Southern California Edison Co.* tested section 42's explicit limits on riparian rights. Mrs. Herminghaus, a riparian, asserted that the Water Commission Act did not bind her to limited water quantities, but rather that she was entitled to irrigate fields with unimpaired flood flows of the San Joaquin River.[88] This demand required more water than the Water Commission Act's limit and prevented an upstream appropriator from storing the San Joaquin's floodwaters for later hydroelectric power generation. She contended that the Legislature

revived the riparian approach and established riparian rights as paramount. Attwater & Markle, *supra* note 80, at 970-71. Leftover water — water not used by the riparians — was subject to appropriation via the common law or civil code approach under the existing prior appropriation doctrine, but those appropriations were not protected against riparians who had not yet asserted their rights, creating a measure of uncertainty for all nonriparian water appropriators. Attwater & Markle, *supra* note 80, at 970-71.

[85] In 1911, buoyed by populist sentiment, the California Legislature established a Conservation Commission of the State of California ("Conservation Commission") to improve use of state water resources. Attwater & Markle, *supra* note 80, at 971. The Conservation Commission expressed concern about the inability of water appropriators to secure defensible water rights in the face of potential, as yet unasserted riparian rights. *See also* CONSERVATION COMM'N OF THE STATE OF CAL., REPORT OF THE CONSERVATION COMMISSION OF THE STATE OF CALIFORNIA 20, at 25-26 (1912). Seeking to dispel this uncertainty, the Conservation Commission called for a water rights permit system, and the Legislature responded with the Water Commission Act. *Id.*

[86] Water Commission Act, 1913 Cal. Stat. 1012.

[87] For example, it only allowed use of two and one-half acre-feet of water per acre of land not devoted to cultivated crops. *Id.*

[88] Herminghaus v. S. Cal. Edison Co., 200 Cal. 81, 86-87 (1926).

could not restrict her riparian right, while the upstream appropriator argued that the Legislature could place a reasonable limit on the amount of water Herminghaus could demand.[89] The California Supreme Court found for Mrs. Herminghaus, concluding that California water rights system entitled a downstream riparian to as much water as she desired, and that upstream appropriators could not store the flood flows for later use. The majority reasoned that California adopted riparianism at statehood and thus was obligated to implement the doctrine, notwithstanding the Legislature's recognition of prior appropriation. The lesson was clear: the Legislature could not define reasonable water use to limit the common law riparian right recognized in the state constitution.

To free itself from the constraints of riparian rights, the Legislature proposed a state constitutional amendment on the 1928 state ballot.[90] The proposed amendment imposed conditions of reasonableness and beneficial use on *all* water uses, such that no right would be valid unless it was both reasonable and beneficial.[91] Voters approved the amendment, now article X, section 2 of the California Constitution.[92] The amendment allows the Legislature to "enact laws in the furtherance of the policy in [the] section," implying legislative power to determine what constitutes a reasonable, beneficial use of water.[93]

The amendment impacted 5937 in two ways. First, like any water use, the use of water for minimum fish flows must be reasonable and beneficial. Second, and perhaps more importantly, the Legislature's new power to determine what constituted reasonable and beneficial water uses created some confusion around the implementation and enforcement of 5937. As early as 1921, the Legislature declared it state policy that water for domestic use is the highest beneficial use, with water for irrigation as the second highest beneficial use.[94] While this led some to believe that domestic or irrigation uses trumped any other potential water uses,[95] such policy statements do not function as

[89] *Id.*

[90] S*ee* Attwater & Markle*, supra* note 80, at 979.

[91] CAL. CONST. art. X, § 2 (codified at CAL. WATER CODE § 100 (West 2010)) (requiring that all water use must be reasonable and beneficial).

[92] Attwater & Markle, *supra* note 80, at 979.

[93] CAL. CONST. art. X, § 2 ("This section shall be self-executing, and the Legislature may also enact laws in the furtherance of the policy in this section contained.").

[94] 1921 Cal. Stat. 443*; see also* CAL. WATER CODE § 106 (West 2010).

[95] For example, in 1940 the State Engineer issued a policy statement erroneously interpreting this declaration to preclude other beneficial uses if any domestic use remained in need of water. *See* Nat'l Audubon Soc'y v. Superior Court, 33 Cal. 3d 419,

exclusive directives for water use. As the Water Code notes, "The declaration of policy of the State in this chapter is not exclusive, and all other or further declarations of policy in the code shall be given their full force and effect."[96] Thus the legislative ranking of water uses did not render other uses unreasonable or nonbeneficial. Moreover, the legislative ranking did not vitiate 5937, which effectively operates as a legislative determination that water for fish constitutes a beneficial use.[97] The reasonableness and beneficial use determinations remain cornerstones of California water law, albeit as a relatively low bar to proposed water uses.[98]

Second, the constitutional amendment impacted 5937 by creating a variety of mechanisms for balancing potential water uses. Courts, as interpreters of the state constitution, have the power to balance competing interests and make reasonableness determinations.[99] The amendment's grant of power to the legislature ensured that it had the power to make its own reasonableness determinations, but also had the power to delegate that responsibility. The legislature had done so in creating the Water Board,[100] under the Water Commission Act, but

424 (1983) (stating that since a Los Angeles application proposed to put Mono Basin water to a domestic use, the Division of Water Resources believed it could not consider consequent effects on aesthetic and recreational values). The *Audubon* Court noted that this was inconsistent: in another situation where Los Angeles planned to use water for hydropower, the Division of Water Resources was willing to protect recreational uses. *Id.* at 428 n.8.

[96] CAL. WATER CODE § 107 (West 2010) (explaining that section 107 constitutes a savings clause); 13 Op. Cal. Att'y Gen. 188, 189 (1949) (finding section 107 modifies section 106 to the extent that the policies of section 106 are not exclusive and other declarations of policy are to be afforded full force and effect). The instream use of water for fish is also a beneficial use, as determined by the Legislature, the executive branch, and the courts. CAL. WATER CODE § 1253 (West 2010) (stating the use of water for fish is a beneficial use of water); City of Elsinore v. Temescal Water Co., 36 Cal. App. 2d 116, 119, 129-30 (1939); 13 Op. Cal. Att'y Gen. at 189 (inferring from 5937 and its predecessors, as well as other legislative enactments, that water for fish is a beneficial use of water).

[97] *Id.*; s*ee also* CAL. FISH & GAME CODE § 5937 (West 2010).

[98] Only rarely do water uses fail the beneficial use test. *See, e.g.*, Tulare Irrigation Dist. v. Lindsay-Strathmore Irrigation Dist., 45 P.2d 972, 1007 (Cal. 1935) (arguing water used to drown gophers and squirrels not a beneficial use).

[99] Today, the California courts share jurisdiction with the Water Board to make reasonableness determinations. Envtl. Def. Fund v. E. Bay Mun. Util. Dist., 26 Cal. 3d 183, 193 (1980).

[100] Although it was initially know as the Water Commission, Water Commission Act, 1913 Cal. Stat. 1012., "[f]or convenience we shall refer to the state agency with authority to grant appropriative rights as the Water Board or the [B]oard, without regard to the various names which this agency has borne since it was first created in 1913," following the convention in *National Audubon*. *Nat'l Audubon Soc'y*, 33 Cal. 3d

the amendment ratified that legislation. For both the Water Board and courts, reasonableness remains a question of fact based on the circumstances of a particular case.[101] Finally, although the Legislature delegated authority to the Water Board to regulate water use, it retained its constitutional power to balance the interests of competing beneficial uses. This constitutional power inherently limits both Water Board and court authority to make these same determinations.[102]

2. Acquisition of Water Rights

In addition to limiting water uses, the Water Commission Act established requirements for appropriating water, which frustrated 5937 enforcement. The Water Commission Act[103] declared all California water property of the State, but established that "the right to the use of water may be acquired by appropriation in the manner provided by law."[104] The "manner provided by law" required permitting by the Water Board, which in turn required the three common law elements of prior appropriation, including physical water diversion by the user.[105] This physical control requirement precluded minimum flow protection using the mechanism of appropriating instream flows — those flows left undiverted in a stream — because no one retains physical control over such flows.[106] Thus, the Commission could not enforce 5937 by appropriating water to remain

at 424 n.1.

[101] Joslin v. Marin Mun. Water Dist., 67 Cal. 2d 132, 140 (1967) (footnotes omitted).

[102] Cal. Trout, Inc. v. Superior Court (*CalTrout II*), 266 Cal. Rptr. 788, 795-96 (Ct. App. 1990) (noting that the Legislature has taken the balancing power from the Board, and, implicitly, the court in its concurrent jurisdiction, through the passage of California Fish and Game Code 5946, which requires application of 5937 in certain districts).

[103] Water Commission Act, ch. 586, 1913 Cal. Stat. 1012-33 (1913).

[104] CAL. WATER CODE § 102 (West 2010).

[105] *See also* Thomas, *supra* note 83, at 12-14. Appropriation also required an intent to appropriate and beneficial use of the water. *Id.* Note that the physical control requirement no longer applies; California now recognizes instream water rights. Jesse A. Boyd, *Hip Deep: A Survey of State Instream Flow Law from the Rocky Mountains to the Pacific Ocean*, 43 NAT. RESOURCES J. 1151, 1163 (2003) (noting that water can be transferred instream under California Water Code section 1707).

[106] Thomas, *supra* note 83, at 14 ("The requirement of physical diversion or assumption of control is at the heart of this problem. The asymmetry [between instream uses and other water uses] is obvious because instream uses by definition do not involve diversion or control of water. They are, therefore, ineligible for legal protection against the claims of appropriative users." (citing Fullerton v. State Water Res. Control Bd., 90 Cal. App. 3d 590, 598 (1979)).

in the stream bed. Unable to maintain instream flows through appropriation, the Commission struggled to find a mechanism to require the necessary flows within the emerging water law framework.

B. Early Water Board Hearings

The Biennial Reports indicate that the Commission could not integrate 5937 with California's developing water law, which created a perception that the Commission could not "stand firm on a legalized foundation" in enforcing 5937.[107] The Commission could not devise a framework within California's developing water law to compel water appropriators to maintain sufficient instream flows for fish, beyond the imposition of criminal penalties under 5937.[108] The Water Board controlled the development of water appropriations law through appropriation hearings, which afforded anyone wanting to contest an application for a new water right the opportunity to protest the application at a Water Board hearing. A brief review of early Commission protests in these hearings shows that the Commission could not convince the Water Board to cooperate in requiring compliance with 5937. The Board's mission stood in direct opposition to 5937; the Water Board itself saw its mission as ensuring the beneficial use of all of California's water and viewed any water not used or stored behind a dam as waste.[109] This sentiment pervaded western thought for much of the twentieth century[110] and serves as an important backdrop to 5937 enforcement efforts.

Enforcement information from 5937's earliest years is sparse to nonexistent. The Water Board does not have any record of Commission protests in Water Board hearings until 1926, so the first eleven years of 5937's nonenforcement remain undocumented and

[107] Brian Curtis, *Editorial*, 31 CAL. FISH & GAME 73, 73 (1945) ("It has been impossible in practice to demand fulfillment of the requirements of the law as worded, and the Fish and Game Commission, unable to stand firm on a legalized foundation, has had to fight for small releases of water to maintain at least some semblance of a fishery.").

[108] *See also* STATE OF CAL. FISH AND GAME COMM'N, *supra* note 72, at 47 (noting criminal fines were insufficient (or insufficiently enforced) to achieve compliance).

[109] *See, e.g.*, *In re* U.S. Eldorado Nat'l Forest, No. D-482, 1941 Cal. ENV LEXIS 9, at *6 (Div. of Water Res. Nov. 3, 1941) (finding that water passed through a dam for maintenance of fish is "not being applied to any useful or beneficial purpose . . . therefore it is subject to appropriation under the Water Commission Act.").

[110] *See, e.g.*, REISNER, *supra* note 79, at vii, 78, 368 (discussing the western view that "to waste water is not to consume it"). *See generally* NORRIS HUNDLEY, THE GREAT THIRST: CALIFORNIANS AND WATER 14 (2001) (broadly reviewing California's historical water use and discussing attitudes toward instream flow).

unclear. In 1926 the Commission issued its first protest of a water appropriation application — Application 4768 — an application to appropriate water from the South Eel River in Lake and Mendocino Counties.[111] The Water Board shrugged off the protest, claiming that by granting the permit, the Board did not prevent the Commission from otherwise enforcing the law.[112] The CDFG, which temporarily subsumed the Commission in 1927,[113] got a much colder when it appeared before the Water Board two years later.

This second time around, the CDFG presented a more forceful case.[114] In the hearing, appropriators sought water from Ward Creek and one of its tributaries in Placer County.[115] The CDFG protested this appropriation application, asserting: (1) a claim on the water itself "based upon claimed prior rights and use of the waters of Ward Creek for fish propagation and fish passage downstream to Lake Tahoe;"[116] (2) a claim based on the CDFG's broad authorization "to protect fish as provided in Section 642 of the Political Code;"[117] and (3) a claim implicitly grounded in 5937 that the appropriation of all of a river's water "is against public policy and constitutes a nuisance in that it will destroy the property of the people in fish."[118]

The Water Board was not impressed by the CDFG's claims. On the first claim, the Board hewed to the common law requirement of control, rejecting the argument that the CDFG had a prior right to the water for hatchery operations and for minimum flows for the fish.[119]

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[111] *In re* Snow Mountain Water & Power Co., No. D-179, 1928 Cal. ENV LEXIS 2, at *20-21 (Div. of Water Res. Jan. 9, 1928). The Board stated:

> The authority of the Fish and Game Commission under Section 637 of the Penal Code to protect fish life can in no way be prejudiced or restricted by any action that this office may take on the pending applications. The matter of fish protection is vested in the Fish and Game Commission as declared by the Legislature.

Id.

[112] *Id.*

[113] *See supra* note 21. The Commission no longer had an active enforcement role for fish and game laws after 1927.

[114] *In re* Bank of Italy as Trustee for A.K. Detweiler, No. D-227, 1929 Cal. ENV LEXIS 15, at *9-19 (Div. of Water Res. May 6, 1929).

[115] *Id.*

[116] *Id.* at *10.

[117] *Id.* at *11.

[118] *Id.* at *16-17.

[119] *Id.* at *15:

> [T]he facts herein go to the point whether or not a planting of fish in a stream constitutes an appropriation thereof and we can find no cases

The CDFG also failed on its second claim, which argued that the CDFG's statutory authority to protect fish and game resources warranted conservation of instream flows for that purpose.[120] The Board rejected this argument, finding that "[N]o laws of the legislature . . . are set forth which authorize the reservation of stream from appropriation for fish protection and propagation."[121] The Board continued: "Whether or not the Division of Fish and Game has a legal right to the maintenance of a stream intact for fish passage as against would be appropriators is considered very doubtful," based on the Water Board's review of the Water Commission Act.[122] The Board acknowledged 5937, but took the facially implausible position that it only allowed the CDFG to respond to dams by requiring hatcheries, not minimum flows, in spite of 5937's clear language to the contrary. The Board also rejected the idea that 5937 compelled any maintenance of flow — "such provisions of law do not declare and are not tantamount to declarations that the maintenance of rights of way for fish migration shall be of paramount importance and that appropriations of water to beneficial uses shall be subject thereto."[123]

Finally, the Water Board shot back a broadside on the CDFG's third claim that an appropriation leaving a stream entirely dry was against public policy.[124] Ignoring their own citation to 5937, the Water Board

> wherein any such act has been held an appropriation (a taking) of water for beneficial use. The Division of Fish and Game has not diverted or controlled the waters in question or applied them to use and said waters have continued to flow as in a course of nature they have been wont to do from time immemorial.

Id. at *20. This denial has potential implications for current takings debates. The Water Board's view suggests that perhaps historically, there existed no distinction between government regulations controlling the use of water and government appropriation of that water. Conversely the Water Board also recognized that the CDFG might have a police power "to enjoin such diversions of water for beneficial uses as it deems inimical to fish life," so this lack of distinction may be an artifact of the struggles for control between the CDFG and the Water Board as the CDFG sought a method to implement 5937.

[120] *Id.* at *15-16.

[121] *Id.* at *16. The Board went on to mention 5937 and suggested that, "wherein this legislative authorization declares any such power [to reserve water from appropriation] to exist in the discretion of the Division of Fish and Game is not apparent." *Id.*

[122] *Id.* at *11 ("The Water Commission Act does not provide for a dedication of waters for fish passage or in any wise indicate that waters shall be withheld from appropriation in order to supply fish with a medium of travel.").

[123] *Id.* at *12.

[124] *Id.* at *17.

stated that no state law authorized reserving water for fish.[125] Though patently false, this statement served as the underlying basis of the Board's decision that it lacked authority to leave the water in the stream. Finally, the Water Board concluded its review of the CDFG's protest by finding that "the Division of Water Rights has not the authority to deny appropriations upon the mere basis that fish life will be imperiled."[126] CDFG did not appeal from this decision.

Five years later, in 1931, the CDFG contested an application to appropriate water from Scott Creek in Santa Cruz County. The CDFG argued "that any diversion made by the applicant would materially affect, if not destroy, the run of Steelhead trout in Scott Creek."[127] After a preliminary discussion about the unreasonableness of instream flows for fish as a water use, the Water Board employed verbatim language from the South Eel River decision, again rebuffing the CDFG's attempt to implement or enforce 5937.[128] The CDFG did not appeal the decision. In fact, the CDFG does not appear in published Water Board decisions again until February 1948, almost seventeen years later.[129] The CDFG received the message: the Water Board would not hear its pleas to protect the state's fish. While the CDFG may have appeared in additional early hearings not captured in the Board's electronic record, the CDFG's failure to challenge later appropriations demonstrated a waning level of enforcement. In 1933, the CDFG lost its legal department to the Attorney General,[130] who also represented

[125] *Id.* The Water Board stated:

> A sufficient answer to all of these contentions is that historically the doctrine of free appropriation of unappropriated waters is not ante-dated by fish protection provisions and no statutes or constitutional provisions of this state have been pointed to or found which may be reasonably construed as even implying that water appropriations aim to be denied in favor of fish protection.

Id.

[126] *Id.* at *20.

[127] *In re* C.H. Widemann, No. D-294, 1931 Cal. ENV LEXIS 8, at *2 (Div. of Water Res. Aug. 24, 1931).

[128] *Id.* at *13-22.

[129] *See In re* William Clinton Wren, No. D-573, 1948 Cal. ENV LEXIS 6, at *2-3 (Div. of Water Res. Feb. 2, 1948). A Lexis search of Water Board decisions for "fish" between September 1,1931, and February 1, 1948, had 17 hits, two of which list the Commission (or the CDFG) as protestors. In both cases, the protest was based on their use of water in the stream for hatchery, domestic, or other appropriative purposes, not for instream flow protection. *See also In re* W.R. Ellsworth, No. D-534, 1946 Cal. ENV LEXIS 7, at *2 (Div. of Water Res. May 15, 1946); *In re* Arthur J. Fry, No. D-393, 1936 Cal. ENV LEXIS 8, at *6 (Div. of Water Res. Sept. 23, 1936).

[130] STATE OF CAL., DEP'T OF NAT. RES., DIV. OF FISH & GAME, THIRTY-THIRD BIENNIAL

the Water Board, further complicating enforcement. Unable to persuade the Water Board to leave water for fish, and lacking its own attorneys to litigate the issue, the CDFG repeatedly sought a new legislative solution, albeit without success.[131]

Even when the CDFG did not appear in front of the Board, the Board actively thwarted 5937. For example, in 1941, the Board reviewed an application to appropriate water from Gerle Creek in El Dorado County.[132] El Dorado National Forest sought to divert water from Gerle Creek, but Georgetown Divide Water Company ("GDWC") claimed longstanding appropriative rights to the creek's entire flow.[133] In spite of their claim, GDWC left approximately one cubic foot per second ("cfs") of water in the stream "to sustain fish life in Gerle Creek below the dam," fulfilling 5937's intent. The Water Board treated this assertion with nothing short of derision.[134] The Board first noted that

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REPORT FOR THE YEARS 1932–1934, at 15 (1934) (noting that the legislature moved all legal work to the Attorney General). The note in the Biennial Report on this issue is cryptic, and no additional details have been forthcoming. *Id.*

[131] 1920 BIENNIAL REPORT, *supra* note 68, at 53:

> We respectfully recommend that an act be passed by the coming session of the Legislature that will arrange for the coordination and cooperation of the Water Commission with the Fish and Game Commission in regard to appropriated waters. It should be understood and agreed that the fish in certain streams of the state be allowed water enough to survive during the minimum flow of late summer and fall. The State Water Commission should be authorized to force all applicants for water appropriations to comply with the law regarding fishways before accepting any plans for diversion of the water. The applicant for water rights should have the plan of the fishway made and approved by the Fish and Game Commission strictly in conformity with the law before granting applicants the right to appropriate water from any river or stream.

Id.; 1922 BIENNIAL REPORT, *supra* note 68, at 60:

> The Water Commission or the Division of Water Rights has allowed the appropriation of the entire flow of streams without any consideration being given to the fishing interests. Those interested in conservation are indifferent to these vital problems. After the water is all appropriated and the streams are dried up below the diversion points, then they complain that the Fish and Game Commission has not done their duty. We have repeatedly made recommendations that are for the best interests of all the people, but they are unheeded.

Id.; *see also* 1920 BIENNIAL REPORT , *supra* note 68, at 20-21, 24.

[132] *In re* U.S. Eldorado Nat'l Forest , No. D-482, 1941 Cal. ENV LEXIS 9, at *4-6 (Div. of Water Res. Nov. 3, 1941).

[133] *Id.* at *2.

[134] *Id.* at *5. What the Water Board would have done had the CDFG exercised its authority under 5937 to explicitly require these flows in Gerle Creek remains unclear. *Id.*

"there is only about a mile and a half of stream bed" below the dam, and then found that even if "the creek bed below the dam [was] completely dried up by the combined operations of both the applicant and protestant company[, the Water Board did] not believe that this in itself would constitute an adequate reason for denying the appropriation."[135] While the Gerle Creek application itself only concerned a small portion of the remaining water, the Board went to great lengths to clarify that *all* of the water GDWC chose to "waste" on fish was available for appropriation.[136] By attempting to comply with 5937, GDWC lost a portion of its water right, further underlining the Water Board's unwillingness to allow water to remain in rivers for fish.

The administrative impasse between the CDFG and the Water Board culminated in a battle over Friant Dam, a cornerstone of the Federal Central Valley Project ("CVP"). Understanding the struggle over Friant Dam, however, requires background on the application of 5937 to federally owned or regulated dams in California.

C. Growing Federal Concerns

In the 1931 case *Arizona v. California*,[137] the U.S. Supreme Court held that federally approved dams need not comply with state dam construction rules, although the dams still had to comply with rules governing dam operations.[138] In 1937, the CDFG requested an Attorney General opinion regarding the applicability of fishway and hatchery requirements to federal dams.[139] The Attorney General confirmed that these were construction rules, such that *Arizona v. California* prevented California from enforcing the fishway or hatchery requirements against federal dams.[140] Because of the relationship

[135] *Id.*

[136] *Id.* at 6. "[W]ater is passing the lower diversion dam of the protestant company which is not being applied to any useful or beneficial purpose by that company and therefore it is subject to appropriation under the Water Commission Act." *Id.*

[137] Arizona v. California, 283 U.S. 423, 451 (1931).

[138] *Id.* at 452 ("If Congress has the power to authorize the *construction* of the dam and reservoir, [the Secretary] is under no obligation to submit the plans and specifications to the state engineer for approval.") (emphasis added).

[139] Op. Cal. Att'y Gen. N.S. 366 1, 1 (June 5, 1937) [hereinafter 1937 Opinion].

[140] *Id.* at 2. The opinion also determined that the state had indirectly exempted federal dams from the fishway requirement two years before *California v. Arizona*, because the fishway hearing requirement referred to the Dam Supervision Law, passed in 1929 in response to Los Angeles' St. Francis Dam disaster. Dam Supervision Law, ch. 766, 1929 Cal. Stat. 1505 (current version at 1933 Cal. Stat. 2148); WILLIAM L. KAHRL, WATER AND POWER 313 (1982). The Dam Supervision Law itself explicitly exempted the United States from any dam construction oversight, which the AG

between the fishway requirement and the minimum flow requirement,[141] the exemption created ambiguity for the latter: based on the mistaken assumption that 5937 only applied to dams with fishways, one might argue that if California could not require federal dams to have a fishway or hatchery, it also could not require compliance with 5937.

The debate over 5937's applicability to federal dams culminated in 1937, as the federal government undertook construction on the state-conceived, federally-funded CVP, a massive new waterworks that would block fish passage on important rivers for sea-going fish.[142] As the CDFG began to study the CVP's impact on fish,[143] the California Legislature sought to clarify that 5937 applied to federal dams. In 1937, Senator Metzger[144] introduced an amendment to the 5937 that severed the minimum flow requirement from the fishway requirement,[145] making it an independent rule for dam operation and

determined included the fishway requirement. Dam Supervision Law, 1929 Cal. Stat. 1505; 1937 Opinion, *supra* note 139, at 2.

[141] *See* sources cited *supra* note 65.

[142] STATE OF CAL., DEP'T OF NAT. RES., DIV. OF FISH & GAME , THIRTY-SEVENTH BIENNIAL REPORT OF THE DIVISION OF FISH AND GAME FOR THE YEARS 1940–1942, at 8, 50 (1942) [hereinafter THIRTY-SEVENTH BIENNIAL REPORT]; STATE OF CAL., DEP'T OF NAT. RES., DIV. OF FISH & GAME , THIRTY-SIXTH BIENNIAL REPORT OF THE DIVISION OF FISH AND GAME FOR THE YEARS 1938-1940, at 45-46 (1940).

[143] THIRTY-SIXTH BIENNIAL REPORT, *supra* note 142, at 45-46 (describing the Central Valley Water Project Study investigations of the effect of the Central Valley Water Project).

[144] Senator D. Jack Metzger stood among the state legislators most interested in requiring federal dams to allow minimum flows to keep fish in good condition. Senator Metzger, a Republican and agriculturalist, represented Tehema, Colusa and Glenn Counties, and concurrently served as the Mayor of Red Bluff, all of which are riparian to the Sacramento River and downstream from the proposed Shasta Dam. THIRTY-SEVENTH BIENNIAL REPORT, *supra* note 142, at 8. Metzger saw the CVP as a means to establishing Red Bluff as a metropolis of the Central Valley. He saw the project as ensuring navigation of the Sacramento River to Red Bluff and as capable of supporting lumber and other industries. STEPHEN P. SAYLES, CLAIR ENGLE: THE FORMATIVE YEARS 292 (1973). The Metzger-owned tavern in Red Bluff was named the Kennett Dam, the original name for today's Shasta Dam. *Id.* at 299. As a Mayor and Senator, Metzger consistently advanced projects directly benefiting his constituents. *Id.* at 288-92, 294-95. While Metzger was a strong supporter of the CVP, if Shasta Dam was excused from the minimum flow requirement, the harm to the river-based economy that he represented would be substantial.

[145] Senator Metzger introduced the bill on January 22, 1937. The bill passed the State Senate on April 20, passed the State Assembly on May 24, and was signed by Governor Frank F. Merriam on June 19, 1937. S.B. 800, 1937 Leg., 52d Reg. Sess. 269 (Cal. 1937) (occurring two weeks after publication of the Attorney General's Opinion, 1937 Opinion, *supra* note 139, at 1). The bill passed unanimously. Act of June 19, 1937, ch. 456, 1937 Cal. Stat. 1400 (1937) (relating to water flow through a dam)

ending any possibility that exemption from the fishway requirement would inadvertently result in exemption from the minimum flow requirement. The amendment's temporal proximity to the Attorney General opinion clearly suggests that the California Legislature intended to force federal compliance with the minimum flow requirement.

Beyond the amendments to force federal compliance with 5937, the Legislature continued to expand fish protection with new legislation in the mid-1940s. In 1943, the Legislature added Water Code sections 6500 and 6501. Section 6500 requires applicants to notify the CDFG of any "application for approval of plans and specifications for a new dam, or for the enlargement of any dam, in any stream in this State."[146] Section 6501 clarifies that "[t]he provisions for the . . . protection and preservation of fish in streams obstructed by dams are contained in . . . the Fish and Game Code."[147] In 1945, the Legislature expanded Fish and Game Code section 5900(c)'s definition of dam owner to include the federal government.[148] Additional legislation in 1945 ("1945 Legislation") also added Fish and Game Code section 5902, stating that California understood the federal government would comply with state water law. Section 5902 further noted that, "provisions of this

[hereinafter 1937 Act]. The Senate Committee on Fish and Game revised the 1937 Act to clarify the low flow requirement. S.B. 800, 1937 Leg., 52d Reg. Sess. (Cal. 1937). The amendment ensured that the "good condition" requirement applied to both dams with fishways and dams where a fishway was not required. *Id.*; *see also* S.J. 800, 1937 Leg., 52d Reg. Sess. (Cal. 1937).

[146] CAL. WATER CODE § 6500 (West 2010):

> Whenever an application for approval of plans and specifications for a new dam, or for the enlargement of any dam, in any stream in this State, is filed pursuant to Part 1 of this division, a copy of the application shall be filed with the Fish and Game Commission as required by the Fish and Game Code.

Id.; CAL. WATER CODE § 6501 (West 2010) ("The provisions for the installation of fishways over or around dams and for the protection and preservation of fish in streams obstructed by dams are contained in Chapter 3 (commencing with Section 5900), Part 1, Division 6 of the Fish and Game Code.")

[147] *Id.*

[148] Act of July 7, 1945, ch. 1101, § 4, ch. 368, 1945 Cal. Stat. 2111, 2112 [hereinafter 1945 Act]. To comply with *Arizona v. California,* the act exempted the federal government from Fish and Game Code dam construction requirements. *Id.* The exemption covers California Fish and Game Code section 5931 (fishway requirement). CAL. FISH & GAME CODE § 5933 (West 2010) (fishway hearing requirement); CAL. FISH & GAME CODE § 5938 (West 2010) (hatchery fishway exemption). The exemption also included section 5901 (former section 534 and pre-1933 California Penal Code section 632(a)), a non-construction provision preventing any instream obstruction in certain Fish & Game districts. *Id.*

article provide a procedure for the United States to comply with the provisions and policy of State law respecting its subject matter."[149] The 1945 Legislation concluded seventy-five years of refining the original 1870 minimum flow requirement. From this history, the State's intent to protect fish is unmistakable; the minimum flow requirement mandates below-dam flows by all dam owners, including federal entities, to the extent it is not superseded by federal law.

With the historical backdrop of increasing legislative efforts to protect California's fish, the Water Board's continuing refusal to enforce 5937 culminated in litigation over construction and operation of Friant Dam.[150]

1. *Rank v. Krug*: The San Joaquin River Litigation and California's Lone Effort to Assert Section 5937 in Federal Court.

In September 1947, in *Rank v. Krug*, twelve riparian landowners downstream of the Friant Dam site filed suit in federal court, alleging that the federal government's decision to impound the entire San Joaquin River behind Friant Dam impinged on their water rights. The landowners claimed a right, predicated on 5937, to water "for spawning and fishing of salmon and other fish for both general commercial purposes and the general recreational purposes of the public."[151] The court, however, held that "[w]hether or not any rights for fishing purposes are to be asserted to the flow of the river is up to the State of California and its appropriate officials,"[152] who had not yet

[149] 1945 Act, *supra* note 148; CAL. FISH & GAME CODE § 545 (West 1945) (current version at CAL. FISH & GAME CODE § 5902 (West 2010)). Section 5902 applies non-construction Fish and Game Code mandates such as the minimum flow requirement to federal dams, but in practice the applicability depends on the extent federal laws preempt state law, which varies by dam, as discussed in Part IV. *See infra* Part V.

[150] The Ninth Circuit provided background material on Friant Dam:

> The Friant dam unit of the CVP was built on the San Joaquin River by the Bureau in the 1940s. Prior to construction of the dam, the San Joaquin River met the Sacramento River at the Sacramento-San Joaquin Delta, where they then flowed out to the Pacific Ocean. Since the time that the dam was completed, the Friant unit has impounded the San Joaquin River water behind the Friant dam and diverted the water to surrounding irrigation districts. This impoundment and diversion leaves a dry stretch of San Joaquin riverbed.

NRDC v. Houston, 146 F.3d 1118, 1123 (9th Cir. 1998). The River supported Chinook salmon and myriad other fish species in its unaltered state. *Id.* at 24.

[151] Rank v. Krug, 90 F. Supp. 773, 783 (S.D. Cal. 1950).

[152] *Id.* at 801.

chosen to enforce it.[153] This district court opinion seemingly foreclosed private enforcement of 5937.

Following the district court's decision, the State sought to join the suit to assert 5937 in April 1950.[154] Initially, the Deputy Attorney General representing the CDFG[155] argued the State's motion to intervene on behalf of fish protection and sought a preliminary injunction requiring an additional release of 250 cfs for fish preservation, above any other planned releases from Friant.[156] But after

[153] The court described the situation:

> [T]he plaintiffs would still not be entitled, as parties in interest, to enforce maintenance of a flow for commercial or recreational fishing or spawning for the reason that the State of California, not only in the Water Code, but in the Fish and Game Code, has placed that responsibility upon public officials. The State of California has not intervened or attempted to intervene in this case, although it did file a brief, amicus curiae, in support of the plaintiffs' position in respect to fish. However, on the date of the argument, a Deputy Attorney General of the State of California stated that the State was not yet ready to take a position and, in effect, disclaimed the brief amicus curiae previously filed.

Id.

[154] Memorandum from Irving Pfaffenberger to Henry Holsinger, Principal Att'y, Cal. Dep't of Water Res. (May 19, 1950) [hereinafter May 19, 1950 DWR Memo] (on file with author) (Division of Water Resources internal report on May 15–18 *Rank v. Krug* hearings).

[155] Deputy Attorney General Ralph W. Scott represented the state. *Id.* He worked on behalf of the Commission and CDFG from 1926 to 1966. STATE OF CAL., DEP'T OF FISH & GAME, FORTY-EIGHTH BIENNIAL REPORT 1966 2 (1966) (noting that Deputy Attorney General Ralph W. Scott retired on June 1, 1966, after providing legal advice to the Commission and CDFG since 1926).

[156] May 19, 1950 DWR Memo, *supra* note 154, at 3-5. He was joined in the courtroom by Arvin B. Shaw Jr., Assistant Attorney General, whose first major contribution to the case was to caution the court that the state had not entirely decided which side to support in the case and that the appearance of Mr. Scott on behalf of fish protection did not bar the Attorney General from later appearing on behalf of the irrigation interests. Mr. Shaw noted:

the Deputy Attorney General began presenting his case, the Attorney General shifted his position on fish flows and an Assistant Attorney General, who represented irrigation interests while also serving as special counsel on water issues to the Attorney General,[157] took over management of the State's case. The Assistant Attorney General gave up most of the State's demands and settled on a agreement for a short-term injunction requiring release of 25 cfs from the dam for two months to support the spring-run of Chinook salmon.[158] Moreover, the Assistant Attorney General withdrew the preliminary injunction motion until 1951, in order to give the Attorney General additional time to consider the case.[159] He then withdrew the motion to intervene entirely only a few days after the hearing, removing the state from the lawsuit and ending the state's effort to enforce 5937.[160] The temporary release order for 25 cfs of water was too little, too late for the spring-run of salmon,[161] and the victory over the Department of Water

> [T]hat the Attorney General thought the proceeding tor preliminary injunction should be brought by the State, due to the apparent requirements of water for fish below Friant and, due to the inability, of the Division of Water Resources and the Division of Fish and Game to get together on a position relative to the apparent conflict between Sec. [5937] of the Fish and Game Code and Sec. 106 of the Water Code; that he has been asked to prepare an opinion on the matter and that the present proceeding should not be considered a waiver of the right of the Attorney General to appear for irrigation interests of the State. In response to a question by the judge, Mr. Shaw stated that he was not appearing for irrigation interests of the State until a final decision is made by the Attorney General.

Id.

[157] United States v. Gerlach Live Stock Co., 339 U.S. 725, 727 (1950) (indicating Arvin B. Shaw, Jr. filed an amicus brief on behalf of *both* the state of California and the Irrigation Districts Association of California); Amelia Fry describes Arvin Shaw:

> Arvin Shaw . . . was a special counsel. He did all the water law for the attorney general's office; the attorney general's office had no water department of any kind, nature, or description, and so they were completely dependent on his legal opinion as to what cases they should prosecute or defend.

AMELIA FRY, EARL WARREN ORAL HISTORY PROJECT 23 (1979).

[158] *Id.* at 7.

[159] *Id.*

[160] Memorandum from Henry Holsinger to A.D. Edmonston, Principal Att'y, Cal. Dep't of Water Res. 2 (May 22, 1950) [hereinafter DWR Memo] (on file with author) (Division of Water Resources internal report).

[161] CAL. DIV. OF FISH & GAME, FORTY-FIRST BIENNIAL REPORT OF THE DIVISION OF FISH AND GAME FOR THE YEARS 1948–1950, at 45 (1950). The court devised a complicated system for getting the Salmon into the upper San Joaquin, past the dry stretch of river,

Resources was short lived. One year later, the California Attorney General issued the 1951 Attorney General opinion ("1951 Opinion"), gutting 5937.[162]

D. 1951 Attorney General's Opinion

The 1951 Opinion took the teeth out of 5937. It made the sweeping conclusion that 5937 constituted a mere "rule for the operation of dams where there will be enough water below the dam to support fish life" and did not apply where dams retained nearly all water flow.[163] Further, the 1951 Opinion found that 5937 only regulated "water in excess of what is needed for domestic and irrigation purposes."[164] While critics regard the 1951 Opinion as "extraordinarily narrow,"[165] and the Attorney General later repudiated the opinion, three of its arguments reflect broader complaints against 5937 and merit additional criticism.

First, the Attorney General argued that Water Code section 106[166] precluded all non-domestic and non-irrigation uses in fully allocated rivers, even though the Legislature added Water Code section 107[167] to overrule the preclusion argument in 1943.[168] Read with section 106, section 107 clearly indicates that section 106 did not intend to

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as part of the agreement to release the water:

> The intention of the court was for a route to be prepared by which the salmon could swim up the San Joaquin River into Salt Slough, up Salt Slough to the crossing of the Delta Canal through the fish ladder to be constructed by the Division of Fish and Game and into the Delta Canal, up this canal to its junction with the larger Arroyo Canal, and up the Arroyo Canal to the point where it was diverted from the San Joaquin River, thence up the San Joaquin to the spawning grounds in the vicinity of Friant Dam.

Id. Only 36 fish navigated the labyrinth, destroying the 1950 spring run. *Id.*

[162] 18 Op. Cal. Att'y Gen. 31, 31 (1951).

[163] *Id.* at 37-38.

[164] *Id.* at 38.

[165] *See* Robert Firpo, *The Plain "Dam!" Language of Fish and Game Code Section 5937*, 11 HASTINGS W.-NW. J. ENVTL. L. & POL'Y 101, 117-18 (2005) (criticizing Attorney General opinion as being a narrow reading of 5937). *See also* 18 Op. Cal. Att'y Gen. at 38.

[166] CAL. WATER CODE § 106 (West 2010) ("It is hereby declared to be the established policy of this State that the use of water for domestic purposes is the highest use of water and that the next highest use is for irrigation.").

[167] CAL. WATER CODE § 107 (West 2010) ("The declaration of the policy of the State in this chapter is not exclusive, and all other or further declarations of policy in this code shall be given their full force and effect.").

[168] *See supra* notes 94-97 and accompanying text.

eliminate all non-domestic and non-irrigation water uses, but rather sought to establish precedence for water that was available for appropriation. Section 5937 withdraws the water needed for fish from the water that remains available for appropriation.[169]

Second, the Attorney General undermined 5937 with an unsupported, conclusory argument that there is a general right to dry up streams. The Attorney General argued that, although 5937 facially "has the effect of reserving from any other uses the water necessary to propagate fish," such an interpretation "would contravene fundamental principles of the law of waters. The right of water users to take the whole stream under some circumstances has long been recognized."[170] Thus, he reasoned, 5937 must not "be a reservation of water for the preservation of fish life, but rather a rule for operation of dams where there will be enough water below dams to support fish life."[171] This flawed reasoning relies on the notion that 5937 cannot mean what is says. Under a facial reading of 5937, reserving water for fish would not contravene long held principles of water law. Rather, water for fish would constitute just such a long held principle itself, formally enshrined first by the 1870 Fish Act and more explicitly by 5937 itself.[172]

Finally, the Attorney General argued that statutes authorizing state water projects and Friant Dam implicitly authorized elimination of below-dam fish, thereby arguing that these laws implicitly repealed 5937. For example, because Friant Dam was not "primarily" authorized for fisheries, the Attorney General interpreted this to mean that the dam could not also be used to sustain fisheries, believing that such use inherently conflicted with the dam's primary purpose.[173] However, there is no inherent conflict in a dam serving its primary purposes by capturing most of a stream's abundant winter and spring

[169] *CalTrout I*, 255 Cal. Rptr. 184, 192 (Ct. App. 1989).

[170] 18 Op. Cal. Att'y Gen. 31, 37 (1951).

[171] *Id.* at 39-40.

[172] The opinion's specious reasoning followed directly from a line of reasoning earlier advanced by Henry Holsinger, principal attorney to the Water Board, in an internal memo to A.D. Edmonston. Holsinger argued that the potential impacts of the law as written created "the need to formulate unexpressed exceptions thereto in the event that other statutory provisions conflict with it." *See* 18 Op. Cal. Att'y Gen. at 31; DWR Memo, *supra* note 160, at 3, 6. The 1951 Opinion, written in part by Henry Holsinger, read such conflict into the law whenever the reservation of water for minimum flows would impact domestic or irrigation water uses.

[173] CAL. WATER CODE § 11226 (West 2010) ("Friant Dam shall be constructed and used primarily for improvement of navigation, flood control, and storage and stabilization of the water supply of the San Joaquin River, for irrigation and domestic use, and secondarily for the generation of electric power and other beneficial uses.").

flow and still maintaining the below-dam stream flow during lower flow periods of the year. Authorizing a dam for particular primary purposes does not by necessity authorize the dam to destroy the stream from which it obtains its water. Thus no irreconcilable conflict existed between 5937 and the purposes for which Friant Dam was authorized. By arguing that an inherent conflict existed, the Attorney General essentially asserted that unless a dam's authorizing legislation provides otherwise, nothing prevents the Water Board from granting water rights that do not maintain the below-dam fishery in good condition, in direct contravention of 5937. Thus, accepting the Attorney General's interpretation would render 5937 meaningless for any dam authorized by statute.

The Attorney General's arguments applied not just to Friant Dam but generally to dams throughout California. Despite the nonbinding effect of Attorney General opinions on the judiciary,[174] the 1951 Opinion ended 5937 enforcement by the executive branch — CDFG lawyers believed that they could not judicially enforce 5937.[175]

III. REBIRTH OF THE MINIMUM FLOW REQUIREMENT

As of 1951, 5937 was relegated to a minor role in protecting California's fish. Despite possessing the ability to enforce or seek enforcement of 5937, the CDFG did not do so. The 1951 Opinion rejected the primary purpose of 5937. *Rank* seemed to foreclose any hopes of private enforcement.[176] And the Water Board essentially adopted the Attorney General's interpretation. Without an enforcement mechanism, 5937 would have necessarily had a limited role in any informal, off-record negotiations. No one was left to

[174] Smith v. Anderson, 67 Cal. 2d 635, 641 (1967).

[175] Telephone Interview with Denis Smaage, Deputy Att'y Gen., at Cal. Atty. Gen. Office, (Apr. 17, 1993). Mr. Smaage represented the department of Fish and Game in water rights matters from 1963 to 1993. *Id.* Until 1974, Mr. Smaage believed that he could not use 5937 because of the 1951 Opinion from his office limited the statute's mandate. *See generally* Baiocchi, *supra* note 20, at 444-48 (discussing Department of Fish and Games failure to seek California Attorney General enforcement of 5937 violations). The Department of Fish and Game lost its legal department in 1933, and although it was empowered to hire legal counsel, it was still constrained in exercising this authority. CAL. FISH & GAME CODE § 13003 (West 2010); Act of Apr. 13, 1933, ch. 4, 1933 Cal. Stat. 511 (1933); Lloyd G. Carter, Untitled, United Press International Article 8 (Feb. 23, 1989) (on file with author) (discussing Governor Edmund R. "Pat" Brown decision to prevent litigation related to the Friant Dam construction).

[176] Rank v. Krug, 90 F. Supp. 773, 801 (S.D. Cal. 1950).

enforce 5937, and California's below-dam fish suffered dramatic declines.[177]

In spite of these conditions, two trends would soon revive 5937: (1) the Legislature's ongoing efforts to protect California's fish, and (2) the birth of the modern public trust doctrine.

A. Continued Legislative Acts to Protect Fish

Throughout the 1950s, the California Legislature continued its efforts to protect California's native fish. First, the Legislature passed Fish & Game Code section 5946 ("5946") in 1953.[178] While the 1951 Opinion limited most applications of 5937, the Legislature's addition of 5946[179] required that the Water Board would apply 5937 to new water right permits or licenses[180] in Fish & Game District 4 1/2.[181] The

[177] *See, e.g.*, Moyle & Williams, *supra* note 26, at 278.

[178] Act of July 4, 1953, ch. 1663, 1953 Cal. Stat. 3388 (1953).

[179] Section 5946 provides: No permit or license to appropriate water in District 4 1/2 shall be issued by the State Water Rights Board after September 9, 1953, unless conditioned upon full compliance with Section 5937. Plans and specifications for any such dam shall not be approved by the Department of Water Resources unless adequate provision is made for full compliance with section 5937.

CAL. FISH & GAME CODE § 5946 (West 2010); *see also* Act of July 4, 1953, ch. 1663, 1953 Cal. Stat. 3388 (1953).

[180] There are three steps required to appropriate unappropriated water. First, an application is filed, giving the applicant a procedural priority, essentially a conditional right to the future acquisition of a water right. Second, the state issues a permit, extending the right to procedural priority and adding the state's consent for construction and the initial use of water to begin. Finally, the state issues a license when the user can prove that the water is being put to beneficial use in conformance with the permit. MARYBELLE D. ARCHIBALD, GOVERNOR'S COMMISSION TO REVIEW CALIFORNIA WATER RIGHTS LAW, APPROPRIATIVE WATER RIGHTS IN CALIFORNIA 15-31 (1977). In 1953 a water right permit matured into a vested water right license when the water was diverted and put to a beneficial use. *CalTrout I*, 255 Cal. Rptr. 184, 196 (Ct. App. 1989) (stating that counsel of Water Board at time of passage of section 5946 believed that even with the passage of section 5946, water right licenses based on permits issued before effective date of section 5946 need not require compliance on 5937). *See generally* Temescal Water Co. v. Dep't of Pub. Works, 44 Cal. 2d 90 (1955) (explaining that Temescal had a permit from the Department of Public Works and thus had the right to a flow from the San Jacinto River). In 1940 the State Engineer granted two water right permits to Los Angeles for its diversion of water from the Mono Lake tributaries. *CalTrout I*, 255 Cal. Rptr. at 188. The State Engineer issued permits 5555 (domestic use) and 5556 (hydroelectric power) on June 1, 1940. *Id.* However, because these permits did not require compliance with 5937's facial meaning, they might mature into a water right license without even having to respect 5937. *Id.* Thus, specific legislation conditioning all water right permits or licenses in District 4 1/2 on 5937 a means to ensure that 5937's facial meaning applied to the dams diverting the Mono Lake tributaries.

Legislature followed by formally recognizing preservation of fish life as a beneficial use of water in 1957,[182] and then by requiring the Water Board to consider preservation of fish life in appropriation decisions beginning in 1959.[183] Over the next fifteen years, the Legislature passed many additional fish protection statues:

- Fish and Game Code Section 1600 in 1961, clarifying that, "[t]he protection and conservation of the fish and wildlife resources of this State are hereby declared to be of utmost public interest."[184]
- Water Code Section 11900 in 1961, declaring it state policy to preserve fish when undertaking State water projects.[185]
- Water Code section 1243.5 in 1969, explicitly requiring the Board to consider water required for instream beneficial uses.[186]
- The Porter-Cologne Water Quality Control Act in 1970,[187] in conjunction with the California Environmental Quality Act, requiring state agencies with regulatory authority to

[181] CAL. FISH & GAME CODE § 5946 (West 2010). This district encompasses major portions of Inyo and Mono Counties, on the eastern side of the Sierra Nevada mountain range where, historically, the Los Angeles Department of Water & Power's (Los Angeles) diversion of water threatened fish in the Owens River and four of Mono Lake's tributaries. *CalTrout I*, 255 Cal. Rptr. at 184, 186-90.

[182] Act of July 8, 1957, ch. 2082, 1957 Cal. Stat. 3699. Note that the Legislature had already implicitly made the use of water for fish a beneficial use, based in part on 5937. *See* 13 Op. Cal. Att'y Gen. 188, 189 (1949), which reads:

> Courts have held that the use of water for fish, wildlife or recreational purposes is a beneficial use. Moreover, that the use of water for maintenance of fish life is beneficial may inferred from section [5937] of the Fish and Game Code which requires the release of water behind dams sufficient in amount to maintain fish life which exists below. [. . .] Other Sections of Fish and Game Code also give rise to the inference that the use of water for wildlife is a beneficial use. (internal citations omitted).

Id.

[183] Act of July 17, 1959, ch. 2048, 1959 Cal. Stat. 4742.

[184] 57 Op. Cal. Att'y. Gen. 577, 581-82 (1974) (citing Act of July 4, 1961, ch. 909, 1961 Cal. Stat. 2532).

[185] *Id.* (citing Act of June 24, 1961, ch. 867, 1961 Cal. Stat. 2274).

[186] *Id.* (citing Act of July 14, 1969, ch. 482, 1969 Cal. Stat. 1046, 1048).

[187] *Id.* (citing CAL. WATER CODE § 13050(f) (West 2010)) (recognizing the need to preserve the state's fishery resources).

"regulate [. . .] activities so that major consideration is given to preventing environmental damage,"[188] which includes damage to fish.

- Amended Water Code Section 1243 in 1972, requiring the CDFG to "recommend the amounts of water, if any, required for the preservation and enhancement of fish and wildlife resources" when any new water appropriation permit was in front of the board.[189]

As a 1974 Attorney General opinion notes, "It is clear from subsequent legislative enactments that the people of California acting through their Legislature have expressed very strong concern over the future existence of California's fishery resources."[190]

B. A Change of Heart by the Executive Branch

1. Improvements at the Water Board

Prior to 1956, the Board appeared to believe that it could not reserve water for fish;[191] the Board even commented that any enforcement authority for 5937 lay with the CDFG.[192] The Board had believed that approving appropriations that did not reserve water for fish did not thereby diminish the CDFG's ability to enforce 5937.[193] Indeed, the Water Board believed it must appropriate any unappropriated water, regardless of the impact on recreational values.[194]

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[188] *Id.* (citing California Environmental Quality Act of 1970, CAL. PUB. RES. CODE § 21000(g) (West 2010)).

[189] *Id.* (citing Act of July 13, 1972, ch. 360, 1972 Cal. Stat. 671).

[190] *Id.* at 582.

[191] *In re* Bank of Italy as Trustee for A.K. Detweiler, No. D-227, 1929 Cal. ENV LEXIS 15, at *20 (Div. of Water Res. May 6, 1929).

[192] *See In re* C.H. Widemann, No. D-294, 1931 Cal. ENV LEXIS 8, at *13-22 (Div. of Water Res. Aug. 24, 1931).

[193] *See Id.*

[194] The footnote from the opinion explained:

> Plaintiffs submitted an interrogatory to the present Water Board, inquiring: "Do you contend that the predecessor of the Water Board . . . held the view that, notwithstanding the protests based on environmental concerns, it had no alternative but to issue DWP the permits DWP sought to export water from the Mono Basin?" The Water Board replied: "The [Water] Board believes that its predecessor did hold the view that, notwithstanding protests based upon loss of land values resulting from diminished recreational opportunity, if unappropriated water is available, it had no alternative but to issue DWP the permits DWP sought in order to export water from the Mono

In 1956, the Legislature explicitly granted broader authority to the Board to weigh competing water uses and move beyond merely allowing appropriation of unappropriated water.[195] The Legislature's formal recognition of fish, wildlife, and recreation as beneficial uses of water in 1957 explicitly gave the Water Board the power to consider those uses in appropriation decisions.[196] Consideration of the preservation of fish life in all appropriation decisions by the Water Board became mandatory in 1959.[197] These changes, coupled with other legislative signals in the early 1950s regarding the importance of maintaining minimum flows,[198] led the Board to begin seriously addressing the CDFG's protests.[199] For example, in June 1956, the Board approved appropriation Application 15434, noting, "Unappropriated water in excess of requirements in the public interest for the support of fish life exists in each lake from which the applicant

Basin . . . ."

Nat'l Audubon Soc'y v. Superior Court, 33 Cal. 3d 419, 428 n.7 (1983).

[195] *Id.* at 443-44; *see also* WATER CODE § 1257. The Board replaced the Water Commission. Nat'l Audubon Soc'y, 33 Cal. 3d at 433-44. The Legislature delegated considerable authority to the Water Board to make reasonableness determinations by balancing the interests of beneficial uses. *Id.*; *see also* WATER CODE § 1257.

[196] CAL. WATER CODE § 1257 (West 2010).

[197] Act of July 17, 1959, ch. 2048, 1959 Cal. Stat. 4742.

[198] CAL. DEPT. OF FISH & GAME, FORTY-THIRD BIENNIAL REPORT FOR THE YEARS 1952–1954, at 18 (1954) [hereinafter 1954 BIENNIAL REPORT]; *see also* CAL. FISH & GAME CODE §§ 526.5-.6 (West 2010).

[199] When the CDFG finally reappeared in the 1948 Water Board reports, the reports were nearly uniform in nature. The CDFG would protest an application, set out minimum flow terms that would allow the protest to be disregarded, and then the applicant would agree to those or similar terms, there by dismissing the protest. *See, e.g.*, *In re* William Clinton Wren, No. D-573, 1948 Cal. ENV LEXIS 6, at *1-2 (Div. of Water Res. Feb. 2, 1948) (CDFG protest accommodated by appropriator agreeing to release requested flow); *In re* Cal. Water and Telephone Co., No. D-582, 1948 Cal. ENV LEXIS 13, at *19-21 (Div. of Water Res. July 7, 1948) (same). Even so, the protests were few are far between. Beginning in the mid 1950s, the outlook for fish improved. The Water Board became friendlier to the concept of reserving some water for fish, but it certainly held firm to its position that water for fish was a secondary concern:

> While this Division has long recognized the maintenance of fish life as a beneficial use, we do not believe that this use should take precedence over such higher uses as municipal, domestic, and irrigation purposes. We believe the water code is crystal clear in this regard. In addition, the Attorney General in an opinion involving releases past Friant Dam has indicated such to be the case.

In re Calaveras Cnty. Water District, No. D-858, 1956 Cal. ENV LEXIS 13, at *80 (Div. of Water Res. July 3, 1956).

seeks to appropriate . . . . Such unappropriated water may be taken." The mere recognition of a public interest in water for fish dramatically departed from previous Water Board actions. In 1957, the Board conditioned a Putah Creek appropriation, requiring that the "[p]ermittee shall at all times release, for the purpose of maintaining fish life between Monticello Dam and Putah Diversion Dam, into the natural stream bed of Putah Creek immediately below Monticello Dam a minimum flow of ten cfs of water."[200] In 1958 the Board affirmatively recognized for the first time that flows for fish protection were not available for appropriation. In determining water availability in the American River, the Water Board found that "[u]nappropriated water may be deemed to exist in the American River at such times as flows passing Fair Oaks exceed requirements below that point . . . for fish conservation."[201] This finding demonstrates the Board's newfound willingness to reserve water for fish conservation. The CDFG celebrated the change, noting that "[CDFG] no longer sits around the negotiating table as an unwelcome guest."[202]

While the CDFG undoubtedly enjoyed its new status with a friendlier Board, it still only challenged a handful of appropriation applications. From 1950–1952, 1,116 applicants sought to appropriate water. The CDFG filed only eighty protests, with sixty-five protests upheld, seven applications cancelled, three protests withdrawn, four informal hearings settled by agreement, and one informal hearing.[203] From 1952–1954, the CDFG investigated 1,055 applications, filing sixty-two protests and attending one formal hearing. In all but twelve cases, the CDFG's protest prevailed.[204] The Biennial Report for the years 1954–1956 failed to discuss appropriation applications at all.[205] From 1956–1958, 822 applications sought appropriations, half of which CDFG challenged, with twenty cases proceeding to formal hearings.[206] After 1958, the CDFG revised its Biennial Report format and stopped reporting application protests.[207] From the late 1950s

[200] *In re* Protestants Regents of the Univ. of Cal., No. D-869, 1957 Cal. ENV LEXIS 3, at *37 (State Water Res. Bd. Feb. 7, 1957).

[201] *In re* Sacramento, No. D-893, 1958 Cal. ENV LEXIS 9, at *56 (State Water Res. Bd. Mar. 18, 1958).

[202] 1958 BIENNIAL REPORT, *supra* note 61, at 12.

[203] 1952 BIENNIAL REPORT, *supra note 21,* at 41.

[204] 1954 BIENNIAL REPORT, *supra* note 198, at 18.

[205] *See generally* CAL. DEPT. OF FISH & GAME, FORTY-FOURTH BIENNIAL REPORT FOR THE YEARS 1954–1956 (1956) (discussing difficult fiscal climate).

[206] 1958 BIENNIAL REPORT, *supra* note 61, at 40. No information is provided in the Biennial on the sudden increase in protests.

[207] CAL. DEPT. OF FISH & GAME, FORTY-SIXTH BIENNIAL REPORT 1958–1960, at 10

through the mid-1970s, if the State took any enforcement actions for 5937, the actions remained largely informal and off the record,[208] with the 1951 Opinion removing the threat of any further litigation. Thus, the State largely abdicated its enforcement role and to date has never fully litigated a 5937 case in court.

2. A New Attorney General Opinion

As early as 1956, the Water Board declared that "the time ha[d] come for a more realistic approach to the problem of insuring adequate minimum flows for fish life,"[209] perhaps as a result of CDFG protests in nearly half of the appropriation applications between 1956 and 1958.[210] In 1973, the Water Board finally began to pursue a new approach. It sought comment on a proposed 5937 regulation that generally required all appropriators pass flows sufficient to maintain below-dam fish in good condition.[211] In response to a comment that this regulation conflicted with the 1951 Opinion,[212] the Water Board sought confirmation of its authority to adopt the regulation.[213]

(1960). Beginning in the early 1960s, CDFG changed its Biennial Reports, making them much shorter, glossier, and filled largely with pablum. *Compare id. with* CAL. DEPT. OF FISH & GAME, FORTY-EIGHTH BIENNIAL REPORT 1962–1964 (1964).

[208] A Lexis search of Water Board decisions for 5937 between January 1, 1957, and January 1, 1974, had 16 hits, the majority related to Fish & Game Code section 5946. The CDFG was active on the Board beyond 5937; a search for "Fish and Game" during the same period returned 156 documents.

[209] *In re* Calaveras Cnty. Water Dist., No. D-858, 1956 Cal. ENV LEXIS 13, at *80 (Div. of Water Res. July 3, 1956). The Board went on to recommend additional dams built solely for fish flows or dams "constructed with a financial contribution specifically for maintaining minimum flows." Enforcing the law as written was not a recommended solution. *Id.* at *81.

[210] 1958 BIENNIAL REPORT, *supra* note 61, at 40. No information is provided in the Biennial on the sudden increase in protests.

[211] Letter from K. L. Woodward, Chief, Cal. Dep't of Water Res., State Water Res. Control Bd., to Interested Parties (Apr. 13, 1973) (on file with author) (requesting comments on proposed regulation).

[212] Letter from Adolph Moskovitz, Partner, Kronick, Moskovitz, Tiedemann & Girard, to State Water Res. Control Bd. (Apr. 25, 1973) (on file with author) (expressing view that proposed regulation was not in accordance with 5937 as interpreted by the 1951 Opinion).

[213] Letter from Bill Dendy, Executive Officer, State Water Res. Control Bd., to Evelle J. Younger, Attorney Gen., State of Cal. (approx. May 15, 1973) (on file with author); Letter from K.L. Woodward, Chief, State Water Res. Control Bd., to Parties Who Submitted Comments to Notice of April 4, 1973 (June 5, 1973) (on file with author) (informing parties that an opinion was sought to reexamine the 1951 Opinion).

In 1974, the Attorney General issued an opinion ("1974 Opinion") confirming the Water Board's authority to implement minimum flow regulation based on a broad reading of 5937. The 1974 Opinion sought to distinguish itself from the 1951 Opinion in two ways. It first limited the older 1951 Opinion "solely to the specific facts of construction of Friant Dam by the federal government,"[214] and then argued that changed circumstances of state law required a reexamination of 5937.[215] The 1974 Opinion noted that "[e]very statute should be construed with reference to the whole system of law of which it is a part so that all may be harmonized and have effect."[216] Further, the 1974 Opinion reasoned that the litany of laws protecting fish ensured authority for the Water Board to condition all new water appropriations on 5937's facial meaning.[217] More broadly, the 1974 Opinion concluded, "5937 . . . clearly should be given a literal interpretation." The Attorney General recognized that the 1951 Opinion nullified 5937, a position that could "no longer stand in the light of current state policy expressing the urgency of preserving California's important fishery resources."[218] After receiving this confirmation, the Water Board adopted a new regulation concerning minimum flows ("1975 Regulation").[219]

The 1975 Regulation, designed to implement 5937's requirements, provided a small step forward for 5937. For the first time, a state agency began enforcing 5937 and could actually apply it directly during the appropriation process. However, the 1975 Regulation possessed three major shortcomings. First, the 1975 Regulation did not fully reflect 5937's facial meaning because it limited application to future water permits alone, whereas 5937 requires comprehensive compliance with the minimum flow requirement. Second, the 1975 Regulation misinterpreted 5937 by limiting the outflow that may be required to the volume of the reservoir's natural inflow at the time — under the 1975 Regulation, the Water Board "shall not require the passage or release of water at a greater rate than is flowing into the

[214] 57 Op. Cal. Att'y. Gen. 577, 579 (1974).

[215] *Id.* at 580.

[216] *Id.* (citing Stafford v. Realty Bond Serv. Corp., 39 Cal. 2d 797, 805 (1952)).

[217] *See generally id.* at 577, 582 (ensuring authority for the Water Board). The Opinion did not discuss why similar reasoning, based on the long history of legislative efforts to protect fish prior to 1951, would not have required the same conclusion in the 1951 Opinion. *See id.* at 579-80.

[218] *Id.* at 582.

[219] 17 Cal. Regulatory Notice Reg. 52.2 (Apr. 26, 1975). Today the regulation is found in CAL. CODE REGS. tit. 23, § 782 (1994).

reservoir."[220] In light of 5937's mandate to keep fish in good condition without reference to the reservoir's natural inflow at the time, the Water Board's 1975 Regulation does not correctly implement 5937.[221]

Third and finally, the 1975 Regulation indirectly limited the Attorney General's ability to enforce 5937. Based on the Water Board's entry into 5937 enforcement, the Attorney General determined that he would not assist CDFG in criminal prosecutions involving 5937 when below-dam flow requirements would likely become an issue in the prosecution, based on concerns about conflicting flow requirements from CDFG and the Water Board.[222] Further, the Attorney General determined he would represent the CDFG in civil injunctions and

[220] This qualification conflicts with 5937's facial intent to place an unqualified obligation on all dam owners, which recognizes their duty to mitigate for harm to below-dam fish irrespective of the inflow to their reservoir. The historical development of 5937 demonstrates that in 1915 the Legislature did consider what to do during period of low water flow into a dam's reservoir. The Legislature adopted the low flow fishway use exception, allowing water to pass the dam by a means other than the constructed fishway. Memorandum from E.C. Fullerton, Dir., Cal. Dep't of Fish & Game, to William B. Dendy, Exec. Officer, State Water Res. Control Bd. (May 1, 1973) (on file with author). The Commission, in requesting 5937, recognized that outflows would sometimes exceed inflows and suggested that this benefit, more consistent flows, made the fish losses due to the creation of the reservoir more bearable. 1914 BIENNIAL REPORT, *supra* note 58, at 29. Comments submitted to the Water Board as part of the public comment process addressed the inadvisability of adding the inflow qualification to 5937. Letter from R. Jerome Esmay, Wilsey & Ham, to Bill B. Dendy, Exec. Officer, State Water Res. Control Bd. (Apr. 19, 1973) (on file with author); Letter from Gerald H. Meral, Staff Scientist, Envtl. Def. Fund, to Richard Rosenberger, State Water Res. Control Bd. (Feb. 6, 1975) (on file with author); Letter from Guy E. Rusher, Chairman, State Water Res. Control Bd. (May 16, 1973) (on file with author). The Water Board did reduce the severity of the qualification for when the regulation was initially proposed in 1973 to when it was finally adopted in 1975. In the original version, reservoir owners were not required to pass more water "than is flowing into" the reservoir. The final regulation changed the language to require the release of no more "than the unimpaired natural inflow." This change appears to have been made in response to a public comment that upstream projects impairing a stream's natural flow could greatly reduce the obligation of downstream reservoir owners.

[221] The inflow limitation on minimum flows could vitiate 5937. *See supra* Part I. Due to the seasonal variability of California streams, many are reduced to warm trickles in the dry season. *See supra* Introduction. Historically, fish survived by out migrating during the dry months or summering in deep, cool pools, but dams have changed fish communities to include nonmigratory fish and have eliminated many of the deep pools, such that these historical adaptations no longer suffice. *See supra* Introduction. Because of the dams, many downstream fish communities now require flows during the dry season, and limiting the minimum flows to a stream's natural flow will eliminate the needed flows and destroy the fish populations. *See supra* Introduction.

[222] Letter from R. H. Connett, Assistant Att'y Gen., to Eugene V. Toffoli, Legal Advisor, Cal. Dep't of Fish and Game (Feb. 20, 1990) (on file with author).

restraining orders only if there no conflict or a *de minimus* conflict with past Attorney General representation of the Water Board.[223] This meant that the Attorney General's office would not participate in an enforcement action if the CDFG determines that flows required by the 1975 Regulation or by a pre-1975 permit do not maintain fish in good condition below a dam.[224] Under this interpretation, the 1975 Regulation actually increased the number of dams where the CDFG could not enforce 5937 independently of the Water Board.[225] Indeed, with the sole exception of the Friant Dam litigation, the CDFG has not sought judicial enforcement of 5937.[226]

C. Public Trust Standing for Private Enforcement: 5937 Gets Its Day in Court

Two developments in the rebirth of the public trust doctrine in California invigorated private litigation of 5937. First, the public trust doctrine highlighted the perpetual nature of obligations on state agencies and private parties pertaining to the use of natural resources in California. Second, the public trust doctrine broadened private standing to enforce environmental laws such as 5937, which themselves lack citizen suit provisions. Increased obligations on water users, coupled with private standing to enforce those obligations, led directly to the first real 5937 enforcement. This section first discusses the two developments in the California public trust doctrine and then briefly reviews significant 5937 cases.

In *National Audubon Society v. Superior Court*, the leading California public trust case, environmental groups successfully asserted that the

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[223] *Id.*

[224] *Id.*

[225] *Id.*

[226] The CDFG has come close to initiating such litigation at least once. Although the details remain murky, the CDFG sought to initiate some litigation ostensibly related to 5937 in 1959, but was blocked by then Governor Edmund R. "Pat" Brown, who had authored the Attorney General Opinion in 1951. The CDFG hired outside counsel to appeal the June 2, 1959, State Water Rights Board ruling allowing the Bureau of Reclamation to divert essentially the full flow of the San Joaquin at Friant Dam. The suit would have further alleged a Water Rights Board Chairman Holsinger of conflict of interest and that "Brown and Holsinger acted to circumvent Fish and Game codes protecting fish as early as 1951 when Brown was State Attorney General and he and Holsinger issued an opinion that the Bureau did not have to preserve the fishery below Friant. Carter, *supra* note 175, at 9. "Brown, 83, confirmed in a telephone interview earlier this week he wanted his administration, and not the courts, to settle the dispute created when the construction of Friant Dam on the San Joaquin River near Fresno destroyed the river's salmon runs and downstream fishery." *Id.* at 8. Brown ordered the outside counsel not to file the case on June 30, 1959. *Id.*

Los Angeles Department of Water and Power's ("LADWP") diversions of water from creeks flowing into Mono Lake violated the public trust.[227] The defendants argued that the public trust doctrine did not establish an independent cause of action, but the California Supreme Court held that the public trust doctrine places affirmative duties on the State to manage all trust resources, including water, and that these duties may be enforced by private individuals.[228] The California Supreme Court clearly outlined the limits on private use of public trust resources and the perpetual responsibility of the State to oversee those resources.[229]

The public trust doctrine limits private use of public trust resources in California. "The state as sovereign retains continuing supervisory control over its navigable waters . . . . This principle . . . prevents any party from acquiring a vested right to appropriate water in a manner harmful to the interests protected by the public trust."[230] Thus, the private right to use water is bounded and balanced by the water needed for public trust uses, including in-stream uses. As the California Supreme Court has noted, "The [Water] board has the power and duty to protect such [public trust] uses by withholding water from appropriation."[231] This endorsed the Water Board's post-1956 perspective on withholding waters required for fish from appropriation.[232] Regardless, it is now clear that the Water Board must withhold from appropriation the water required to comply with 5937.

National Audubon also clarified the State's ability to restrict prior rights to use water, even when the State has previously granted the right. The California Supreme Court held, "Once the state has approved an appropriation, the public trust imposes a duty of continuing supervision over the taking and use of the appropriated water."[233] The court found that "the state is not confined by past

[227] Nat'l Audubon Soc'y v. Superior Court, 33 Cal. 3d 419, 425-26 (1983).

[228] *Id.* at 445-47.

[229] *Id.*

[230] *Id.* at 445.

[231] *Id.* at 444.

[232] It also contradicts the Water Board's early holdings on 5937. For example, in 1928 the Water Board argued that it did not have authority to withhold water from appropriation, noting, "Nor does it appear that a police power has been vested in the Division of Fish and Game which authorizes it to enjoin such diversions of water for beneficial uses as it deems inimical to fish life." *In re* Snow Mountain Water and Power Co., No. D-179, 1928 Cal. ENV LEXIS 2, at *20-21 (Div. of Water Res. Jan. 9, 1928); *see also In re* Cal. Dept. of Pub. Works, No. D-227, 1929 Cal. ENV LEXIS 15, at *9-19 (Div. of Water Res. May 6, 1929).

[233] *Nat'l Audubon Soc'y*, 33 Cal. 3d at 447.

allocation decisions which may be incorrect in light of current knowledge or inconsistent with current needs." Accordingly, the State may "reconsider allocation decisions even though those decisions were made after due consideration of their effect on the public trust."[234] Thus, even state-granted water rights can be reconsidered according to changing public trust needs.

This decision in *National Audubon* comported with prior decisions by California courts[235] and the Water Board. For example, in 1928, the Water Board noted that "[t]he authority of the Fish and Game Commission under [5937] to protect fish life can in no way be prejudiced or restricted by any action that this office may take on the pending applications."[236] Thus, even at the height of the Water Board's efforts to prevent the CDFG from enforcing 5937 through water permit conditions, the Water Board refrained from categorically ruling out enforcement of 5937 by the CDFG. *National Audubon* mirrored this argument by explicitly allowing future challenges to water rights granted by the Board if exercising those rights harmed the public trust.[237] These changes — allowing the Water Board to withhold from appropriating water necessary for public trust uses and imposing a continuing duty of supervision on the state — created a broad public trust responsibility on public agencies in California.

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[234] *Id.*

[235] *See, e.g.*, People v. Glenn-Colusa Irrigation Dist., 127 Cal. App. 30 (Ct. App. 1932) (explaining that when the facts constitute a nuisance at common law, an action to retrain such a nuisance is authorized by section 731 of the Code of Civil Procedure). The District stood accused of creating a public nuisance by killing fish through the exercise of its water right. The district argued that since it was created by a legislative act and had both state and federal rights to divert water from the river, it could not be guilty of creating a public nuisance. *Cf.* CAL. CIV. CODE § 3482 (West 2011) ("Nothing which is done or maintained under the express authority of a statute can be deemed a nuisance."). The court held that notwithstanding the district's right to exist under the laws of the state and its water rights, the district nevertheless had a duty to protect the fish in the river, and a breach of that duty could be a nuisance. *See Glenn-Colusa*, 127 Cal. App. at 38.

[236] *In re Snow Mountain Water and Power Co.*, 1928 Cal. ENV. LEXIS 2, at *21; *see also In re* Bank of Italy as Trustee for A.K. Detweiler, No. D-227, 1929 Cal. ENV LEXIS 15, at *20 (Div. of Water Res. May 6, 1929), which noted:

> Nor does it appear that a police power has been vested in the Division of Fish and Game which authorizes it to enjoin such diversions of water for beneficial uses as it deems inimical to fish life, but, if so, the issuance of permits to appropriate by the Division of Water Rights will not prevent the exercise of such an authority by said division.

Bank of Italy, 1929 Cal. ENV LEXIS 15 at *20.

[237] *Nat'l Audubon Soc'y*, 33 Cal. 3d at 447.

National Audubon not only outlined the scope of the public trust doctrine in California, but also reinforced a private right of action against private parties for public trust violations. While the right to assert public trust violations against the State and its subdivisions was already uncontroversial,[238] the ability of private parties to assert public trust violations against other private parties was less secure. For example, consider the California Court of Appeal's opinion in the 1970 case *Marks v. Whitney*.[239] There, Marks owned tidelands on Tomales Bay and claimed outright ownership of the lands, with the right to fill or develop his land as he saw fit. Whitney, a nearby landowner, sought to prevent the development of the tidelands on the basis that "this would cut off his rights . . . as a member of the public in these tidelands and the navigable waters covering them."[240] Accordingly, Whitney "requested a declaration . . . that Marks' title was burdened with a public trust easement."[241] Following precedent,[242] both the trial and appellate courts held that Whitney lacked standing to assert a public trust claim: "Defendant Whitney does not own the public rights and can neither express nor control them."[243] On appeal, the California Supreme Court directly addressed the public trust standing question in a unanimous ruling. "*Does Whitney have "standing" to request the court to recognize and declare the public trust easement on Marks' tidelands*? *Yes*."[244] This holding reversed the longstanding rule that members of the general public could not bring suits to remedy violations of public trust rights.

The California Supreme Court decision appears to have been the first holding directly addressing private standing to remedy violations of public trust rights, but the court reiterated its view in *National Audubon*.[245] There, LADWP argued that environmental groups lacked standing to sue LADWP to protect the public trust. Citing *Marks v. Whitney*, the court held that "any member of the general public has standing to raise a claim of harm to the public trust." [246]

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[238] *See, e.g.*, Gion v. City of Santa Cruz, 2 Cal. 3d 29, 41-42 (1970) (implying that asserting public trust violations against the state was fairly normal).

[239] Marks v. Whitney, 90 Cal. Rptr. 220, 223 (Ct. App. 1970).

[240] Marks v. Whitney, 6 Cal. 3d 251, 256 (1971).

[241] *Id.*

[242] *See generally Marks*, 90 Cal. Rptr. at 222 (collecting precedential cases denying private standing to enforce the public trust).

[243] *Id.* at 223.

[244] *Marks*, 6 Cal. 3d at 261 (emphasis in original).

[245] Nat'l Audubon Soc'y v. Superior Court, 33 Cal. 3d 419, 425 (1983).

[246] *Id.* at 431 n.11 (internal citation omitted.); *id.* (holding that "plaintiffs have standing to sue to protect the public trust.").

National Audubon resolves any doubt that private parties have standing to sue to enforce the public trust.[247] This expansion in standing allows individual plaintiffs to directly enforce the public trust as embodied by 5937,[248] thus overruling the bar to private 5937 enforcement erected in *Rank v. Krug* in 1951.[249]

National Audubon not only introduced private 5937 enforcement, but also indirectly led to later development of much of the substantive 5937 law. In light of *National Audubon*, the Water Board began a comprehensive review of Mono Lake public trust issues.[250] Responding to that review, California Trout Inc. and other environmental groups filed a public trust lawsuit alleging violations of 5946 and 5937 on four streams that flow into Mono Lake, leading to *California Trout, Inc. v. State Water Resources Control Board* ("*CalTrout I*")[251] and *California Trout, Inc. v. Superior Court* ("*CalTrout II*").[252] The trial court consolidated *CalTrout I* and *II* with *National Audubon*, and the case dragged on until 1990, when the trial court approved an interim habitat restoration agreement and stayed the public trust and 5937 actions pending review of the agreement by the Water Board.[253] This review produced the Mono Lake Basin Water Right Decision 1631

[247] Roger Beers, *Administrative Law And Environmental Litigation*, *in* 1-11 CAL. ENVT'L L. & LAND USE PRAC. § 11.04 (2010). Questions remain about the ability of private parties to enforce environmental laws against other private parties in the absence of a citizen suit provision:

> When a statute contains no provisions for enforcement through citizen suits, plaintiffs in private enforcement actions may face an additional hurdle even when they meet all of the other standing requirements . . . . This issue does not arise when the plaintiff seeks judicial review of an agency decision, but only when the plaintiff seeks to enforce the statute against a private party or seeks a remedy not expressly authorized by the statute . . . . The issue of implied private rights of action has not yet arisen in any California environmental cases.

Id.

[248] *See* Ruling on Submitted Motion for Reconsideration at 4, Reynolds v. City of Calistoga, No. 26-46826 (Cal. Super. Ct. 2010); Transcript of Judge's Ruling at 2-3, *Putah Creek Water Cases*, Judicial Council Coordination (Cal. Super. Ct. 1996) (No. 2565) (citing CAL. FISH & GAME CODE § 5900 (West 2010)).

[249] Rank v. Krug, 90 F. Supp. 773, 801 (S.D. Cal. 1950).

[250] Gregory S. Weber, *Articulating the Public Trust: Text, Near-text and Context*, 27 ARIZ. ST. L.J. 1155, 1186-87 (1995).

[251] *Id.* at 1169.

[252] *CalTrout II*, 266 Cal. Rptr. 788, 788 (Ct. App. 1990).

[253] Weber, *supra* note 250, at 1186-87.

("Mono Basin Decision").[254] The 5937 aspects of all three decisions are discussed below.

1. *CalTrout I*: Mono Lake Tributaries

In 1974, the Water Board granted licenses to LADWP to appropriate water from several Mono Lake[255] tributaries with "good trout populations."[256] In *CalTrout I*, California Trout Inc. challenged these new licenses, relying on 5946 and its requirement that the Water Board condition all District 4 1/2 diversions on compliance with 5937.[257] The plaintiffs sought a writ of mandate to the Water Board to rescind the LADWP water right licenses, but the trial court denied the writ.[258] On appeal, however, the court reversed the denial and issued writs commanding the Water Board to condition the licenses on provision of sufficient water to keep downstream fish in good condition.[259]

Before attempting to understand 5937 based on *CalTrout I*, one must understand that the *CalTrout I* court sought to constrain its ruling to 5946, only considering the application of 5937 in the context of 5946 and explicitly avoiding construing 5937 absent 5946.[260] But the court could not interpret 5946, which requires that licenses and permits in District 4 1/2 contain language requiring compliance with 5937, without interpreting the underlying requirements in 5937 — the court implicitly interpreted 5937 throughout its decision.[261] In

[254] City of Los Angeles, No. D-1631, 1994 WL 16804395, at *1-2 (Cal. State Water Res. Bd. Sept. 28, 1994) [hereinafter Water Right Decision D-1631].

[255] *CalTrout I*, 255 Cal. Rptr. 184, 186 (Ct. App. 1989).

[256] *Id.* at 189.

[257] *Id.* at 186.

[258] *Id.*

[259] *Id.* at 213.

[260] *Id.* at 192.

> We need not reach the question of the application of section 5937 alone as a rule affecting the appropriation of water . . . . [R]egardless of the original scope of application of section 5937, the purpose of its incorporation into section 5946 is, as section 5946 says, to 'condition,' and therefore limit, the '[appropriation]' of water by the priority given to the preservation of fish as set forth in section 5937.

Id.

[261] As the court itself noted, "One does not show compliance with a rule by claiming that it is inapplicable." *Id.* at 192. Instead, one determines compliance with a rule by determining what the rule itself requires, as the court demonstrates throughout its opinion. *Id.*

interpreting 5946, *CalTrout I* made three significant holdings concerning 5937.

First, the *CalTrout I* court gave lie to the tired argument that " 'higher' domestic or irrigation uses must be approved regardless of the detriment to 'lower' uses such as instream use for fishery or recreation purposes."[262] The court stressed that the Water Code must be read as a whole, including Water Code section 6501, which incorporated the Fish and Game Code provisions for protection and preservation of fish.[263] The Court further recognized that "[c]ompulsory compliance with a rule requiring the release of sufficient water to keep fish alive necessarily limits the water available for appropriation for other uses."[264] Therefore, even under the narrowest reading, the court necessarily held that compliance with 5937 limits water available for appropriations,[265] overturning myriad Water Board holdings to the contrary.[266]

Second, *Cal Trout I* rejected a facial challenge to 5937 that alleged releasing flow for fish violated the reasonableness requirements of California Constitution article X, section 2.[267] The court held that when the Legislature makes a water allocation rule like 5937, it has balanced the competing beneficial uses and made a permissible reasonableness determination,[268] which must receive deference from

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[262] *Id.* at 192; *cf.* CAL. WATER CODE § 106 (West 2010) (stating highest beneficial use for water is domestic use and that second highest beneficial use is for irrigation).

[263] *CalTrout I*, 255 Cal. Rptr. at 192 n.4; *cf.* CAL WATER CODE § 6501 (West 2010) ("The provisions for the . . . protection and preservation of fish in streams obstructed by dams are contained in . . . the Fish and Game Code.").

[264] *CalTrout I*, 255 Cal. Rptr. at 192.

[265] This determination leaves open the question of when compliance is required, but the plain language of 5937 does not leave much doubt in that regard. *See* CAL. FISH & GAME CODE § 5937 (West 2010). Further, the appellate court rejected LADWP's argument that section 5946 did not apply when an appropriator sought to take all of a stream's water, reasoning that, under their argument, the legislative purpose of 5946 could not be achieved. CalTrout I, 255 Cal. Rptr. at 192. The same reasoning compels the same conclusion with respect to 5937.

[266] *See, e.g.*, *In re* Calaveras Cty. Water Dist., No. D-858, 1956 Cal. ENV LEXIS 13, at *80 (Div. of Water Res. July 3, 1956) ("While this Division has long recognized the maintenance of fish life as a beneficial use, we do not believe that this use should take precedence over such higher uses as municipal, domestic, and irrigation purposes. We believe the water code is crystal clear in this regard.").

[267] *CalTrout I*, 255 Cal. Rptr. at 206.

[268] *Id.* at 206-08. Notably, the court did not discuss the first test for the legitimacy of a water right, whether the use is beneficial. Presumably the court found this unnecessary because water for fish is a well settled beneficial use. *See supra* note 96.

the judiciary.[269] This finding reinforced the preeminence of legislative determinations of water use decisions.

Finally, the court dismissed arguments that 5946 could not be applied to permits that had already been granted.[270] The court recognized the Water Board's continuing duty to require compliance with 5946 to "maintain fisheries in such streams on an ongoing basis."[271] Absent 5937 language in permits, 5946's continuing duty gave rise to "a continuing violation of the statute as to which no statute of limitations prevents remediation."[272] Further, the court noted that 5946 constitutes "a specific rule concerning the public trust interest,"[273] which does not disappear because of the State's prior failure to protect the public trust.[274] Neither independent basis requiring prospective application of 5946 is unique to that law; the same reasoning necessarily applies to 5937. For 5937, as for 5946, "the purpose is to maintain fisheries . . . on an ongoing basis,"[275] and the failure to do so constitutes an ongoing violation of the statute.[276] Moreover, 5946 seeks to protect the public trust by requiring compliance with 5937, which indicates that 5937 must also operate as a legislative decision to protect the public trust. Therefore, a failure to enforce 5937 in the past does not amount to a forfeiture of its future enforcement. This holding subjects any dam-related water

[269] *Id.* at 208. The *CalTrout I* court acknowledged the judiciary's constitutional power to override a "manifestly unreasonable" statute determining water allocation, but quickly concluded it could "find no arguable merit in the claim that section 5946 would conflict with that constitutional provision." *Id.* One might argue that this reasonableness determination would be a very different matter when applied to 5937 over the entire state, not merely the area under purview of 5946; but the court's discussion of the Legislature's power in this regard suggests that it would come to the same conclusion. The Court notes that "article X, section 2, [is] an amendment enacted to vest the 'right' in the Legislature, over the judicial objection in *Herminghaus*, to determine the useful and beneficial purposes of water use," and that "there is 'broad legislative authority for the conservation and regulation of scarce water resources.' " *Id.* (citing *In re* Waters of Long Valley Creek Stream Sys., 25 Cal. 3d 339, 351-52 (1979) (footnote omitted)).

[270] *Id.* at 204.

[271] *Id.* at 210.

[272] *Id.*

[273] *Id.* at 212.

[274] People v. Kerber, 152 Cal. 731, 734 (1908) ("The public is not to lose its rights through the negligence of its agents, nor because it has not chosen to resist an encroachment by one of its own number, whose duty it was, as much as that of every other citizen, to protect the state in its rights.").

[275] *CalTrout I*, 255 Cal. Rptr. at 210.

[276] *Id.* at 192. A violation of section 5946 is necessarily predicated on a violation of 5937. *Id.*

appropriation to a 5937 suit, if the dam does not maintain fish downstream in good condition, regardless of the age of the dam.

2. *CalTrout II*: Mono Lake Tributaries

In 1990, the *CalTrout I* plaintiffs returned to the Third Appellate District Court for *CalTrout II*,[277] challenging the Water Board's delay in complying with *CalTrout I* by conditioning the LADWP licenses on 5937 compliance.[278] After the superior court refused to grant interim relief to petitioner CalTrout and found the delay in the water release to be acceptable,[279] the Court of Appeal reversed,[280] ordering the Water Board to immediately condition the appropriations on compliance with 5937.[281]

In reaching these holdings, *CalTrout II* ruled on two matters crucial to resolving 5937's proper role in state water law. First, the court reaffirmed *CalTrout I*'s recognition of 5946 as the Legislature's water allocation rule foreclosing the Water Board from considering out-of-stream water uses before water is reserved for below-dam fish.[282] The court recognized that 5946 leaves the Water Board no discretion, for it "takes [water needed for below-dam fish] outside the purview of statutes that allow the Water Board to determine the priority of uses."[283] And the court clarified that it was enforcing *CalTrout I*

[277] *CalTrout II*, 266 Cal. Rptr. 788, 788 (Ct. App. 1990).

[278] *Id.* at 791.

[279] *Id.*

[280] *Id.*

[281] *Id.* The court of appeal also directed the superior court to consider interim flows pending the setting of final flows. The court of appeal found its jurisdiction to direct the consideration of interim rates in its concurrent jurisdiction over compliance proceeding's involving section 5946. *Id.*

[282] *Id.* at 797 (citing *CalTrout I*, 255 Cal. Rptr. 184, 184 (Cal. Ct. App. 1989) ("The Legislature, not the Water Board, is the superior voice in the articulation of public policy concerning the reasonableness of water allocation.")).

[283] *Id.* (citing CAL. WATER CODE §§ 1243, 1253, 1254, 1256, 1257 (West 2010)) (delegating the authority to make reasonableness determination to the Water Board). The court went on:

> [The Water Board's argument] is premised on provisions of the Water Code and regulations which in some circumstances grant the Water Board authority to balance competing claims for the beneficial use of water and thereby determine the relative amounts of water to be allocated for the preservation and enhancement of fish and wildlife resources and other beneficial uses. That argument is foreclosed by *section 5946* and our prior opinion for the reason, we are at pains to repeat, that the Legislature has already balanced the competing claims for water from the streams affected by *section 5946* and determined to give priority to the preservation of their

through its concurrent jurisdiction.[284] Under its concurrent jurisdiction, the court appointed the Water Board to serve as the water master, a role with no discretion.[285] Thus, the *CalTrout II* court held that the Water Board loses its normal balancing power when implementing 5937, because the Legislature has already struck the balance on the side of fish.[286]

Second, *CalTrout II* provided the first judicial definition of "good condition" as required by 5937.[287] The court stated that 5937 requires enough water flow to maintain the "pre-diversion carrying capacity of fish" in streams.[288] Thus *CalTrout II* read 5937 to require enough water

> fisheries. There is no discretion in the Water Board to do other than enforce its requirements.

Id. at 795-96.

[284] *Id.* at 791. Because no potential competing uses remained for the Water Board's consideration, the Court of Appeal rejected the Water Board's argument that it held primary jurisdiction over the enforcement of 5946. *Id.*

[285] *Id.* at 797. Thus, in the determination of section 5946-flows for the Mono Basin tributaries, the Water Board may act as a master for the court.

[286] *Id.* In discussing what might be the more typical nonjudicial situation, the court in *CalTrout II* recognized that the CDFG remains the appropriate body to determine below-dam flows because it possesses the expertise to calculate flows that will reestablish and maintain below-dam fish. *Id.* at 795-96; *see also* CAL. FISH & GAME CODE § 1802 (West 2010) (indicating that the CDFG holds California's fish and wildlife in trust for the people of the state). The court recognized that in the present case, there was no administrative remedy for the petitioners to seek before the CDFG. This was the situation because *CalTrout I* used the Water Board as in only a ministerial capacity, making the Water Board the court-designated agency to set the flows required by the decision. *CalTrout I*, 207 Cal. Rptr. at 213. The CDFG must enforce section 5946 flows in the absence of a court exercising concurrent jurisdiction and using the Water Board or any other agency or individual as a master. *See* CAL. FISH & GAME CODE § 702 (West 2010) (CDFG management functions achieved through administration and enforcement of Fish & Game Code); CAL. FISH & GAME CODE § 1802 (West 2010) (indicating that the CDFG has jurisdiction over conservation, protection and management of fish, wildlife, native plants, and the habitats necessary for biologically sustainable populations of those species). According to the *CalTrout II* court, Water Board expertise is reserved for situations involving "the intricacies of water law" or "comprehensive planning," which were not present in this case legislative action provided clarification. *CalTrout II*, 266 Cal. Rptr. at 797.

[287] CAL. FISH & GAME CODE § 5937 (West 2010).

[288] *CalTrout II*, 266 Cal. Rptr. at 801. The Court believes that this standard does not allow for balancing:

> The same is true with respect to the question of reconciling the amount of water required to sustain the prediversion carrying capacity of fish of the four streams in issue with "the public interest," an apparent reference in the regulation to the discretion assigned to the Water Board in some cases to balance the interests served by competing claims to the use of water. Once again we say, these provisions are not applicable in this case for the

for restoration of the historical fishery. The court's discussion of 5946 does not dilute this explanation of a "historical fisheries" approach to the flow requirements under 5937. Section 5946 only reiterates that 5937 applies to the streams at issue in the suits; 5937 itself mandates the good-condition requirements.

3. *NRDC v. Patterson*: San Joaquin River

After the United States Bureau of Reclamation ("Bureau of Reclamation" or "Bureau") completed Friant Dam and commenced filling the accompanying reservoir, native fish communities downstream of the dam fell into ruin.[289] Sixty miles of the San Joaquin River upstream from the confluence with the Merced River remained dry throughout much of the year.[290] This extirpated the spring and fall runs of Chinook salmon from the San Joaquin River above the dry stretch,[291] and "ten of the sixteen species of native fish disappeared from the area."[292]

Even after the 1974 Opinion reinterpreted 5937, the State took no action to rewater the San Joaquin River. In 1988, the Natural Resources Defense Council ("NRDC") and other environmental groups sued the Bureau of Reclamation, the owner of Friant Dam, [293] alleging violation of the Administrative Procedures Act ("APA")[294]

> balancing therein contemplated has been done by the Legislature in enacting section 5946.

Id.; *see also id.* at 802 ("With respect to Parker Creek the only argument appears to be that the absence of an existing fish population makes it hard to know how much water ought to be released. *The answer is — enough to restore the historic fishery*." (emphasis added)). The Court is careful to clarify that it understands that the pre-diversion carrying capacity can be supported by less water than was in the pre-diversion stream: "There is no reason to suppose that cessation of diversion, i.e., a return to the natural situation, would not of itself restore the creeks and their fisheries. However, this would probably constitute a waste of water." *Id.* at n.6. The court does not cite authority for this proposition, and its truth probably varies on a case-by-case basis.

[289] CAL. DIV. OF FISH & GAME, *supra* note 142, at 45 ("The situation on the San Joaquin River could not be worse than it is. Inadequate water releases from Friant Dam have resulted in near extinction of the salmon run.").

[290] Natural Res. Def. Council v. Patterson (*Patterson II*), 333 F. Supp. 2d 906, 910 (E.D. Cal. 2004).

[291] *Id.*

[292] *Id.* at 911.

[293] Natural Res. Def. Council v. Houston, 146 F.3d 1118, 1124 (9th Cir. 1998), *aff'd sub nom.* Natural Res. Def. Council v. Rodgers, 381 F. Supp. 2d 1212 (E.D. Cal. 2005); *Patterson II*, 333 F. Supp. 2d at 906; Natural Res. Def. Council v. Patterson (*Patterson I*), 791 F. Supp. 1425 (E.D. Cal. 1992).

[294] 5 U.S.C. § 706(2)(A)-(D) (2010) (noting that courts will set aside agency action

based on a violation of Section 8 of the Reclamation Act ("Section 8")[295] and an underlying violation of 5937.[296] While many scholars discuss *NRDC v. Patterson* generally ("*Patterson I*"), its interaction with 5937 bears further examination.[297]

First, the trial court in *Patterson I* agreed with *CalTrout I* and *II* that 5937 establishes a limit on the amount of water that may be appropriated from a stream or river.[298] "By its terms, 5937 mandates that the owner of a dam allow water to pass over or through the dam for certain purposes . . . . Thus, it is a prohibition on what water the Bureau, as owner of the dam, may otherwise appropriate."[299]

Second, when determining whether the Bureau violated 5937,[300] *Patterson II* followed *CalTrout I* and *II*, holding that "the relevant state

when an agency acts arbitrarily or capriciously or not in accordance with the law).

[295] Section 8 provides,

> Nothing in this Act shall be construed as affecting or intended to affect or to in any way interfere with the laws of any State or Territory relating to the control, appropriation, use or distribution of water used in irrigation, or any vested right acquired thereunder, and the Secretary of the Interior, in carrying out the provisions of this Act, shall proceed in conformity with such laws.

43 U.S.C. § 383 (2010). Thus, Section 8 requires the Bureau to follow some state water laws. Plaintiffs argued that 5937 was just such a law.

[296] *Patterson I*, 791 F. Supp. at 1428.

[297] *Patterson II*, 333 F. Supp. 2d at 917. In a strange twist, Defendants in the case argued that the language,

> "[A]ny fish that may be planted or exist below the dam" established alternative requirements for water releases – the owner could keep in good condition fish that may be planted, or, in the alternative, keep in good condition fish that exist below the dam. The court rejected this reading, settling instead on a reading proposed by counsel for *amicus* State Water Board, that the language, "merely 'establishes the categories of fish that are to be protected.' [. . .] Ultimately, however, the statute places a single duty on the dam owner, directing the dam owner to maintain 'any fish' that fall into one of two enumerated categories.

Id. at 918.

[298] *Patterson I*, 791 F. Supp. at 1435. The Court sought to determine if 5937 fell within the Section 8 laws that applied to the Bureau; those laws "relating to the control, appropriation, use or distribution of water used in irrigation." *Id.* The Court reasoned that it excluded "only those statutes which exclusively regulate the operation of dams and which have no effect on the distribution of water," and then determined that 5937 "affects the impoundment and distribution of water. Accordingly, even if section 5937 also affects the operation of Friant Dam, Section 8 mandates the Bureau's compliance with the state statute." *Id.*

[299] *Id.*

[300] The plaintiffs asked the court "to find that the federal defendants have violated

law [5937] here directs the Bureau to release sufficient water to 'reestablish and maintain' the 'historic fisheries.' "[301] In applying the historical fisheries standard, the court concluded that, because the Bureau did not release enough water to support the historical fishery, the "Bureau of Reclamation has violated § 5937 of the California Fish and Game Code as applied to it by virtue of § 8 of the Reclamation Act of 1902."[302] This laid a path for applying 5937 to all Bureau of Reclamation dams.[303]

Since *Patterson I*, only three other federal courts have considered 5937, and none reached the meaning of the statute.[304]

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§ 8 and § 5937, but to reserve the question of remedy for a subsequent phase of the litigation." *Patterson II*, 333 F. Supp. 2d. at 914. The Court did so, and the parties eventually settled the litigation. Notice of Lodgment of Stipulation of Settlement at 1, NRDC v. Rodgers, No. CIV S-88-1658 (E.D. Cal. 2006), *available at* http://swr.nmfs.noaa.gov/ recovery/The%20Settlement091306.pdf.

[301] *Patterson II*, 333 F. Supp. 2d. at 916 (citing *CalTrout II*, 266 Cal. Rptr. at 802-803 (Ct. App. 1990)). Like *CalTrout II*, the *Patterson II* decision rejected any balancing test by the Water Board in determining the requirements of 5937. *Id.* at 918-20. While citing *CalTrout II* for this proposition, the Court also struggled with the *CalTrout II* court's efforts to limit the scope of its decision to section 5946:

> *CalTrout* does not explicitly hold that § 5937 mandates placing the preservation of fish above the irrigation purposes of a dam, but reserves the question of the statute's application alone as a rule affecting appropriation of water, separate from § 5946. The court simply interprets the statute, based on its plain meaning and context, as "requiring the release of sufficient water to keep fish alive. Precluding the Water Board from balancing beneficial uses ensures that sufficient water must be released to support downstream fish regardless of competing uses.

Id. at 918-19; *id.* ("[T]he Legislature has already balanced the competing claims for water . . . and determined to give priority to the preservation of their fisheries." Thus, the statute's plain meaning, legislative history, and construction by the state's court all point in a single direction." (internal citation omitted)).

[302] *Id.* at 925 (internal citation omitted).

[303] The Friant Dam litigation settled in 2006, imposing flows recommended by Dr. Moyle, based on his good condition standard articulated in the *Putah Creek Water Cases*, discussed below. Flows returned to the dry riverbed for the first time in October 2009, and salmon will be reintroduced to the river in 2012. Tim Sheehan, *Friant Dam Releases Water to Begin River Rebirth*, Special Reports — A River Reborn, FRESNO BEE, Oct. 2, 2009.

[304] In *CLEAR v. Connor et al.* ("*CLEAR*"), a federal district court did not reach construction of 5937. 762 F. Supp. 2d 1214, 1233-1234 (S.D. Cal. 2011). The case concerns a section of the Colorado River near Palo Verde that the Bureau largely dewatered through the construction of a levee and the Cibola Cut (a canal) in the late 1960s. *Id.* at 1219, 1233. CLEAR sought enforcement of 5937 against the Bureau of Reclamation, following the path laid out in *Patterson I*. The court held instead that Section 8 only applied state law to the Bureau of Reclamation when the Bureau was actively "carrying out the provisions of' the [Reclamation] Act; that is, taking

affirmative actions authorized by statute." *Id.* at 1233. Because the Bureau was not carrying out the Act in that case, the court did not reach the state law issues and thus did not interpret 5937. Briefly, the Court reviewed the Cibola Cut and determined that "the levees . . . are static earthen structures of dirt fill, gravel, and rip-rap; they neither impound nor release water and are therefore not dams operated as such; they have not been altered in forty years; and they are functioning as designed." *Id.* at 1234 (internal citations omitted). Because the Bureau did not operate anything on the levees and was neither actively releasing nor actively impounding water, the court determined that the project "involve[d] no ongoing management or operation of a Reclamation project." *Id.* at 1233. "Thus, Reclamation is not obligated to comply with the state laws upon which Plaintiff's claims are based." *Id.* at 1234.

In 2006, the Eastern District Court of California briefly discussed 5937 in *High Sierra Hikers v. U.S. Forest Service* ("*High Sierra Hikers*"). High Sierra Hikers v. U.S. Forest Serv., 436 F. Supp. 2d 1117, 1117 (E.D. Cal. 2006). High Sierra Hikers, an environmental group, brought suit alleging that a U.S. Forest Service plan to repair, maintain, and/or operate eleven dams in the Emigrant Wilderness Area violated the Wilderness Act. *Id.* at 1126. These dams were originally constructed to improve fisheries in the 1920s on streams that drain into the Stanislaus and Tuolumne rivers. *Id.* at 1122-23. Congress designated Emigrant Wilderness as a Wilderness Area in 1975. An Act to Designate Certain Lands as Wilderness, Pub. L. No. 93-632 § 2(b), 88 Stat. 2154 (1975). The Wilderness Act forbids any "structure or installation within any such area," which High Sierra Hikers alleged forbade repair or maintenance of the dams. *High Sierra Hikers*, 436 F. Supp. 2d at 1131 (citing 16 U.S.C. § 1133 (2011)). The court agreed, concluding that "the plain and unambiguous text of the Wilderness Act . . . prohibits that activity,"[304]and thus barred work on the dams. *Id.* at 1131. Prohibited activities in Wilderness Areas are allowed if they are "necessary to meet minimum requirements for the administration of the area." *Id.* (citing 16 U.S.C. § 1133 (2011)).The court determined,

> Because it is not possible to infer from this language that establishment (much less enhancement) of opportunities for a particular form of human recreation is the purpose of the Wilderness Act, it is not possible to conclude that enhancement of fisheries is an activity that is "necessary to meet minimum requirements for the administration of the area for the purpose of this chapter.

Id. CalTrout also intervened to assert 5937 for these dams, but dropped the argument early in the case, so it is unclear how the court would have ruled. *Id.* ("Interveners appear to recognize this and have opted to not develop this argument any further; perhaps leaving it to the state to assert rights in the regulation of stream flows at some later time.").While *High Sierra Hikers* is a minor case in the broader 5937 context, it carries some preemption implications, discussed below.

Finally, in *Casitas Municipal Water District v. United States*, the Court of Federal Claims declined to find that 5937 served as a *Lucas* background principle exempting the federal government from and Endangered Species Act takings claim. Casitas Mun. Water Dist. v. United States, No. 05–168L, 2011 WL 6017935 at *18 (Fed. Cl. 2011). The court decided *Casitas* very late in this article's publication schedule and therefore receives only abbreviated treatment. The decision's significance is discussed in Part IV of this article.

4. Putah Creek Water Cases

As the Friant Dam litigation progressed through the courts, the Putah Creek Council, a watershed protection organization, filed suit challenging the operation of another Bureau dam — the Putah Diversion Dam ("PDD").[305] In 1989, during the first year of a statewide drought, stretches of Putah Creek began to dry up below the PDD, endangering native fish.[306] In the *Putah Creek Water Cases*, the Putah Creek Council sought to ensure that enough water would pass through the PDD for downstream fish. The Council alleged violations of both 5937 and the public trust doctrine, generally.[307]

[305] Putah Creek is a small river draining the east from Napa toward the Sacramento River, Peter B. Moyle, Michael P. Marchetti, Jean Baldrige & Thomas L. Taylor, *Fish Health and Diversity: Justifying Flows for a California Stream*, 23 FISHERIES 6, 7-8 (1998), flowing through agricultural areas, and largely protected from development through a series of reserves. Transcript of Judge's Ruling, *supra* note 248, at 2-3. The Monticello Dam impounds Putah Creek at the eastern edge of Napa County, creating Lake Berryessa. U.S. BUREAU OF RECLAMATION, *Solano Project*, http://www.usbr.gov/projects/Project.jsp?proj_Name=Solano%20Project. The outflow from Lake Berryessa supports a year round cold water fishery for roughly eight miles before it too is impounded by the Putah Diversion Dam, which creates Lake Solano. Moyle et al., *supra*, at 9. Together, the PDD and associated water works collectively make up the Solano Project. U.S. BUREAU OF RECLAMATION, *supra*. At the Putah Diversion Dam, most water from Putah Creek is diverted into Putah South Canal for Solano County. Moyle et al., *supra*, at 9. Even at the height of diversions, however, some water generally passed through the diversion dam to satisfy rights of riparian landowners, supporting some fish communities immediately downstream of the dam and, to a lesser degree, farther downstream. Moyle et al., *supra*, at 9.

[306] Moyle et al., *supra* note 305, at 10.

[307] In contrast to the Friant Dam cases, where the plaintiffs filed suit directly against the Bureau, the *Putah Creek Case* plaintiffs sued the Solano Irrigation District and Solano County Water Agency, as owners of the dam under the definitions set forth in section 5900(c) of the California Fish and Game Code.

> "Owner" includes the United States (except that for the purpose of Sections 5901, 5931, 5933, and 5938, "owner" does not include the United States as to any dam in the condition the dam existed on September 15, 1945), the State, a person, political subdivision, or district (other than a fish and game district) owning, controlling or operating a dam or pipe.

CAL. FISH & GAME CODE § 5900 (West 1961); *see also* Transcript of Judge's Ruling, *supra* note 248, at 22-33. The SCWA contracts with the Bureau for water services from the Solano Project and separately contracts for the operation of the Solano Project. Settlement Agreement and Stipulation at 1-2, *Putah Creek Water Cases*, No. 3 Civ. C025527 & No. 3 Civ.025791 (Cal. Ct. App. 2000) (on file with author).

The *Putah Creek Water Cases* never resulted in a published opinion,[308] but the trial judge did issue a ruling from the bench on behalf of the plaintiffs, dramatically increasing water releases from the dam. The defendants appealed, but the parties eventually reached a settlement providing water for downstream fish.[309] Nevertheless, the bench ruling provides further judicial interpretation of the 5937 requirements.

First, the *Putah Creek Water Cases* court engaged in exactly the kind of balancing test that the *CalTrout*[310] and *NRDC* courts[311] rejected, stating "critical to the analysis is the amount of additional water needed to satisfy these public trust values and to keep the fishery in good condition *weighed against* the impact that taking this water from the Solano parties will have on them."[312] Curiously, the *Putah Creek Water Cases* court did not cite the very recent *CalTrout* decisions in its ruling.[313] This omission, perhaps coupled with some confusion between the balancing allowed by *National Audubon* and the balancing already done by the Legislature in enacting 5937,[314] led the court to incorrectly engage in a balancing test to determine appropriate flows for Putah Creek under 5937, which reduced the water allocated by the court for fish protection.[315]

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[308] Nathan Matthews, Rewatering the San Joaquin River: A Summary of the Friant Dam Litigation, 34 ECOL. L.Q. 1109, 1120 (2007).

[309] *See Settlement Reached in Long-running Putah Creek Water Dispute*, UC DAVIS NEWS SERVICE (May 24, 2000). http://www-news.ucdavis.edu/search/news detail.lasso?id=5115; *see also* Settlement Agreement and Stipulation at 1, *Putah Creek Water Cases*, No. 3 Civ. C025527 & No. 3 Civ.025791 (Cal. Ct. App. 2000), on file with author; Moyle et al., *supra* note 305, at 10-14.

[310] *CalTrout II*, 266 Cal. Rptr. 788, 801 (Ct. App. 1990).

[311] *Patterson II*, 333 F. Supp. 2d 906, 918-19 (E.D. Cal 2004) (internal citations omitted) ("As Cal. Trout put it, 'the Legislature has already balanced the competing claims for water . . . and determined to give priority to the preservation of their fisheries.' Thus, the statute's plain meaning, legislative history, and construction by the state's court all point in a single direction.").

[312] Transcript of Judge's Ruling, *supra* note 248, at 13 (emphasis added).

[313] The 1996 ruling came seven years after *CalTrout I* and six years after *CalTrout II*.

[314] Transcript of Judge's Ruling, *supra* note 248, at 4.

> Mr. O'Laughlin [Counsel for SID and SCWA] says this is a case about fish. And I think in part he is right, because the more water for fish means more water for all of the public trust values of Putah Creek. But in my judgment the tug of war in this case and the implications of this decision go far beyond the narrow issues related to the fishery.

Id.

[315] *Id.* at 13.

Second, the *Putah Creek Water Cases* reinterpreted the good condition standard in 5937. *CalTrout II* clearly interpreted 5937's good condition standard to require maintenance of the historical fishery below the dam.[316] Without discussing the historical fishery approach, the court instead adopted an approach to the good condition determination that focused on three distinct levels: the fish community; the fishes' populations; and the individual fish.[317] Initially, Dr. Peter B. Moyle presented this interpretation of 5937's good condition standard to the court,[318] which ultimately adopted a standard that integrated some, but not all, aspects of the historical view.[319]

The *Putah Creek Cases*' balancing approach, in conjunction with a "good condition" test not relying on reproducing exact historical conditions, led to the explicit rejection of the flows that would have been required to maintain the historical anadromous fish populations in Putah Creek.[320] This holding demonstrates the importance of the

> Well, finding that the public trust resources have been harmed and that fish are not good — in good condition — I don't believe is the end of the case, because it is clear under the case law that I am to then engage in a balancing process. And National Audubon makes it clear that public trust values in theory can be sacrificed altogether if it is more appropriate under all the facts and circumstances to allow a complete diversion of the water to Solano County.

Id.

[316] *CalTrout II*, 266 Cal. Rptr. at 801-02 ("With respect to Parker Creek the only argument appears to be that the absence of an existing fish population makes it hard to know how much water ought to be released. *The answer is — enough to restore the historic fishery*." (emphasis added)).

[317] Transcript of Judge's Ruling, *supra* note 248, at 10.

[318] *See infra* Part V (discussing Dr. Moyle's *What Does "Fish in Good Condition" Mean?,* and describing Moyle's approach to determining good condition) ("But they [the other expert witness] will all, I think, agree with the basic concepts expressed by Professor Moyle. And I accept those as a definition of good condition."); *see also* Transcript of Judge's Ruling, *supra* note 248, at 10.

[319] Dr. Moyle deliberately shied away from developing criteria that would require restoration of fish populations to historical population levels, because that would be possible only if the dams were removed — an unlikely event. While regulated flows similar to those in Mono Basin streams at issue in *CalTrout I* and *II* can result in restoration of trout fisheries approaching historical levels, such an outcome is unlikely in more diverse ecosystems like those in Putah Creek. *See generally* Moyle et al., *supra* note 305 (discussing challenge of restoring historical ecosystems solely through increased flows).

[320] Transcript of Judge's Ruling, *supra* note 248, at 20. The anadromous fish include Chinook salmon and steelhead, and probably also include Pacific lamprey, although they were not mentioned in the transcript. *Id.*

CalTrout II holding that the Legislature conducted all necessary balancing when it passed 5937; additional balancing by the Water Board or courts frustrates the legislative intent of 5937 and reduces the intended protection for the fish.

5. Reynolds v. Calistoga: Napa River

Reynolds v. Calistoga is the most recent California state court opinion addressing 5937.[321] There, Grant Reynolds, a *pro se* fly fisherman, alleged that the City of Calistoga, as owner of the Kimball Creek Dam, failed to allow enough water through the dam to keep in good condition the fish populations below the dam.[322] After some initial wrangling,[323] the trial court allowed Reynolds to assert the 5937 claim against the City.[324] The court characterized the plaintiff's claim as "generally for a violation of the public trust, as authorized by *National Audubon,* and that public trust violation is simply alleged to be evidenced by a violation of 5937."[325] The court indicated that no authority prohibited a private plaintiff from suing to enforce 5937.[326] Although the City cited *Rank* for exactly that proposition, the court dismissed the suggestion, stating that "*Rank,* however, was decided before *Audubon,* and did not address a claim for violation of the public

[321] Ruling on Submitted Motion for Reconsideration at 4, Reynolds v. City of Calistoga, No. 26-46826 (Cal. Super. Ct. 2010).

[322] Memorandum of Points and Authorities in Support of Amicus Curiae at 2, Reynolds v. City of Calistoga, No. 26-46826 (Cal. Super. Ct. Mar. 25, 2010).

[323] The trial court initially dismissed the suit on the mistaken understanding that *Ctr. for Biological Diversity, Inc. v. FPL Grp., Inc.* (*"Bio Diversity"*), 83 Cal. Rptr. 3d 588 (Ct. App. 2008), requires public trust cases to be brought against the state agencies responsible for the public trust." *Id.* at 3. Reynolds, with the help of an attorney, sought reconsideration on the initial ruling and petitioned for mandamus against the Water Board and CDFG. William McKinnon, *Another Opinion on Reynolds v. City of Calistoga*, N. CAL. RIVER WATCH ACTIVIST'S CORNER (June 25, 2010), http://www.ncriverwatch.org/wordpress/2010/06/25/another-opinion-on-reynolds-v-city-of-calistoga/ ("The writer [William McKinnon] was then retained to draft a mandamus action and to assist Reynolds in preparing a motion for reconsideration of the order of dismissal."). The State cooperated with Reynolds and "concluded that the public interest would be best served by filing an amicus brief in support of Reynolds' motion for reconsideration." *Id.* The State's amicus brief argued that *Nat'l Audubon* controlled rather than *Bio Diversity*, 166 Cal. App. 4 at 1349. Therefore, the City was a proper defendant. Memorandum of Points and Authorities in Support of Amicus Curiae at 4-5, Reynolds v. City of Calistoga, No. 26-46826 (Cal. Super. Ct. Mar. 25, 2010).

[324] Ruling on Submitted Motion for Reconsideration at 4, Reynolds v. City of Calistoga, No. 26-46826 (Cal. Super. Ct. Mar. 25, 2010).

[325] *Id.* at 3.

[326] *Id.*

trust, which *Audubon* held could be brought by private parties."[327] Ultimately, Calistoga committed to keeping the fish in good condition and issued a bypass plan to that effect.[328] *Reynolds* illustrates the continued importance of *National Audubon* standing in enforcing 5937 and the power of individual litigants to protect the public trust.

Since *National Audubon* opened the path to private 5937 enforcement in 1983, eight courts have addressed 5937.[329] Together, these cases paint a picture of the resurrection of a dead law through private litigation. All of these cases were pursued by private parties, with the State playing, at best, a supporting role as in *Reynolds v. Calistoga*. The State still has yet to take a lead role in enforcing 5937 in court. Nevertheless, these cases suggest that continued private enforcement of 5937 can and likely will be an important part of future protection of California's fish.

D. The Water Board Revisits 5937

Parallel to the judicial development of 5937, the Water Board has begun to hear cases enforcing the minimum flow requirement.[330] As indicated in an amicus filing in *Reynolds*, the Water Board's view of it role in public trust enforcement evolved significantly since the 1950s. The Water Board has considered 5937 directly in several cases,

[327] *Id.* at 2-3; *see also* Rank v. Krug, 90 F. Supp. 773, 783 (S.D. Cal. 1950).

[328] Press Release, City of Calistoga, Reynolds Lawsuit Coming to a Close (Aug. 31, 2011), *available at* http://www.ci.calistoga.ca.us/index.aspx?recordid=1247&page=151; *see also* Tentative Ruling at 1, Reynolds v. City of Calistoga, No. 26-46826 (Cal. Super. Ct. Sept. 22, 2011) (dismissing 5937 claim as moot "on the ground that the purposes of the . . . claim have been fulfilled by the City's adoption of an interim bypass plan.").

[329] *CLEAR*, 762 F. Supp. 2d 1214, 1214 (S.D. Cal. 2011); *High Sierra Hikers*, 436 F. Supp. 2d 1117, 1117 (E.D. Cal. 2006); *Patterson I*, 791 F. Supp. 1425, 1425 (E.D. Cal. 1992); *CalTrout II*, 266 Cal. Rptr. 788, 788 (Ct. App. 1990); *CalTrout I*, 255 Cal. Rptr. 184, 184 (Ct. App. 1989); *Reynolds v. Calistoga*, No. 26-46826 (Cal. Super. Ct. Jan. 26, 2011); *Putah Creek Cases*, Judicial Council Coordination (Cal. Super. Ct. 1996).

[330] Several Water Board decisions address instream flows for fish without invoking the authority of 5937, instead relying on the public trust doctrine or Water Code provisions requiring consideration of beneficial instream water uses. These Water Board decisions include many decisions regarding the North Fork of the American River, *See* CAL. STATE WATER RES. CONTROL BD., LEGAL REPORT: LOWER AMERICAN RIVER COURT REFERENCE 71 (1988), controversies surrounding water transfers on the Yuba River, Yuba Cnty. Water Agency, Cal. State Water Res. Control Bd., No. WR 91-05, 1991 WL 170936, at *1 (Cal. St. Wat. Res. Bd. 1991), and decisions surrounding the Russian River Project. Sonoma Cnty. Water Agency, Cal. State Water Res. Control Bd., No. WR 86-9, 1986 WL 25516, at *5 (Cal. St. Wat. Res. Bd. 1986). While this Article does not discuss these non-5937 decisions in detail, they demonstrate that the Water Board has sometimes enforced the requirements in 5937 without actually invoking 5937 itself. Excellent overview at Weber, *supra* note 250, at 1179, 1200.

including the East and West Fork Walker Rivers orders, the Mono Lake Decision, the Santa Ynez Order, and the Big Bear Decision, reviewed below.

1. East and West Fork Walker Rivers

The East Fork of the Walker River supports a trophy brown trout fishery, due in part to changed stream conditions resulting from a Walker River Irrigation District ("District") water project.[331] In 1990, the District sought additional water rights in both the East and West Forks of Walker River. In Water Rights Order 90-9, the Board conditioned the District's permits for the East and West Fork Walker Rivers on 5937 compliance.[332] The District appealed the order,[333] and the Board examined two major aspects of 5937 in the subsequent Water Rights Order 90-16.

First, the Water Board determined that 5937 could be used to protect more than just the historical fishery. The District argued that its permits should have been conditioned on release of flows necessary to restore the only *pre-project* fishery,[334] as outlined in *CalTrout II,*[335] which would not have protected the trophy brown trout fishery.[336] The Water Board rejected that request, however, holding that "5937 also permits, under appropriate circumstances, an alternative implementation which would require the dam owner to keep in good condition any fish "that may be planted" below the dam."[337] The Water Board held that 5937 allowed it to require protection of the "highly valued fishery consisting most importantly of an introduced, and periodically restocked, species."[338] Thus, under the Water Board's

[331] Cal. State Water Res. Control Bd., No. WR 90-18, 1990 WL 264521, at *10-11 (1990) [hereinafter Order No. 90-18].

[332] Walker River Irrigation Dist., Cal. State Water Res. Control Bd., No. WR 90-9, 1990 WL 263415, at *1 (Cal. St. Wat. Res. Bd. 1990) [hereinafter Order No. 90-9].

[333] Cal. State Water Res. Control Bd., No. WR 90-16, 1990 WL 263415, at *1 (Cal. State Water Res. Bd. 1990) [hereinafter Order No. 90-16].

[334] *Id.* at *3-4.

[335] *CalTrout II*, 266 Cal. Rptr. 788, 803-04 (Ct. App. 1990) ("The licensee shall release sufficient water into the streams from its dams to reestablish and maintain the fisheries which existed in them prior to its diversion of water.").

[336] Order No. 90-18, *supra* note 331, at *19-20.

[337] Order No. 90-9, *supra* note 332, at *1.

[338] Order No. 90-16, *supra* note 333, at *7. The Board further suggested that the historical fishery would also be an inappropriate point of comparison if it had already been impaired by pollution or illegal diversions. *Id.* at n.3. On the Board's reading, "[A] dam owner's duties under Section 5937 should not be limited to maintenance of the pre-project fishery." *Id.*

reading, 5937 can require protection of any fish downstream of dams, not just historical fish populations.

Second, the Water Board determined that the amount of water released under 5937 need not be limited to the amount of water flowing into the reservoir. The District requested that the Board add a sentence to the permits declaring, "In the case of a reservoir, this condition shall not require the passage or release of water at a greater rate than the unimpaired natural inflow into the reservoir."[339] The Water Board, however, noted the overriding physical solution doctrine, which "favor[s] a physical solution to promote maximum beneficial use of water."[340] Under the physical solution doctrine, "California courts have frequently considered whether there is a 'physical solution' available by which competing needs can best be served."[341] Generally, a physical solution constitutes a method allowing two parties seeking access to a stream to meet their needs in a manner that requires less total water from a watershed. Parties might reach accommodation by diverting water at different points in the stream,[342] increasing water imports, increasing dam height, or through some other physical change that does not require a reduction in water use. Applying the doctrine, the Board outlined a scenario where flows exiting the reservoir would be lower than inflows during the winter but higher than inflows during the summer, remarking that such regime would be required if it resulted in the maximum beneficial use of water, including water for instream flows. By combining 5937 with the rule favoring a physical solution, the Water Board determined that it could require reservoirs to release more water than they were receiving in order to keep fish in good condition.

After the Board rejected the District's appeal, CalTrout filed a complaint with the Board alleging that the District's operation of Bridgeport Dam on the East Fork of Walker River violated the permit's new 5937 conditions.[343] CalTrout later withdrew the complaint, but

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[339] *Id.* at *8. Note that this interpretation would have been in keeping with the Water Board's own 1975 Regulation, which contained that provision. But the Board responded that the regulatory language only offered a default rule and was not a rule of general application for 5937. It clarified that "[t]he rule cannot be understood as adopting an interpretation of Section 5937 that releases in excess of concurrent inflows to the reservoir are never required." *Id.*

[340] *Id.* at *8 (citing City of Lodi v. E. Bay Mun. Util. Dist., 7 Cal. 2d 316 (1936)).

[341] Water Right Decision D-1631, *supra* note 254, at *10-11 (citing City of Lodi v. E. Bay Mun. Util. Dist., 7 Cal.2d 316 (1936); Peabody v. Vallejo, 2 Cal. 2d 351, 383-84 (1935)).

[342] *See, e.g.*, Envt'l Def. Fund v. E. Bay Mun. Util. Dist., 26 Cal. 3d 183, 190 (1980).

[343] Order No. 90-18, *supra* note 331, at *23. Bridgeport Dam created Bridgeport

the Board pursued the claim of its own accord.[344] The resulting order, *Order No. WR 90-18*, stands as the most important Water Board decision implementing 5937. While much of the Water Board's order is fact-specific, two lessons apply broadly.

First, and most importantly, the Water Board determined that any adverse effect on a fish population can constitute a 5937 violation. Because the trophy brown trout fishery in the East Walker River did not have a historical analog, the Board could not compare the flows to historical levels. Instead, the Board held that any flow causing an "adverse effect" on the fish constituted a violation of 5937, without reference to a historical fishery or other comparison point.[345] This new standard sets a very low bar for establishing 5937 violations. Under this standard, even flow levels where "fish health is jeopardized" suffice to establish a violation.[346] This standard also has practical advantages; it does not require the extensive monitoring found in the *Putah Creek Cases* or *Patterson*, and it presents a lower burden for plaintiffs.

Second, the Board considered the impact of the reservoir level on water quality parameters, particularly turbidity, dissolved oxygen, and temperature during water releases.[347] The Board determined that releasing water when the reservoir fell below a minimum pool of 600 acre-feet risked exposing downstream fish to toxic conditions, which therefore required the pool be kept above that level.[348] While the Board likely could apply such requirements under its broad public trust authority, instead it chose to rely exclusively on 5937.[349] Under the Water Board's interpretation, 5937 is malleable enough to require maintenance of a reservoir above a particular water level. This requirement, coupled with continued water release requirements, could change the water management approach for the reservoir by necessitating additional winter storage and a slower rate of release during particular portions of the year. Such a reading of 5937 is more aggresive than any court has undertaken.

Reservoir.

[344] *Id.* at *4 n.3.

[345] *Id.* at *8.

[346] *Id.* at *9.

[347] *Id.*

[348] *Id.* at *8-9.

[349] *Id.* at *12.

2. Mono Basin Decision

The Mono Basin Decision implements the *CalTrout I* and *II* orders requiring compliance with 5937.[350] The Mono Basin Decision is particularly significant because, as in the East and West Fork Walker River order, the Board went far beyond establishing minimum flows, adding many ancillary requirements.[351] For example, the Mono Basin Decision required extensive habitat restoration for the four creeks in question,[352] including significant changes to channel morphology, addition of wood debris to the channel, restoration of riparian vegetation, installation of fish and sediment bypass systems at diversion points, and addition of spawning gravel.[353] Helpfully, the Mono Basin Decision further clarified the rationale underlying the additional requirements, the physical solution doctrine.[354]

After *CalTrout I* and *II* mandated water flows that would restore the historical fishery, the Board relied on the physical solution doctrine to minimize changes in the flow levels itself. Using the physical solution doctrine, the Board surmised that the historical fishery standard was achievable with less water if it also required direct restoration actions, beyond just increased flows.[355] While high instream flows can reestablish historical river channel morphology and improve fish habitat, in some cases mechanical channel changes and habitat improvements can achieve similar results with much less water.[356] In the Mono Basin Decision, the Water Board required manual re-vegetation of the stream, rehabilitation of the stream channel, addition of spawning gravels, and anchoring of woody debris in the stream, resulting in a restoration that left more water for municipal use.[357] With these additional requirements, the Mono Basin Decision stands among the broadest restoration effort yet ordered under 5937.

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[350] Water Right Decision D-1631, *supra* note 254, at *5-7.

[351] Also as in the East and West Fork Walker River orders, the Board required that, at times, the dam owner release more water from the dam than the natural inflow to the reservoir. *Id.* at 69. The Board required the release of stored water to maintain flows in dry years and in normal years, unless the reservoir dropped below 11,500 acre-feet, roughly 25% of its "about 48,000" acre-foot capacity. *Id.* at 69, 85.

[352] *Id.* at 37-38, 45-46, 52-53, 74-75, 76.

[353] *Id.*

[354] *Id.* at 10-11.

[355] *See, e.g.*, *id.* at 32-35.

[356] *Id.* at 11.

[357] *Id.* The Decision also required long-term reductions in Los Angeles's diversions of roughly 60%. Weber, *supra* note 250, at 1191-92.

3. The Santa Ynez River Order

The Santa Ynez River Order addresses the Water Board's notion that plaintiffs cannot sue the Board directly for 5937 non-enforcement.[358] While the Water Board recognizes that dam owners must comply with 5937,[359] the Water Board believes that it does not have a mandatory duty to impose 5937 under most conditions. In the Water Board's opinion, it need only impose 5937 when required under 5946, when the permit in question was issued after 1975,[360] or when the Board acts under its 1975 regulation requiring 5937 conditions on new permits.[361] In 1994, the California Sportfishing Protection Alliance ("CSPA") challenged the Board's interpretation in litigation related to a dam on the Santa Ynez River.

In November 1994, the Board issued Order WR 94-5 ("Santa Ynez Order") addressing Bradbury Dam on the Santa Ynez River in Santa Barbara County, California.[362] The Santa Ynez Order required release of water for fishery studies and preparation of environmental reports, but it did not require immediate release of water to enforce 5937 because 5946 did not apply and no new permits were sought. The CSPA petitioned the Board for reconsideration, arguing that the Board had a duty under 5937 to immediately order the dam owner to release water in compliance with 5937.[363] The Water Board disagreed, noting that 5937 imposes the minimum flow requirement on the dam owners, not on the Board.[364] It reviewed the holding in *CalTrout II*, arguing that although the court of appeal required the Board to impose

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[358] Memorandum of Points and Authorities in Support of Amicus Curiae at 2, Reynolds v. City of Calistoga, No. 26-46826 (Cal. Super. Ct. Mar. 25, 2010).

> [A]ny remedy with the SWRCB would be in a proceeding before the SWRCB, which the SWRCB has discretion to initiate or not. Because the SWRCB's authority is discretionary, not ministerial, the Plaintiff has no remedy in court if the SWRCB chooses not to initiate administrative proceedings. As a practical matter, the Plaintiff's remedy, if any, is against the party alleged to be diverting in violation of the public trust.

Id. The State takes the same view with regard to suits against CDFG for non-enforcement of 5937. *Id.*

[359] *Id.* at 7.

[360] *Id.* at 8.

[361] CAL. CODE REGS. tit. 23, § 782 (West 2010).

[362] *In re* U.S. Bureau of Reclamation. No. WR 95-2, 1995 Cal. ENV LEXIS 2, at *1 (Cal. St. Wat. Res. Bd. 1995) [hereinafter Order No. 95-2].

[363] *Id.* at *2.

[364] *Id.*

5937 on the LADWP, the duty stemmed from 5946, not 5937.[365] Thus, the Board believes that "[i]n carrying out its duty of continued supervision, the SWRCB must be cognizant of the legislative policy set by Section 5937," although it has no nondiscretionary duty to do so.[366] Because the Water Board believes it has no mandatory duty to enforce 5937, the Board determined it need not require immediate compliance with 5937 in the Santa Ynez Order. This attitude seems a regression toward pre-1956 Water Board views, when it believed that it bore no responsibility for enforcing 5937.[367]

4. The Big Bear Decision

Finally, the Water Board made an explicit order enforcing 5937 in SWRCB Order WR 95-4 ("Big Bear Decision").[368] The Big Bear Decision addressed three aspects of 5937: which fish were required to be in good condition, what good condition meant, whether 5937 applied to pre-1915 dams, and, once again, whether the Water Board was required to enforce 5937.[369]

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[365] *Id.* at *4. Accordingly, the Board interpreted *CalTrout II* to merely indicate "that Section 5937 legislatively establishes that it is reasonable to release enough water below any dam to keep any fish that exist below the dam in good condition," rather than requiring the Water Board to order 5937 releases. *Id.*

[366] *Id.*

[367] *See, e.g.*, *In re* U.S. Eldorado Nat'l Forest, No. D-482, 1941 Cal. ENV LEXIS 9, at *4-6 (Div. of Water Res. Nov. 3, 1941) (disclaiming responsibility for or authority to enforce fish protection laws); *In re* Bank of Italy as Trustee for A. K. Detwiler, Cal. Dept. of Pub. Works, No. D-227, 1929 Cal. ENV LEXIS 15, at *20 (Div. of Water Res. May 6, 1929) (same).

[368] *In re* Big Bear Mun. Water Dist., No. WR 95-4, 1995 Cal. ENV LEXIS 16, at *4 (Cal. State Water Res. Control Bd. 1995).

[369] The Board briefly discussed the good condition standard required under 5937, but primarily relied on good condition recommendations from CDFG. *In re Big Bear Mun. Water Dist.*, No. WR 95-4, 1995 Cal. ENV LEXIS 16, at *32-33. The CDFG " has both the primary expertise of the State in dealing with fish and wildlife issues and the primary responsibility for interpreting the Fish and Game Code," and the Board must give deference to their judgment. *Id.* at *49-50.

> [T]he SCRCB is required to give great weight to Fish and Game's judgment with respect to fish and wildlife needs . . . . This does not mean that the SWRCB must accept Fish and Game's judgment, but the weight of the evidence must overcome the weight of Fish and Game's evidence before the SWRCB will reject it.

Id. at *49-50 (citing CAL. WATER CODE §§ 1243, 1257.5 (West 2011); Bank of Am. v. State Water Res. Control Bd., 42 Cal. App. 3d 198, 212 (1974)). The CDFG's considered fish abundance, based on stream size or its potential productivity, food availability, disease prevalence, fish population equilibrium, and life stages

The Big Bear Decision involved the Bear Valley Dam on Bear Creek in the San Bernardino Mountains.[370] Below Bear Valley Dam, Bear Creek enters Fish Canyon and flows 8.75 miles to the Santa Ana River. The CDFG designated Bear Creek as a wild trout stream from the dam to the confluence with the Santa Ana River,[371] even though Big Bear Municipal Water District released only incidental "leakage" and seepage from the Bear Valley Dam as of 1990.[372] This limited water release could not support a self-sustaining trout fishery in upper Bear Creek — the upper 1.2 miles, above the confluence with the Cub Creeks. In that section of the creek, only sculpin and crayfish had been consistently observed.[373] Downstream from the confluence, more than seventy percent of the water in Bear Creek flowed from non-dam sources and largely sufficed to support the wild trout population in good condition, except in drought years.[374]

In 1990, CalTrout filed a complaint with the Board against Big Bear Municipal Water District, alleging in part that "the District's operation of Bear Valley Dam and Big Bear Lake provides insufficient releases of water into Bear Creek to keep the fishery in good condition."[375] The Board determined that the fundamental issue was "whether all of Bear Creek or only the reach downstream of . . . Cub Creek should be

representation to determine if the fish were in good condition. *Id.* at *33. In contrast, the District's scientist assessed the condition of the fishery based on similar factors, but also considered factors such as the number and diversity of aquatic invertebrates, the water quality, and habitat quality. *Id.* The District, however, failed to discuss the historical condition of the fishery and thus ignored the good condition standard established in *CalTrout I* and *II*.

[370] Bear Valley Dam dates from 1884 and expanded in 1911. *Id.* Most recently, the State reinforced the dam in 1988. *Id.* The Bear Valley Dam impounds Bear Creek and creates Big Bear Lake, originally used for irrigation. Today, Big Bear Lake serves recreational, environmental, and fish and wildlife purposes, and provides storage for downstream consumptive uses. *Id.* at *53-54.

[371] *Id.* at *5.

[372] *Id.* at *7. Roughly 0.6 mile downstream from the dam, a natural barrier in Fish Canyon prevents upstream migration of fish, at least under normal flow conditions. Trout planted in that reach have not survived. *Id.* at *33. Another 0.6 mile downstream, East and West Cub Creek enters Bear Creek, providing additional water such that the river supports a trout fishery downstream of the confluence. *Id.* at *31. A few adult trout were found below the fish canyon barrier, however, above the confluence with the Cub Creeks. *Id.* at *34. The Water Board stated that CDFG designated Bear Creek as a wild trout stream based on the fishery downstream from the confluence with Cub Creeks, despite the inclusion of the entire stream's designation. *Id.* at *7.

[373] *Id.* at *31.

[374] *Id.* at *31, *33-34.

[375] *Id.* at *1.

assured instream flows adequate to maintain a trout fishery in good condition."[376] Thus, the Water Board was required to determine whether the entire trout population downstream of the dam had to be kept in good condition, or whether keeping the sculpin and crayfish in good condition would suffice. Faced with this central issue, the Water Board approved flows designed "to keep in good condition the fish that are present there, such as sculpin and crayfish,"[377] choosing not to maintain trout populations immediately below the dam. The Water Board relied in part on the Fish and Game Code definition of "fish," which includes "wild fish, mollusks, crustaceans, invertebrates, or amphibians, including any part, spawn, or ova thereof."[378] The Big Bear Municipal Water District biologist explicitly argued that the fishery above the Cub Creeks "should be considered to be in good condition because it supports other 'fish' in good condition, such as crayfish and prickly sculpin."[379] The Board, however, did not address how it selected which species of fish would be maintained in good condition. Likewise, the Board did not seek to reconcile this decision with the statutory mandate in 5937 "to keep in good condition *any* fish that may be planted or exist below the dam."[380] This decision leaves 5937 ambiguous in its coverage of fish species, as addressed in Part V, below.

Second, the Big Bear Decision is remarkable in another respect: the Water Board clearly believes that the District must comply with the 5937, even though Bear Valley Dam was constructed before the explicit minimum flow requirement became law in 1915. This seems intuitive; even the Board occasionally admitted it could not grant water appropriators the right to appropriate water free of any obligation to comply with other state laws, even if those laws limit the amount of water the appropriator may actually remove from the stream.[381] Just as a license to drive carries with it the responsibility to

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[376] *Id.* at *31.

[377] *Id.* at *52. The Board also noted that the flows would "support" trout above the Cub Creeks but below Fish Canyon. *Id.*

[378] *Id.* at *33 (citing CAL. FISH & GAME CODE § 45 (West 2011).

[379] *In re* Big Bear Mun. Water Dist., No. WR 95-4, 1995 Cal. ENV LEXIS 16, at *33 (Cal. State Water Res. Control Bd. 1995). CDFG took no apparent position on the issue, but the Water Board ultimately adopted the flow recommendations from CDFG. In adopting those flows, the Water Board echoed the District's expert by noting that the non-trout fish upstream of the Cub Creeks would be kept in good condition. *Id.*

[380] CAL. FISH & GAME CODE § 5937 (West 2010).

[381] *In re* Snow Mountain Water & Power Co., 1928 Cal. ENV LEXIS 2, at *20-21 (Div. of Water Res. Jan. 9, 1928). The Board stated:

obey traffic laws, a license to appropriate water carries with it the responsibility to obey water laws. Nevertheless, Big Bear appears to be the only decision applying 5937 to a dam built before 1915.

Finally, the Board reiterated its belief that it need not directly enforce 5937 — "the SWRCB is not obligated to strictly enforce section 5937 in this case."[382] The Board attempted to distinguish the obligation imposed by 5937 on dam owners from its own obligations to enforce the law.[383] The Board continued to walk a line between enforcing 5937 directly and merely authorizing diversions conditioned on compliance with 5937. Nevertheless, the substance of the Big Bear Decision suggests that the Board is, in fact, enforcing the law, despite its apparent determination not to do so.[384] A real test of this issue would come in the form of a suit demanding that the Water Board enforce 5937 broadly.

Just as judicial decisions since *National Audubon* demonstrate the resurrection of a dead law through private litigation, the four Water Board decisions since *National Audubon* also reveal an agency that is able to creatively enforce 5937, at least when made to do so. The Water Board may not fully embrace its current role as the 5937

> The authority of the Fish and Game Commission under Section 637 of the Penal Code to protect fish life can in no way be prejudiced or restricted by any action that this office may take on the pending applications [to appropriate water]. The matter of fish protection is vested in the Fish and Game Commission as declared by the Legislature.

Id. But the Board did view water for fish as water available for appropriation, which stymied 5937's enforcement.

[382] *Id.* at *49-50 (emphasis added).

[383] The Board even carried this theme through the footnotes:

> The SWRCB does not need to decide whether section 5937 is a legislative determination of reasonableness in this case; nor does the SWRCB need to decide whether the reasonableness doctrine would allow the SWRCB to authorize flows under the public trust doctrine that do not fully satisfy section 5937. The flows ordered in this case are reasonable and they also fully satisfy section 5937.

Id. at *51 n.13.

[384] As the Board's introduction to the order states, CalTrout filed a complaint against the District under 5937, alleging that the District provided insufficient water to Bear Creek to keep the fishery in good condition. *Id.* at *1. The Board asserted its jurisdiction over all appropriators and acknowledged that 5937 should be considered in evaluating all appropriations. *See id.* at *21-22. The Board even noted that "[i]t is the SWRCB's policy to enforce section 5937." *Id.* at *28-29. The Board ultimately determined the instream flow required under 5937 to maintain the fishery in good condition. *Id.* at *52. Thus, the order directly enforces 5937.

enforcer, but its actions in the last forty years are a far cry from its older decisions that deemed any water for fish a waste.

IV. SECTION 5937: STATE OF THE LAW

In spite of the past and ongoing litigation, no appellate court in California has explicitly addressed 5937.[385] Likewise, no court has reviewed the Water Board's 1975 Regulation or the Water Board's or CDFG's current policy regarding the 5937 enforcement. But the existing case law and court orders provide some guidance for applying 5937. This Part interprets current 5937 requirements and suggests answers to open questions about 5937's scope and enforcement.[386]

A. Do 5946 and Other Minimum Flow Laws Repeal or Weaken 5937?

A law may be repealed explicitly or implicitly. Because 5937 has never been explicitly repealed,[387] any repeal would have to be an implicit repeal. But California has a strong presumption against implied repeals: "[A]bsent an express declaration of legislative intent, courts will find an implied repeal only when there is no rational basis for harmonizing the two potentially conflicting statutes, and the statutes are irreconcilable, clearly repugnant, and so inconsistent that

[385] *CalTrout I* and *CalTrout II* were both appellate decisions, but interpreted 5937 in the context of section 5946's reference to water permits and licenses in District 4 1/2. *CalTrout I*, 255 Cal. Rptr. at 192; *CalTrout II*, 266 Cal. Rptr. at 791.

[386] A statute's plain meaning determines its proper statutory construction. *See* People v. Overstreet, 42 Cal. 3d 891, 895 (1986); Leroy T. v. Workmen's Comp. Appeals Bd., 12 Cal. 3d 434, 438 (1974) (stating language of a statute is first point of reference in determining its meaning). The plain meaning must be determined consistent its legislative purpose, context and apparent objective. *See* Cossack v. City of L.A., 11 Cal. 3d 726, 732-33 (1974); Clean Air Constituency v. Cal. Air Res. Bd., 11 Cal. 3d 801, 813 (1974); Rock Creek Water Dist. v. Cnty. of Calaveras, 29 Cal. 2d 7, 9 (1946) ("[O]bjective sought to be achieved by a statute as well as the evil to be prevented is of prime consideration in its interpretation."). For 5937, this background began with the first law to address minimum flows, the 1870 Fish Act that required year-round flows for fishway operations. The 1915 Act on its face created an explicit minimum flow requirement. The 1915 Act's intent was buttressed by the 1912-14 Report of the Fish and Game Commission requesting and stating the reasons for a minimum flow requirement. The report recognized that such a requirement would affect the feasibility of dams on the state's rivers. 1914 BIENNIAL REPORT, *supra* note 58, at 33-34. Development of 5937 continued with the 1937 Amendment to sever the minimum flow requirement from the fishway requirement. Finally, the 1945 Act clarified that 5937, as a water allocation statute, would apply to federal dams even if such dams were excused from state construction requirements. *See supra* note 148. This consistent pattern of increasing protection guides current interpretations of 5937.

[387] CAL. FISH & GAME CODE § 5937 (West 2010).

the two cannot have concurrent operation."[388] Further, a later law only repeals an earlier law if the later law is "a revision of the entire subject, so that the court may say that it was intended to be a substitute for the first."[389] Generally, a more specific statute trumps a more general statute,[390] but only when an "irreconcilable conflict exists between the general and specific provisions."[391] These cannons of construction guide any attempt to reconcile 5937 with other statutes and place a significant burden on any party claiming an implied repeal.

Section 5946, requiring the application of 5937 in District 4 1/2, provides a good example of how a narrower statute should be constructed. Some commentators argue that the narrower section 5946 weakens the broader 5937.[392] Even at the time of its passage, state officials worried that "it might be argued that there is an implication from this bill at the present time that there need not be . . . release of water to protect fish life in other parts of the state."[393] However, the requirements in 5946 do not conflict with the mandate in 5937. Section 5937 began as a statute in the penal code, firmly ensconcing a longstanding view of fish destruction as a nuisance.[394] The CDFG frequently noted its difficulties in enforcing the statute and requested new legislation to require the Water Board to assist in its enforcement.[395] The 1951 Opinion further limited the CDFG's ability to enforce 5937.[396] In 1953, Senator Charles Brown, a longtime Senator from California's 28th District[397] and a staunch advocate for

[388] Sonic-Calabasas A, Inc. v. Moreno, 51 Cal. 4th 659, 675 (2011).

[389] Prof'l Eng'rs in Cal. Gov't v. Kempton, 155 P.3d 226, 240 (Cal. 2007).

[390] Dep't of Alcoholic Bev. Control v. Alcoholic Bev. Control Appeals Bd., 71 Cal. App. 4th 1518, 1524 (1999).

[391] Pac. Lumber Co. v. State Water Res. Control Bd., 37 Cal. 4th 921, 943 (2006) (citing People v. Price, 1 Cal. 4th 324, 385 (1991); Med. Bd. of Cal. v. Superior Court, 88 Cal. App. 4th 1001, 1013–14 (2001)).

[392] *See* Firpo, *supra* note 35, at 111-12 (citing Jan Stevens, *Symposium on the Public Trust and the Waters of the American West*, 19 ENVTL. L. 605, 611 (1989)) (suggesting that section 5946 "places teeth in" 5937). Jan Stevens' comment, however, speaks to the strength of enforcement of 5937, not to the continuing vitality of the law itself.

[393] Legislative Memorandum concerning Senate Bill No. 78, Legislative Sec'y to Governor Earl Warren, An Act to Add Section 525.5 to the Fish & Game Code from Beach Vasey (July 31, 1953) (on file at the California State Archives, Governor's Chapter Bill File, ch. 1663 (1953) (MF 3:2(15))).

[394] *See supra* Part II.

[395] *See supra* Part II.

[396] *See supra* Part III.D.

[397] *Ex-State Sen. Brown Graveside Service Set*, L.A. TIMES, May 11, 1963, at A10. California's 28th District consists of Inyo, Mono, and Alpine Counties. *Id.*

his district's water rights,[398] found that the CDFG had permitted the LADWP to dry up eighteen miles of the Owens River,[399] in the Owens River Gorge, as well as another 12.6 miles of trout streams entering Mono Lake.[400]

Brown sought to protect the remaining fisheries and drafted corrective legislation.[401] Brown's legislation, which became 5946,[402] simply added another enforcement mechanism for 5937 by preventing the Water Board from issuing permits or licenses without 5937 conditions.[403] Plainly read, 5937 and 5946 bind different parties. Section 5937, on its face, applies to dam owners, not to the Water Board, while 5946 applies to the Water Board.[404] Thus, there is no inherent irreconcilable conflict between the broad 5937, which controls the manner in which owners operate their dams, and the narrow 5946, which requires the Water Board to condition permits on that underlying law. Given its most aggressive reading, 5946 might imply that the *Water Board* previously did not have to condition permits on compliance with 5937.[405] Even such an aggressive reading, however, does not vitiate continued application 5937 to *dam owners* everywhere. And even this reading does not comport with a modern understanding of the Board's role; 5946 became law before the legislature explicitly required the Water Board to consider preservation of fish life in appropriation decisions, in 1959.[406] Regardless, 5946 does not weaken or implicitly repeal 5937.

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[398] *See, e.g.*, WILLIAM L. KAHRL, WATER AND POWER: THE CONFLICT OVER LOS ANGELES WATER SUPPLY IN THE OWENS VALLEY 380-84, 426, 530 (1983) (discussing Senator Brown's efforts to limit Los Angeles holdings in Mono County); TED SIMON, THE RIVER STOPS HERE: SAVING ROUND VALLEY, A PIVOTAL CHAPTER IN CALIFORNIA'S WATER WARS 138 (2001) (discussing efforts by southern California to secure additional water rights); *Assemblymen Hit Senate Move on Mono Basin,* L.A. TIMES, May 23, 1947, at 2 (noting Senator Brown "rushed through a resolution" supporting efforts by the U.S. Congress to prevent Los Angeles from acquiring lands, and thus water rights, in the Mono Basin).

[399] Letter concerning Senate Bill No. 78 from Charles Brown, Senator, to Earl Warren, Governor (June 11, 1953) (on file at the California State Archives, Governor's Chapter Bill File, ch. 1663 (1953) (MF 3:2(15)).

[400] *Id.* at 5.

[401] *Id.* at 1.

[402] Vasey, *supra* note 393, at 1.

[403] CAL. FISH & GAME CODE § 5946 (West 2010).

[404] *Compare id.*, *with* CAL. FISH & GAME CODE § 5937 (West 2010).

[405] That was certainly the Board's position until promulgation of its own 1975 Regulation. 17 Cal. Regulatory Notice Reg. 52.2 (Apr. 26, 1975). Today the regulation is found in CAL. CODE REGS. tit. 23, § 782 (1994).

[406] Act of July 17, 1959, ch. 2048, 1959 Cal. Stat. 4742.

While some critics argue that other code[407] sections allowing appropriations or authorizing water projects cancel or diminish 5937's facial meaning, they fail to demonstrate that 5937 is irreconcilable with the narrower laws. For example, 5937 survives federal statutes authorizing a project for specified out-of-stream uses because no conflict necessarily exists between the minimum flow requirement and such a statute.[408] On its face, 5937 does not preclude the use of water for out-of-stream beneficial uses, but only limits the water available for such uses to the water not required to maintain below-dam fish in good condition. The Water Board may permit and license for appropriation water not needed for below-dam fish. Accordingly, 5937 functions analogously to California's historical relationship between riparians and appropriators — water not needed to satisfy riparian rights is available for appropriation.[409]

Moreover, 5937 does not conflict with directives that dams serve multiple beneficial uses, only one of which is below-dam fish.[410] When water projects must serve multiple beneficial uses, conflicts could only exist if, after compliance with 5937, there is no water available for other designated beneficial uses. In this way, 5937 functions much like the Federal Endangered Species Act[411] or the water quality standards under California's Porter Cologne Water Quality Control Act.[412] Mere authorization of a water project alone does not exempt that project from all environmental laws. Section 5937 continues to apply to dams with multiple beneficial purposes.

Finally, 5937 fits squarely into California's complex water law. In *National Audubon*, the California Supreme Court reconciled the state's public trust and water law doctrines, and much of that decision

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[407] No dilution of 5937's facial meaning should occur from its presence in the Fish and Game Code, as opposed to the Water Code. The California Supreme Court has held that all laws on a specific matter need not be included in the same code. Enos v. Snyder, 131 Cal. 68, 72 (1900). Moreover, section 6501 of the California Water Code, added in 1943, clarifies that "[t]he provisions for the . . . protection and preservation of fish in streams obstructed by dams are contained in [. . .] the Fish and Game Code." CAL. WATER CODE § 6501 (West 2010).

[408] *Patterson II*, 333 F. Supp. 2d 906, 919 (E.D. Cal 2004) ("The non-federal defendants . . . asserted that original federal authorization of Friant Dam indicated an intent to preempt § 5937. This court denied these motions to dismiss.").

[409] Nat'l Audubon Soc'y v. Superior Court of Alpine Cnty., 33 Cal. 3d 419, 444 (1983) ("The [Water] board has the power and duty to protect such uses by withholding water from appropriation.").

[410] CAL. WATER CODE § 1243 (West 2010) (recognizing fish and wildlife as two of the many beneficial uses allowed to use state water).

[411] 16 U.S.C. §§ 1531-1544 (West 2010).

[412] CAL. WATER CODE §§ 13000-16104 (West 2010).

resonates in 5937.[413] The *National Audubon* Court cautioned, "All uses of water, including public trust uses, must now conform to the standard of reasonable use,"[414] noting that Water Code section 1243 constitutes legislative clarification that protection of public trust resources is inherently a reasonable water use. The Water Board echoed *National Audubon*, determining "that Section 5937 legislatively establishes that it is reasonable to release enough water below any dam to keep any fish that exist below the dam in good condition."[415] Article X, section 2 of the California Constitution further sets out legislative authority to make these reasonableness determinations.[416] This amendment, adopted in 1928 , guaranteed that no water right holder could avoid a legislative determination of reasonableness in the allocation of state water. Thus, the amendment ensured that the Legislature would have broad powers to balance the needs of competing beneficial water uses, making policy to best serve California's needs. Section 5937 is just such a policy, and as a legislative determination of the public trust, it merits broad deference from the courts and the Water Board.

B. Does 5937 Apply to All California Dams?

Because 5937 applies on its face to all California dam owners, any exceptions must arise from other law. Thus far, the only exceptions identified by courts rely on federal preemption, where federal law trumps the application of 5937. Outside of federally preempted dams, 5937 covers all California dams, including private dams and state or local government dams. Moreover, federal dams under control of private, local, or state entities also are generally covered, based on the Fish and Game Code's expansive definition of "owner."[417] Further, except for FERC-licensed dams, federally owned and operated dams are presumptively covered under 5937, subject only to preemption by federal law.

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[413] *Nat'l Audubon Soc'y*, 33 Cal. 3d at 425.

[414] *Id.* at 443 (citing Peabody v. City of Vallejo, 2 Cal. 2d 351, 367 (1935); People *ex rel.* State Water Res. Control Bd. v. Forni, 54 Cal. App. 3d 743, 749-50 (1976)).

[415] *In re* U.S. Bureau of Reclamation, Order No. WR 95-2, 1995 Cal. ENV LEXIS 2, at *9-10 (State Water Res. Control Bd. Feb. 1, 1995).

[416] CAL. CONST. art. X, § 2 ("[T]he Legislature may also enact laws in the furtherance of the policy in this section.").

[417] Transcript of Judge's Ruling at 22-33, *Putah Creek Water Cases*, Judicial Council Coordination (Cal. Super. Ct. 1996) (No. 2565) (citing CAL. FISH & GAME CODE § 5900 (West 2010)).

The vast majority of California dams, therefore, appear to be subject to 5937. Ownership data is publicly available for 1,390 California dams, though the actual number of dams is higher.[418] FERC has issued licenses or undertaken licensing for 162 of these dams,[419] and 167 California dams are federally owned.[420] Some of the federally owned dams are still subject to 5937, per the analysis below. At a minimum, this leaves over 1,000 California dams that remain subject to 5937.

1. Are Old Dams Covered?

Some critics argue that 5937 should not apply to dams built before the Legislature enacted the de facto minimum flow requirement in 1870;[421] before the prior version of 5937 was enacted in 1915;[422] before the minimum flow requirement was officially severed from the fishway requirement in 1937;[423] or before the federal government was explicitly added to the definition of dam owner in 1945.[424] However, a close review confirms that 5937 applies to dams regardless of when the dam was constructed or when the dam owner first claimed the relevant water rights.[425]

[418] *See* sources cited *supra* note 9 (listing dams in either the California Jurisdictional Dams list or the Federal Dams list).

[419] *Hydropower, Complete list of Issued Licenses*, FED. ENERGY REG. COMM'N, (Nov. 2, 2011), http://www.ferc.gov/industries/hydropower.asp (follow "Complete List of Licensed Projects" hyperlink under "Licensing" heading) [hereinafter *Hydropower*]; *Hydropower, Preliminary Permits*, FED. ENERGY REG. COMM'N, (Nov. 2, 2011), http://www.ferc.gov/industries/hydropower.asp (follow "Preliminary Permits" hyperlink under the "Licensing" heading).

[420] *See* Listing of Dams, *supra* note 9. The federal dams are owned by 11 different federal agencies: the U.S. Forest Service (63), the U.S. Bureau of Reclamation (45), the Corps of Engineers (33) the U.S. Army (7), the U.S. Air Force (6), the National Park Service and the U.S. Marine Corps (4 each), the U.S. Bureau of Indian Affairs (2), and the U.S. Fish and Wildlife Service and the Bureau of Land Management (1 each). *Id.* Other major dams owners include water and irrigation districts (152), California cities (149), Pacific Gas and Electric (94), and California state agencies (51). The remaining dams are held by a variety of public entities (e.g., counties, utility districts) and private owners. This information reflects actual ownership of the dam, and may not reflect the broader definition of ownership used in 5937 and the California Fish and Game Code. *Id.*

[421] 1870 Fish Act § 3.

[422] CAL. FISH & GAME CODE § 5937 (West 2010).

[423] 1937 Act, *supra* note 145.

[424] 1945 Act, *supra* note 148.

[425] The *CalTrout I* Court applied section 5946 prospectively, and the court's reasons for the prospective application of section 5946 are equally applicable to 5937. *CalTrout I*, 255 Cal. Rptr. 184, 209-10 (Ct. App. 1989). The lack of ambiguity in 5937 means that regardless of any agency-granted water rights claimed by dam owners, a

First, the California Court of Appeal in *People v. Murrison* held that California Fish and Game Codes apply to the oldest category of water rights — pre-1914 appropriative rights. The *Murrison* decision first held that a "pre-1914 appropriative right is not subject to the 1913 statutory scheme for purposes of acquisition and supervision of use,"[426] meaning that pre-1914 appropriative rights fall outside of the Water Board's power to regulate appropriations.[427] But, the court cautioned that "a water right, whether it predates or postdates 1914, is not exempt from reasonable regulation. Just as a real property owner does not have an unfettered right to develop property in any manner that he or she sees fit, the owner of a water right may be similarly restricted."[428] Reasonable regulation includes the Fish and Game Code.[429] The court based this holding on the notion that the Fish and Game Code "furthers the state's substantial interest in the protection of the state's fish and wildlife. This statutory requirement is inherent in the state's sovereign power to protect its wildlife and . . . water rights are subject to these powers."[430] *National Audubon* and the Big Bear Decision both echo this teaching.[431] Thus, even the oldest water

court must apply the law and alter them. The State will not be estopped from enforcing 5937 because it has a continuing duty to apply the statute, in part due to its role as the trustee of the state's fish. *Id.*

[426] People v. Murrison, 125 Cal. Rptr. 2d 68, 75 n.6, 77 (Ct. App. 2002). In *Murrison*, the court claimed that, "This case simply does not raise the issue of whether DFG may limit Murrison's claimed water right." On the other hand, it upheld the trial court's injunction preventing continued diversion, based on violation of the underlying statute. *Id.*

[427] *Id.*

[428] *Id.* at 76.

[429] *Id.*

[430] *Id.*

[431] Nat'l Audubon Soc'y v. Superior Court, 33 Cal. 3d 419, 452 (1983) states:

> The public trust doctrine serves the function in that integrated system of preserving the continuing sovereign power of the state to protect public trust uses, a power which precludes anyone from acquiring a vested right to harm the public trust, and imposes a continuing duty on the state to take such uses into account in allocating water resources.

The Water Board also followed this line of reasoning in the Big Bear, where it applied 5937 to a pre-1914 water right. *In re* Big Bear Mun. Water Dist., Order No. WR 95-4, 1995 Cal. ENV LEXIS 16, at *21-22 (State Water Res. Control Bd. 1995) (internal citations omitted):

> Although the SWRCB does not issue a permit or license for a pre-1914 appropriation of water such as the Big Bear Lake appropriation, the SWRCB has authority to supervise the exercise of pre-1914 water rights under the public trust doctrine and under Water Code section 275, which implements

rights in California are subject to reasonable regulation that furthers state wildlife protection, including 5937.

Second, applying 5937 to older, vested water rights does not pose a retroactivity problem. *CalTrout I* undertook an extensive retroactivity test before applying 5946 and determined that 5946 did not present a retroactivity problem.[432] Because *CalTrout I* did not present a retroactivity problem, the court did not reach the question of whether retroactive application of 5946 or 5937 could pose a problem, and did not apply the teachings of *National Audubon*. Courts have not directly addressed whether applying 5937 to older dams creates a retroactivity problem standing alone, but the California Supreme Court has held that even vested rights[433] can be abrogated under the state's police power whenever reasonably necessary for the protection of the public welfare,[434] which includes environmental protection.[435] Thus, even if a

> California Constitution Article X, section 2. Based on these authorities, the SWRCB has continuing authority under both the reasonableness doctrine and the public trust doctrine over all appropriations or other diversions of water for use. In applying these doctrines, the requirements of section 5937 should be taken into consideration.

[432] *CalTrout I*, 255 Cal. Rptr. 184, 198 (Ct. App. 1989).

[433] Almost all water rights are unvested. "After the effective date of the 1928 amendment, no one can acquire a vested right to the unreasonable use of water." *Nat'l Audubon Soc'y*, 33 Cal. 3d at 443 n.23.

> The state's authority as sovereign to exercise a continuous supervision and control over the navigable waters of the state and the lands underlying those waters . . . bars . . . any other party from claiming a vested right to divert waters once it becomes clear that such diversions harm the interests protected by the public trust.

Id. at 426.

> Except for those rare instances in which a grantee may acquire a right to use former trust property free of trust restrictions, the grantee holds subject to the trust, and while he may assert a vested right to the servient estate (the right of use subject to the trust) and to any improvements he erects, he can claim no vested right to bar recognition of the trust or state action to carry out its purposes.

Id. at 440. Thus water rights do not vest, to the extent they are unreasonable or harm the public trust. Even vested rights to the servient estate are subject to the trust; only if a court were to disassociate section 5937 from the public trust would *Nat'l Audubon* not apply and eliminate retroactivity concerns.

[434] *In re* Marriage of Bouquet, 16 Cal. 3d 583, 592 (1976).

> Retroactive legislation, though frequently disfavored, is not absolutely proscribed. The vesting of property rights, consequently, does not render them immutable: "Vested rights, of course, may be impaired 'with due process of law' under many circumstances. The state's inherent sovereign

court rejected *Murrison* and the fundamental principle that 5937 is an expression of the public trust, the court would have to find that 5937 constitutionally abrogates vested water rights if it were reasonably necessary for the public welfare. Therefore, under either approach, 5937 can and should be applied to dams and their associated water rights, regardless of age.

2. Do Federal Dam Laws Preempt 5937?

a. Federal Preemption of State Water Law Generally

Due to possible federal preemption, federal dams and dams licensed by FERC present the most significant questions to 5937 coverage. In considering federal preemption of state water law, the Supreme Court noted, "Where Congress has expressly addressed the question of whether federal entities must abide by state water law, it has almost invariably deferred to the state law."[436] Moreover, while "[t]he history of the relationship between the Federal Government and the states in the reclamation of the arid lands of the Western States is both long and involved, . . . through it runs the consistent thread of purposeful and continued deference to state water law by Congress." Because the Supreme Court has emphasized deference to state water rights,[437] further discussion applying state law to federal water projects must be guided by the Court's approach. Finally, resolving federal preemption questions necessarily requires examination of the federal law.

> power includes the so called 'police power' right to interfere with vested property rights whenever reasonably necessary to the protection of the health, safety, morals, and general well-being of the people . . . . The constitutional question, on principle, therefore, would seem to be, not whether a vested right is impaired by a marital property law change, but whether such a change reasonably could be believed to be sufficiently necessary to the public welfare as to justify the impairment."

Id. (internal citations omitted).

[435] *See generally* Hermosa Beach Stop Oil Coal. v. City of Hermosa Beach, 103 Cal. Rptr. 2d 447 (Ct. App. 2001) (holding that the police power gives city power to prohibit production or exploration of oil); United States v. State Water Res. Control Bd., 227 Cal. Rptr. 161 (Ct. App. 1986) (holding that when warranted, water board can place reasonable restrictions on users with vested water rights).

[436] United States v. New Mexico, 438 U.S. 696, 702 (1978).

[437] *See, e.g.*, California v. United States, 438 U.S. 645, 653-70, 678-79 (1978) (discussing why Congress defers to state law for water rights).

b. Federal Preemption Under FERC Licenses.

FERC licensed dams generally need not comply with 5937. In *California v. Federal Energy Regulatory Commission*,[438] the Supreme Court held that California could not require a dam owner to maintain a higher minimum flow than that required by the FERC license. The Federal Power Act[439] contains a savings clause[440] for state water law, but the Court construed the clause as only protecting "proprietary rights."[441] In the Court's view, "California's minimum stream flow requirements neither reflect nor establish 'proprietary rights,' "[442] and, therefore, are not protected from preemption by the savings clause. Thus, FERC-licensed dams are generally exempt[443] from state mandated minimum flow requirements.[444]

In *California v. FERC*, the Court did not address smaller non-FERC-licensed federal hydropower projects, which fall into two generally categories: conduit facilities[445] and small hydropower projects of 5 megawatts or less.[446] Both of these water project categories are exempt from FERC license requirements, but the regulatory language granting exemption requires that they comply with the recommendations of

[438] California v. Fed. Energy Regulatory Comm'n, 495 U.S. 490, 506-07 (1990).

[439] 16 U.S.C. §§ 791a–825u (2010); Federal Power Act of 1935, Ch. 285, 1935 Stat. 863 (1935).

[440] A savings clause seeks to protect state law from federal preemption. In this case, the savings clause reads:

> Nothing contained in this chapter shall be construed as affecting or intending to affect or in any way to interfere with the laws of the respective States relating to the control, appropriation, use, or distribution of water used in irrigation or for municipal or other uses, or any vested right acquired therein.

16 U.S.C. § 821 (2010).

[441] California v. Fed. Energy Regulatory Comm'n, 495 U.S. at 498.

[442] *Id.*

[443] *But see* PUD No. 1 v. Wash. Dep't of Ecology, 511 U.S. 700, 714-15, 723 (1994) (allowing minimum flow regulations under state's Clean Water Act authority, if needed to achieve designated uses of navigable waters).

[444] FERC issues licenses for "nonfederal construction and operation of water power projects on navigable waters, public lands, or reservations." Federal Power Act of 1935, 16 U.S.C. § 797e (2010).

[445] Those facilities where generation occurs on man-made water conduits. 16 U.S.C. § 823a (2010).

[446] 18 C.F.R § 4.101, (2010), titled in relevant part, "Subpart K: Exemption of Small Hydroelectric Power Projects of 5 Megawatts or Less." *See* 18 C.F.R. § 4.30(b)(29) (defining "[s]mall hydroelectric power project" as a project with a capacity of not more than 5 MW, and which uses either natural water features or a non-federally owned dam for power generation).

state fish and wildlife agencies, which allows the CDFG to directly enforce 5937 on those dams.[447] Moreover, the fact that these dams are exempt from the thorough FERC licensing process vitiates much *California v. FERC*'s rationale for exempting FERC licensed dams. *California v. FERC* relied on FERC's close examination of fish life impacts of minimum required flows as a basis for determining that FERC license flow requirements superseded state minimum flow requirements.[448] FERC does not examine an exempt project's impacts on fisheries, so a FERC exemption is unlikely to preempt state regulation of these projects. If state law applies, these projects could be required to comply with 5937 via private litigation.

Finally, large power generating federal dams do not require FERC licensing. As with the small FERC-exempt dams, these dams are not free from 5937 under the auspices of FERC licensing,[449] although they could potentially be exempted by their authorizing legislation. Thus, determining whether these large, power generating dams are exempt from 5937 requires examination of their authorizing legislation and

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[447] 18 C.F.R. § 4.106, art. 2 (2010), states in relevant part:

> The construction, operation, and maintenance of the exempt project must comply with any terms and conditions that the United States Fish and Wildlife Service, the National Marine Fisheries Service, and any state fish and wildlife agencies have determined are appropriate to prevent loss of, or damage to, fish or wildlife resources or otherwise to carry out the purposes of the Fish and Wildlife Coordination Act . . .

16 U.S.C. 823a(c) (2010), states:

> [FERC] shall include in any such exemption— (1) such terms and conditions as the Fish and Wildlife Service National Marine Fisheries Service and the State agency [exercising administration over the fish and wildlife resources of the State in which the facility is or will be located] each determine are appropriate to prevent loss of, or damage to, such resources and to otherwise carry out the purposes of such Act."

[448] California v. Fed. Energy Regulatory Comm'n, 495 U.S. 490, 493, 499 (1990).

[449] Federally authorized projects do not require FERC licensing. Uncompahgre Valley Water Users Ass'n v. Fed. Energy Regulatory Comm'n, 785 F.2d 269, 274-77 (l0th Cir. 1986); *see also* Roderick E. Walston, *California v. Federal Energy Regulatory Commission: New Roadblock to State Water Rights Administration*, 21 ENVTL. L. 89, 106 (1991) ("[S]tate laws may continue to apply to the hydropower component of federal reclamation projects but not to public and private hydropower projects that are regulated by FERC."). These projects include Shasta Dam, which created Lake Shasta, the largest reservoir in the state, and Trinity Dam, which created the third largest reservoir. *Executive Update*, *Hydrologic Conditions in California*, CAL. DEP'T OF WATER RES., http://cdec.water.ca.gov/cgi-progs/reports/EXECSUM (last visited Oct. 23, 2011). The dams listed here can be compared to the list of FERC licensed dams in California. *Hydropower*, *supra* note 419.

consideration of the federal agency that owns the dam. In California, the U.S. Forest Service, the U.S. Bureau of Reclamation, and the Corps of Engineers together own the vast majority of federal dams;[450] specific preemption issues for each of those agencies are addressed below.

c. Federal Preemption and the Bureau of Reclamation.

In *NRDC v. Houston*, originally decided as *NRDC v. Patterson*, the Ninth Circuit considered the applicability of 5937 to the Bureau of Reclamation. Section 8 of the Bureau's authorizing legislation provides a savings clause for state water law, which purports to protect state water laws from federal preemption.[451] Interpreting the Section 8 savings clause in another case,[452] the Supreme Court held that Section 8's "cooperative federalism" required the Bureau of Reclamation to comply with state water laws unless compliance would be "directly inconsistent with clear congressional directives" regarding the project.[453] In *NRDC v. Houston*, the Ninth Circuit interpreted "clear congressional directives" to mean a preemptive federal statute.[454] Consequently, absent a directly preemptive federal statute, all California Bureau of Reclamation dams must comply with 5937.

Court's construe "directly preemptive federal statute narrowly. The *NRDC v. Houston* court reviewed the Central Valley Project Improvement Act ("CVPIA"),[455] which governed the execution of Friant Dam's water renewal contracts, to determine whether the CVPIA preempted 5937. The court specifically considered the CVPIA requirement that "Friant dam water is not to be released from the Friant dam to comply with the provisions of the CVPIA regarding the development of a plan to reestablish fish below the dam."[456] The court held that this clause did not directly preempt the application of 5937, concluding that there is no direct preemption if "state law could be

[450] *See supra* note 420.

[451] 43 U.S.C. § 383 (2006). This language is very similar to the language in the Federal Power Act, and may have served as a model for that language. California v. Fed. Energy Regulatory Comm'n, 495 U.S. at 503-04. The Supreme Court reviewed the similarities, but rejected the argument that the two sections must be given the same interpretation, based on textual differences, and the "purpose, structure, and legislative history of the entire statute before it." *Id.* at 504.

[452] California v. United States, 438 U.S. 645, 650, 678 (1978).

[453] Nat'l Res. Def. Council v. Houston, 146 F.3d 1118, 1132 (9th Cir. 1998) (citing California v. United States, 438 U.S. at 650, 678).

[454] United States v. California, 694 F.2d 1171, 1176-77 (9th Cir. 1982).

[455] Central Valley Project Improvement Act, Pub. L. No. 102-575, §§ 3401 et seq., 106 Stat. 4600 (1992).

[456] *Nat'l Res. Def. Council*, 146 F.3d at 1132.

implemented in a way that is consistent with Congress' plan."[457] This finding parallels the high standard articulated by the U.S. Supreme Court for determining when state law is preempted — "courts may not find state measures pre-empted in the absence of clear evidence that Congress so intended."[458] Using the Court's stringent preemption standard, most reclamation project authorizations are unlikely to preempt 5937 or other state water laws.

d. Federal preemption and the Corps of Engineers.

Many Army Corps of Engineer dams also appear to fall under 5937, either due to their use in irrigation projects or due to Congress's recognition of states' water rights when it passed the Flood Control Act of 1944. Section 8 of the Flood Control Act of 1944 authorizes irrigation structures on Corps of Engineers dams, to be administered under federal reclamation laws.[459] Under Section 8, the Reclamation Act of 1902 applies to irrigation features of Corps of Engineers projects that begin providing irrigation storage after the act passed.[460] As noted above, per *NRDC v. Houston*, the Reclamation Act of 1902 requires compliance with state water law (including 5937) if "state law could be implemented in a way that is consistent with Congress' plan."[461] Thus, if the Secretary secures approval for irrigation works on Corps of Engineers dams, the Secretary must comply with 5937 in

[457] *Id.* (citing Central Valley Project Improvement Act § 3406(c)).

[458] California v. Fed. Energy Regulatory Comm'n, 495 U.S. 490, 495 (1990) (citing California v. ARC Am. Corp., 490 U.S. 93, 101 (1989)); *see also* California v. United States, 438 U.S. at 653-63 (tracing states' traditional powers over exploitation of water).

[459] Turner v. Kings River Conservation Dist., 360 F.2d 184, 192 (9th Cir. 1966) (internal citations omitted). In *Turner*, however, plaintiffs who sought to apply state law to the acquisition of water rights appear to have been frustrated by either the nonoperational aspect of water right acquisition (foreclosing application of section 8 of the Reclamation Act) or by clear directives in the 1944 FCA contradicting state water acquisition law. *See id.* at 192.

[460] Section 8 of the Flood Control Act of 1944, 58 Stat. 891, 43 U.S.C § 390. In 1988, the U.S. Supreme Court set forth clear procedures for bringing water under Section 8's jurisdiction. ETSI Pipeline Project v. Missouri, 484 U.S. 495, 505-07 (1988) (internal citations omitted). If, pursuant to a recommendation from the Interior Secretary, the Army Secretary agrees to use a Corps of Engineers reservoir for irrigation purposes, then the Interior Secretary can seek authorization from Congress to construct the necessary irrigation works. *Id.* at 507. If Congress grants authority for construction, the Interior Secretary "would be permitted to withdraw water from Army reservoirs through these additional works for use in irrigation, which would then bring that water under its control, and under the federal reclamation laws." *Id.*

[461] Nat'l Res. Def. Council v. Houston, 146 F.3d 1118, 1132 (9th Cir. 1998).

operating those works, absent clear evidence that Congress intended otherwise.[462]

Beyond Section 8, the Flood Control Act of 1944 also "recognize[ed] the interests and rights of the States in determining the development of the watersheds within their borders and likewise their interests and rights in water utilization and control."[463] This recognition suggests that 5937 may apply to non-irrigation features of Corps of Engineers dams as well. Thus, the Congressional recognition of state water rights broadly under the Flood Control Act of 1944 and the Act's Section 8's provisions invoking federal reclamation laws provide two avenues to apply 5937 to Corps of Engineers dams.

e. Federal Preemption and the U.S. Forest Service.

U.S. Forest Service ("USFS") dams in California fall into one of two categories: either they are dams (1) on USFS land but owned by another party, or (2) owned by the USFS. Section 5937 unambiguously reaches dams in the first category, but may or may not apply to dams in the second category, depending on the dam.

For dams located on USFS land but owned by another party, the USFS issues a Special Use Permit ("SUP") allowing the dam owner right-of-way to install the dam and associated water works.[464] SUPs do not convey a water right; SUPs only provide access to USFS land.[465] The USFS may condition SUPs on compliance with minimum flow requirements[466] and must "require compliance with State standards for . . . environmental protection . . . if those standards are more stringent than applicable Federal standards."[467] Thus, when 5937 is

[462] California v. Fed. Energy Regulatory Comm'n, 484 U.S. 490, 495 (1990) (citing California v. ARC Am. Corp., 490 U.S. 93, 101 (1989)) (stating that the "historic police powers of the States were not to be superseded by the Federal Act unless that was the clear and manifest purpose of Congress"); *see also* California v. United States, 438 U.S. 645, 653-63 (1978) (tracing states' traditional powers over exploitation of water).

[463] *ETSI Pipeline Project*, 484 U.S. at 503 (citing Section 8 of the Flood Control Act of 1944, 58 Stat. 891, 43 U.S.C § 701-1).

[464] *See* Forestkeeper v. U.S. Forest Serv., No. CV F 09-392, 2010 U.S. Dist. LEXIS 131381, at *1 (E.D. Cal. Dec. 3, 2010).

[465] *Forestkeeper*, 2010 U.S. Dist. LEXIS 131381, at *11-12.

[466] Cnty. of Okanogan v. Nat'l Marine Fisheries Serv., 347 F.3d 1081, 1086 (9th Cir. 2003) ("[T]he FLPMA specifically authorizes the Forest Service to restrict such rights-of-way to protect fish and wildlife and maintain water quality standards under federal law, without any requirement that the Forest Service defer to state water law."); *see also Forestkeeper*, 2010 U.S. Dist. LEXIS 131381, at *56-57 ("[T]he USFS had the authority to condition the SUP on minimum passage flow restrictions.").

[467] 43 U.S.C. § 1765(a)(iv) (2010).

more stringent than applicable federal law, the State has authority to enforce 5937 against these dams. As the Water Board notes, "Any diversion of water, regardless of its point of origin, must have a legal basis of right pursuant to California water law." Diversion on USFS land, therefore, must meet California state water law requirements as well, providing a means for private enforcement of 5937 on dams on USFS land that belong to other entities.

For the second category, USFS-owned dams, the source of water rights underlying the dam determines whether state or federal law applies. Under federal law, the USFS holds federally reserved water rights in an amount necessary for the purposes of the reservation creating the national forest; it may hold state water rights as well.[468] Federally reserved water rights are not constrained by state water laws,[469] and therefore, 5937 likely does not apply to these rights. In contrast, state water rights arise under state law and, therefore, must be obtained and exercised under state water laws,[470] including 5937. Further, the use of any state water right obligates the USFS to comply with state laws in the use of that water. For most dams, the associated water rights are likely a mixture of both federally reserved water rights and state water rights, so 5937 likely applies to many USFS water projects.

f. Federal Preemption and the Wilderness Act.

Finally, *High Sierra Hikers* suggests that the Wilderness Act may preempt 5937 in particular circumstances.[471] The *High Sierra Hikers* court determined that "the plain and unambiguous text of the Wilderness Act . . . prohibits"[472] repair or maintenance of dams in

[468] David M. Gillilan, *Will There be Water for the National Forests?*, 69 U. COLO. L. REV. 533, 550, 559 (1998). *See generally* United States v. New Mexico, 438 U.S. 696 (1978) (holding that the federal government reserved the use of water from the Rio Mimbres only where necessary for the purposes underlying establishment of the Gila National Forest); Winters v. United States, 207 U.S. 564 (1908) (upholding order enjoining companies from diverting water away from the Fort Belknap Indian Reservation, when those diversions would defeat the purpose of the land reservation).

[469] Gillilan, *supra* note 468, at 552 (citing Cappaert v. United States, 426 U.S. 128, 138-42 (1976)).

[470] *Id.* at 559; s*ee also New Mexico*, 438 U.S. at 702; California v. United States, 438 U.S. 645, 665 (1978).

[471] High Sierra Hikers v. U.S. Forest Serv., 436 F. Supp. 2d 1117, 1117 (E.D. Cal. 2006).

[472] *Id.* at 1131. Prohibited activities in Wilderness Areas are allowed if they are "necessary to meet minimum requirements for the administration of the area." *Id.* (citing 16 U.S.C. § 1133 (2006)). The court determined:

some Wilderness Areas,[473] but the opinion does not address state water rights.[474]

Without additional work, the dams at issue in *High Sierra Hikers* would fail to maintain the downstream fish. There, CalTrout intervened as a defendant to protect the fisheries. Like the Reclamation Act, the Federal Power Act, and the Flood Control Act, the Wilderness Act contains a savings clause for state water rights.[475] It reads, "Nothing in this chapter shall constitute an express or implied claim or denial on the part of the Federal Government as to exemption from State water laws."[476] Further, "[n]othing in this chapter shall be construed as affecting the jurisdiction or responsibilities of the several States with respect to the wildlife and fish in the national forests."[477] Caltrout argued that these clauses allowed the State to "assert a right to sustain the fishery and to maintenance of the dams in issue that is unimpaired by the Wilderness Act" based on 5937's water release requirements.[478] The court, however, gave 5937 only a cursory consideration, questioning whether 5937 would require the maintenance of a dam that was falling into disrepair.[479] The court noted that "no party [i.e. the State] with standing to do so has chosen to assert state water rights," so the savings clause did not come into play. CalTrout itself dropped the 5937 argument before the court had a chance to rule on it.[480]

High Sierra Hikers leaves 5937 in an ambiguous position regarding dams in designated wilderness areas. First, while CalTrout cited 5937 as proof of the State's interest in regulating the dam, it did not assert

> Because it is not possible to infer from this language that establishment (much less enhancement) of opportunities for a particular form of human recreation is the purpose of the Wilderness Act, it is not possible to conclude that enhancement of fisheries is an activity that is "necessary to meet minimum requirements for the administration of the area for the purpose of this chapter."

Id. at 1122. The court's approach depended in part on the legislation creating the Emigrant Wilderness, which makes this style of analysis widely applicable. *Id.*

[473] *Id.* at 1131 (citing 16 U.S.C. § 1133 (2006)).

[474] *See generally, id.*

[475] *Id.* (citing 16 U.S.C. § 1133(d) (2006)).

[476] 16 U.S.C. § 1133(d)(6) (2011).

[477] 16 U.S.C. § 1133(d)(7).

[478] *Id.*

[479] *Id.*

[480] *Id.* ("Interveners appear to recognize this and have opted to not develop this argument any further; perhaps leaving it to the state to assert rights in the regulation of stream flows at some later time.").

5937 directly against dam owners,[481] leaving 5937's direct applicability unclear. Second, in deciding *High Sierra Hikers*, the court did not rule on the savings clause as applied to water for fish. Under current California law, the state's water rights may include instream flows for natural resource purposes.[482] To the extent California has rights to water in streams, those rights may be protected under the savings clause discussed in *High Sierra Hikers*. However, because California did not assert its own jurisdiction under the savings clause, that interesting possibility remains unresolved.[483] If a court were to rule that the Wilderness Act precluded operation of the dam, 5937 could not be applied, and the parties (and the fish) would simply have to wait for the dam to fail on its own, if at all, as anticipated in *High Sierra Hikers*. Resolution of 5937 applicability to wilderness area dams will have to wait for an additional test case.

C. Against Whom Can 5937 Be Enforced?

Determining the scope of 5937 requires examining against whom 5937 may be enforced. As discussed in previous sections, 5937 clearly may be enforced against dam owners or operators, and may be enforceable against the Water Board via mandamus actions.

Section 5937 applies to dam owners, including dam operators.[484] For example, in the *Putah Creek Cases*, plaintiffs filed against the Solano Irrigation District ("SID") and the Solano County Water Agency ("SCWA"), operators of a dam owned by the Bureau of Reclamation.[485] Because the SID and the SCWA operate the Bureau dam, the court held that they were "owners" of the dam under 5937.[486] In contrast, *Patterson*, like most cases enforcing 5937, proceeded directly against dam owners.[487] Thus, 5937 applies to both dam owners and dam operators.

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[481] As defendant interveners in the case, they would have been in a difficult position to do so.

[482] Boyd, *supra* note 105, at 1163.

[483] *See generally* High Sierra Hikers v. U.S. Forest Serv., 436 F. Supp. 2d 1117, 1117 (E.D. Cal. 2006) (indicating that the State asserted neither 5937 nor its jurisdiction under the savings clause).

[484] CAL. FISH & GAME CODE § 5900 (West 2010).

[485] *See, e.g.*, Amended Judgment at 1, *Putah Creek Water Cases*, Judicial Council Coordination (Cal. Super. Ct. 1996) (No. 2565).

[486] Transcript of Judge's Ruling at 22-33, Putah Creek Water Cases, Judicial Council Coordination, No. 2565 (Cal. Super. Ct. Apr. 8, 1996) (holding that dam operators were also dam owners under section 5900 of the California Fish and Game Code).

[487] *Patterson I*, 791 F. Supp. at 1425.

Given the number of dams in California, dam-by-dam litigation presents a long road to fisheries recovery. Requiring enforcement through litigation against the state presents an efficient mechanism for protecting fish. Whether 5937 could be enforced via a mandamus action against the Water Board, however, remains an open question. Since the Water Code's origin in 1945, it has incorporated by reference the Fish and Game Code fish protection provisions.[488] Moreover, *National Audubon* also recognized the Water Board's duty to protect public trust uses — the California Supreme Court was so firm on the existence of the Water Board's continuing duty of protection that it discussed the duty six separate times throughout the opinion.[489] In contrast, the Water Board continues to argue, in both its orders[490] and its amicus briefs[491] that it has no mandatory duty to enforce the public trust requirements embodied in 5937. Similarly, in *Casitas Municipal Water District v. United States*, the Court of Federal Claims noted that, "[t]o be sure, the SWRCB must enforce Section 5937."[492] While most courts would probably agree with the California Supreme Court's finding that the Water Board has a duty to consider the public trust, such duty only requires consideration of that trust. No court has determined whether "consideration of the trust" requires strict

[488] CAL. WATER CODE § 6501 (West 2010).

[489] Nat'l Audubon Soc'y v. Superior Court, 33 Cal. 3d 419, 446 n.27 (1983) ("Amendments to the Water Code enacted in 1955 and subsequent years codify in part the duty of the Water Board to consider public trust uses of stream water. The requirements of the California Environmental Quality Act impose a similar obligation." (internal citations omitted)); *id.* at 437 ("In the following review of the authority and obligations of the state as administrator of the public trust, the dominant theme is the state's sovereign power and duty to exercise continued supervision over the trust."); *id.* at 441 ("Thus, the public trust is . . . an affirmation of the duty of the state to protect the people's common heritage of streams, lakes, marshlands and tidelands."); *id.* at 444 (internal citation omitted) ("Although the courts have refused to allow the board to appropriate water for instream uses, even those decisions have declared that the board has the power and duty to protect such uses by withholding water from appropriation."; *id.* at 452 ("The public trust doctrine [preserves[the continuing sovereign power of the state to protect public trust uses, . . . which . . . imposes a continuing duty on the state to take such uses into account in allocating water resources."); *id.* at 447 ("Once the state has approved an appropriation, the public trust imposes a duty of continuing supervision over the taking and use of the appropriated water.").

[490] *In re* Big Bear Mun. Water Dist., No. WR 95-4, 1995 Cal. ENV. LEXIS 16, at *49-50 (Cal. State Water Res. Control Bd. 1995).

[491] Memorandum of Points and Authorities in Support of Amicus Curiae at 4. Reynolds v. City of Calistoga, No. 26-46826 (Cal. Super. Ct. 2010).

[492] Casitas Mun. Water Dist. v. United States, No. 05–168L, 2011 WL 6017935, at *18 n.20 (Fed. Cl. Dec. 5, 2011).

implementation or enforcement of 5937's good condition standard, or whether the Water Board could simply "consider the trust" in a balancing test that ultimately rejects the requirements of 5937 and dedicates the water to other uses. Thus, while the SWRCB could be required to enforce 5937, the central question becomes whether 5937 allows for a balancing test, as argued by the Water Board, or whether the balancing has already been done by the Legislature when it adopted 5937.

D. Does 5937 Allow Balancing of Water Uses?

Section 5937 constitutes a legislative balancing of competing water uses that requires fish to be kept in good condition. No additional balancing is allowed under the statute, whether by the Water Board or by a court.

Several judicial decisions, however, discuss the Water Board's power to balance competing water uses, and one court has argued that 5937 does permit balancing. In *Fullerton v. SWRCB*,[493] the court highlighted Water Code sections that provide for a balancing approach: 1243,[494] 1243.5,[495] and 1257.[496] *Fullerton* held that instream appropriations were not allowed because they "would eliminate piscatorial purposes from the balancing processes prescribed by the Legislature," further endorsing the Water Board's balancing power.[497] Further, *Casitas*

[493] Fullerton v. State Water Res. Control Bd., 90 Cal. App. 3d 590, 598 (1979).

[494] CAL. WATER CODE § 1243 (West 2010).

> The use of water for recreation and preservation and enhancement of fish and wildlife resources is a beneficial use of water. In determining the amount of water available for appropriation for other beneficial uses, the board shall take into account, whenever it is in the public interest, the amounts of water required for recreation and the preservation and enhancement of fish and wildlife resources.
>
> The board shall notify the Department of Fish and Game of any application for a permit to appropriate water. The Department of Fish and Game shall recommend the amounts of water, if any, required for the preservation and enhancement of fish and wildlife resources and shall report its findings to the board.

[495] *Id.* § 1243.5 ("In determining the amount of water available for appropriation, the board shall take into account, whenever it is in the public interest, the amounts of water needed to remain in the source for protection of beneficial uses.").

[496] *Id.* § 1257 (directing the Board, in acting upon applications to appropriate water, to consider the relative benefit to be derived from all beneficial uses of the water concerned, including preservation and enhancement of fish and wildlife).

[497] *Fullerton*, 90 Cal. App. 3d at 604.

explicitly addressed the question of whether 5937 allowed for balancing of competing water uses, suggesting that it did.[498] Specifically, the *Casitas* opinion argued that the SWRCB cannot enforce 5937 "in a vacuum"; while the court recognized 5937 "as a legislative expression of the public trust doctrine," it concluded that "5937 cannot be viewed as an absolute or in isolation, but must be subject to the same considerations that underpin the other, fundamental water doctrines: the desire to balance competing needs for the good of the whole."[499] However, a close read of *National Audubon* reveals that this discussion misunderstands the role of the Legislature's statement in 5937. Like other laws that withhold from appropriation water needed to protect public trust resources, 5937 limits the Water Board's balancing power.[500]

National Audubon ascribed broad balancing power to the Water Board. After noting that the Board originally possessed only ministerial duties, the court noted that more recent laws and developments "made clear its authority to weigh and protect public trust values."[501] Even when considering Water Code section 106, which establishes domestic water use as "the highest use of water," followed by irrigation, the court held that "these policy declarations must be read in conjunction with later enactments requiring consideration of instream uses . . . . Thus, neither domestic and municipal uses nor instream uses can claim an absolute priority."[502] On its face, this analysis seems to indicate that no water use can be favored to the exclusion of all others. A state policy like Water Code section 106, however, which gives priority to a particular type of use, is fundamentally different than a law criminalizing particular behavior, like 5937. Interpreting *National Audubon* to allow the Water Board to permit water uses that violate existing state law is a misreading of the decision.

National Audubon's context should inform any attempt to draw conclusions from its discussion of balancing water uses. At its heart, *National Audubon* concerned whether the Water Board had the power and the duty to consider the public trust consequences of its permitting decisions — whether it could or must balance water appropriations and the public trust.[503] Thus, *National Audubon*

[498] *Casitas*, 2011 WL 6017935, at *18 n.20.

[499] *Id.*

[500] *See, e.g.*, *Patterson II*, 333 F. Supp. 2d 906, 918-19 (E.D. Cal 2004).

[501] Nat'l Audubon Soc'y v. Superior Court, 33 Cal. 3d. 419, 446 n.27 (1983).

[502] *Id.* at 448 n.30 (internal citations omitted).

[503] The court described the issue:

emphasized the Board's balancing responsibilities in order to argue that the Board was able — even required — to consider public trust values. The court, however, simply did not address the Legislature's ability to direct the Board to value particular uses. Reading *National Audubon* as a blanket endorsement of the Water Board's power to balance water uses in spite of legislative directives to the contrary would be a mistake. A closer reading illustrates that the Legislature has power to make direct decisions regarding water allocation, decisions that the Board must enforce. For example, after stressing the breadth of the Water Board's power, the Court cautioned that this authority existed solely to give the Board "powers adequate to carry out the legislative mandate of comprehensive protection of water resources."[504] Likewise, the court discussed Water Code section 106 only to indicate that it did not believe the section allowed the Board to

> [T]he [federal] district court stayed its proceedings under the federal abstention doctrine to allow resolution of . . . important issues of California law: 1. What is the interrelationship of the public trust doctrine and the California water rights system, in the context of the right of the Los Angeles Department of Water and Power ('Department') to divert water from Mono Lake pursuant to permits and licenses issued under the California water rights system? In other words, is the public trust doctrine in this context subsumed in the California water rights system, or does it function independently of that system? Stated differently, can the plaintiffs challenge the Department's permits and licenses by arguing that those permits and licenses are limited by the public trust doctrine, or must the plaintiffs challenge the permits and licenses by arguing that the water diversions and uses authorized thereunder are not 'reasonable or beneficial' as required under the California water rights system?

Id. at 426, 428, 431-32 (internal citations omitted); *id.* at 434 ("Three aspects of the public trust doctrine require consideration in this opinion: the purpose of the trust; the scope of the trust, particularly as it applies to the nonnavigable tributaries of a navigable lake; and the powers and duties of the state as trustee of the public trust.");

> [O]bjective is to resolve a legal conundrum in which two competing systems of thought — the public trust doctrine and the appropriative water rights system — existed independently of each other, espousing principles which seemingly suggested opposite results. We hope by integrating these two doctrines to clear away the legal barriers which have so far prevented either the Water Board or the courts from taking a new and objective look at the water resources of the Mono Basin. The human and environmental uses of Mono Lake — uses protected by the public trust doctrine — deserve to be taken into account. Such uses should not be destroyed because the state mistakenly thought itself powerless to protect them.

Id. at 452.

[504] *Id.* at 449 (citing People v. Shirokow, 26 Cal. 3d 301, 309 (1980)); *In re* Waters of Long Valley Creek Stream Sys., 25 Cal. 3d 339, 348-49, 350 n.5 (1979)).

ignore public trust values for "higher uses" when allocating water.[505] Moreover, the court explicitly endorsed the State's ability to protect particular uses of water, recognizing "the power of the state, as administrator of the public trust, to prefer one trust use over another."[506] Thus, *National Audubon* does not bar the Legislature from using 5937 to withhold water from appropriation in order to protect a public trust resource, but rather limits the Water Board's power to that necessary to achieve the Legislature's purpose. In implementing and enforcing 5937, then, the Water Board cannot use its balancing power in any way that diminishes 5937.

Limiting the Water Board's discretion in implementing 5937 is consistent with other decisions addressing balancing under the statute. The courts in *NRDC v. Patterson* and *CalTrout I* both recognized the legislative determination inherent in 5937, which precludes the Water Board from balancing away the water required for fish. "The Legislature, not the Water Board, is the superior voice in the articulation of public policy concerning the reasonableness of water allocation."[507] As such, both *NRDC v. Patterson* and *CalTrout I* require the Water Board to condition permits on compliance with 5937.

The language of 5937 further mandates this outcome. The Water Code requires dam owners to release water for downstream fish by specifically importing 5937 requirements: "[T]he protection and preservation of fish in streams obstructed by dams are contained in Chapter 3 (commencing with Section 5900), Part 1, Division 6 of the Fish and Game Code."[508] Therefore, reading 5937 to allow the Water Board to permit water use already made criminal by the Legislature does not comport with the law.[509]

Finally, *CalTrout I* addresses standards for judicial scrutiny of legislative reasonableness determinations. In *Caltrout I* the court determined that a legislative determination regarding the reasonableness of a particular water use would be overturned only if it were "manifestly unreasonable."[510] This manifestly unreasonable standard's high threshold for judicial dismissal of a legislative

[505] *Id.* at 448 n.30 (internal citations omitted).

[506] *Id.* at 439 n.21.

[507] *Patterson II*, 333 F. Supp. 2d 906, 918-19 (E.D. Cal 2004) (citing *CalTrout I*, 255 Cal. Rptr. 184, 184 (Ct. App. 1989)).

[508] CAL WATER CODE § 6501 (West 2010).

[509] Section 5937 itself does not provide for any exceptions, so if the water board issues a permit that balances away the good condition requirement, the Water Board is permitting illegal use of the water.

[510] *CalTrout I*, 255 Cal. Rptr. 184, 213 (Ct. App. 1989).

reasonableness determination reflects the court's deference to legislative water use determinations.[511] Under this rule, the judiciary defers to the Legislature to carry out the will of the people.[512] This deference, coupled with the Court's recognition of the implicit legislative power to protect the public trust,[513] establishes constitutional power of the Legislature to make water use decisions that control both the judiciary and the Water Board, as it has done in 5937.

The Legislature made water use determinations limiting judicial and agency discretion in the public trust context in several other statutes. For example, in section 42 of the Water Commission Act, the Legislature determined that flooding irrigated lands with more than 2.5 acre-feet per acre was an unreasonable use of water.[514] Other examples of water use determinations that limit judicial and agency discretion include: California's Wild and Scenic Rivers Act;[515] county of origin and watershed of origin statutes;[516] and laws requiring fish screens.[517] All of these legislative water use decisions limit the

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[511] *Id.*

[512] This comports with the principle that legislatively created agencies may only exercise the authority delegated to them by the Legislature. Since there is no reasonable basis upon which to distinguish between 5946 and 5937's application outside District 4 1/2, the same principle applies to 5937. Thus, by mandating the release of water for below-dam fish, 5937 removes any Water Board discretion over water needed to maintain below-dam fish. Any Water Board action excusing a dam owner from 5937's mandate would *ultra vires* because the agency has no authority to contravene a legislative mandate.

[513] Nat'l Audubon Soc'y v. Superior Court, 33 Cal. 3d 419, 452 (1983).

> The public trust doctrine serves the function in that integrated system of preserving the continuing sovereign power of the state to protect public trust uses, a power which precludes anyone from acquiring a vested right to harm the public trust, and imposes a continuing duty on the state to take such uses into account in allocating water resources.

Id.

[514] Water Commission Act, 1913 Cal. Stat. 1012-1033; *see also* Herminghaus v. S. Cal. Edison Co., 200 Cal. 81, 116 (1926). While *Hemminghaus* initially struck that decision down, the constitutional amendment allowed it its later reenactment. CAL. WATER CODE § 1004 (West 2010).

[515] *See* CAL. PUB. RES. CODE §§ 5093.50-.69 (West 2010) (prohibiting the Water Board from granting water rights to water flowing in certain stretches of state rivers).

[516] *See* CAL. WATER CODE § 10505 (West 2010) (requiring the water rights of distant users to be conditioned on the needs of future water users proximate to the water source); *id.* §§ 11460-11463 (West 2010) (reaffirming watershed protection statute in state's Central Valley Project Act).

[517] *See* CAL. FISH & GAME CODE §§ 5980-6028 (West 2010) (preventing diversions unless fish are protected when water is removed directly from a stream).

discretion of the Water Board and judiciary to consider certain water allocation options.

Based on *National Audubon*, 5937 court decisions, and other environmental statutes, 5937 does not permit a balancing test. Instead, 5937 acts to withdraw the amount of water necessary to keep fish in good condition from the water available for appropriation.[518]

E. When Are "Fish in Good Condition"?

Section 5937 provides no precise definition for its "good condition" requirement. Given the early history of 5937,[519] however, it is reasonable to assume the 1915 California Legislature wanted to ensure that popular and valuable fisheries, such as salmon or shad fisheries, would continue to exist.[520] Only a handful of decisions directly address this standard, whereas other decisions ultimately allowed the good condition standard to be applied based on settlement agreements, rather than judicial interpretation.

CalTrout II offers the clearest existing guidance on the good condition standard in 5937. *CalTrout II* required sufficient flow "to restore the historic fishery."[521] The court also observed that 5937 requires passage of "the amount of water required to sustain the pre-diversion carrying capacity of fish" in a stream.[522] *NRDC v. Patterson* echoed this call, finding that "the relevant state law [5937] directs the Bureau to release sufficient water to 'reestablish and maintain' the 'historic fisheries.' "[523] However, the Water Board bypassed the fairly

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[518] Nat'l Audubon Soc'y v. Superior Court, 33 Cal. 3d 419, 444 (1983).

[519] *See supra* Part I, (discussing the minimum flow requirement). The Minimum Flow Requirement began its life as part of legislation requiring fish passage on dams. In passing the law, the Legislature was responding to a request from the Commission, which saw its efforts at conserving and developing California's sport and commercial fisheries stymied by a lack of flow below dams.

[520] The 1915 Flow Act extended protection beyond naturally occurring fish to include "any fish that *may be planted or exist* below said dam or obstruction." 1915 Cal. Stat. 820 (emphasis added).

[521] *CalTrout II*, 266 Cal. Rptr. 788, 802 (Ct. App. 1990).

[522] *Id.* at 801.

The same is true with respect to the question of reconciling the amount of water required to sustain the prediversion carrying capacity of fish of the four streams in issue with "the public interest," an apparent reference in the regulation to the discretion assigned to the Water Board in some cases to balance the interests served by competing claims to the use of water. Once again, these provisions are not applicable in this case for the balancing therein contemplated has been done by the Legislature in enacting 5946.

[523] *Patterson II*, 333 F. Supp. 2d. 906, 916 (E.D. Cal. 2004) (citing *CalTrout II*, 266 Cal. at 788).

simplistic historical approach in its East Fork Walk River Order, where it recognized that a current fishery may not have a historical counterpoint for comparison. In that case, the Board held that any flow causing an "adverse effect" on the fish constituted a violation of 5937's good condition requirement.[524]

Restoring water flow alone might not always restore a historical fishery.[525] Many ecosystems can no longer support native fisheries due to wholesale changes in ecosystem form and function, and the introduction of non-native species.[526] Recognizing this, the *Putah Creek Water Cases* moved beyond the historical conditions approach to a broader definition of good condition, as outlined by Dr. Peter Moyle. Dr. Moyle's definition of good condition was also ultimately employed in the Friant Dam settlement,[527] although it was not the view espoused by the court in that case.

Currently, Dr. Moyle's definition appears to be emerging as the most broad-based and applicable standard for assessing 5937's good condition component. This definition originated in the *CalTrout* cases, and Dr. Moyle expanded it from a single species approach, as was appropriate in those ecosystems, to include the diverse historical community of fishes living in the creek below the Putah Creek Diversion Dam.[528] Based on his expertise in California fisheries, Dr. Moyle determined that when multiple fish species are present below a dam, maintaining fish in good condition requires three levels of fish health: individual, population, and community.[529] This finding extrapolates from the generic "adverse effect" language previously used by the Board.[530]

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[524] Order No. 90-18, *supra* note 331, at 23.

[525] Ellen E. Hanak et al., *Myths of California Water: Implications and Reality*, 16 HASTINGS W.-NW. J. ENVTL. L. & POL'Y 3, 40-42 (2010) (debunking the myth that sufficient water alone is enough to restore native fish populations).

[526] *See id.* at 44 ("Large numbers of non-native species and changes in land and water development have irrevocably altered California's ecosystem . . . [and] the native species that are maintained in such systems are often our most sensitive indicators of the condition of the ecosystems.").

[527] *See* Matthews, *supra* note 308, at 1131 (citing Expert Report of Prof. Peter B. Moyle, Ph.D at 47-51, Natural Res. Def. Council v. Rodgers, 381 F. Supp. 2d 1212 (E.D. Cal. 2005); Stipulation of Settlement at Ex. B, NRDC v. *Rodgers*, 381 F. Supp. 2d 1212 (settlement dated Sept. 13, 2006)).

[528] Moyle et al., *supra* note 305, at 10.

[529] *Id.*

[530] Order No. WR 90-18, *supra* note 331, at 23. When individual fish are in good health, they live in an environment where they are not stressed by the poor water quality (e.g., high temperatures and low dissolved oxygen content in the water), which is often a product of reduced flows. *Id.*

First, good condition at the individual level means that "most fish in a healthy stream environment should have a robust body conformation; should be relatively free of diseases, parasites, and lesions; should have reasonable growth rates for the region; and should respond in an appropriate manner to stimuli."[531]

Second, at the population level, Dr. Moyle's definition of good condition is very similar to the *CalTrout* definition — that the population is viable.[532] However, because it is hard to determine population viability, the definition adopted in the *Putah Creek Cases* relied on two indicators: "The first was that extensive habitat should be available for all life history stages. The second was that all life history stages and their required habitats should have a broad enough distribution in the creek to sustain the species indefinitely."[533]

Third, Dr. Moyle based the community level of the good condition definition on his extensive studies of stream fish assemblages and stream ecology in general,[534] supplying criteria that can replicated by fish ecologists and fisheries managers. A fish community is in good health if it:

(1) is dominated by co-evolved species,

(2) has a predictable structure as indicated by limited niche overlap among the species and by multiple trophic levels,

(3) is resilient in recovering from extreme events,

(4) is persistent in species membership through time, and

(5) is replicated geographically.[535]

Based on these criteria for healthy individuals, populations, and communities, Dr. Moyle developed the flow regime for Putah Creek that was largely adopted in the *Putah Creek Cases* and subsequent litigation. This approach offers a scientific framework for assessing good condition when a historical approach may not be feasible or appropriate.

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[531] *Id.*

[532] *Id.* at 11.

[533] *Id.* at 10.

[534] *See, e.g.*, PETER B. MOYLE, INLAND FISHES OF CALIFORNIA. REVISED AND EXPANDED (2002) (providing overview of all species of inland fish in California).

[535] Moyle et al., *supra* note 305, at 11.

1. What Does "Fish" Mean for Purposes of 5937?

In assessing "fish in good condition," the meaning of "fish" plays a controlling role. The Water Board, in its Big Bear Decision, offers a creative but flawed interpretation.[536] As discussed above, the Board noted that fish in upper Bear Creek would be kept in good condition, relying on Fish and Game Code section 2's definition of "fish," added in 1957.[537] This definition included "wild fish, mollusks, crustaceans, invertebrates, or amphibians, including any part, spawn, or ova thereof."[538] Taken to its logical conclusion, such a reading would mean that compliance with 5937 could be achieved by releasing sufficient water to keep crayfish wet below the dam. Applying this expansive definition of fish to 5937 ignores the law's purpose and origins.

Fish and Game Code section 2 ("section 2") specifically addresses definitions for construing the Code.[539] It states that "*[u]nless the provisions or the context otherwise requires*, the definitions in this chapter govern the construction of this code and all regulations adopted under this code."[540] Thus, based on the full text of section 2, the broad definition of fish embraced by the Water Board only applies when the provisions or context of the code do not otherwise require a more particularized definition.[541]

Three aspects of 5937 suggest that section 2's broad "fish" definition should not apply in the 5937 context. First, the Legislature enacted 5937 in response to a request from the Commission for protection of commercial and game fish, not merely crayfish.[542] Applying the Water Board's broad definition would defeat this primary purpose. Second, 5937 protects fish that exist or *may be planted* below dams; a reading that protects only wild fish, as established by the broad definition above, would render this language nonsensical because wild fish are not planted fish. Third, as the Water Board notes, 5937 is a legislative expression of the public trust doctrine,[543] and allowing only enough water to protect the least demanding "fish" would not serve the public trust. Indeed, no court has suggested that the Board's definition of fish

[536] *In re* Big Bear Mun. Water Dist, Order No. WR 95-4, 1995 Cal. ENV LEXIS 16, at *52-53 (Cal. State Water Res. Control Bd. 1995).

[537] CAL. FISH & GAME CODE § 45 (West 2010).

[538] *In re Big Bear Mun. Water Dist.*,1995 Cal. ENV LEXIS 16, at *33 (citing CAL. FISH & GAME CODE § 45 (2010)).

[539] CAL. FISH & GAME CODE § 2 (2010).

[540] *Id.* (emphasis added).

[541] *Id.*

[542] 1914 BIENNIAL REPORT, *supra* note 58, at 33, 56-57, 77.

[543] *CalTrout I*, 255 Cal. Rptr. 184, 209 (Ct. App. 1989).

should be adopted in reading 5937. Thus, the definition of "fish" that the Water Board used in the Big Bear Decision is inappropriate for determining issues of 5937. In fact, the "fish" portion of the definition of good condition under 5937 is subsumed into Dr. Moyle's community standard, which requires domination by a variety of co-evolved species with limited niche overlap and representation of multiple trophic levels.[544] While not as convenient as Big Bear Decision's "crawdad definition," this science-based definition hews more closely to the Legislature's intent and should, therefore, be the default definition of fish for 5937.

F. What Can Compliance with 5937 Entail?

Occasionally, the judiciary or the Water Board goes beyond merely requiring water releases to require wholesale restoration under 5937. By the terms of 5937, an owner must only "allow sufficient water at all times to pass through a fishway, or in the absence of a fishway, allow sufficient water to pass over, around or through the dam, to keep in good condition any fish that may be planted or exist below the dam."[545] Thus, the statute only requires dam owners to release sufficient water. When enforcing this statute, however, the Water Board has read 5937 in conjunction with the physical solution doctrine to require additional action.[546] The Water Board borrowed this approach from the California Court of Appeal in *CalTrout II*, which stated, "[T]he appropriator can be compelled as the price of continued appropriation to take reasonable steps to attain [historical fisheries] in a manner that does not involve unreasonable use of water."[547]

This suggestion from *CalTrout II* evokes the physical solution doctrine, as explained by the California Supreme Court in 1936. The Supreme Court explained that the constitutional prohibitions on water waste compelled the trial court to "ascertain whether there exists a physical solution of the problem presented that will avoid [any unnecessary] waste."[548] In the court's view, unnecessary waste would result if a trial court ordered water releases alone to accomplish a goal that could be accomplished with less water through some "physical

[544] Moyle et al., *supra* note 305, at 10.

[545] CAL. FISH & GAME CODE § 5937 (West 2010).

[546] Order No. 90-16, *supra* note 338, at 5-6; Water Right Decision D-1631, *supra* note 254, at 6.

[547] *CalTrout II*, 266 Cal. Rptr. 788, 801 n.6 (Ct. App. 1990).

[548] City of Lodi v. E. Bay Mun. Util. Dist., 7 Cal. 2d 316, 339 (1936).

solution" like changes in water storage or location of water diversion.[549] The physical solution doctrine, then, carries constitutional overtones that compel its adoption whenever possible.[550]

While a full discussion of the physical solution doctrine is beyond the scope of this Article,[551] it clearly interacts with the remedies required by several courts and the Water Board under 5937. For example, if a dam reduces a stream's summer flows to such an extent that the remaining water warms beyond the tolerance levels of the downstream fish population, the Water Board could compel the dam owner to release additional flows to cool the downstream water. The amount of water required would depend on the depth of the water intake on the upstream reservoir, since lake waters stratify into warmer water at the top and cooler water at the bottom. A large amount of outflow would be required if the warm water near the top of the reservoir is used, as opposed to the cooler water near the bottom. Releasing larger amounts of warm water from the top of the reservoir could amount to a waste of water, and thus a court or the Water Board could compel installation of a system to release water from deeper in the reservoir under the physical solution doctrine.

In the Mono Basin Decision, the Water Board used the physical solution doctrine to require extensive habitat restoration.[552] This restoration could, in some cases, have been accomplished through increased flows and passage of time, but direct intervention likely reduced flows necessary to support the same population of fish.[553] This level of intervention under the physical solution doctrine appears to be rare. However, such intervention was never challenged, perhaps because it allowed appropriators more water than they would

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[549] *Id.*

[550] *City of Lodi*, 7 Cal. 2d at 340 ("In attempting to work out such a solution [to water disputes] the policy which is now part of the fundamental law of the state must be adhered to.").

> The right to water or to the use or flow of water in or from any natural stream or water course in this State is and shall be limited to such water as shall be reasonably required for the beneficial use to be served, and such right does not and shall not extend to the waste or unreasonable use or unreasonable method of use or unreasonable method of diversion of water.

CAL. CONST. art. X, § 2, *codified at* CAL. WATER CODE § 100 (West 2010).

[551] *See* City of Barstow v. Mojave Water Agency, 23 Cal. 4th 1224, 1249-50 (2000) (providing an overview of the limitations on the doctrine).

[552] Water Right Decision D-1631, *supra* note 254, at 70.

[553] Order No. 90-18, *supra* note 331, at 13; Water Right Decision D-1631, *supra* note 254, at 6.

otherwise receive. The limits to what the physical solution doctrine may require remain unknown. But, given its constitutional overtones and its potential for reducing conflicts over water, the physical solution doctrine will likely play an increasingly key role in 5937 implementation.

G. Can 5937 Effect a Taking?

Recent cases, particularly *Casitas Municipal Water District v. United States*, raise the specter of takings vis-à-vis federal water regulation,[554] but the *Casitas* decision stands as the only case examining the takings aspects of 5937.[555] The *Casitas* analysis is illuminating. There, the Casitas Municipal Water District ("Casitas") argued that Endangered Species Act-mandated flows for steelhead amounted to a taking of part of its water right.[556] This claim ultimately failed because the court determined that Casitas had not yet suffered any harm. The court noted that several factors could preclude Casitas from ever establishing that the fish flows harmed them.[557] Most relevantly, the court noted that the SWCRB could elect to change Casitas's water license to require additional flows for fish. "Should the SWRCB ultimately find that [the flows required under the Endangered Species Act] or more are necessary to protect the steelhead, then any prospect plaintiff may have had for pursuing a takings claim in this court will be eliminated."[558] The court reached this conclusion because "we would view such a pronouncement by the Board as a determination that the public trust doctrine strikes the balance between consumptive and environmental needs in this case in favor of the fish," which would preclude Casitas from establishing a property right sufficient to support a takings claim.[559] This view, consistent with the view of the

[554] *See, e.g.*, Casitas Mun. Water Dist. v. United States, 543 F.3d 1276 (Fed. Cir. 2008) (asserting a taking based on increased federal water flow requirements); Tulare Lake Basin Water Storage Dist. v. United States, 49 Fed. Cl. 313 (2001) (holding that the United States was liable under a takings analysis for reducing flows from the California State Water Project to comply with the federal Endangered Species Act).

[555] Casitas Mun. Water Dist. v. United States, No. 05–168L, 2011 WL 6017935, at *18, 30 (Fed. Cl. Dec. 5, 2011).

[556] *Id.* at *1-*3.

[557] *Id.* at *30.

[558] *Id.*

[559] *Id. See also* Casitas Mun. Water Dist. v. United States, 543 F.3d 1276, 1295 (Fed. Cir. 2008) (holding that a taking requires a valid property right).

Water Board[560] and the California Supreme Court,[561] indicates that requiring dams to comply with 5937 does not effect a taking.

CONCLUSION

The story of 5937 is a story of California's failure to protect the public trust. The California Legislature has consistently made protection of fish a priority, passing increasingly protective laws, using exceptionally clear language, and reiterating the State's interest in the safekeeping of its natural resources. Even as the Legislature sought to protect the people's riches, however, the State neglected to enforce these laws. CDFG has been unable or unwilling to enforce 5937 directly, the Attorney General disavowed the law's primary purpose, the Water Board pretended 5937 did not exist, and the judiciary prevented private litigants from asserting 5937 violations. By the late 1950s, 5937 was law in name only, and California's fish paid the price of non-enforcement. The resurgence of the public trust doctrine in California, and recognition of the private litigant's role in its enforcement, saved 5937 and so brought new hope to California's native fish and fisheries, although they are still in peril. Strict 5937 enforcement in the future, either by private litigants or by state agencies, is a prerequisite for recovery of California's native fish. Section 5937 is a straightforward law with broad power to rehabilitate aquatic ecosystems and the habitat they depend on. Maintaining diverse and abundant fish populations in streams below dams stands as a public trust duty and a legislative mandate; under California law, these fisheries must be restored, and robust 5937 enforcement will play a central role in their restoration.

[560] *In re* Big Bear Mun. Water Dist., Order No. WR 95-4, 1995 Cal. ENV LEXIS 16, at *21-22 (State Water Res. Control Bd. 1995) (internal citations omitted) (holding that, under the public trust doctrine and under Water Code section 275, which implements California Constitution Article X, section 2, the Water Board has continuing authority to apply 5937 to "all appropriations or other diversions of water for use").

[561] Nat'l Audubon Soc'y v. Superior Court, 33 Cal. 3d 419, 452 (1983) (holding that the public trust doctrine "precludes anyone from acquiring a vested right to harm the public trust, and imposes a continuing duty on the state to take such uses into account in allocating water resources").