A Brief Examination of the History of the Persistent Debate About Limits to Western Growth

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The Plain "Dam!" Language of Fish & Game Code Section 5937: How California's Clearest Statute Has Been Diverted From Its Legislative Mandate

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I. Introduction and Purpose

Many years ago I started fishing. It began, no doubt, as a simple diversion and as a way to spend time with my father. However, I learned quickly that fishing was more than just a trip to the mountains. Fishing meant peace, fishing meant quiet, and fishing meant an opportunity to enjoy the outdoors. As far as I was concerned, it was something worth falling in love with.

Over the years I fished more and more, and gradually my time outdoors became more than just a hobby. It became an almost spiritual exercise of wild energy, appreciation, and solitude. And always there was the water. Running down, a constant immutable rush—loud enough to make you shout, yet soft enough to put you to sleep.

I realized early that the natural flow of water was the key to my dreams on the river. Without it, there'd be no fish, no energy, and no story from upstream. I came to appreciate conservation, and recognized that there was something greater at stake than my beloved trout. Sure, the fish are important. But there is also this natural energy that can only be fully appreciated in its wild, unadulterated state. Running water is the key.

* I.D. UC Hastings (2005), B.A., magna cum laude, UCLA (2001). Special thanks to Hastings Professor Brian E. Gray for assisting me with this note and for always keeping his door open to students like myself. Thank you also to Brian Stranko, Dave Finkel, Tony Van Houten, Bonnie Nealan, Kristina Kenck, and of course, Katrina Kuzniuk for allowing me to be apart of California Trout during law school; to Chuck Bonham at Trout Unlimited for throwing me into the environmental law fire the summer after my second year; to Chief Justice Ronald George for allowing me to extern with the California Supreme Court; and to Montana Supreme Court Justice Jim Rice for hiring me as a post-graduate clerk.
This article examines California Fish & Game Code section 5937, and its critical (and sometimes disputed) requirement that dams release water to protect downstream fisheries. The article highlights section 5937's clear language, with the hope that it will finally put an end to the recurring summer fish kills in California and someday serve as a catalyst to re-water the once-mighty San Joaquin River. I will also explain section 5937's history, and explore the roots of its varying interpretations. Finally, I will try to answer two important questions. First, why have interpretations of section 5937 diverted so wildly from the statute's plain language? Second, is reclamation of the statute a possibility? If, at the end of this article, the reader believes that section 5937 has the potential to be the most powerful statute in California water law, I will have been successful in my goal.

II. California Fish & Game Code Section 5937

California Fish & Game Code section 5937 is deceptively simple. Entitled "Passage of water through fishway or over dam for fish below dam," the statute seems to require the absolute protection of California's fishery resources. Specifically, it mandates that, "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." End of the story, right? Wrong.

Over the years, conflicting and weakening interpretations of the statute have obscured its plain meaning. The most "damning" of these interpretations was former California Attorney General Edmund G. "Pat" Brown's 1951 interpretation of the statute. In an opinion requested by the California Directors of Natural Resources and Public Works, Brown interpreted California Fish & Game Code section 525, precursor and equivalent of section 5937, as not actually requiring minimum flows for fish. Rather, Brown interpreted the statute as a preference for flows, when convenient. The statute was further weakened by the passage of Fish & Game Code section 5946, which required section 5937 to be followed in Inyo and Mono Counties. The implication: that section 5937 didn't necessarily need to be followed in other parts of the state.

1. CAL. FISH & GAME CODE § 5937 (West 1998).
2. Id.
4. Id. at 37.
5. Id. at 37-38.
6. Legislative Memorandum from Legislative Secretary Beach Vasey to Governor Earl Warren concerning Senate Bill No. 78, an act to add section 525.5 to
Despite these interpretations, the plain language of section 5937 is unavoidable. Although the plain-meaning interpretation of the statute is often criticized as being overly broad and too inflexible, the alternative interpretations have failed to do one important thing: find the Legislative intent behind the statute. For that reason, the intent and derivation of section 5937 is where I will begin.

A. The Historical Derivation of Section 5937

California Fish & Game Code section 5937’s roots go back to the mid-1800s. It was then that the California Legislature first recognized the hazards to fish caused by dams and other river obstructions. However, the early protections weren’t so much instream flow protections as they were protections against barriers to fish migration. For instance, in 1891, California Penal Code section 637 required not a minimum stream flow, but only that, on request, the “owner of a dam or other obstruction” had to build a fish ladder or fishway. Furthermore, these early laws did not require that every dam have a fish ladder. Instead, the laws left it up to the State Board of Fish Commissioners to decide if such measures were necessary. At no time in the 1800s did the State Board of Fish Commissioners have a duty to examine dams and their impacts on wild fisheries.

Beginning in 1903, however, the legislature finally placed an affirmative duty on the State Board of Fish Commissioners to “examine, from time to time, all dams and artificial obstructions in all rivers and streams in this state naturally frequented by salmon, shad, and other migratory fish.” This was an important step in fisheries protection, since it required for the first time affirmative, proactive action by a state agency. However, the 1903 version of Penal Code section 637 had a narrow focus. Like the laws preceding it, section 637 targeted only migratory, or

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7. Joel C. Baiocchi, Use It or Lose It: California Fish and Game Code Section 5937 and Instream Fishery Resources, 14 U.C. DAVIS L. REV. 431 (1980).
9. Id. The penalty for defiant behavior was jail time and or fines. A fish ladder or fishway is a series of ascending pools which allow migratory fish to “climb” over dams and other obstructions. Id.
10. Id. Of note is that any fines assessed under § 637 were split according to the following formula: ½ to the informer, ¼ to the prosecuting district attorney, and ¼ to the State Board of Fish Commissioners for the importation of game birds. Id.
11. Id.
anadromous, fish. This language left out protection of non-migratory species such as trout, bass, and pike. Even so, the 1903 statute was significant because it placed an affirmative obligation on the state to protect fish.

1. Shift In Focus: the 1915 Amendments to Penal Code Section 637

The most important change in the evolution of Fish & Game Code section 5937 took place in 1915. In that year, Penal Code section 637 was amended to (1) remove the words “migratory fish,” and (2) to require that all dams and obstructions release enough water to keep any fish, whether planted or wild, living below a dam in good condition. The importance of these changes to the preservation of fish stock cannot be overstated.

First, by removing the reference to “migratory fish” and replacing it with a reference to “other fish,” the statute for the first time switched its focus from only anadromous fish species to all fish. The former language—requiring official examination only of dams frequented by salmon, shad, and other migratory fish—strongly implied that the statute was focused on protecting only sea-running species. Thus, at the time, it could be argued that State Board of Fish and Game Commissioners had no duty to examine dams or other obstructions on rivers not frequented by migratory fish. The Legislature’s decision to change the language to “other fish” suggested that not just dams frequented by migratory fish, but all dams affecting any fish were to be examined by the State Board of Fish Commissioners. The result was that dams east of the Sierra Mountains, as well as those at higher elevations to the west, clearly fell under the statute’s umbrella.

Second, the addition of language requiring owners of dams to “allow sufficient water at all times to pass through ... [the fishway] ... to keep in good condition any fish that may be planted or exist below the dam” represented a clear legislative mandate to protect all fish species living on

13. Anadromous fish are those which are born in fresh water streams and rivers, spend their lives in the ocean, and then migrate back to their natal streams to spawn, and usually, to die; see Baiocchi, supra note 7, at 431.

14. Act of May 24, 1915, ch. 491, § 1, 1915 Cal. Stat. at 820 (repealed 1933)(“It shall be the duty of the state board of fish and game commissioners to examine, from time to time, all dams and artificial obstructions in all rivers and streams in this state naturally frequented by salmon, shad and other fish. . . 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.”).

15. Of course, some species like trout and bass, which move from lakes and rivers into smaller tributaries to spawn, could technically be considered migratory.

obstructed rivers with fishways.\textsuperscript{17} Furthermore, the language is evidence that the Legislature recognized the destructive effects that dams can have on fisheries when sufficient water is not allowed to flow below a dam.\textsuperscript{18} Not only was the addition of this powerful language legislative recognition of the need for dams to release water at all times, it was also an official mandate that minimum stream flows be maintained below dams in all California rivers.\textsuperscript{19}

\textbf{2. Minor Clarifications, and the Move Toward Section 5937}

Since 1915, there have been only minor changes to the content of California Penal Code section 637.\textsuperscript{20} In 1917 "trout" was specifically added to the list of species, which, if threatened below a dam, would trigger Department of Fish and Game review of that dam.\textsuperscript{21} The change was further evidence that the statute aimed to protect not just anadromous species, but all freshwater species as well.\textsuperscript{22} Likewise, in 1917, a fish ladder exception was placed into the statute to address situations in which a fish ladder would be impractical. This exception allowed some dams to permanently block access to anadromous fish spawning grounds, but did nothing to

\begin{enumerate}
\item 17. \textit{Id.}
\item 19. This would (unfortunately) be a novel interpretation today, as it was 35 years after the 1915 amendment when Attorney General Pat Brown officially interpreted it in 18 Op. Cal. Att'y Gen. 31 (1951). However, in 1915, before the major dam building projects forced people to consider water flowing to the ocean a "waste," the mandate to keep sufficient water running below dams could only be interpreted one way: Enough water had to flow to keep fish alive, and in good condition. See \textsection 1, 1915 Cal. Stat. at 820; \textsc{Cal. Fish & Game Code} \textsection 5937 (West 1998).
\item 20. Other scholars have classified some of these changes as very important. However, for the reasons given in this paper, I disagree as to the degree of importance.
\item 22. Of course, one form of trout is in fact anadromous, the steelhead. However, it is trout and not steelhead or steelhead trout that was listed in \textsection 637 in 1917. \textit{Id.}
\end{enumerate}
change the fact that the statute required the release of a sufficient amount of water to protect fish below the dam at all times.\(^\text{23}\)

In 1933, the content of Penal Code section 637 was moved to the newly created Fish & Game Code at section 525,\(^\text{24}\) and an important change to the statute was made in 1937. In that year, section 525 was amended to read, "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."\(^\text{25}\) The former language implied that only dams with fishways had to release "sufficient water."\(^\text{26}\) While I believe that the statute required releases from all dams even before this amendment, the amendment clearly established that water bypass was required from all dams and not just from dams with fishways.\(^\text{27}\)

The statute remained in this form at section 525 for twenty-four years until 1957 when the statute was codified in its present form at Fish & Game Code section 5937.\(^\text{28}\) Since 1957, section 5937 has been unchanged.\(^\text{29}\)

Admittedly, other than the textual changes made to section 5937 over the last 89 years, there is an absence of legislative history and contemporary contextual materials regarding the statute. However, by reviewing the textual changes to section 5937 one can come to the following conclusions: (1) the statute began as a tool to protect the migration of salmon and other anadromous fish; (2) the major revisions of 1915 changed the focus of section 5937, putting the primary emphasis on maintaining instream flows below dams to protect any and all fish living below them;\(^\text{30}\) and (3) there is nothing in the statute to suggest that the 1915 revision was meant to accomplish anything less than assuring minimum stream flows below dams at all times.\(^\text{31}\)

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23. Id.


27. At least one scholar believes the 1937 amendments to be the most significant changes made for just this reason. See Baiocchi, supra note 8, at 434 n.15 ("this amendment was revised in the Senate Committee on Fish & Game to make more explicit the mandate that water be released regardless of the presence of a fishway.")


29. Id.

30. § 1, 1915 Cal. Stat. at 820.

31. To bolster this point, it should be noted that California has specifically required the Department of Fish & Game to set minimum stream flows in California's Rivers and Streams in California Public Resources Code § 10001 (West 1996).
III. Why Section 5937 Could Be the Most Powerful Instream Flow Law in California

In California, water is power. Starting in the 1850s when control of water allowed hydraulic miners to strike gold at record rates, and continuing to the growth of agro-business in the early 1900s, the capture of water has fueled fortunes. However, along the way California's water resources have become scarce, and with continuous population growth, the price of our state's most precious resource has continued to rise. To make matters worse, new sources of water are also scarce and expensive. Although California has close to 1,500 dams, the water behind them is fully allocated, and the era of new reservoirs and water projects is essentially over. The likely result: our much debated water allocation schemes will become more contentious, and dam operators will do whatever they can to keep every possible drop of water "on the market" and in their reservoirs, as opposed to letting that water flow downstream.

Precisely because almost every major river in California is dammed or obstructed, section 5937's potential value is immense. Currently, water is released from dams for power production, agricultural use, domestic use, salinity control, and the protection of endangered species, including salmon

34. To some extent the rise in water prices is a good thing, since much of California's history has seen subsidized water prices far below market value. See generally id.
38. The "on the market" reference refers to California's new water market, where water can be transferred, sold, and stored for a price. See Brian E. Gray, The Shape of Transfers to Come: A Model Water Transfer Act for California, 4 HASTINGS W.-NW. J. ENVTL. L. & POL'Y. 23 (1996).
and other endangered or threatened fish. These releases, of course, provide relief for the non-migratory and non-endangered fish as well. However, there are times during the year (especially in the summer) when dam owners do not need to release water for power, agriculture, salinity control, or for endangered fish protection, and in fact are trying to retain water for potential fall shortages. It is at these important moments that section 5937 can protect against a dry river bed and flopping fish scenario, and ensure that there is "sufficient water to keep downstream fish in good condition."

Still, people may question whether section 5937 is needed. Given endangered species legislation, requirements that appropriations of water consider the needs of fish, and the California Public Resources Code mandate that the Department of Fish & Game actually set minimum stream flows where needed, it is possible to argue that section 5937 is superfluous and unnecessary. However, the current level of protection is just not enough.

Despite the Endangered Species Act, and the other California instream flow laws, summer-month low flows still kill fish in California on a regular basis. In fact, what some call the largest fish kill in the history of the West occurred in September 2002, when close to 30,000 salmon died on the Klamath River because the water flow was too low. And this is not the only such example. Documented fish kills have occurred on the American, Yuba,

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40. Id. (see "Purpose and Use of Dam" column).
42. Cal. Fish & Game Code § 5937 (West 1998).
46. See California Trout v. State Water Resources Control Board, 90 Cal. App. 3d 816, 820-821 (1979), where the California Court of Appeal assured the public that there are laws that protect fish resources.
and East Walker Rivers as well—all attributable to too little water.\textsuperscript{49} While section 5937 may not be the end all of California water law, it has tremendous potential to protect vulnerable waters. Since most of these fish kills are the result of regulated droughts on one of the many dammed waterways in California, section 5937 appears to be the best, and most direct, vehicle for intervention.

There is one problem, however. While on its face section 5937 is extraordinarily powerful, its use has been at odds with its plain language. I will argue that the statute's potential has been untapped because of (1) its conflicting interpretations and, (2) its infrequent application to keep fish "in good condition."\textsuperscript{50} I will discuss later how and why the statute should be used more consistently. First, however, a full inquiry into why section 5937 has been interpreted contrary to its clear language is appropriate.

\section*{IV. Misinterpreted: How Industrial Priorities Diverted Section 5937 From Its Plain Language.}

With language as clear as Lake Tahoe and a history as long as the Golden Gate Bridge, section 5937 should be the thorn in every dam owner's side. It should be read. It should be feared. Above all, its clear mandate should be followed. However, the reality is that the statute has been viewed largely as guidance rather than as a legislative mandate.\textsuperscript{51} In Use It or Lose It: California Fish and Game Code Section 5937 and Instream Fishery Resources, Joel Baiocchi recounts one such example from 1980, where the Department of Fish and Game allowed a dam owner to violate section 5937 because "[t]he dam owner possessed a vested water right antedating section 5937 and its predecessor statutes . . . [and] . . . [t]he benefits to fish below dam [were] too marginal."\textsuperscript{52} This is a perfect example of where section 5937 should have required minimum releases, but instead was used only as a guiding principle.

\begin{itemize}
  \item \textsuperscript{51} 18 Op. Cal. Att'y Gen. 31 (1951).
  \item \textsuperscript{52} Baiocchi, \textit{supra} note 8, at 445 n.75.
\end{itemize}
Untested and unused, the statute has wallowed in obscurity. It didn’t have to be this way. Two important factors have clouded the statute’s clarity. First, section 5937’s initial interpretations took place in an era when massive water projects were the norm, and where a “a-drop-unused-is-a-drop-wasted” attitude weakened the statute from the start. Second, the passage of section 5946 (requiring the application of section 5937 in Inyo and Mono Counties) reinforced the idea that section 5937 was not mandatory.

A. The Water Project Era and Its Effect on Section 5937

As California’s population swelled in the mid-1800s—at first due to the Gold Rush, and later because of the State’s good weather and economic opportunity—water became ever more important. People needed it for drink, for enjoyment, and for growing just about every imaginable crop under the sun. By the mid-1920s, “California had surpassed Iowa as the richest agricultural state in the country,” and by the 1940s, an average of 360,000 people immigrated to California each year. The result was massive growth and, consequently, a massive demand for water.

Out of this insatiable need for water, the “Water Project Era” of California was born. Beginning in the 1920s and continuing for nearly five decades, California and the Federal Government fully tapped the State’s water resources. The Boulder Canyon Project, the Central Valley Project, and the State Water Project were the largest such enterprises, but, in total, more than 1,000 dams were erected and more than 15 million acre feet of water impounded.

It was not the water projects themselves, however, that fueled the disabling interpretations of section 5937. Instead, it was the era’s attitude that did the damage. Despite section 5937’s recognition that instream fisheries were important, the era generally viewed water flowing naturally

54. Id.
55. HUNDLEY, supra note 33, at 276.
56. Id. at 203 (beginning of chapter entitled Hydraulic Society Triumphant: The Great Projects).
57. Id.
58. Id. at 205, 234, 276.
59. Major Dams and Reservoirs of California, supra note 37 (see column on Reservoir Capacity).
60. In the early 1920s and 30s California Penal Code § 637 was still in use. However, I use § 5937 here to avoid confusion, and note that as of 1915 the statute was almost identical.
into the ocean as wasteful.\textsuperscript{61} In 1920, Colonel Robert Bradford Marshall, the man originally responsible for the Central Valley Project, said:

\begin{quote}
The people of California, indifferent to the bountiful gifts that Nature has given them, sit idly by waiting for rain, indefinitely postponing irrigation, and allowing every year millions and millions of dollars in water to pour unused into the sea, when there are hungry thousands in this and in other countries pleading for food and when San Francisco and the Bay Cities, the metropolitan district of California, are begging for water.\textsuperscript{62}
\end{quote}

Even the United States Supreme Court saw free flowing waters as wasteful, as evidenced by its comments regarding the Central Valley Project in its 1958 decision in \textit{Ivanhoe Irrigation District v. McCracken}. The Court stated:

\begin{quote}
Nature has not regulated the timing of the runoff water, however . . . it is estimated that half of the Sierra runoff occurs during the three months of April, May, and June. Resulting floods cause great damage, and waste this phenomenal accumulation of water so vital to the valley's rich alluvial soil.\textsuperscript{63}
\end{quote}

This attitude pervaded the United States, and especially California, during the early and mid-twentieth century. And it wasn't compatible with section 5937. While section 5937 rewarded the release of water, the era's attitude rewarded the opposite, and this was reflected in crippling interpretations of section 5937.

\section*{1. Attorney General Opinion 50-89—July 23, 1951}

The biggest blow to section 5937's plain language came in 1951, when California Attorney General Edmund "Pat" Brown issued an opinion concerning its mandate.\textsuperscript{64} Presented with the question of whether the United States was required by State law to allow sufficient water to pass Friant Dam to preserve fish life below the dam, Brown opined that "Fish and Game Code section 525 is not a reservation of water for the preservation of fish life, but is rather a rule for the operation of dams where there will be

\begin{itemize}
\item \textsuperscript{61} \textsc{Littleworth \& Garner}, \textit{supra} note 53, at 18-19.
\item \textsuperscript{62} Id. at 18 (emphasis added).
\item \textsuperscript{63} \textit{Ivanhoe Irrigation District v. McCracken}, 357 U.S. 275, 280-282 (1958).
\item \textsuperscript{64} 18 Op. Cal. Att'y Gen. 31 (1951).
\end{itemize}
enough water below the dam to support fish life." He added that the statute is simply, "a standard for the release of water in excess of what is needed for domestic and irrigation purposes so that what is available for fish life shall not be wastefully withheld." Essentially Brown interpreted section 5937 as a recommendation when he should have read it as a requirement.

Not only did the opinion deflate the untapped potential of section 5937, it also couched any potential use of the statute in terms of an economic analysis. Quoting from Ten Rivers in America's Future, Brown wrote "when the need for water development becomes so acute that a choice must be made between water for the general economy of the basin and fisheries, a decision will have to be based on a determination of the relative value of the contribution of each to the national and regional economy." In the case of Friant Dam and the San Joaquin River, Brown estimated that if a minimum stream flow of between 50 and 300 cubic feet per second was released from Friant Dam, it would cost the Central Valley Project between $592,650 and $977,500 in revenues, and nearly 46,000 acres in irrigated lands. On a per fish basis, the minimum flows would cost 3 acres of irrigated land, or between $39.50 and $65, per fish. That price, according to Brown, was too high.

This consideration of the economics of releasing water—so clearly absent from section 5937's plain language—became the standard practice following Brown's 1951 opinion. It was in that context that, two years later, section 526.5 was considered for addition into the Fish & Game Code. The section mandated the strict application of section 5937 in Inyo and Mono counties, effectively requiring minimum stream flows in that part of the state. Section 526.5 is a critical chapter in the interpretation of section 5937, as I will discuss later in the article. However, for now it is enough to note that the principal evidence in support of passing section 526.5 was the

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65. Id. at 37-38 (Note that this version of § 525 is identical to § 5937).
66. Id. at 38.
67. UNITED STATES WATER POLICY COMMISSION, TEN RIVERS IN AMERICA'S FUTURE 151 (1951).
69. Id. at 36.
70. Id.
71. Id. at 38-40.
72. Legislative Memorandum from Beach Vasey, Legislative Secretary, to Governor Warren concerning Senate Bill No. 78 (SB 78), an act to add section 525.5 to the Fish & Game Code (July 3, 1953) (on file at the California State Archives, Governor's Chapter Bill File, ch. 1663 (1953) (MF 3:2(15)));
73. Id. See also CAL. FISH & GAME CODE § 5946 (West 1998).
74. See infra Section IV.A.2.
economic value of fish and fishing to the two counties that would be jeopardized by a lack of water.\textsuperscript{75}

The problem with trying put an economic value on free-flowing water and fish is two-fold. First, the value of fish is unquantifiable. Economists may calculate the value of commercial and recreational fishing to a community, but such a calculation would fail to fully assess a fisheries' worth. In addition to the commercial or recreational value of a fishery, a fishery has scientific value and aesthetic value,\textsuperscript{76} and fish are intrinsically valuable as a species. Such alternative values could not be weighed equally in the economic formula used in 1953. Although these values are appreciated far more today, quantifying them is still difficult.

The second problem with the economic valuation of the free-flowing water and fish, closely related to the first, is that, given the growth in agriculture in the mid-twentieth century, the value of water sky-rocketed. The federal government had originally envisioned that the West would develop into small independent farms.\textsuperscript{77} Instead, massive agricultural corporations formed, with millions of dollars at stake.\textsuperscript{78} In this environment, the economic value of fish and fishing in any particular stream was usually dwarfed in comparison to the value of the water to agriculture.\textsuperscript{79} It was simple math, and the fish always came out high and dry. With their economic lens and the attitude that flowing water was wasteful, the Attorney General and the State's other leaders weakened section 5937.

\begin{footnotesize}
\textsuperscript{75} Letter from Charles Brown, State Senator, 28\textsuperscript{th} Senatorial District, to Governor Earl Warren (June 11, 1953) (where Brown notes that nearly 75\% of Inyo and Mono counties income in 1953 was based on recreational fishing in natural rivers and streams) (on file at the California State Archives, Governor's Chapter Bill File, ch. 1663 (1953) (MF 3:2(15))); \textit{see also} Letter from Emil J. N. Ott Jr., Executive Director of the California Department of Fish & Game, to the State Division of Water Resources (October 31, 1947) (where Mr. Ott conducts a similar economic analysis in support of greater releases in Rock Creek, a tributary of the Owens River) (on file at the California State Archives, Governor's Chapter Bill File, ch. 1663 (1953) (MF 3:2(15))).

\textsuperscript{76} Littleworth & Garner, \textit{supra note} 53, at 83.

\textsuperscript{77} Reisner, \textit{supra note} 33, at 337.

\textsuperscript{78} Id. at 337-338.

\textsuperscript{79} See 18 Op. Cal. Att'y Gen. at 35-36; \textit{see also} Letter from Emil J. N. Ott Jr., Executive Director of the California Department of Fish & Game, to the State Division of Water Resources, \textit{supra note} 76 (especially the reference to the drying up of 14 miles of the Owens River).
\end{footnotesize}
2. The Implication of Section 5946

The second great blow to section 5937's plain language was the passage of Fish & Game Code section 526.5, now codified at section 5946, which provides:

No permit or license to appropriate water in District 4½ 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 5937.80

On its face, section 5946 seems like a positive development in enforcing section 5937. First, it requires full compliance with section 5937 in District 4½, that is Mono and Inyo counties.81 Second, it seems to reflect a legislative determination that fisheries are important. Third, the statute seems to call attention to section 5937's mandate and potentially advertises its value to a larger audience.

However, in practice, while section 5946 probably benefited Inyo and Mono Counties, it helped to cripple section 5937's use elsewhere. The problem is that by requiring full compliance with section 5937 in District 4½, section 5946 implies that section 5937 does not have to be fully complied with in other parts of the state.82 On its face section 5937 requires all dams in California to release sufficient water to keep fish living below it in good condition.83 Therefore, to the extent that section 5946 requires releases in specific counties, it is redundant of section 5937's requirement in all counties, and suggests that section 5937 does not require such releases.

In 1953, Legislative Secretary Beach Vasey noted this negative implication in a memo he wrote to then-Governor Earl Warren. Vasey wrote that while "it might be argued that there is an implication from this bill at the present time that there need not be as even release of water, or release of water to protect fish life in other parts of the state, . . . I am inclined to think that this [statute] should be approved."84 Vasey ultimately concluded that

80. CAL. FISH & GAME CODE § 5946 (West 1998).
81. Id.
82. Compare CAL. FISH & GAME CODE §§ 5937 (West 1998) and § 5946. See also Memorandum from Beach Vasey, Legislative Secretary, to Governor Warren concerning SB 78, supra note 72.
83. CAL. FISH & GAME CODE § 5937.
84. Memorandum from Beach Vasey, Legislative Secretary, to Governor Warren concerning SB 78, supra note 72.
the statute was a positive because of the value of fisheries to District 4 ½ and because of the past disaster on the Owens River. However, his recognition of the potential negative implication supports the position that section 5946 has likely weakened section 5937.

Others have also recognized this negative implication. For instance, Jan Stevens, a former California Deputy Attorney General, noted at a Public Trust symposium that section 5946 “places teeth in” section 5937. The clear implication is that section 5937 lacked teeth before the enactment of section 5946.

In addition to the negative implications for section 5937, section 5946’s existence also meant that section 5937 was not given full effect during the Mono Lake controversy. That controversy, which ultimately gave birth to the Public Trust Doctrine in California, involved Los Angeles’ desire to appropriate entire streams in the Eastern Sierra. It also presented the ideal opportunity to apply section 5937 to protect instream flows. Unfortunately that didn’t happen. Though it ultimately lost, Los Angeles did not have to maintain minimum stream flows in Lee Vining, Rush, Walker, and Parker Creeks because of section 5937’s mandate. Instead, the California Court of Appeal relied on 5946 to impose diversion limits on Los Angeles, and refused to decide the scope of 5937.

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An era’s insatiable desire for water storage, an Attorney General’s short-sited opinion, and a redundant statute have all affected the interpretation of section 5937. As a result, while the dam building of the mid-twentieth century continued at a record pace, provisions to preserve or protect fish simply were not made. Sometimes that meant that fish had less water than they needed, and had to survive in deep pools during low flows. At other times, it meant that former fisheries were destroyed as the water that once flowed dried up to nothing. These results are evident in fish kills

85. Id. See also LITTLEWORTH & GARNER, supra note 53, at 223; Letter from Charles Brown to Governor Warren, supra note 75.
89. Id.
90. Audrey Cooper, Friant Dam Issue Returns to Court, SAN JOAQUIN RECORD, Apr. 19, 2003; See also N.R.D.C. v. Houston, 146 F.3d 1118, 1124 (9th Cir. 1998).
on the American, Yuba, and East Walker Rivers. To have healthy fisheries, we need to have water. It does not need to be bottled water, and it does not have to be un-dammed and completely natural, but it does need to be "sufficient"—sufficiently cool, sufficiently clean, and sufficiently flowing to keep fish living below dams in "good condition."

V. Reclaiming Section 5937: The Water Project to End All Water Projects

Despite the summer fish kills and misinterpretation of section 5937, all is not lost. Since the 1970s, there have been changes in both California law and society which suggest that section 5937 should finally be interpreted to mean what is says. First, the California Attorney General's office repudiated former Attorney General Brown's 1951 interpretation of 5937. Second, the California Supreme Court found the public trust doctrine applicable in California. Third, the California Legislature adopted statutory laws like Public Resources Code sections 10001 and 10002 which further recognized the importance of minimum stream flows. Finally, the California Trout litigation forced California courts to grapple with section 5937 for the first time. Together, these changes demand that section 5937 be interpreted as nothing less than a mandatory minimum stream flow requirement on all dammed rivers.

A. Change of Heart: The California Attorney General Disowns the Brown Opinion

Edmund Brown's 1951 Attorney General opinion was an enormous setback to section 5937. Not only did it render section 5937 meaningless, but it did so with the executive's stamp of approval. The branch whose job is to enforce the law said that section 5937 was basically no law at all. Making matters worse was the interpretation's timing. In the mid 1900s

91. See supra note 18.
92. CAL. FISH & GAME CODE § 5937 (West 1998).
dams were being built at a rapid rate, and water throughout the state stopped flowing naturally.98

Things changed in 1978. Presented with the question of whether the State Water Resources Control Board had the authority to adopt a regulation requiring a new water appropriator to allow passage of water through a dam to preserve fish living below the dam, the Attorney General's office was once again asked to give its opinion on section 5937. In doing so, the new Attorney General, Evelle J. Younger, was forced to reexamine Brown's 1951 interpretation.99 Noting the interim laws that indicated a clear legislative intent to protect instream fisheries, Younger effectively disowned Brown's interpretation, stating:

The clear legislative intent in enacting section 5937 of the Fish and Game Code was to protect California's fishery resources. This office's former interpretation of this section, if applied generally, nullifies section 5937 as a fishery protection measure. Such an application can no longer stand in light of current state policy expressing the urgency of preserving California's important fishery resources.100

Younger also noted the destructive effects of Brown's 1951 opinion.101 For example, Younger noted that the San Joaquin River supported a Chinook Salmon run of 40,000 fish annually before Friant Dam permanently blocked its natural flow.102 Because the dam was no longer releasing water downstream, the fishery was decimated.103 Today, people say the "cappuccino-colored water is too thin to plow, too thick to drink,"104 and the salmon—they're all gone.105

Younger's opinion, though more than 20 years old today, laid the ground work for section 5937's revival. Especially important was his statement that, "read in light of existing state policy with reference to protection of fishery resources, section 5937 clearly should be given a literal interpretation."106 This plain language interpretation makes possible a meaningful section 5937 enforcement action. It also signals official

98. See Major Dams and Reservoirs in California, supra note 37.
100. Id. at 582.
101. Id. at 579 n.1.
102. Id. See also Cooper, supra note 89.
103. Id. See also King Salmon Spawning Stocks of the California Central Valley 1940-1959, CALIFORNIA FISH & GAME, Jan. 1961, at 55.
104. Cooper, supra note 89.
106. Id. at 582.
executive branch support of the statute, an important factor in weighing the merits of a potential section 5937 action in the future

B. The Public Trust Doctrine: An Environmental Baseline

The second factor supporting a reinterpretation of sections 5937 is the Public Trust Doctrine, a doctrine which has itself been used successfully to implement minimum stream flows.

Rooted in ancient Roman law and introduced in the United States in the 1800s, the Public Trust Doctrine provides that certain natural resources are to remain in the possession of the state for the use of the public. Historically, public trust uses included the right to fish, boat, and swim in state waters. Shoreline owners could not prevent people from accessing, using, and enjoying those uses. But the public trust uses were generally limited to those mentioned above, and often only applied to coastal waters. Furthermore, public trust uses did not necessarily include the right to enjoy nature in its natural form.

The doctrine changed dramatically in California starting in 1971. That year, the California Supreme Court expanded the Public Trust Doctrine in Marks v. Whitney. The court held that, in addition to the traditional public trust uses of navigation, commerce, and fishing, the preservation of "lands in their natural state" is also a public trust use if the lands are preserved "so that they may serve as ecological units for scientific study, as open space, and as environments which provide food and habitat for [animals]." This was a landmark decision because, it marks the first time the preservation of lands was found to be a protectable public right.

The California Supreme Court expanded the doctrine further in National Audubon Society v. Superior Court, when the Court applied the Public Trust Doctrine to appropriative water rights and held that the Public Trust Doctrine had to be

108. Id.
109. Id.
110. See People v. Gold Run Ditch & Mining Company, 66 Cal. 138, 151-152 (1884); see also LITTLEWORTH & GARNER, supra note 53, at 81.
111. LITTLEWORTH & GARNER, supra note 53, at 82.
112. Id. at 81-82; see also Marks v. Whitney, 6 Cal. 3d 251 (1971); National Audubon Society v. Superior Court, 33 Cal. 3d 419 (1983).
113. Id. at 82.
114. Whitney, 6 Cal. 3d at 259-260.
115. "An appropriative right is the right to divert and use a specific quantity of water for reasonable, beneficial use in a specific location." See LITTLEWORTH & GARNER, supra note 53, at 39.
considered when allocating water rights. In addition to making the Public Trust a mandatory factor in allocation decisions, the Court also held that the state had “an affirmative duty . . . to protect public trust uses whenever feasible.” This affirmative duty, imposed on all state agencies, to protect the public trust uses is recognition of an environmental baseline. And though the duty is subject to the “feasibility” standard, the feasibility standard is simply a recognition of article X, section 2 of the California Constitution, which requires that all uses of water be beneficial and reasonable.

The policies behind the changes to the Public Trust Doctrine support a literal reading of section 5937. From the beginning, the Public Trust Doctrine protected fisheries for the sake of commercial and recreational fishermen. Today, as a result of Marks v. Whitney and National Audubon Society v. Superior Court, the public also has a right to preserve those fisheries for their intrinsic environmental value as “ecological units for scientific study, as open space, and as environments which provide food and habitat for [animals].” While the Public Trust Doctrine’s mandate to consider the preservation of fisheries may not require improving the health of fisheries, it at least requires ensuring the survival of fisheries. In many cases a minimum stream flow is key to that survival. Likewise, the phrase “good condition” in section 5937, though never litigated, certainly requires that fish be kept alive and allowed the ability to propagate. Given these two very similar mandates, the Public Trust Doctrine’s more general one and section 5937’s more specific one directed at fisheries, it is clear that the Public Trust Doctrine bolsters a once taboo literal reading of section 5937.


117. Id.

118. By environmental baseline I mean a level of environmental degradation which triggers protection so that the environment’s health does not fall below the set level.

119. CAL. CONST. art. X, § 2.

120. LITTLEWORTH & GARNER, supra note 53, at 81-82.

121. Marks v. Whitney, 6 Cal. 3d 251, 259-260 (1971); National Audubon Society, 33 Cal. 3d at 446-447.

122. Of course, all conversation regarding water allocation must include a discussion of article X, section 2 of the California Constitution. That provision requires that all water be used both beneficially and reasonably. However, even considering article X, section 2, it would be hard to imagine a scenario where it would be deemed reasonable to destroy an entire fishery. It’s even harder to imagine if that fishery contains endangered or threatened fish.

123. Baiocchi, supra note 8, at 441 n.64.
C. The California Trout Litigation and a Legislative Determination that Water for Fish is Mandatory

The third factor supporting the application of the plain language of section 5937 is the California Trout litigation. Following the California Supreme Court's landmark decision in National Audubon Society, California Trout, a non-profit fish and water conservation organization, litigated section 5937 and section 5946 as they related to Mono Lake's tributaries.\(^{124}\) California Trout was ultimately successful in obtaining minimum stream flows on the four Mono Lake tributaries.\(^{125}\) One of the most important aspects of the litigation was the California Court of Appeal's resolution of the question concerning the effect of article X, section 2 on sections 5937 and 5946 of the California Fish & Game Code.

In California Trout v. State Water Resources Control Board, 207 Cal.App.3d 585 (1989) (Cal Trout I) the California Court of Appeal held that applying section 5946 to the four Mono Lake tributaries—thus requiring minimum stream flows on those streams—did not violate article X, section 2 of the California Constitution.\(^{127}\) The Court of Appeal held that 5946 represents a "legislative choice among competing uses of water,"\(^{128}\) therefore necessarily implying that it represents a "reasonable and beneficial use" of water.\(^{129}\)

Cal Trout I is an important decision for two reasons. First, it makes it clear that article X, section 2 permits the Legislature to determine the priorities of competing uses of water, and that the Legislature may even favor environmental uses over commercial and domestic uses.\(^{130}\) Second, it


\(^{126}\) CAL. CONST. art. X, § 2 provides in part that, "It is hereby declared that because of the conditions prevailing in this State the general welfare requires that the water resources of the State be put to beneficial use to the fullest extent of which they are capable, and that the waste or unreasonable use or unreasonable method of use of water be prevented, and that the conservation of such waters is to be exercised with a view to the reasonable and beneficial use thereof in the interest of the people and for the public welfare."

\(^{127}\) See generally 207 Cal. App. 3d 585.

\(^{128}\) Id. at 601.

\(^{129}\) Id. See also LITTLEWORTH & GARNER, supra note 53, at 101. (note: Art. X, § 2 provides that it "shall be self-executing, and the Legislature may also enact laws in furtherance of the policy in this section contained.")

\(^{130}\) Cal Trout I, 207 Cal. App. 3d at 601. See also LITTLEWORTH & GARNER, supra note 53, at 101 (note: Many have argued that CAL. WATER CODE § 106 was the definitive and last Legislative
states decisively that section 5946 is such a legislative determination assigning priority to fish over other uses. Cal. Trout I thus supports this article’s contention that, given our state’s water situation, section 5937 is a legislative determination that the survival of our state’s fisheries takes priority over other uses of dammed river water.

Although the Court of Appeal in Cal. Trout I did not address section 5937, extrapolating from the court’s interpretation of section 5946, section 5937’s plain language evidences a Legislative intent to assign a priority to the survival of fisheries below dams. The principle articulated in the case can easily be extended to section 5937 since section 5946 merely endorses section 5937’s mandate in two specific counties. The court simply did not go further and clearly extend the ruling to section 5937 because the resolution of the section 5946 issue resolved the case.

I. Public Resources Code Sections 10001, 10002

Sections 10001 and 10002 of California’s Public Resources Code, both added to the Code in 1982, also support the argument that section 5937 is a legislative determination that fisheries below dams are to be given priority. Section 10001 requires the California Department of Fish & Game to identify, list, and rank in order all streams and rivers in California which need minimum stream flows to protect fisheries. Section 10002 further requires the Department of Fish

determination on water allocation priorities. That section provides that, “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.” However, this case proves that that conclusion is not the case, and that the Legislature may change priorities over time. See also National Audubon Society, 33 Cal. 3d at 447, n.27).

131. Id.

132. By “priority” here I do not mean that all fish must survive at all costs. However, I do mean that they are to be favored when competing water users argue that a stream should be completely dried up.

133. See CAL. FISH & GAME CODE § 5937 (West 1998).


135. CAL. PUB. RES. CODE § 10001 (The statute provides in full that “[t]he Director of Fish and Game shall identify and list those streams and watercourses throughout the state for which minimum flow levels need to be established in order to assure the continued viability of stream-related fish and wildlife resources. The director shall include in this identification list those streams and watercourses the director determines are significant, along with a statement of findings as to why that stream or watercourse was selected. The identification list required by this section shall rank the streams and watercourses beginning with those where the need for establishing minimum flow levels is the greatest.”)
& Game to "prepare proposed stream flow requirements, which shall be specified in terms of cubic feet of water per second, for each stream or watercourse identified pursuant to Section 10001."\textsuperscript{136}

In effect, Fish & Game Code section 5937 and Public Resources Code sections 10001 and 10002 address the same problem—minimum stream flows for fisheries below dams. The difference is that section 5937 requires that stream flows actually be implemented, while sections 10001 and 10002 of the Public Resources Code merely require those flows to be set. However, there is little doubt that the legislative requirement that the Department of Fish & Game set minimum stream flows supports a literal interpretation of section 5937.\textsuperscript{137} This is true because in many ways, Public Resource Code sections 10001 and 10002 simply provide a framework for section 5937's mandate.

D. The Environmental Movement

Finally, the fourth factor supporting a return to the plain meaning of section 5937 is the change in attitudes since the mid-1900s when the interpretation of section 5937 was wrenched away from its text. As former U.C. Davis Professor of Law Harrison Dunning noted in 1993, Attorney General Brown's 1951 opinion "reflected an extraordinarily narrow reading of the [section 5937] language."\textsuperscript{138} As noted previously, the early-mid 1900s were characterized by an attitude that naturally flowing water is wasteful. Given the lack of environmental concern and the growing need for water resources at that time, that attitude was to be expected, but it unfortunately helped shape section 5937 into a meaningless statute. As Dunning also

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The director, at his discretion, may revise the list and may add or delete streams or watercourses as circumstances require. The initial identification list required by this section shall be completed no later than January 1, 1984.

136. \textit{CAL. PUB. RES. CODE § 10002.}

137. Of note is Public Resource Code § 10001's requirement that minimum stream flows for all California streams and rivers in need be set by January 1, 1984, and § 10002's requirement that a list of actual proposed stream flows be prepared by July 1, 1989. Shockingly, despite 20 years having passed, there simply is no list of streams needing minimum stream flows, though it is absolutely clear that a number of streams are in need of them. Furthermore, there is no list of proposed stream flows for California's needy rivers. The Department of Fish & Game blames a lack of resources for these omissions. See Baiocchi, supra note 8, at 447. However, privately one Department of Fish & Game official told me that certain agencies have been against Public Resources Code § 10001 from the beginning, including the State Water Resources Control Board, the State Department of Water Resources, and the United States Bureau of Reclamation.

noted, "the logic [was] understandable in the context of the values about surface waters at the time."^{139}

However, the same factor—values about water—suggests that it's time to reclaim section 5937. Attitudes toward the environment have changed. The advent of federal laws such as the Endangered Species Act^{140} and the Wild & Scenic Rivers Act^{141} and, perhaps more importantly, State laws such as the California Endangered Species Act^{142} and the California Environmental Quality Act,^{143} are evidence of this change, and provide the necessary backdrop for reclaiming section 5937.^{144}

VI. NRDC v. Patterson and Section 5937's Resurrection

In September 2004, United States District Court Judge Lawrence Karlton released a much-anticipated order concerning the scope of section 5937, in NRDC v. Patterson.^{145} The case presented two issues. First, do the federally run Central Valley Water Project dams, including Friant Dam on the San Joaquin River, have to comply with § 5937? Second, if so, does Friant Dam's failure to release water for fish violate the statute?

Judge Karlton's order answered both questions in the affirmative, holding not only that section 5937 applies to Friant Dam, but that the dam's failure to release sufficient water for fish into the riverbed violates the statute.^{146} Though the opinion saved for a later date the issue of what remedial measures would be required, it nevertheless laid the foundation for the re-watering of the San Joaquin River and perhaps the largest environmental restoration effort in California's history.^{147}

139. Id.
142. CAL. FISH & GAME CODE §§ 2050-2111.5 (West 1998).
143. CAL. PUB. RES. CODE §§ 21000-21177 (West 1996).
144. A good review of the shift in environmental attitudes is available in Norris Hundley's The Great Thirst, supra note 33.
146. Id. at 925 (noting that the San Joaquin River remains dry).
147. The remedial stage of NRDC v. Patterson will truly by the most important § 5937 proceeding in the history of the statute. As of now, NRDC v. Patterson is not a final decision, so appeal of the order can't take place until the remedial phase is finished (assuming Judge Karlton does not authorize an interlocutory appeal, which he likely will not do) During the remedial stage, Judge Karlton might require a steady release of water from Friant Dam to protect and reestablish the once prevalent salmon and steelhead runs. However, this would be very controversial, as it would require significant water releases from Friant Dam — water that would be taken from agricultural users throughout California. Judge Karlton could also decide that reestablishing a salmon run in the San
NRDC v. Patterson is an extremely important opinion for two reasons. First, it confirms that all dams in California are subject to section 5937's mandate. This ruling is significant because it puts to rest speculation that section 8 of the Reclamation Act or the Central Valley Project Improvement Act preempt the statute. In holding that neither of these statutes preempts section 5937, Judge Karlton insured that section 5937 will apply to all dams in California.

Second, the order signals a new willingness on the part of the judiciary to use section 5937, and to interpret its clear language in a manner consistent with its legislative intent. While section 5937 has been used many times as a negotiating tool in stream flow discussions, it has rarely been the subject of litigation. In fact, NRDC v. Patterson is the first published opinion to find a violation of section 5937. It marks the revival of section 5937 and the reclamation of its plain meaning to make good on its promise to protect California's fishery resources.

VII. Conclusion

California's water allocation issues are only going to get worse as California's population continues to expand. Given the State's limited water resources, more tough decisions will have to be made. Section 5937's history is littered with misinterpretation and neglect, which pushed its true mandate out of use. However, given the changes over the last 30 years, changes in laws, attitudes, and priorities, section 5937 is finally capable of exerting pressure to protect our fisheries. With an interpretation grounded in the plain language, section 5937 might finally do what it says it will—require "sufficient water" to keep fish "in good condition." Joaquin River will require too much water in light of the very real needs of agricultural and domestic users. If that scenario plays out, § 5937 would not be able to provide a remedy in spite of the violation of its mandate—a huge blow to future use of the statute. Finally, there is also the possibility that NRDC and the Friant-Chowchilla water users could settle and halt the remedial phase of the case. What a settlement would look like is pure speculation, but at least one option would be to enlarge Friant Dam and Millerton Reservoir. This could allow the Dam to release enough water for fish and still retain enough to honor deliveries to Friant and Chowchilla water users. This would be very controversial as well, since it would mean environmental groups trading downstream environmental protections for upstream environmental destruction. I believe this third option is unlikely, especially given Judge Karlton's pro-fish decisions, and the controversy likely to arise if environmental groups agree to enlarge a dam or reservoir.

149. See Baiocchi, supra note 8, at 446-447.
150. I've been unable to find another published case which finds a violation of § 5937. Of course, Cal. Trout I, supra, involved § 5937, but that case ultimately found a violation of § 5946.
151. CAL. FISH & GAME CODE § 5937 (West 1998).