Rewatering the San Joaquin River: A Summary of the Friant Dam Litigation

Nathan Matthews

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Nathan Matthews

Introduction ................................................................................................ 1110
I. Factual Background ........................................................................... 1111
   A. History of Friant Dam .............................................................. 1111
   B. Environmental Impacts of the Dam ......................................... 1113
II. Statutory Bases of Liability in the Friant Litigation ....................... 1115
   A. The Endangered Species Act ................................................... 1115
   B. California Fish and Game Code Section 5937 and the “Good Condition” Standard .......................................................... 1117
      1. California Trout: Good Condition Means Historic Extent of the Fishery .............................................................. 1118
      2. Putah Creek: Good Condition Means a Diverse, Self-Sustaining Population ............................................................. 1120
III. Procedural History of the Friant Litigation .................................... 1122
    A. The Origin of the Suit ............................................................. 1122
    B. Patterson I: The Court’s 1992 Order ......................................... 1123
    C. NRDC v. Houston: The Ninth Circuit Appeal ....................... 1124
       1. ESA Consultation for the Original Contract Renewals 1124
       2. The Central Valley Project Improvement Act of 1992: Effects on Section 5937 and NEPA Claims ....................... 1126
    D. Rodgers: ESA Consultation on the Second Round of Contract Renewals ...................................................... 1127
    E. Patterson II: The Bureau’s Liability under Section 5937 ....... 1129
IV. The Friant Settlement and Pending Legislation .............................. 1129
    A. Restoring Fish to “Good Condition” ....................................... 1130
    B. Impacts on Friant Dam Water Users ....................................... 1132

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INTRODUCTION

The San Joaquin River is the main artery of the second largest river system in California. Historically, the river flowed through the Central Valley before merging with the Sacramento River and emptying into San Francisco Bay. However, for most of the past fifty years, water diversions at Friant Dam authorized by the Federal Bureau of Reclamation (Bureau) have left a sixty mile stretch of this river dry. In 1988, the Natural Resources Defense Council (NRDC) sued the Bureau in Natural Resources Defense Council v. Houston,¹ alleging that Friant Dam’s operations on the San Joaquin River violated several state and federal environmental laws.

The Friant litigation is only now drawing to a close. In fall 2006, eighteen years after the complaint was filed, the parties conditionally approved a settlement that will restore flows to the San Joaquin River.² If Congress passes the settlement’s enabling legislation,³ water could begin to flow through the main stem of the San Joaquin in 2009, and Chinook salmon could be reintroduced to the river by 2012.⁴

In recognition of this litigation’s impending closure, this Essay aims to describe the process leading to the settlement, both by summarizing the four published opinions the litigation produced (collectively, the Friant litigation),⁵ and by providing an overview of the little-litigated California statute that was central to this litigation, California Fish and Game Code section 5937.⁶ Section 5937 provides that “[t]he owner of any dam shall allow sufficient water at all times to pass . . . over, around or through the dam, to keep in good condition any fish that may be planted or exist below the dam.” Although section 5937 has been part of the

¹. 146 F.3d 1118 (9th Cir. 1998).
This Essay is organized as follows. Part I provides the factual background of the dispute, specifically the history of Friant Dam and evidence of the impact of the dam’s operation on downstream fisheries. Part II describes the statutes underlying NRDC's successful claims—the federal Endangered Species Act (ESA) and California Fish and Game Code section 5937. My ESA discussion is limited to section 7’s procedural requirements, which several Friant opinions held were violated. In discussing section 5937, I examine two prior case studies: the California Trout litigation concerning water diversions from tributaries to Mono Lake, and the litigation surrounding diversions from Putah Creek near Davis, California. The Putah Creek litigation produced an alternate interpretation of section 5937, but ultimately settled without producing a published opinion. Part III then turns to the Friant litigation itself, examining the Eastern District of California’s application of these statutes and concluding with the court’s two rulings imposing liability on the Bureau. Finally, Part IV examines the settlement adopted by the parties in September of 2006, and the enabling legislation currently pending before Congress.

I. FACTUAL BACKGROUND

A. History of Friant Dam

Ten years before the construction of Friant Dam was proposed, the San Joaquin River was already the center of litigation and the focal point for California’s water law development. In 1927 the California Supreme Court decided *Herminghaus v. Southern California Edison Co.*, perhaps California’s most famous water case. The Court enjoined Southern California Edison from impounding the San Joaquin’s waters at the current site of Friant Dam, because doing so would hurt downstream landowners, who relied on the annual flooding of the river to irrigate their lands. Public outcry over this decision led to the passage of what is

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now Article X, section 2 of the California Constitution, which limits the exercise of all water rights in California to uses that are “reasonable and beneficial.”

A decade later, the Federal Bureau of Reclamation proposed and then constructed Friant Dam as part of the Central Valley Project. The proposal again immediately ignited a lawsuit by downstream water users. This time, rather than seeking to enjoin construction, downstream landowners filed a takings claim, seeking compensation for their lost water rights. The U.S. Supreme Court, interpreting the California Constitution, held that the federal government owed compensation. Undaunted by this cost, the Bureau began construction of Friant Dam in 1939, completing the dam by the mid-1940s. In addition to the dam, the Bureau built two canals to divert the stored water: the Madera Canal, which was completed in 1945, and the Friant-Kern Canal, completed in 1949. This water goes to twenty-eight cities and to water districts encompassing about 15,000 farms; today, providing water to these contractors is the dam’s primary purpose.

Diverting this water has had a major impact on the river. As the district court summarized in Natural Resources Defense Council v. Patterson (Patterson II), “For most of the last 50 years, the Bureau has diverted virtually all of the River’s flows. . . . Some sixty miles of the River . . . now lie continuously dry, except during rare flood events.”

13. Id.
15. See Patterson II, 333 F. Supp. 2d at 909 (“the Bureau has operated Friant Dam to maximize the quantity of water diverted to its Friant Division contractors.”). Note however that Congress’s authorization was broader, “for the purposes of improving navigation, regulating the flow of the San Joaquin River . . . , controlling floods, providing for storage and for the delivery of the stored waters . . . and for the generation and sale of electricity.” Act of August 26, 1937, Pub. L. No. 75-392, § 2, 50 Stat. 844, 850; see also United States v. Gerlach Live Stock Co., 339 U.S. 725, 731–32 (1950).
B. Environmental Impacts of the Dam

These diversions have made the San Joaquin River the most dramatic example of fish decline and poor aquatic habitat throughout California. In aggregate, California's rivers hosted 113 species of native freshwater and anadromous fish prior to statehood. Today, at least seven of those species are extinct, twenty-six are federally listed as threatened or endangered under the federal Endangered Species Act, including five types of salmon, and many more fish potentially merit listing.

Out of these threatened species, salmon are particularly vulnerable to harm stemming from water diversions. Salmon are anadromous fish, meaning they spawn in freshwater but mature in the open ocean. Salmon can only migrate if the river contains enough water to swim in (up to their spawning grounds) and is free of barriers. Even when water diversions do not completely de-water migration corridors, diversions alter instream conditions in ways that harm salmon. Specifically, salmon need cold water and clean gravel beds. However, when water volumes are reduced and the rate of flow decreases, plants grow and further constrain flows. The sediment deposits in gravel beds then increase, and the slow moving water has time to warm. These changes directly impair salmon.

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17. Anadromous fish are those, like salmon, that spawn in freshwater but that mature in the ocean.
18. Under the Endangered Species Act, "species" is defined more broadly than its ordinary biological use, extending to include "any subspecies of fish or wildlife or plants, and any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature." Endangered Species Act of 1973 (ESA) § 3(16), 16 U.S.C. § 1532(16) (2006).
19. See Peter B. Moyle & Jack E. Williams, Biodiversity Loss in the Temperate Zone: Decline of the Native Fish Fauna of California, a CONSERVATION BIOLOGY 275, 278 (1990).
21. There are a variety of reasons why species that might warrant listing nevertheless remain unlisted. Because of the strong protections afforded to species "listed" as endangered, the listing process is often contentious and politicized. See generally Holly Doremus, Listing Decisions under The Endangered Species Act: Why Better Science Isn’t Always Better Policy, 75 WASH. U. L.Q. 1029 (1997); see also, e.g., Center for Biological Diversity v. Lohn, 483 F.3d 984 (9th Cir. 2007); Northwest Ecosystem Alliance v. U.S. Fish & Wildlife Serv., 475 F.3d 1136 (9th Cir. 2007); Ctr. for Biological Diversity v. U.S. Fish & Wildlife Serv., 450 F.3d 930 (9th Cir. 2006). According to a 1990 survey, "In all, 57 percent of the existing taxa have at least some need of special management if their populations are to continue to exist indefinitely.” Moyle & Williams, supra note 19, at 278.
Therefore, they also allow invasive species adapted to the new conditions to flourish, causing indirect harm to salmon and native species.\textsuperscript{23}

Salmon migration behavior divides populations into "runs" based on spawning season. Salmon typically repeat the spawning behavior of their parents, returning to the stream they were born in, at the same time of year, to spawn. Therefore, a subpopulation spawning in a particular river at a particular time—e.g., the former "spring-run" salmon on the San Joaquin—is reproductively isolated from other subpopulations, such as the "fall run" on the San Joaquin or populations spawning in the Sacramento River. However, this isolation is not absolute. Salmon occasionally stray, migrating at a different time of year or to different streams. Because of strays, some salmon have appeared in the San Joaquin during flood years since the closure of Friant Dam.

Water diversions are at least partially responsible for the dramatic decline in the populations of salmon and other fish species. Before California's statehood, Native American tribes in the central valley, harvesting salmon in the Sacramento and San Joaquin river systems, may have taken more than nine million pounds of salmon annually.\textsuperscript{24} Anecdotes about salmon migration hint at what this plentitude was like—salmon migrating upstream were described as being so numerous that the fish sounded like a waterfall, that livestock refused to cross rivers, that fishers were able to catch salmon with pitchforks, and that farmers used salmon for hog feed.\textsuperscript{25} Although less information is available for other species, similar anecdotes exist, claiming, for example, "in 1852 one [visitor] took 3,500 pounds of river perch near Sacramento City in a single day."\textsuperscript{26}

Prior to the construction of Friant Dam, the salmon population on the San Joaquin River had declined but was still healthy. In 1945, four years before the dam reached maximal diversions, an estimated 56,000 spring-run salmon returned to spawn below the dam.\textsuperscript{27} At that point, the Bureau was allowing enough water to flow past the dam to sustain the salmon fishery in the river below.\textsuperscript{28} Thus, although the dam prevented


\textsuperscript{25} Id. at 67. "Gold rushers who took a few minutes away from their digging in the late forties could pitchfork fifty-pound salmon out of the Yuba and Bear Rivers in unlimited quantities." Id.

\textsuperscript{26} Id.


\textsuperscript{28} See id. at 909.
salmon from migrating to habitat upstream of the dam, salmon continued to successfully spawn below the dam. However, once the Friant-Kern Canal was completed and the Bureau began full diversions, fish essentially disappeared from the river. Judge Karlton describes this change:

The spring-run Chinook—once the most abundant race of salmon in the Central Valley—appear to have been extirpated from the length of the River.... The fall-run Chinook, too, were eliminated from the upper San Joaquin River.... Friant Dam's operations have been a "disaster" for Chinook Salmon.

II. STATUTORY BASES OF LIABILITY IN THE FRIANT LITIGATION

In response to Friant Dam's environmental impacts, in 1988 a coalition of environmental groups led by the Natural Resources Defense Council filed suit against the Bureau of Reclamation, challenging its renewal of Friant water contracts. NRDC ultimately won summary judgment as to liability on two of its claims. In 2004, the Eastern District of California held that the Bureau, in operating Friant Dam, had violated California Fish and Game Code section 5937 by failing to keep fish below the dam in "good condition." Soon thereafter, the court held that the Bureau, the Fish and Wildlife Service, and the National Oceanic and Atmospheric Association Fisheries Service (also known as the National Marine Fisheries Service or NMFS) had violated the federal Endangered Species Act by renewing water contracts in reliance on flawed biological opinions. This Part reviews the provisions of the Endangered Species Act and section 5937 of the California Fish and Game Code underlying these rulings, as a preface to the discussion of these rulings themselves in Part III.

A. The Endangered Species Act

Congress passed the Endangered Species Act "to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, [and] to provide a program for the conservation of such endangered species and threatened species."

The ESA is primarily administered by two federal agencies: the National Oceanic and Atmospheric Administration Fisheries Service

29. See id. at 909-10.
30. Id. at 910.
31. Id. at 925.
32. See Natural Res. Def. Council v. Rodgers, 381 F. Supp. 2d 1212, 1234 (E.D. Cal. 2005) (the Fish and Wildlife Service and National Marines Fisheries Service violated the ESA by issuing flawed biological opinions); see also id. at 1246 (Bureau violated the ESA by relying on biological opinions it should have known were inadequate).
(NOAA), which has jurisdiction over marine and anadromous fishes (including salmon), and the Fish and Wildlife Service (FWS), which has jurisdiction over terrestrial and freshwater species. Both agencies must monitor species in their jurisdictions, and when warranted, "list" species as endangered or threatened. Agencies do not need to list entire taxonomic species. Instead, the ESA defines "species" to include "any subspecies of fish or wildlife or plants, and any distinct population segment of any species or vertebrate fish or wildlife which interbreeds when mature." NOAA has used this definition to treat spring-run and fall-run salmon, which generally do not interbreed, as separate species.

Listing a species triggers two major substantive protections, under sections 9 and 7 of the ESA. Section 9 prohibits "take" of a listed species by any person, including acts that "harm" identifiable protected organisms. However, section 9 is effectively superseded by section 7 in the context of federal actors, such as the defendants in the Friant litigation (where the federal actor was the Bureau of Reclamation). Section 7 imposes a separate substantive standard, which requires all federal agencies to ensure that acts "authorized, funded or carried out" by the agency are "not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of" habitat critical to any such species. This standard is more nuanced than section 9's prohibition on take. Section 7 prohibits some acts, such as destruction of critical habitat not currently occupied by members of a listed species, that would not constitute a "take," because no particular individual organisms are harmed.

34. An "Endangered Species" is defined as one that is "in danger of extinction throughout all or a significant portion of its range." ESA § 3(6), 16 U.S.C. § 1532(6).

35. A "Threatened Species" is defined as one that is "likely to become an endangered species within the foreseeable future." ESA § 3(20), 16 U.S.C. § 1532(20); ESA § 4(a)(1), 16 U.S.C. § 1533(a)(1).


37. Because of the strength of the protections afforded to listed species, the listing decisions itself is often heavily litigated. See supra note 21. However, this was not an issue in the Friant litigation.

38. Species listed as threatened do not automatically receive the same protections afforded to species listed as endangered. ESA § 4(d), 16 U.S.C. § 1533(d). However, the services, when listing a species as threatened, can determine whether to protect the species as though it was endangered. FWS defaults to extending this protection. See 50 C.F.R. § 17.31(a) (2007). NOAA treats species individually: in this case, it prohibits the taking of threatened salmon except for species harvested pursuant to an approved fisheries management plan. See 50 C.F.R. §§ 223.101, 223.203; see also Endangered and Threatened Species; Salmon and Steelhead; Final Rule Governing Take of 14 Threatened Salmon and Steelhead Evolutionarily Significant Units (ESUs), 65 Fed. Reg. 42,422 (July 10, 2000) (codified at 50 CFR pt. 223).


40. Therefore, this essay does not discuss section 9 of the ESA.

Conversely, section 7 allows federal agencies to "take" members of a listed species, in what would otherwise violate section 9, provided that NOAA or FWS concludes that the take is "incidental to the agency action" and does not violate section 7's substantive standard.\textsuperscript{42}

Section 7 is enforced through the procedural requirement of agency consultation, which applies to every federal agency action. The preliminary step of the consultation process is for the acting agency—in the Friant dam context, the Bureau—to independently assess whether its proposed action \textit{may} affect any listed species or designated critical habitat.\textsuperscript{43} If the agency's answer is no, it must ask NOAA and/or FWS, as appropriate, whether they concur in this conclusion. If so, the action can proceed without further ESA obligations.\textsuperscript{44}

If, instead, any of these parties concludes that a listed species may be affected, formal consultation is necessary. In formal consultation, the agency with ESA jurisdiction produces a biological opinion, which evaluates whether the action is likely to violate section 7's substantive standards.\textsuperscript{45} If the biological opinion concludes that the proposed act would violate either standard, the agency must also identify reasonable and prudent alternatives that would comply.\textsuperscript{46}

Although the biological opinion is technically not binding, it is typically determinative: a jeopardy finding effectively prohibits the original proposal.\textsuperscript{47}

\textbf{B. California Fish and Game Code Section 5937 and the "Good Condition" Standard}

The other basis for liability in the \textit{Friant} litigation was California Fish and Game Code section 5937. Section 5937 originated in an 1852 public nuisance statute outlawing obstructions to salmon passage in any

\begin{itemize}
  \item \textsuperscript{42} ESA § 7(b)(4), 16 U.S.C. § 1536(b)(4)(B).
  \item \textsuperscript{43} See § 7(a)(2), (c)(1); see also Natural Res. Def. Council v. Houston, 146 F.3d 1118, 1125 (9th Cir. 1998) ("If an agency determines that its proposed action 'may affect' an endangered or threatened species, the agency must formally consult with ... FWS and/or [NOAA]," as appropriate.).
  \item \textsuperscript{44} See 50 C.F.R. § 402.14(b) (2007); see also Houston, 146 F.3d at 1126.
  \item \textsuperscript{45} See ESA § 7(b)(C), 16 U.S.C. § 1536(b)(C) (2006). Note that at the start of the \textit{Friant} litigation, both Services treated section 7's second substantive requirement (critical habitat) as redundant with the first (jeopardy). However, in 2004 the Ninth Circuit held that preventing the adverse modification of critical habitat was a separate requirement. Gifford Pinchot Task Force v. U.S. Fish & Wildlife Serv., 378 F.3d 1059, 1069 (9th Cir. 2004). This holding was followed in Natural Resources Defense Council v. Rodgers, 381 F. Supp. 2d 1212 (E.D. Cal. 2005), discussed \textit{infra} Part III.D.
  \item \textsuperscript{46} See ESA § 7(b)(3)(A), 16 U.S.C. § 1536(b)(3)(A).
  \item \textsuperscript{47} See Houston, 146 F.3d at 1125 ("If the Biological Opinion concludes that the proposed action is likely to jeopardize a protected species, the agency must modify its proposal.").
\end{itemize}
river or stream. After several revisions, the statute reached its current form in 1937, providing 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. Although section 5937 applies to many dams throughout the state, prior to the district court’s ruling in *Patterson*, it had apparently only received judicial enforcement twice, and only once in a published opinion. These two cases provide dramatically different interpretations as to what constitutes “good condition,” as discussed below. Therefore, once liability had been determined, there was very little to guide the *Friant* litigants or the court as to what remedy section 5937 requires, absent a settlement.

1. California Trout: *Good Condition Means Historic Extent of the Fishery*

The first case to enforce the “good condition” standard is *California Trout, Inc. v. State Water Resources Control Board* (*California Trout I*), which concerned the Los Angeles Department of Water and Power’s (LA DWP) diversion of nearly all waters of the Mono Lake tributaries. In two reported cases (*California Trout I & II*), the California Court of Appeal determined that section 5937’s “good condition” standard required preservation or restoration of the “historic fishery.” The California State Water Resources Control Board (SWRCB) interpreted this requirement to mean maintenance of 80–90 percent of the maximum possible habitat nine months of the year.

The *California Trout* cases were decided in the aftermath of the California Supreme Court’s decision *National Audubon Society v. Superior Court of Alpine County*, which held that the LA DWP’s diversion of water from the Mono Basin violated the public trust doctrine because of its negative environmental impact on Mono Lake itself.

48. See 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, 433 (1980).
51. See id. at 186.
53. See SWRCB Decision 1631, *supra* note 7, at 23-32 (explaining the decision to require, even in dry years, flows in Lee Vining Creek, a Mono Lake tributary, sufficient to provide 80 percent of maximum possible adult brown trout habitat from April 1 through September 30, and 90 percent of maximum possible brown trout spawning habitat from October 1 through December 31); see also id. at 108 (requiring dry year flows in Rush Creek sufficient to provide 80 percent of potential adult and spawning brown trout habitat during same periods).
Before the National Audubon decision was implemented, California Trout, a nonprofit fishermen's organization, filed a new claim against SWRCB based on section 5937, alleging that the diversions had decimated trout populations in the lake's tributaries.55

The resulting California Trout decisions give section 5937 great weight. The Court of Appeal held that section 5937 represented an a priori determination of priorities by the legislature, which preempted SWRCB’s ordinary “function of balancing of the public interest between contending uses” in administering permits.56 Instead, section 5937 presented a legislative mandate requiring the SWRCB to ensure that enough water would be released to “restore the historic fishery,” or to “reestablish and maintain the fisheries which existed in them prior to [the City’s] diversion of water,” without regard for this remedy’s costs or impacts on Los Angeles.57

The SWRCB issued a single order implementing both California Trout and National Audubon in 1994, which demonstrated the comparative strength of section 5937.58 Under National Audubon, the public trust doctrine required SWRCB to protect “trust uses,”59 including aquatic productivity,60 but only to the extent feasible in light of competing needs for water.61 In contrast, under California Trout, section 5937 required SWRCB to ignore, rather than balance, competing needs for water in determining what constituted “good condition” or in determining whether “good condition” could be achieved.

SWRCB concluded that restoring the historic fishery required flows sufficient to maintain 80–90 percent of the maximum possible habitat during nine months of the year, and preservation of migration flows the rest of the year.62 By conducting surveys of how much habitat would be available to targeted species at different water levels, SWRCB produced a schedule of minimum flows that must be provided during dry, normal, and wet years.63 This plan for implementing section 5937’s “good

55. California Trout I, 255 Cal. Rptr. at 186. Because Mono Lake is a hypersaline terminal lake, there are no fish in the lake itself, so section 5937 could only support a claim based on harm occurring in the tributaries. See Cynthia L. Koehler, Water Rights and the Public Trust Doctrine: Resolution of the Mono Lake Controversy, 22 ECOLOGY L.Q. 541, 571 (1995).
56. California Trout II, 266 Cal. Rptr. at 802.
57. Id. at 802, 803–04.
58. See SWRCB Decision 1631, supra note 7, at 11 (explaining that the SWRCB implements both the public trust and section 5937 requirements).
59. Id. at 11 (quoting Nat’l Audubon, 658 P.2d at 732).
61. See id. at 728.
62. See, e.g., SWRCB Decision 1631, supra note 7, at 27.
63. Id. at 33.
condition" standard mandated an average 35,200 acre feet annual reduction in LA DWP's diversions.64

2. Putah Creek: Good Condition Means a Diverse, Self-Sustaining Population

The Putah Creek court applied a different, and more reserved, judicial articulation of the "good condition" standard in the litigation surrounding Putah Creek, near Davis, California. In this case, the state trial court interpreted "good condition" as requiring three tiers of fish health—at the individual, population, and community levels.65 Notably, a river could satisfy this requirement with less than the historic extent of fish habitat or population. This approach did not make it into a published opinion, but it was described in the academic literature, and provided a model for the Friant settlement.66

As with the Mono Lake tributaries, water diversions resulted in completely dry reaches of the Putah Creek watercourse.67 The nonprofit Putah Creek Council filed suit challenging these diversions, and in 1996, a California Superior Court held that the diversions violated section 5937.68 The defendants appealed, and in 2000 the case settled without producing a published opinion.69 Nonetheless, the trial opinion remains one of the few judicial interpretations of section 5937. A summary of this opinion was published by ichthyologist Peter Moyle.70

In its opinion, the trial court provided a new articulation of the "good condition" standard. Under this interpretation, "good condition" has three tiers: the individual, population and community levels.71 At the individual level, "a healthy fish is one that obviously looks good to a human observer, is not stunted, and will take appropriate evasive action

64. Id. at 269. Note that beyond this reduction, LA DWP was required to reduce its diversions by an additional amount to satisfy its public trust obligations, eventually culminating in a further 8,500 acre feet reduction. See id. at 163.
65. Peter B. Moyle et al., Fish Health and Diversity: Justifying Flows for a California Stream, FISHERIES, July 1998, at 6, 10-12.
66. See id. As discussed infra Part IV.A, the approach discussed in Peter Moyle's article was also described and applied to the San Joaquin River in the Friant litigation in expert testimony provided by Peter Moyle on behalf of the plaintiffs, and is essentially the same as the approach used in the proposed settlement agreement.
67. See id. at 10.
68. See id.
70. See Moyle et al., supra note 65.
71. See id. at 10–12.
when a predator or angler approaches."\textsuperscript{72} At the population level, each population must have multiple age classes, a viable population size, and healthy individuals.\textsuperscript{73} Finally, at the community level, a healthy community is one that "(1) is dominated by co-evolved species, (2) has a predictable structure as indicated by limited niche overlap among species and multiple trophic levels, (3) is resilient in recovering from extreme events, (4) is persistent in species membership through time, and (5) is replicated geographically."\textsuperscript{74}

Because this interpretation was based on biological, rather than historical factors, the "good condition" standard could be satisfied while protecting less than the historic fishery. The court ordered a "50% increase in the minimum release schedule from the diversion dam... to keep the creek flowing all the way to its mouth in the Yolo Bypass and to provide additional water for spawning and rearing of native fishes."\textsuperscript{75} In addition to requiring flows sufficient to keep the entire river flowing, the order required increased spring flows, needed for spawning and rearing native fishes. However, the trial court did not require all available restoration measures. The order did not require increased fall and winter flows for spawning of Chinook and other anadromous species on the grounds that such fish had historically played a small role in the creek.\textsuperscript{76} The order also considered the costs of restoration, denying habitat maintenance flows "because the water costs were too high and because natural high-flow events occur periodically that might satisfy the need."\textsuperscript{77}

Although this analysis did not find its way into a published opinion, it was implicitly embraced by the \textit{Putah Creek} settlement.\textsuperscript{78} More importantly, as discussed in Part IV below, this interpretation of "good condition" met a similar fate in the \textit{Friant} litigation, shaping the settlement agreement but not appearing in a published judicial opinion.

The next Part describes the procedural history to the \textit{Friant} litigation itself, and how section 5937 and the ESA were applied in the particular context of the San Joaquin river.

\textsuperscript{72.} \textit{Id.} at 10.
\textsuperscript{73.} \textit{See id.} at 11.
\textsuperscript{74.} \textit{Id.}
\textsuperscript{75.} \textit{Id.} at 10.
\textsuperscript{76.} \textit{See id.} at 14.
\textsuperscript{77.} \textit{Id.}
\textsuperscript{78.} \textit{See Settlement Reached in Long-running Putah Creek Water Dispute, supra note 69.}
III. PROCEDURAL HISTORY OF THE FRIANT LITIGATION

The Friant litigation has a long and complex procedural history. This history includes three published and four unpublished decisions of the Eastern District of California, a Ninth Circuit decision, two rounds of ESA consultation and biological opinions from both NOAA and FWS, two renewals and rescissions of the applicable water delivery contracts, and pending federal legislation, all spanning a period of nineteen years. This Part summarizes these events mostly in chronological order, concluding with the Eastern District of California's two decisions establishing liability against the Bureau, FWS and NOAA. The court explicitly refrained from deciding the remedies issue, allowing the parties to attempt settlement, as discussed below in Part IV.

A. The Origin of the Suit

The Friant litigation arose as a challenge to the Bureau's renewal of contracts for delivery of water impounded behind Friant Dam. In the late 1940s, as Friant Dam and the associated structures neared completion, the Bureau entered into contracts to sell the dammed water to twenty-eight cities and water districts. These contracts had forty-year durations, although they were entered into with a presumption that they would be renewed.

The first of these water contracts was scheduled to expire in 1989. In anticipation of this expiration, the Bureau and the water contractor began negotiations in 1988, and renewed the original contract almost immediately after its expiration. However, while this first renewal was

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80. Houston, 146 F.3d 1118.
81. In 1991, FWS provided a biological opinion, and NOAA (then NMFS) refused to concur in the Bureau's biological assessment but declined to provide a biological opinion. See Houston, 146 F.3d at 1127. In 2001, both FWS and NOAA provided biological opinions. See Rodgers, 381 F. Supp. 2d at 1217–18.
83. See Peltier Testimony, supra note 14.
84. See Houston, 146 F.3d at 1123 (also noting that Congress affirmed this presumption in 1956, citing 43 U.S.C. 485h-l(1)). Although Houston is not the first case in the Friant litigation, it provides a more complete summary of the early history of the litigation than any of the district court opinions.
85. See id. at 1129–30. This first contract, with Orange Cove, is differently situated from the other contracts in several ways. However, the courts have reached the same conclusions regarding it as they have regarding the other contracts, albeit sometimes supported by different reasoning. Id.
pending in December of 1988, NRDC filed suit against the Bureau challenging the renewal.86 After this first renewal, winter-run Chinook salmon were listed as a threatened species in 1989.87 Despite this listing the Bureau completed thirteen more renewals with other contractors between 1989 and 1992, while NRDC’s suit was pending.88 All renewed contracts were for forty-year terms.89

NRDC’s original complaint alleged that the Bureau violated the National Environmental Policy Act by failing to prepare an environmental impact statement for each contract renewal.90 NRDC amended the original complaint to add allegations of violations of two other statutes: section 7 of the ESA, and section 8 of the Reclamation Act of 1902, which NRDC claimed compelled the Bureau to comply with section 5937 of the California Fish and Game Code.91 After NRDC filed its complaint, the water contract holders were granted leave to intervene, becoming the “non-Federal defendants.”92

**B. Patterson I: The Court’s 1992 Order**

In 1992, the Eastern District of California issued the first published order in the case, *Natural Resources Defense Council v. Patterson (Patterson I)*, denying the defendants’ motion to dismiss.93 Defendants alleged that NRDC lacked standing, and that section 8 of the Reclamation Act did not obligate the Bureau to comply with section 5937.94 Judge Karlton of the Eastern District of California denied the standing motion on both grounds.95 In particular, in addressing the merits of the second issue, the court determined that section 8 incorporates all laws “relating to the control, appropriation, use or distribution of water used in irrigation.”96 Discussing the U.S. Supreme Court’s construction of “relating to” in other statutes, the court determined that this particular phrase “has an extraordinary breadth.”97 Because section 5937 necessarily

86. See id. at 1124.
87. See id.
88. See id. at 1123.
89. See id. at 1124.
90. See id.
91. See id. NRDC did not pursue a claim based on section 5937 directly.
92. Id.
94. See id.
95. See id.
96. Id. at 1431 (emphasis added) (quoting 43 U.S.C. § 383).
97. Id. at 1433 (discussing Shaw v. Delta Air Lines, Inc., 463 U.S. 85 (1983)).
limited the amount of water available for appropriation, it fell within this broad construction of section 8.98

C. NRDC v. Houston: The Ninth Circuit Appeal

After the 1992 decision in Patterson I, the Eastern District issued two unpublished orders, in 1995 and 1997, considering the plaintiffs' ESA claims and the impact of the Central Valley Project Improvement Act of 1992 (CVPIA) on the plaintiffs' remaining NEPA and section 5937 claims. Defendants appealed both issues to the Ninth Circuit, which largely upheld both of the district court's rulings in Natural Resources Defense Council v. Houston.99 The next subparts describe the Ninth Circuit's holdings on the ESA claims and on the effect of the CVPIA.

1. ESA Consultation for the Original Contract Renewals

After the decision in Patterson I and the before the Houston decision, the plaintiffs moved for summary judgment on their claim that the consultations for the contract renewals violated section 7 of the ESA. In an unpublished 1995 order, the Eastern District granted summary judgment to the plaintiffs on this claim, and in 1997, the district rescinded the contract renewals.100 In Houston, the Ninth Circuit upheld this recision.101 After concluding that section 7 of the ESA applied to the renewals, the Ninth Circuit identified procedural flaws in the Bureau's consultations with both NOAA and FWS sufficient to invalidate the renewals.

As a threshold question, the Ninth Circuit rejected several arguments that section 7 should not apply to the Bureau's contract renewals at all. First, the court held that "[c]learly, negotiating and executing contracts is 'agency action.'"102 Despite the fact that the contract renewals preserved, rather than deviated from, the status quo, the regulatory definition of "agency action" included "the granting of licenses, contracts, leases, easements, rights-of-way, permits or grants in aid," which the court held encompassed contract renewals.103 Second, the court held that although section 7 does not apply "[w]here there is no agency discretion," the Bureau had "discretion" to reduce the total available supply of water from Friant if necessary to comply with state

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98. See id. at 1435 for its interpretation of section 5937 (citing California Trout II, 266 Cal. Rptr. 788 (Ct. App. 1990), discussed supra Part II.B.1).
100. See id.
101. See id.
102. Id. at 1125.
103. Id. (quoting 50 C.F.R. § 402.02).
and federal law, including the ESA substantive requirements, even if it lacked discretion to modify water allocations for other reasons.\textsuperscript{104}

Concluding that section 7 applied, the court found flaws both in the NOAA and FWS approval of the renewal contracts. As to NOAA's consultation, the Bureau's preliminary evaluation determined that renewal would not affect salmon or any other species under NOAA's jurisdiction, and the Bureau sought NOAA's concurrence in this judgment.\textsuperscript{105} NOAA disagreed, explicitly stating that renewal was likely to adversely affect the listed salmon, but NOAA nonetheless strangely stated that formal consultation and a biological opinion were not required.\textsuperscript{106} The Bureau accepted this statement, and renewed contracts without formal NOAA consultation.\textsuperscript{107} Rejecting this renewal, the district court held that the Bureau had an independent affirmative duty to protect listed species under section 7 of the ESA.\textsuperscript{108} Therefore, once NOAA put the Bureau on notice that its proposal could harm salmon, the Bureau violated this duty by failing to request formal consultation with NOAA.

Both the Ninth Circuit and the Eastern District also found flaws in FWS's approval of the contract renewals. The Bureau's initial analysis concluded that listed freshwater species might have been affected by the renewals, prompting the Bureau to request formal consultation with FWS. FWS issued a biological opinion finding no jeopardy or adverse modification in October of 1991.\textsuperscript{109} However, the Bureau had already renewed ten of the Friant contracts prior to receiving this biological opinion.\textsuperscript{110} Section 7(d) of the ESA provides that after formal consultation is initiated,

\begin{quote}
the Federal agency . . . shall not make any irreversible or irretrievable commitment of resources which has the effect of foreclosing the formulation or implementation of any reasonable and prudent alternative measures which would not violate [section 7's substantive requirements].\textsuperscript{111}
\end{quote}

Because the renewal contracts represented such an "irreversible commitment," the Bureau violated section 7(d). Moreover, the violation was not mooted by the FWS's "no jeopardy" finding, because "FWS would have had more flexibility to make, and the Bureau to implement,

\begin{enumerate}
  \item \textit{Id.} at 1125-26.
  \item \textit{See id.} at 1126.
  \item \textit{See id.} at 1127.
  \item \textit{See id.}
  \item \textit{See id.}
  \item \textit{See id.}
  \item \textit{See id.}
  \item \textit{Id.} at 1127-28.
\end{enumerate}
suggested modifications to the proposed contracts" had the Bureau waited for the biological opinion.\textsuperscript{112}

The Ninth Circuit upheld the district court's conclusions on these matters, and held that the remedy of rescinding the contract renewals was not an abuse of discretion.\textsuperscript{113} Therefore, as of 1998, all long-term contract renewals for Friant water had been rescinded for noncompliance with the procedures mandated by section 7 of the ESA.

2. \textit{The Central Valley Project Improvement Act of 1992: Effects on Section 5937 and NEPA Claims}

The Ninth Circuit's \textit{Houston} decision also considered the effect of the Central Valley Project Improvement Act on the plaintiffs' NEPA and section 5937 claims. Congress passed the Central Valley Project Improvement Act of 1992 in 1992,\textsuperscript{114} after the district court had denied the Bureau's motion to dismiss. One of CVPIA's stated goals was "to achieve a reasonable balance among competing demands for use of Central Valley Project water, including the requirements of fish and wildlife, agricultural, municipal and industrial and power contractors."\textsuperscript{115}

The CVPIA had two major effects on the contract renewals. It required a programmatic environmental impact statement for the entire Central Valley Project,\textsuperscript{116} and it limited the duration of renewal contracts.\textsuperscript{117} In \textit{Houston}, the Ninth Circuit held that this provision mooted NRDC's original NEPA claims: since the original, pre-CVPIA renewals had been rescinded, all future renewals were required by the CVPIA to be included in the scope of the programmatic EIS.\textsuperscript{118}

Another provision of the CVPIA requires the Secretary of the Interior to develop a plan to address fish and wildlife concerns on the San Joaquin River.\textsuperscript{119} In particular, the CVPIA refers to reestablishing naturally reproducing anadromous fisheries below Friant Dam.\textsuperscript{120} However, the CVPIA prohibits the Secretary from making releases from Friant Dam "as a measure to implement this title."\textsuperscript{121} Instead, the CVPIA

\textsuperscript{112} \textit{Id.} at 1129.

\textsuperscript{113} \textit{See id.}


\textsuperscript{115} § 3402(f), 106 Stat. at 4706.

\textsuperscript{116} See § 3409, 106 Stat. at 4730.

\textsuperscript{117} After the CVPIA, contracts renewed prior to completion of the programmatic environmental impact statement (PEIS) were limited to three years of duration for the first renewal and two years for subsequent renewals. See § 3404(c)(1), 106 Stat. at 4709. Contracts renewed after the PEIS are limited to a twenty-five year duration, down from the earlier cap of forty years. See § 3404(c), 106 Stat. at 4708–09.

\textsuperscript{118} Natural Res. Def. Council v. Houston, 146 F.3d 1118, 1131 (9th Cir. 1998).

\textsuperscript{119} See § 3406(c)(1), 106 Stat. at 4721.

\textsuperscript{120} See \textit{id.}

\textsuperscript{121} \textit{Id.}
places an additional surcharge on all entities receiving water from the
dam, which climbed to $7 per acre foot in 1999. Monies generated from
the surcharge are flagged for habitat restoration and could be used to
purchase water needed for restoration flows.

Soon after the CVPIA’s passage, both the federal and nonfederal
defendants argued that the act preempted incorporation of California’s
section 5937 statute into section 8 of the Reclamation Act, and therefore
exempted the Bureau from section 5937’s requirements. Both the
district court and the Ninth Circuit rejected this claim. The CVPIA did
not preclude the Bureau from complying with section 5937 because the
CVPIA only prohibited releasing water from Friant Dam “as a measure
to implement this title [the CVPIA itself],” but not releases of water to
comply with other state and federal law. Section 5937 therefore
remained incorporated into section 8 of the Reclamation Act, since that
act required the Bureau “to comply with state water laws unless such a
law was directly inconsistent with clear congressional directives regarding
the project.”

In summary, the Ninth Circuit in Houston dismissed the plaintiffs’
NEPA claims, held that the CVPIA did not preempt the Reclamation
Act section 8—Cal. Fish and Game Code section 5937 claim, and
remanded to the district court for evaluation of the section 5937 claim.

D. Rodgers: ESA Consultation on the Second Round of
Contract Renewals

In January, 1999, after the Ninth Circuit’s decision in Houston, the
district court granted the parties’ request to stay the litigation for
settlement negotiations. This stay was extended six times, the sixth in
March of 2003. In 2000, in the midst of the extension period, the
Bureau began a second attempt at renewing the long-term contracts. NRDC
brought another ESA section 7 challenge to these renewals in
Natural Resources Defense Council v. Rodgers in 2005, and the district
court granted NRDC’s motion for summary judgment on these ESA claims.\textsuperscript{131}

As it began its second attempt to renew the contracts, the Bureau restarted the ESA consultation process. In October 2000, the Bureau requested NOAA’s concurrence in its determination that contracts were not likely to adversely affect listed species, thus making formal consultation unnecessary.\textsuperscript{132} As before, NOAA refused to concur, prompting the Bureau to request formal consultation.\textsuperscript{133} Similarly, FWS determined that the contracts “may affect” listed species. FWS issued its biological opinion on January 19, 2001, and NOAA followed with its opinion the next day, with neither service finding jeopardy or adverse modification.\textsuperscript{134}

The district court found numerous defects with both biological opinions. Relying on the Ninth Circuit’s 2004 decision in \textit{Gifford Pinchot Task Force v. United States Fish and Wildlife Service},\textsuperscript{135} the court held that both FWS’s and NOAA’s analyses of the proposal’s potential “destruction or adverse modification” of critical habitat were inadequate. Specifically, neither agency interpreted “adverse modification” as encompassing modification that diminished a species’ chances of recovery (i.e., the species’ chances of recovering to the point where special protection is no longer necessary), but not its chances of survival (i.e., the species’ chances of avoiding extinction, provided the species continues to receive special protection).\textsuperscript{136} The court also found fault with both agencies’ jeopardy analyses, including failure to consider the effect of actions that were “interrelated and interdependent” with the contract renewals on the listed species.\textsuperscript{137} These latter problems were identified in the agencies’ own internal communications regarding the rushed biological opinions.\textsuperscript{138} Finally, the court determined that two other factors independently invalidated the biological opinions: NOAA’s decision to issue its biological opinion prior to completion of its own analysis,\textsuperscript{139} and FWS’s exclusion of two of the contracts from its biological opinion.\textsuperscript{140}

\textsuperscript{131} See id.
\textsuperscript{132} See id.
\textsuperscript{133} See id.
\textsuperscript{134} See id. These biological opinions were released mere days before the Clinton administration left office.
\textsuperscript{135} 378 F.3d 1059 (9th Cir. 2004).
\textsuperscript{137} See id. at 1235. For example, FWS admitted that its biological opinion did not consider “Operation and Maintenance on Federal District Lands used to convey CVP water.” \textit{Id.}
\textsuperscript{138} See id. at 1217.
\textsuperscript{139} See id. at 1242–43.
\textsuperscript{140} See id. at 1246.
Following the court's reasoning in *Houston*, this court held that NOAA, FWS, and the Bureau all violated section 7 of the ESA, because the Bureau choose to rely on biological opinions that it knew were inadequate.\textsuperscript{141} However, at the request of the parties, the court did not rescind the contracts or otherwise decide on the remedy for these violations, instead staying the litigation for another round of settlement.\textsuperscript{142}

**E. Patterson II: The Bureau's Liability under Section 5937**

The post-*Houston Friant* settlement negotiations collapsed in 2003. In the meantime, the ESA challenges in *Rodgers* were pending, but the district court resolved the issue of liability under section 5937.\textsuperscript{143} The court concluded that most of the defendants' arguments, which concerned whether section 5937 should apply at all, had already been resolved by the holdings in *Patterson I* and *Houston*, and defendants' attempts to raise those issues again were therefore precluded by the law of the case.\textsuperscript{144} In finally turning to the merits of the section 5937 claims, the court held:

> There is no genuine dispute . . . as to whether the Bureau has released sufficient water to maintain historic fisheries . . . The Bureau, by its own admission, releases no water for this purpose and long stretches of the River downstream are dry most of the time . . . There can be no genuine dispute that many miles of the San Joaquin River are now entirely dry, except during extremely wet periods, and that the historic fish populations have been destroyed.\textsuperscript{145}

Therefore, the court held that the Bureau "violated §5937 of the California Fish and Game Code as applied to it by virtue of § 8 of the Reclamation Act of 1902."\textsuperscript{146} As in *Rodgers*, at the request of the parties, the court stayed deciding the issue of remedy, in the hope that a settlement could be reached.

**IV. THE FRIANT SETTLEMENT AND PENDING LEGISLATION**

The district court's opinion in *Patterson II* made it clear that fish below the Friant Dam would need to be restored to "good condition" under California's section 5937 statute. Additionally, although all of the ESA rulings in the *Friant* litigation had been procedural, there was a

\begin{itemize}
\item \textsuperscript{141} See id. at 1234, 1246–47.
\item \textsuperscript{142} See id. at 1216, 1249.
\item \textsuperscript{143} *Patterson II*, 333 F. Supp. 2d 906 (E.D. Cal. 2004), aff'd sub nom. Natural Res. Def. Council v. Houston, 146 F.3d 1118 (9th Cir. 1998).
\item \textsuperscript{144} See id. at 915, 919, 920–21.
\item \textsuperscript{145} Id. at 924–25.
\item \textsuperscript{146} Id. at 925.
\end{itemize}
chance that compliance with the ESA's procedures would force the Bureau to confront section 7's substantive limits. Therefore, at the time settlement negotiations resumed in 2005, the district court had made it clear that some water would need to be restored to the river.

However, the court had given conflicting signals as to what "good condition" under section 5937 would require. On one hand, it quoted the "historic fisheries" language from *California Trout*.[147] On the other hand, *Patterson II* departed from *California Trout*'s holding that section 5937 precluded weighing the needs of fish against any competing uses by concluding with the following footnote:

[F]armers throughout the [San Joaquin] valley have dedicated their lives and fortunes to making the desert bloom. They did so in reliance on the availability of [Friant] water. That reality most likely should be taken into account when the court comes to address a remedy.[148]

Thus, *Patterson II* implied a balancing test for water decisions, protecting the fish as well as considering the needs of the surrounding farming communities.

The settlement agreement spared the district court from having to find this balance or further interpret "good condition." On September 13, 2006, NRDC, the Friant Water Users Authority (representing the nonfederal defendants), the federal government, and the state of California collectively filed a settlement agreement, accompanied by proposed federal implementing legislation.[149]

Although the settlement agreement disposes of all of NRDC's claims, the settlement's primary focus is on section 5937. It espouses two goals: first, "to restore and maintain fish populations in 'good condition,'" and second, to minimize impacts on water users.[150] The settlement agreement and proposed implementing legislation[151] take the district court's advice to heart, and attempt to balance competing needs for water. The following Part describes the rough contours of the settlement provisions relating to restoring instream flows, other restoration measures, impacts on farmers, and funding for restoration.

### A. Restoring Fish to "Good Condition"

The first goal of the settlement is to maintain fish populations in good condition. The settlement calls for a phased approach to

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147. See id.
148. Id. at 925 n.13.
149. See Peltier Testimony, supra note 14.
150. Stipulation of Settlement, supra note 4, para. 2.
151. At the time of this writing, the proposed implementing legislation is H.R. 24, 110th Cong. (2007) and S. 27, 110th Cong. (2007).
restoration, beginning with improvements to the stream channel, proceeding to gradual increases in restoration flows, and culminating in 2012 with reintroduction of salmon.

Neither the settlement nor the implementing legislation discuss how these goals were determined. However, the settlement implicitly endorses the Putah Creek standard. Without discussion, the settlement requires the flow schedules recommended by ichthyologist Peter Moyle’s expert testimony (the Moyle Declaration). The Moyle Declaration described the Putah Creek interpretation of “good condition” and applied it to the San Joaquin River.

The Moyle Declaration repeats Putah Creek’s definition of “good condition” as having “three tiers, individual, population, and community [health].” This definition provides thresholds that must be crossed before fish can be said to be in “good condition.” However, the declaration distinguishes achievement of these goals from restoring the historic fishery (the California Trout standard)—an unattainable goal.

Instead, the goals aim:

to make maintenance of biodiversity and natural processes compatible with humans [sic] needs for intense land and resource use. In the case of the San Joaquin River, it is possible to restore modest runs of salmon and desirable populations of resident fishes in ways that do not incur high water costs and actually improve the river itself for human use.

The primary restoration measure is to increase flows in the river. The settlement provides for three flow categories. The first are the “base flows.” The required base flows vary by water year type (with water year types ranging from those “critical[ally] low” amounts of water to those with “critical high” amounts), but they typically provide for annual releases of 184,021 (dry year) to 555,568 (wet year) acre feet of water. The release rates vary throughout the year, based on the specific needs of the fall- and spring-run salmon populations. The settlement administrator can at any time require that the base flows be increased by

152. Stipulation of Settlement, supra note 4, para. 11.
153. Id. para. 15.
154. Id. para. 14.
156. Moyle Declaration, supra note 155, at 8.
157. See id. at 43 (noting that “bring[ing] back [the] ecosystem [to pristine conditions] is an unattainable goal).
158. Id.
159. Stipulation of Settlement, supra note 4, Ex. B: tbls. 1C, 1F.
160. See id. Ex. B: para. 2, tbls. 1C, 1F.
up to 10 percent based on environmental needs. The Bureau can further supplement these flows by purchasing water from willing sellers.

Once this flow regime is implemented, except in years of critical drought the San Joaquin River will have flowing water throughout its course, including seasonal variations roughly tracking natural flows of other California rivers.

The settlement agreement and implementing legislation call for significant restoration work in addition to the water releases. Because the river has been dry for so long, the river channel in some places currently lacks the capacity to hold the restoration flows. Furthermore, by addressing other threats to fish, such as migration barriers, the settlement reduces the amount of water needed to put fish in "good condition," reducing the settlement's impact on water users.

B. Impacts on Friant Dam Water Users

The settlement necessarily reduces the amount of water available to Friant Dam water contractors in order to provide water for restoration flows. To comply with the second settlement goal—to minimize the impact on water users—restoration flows are to be recaptured and recirculated downstream. Additionally, the settlement calls for seeking other sources of water for the restoration flows, to mitigate the impact on current water contractors.

The settlement reduces, without compensation, the amount of water available to water contractors by the amount necessary to provide the base and buffer flows. Although contractors will continue to pay the same rate per acre foot of water, they are not compensated for the loss of the option to purchase additional water. However, the settlement calls for recording the amount of delivery reductions to contract holders, such that these reductions will "accrue" in a "Recovered Water Account." When surplus water is available during wet years, contract holders will be able

\[\text{References}\]

162. *See id.* para. 13(a).
163. *See id.* para. 11(a)(1)–(10).
164. *See id.* para. 11(a)(2)–(3).
165. *See Moyle Declaration, supra* note 155, at 45 (explaining that improvements in channel configuration and streamside vegetation, *inter alia*, can supplement increased flows in restoring fish to good condition).
166. Thus, water is allowed to flow downstream, providing habitat value, and is captured closer to the outlet, where it is diverted to *ex situ* uses or can be pumped back upstream and recirculated.
167. *See Stipulation of Settlement, supra* note 4, para. 16(a).
168. *See id.* para. 13(a). The settlement does not provide compensation for reductions in water delivery necessary to provide these flows, although it provides for compensation for any supplemental water, to be purchased from willing sellers. *Id.* para. 13(c)(1), (c)(2)(B)–(C).
169. *See id.* para. 16(b)(1).
to draw on these accounts for the right to purchase the surplus water, paid for at a reduced rate.\textsuperscript{170}

The settlement’s direct impacts on contract holders are limited to water delivery reductions. Contract holders are not asked to pay for the settlement, for the channel improvements, or for mitigating restoration measures.\textsuperscript{171} Moreover, although the settlement increases the cost to the Bureau of operating Friant Dam and delivering contract water, neither the settlement nor the implementing legislation authorize an increase of contract water prices.\textsuperscript{172}

\textit{C. Implementing Legislation and Funding}

The settlement is contingent upon the passage of federal implementing legislation.\textsuperscript{173} Congress failed to pass implementing legislation in 2006, but the bill was reintroduced on the first day of the 110th Congress. This bill accomplishes several aims, including the Bureau’s authorization to alter Friant Dam management in accordance with the settlement agreement,\textsuperscript{174} and the provision of funding to implement the settlement.\textsuperscript{175}

Even though the restoration flows will be achieved by reductions in water contracts rather than water purchase, the restoration will be expensive. Implementing the settlement is estimated to cost between $250 and $800 million.\textsuperscript{176} Part of this money will come from earmarking the fees contractors already pay for Friant water under their original contracts and the CVPIA,\textsuperscript{177} totaling $220–240 million over the twenty-year settlement period.\textsuperscript{178} The state of California will contribute about $200 million in bond money, acquired through state Propositions 84 and 1(e), which the voters passed in November of 2006.\textsuperscript{179} Finally, the implementing legislation authorizes additional federal appropriations of up to $250 million to fund the settlement.\textsuperscript{180}

\begin{footnotes}
\item[170] See id. para. 16(b)(2)–(3).
\item[171] See Peltier Testimony, supra note 14.
\item[172] See id.
\item[173] See Stipulation of Settlement, supra note 4, para. 8. The settlement is voidable by any party if the legislation is not passed. However, implementation of the settlement relies on congressional appropriations, so there is little doubt that the settlement will be voided without this legislation.
\item[174] See H.R. 24, 100th Cong. §§ 4(a), 5 (2007).
\item[175] See id. § 9.
\item[176] See Peltier Testimony, supra note 14.
\item[177] See H.R. 24 § 9(b)(2).
\item[178] See Peltier Testimony, supra note 14.
\item[179] See id.
\item[180] See H.R. 24, 110th Cong. § 9(b)(1) (2007).
\end{footnotes}
The direct impacts of the *Friant* litigation are enormous: a river that has run dry for the last fifty years will soon receive from 180 to 550 thousand acre feet of water per year. Improvement of the aquatic habitat is part of a proactive, ambitious project that could dramatically improve the plight of California's imperiled salmon and other fishes.

However, the legal impact of the *Friant* litigation is less clear. The liability findings under the Endangered Species Act broke no new legal ground, though they serve as a reminder of the ESA's continuing viability. The Ninth Circuit's holding that section 5937 applies to federal water projects, as incorporated through section 8 of the Reclamation Act of 1902, confirms that statute's potential to influence water allocation throughout California. But the *Friant* litigation has done little to solidify section 5937's actual requirements. So far, section 5937 has been judicially enforced only with dams that have completely dry rivers below them. In principle, the interpretation of "good condition" implicitly endorsed by judicial approvals of the *Putah Creek* and *Friant* settlements could be used in determining liability under section 5937, rather than merely in evaluating remedies, so that liability could be imposed in less dramatic diversions. Section 5937, on its face, seems to require this approach. Therefore, future litigation will need to clarify "good condition," so that less obvious violations of section 5937 can be identified.

Finally, the *Friant* settlement demonstrates two aspects of the politics of California water use. The first is the changing manner in which Californians value water. The legal framework for water allocation is accommodating this value shift. Nearly twenty years ago in *California Trout*, the court interpreted section 5937 to require a massive reduction in Los Angeles's municipal water use, so that the water could be reallocated to environmental uses in Mono Lake and its tributaries. The Mono Lake case was highly publicized, yet section 5937 was neither amended nor repealed. Similarly, after the *Friant* settlement was announced, statewide press coverage was generally positive.¹⁸¹

The second political lesson derived from the *Friant* litigation is that California taxpayers are willing to share the financial burden of restoration, even when not legally obligated to do so. In November of 2006, after the settlement deal was announced, California voters passed

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Proposition 84, providing $100 million for restoration of the San Joaquin River as part of a $5.4 billion natural resources bond package.\footnote{182} Similarly, after the Mono Lake decisions, California taxpayers provided $60 million to fund water reclamation and conservation programs replacing lost water in Los Angeles.\footnote{183}

Overall, the \textit{Friant} litigation shows that it is possible to undo some of the damage done by California's existing pattern of resource use. The \textit{Friant} litigation is also a recognition of the costs involved with this restoration. Given the value of water in California, it is clear that future efforts to enforce section 5937 will also be bitterly fought, but hopefully the \textit{Friant} settlement will provide a model for future solutions in balancing competing water needs.

\footnote{182}{E.J. Schultz, \textit{Valley awaits its share from bond funds}, FRESNO BEE, Nov. 9, 2006, at B1. For a more detailed discussion of Proposition 84 (prepared before the election), see Legislative Analyst's Office, \textit{Analysis of Proposition 84} (Nov. 2006), \textit{available at} http://www.lao.ca.gov/ballot/2006/84_11_2006.htm (noting that Prop 84 includes a line item for San Joaquin restoration).}
