Reviving California's Public Trust Doctrine and Taking a Proactive Approach to Water Management, Just in Time for Climate Change

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Reviving California’s Public Trust Doctrine and Taking a Proactive Approach to Water Management, Just in Time for Climate Change

Elise O’Dea*

Climate change is going to severely impact water supplies in the western United States, particularly in California. As climate change degrades aquatic habitats, conflicts between environmental protection and human consumption will increase. This Note explores how California’s State Water Resources Control Board can play a more proactive role in water management by using the public trust doctrine to resolve water conflicts and better prepare California’s water systems for climate change. The Note suggests that the State Water Resources Control Board rely on external procedural mechanisms such as the federal Endangered Species Act as an informational resource. In conclusion, this Note calls for the California State Legislature to provide the State Water Resources Control Board with more financial support so that the Board can adequately manage California’s scarce water resources.

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INTRODUCTION

As an arid, western state, California has struggled with acquiring, transferring, and fairly distributing water throughout its history.\(^1\) By attempting to supply enough water to serve California’s major industrial, agricultural, and domestic uses, the state has left the majority of its waterways over-allocated.\(^2\) Ironically, “there [was] too little water to begin with.”\(^3\) As a result, little water is left instream to serve conservation purposes such as enhancing fish and wildlife habitat. Human development has altered these water systems so profoundly that many of California’s historic fish runs have been greatly reduced. The adult steelhead trout population of the Santa Ynez River, at one time considered to be one of the greatest runs of the state, has been reduced to

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3. REISNER, supra note 1, at 5.
less than 1 percent of its historic population.4

The challenge of distributing California’s limited water resources fairly and impartially among the state’s competing users will become increasingly difficult with the onset of climate change.5 Climate change will significantly impact California’s water systems by altering the driving forces of streamflow: temperature and precipitation patterns.6 Rising temperature levels will cause increased evaporation from surface water resources, including reservoirs.7 Changes in precipitation will alter the historic patterns of streamflow for which California’s water systems were designed.8 Perhaps most dramatically, climate change will diminish alpine snowpack. Many describe alpine snowpack as the “lifeblood” of the West Coast’s water supply; indeed, many of California’s water systems depend on heavy spring flows from melted snowpack.9 Higher temperatures associated with climate change are projected to reduce alpine snowpack drastically for every rise in one degree Celsius, diminishing a crucial source of water upon which California has historically depended.10 Some, including President Obama, have speculated as to whether this year’s severe drought is related to climate change.11

Climate change will not only impact the reliability and availability of California’s water supply; it will also increase demand and competition among competing water users. California’s primary water users include agricultural users, domestic users, industry, and wildlife. Each of these sectors, with the possible exception of industry, is likely to experience an increased demand for water as a result of higher temperatures.12 Protection of fish and wildlife will require additional water as climate change degrades natural habitats. Aquatic species in particular will be greatly impacted by increased temperatures and altered hydrology.13 Warmer temperatures will directly kill fish that have

5. This Note will not discuss the science of climate change. For an overview of this topic, see BARRY NELSON ET AL., IN HOT WATER: WATER MANAGEMENT STRATEGIES TO WEATHER THE EFFECTS OF GLOBAL WARMING 1–3 (2007).
6. See id. at vi.
7. Id. at 8.
8. Id. at 3; see Holly Doremus & A. Dan Tarlock, Can the Clean Water Act Succeed as an Ecosystem Protection Law?, 4 GEO. WASH. J. ENERGY & ENVTL. L. 46, 50 (2013) (“The impacts of climate change include altering water flow patterns, disrupting the hydrologic assumptions on which both discharge and water quality standards have been set . . . ”).
10. Id. at viii.
12. NELSON ET AL., supra note 5, at 24 (noting that industrial uses may not experience greater demand for water in response to climate change); id. at 28 (noting that agricultural needs could increase because “rising temperatures may increase evapotranspiration rates—meaning that irrigating an acre of crops . . . could take more water in the future than is currently required”); id. at 67 (listing reasons why domestic demands for water may increase).
13. Id. at 13.
adapted to a specific water temperature and indirectly kill fish through reduced oxygen levels.\textsuperscript{14} Altered stream hydrology will significantly impact aquatic species in general, as many of these species already suffer from impaired streamflows due to interference by dams or other water diversions.\textsuperscript{15} Compared to their terrestrial counterparts, aquatic species are at a significant disadvantage for adapting to climate change because they are less able to relocate to more suitable habitat.\textsuperscript{16}

Increased climate-change-related impacts on fish and wildlife will likely lead to more conflicts between protecting endangered species and securing water for other demands.\textsuperscript{17} Indeed, more species are likely to be listed as “threatened” or “endangered” under the federal Endangered Species Act (ESA) as a result of climate change impacts. The decision to list a species as protected under the ESA is based upon a consideration of factors that pose a threat to the species, including “natural or manmade factors affecting [the] continued existence” of the species.\textsuperscript{18} Regardless of whether one considers climate change to be a “natural or manmade” factor, the U.S. Fish and Wildlife Service (FWS) and National Marine Fisheries Service (NMFS) assess the impact of climate change on a candidate species when determining whether the species should be listed as threatened or endangered.\textsuperscript{19} As a result, climate change will likely influence listing decisions, particularly with respect to aquatic species that will be impacted by increased water temperatures and altered streamflow. Climate change impacts are also likely to play a role in section 7 consultation actions, which require federal agencies to consult with FWS or NMFS when the agency takes an action that may impact a listed species.\textsuperscript{20}

\textsuperscript{14} Id. at 13, 15 (“Up to 38 percent of locations currently suitable for cold-water fish will become too warm to provide habitat by 2090.”). However, larger streamflows improve a stream’s ability to be resilient to changes in temperature and oxygen levels. See Doremus & Tarlock, supra note 8, at 51, 62.

\textsuperscript{15} \textsc{Nelson et al.}, supra note 5, at 14–15 (“In 2002, low flows contributed to high water temperatures, which impeded migration and caused the death of more than 35,000 adult salmon.”); see also Doremus & Tarlock, supra note 8, at 50 (“The nation’s aquatic ecosystems are in . . . poor shape.”).

\textsuperscript{16} Id. at 13. For more information about the impact of climate change on water systems, see \textsc{Nelson et al.}, supra note 5, at 4–16.

\textsuperscript{17} See \textsc{Nelson et al.}, supra note 5, at 13 (discussing “endangered species related conflicts” arising out of water management decisions); id. at 54 (“In recent years, the West has seen numerous water resource conflicts pitting protection of threatened and endangered species against the demand for water supplies.”).


\textsuperscript{19} See, e.g., Endangered and Threatened Wildlife and Plants; Proposed Threatened Status for Coral Pink Sand Dunes Tiger Beetle and Designation of Critical Habitat, 77 Fed. Reg. 60,208 (Oct. 2, 2012) (to be codified at 50 C.F.R. pt. 17) (finding that cumulative impacts, in light of climate change, are likely sufficient to list the species as threatened).

\textsuperscript{20} See 16 U.S.C. § 1536(a)(2) (“Each federal agency shall, in consultation with and with the assistance of [FWS or NMFS], insure that any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species which is determined . . . to be critical . . . .”).
In order to adequately protect listed or candidate species,\textsuperscript{21} from climate change threats, listing decisions and section 7 consultations may result in increased streamflow requirements.\textsuperscript{22} This, in turn, will require more water to be left instream, which will likely require water users to unwillingly limit their use. \textit{Et voila}—a deepening of the classic conflict of human consumption versus environmental protection.

This scenario sets the stage for the conflict underlying \textit{Casitas Municipal Water District v. United States}.\textsuperscript{23} In \textit{Casitas}, NMFS directed the Casitas Municipal Water District to maintain adequate flows in the Ventura River to protect the endangered West Coast steelhead trout.\textsuperscript{24} The District brought a takings claim against the United States, seeking compensation for the value of the water it was ordered to leave instream.\textsuperscript{25} After a series of appeals, the U.S. Court of Appeals for the Federal Circuit held that the District’s takings claim was not yet ripe for adjudication because the District had failed to show that the water diversion actually impaired its ability to supply water to its customers.\textsuperscript{26}

Although the District did not succeed on its takings claim because it lacked ripeness, the State Water Resources Control Board (SWRCB or the Board) and the Natural Resources Defense Council (NRDC) filed amicus briefs insisting that the public trust doctrine provided a categorical defense to the District’s takings claim.\textsuperscript{27} The public trust doctrine recognizes the state as trustee of natural resources that should be managed for the benefit of the people. Theoretically, the public trust doctrine provides a defense to takings claims involving property held in the public trust. Yet, in its final opinion, the Federal Circuit did not decide whether the public trust defense would apply in \textit{Casitas}.\textsuperscript{28}

In federal ESA cases, using the public trust as a defense to takings claims presents a problem: case law suggests that the state government, not the federal government, is the only entity that can validly assert the public trust doctrine as a defense.\textsuperscript{29} Case law does not provide definitive guidance as to when the federal government can validly assert the public trust defense in a takings case

\textsuperscript{21} Candidate species are species for which information indicates that proposing to list as endangered or threatened is likely appropriate, “but for which development of a proposed listing regulation is precluded by other higher priority listing activities.” U.S. FISH & WILDLIFE SERV., THE ENDANGERED SPECIES ACT AND CANDIDATE SPECIES (2001), available at http://nctc.fws.gov/resources/knowledge-resources/Pubs9/esa_cand01.pdf.

\textsuperscript{22} See NELSON ET AL., supra note 5, at 15 (noting that increased temperatures and altered hydrology will “increase[] the need for environmental protection measures, such as flow and temperature requirements”).

\textsuperscript{23} Casitas Mun. Water Dist. v. United States (\textit{Casitas VI}), 708 F.3d 1340 (Fed. Cir. 2013).

\textsuperscript{24} \textit{Id.} at 1344.

\textsuperscript{25} \textit{Id.} at 1345.

\textsuperscript{26} \textit{Id.} at 1358–59.

\textsuperscript{27} See infra Part III.D.

\textsuperscript{28} However, the United States Court of Federal Claims \textit{did} address the public trust defense in \textit{Casitas V}, discussed \textit{infra} at Part III.D. See Casitas Mun. Water Dist. v. United States (\textit{Casitas V}), 102 Fed. Cl. 443, 473–74 (2011).

\textsuperscript{29} See infra Part II.
where the state has not acted. This Note is a call to action for the SWRCB to proactively manage California’s water systems by actively applying the public trust doctrine to limit preexisting uses and relying on ESA procedural mechanisms as a resource. California’s waterways are already over-allocated and increasingly threatened by climate change and wasteful practices. The SWRCB, despite its ongoing obligation to protect public resources, rarely invokes the public trust doctrine to reevaluate and limit existing uses. This is primarily due to the Board’s lack of relevant information and inadequate resources. Relying on ESA mechanisms gives the SWRCB a reason and, potentially, the resources to reevaluate existing uses. Taking a proactive approach to water management will help the Board fulfill its statutory and public trust duties, and may better prepare California’s waterways for the impacts of climate change.

I. CALIFORNIA AND THE PUBLIC TRUST

The public trust doctrine is the legal principle that the state is trustee of certain natural resources held “in trust” for the people. Origins of the public trust doctrine are found in Roman and English law. Upon admission into the union, California became trustee of the public trust due to its sovereign status as owner of all navigable waterways within its borders, including the lands beneath them. The doctrine can be found across the United States in various forms. Because many articles have been written about the public trust, this Note will only discuss the significance of the doctrine as it has been applied in California. This discussion necessarily requires an explanation of the California Supreme Court’s decision in National Audubon Society v. Superior Court.

30. See infra Part II.
31. See NELSON ET AL., supra note 5, at 1.
32. Telephone Interview with Andy Sawyer, Assistant Chief Counsel, Cal. State Water Res. Control Bd. (Nov. 20, 2013); see infra Part IV.
35. Nat’l Audubon, 658 P.2d at 718; see also Pollard’s Lessee v. Hagan, 44 U.S. 212 (1845) (recognizing that navigable waters and the soil beneath them are reserved to the states).
37. See, e.g., Sax, supra note 34 (providing a comprehensive review of the public trust doctrine).
A. National Audubon Society v. Superior Court

National Audubon established a firm notion of the public trust doctrine in California and articulated a role for both the SWRCB and California’s state courts in protecting public trust resources. National Audubon arose out of a conflict over diverting water from Mono Lake, a saline lake at the foot of the Sierra Nevada mountain range. The SWRCB had granted the Los Angeles Department of Water and Power a permit to divert “virtually the entire flow” of a majority of the streams that fed into Mono Lake. Over the years, the level of the lake dropped severely, dramatically increasing the salinity of the lake and damaging its aesthetic, recreational, and ecological resources.

Plaintiffs brought suit under the public trust doctrine, claiming that the lake and its resources were protected by the public trust. Although the California Supreme Court had already recognized a public trust in certain water resources, this case was significant because it represented the clash of two very conflicting water rights principles: the right to appropriate water for human needs, and the right to conserve natural resources held in the public trust. The result was an enlarged public trust doctrine, to be administered by the SWRCB and state courts.

The court began by finding that any individual who acquires rights in the public trust necessarily holds those rights “subject to the trust, and can assert no vested right to use those rights in a manner harmful to the trust.” Water rights are subject to the public trust due to the state’s sovereign authority over its navigable waters.

The court held that as administrator of the public trust, the state has power to exercise “continued supervision over the trust.” The court reasoned that the

39. Id.
40. Id. at 711–12, 714–17 (noting that the level of the lake dropped at least forty-three feet).
41. Id. at 712.
42. See Marks v. Whitney, 491 P.2d 374, 380 (Cal. 1971) (“Public trust easements are traditionally defined in terms of navigation, commerce and fisheries. They have been held to include the right to fish, hunt, bathe, swim, to use for boating and general recreation purposes the navigable waters of the state, and to use the bottom of the navigable waters for anchoring, standing, or other purposes.”).
43. Nat’l Audubon, 658 P.2d at 712. Appropriative rights divert water from its natural course for use on lands that are typically not adjacent to the water source.
44. Id. at 721. This concept comports with California’s view of water rights as being usufructuary by nature: when one acquires a property right in water, one acquires a right to use such water—not a right in the corpus of the body of water itself. Id. at 724 (“[T]he right of property in water is usufructuary, and consists not so much of the fluid itself as the advantage of its use.” (internal citation omitted); see also CAL. WATER CODE § 102 (West 2014) (“All water within the State is the property of the people of the State, but the right to the use of water may be acquired by appropriation in the manner provided by law.”)).
46. Id. at 721, 723 (“[Public trust property] cannot be placed entirely beyond the direction and control of the State . . . . Any grant of the kind is necessarily revocable, and the exercise of the trust by which the property was held by the State can be resumed at any time . . . . [T]he power to resume the trust whenever the State judges best is, we think, incontrovertible.” (quoting Ill. Cent. R.R. v. Illinois, 146 U.S. 387, 455 (1892))).
Board has a role to play in protecting trust resources as well, as was suggested by legislative acts affirming this role, and judicial decisions reflecting the desire to grant the Board “expansive powers to safeguard the scarce water resources of the state.” Therefore, the court stated that the Board has “an affirmative duty to take the public trust into account in the planning and allocation of water resources, and to protect public trust uses whenever feasible.”

In carrying out this duty, the Board must consider the impact of water diversions on public trust resources when granting and overseeing the exercise of water rights. The Board’s “continuing supervision” over water rights gives the Board broad authority to “reconsider allocation decisions,” even if it has previously considered the public trust impacts of those allocations. Yet, the court recognized that “[as] a matter of practical necessity,” there will be times when the Board must authorize water appropriations that harm the public trust.

Applying these principles to Mono Lake, the court directed the Board to reconsider Los Angeles’ water diversions in light of public trust interests. Although the lake was supposed to be restored to certain water levels by 2014, the SWRCB has extended the deadline to 2020.

**B. SWRCB’s Role as Administrator of the Public Trust**

The SWRCB was created in 1967 due to the need for “an effective, coordinated approach to water quantity and water quality matters.” The Board is charged with “the orderly and efficient administration” of California’s water resources. This duty is primarily achieved through permitting new and modified water rights, and ensuring that water rights holders comply with the law. Determinations regarding new uses of water are classified as “decisions,”

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47. *Id.* at 726. The court cited to California Water Code section 1243.5, which directs the Board to “take into account, whenever it is in the public interest, the amounts of water needed to remain in the source for protection of beneficial uses.” *Id.* California Water Code section 1243 identifies “preservation and enhancement of fish and wildlife resources” as a beneficial use of water. *Id.*
48. *Id.*
49. *Id.* at 728.
51. *Id.*
52. *Id.* at 727–28 (“The population and economy of this state depend upon the appropriation of vast quantities of water for uses unrelated to in-stream trust values.”).
53. *Id.* at 712, 728–29 (noting that such a reconsideration was “long overdue”).
55. Hanemann & Dyckman, *supra* note 1, at 715. The Board was created in response to the need for “an entity that would serve as a decision-making mechanism outside of the traditional court system, with more capacity to account for the breadth and intricacy of water rights and quality disputes.” *Id.* at 723. Some critics claim the Board has “signally failed” to live up to this expectation. *Id.*
56. *CAL. WATER CODE § 174 (West 2014).*
while all other water rights adjudications are labeled as “orders.”

Although *National Audubon* clearly articulated a role for the SWRCB in administering and overseeing the public trust, the court did not define the scope of this role. The California Legislature has similarly provided little guidance. As a result, procedural guidelines for administering the public trust are lacking.

What is clear after *National Audubon* is that the SWRCB has an affirmative duty to take the public trust into account when allocating new water resources, and that this role includes a continuing duty to oversee existing uses to ensure they do not cause “unnecessary and unjustified harm” to the public trust. The SWRCB has articulated this duty in standard boilerplate language that appears on SWRCB orders, decisions, and permits.

Studies show that the public trust doctrine has played the most influential role in adjudicating requests for new water permits or modifications to existing rights. Where the SWRCB has found that new appropriations or modifications would substantially harm the public trust, such requests have usually been denied.

Yet, the SWRCB has not played an active role in ensuring that existing uses are not harming the public trust. Indeed, the SWRCB “hardly ever” invokes the public trust doctrine to reevaluate and limit existing uses; rather, “[e]xisting uses have almost always been left alone.”

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58. See Owen, supra note 57, at 1143 (describing the lack of procedural requirements and guidance for administering the public trust).

59. Id.

60. See id.


62. See Owen, supra note 57, at 1130 & n.186. The Board retains its continuing authority over public trust resources with the following permit terms:

Pursuant to California Water Code Sections 100 and 275 and the common law public trust doctrine, all rights and privileges under this permit and under any license issued pursuant thereto, including method of diversion, method of use, and quantity of water diverted, are subject to the continuing authority of the State Water Resources Control Board in accordance with law and in the interest of the public welfare to protect public trust uses and to prevent waste, unreasonable use, unreasonable method of use or unreasonable method of diversion of said water.

23 CAL. CODE REGS. tit. 23, § 780 (West 2014) (emphasis added).

63. Owen, supra note 57, at 1134–35. Professor Dave Owen found that the doctrine played a role in at least 50 percent of SWRCB decisions and 8 percent of its orders. Id. at 1130–31. *But see id.* at 1131 n.188 (“[T]here are some decisions and orders that mention the public trust doctrine and impose environmental restrictions, but that do not clearly indicate whether the public trust doctrine was a basis for those restrictions.”). Where the public trust doctrine was implicated, Owen observes that “the SWRCB often required what appear to be meaningful environmental protection measures.” Id. at 1132.

64. Id. at 1132–33.

65. See id. at 1144 (discussing the problem that general application of the public trust doctrine leads to essentially no reevaluation of existing water uses). Instead, the public trust doctrine is primarily implicated only for new or proposed modifications to water rights. *See also id.* at 1145 (noting that the ESA provides an opportunity for the SWRCB to reevaluate existing uses but that it rarely does so).

66. Id. at 1134–35, 1139.
Board’s lack of resources to administer the public trust, but it is likely also a result of there being no procedural mechanism directing the SWRCB to reevaluate existing uses on a regular basis. The consequences of neglecting to evaluate existing uses could be extreme: California’s inherently scarce water supply cannot afford unchecked uses.

II. THE PUBLIC TRUST AS A CATEGORICAL DEFENSE TO TAKINGS CLAIMS

The concept of the public trust as a categorical defense to takings claims originates from a Supreme Court case, *Lucas v. South Carolina Coastal Council*. In *Lucas*, the Court held that background principles of state common law can provide a defense to a takings claim if such principles limit the scope of a claimant’s property. Since the public trust doctrine “seems to derive from common law traditions,” it should qualify as a background principle. Moreover, the public trust necessarily limits the scope of any water right held subject to the trust because no one can assert a vested right to use water in a manner harmful to the trust. Thus, in theory, no takings occur where the state regulates property to protect the public trust. Yet, the public trust doctrine does not always provide such a straightforward defense. Consequently, California has witnessed more unsuccessful attempts to assert the public trust defense than successes.

A. Success: United States v. SWRCB

In *United States v. SWRCB*, the Board imposed water quality criteria on two of the state’s largest water distribution systems: the Central Valley Project and the State Water Project. Various users promptly challenged the water quality plan, concerned with the financial burden imposed by water quality criteria that would require them to leave some water instream.

The court held that National Audubon “firmly establishes” the right of the Board to exercise continuing jurisdiction over water rights permits and to

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67. Telephone Interview with Andy Sawyer, supra note 32.
69. Id. at 1031 (holding that a party must identify background principles of nuisance and property law that prohibit the specific, present uses intended by the property owner); see also John Echeverria, The Public Trust Doctrine as a Background Principles Defense in Takings Litigation, 45 U.C. DAVIS L. REV. 931, 946–47 (2012) (explaining the Lucas holding and attempting to define the Court’s use of the term “background principles”).
72. See Owen, supra note 57, at 1120–21 (“[N]o regulation designed to protect trust resources from harm could affect a taking.”).
73. United States v. State Water Res. Control Bd. (SWRCB), 227 Cal. Rptr. 161, 164 (Ct. App. 1986). The Board’s water quality criteria were meant to control salinity and protect fish and wildlife. Id. at 166. To achieve the criteria, water users would have to reduce water exports to allow more water to remain instream, thus losing potential profit. Id. at 198.
74. Id. at 175; see also Hanemann & Dyckman, supra note 1, at 717 (discussing the practical implications of the case).
reevaluate those permits as it sees appropriate. The court further held that the Board “unquestionably possess[es] legal authority under the public trust doctrine to exercise supervision over [water rights holders] in order to protect fish and wildlife.” As such, the court found that the Board’s new water quality standards constituted a proper exercise of public trust authority that did not require compensation.

B. Defeat: Tulare Lake Basin Water Storage District v. United States

In *Tulare Lake Basin Water Storage District v. United States*, NMFS and FWS ordered the Central Valley Project and State Water Project to restrict water diversions in conjunction with a section 7 consultation action to protect certain listed fish species under the ESA. In response, the affected parties brought a takings claim, to which the United States asserted a public trust defense.

The U.S. Court of Federal Claims, which has jurisdiction over takings claims brought against the federal government, found that the public trust defense was not applicable. The court held that the public trust doctrine only bars a takings claim when the SWRCB itself readjusts water rights through its power as administrator of the public trust. The court reasoned that it could not itself apply the public trust doctrine because this complex policy-based judgment had traditionally been reserved to the state. Thus, according to the court, for the public trust doctrine to provide a defense to water takings claims, the SWRCB or a state court—as opposed to a federal agency or a federal court—must do the readjusting.

III. Casitas and the Public Trust

Although the *Casitas* court did not resolve the District’s takings claim on public trust grounds, this case plays an important role in California’s public trust law by highlighting the necessity of state application of the public trust doctrine in cases where federal defendants seek to assert the public trust defense.

A. Factual Background

75. *SWRCB*, 227 Cal. Rptr. at 201 (applying the public trust doctrine clarified in *National Audubon* to exercise supervision over appropriators in order to protect fish and wildlife).

76. *Id.*

77. *Id.* at 201–02; *see also id.* (noting that in doing so, the Board was also protecting the beneficial use of conservation of fish and wildlife resources).


79. *Id.* at 314, 317.

80. *Id.* at 322.

81. *Id.* at 321–22.

82. *Id.* at 323–24 (“To the extent that water allocation in California is a policy judgment—one specifically committed to the SWRCB and the California courts—a finding of unreasonableness by this court would be tantamount to our *making* California law rather than merely applying it.”).
The District operates the Ventura River Project ("the Project") to supply water to residential, agricultural, and industrial customers in Ventura County.\textsuperscript{83} The Project draws from a number of waterways and reservoirs, including the Ventura River.\textsuperscript{84} The Ventura River is home to the endangered West Coast steelhead trout, which travels upstream to reach its critical spawning sites.\textsuperscript{85} In 1997, EPA listed the West Coast steelhead trout as endangered under the ESA after an "extensive loss" of habitat from dams and other water development led to severe population declines.\textsuperscript{86}

Facing liability under section 9 of the ESA for possible take of steelhead, the District proposed constructing a fish ladder at the Robles Diversion Dam, which diverts water from the Ventura River into the Robles-Casitas Canal, which then deposits water into the Casitas Reservoir.\textsuperscript{87} The fish ladder would allow steelhead traveling downstream to bypass the Robles-Casitas Canal while also providing access to spawning sites upstream, thus mitigating some of the Project’s harms.\textsuperscript{88} In conjunction with approval of the fish ladder, NMFS issued a biological opinion and incidental take statement relieving the District of any liability resulting from its incidental take of steelhead.\textsuperscript{89} The biological opinion also established a "flow regime," in the form of operating criteria, requiring the District to maintain adequate flows in the Ventura River during steelhead migration periods to ensure access to upstream spawning sites.\textsuperscript{90}

\begin{itemize}
\item \textit{B. Procedural History}
\end{itemize}

In 2005, the District filed suit against the United States in the U.S. Court of Federal Claims.\textsuperscript{91} The District brought two claims relating to the operating criteria imposed by the biological opinion, including a claim that the operating criteria constituted an unconstitutional taking of the District’s water.\textsuperscript{92} The District sought just compensation in the amount of the value of the diverted water.\textsuperscript{93} In response to the takings claim, the United States filed a motion for partial summary judgment.\textsuperscript{94}

For purposes of summary judgment, the United States conceded that the District held a possessory right to the water diverted from the Ventura River, but asserted that any taking of this water constituted a regulatory, rather than a physical, taking.\textsuperscript{95} The Court of Federal Claims agreed, finding that “because

\begin{itemize}
\item \textsuperscript{83} Casitas VI, 708 F.3d at 1342–43.
\item \textsuperscript{84} Id. at 1343.
\item \textsuperscript{85} Id. at 1344.
\item \textsuperscript{86} Id.
\item \textsuperscript{87} Id. at 1343–44.
\item \textsuperscript{88} Id. at 1344.
\item \textsuperscript{89} Id. NMFS thus provided the District with an incidental take statement. Id.
\item \textsuperscript{90} Id.
\item \textsuperscript{91} See id. at 1343.
\item \textsuperscript{92} Id. at 1343, 1345.
\item \textsuperscript{93} Id. at 1345.
\item \textsuperscript{94} Id.
\item \textsuperscript{95} Id. at 1345–46.
\end{itemize}
[the taking] involved the government’s restraint on [the District’s] use of its property rather than the government’s takeover of the property,” the action constituted a regulatory taking. The court then granted the United States’ motion for partial summary judgment.

The District appealed the decision to the Federal Circuit. Since the fish ladder resulted in a physical diversion of water from the District’s Robles-Casitas Canal, the Federal Circuit found that the act constituted a physical taking and thus reversed and remanded. The Federal Circuit affirmed its holding upon the government’s appeal for an en banc hearing.

On remand in Casitas V, the Court of Federal Claims again dismissed the District’s takings claim, this time focusing on the scope of the District’s property right. The court found that the District’s water right encompassed only that which is put to beneficial use; thus the District possessed no right to water “that is diverted but never beneficially used.” In order to assert a proper takings claim, the District needed to show that the operating criteria had impaired its ability to supply water to its customers, thus impacting its right of beneficial use. Finding that the District had not made this showing, the Court of Federal Claims dismissed the District’s claim for ripeness. The District again appealed the dismissal to the Federal Circuit.

C. Casitas VI: The Last Stand

On appeal, the District argued that the Federal Circuit’s classification of its takings claim as a physical, rather than a regulatory taking, acknowledged that a physical taking had occurred. However, the Federal Circuit held that the characterization of the District’s claim as a physical taking was dependent on the government’s conditional concession of the District’s property right. Because the government’s concession was made only for the purpose of summary judgment, it was “no longer effective” after the first appeal. Moreover, in identifying the District’s claim as a physical taking in Casitas III, the Federal Circuit had not decided the question of whether a physical taking had actually occurred.

In evaluating the takings claim, the Federal Circuit employed a two-step process:

96. Id. at 1346; see also Casitas Mun. Water Dist. v. United States (Casitas II), 76 Fed. Cl. 100 (2007).
98. Casitas VI, 708 F.3d at 1346.
99. Id. at 1346–47.
100. Id. at 1347–48.
101. Id. at 1347 (internal quotation marks omitted).
102. Id. at 1347–48.
103. Id. at 1348.
104. Id.
105. Id. at 1352.
106. Id. at 1352–53.
107. Id. (citation omitted).
108. Id. at 1353.
First, the court determined the scope of the District’s property right, reaffirming that the District is entitled to beneficial use of the water, rather than a right to the corpus of the water itself. As such, although the District had been granted a license to divert a maximum of over 100,000 acre-feet of water per year, its compensable right was limited to the amount of water the license expressly allotted for beneficial use: 28,500 acre-feet per year.

Second, the Federal Circuit determined whether the District’s ability to put the diverted water to beneficial use had actually been impaired by the operating criteria. The court held that the only beneficial use allowed by the District’s license was the ability to supply water to its customers. Though the operating criteria limited the amount of water the District could divert for storage, the court held that diverting water for storage is not itself a beneficial use, but merely a “means to the end of applying the water to such use.” Because the District failed to show that the operating criteria had affected its ability to deliver water to its customers, the court found no impact to the District’s beneficial use and affirmed the Court of Federal Claims’ dismissal of the takings claim as unripe for adjudication.

D. Casitas & the Public Trust Defense

The Federal Circuit did not address the public trust defense in Casitas VI because it resolved the takings claim on other grounds. Yet, the United States raised the public trust defense throughout the Casitas proceedings. Moreover, both the NRDC and the SWRCB filed amicus briefs throughout the proceedings in support of the public trust defense’s applicability in this case. Only the Court of Federal Claims heeded their call.

The Court of Federal Claims, in a decision issued by the same judge that decided Tulare, addressed the public trust defense in Casitas V. Although the court rejected the public trust defense, the court again suggested (echoing Tulare) that if the SWRCB itself had readjusted the District’s permit in order to protect the fish, a valid public trust defense would exist. However, unlike in Tulare, the court suggested that the public trust defense may be available to federal government defendants. To establish a successful public trust defense, the court stated that the federal government must make an adequate showing that the interests protected by the public trust outweigh the public interest in the

109. Id. at 1348.
110. Id. at 1354.
111. Id. at 1355.
112. Id. at 1358.
113. See id.
114. See id. at 1356 (citation omitted).
115. Id. at 1358–60.
District’s water project.\textsuperscript{118} Although the court acknowledged that “steelhead are a public trust resource and that the state of California is concerned with their preservation,” it held that the United States did not adequately show that this concern outweighs the public interest in the water project.\textsuperscript{119}

IV. A NEW PARADIGM OF PROACTIVE WATER MANAGEMENT: THE PUBLIC TRUST AND THE ESA

As the relevant history and case law discussed above suggests, the public trust doctrine has the potential to play a significant role in water resources management and litigation. Yet, the SWRCB has been reluctant to use this powerful tool in a meaningful way.

Some commentators criticize the Board’s supervision of the public trust as reflecting the Board’s passive approach to water management decisions. In the past, the Board has been criticized for its response to ecosystem impacts upon the San Francisco Bay/Sacramento-San Joaquin Delta.\textsuperscript{120} Starting with the Gold Rush and continuing on with present day California’s hefty water demands from agricultural, urban, and industrial uses, exploitation of the Delta’s water resources has significantly impacted the Delta’s hydrology for over a century.\textsuperscript{121} By the 1960s, the Delta served as “the hub” for California’s modern water management system, supporting California’s booming population.\textsuperscript{122} Overexploitation of the Delta’s water resources led to severe water quality problems such as increased salinity and pollution.\textsuperscript{123} In response to these problems, the state created various water boards, including the SWRCB.\textsuperscript{124}

The Board undertook an active role in managing the Delta’s water quality and quantity, issuing new flow requirements and limiting waste discharge.\textsuperscript{125} Yet, the Board balked on subsequent decisions in the face of political pressure and backlash from interested parties, prompting the Board to withdraw its draft reports and proposals, adopt a “low profile,” and “let the [competing] parties

\textsuperscript{118} See id. at 461 (suggesting some form of a balancing test).

\textsuperscript{119} Id. For a criticism of the Court of Federal Claims’ approach, see Echeverria, supra note 69, at 963–970.

\textsuperscript{120} See generally Hanemann & Dyckman, supra note 1. The Delta’s watershed stretches over 45,000 square miles, functioning as the hub of California’s water supply and home to over two hundred listed plant and wildlife species. Frequently Asked Questions on the Bay Delta Process, ST. WATER RESOURCES CONTROL BOARD (May 17, 2012), http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/bd_prccss_faq.shtml.

\textsuperscript{121} See Hanemann & Dyckman, supra note 1, at 712–13.

\textsuperscript{122} Id. at 714.

\textsuperscript{123} Id.

\textsuperscript{124} Id. at 713–15 (beginning with the State Water Pollution Control Board). The SWRCB was created by the Porter-Cologne Act, which combined the State Water Quality Control Board and State Water Rights Board into one entity, requiring the Board to consider “both the quantitative and qualitative impacts of new water rights applications.” Doremus & Tarlock, supra note 8, at 56.

\textsuperscript{125} Hanemann & Dyckman, supra note 1, at 716–19.
work things out among themselves.”126 Where stakeholders could not agree, the Board “consistently failed to take decisive action.”127 As a result, the Delta ecosystem continued to decline, and remains in poor condition today.128

Due to its tendency to defer to outside parties to resolve difficult management issues, commentators have criticized the Board for showing “considerable passivity” when it comes to protecting fish and wildlife resources.129 This may also be attributable to the Board’s perceived lack of an ideological commitment to protecting water and environmental resources, and a “lack of imagination.”130

Yet, perhaps the most significant obstacle to the Board’s ability to proactively manage California’s water systems is its lack of resources to conduct its own independent analyses of water rights.131 This is especially problematic in the context of administering the public trust. When a water rights holder seeks a modification or readjudication of its right, it must supply the Board with the information it needs to make a determination.132 Conversely, when the Board investigates a water right for public trust purposes, the burden of gathering information rests on the Board.133 Because the Board is “chronically underfunded” and employs a small staff, gathering the information necessary for public trust adjudications is often a difficult task.134

The SWRCB could potentially resolve the “information shortages” it encounters by relying on external procedural mechanisms and resources for information.135 In his article, “The Mono Lake Case, the Public Trust, and the Administrative State,” Professor Dave Owen recommends that the SWRCB “would benefit from a policy of reconsidering public trust obligations any time a federal decision-making process involves an assessment of the public trust impacts of existing water rights,” and suggests that the ESA could serve as a valuable procedural resource.136 For purposes of public trust concerns, the ESA is an ideal procedural mechanism because it signals to the SWRCB that public

126. Id. The Board’s first attempt to establish a water quality control plan for the Delta was “greeted with a barrage of lawsuits” from various water users and ultimately led to the plan’s defeat. Id. at 716–17. The Board’s next attempt to control salinity and restore declining fish populations involved a proposed cap on water diversions from the Delta. Id. at 718. Again, the proposal sparked a “firestorm of opposition” from water users, who were “outrage[d] that the Board was more concerned with protecting fish than with assuring a reliable water supply” for Californians. Id. at 719.
127. Id. at 722.
128. See id.; Doremus & Tarlock, supra note 8, at 53 (“T]he Delta is in crisis.”).
129. Hanemann & Dyckman, supra note 1, at 721.
130. See Owen, supra note 57, at 1117 n.112; Hanemann & Dyckman, supra note 1, at 722–23.
131. Telephone Interview with Andy Sawyer, supra note 32.
132. Id.
133. Id.
134. See Hanemann & Dyckman, supra note 1, at 722–23; Owen, supra note 57, at 1117; Telephone Interview with Andy Sawyer, supra note 32.
135. See Owen, supra note 57, at 1107.
136. Id. at 1146; see also id. at 1142 (characterizing each suggestion as “a promising and at least moderately plausible option for reform”), 1152–53 (“Achieving the greatest future impact of the public trust doctrine will require more effective integration into the larger system of administrative environmental law.”).
trust resources may be threatened and that it is time to reevaluate streamflows through the lens of the public trust. Moreover, ESA procedures often provide not only a trigger for evaluation, but also the resources needed to effectively evaluate impacts to the public trust.

A. The ESA as a Trigger

Several ESA procedures provide an opportunity for the Board to reevaluate existing water rights, beginning with listings of endangered or threatened species and their critical habitat. When FWS or NMFS proposes to list a species, notice of the proposed listing must be published in the Federal Register and provided to the state government where the species is located. This notification gives the Board the opportunity to discover proposed listings without needing to scour the Federal Register. Proposed listings indicate that a species is struggling to survive in its current habitat, because only species that are threatened in some way require ESA protections. For aquatic species, proposed listings may indicate that a species suffers from inadequate streamflows. This finding could prompt the SWRCB to reevaluate existing water rights and readjust rights where necessary to protect the public trust.

ESA section 7 consultation presents another triggering opportunity. Under section 7 of the ESA, federal agencies that carry out, fund, or authorize a project that may adversely affect a listed species must consult with FWS or NMFS to ensure that their action does not jeopardize the continued existence of the species. Although section 7 consultation is only prompted when federal action is involved, section 7 consultation is likely to occur relatively frequently in California because the federal government owns a significant amount of the state’s water rights and water projects. This includes the Central Valley Project, which is operated in part by the Bureau of Reclamation. Section 7 consultations that involve water rights or water projects may allow the Board to

137. See Owen, supra note 57, at 1146. ESA findings provide evidence that water diversions may be impacting public trust resources. See id.
138. The ESA listing process proceeds as follows. First, either through a citizen petition or upon its own initiative, the Secretary of either the FWS or NMFS evaluates whether listing a species may be warranted. See 16 U.S.C. § 1533(b)(3)(A) (2012). If the listing process is initiated by a citizen petition, the Secretary must complete its analysis of whether listing may be necessary within ninety days. Id. If the listing may be warranted, the Secretary must commence a status review of the species and, within a year of receiving the citizen petition, must make a finding that (1) the listing is or is not warranted, or (2) at the present time the listing is warranted but precluded. Id. § 1533(b)(3)(B). If the listing is warranted, the Secretary must publish a notice of the proposed listing in the Federal Register. Id. § 1533(b)(3)(B)(ii). Within one year of publishing a notice of the proposed listing, the Secretary must make a final decision whether to list the species. Id. § 1533(b)(6)(A). Generally, the Secretary must also concurrently designate critical habitat at the time of the listing. Id. § 1533(a)(3). Critical habitat consists of areas that are necessary for a species’ recovery. See id. § 1532(5).
139. Id. § 1533(b)(5)(A)(i)–(ii).
140. See Owen, supra note 57, at 1145 (explaining that consultation provides a triggering opportunity).
142. See Owen, supra note 57, at 1145 & n.258.
play an active role in discussions about water management and planning, including an opportunity to limit rights through the public trust doctrine where it is appropriate. Moreover, because many aquatic species in California are already listed, proposed listings may be few and far between. As such, ESA section 7 consultations provide a better opportunity for prompting SWRCB action.

Interestingly, responding to an external trigger to evaluate public trust concerns is not a new concept for the Board: In the past, the SWRCB has responded to procedural triggers, including the ESA, to compel application of the public trust doctrine. In responding to ESA actions, such as biological opinions stemming from section 7 consultations, the SWRCB has initiated water proceedings to bring water users into compliance with ESA requirements. Moreover, the SWRCB has previously considered the presence of a listed species when making a water management decision. The SWRCB also occasionally considers harmful impacts to unlisted fish and wildlife when making water management decisions. The SWRCB has thus demonstrated a willingness and ability to respond to external procedural triggers, including the ESA, to reevaluate water management decisions. As such, adopting a policy of responding to and engaging with ESA procedures is a plausible solution to actively administering the public trust.

B. The ESA as an Information-Gathering Tool

The SWRCB can only readjust water rights to protect the public trust “if there is evidence that the diversion or use of water is impacting those resources.” Yet, information gathering is costly, time consuming, and resource-intensive. Couple this with the uncomfortable political realities of readjudicating existing water rights, and the Board has a strong incentive to “avoid gathering or confronting relevant data” altogether.

143. Currently, over twenty species of fish have been federally listed in California. See Environmental Conservation Online System, Listings and Occurrences for California, U.S. Fish & Wildlife Serv., http://ecos.fws.gov/tess_public/pub/stateListingAndOccurrenceIndividual.jsp?state=CA&s8fid=112761032792&s8fid=112762573902 (last visited Apr. 16, 2014).

144. See Owen, supra note 57, at 1105 (noting that the SWRCB “hardly ever invokes the public trust doctrine in isolation”); see also id. at 1135–36 (“The [public trust] doctrine rarely operates as a stand-alone constraint.”) (listing examples of the SWRCB using additional statutory authority to protect public trust resources), 1143 (discussing the lack of procedural requirements surrounding the public trust doctrine and noting that “the public trust doctrine utilizes procedural requirements established by other statutes” and providing a list of statutes relied upon by the SWRCB to compel public trust analyses).

145. Id. at 1136 n.210 (listing examples of SWRCB mandating compliance with ESA requirements), 1145 & n.262.

146. See id. at 1136 & n.213 (describing an example of the SWRCB taking note of the presence of federally listed steelhead in a decision-making process).

147. Id. at 1133 nn.195–96 (giving examples of SWRCB decisions that contemplate harm to fish and wildlife).


149. Doremus & Tarlock, supra note 8, at 65.
ESA procedures provide several opportunities for the Board to gather information. A notice of proposed listing or proposed designation of critical habitat for a California aquatic species often provides relevant information, such as a description of the species’ current habitat and potential threats to the species. These documents may also discuss conservation measures needed to adequately protect the species, including streamflow requirements. Section 7 consultations may provide even more useful information, as they “typically produce substantial documentation of the public trust impacts of the federal action at issue.” Because of their extensive administrative records, section 7 consultations provide an ideal opportunity for reevaluating existing water rights.

C. Benefits of Proactive Water Management

ESA procedural mechanisms give the Board an opportunity to proactively manage California’s water systems by actively applying the public trust doctrine to limit existing uses, resulting in numerous benefits for the Board and the health of California’s streams.

1. A Proactive Approach Will Allow the SWRCB to Fulfill Its Continuing Duty as Administrator of the Public Trust.

After National Audubon, the SWRCB was entrusted with a “continuing duty” to oversee existing uses and reconsider allocation decisions in order to protect public trust resources. A study of the years since National Audubon suggests that the Board has not actively exercised its continuing supervision over existing water rights unless prompted to do so by outside forces. This is in part due to the lack of a regulatory or procedural mechanism requiring the Board to periodically reevaluate existing uses, as well as the Board’s lack of resources to do so. The ESA could serve as a resourceful mechanism prompting the SWRCB to reevaluate existing uses and to rejudicate them if necessary, allowing the Board to fulfill its continuing duty to protect the public trust “whenever feasible.”

2. A Proactive Approach Aligns with the Board’s Statutory Duties.

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150. These documents generally describe the baseline habitat of the species in question, including existing threats to the species. For an example of a previous aquatic species listing, see Endangered and Threatened Species: Final Listing Determinations for 10 Distinct Population Segments of West Coast Steelhead, 71 Fed. Reg. 834 (Jan. 5, 2006) (to be codified at 50 C.F.R. pts. 223, 224).

151. See Owen, supra note 57, at 1149 (suggesting that the SWRCB “take more extensive advantage of processes—most notably Section 7 consultations—that do generate information about the public trust impacts of water use under pre-established rights”).


153. See supra Part I.B.

154. Telephone Interview with Andy Sawyer, supra note 32.

The SWRCB is unique compared to other water managers in that it wields the dual duty of managing water quantity as well as water quality.\(^ {156} \) Indeed, California explicitly created the Board out of a desire to combine these two considerations,\(^ {157} \) likely because water quality and water quantity are “intimately and unavoidably linked.”\(^ {158} \) Decreases in water quantity often cause negative impacts on water quality. To manage this problem, the Board has a duty to adjust water rights as necessary to protect water quality.\(^ {159} \) Managing water resources to protect the public trust will likely fulfill this duty, as larger streamflows will decrease concentrations of pollutants and increase a stream’s ability to rebound from changes in temperature and oxygen levels.\(^ {160} \)

The SWRCB also has a duty to protect beneficial uses of water, including “water required for recreation and the preservation and enhancement of fish and wildlife resources.”\(^ {161} \) Such beneficial uses “need only be ‘reasonably’ protected, not absolutely.”\(^ {162} \) Yet, California’s Water Code contains no statutory mechanism prompting the Board to reasonably protect beneficial uses. However, the ESA could provide this prompting itself.

Finally, the California Constitution was specifically amended to prohibit wasteful and unreasonable use of water.\(^ {163} \) In furtherance of this ideal, the Board has authority to terminate a water right that is not being put to beneficial use and to readjust rights that are not being fully used.\(^ {164} \) The threat of wasted water in California is very real despite procedural mechanisms for evaluating permitees’ use of water. Some commentators speculate that “surface water diversions are essentially unmonitored in California.”\(^ {165} \) The ESA trigger would provide the Board with an opportunity to identify water users who are wastefully or no longer using their full water allocation and to readjust these rights as necessary.

\(^ {156} \) Doremus & Tarlock, supra note 8, at 62.
\(^ {157} \) Id. at 56; see also id. at 62 (“[T]he fact that both are within the Board’s jurisdiction means that the Board’s governing body cannot avoid being aware of the connections between water quality and quantity.”).
\(^ {158} \) Id. at 62. The Supreme Court itself has recognized that “[i]n many cases, water quantity is closely related to water quality . . . .” P.U.D. No. 1 of Jefferson Cnty. v. Wash. Dep’t of Ecology, 511 U.S. 700, 719–20 (1994).
\(^ {159} \) See Doremus & Tarlock, supra note 8, at 56.
\(^ {160} \) See id. at 51, 62; Nelson et al., supra note 5, at 12. Indeed, managing water for fish necessarily enhances water quality. Authors Michael Hanemann and Caitlin Dyckman state that: “The fundamental tradeoff is between fish and people; trying to deal with the two separately is unwise.” Hanemann & Dyckman, supra note 1, at 719.
\(^ {161} \) CAL. WATER CODE § 1243 (West 2014).
\(^ {162} \) Doremus & Tarlock, supra note 8, at 58.
\(^ {163} \) CAL. CONST. art. X, § 2; see also Nat’l Audubon Soc’y v. Superior Court, 658 P.2d 709, 725–26 (Cal. 1983) (noting that preventing unreasonable use of water is “an overriding feature of California water law”).
\(^ {164} \) See, e.g., WATER §§ 1240, 1627.
\(^ {165} \) See Hanemann & Dyckman, supra note 1, at 712 (“Surface water rights holders are required to report their diversions to SWRCB every 3 years, but there is no sanction for failing to do so or for reporting incorrectly. Many rights holders do not report their diversions, and the SWRCB does not verify the data from those who do report their diversions . . . . [S]urface water diversions are essentially unmonitored in California . . . .”).
3. **California’s Public Policy and Progressive History Supports an Environmentally Protective and Proactive Approach to Water Management.**

California has been a progressive leader in environmental regulation, from passing the nation’s strongest tailpipe emissions rule to adopting one of the nation’s strongest environmental protection acts, the California Environmental Quality Act. California has also shown leadership in water management, enacting legislation such as the Porter-Cologne Act, which was hailed as “the toughest water quality act in the nation” during its time. The SWRCB itself once took a stronger approach to environmental protection, calling for somewhat of a “California water ethic” and prioritizing protection of fish and other beneficial instream uses. In light of this history, it is unsurprising that a majority of Californians support environmental protection, making California more committed to environmental protection relative to other states. As such, California presents a relatively friendly political and social climate for proactive water management strategies.

4. **Application of the Public Trust Allows for Federal and State Defenses to Takings Claims.**

As discussed above, the SWRCB’s application of the public trust in response to ESA triggers, such as section 7 consultations, is likely to provide government defendants with a categorical defense to takings claims. The federal government is particularly unlikely to establish a successful public trust defense to a takings claim if the SWRCB does not act. Providing a categorical defense to takings claims for either the state or federal government would provide benefits such as saving time, money, and judicial resources, as well as taxpayer dollars used to satisfy takings judgments. Consistent, regular application of the public trust may even deter potential takings plaintiffs, sparing time, money, and judicial resources up front. Though the Board may not benefit directly from these potential gains, the Board may benefit indirectly.

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166. See id. at 715.
167. See id. at 719.
168. Doremus & Tarlock, supra note 8, at 62 & n.314.
169. See supra Parts II and III.
170. See id. Regardless of whether the SWRCB takes a more proactive approach to water management, federal courts should certify water takings cases with public trust implications to California state courts rather than refraining from deciding them at all. Cf. Tulare Lake Basin Water Storage Dist. v. United States, 49 Fed. Cl. 313, 323–24 (2001) (expressing discomfort at the notion of a federal court making such a policy-laden decision). State courts were explicitly granted jurisdiction over public trust issues in *National Audubon* and are likely better equipped to determine whether a federal public trust defense exists using their expertise of the public trust doctrine and the policy preferences of the state. See Nat’l Audubon Soc’y v. Superior Court, 658 P.2d 709, 731 (Cal. 1983); cf. Echeverria, supra note 69, at 964–68 (arguing that federal courts could properly find a federal public trust defense in California water takings cases).
171. See Owen, supra note 57, at 1125 n.157 (“[T]he defense [of public trust] may have succeeded largely by deterring potential takings claims or by informing settlements. On the written record . . . the extent of that effect is impossible to assess.”).
Providing federal and state agencies with the public trust defense could generate more respect for the Board and otherwise benefit the Board’s reputation. Agencies that benefit from the Board’s application of the public trust may be more inclined to collaborate with the Board, supplying the Board with relevant and useful information about water quality and quantity so the Board can take action on future public trust issues.

The Board’s public trust actions may also influence broader notions of water management policy. By limiting uses through the public trust doctrine such that the public trust defense is available, the Board will “reclaim[] the notion that water is fundamentally a public resource, that there is a community interest in water that transcends the ambitions of individual users.”

The public nature of water sets it apart from other forms of property, and the public trust doctrine provides water managers with a powerful tool to use when other statutory and regulatory tools are unavailable.

5. Responding to an ESA Trigger “Takes the Heat Off” the SWRCB.

Relying on the ESA trigger provides the SWRCB with an “excuse” to act rather than relying on its own initiative. In a sense, this “takes the heat off” the SWRCB. Reevaluating existing uses in response to an external force rather than its own initiative may reduce the likelihood of the Board being viewed as radical.

Perhaps this safety net—relying on an external federal trigger—could give the SWRCB the courage it needs to act in the face of the political and social backlash it has backed down from in the past.

6. SWRCB Could Avoid Potential Liability under ESA Section 9.

If the SWRCB is responsive to ESA findings, it is less likely to be sued by NMFS, FWS, or private citizens for violating section 9 of the ESA, the prohibition on take of a listed species. The SWRCB has been threatened with enforcement action before, which prompted it to act to avoid conflict. Proactively responding to the needs of listed species will avoid this dilemma.


173. Water users were furious with past Board decisions that were perceived as placing the needs of the environment over the needs of people. See supra note 126.

174. See supra Part IV; cf. Owen, supra note 57, at 1146 n.266 (suggesting the Board would rather “claim the environmental benefits of protection while leaving the political burdens of regulating to the federal government”).

175. See Owen, supra note 57, at 1136 (“The SWRCB’s process for considering public trust impacts ... intertwines with its procedures for complying with other environmental laws.”); Indeed, the SWRCB can be held liable for indirectly violating section 9 of the ESA as a result of the First Circuit’s holding in Strahan v. Coxe, 127 F.3d 155 (1st Cir. 1997).

176. See Doremus & Tarlock, supra note 8, at 64 (discussing NMFS’s threatened enforcement action over strandings of listed salmon smolts).
D. Barriers to a Proactive Approach to Water Management

As beneficial as a proactive approach to water management would be, several barriers may prevent this approach from being realized. First, enforcement is costly. Because “[m]ost of California’s major waterways provide actual or potential habitat for protected species,” the ESA trigger may be implicated often. 177 The SWRCB may not have the resources to proactively respond to threats to the public trust, 178 nor the wherewithal to withstand the “lengthy and resource-intensive” adjudications or litigation that might follow a readjustment. 179 Although information gathering and enforcement are costly, 180 the SWRCB may be able to alleviate some costs by gathering information from relevant ESA documents, as discussed above. 181 Furthermore, adopting a proactive approach to water management is likely to be met by political and social opposition. 182 Water rights users will likely be hostile to attempts to limit their water rights, and some users may not support protecting water in the public trust. 183 Avoiding these conflicts and facilitating cooperative and collaborative efforts will be crucial to making progress towards responsible water management. 184 Several approaches to applying the public trust could potentially avoid these conflicts.

First, the Board could notify water rights holders where it determines that public trust resources are being harmed. This notification could explain the public trust doctrine and the importance of maintaining healthy streams and ecosystems, particularly in light of climate change. The notification could also highlight the additional benefits of maintaining adequate streamflows, such as recreational and aesthetic benefits. The Board could explain that if the user does not willingly relinquish their right, the Board will use its authority under the public trust doctrine to force them to do so. However, the Board could also offer the user an alternative option: donating a portion of their water right instream. Instream donations can be tax deductible (like a conservation easement) and provide a monetary incentive for the water rights holder to willingly abandon at least a portion of their water right, thus avoiding the need

177. See Owen, supra note 57, at 1117.
178. See id. (noting that the SWRCB has been “chronically underfunded”); see also Hanemann & Dyckman, supra note 1, at 722 (discussing the SWRCB’s “meager staff”).
179. See Doremus & Tarlock, supra note 8, at 63.
180. See Owen, supra note 57, at 1148 n.279 (discussing cost impediments to information gathering).
181. This may also be appropriate in light of the SWRCB’s authority to share information with other state agencies so as to avoid duplicative efforts under the California Water Code.
182. Doremus & Tarlock, supra note 8, at 63 (noting that changes in the water management status quo will be politically difficult but that “[d]ecisions to alter existing water entitlements . . . cannot be avoided if we truly want to protect our aquatic ecosystems”).
183. See Owen, supra note 57, at 1146 (“[A]ny measure that involves revisiting established resources allocations is likely to be contentious.”); 1150 (“As with any increase in procedural requirements, these changes would be controversial.”).
184. See NELSON ET AL., supra note 5, at v.
for conflict or litigation.\textsuperscript{185} Because instream donations must be donated in perpetuity to qualify for a tax deduction, this option would provide a long-term benefit for public trust resources.\textsuperscript{186}

Where the Board faces resistance from a user, it could potentially offer to buy the desired water from the individual. Although the SWRCB itself would likely not have the funds to facilitate such a purchase, the California Legislature could establish a fund to allow for such transactions. Doing so would be in line with President Obama’s call for climate change adaptation, which calls for “deliberate preparation” by state governments to “improve climate preparedness and resilience.”\textsuperscript{187} Purchasing water rights from individuals would also help the SWRCB avoid political and social conflict, as well as potential takings litigation.

Finally, as discussed above, the SWRCB can apply the public trust doctrine and other statutorily imposed limits as a last resort where it is necessary to maintain water instream. Although this might not avoid litigation, application of the public trust doctrine is likely to prevent a successful takings claim.

Most water users are unlikely to be significantly impacted by public trust adjudications because the Board is limited to protecting the public trust only where it is “feasible.”\textsuperscript{188} The court in \textit{National Audubon} recognized that “[a]s a matter of practical necessity,” there will be times when the Board must allow water appropriations that harm the public trust.\textsuperscript{189} In determining what is “feasible,” the Board must consider whether protecting the public trust in a given instance is “consistent with the public interest.”\textsuperscript{190} Although the public has an interest in public trust resources, there is also a public interest in agriculture\textsuperscript{191} and municipal water projects.\textsuperscript{192} Moreover, California water law identifies domestic uses and irrigation as the highest priority uses of water.\textsuperscript{193} As such, the Board is unlikely to significantly interfere with these priority uses because it is constrained to limiting these uses only to the extent that it is in the public’s interest to do so.\textsuperscript{194} The Board is more likely to limit unreasonable,

\begin{itemize}
\item 186. \textit{See id.}
\item 189. \textit{Id. at 728}.
\item 191. \textit{See id. (implying agricultural uses are of public interest).}
\item 192. \textit{Casitas V.}, 102 Fed. Cl. 461 (requiring a showing that the public interest in protecting steelhead outweighed the public interest in the Casitas water project).
\item 193. \textit{CAL. WATER CODE § 106} (West 2014).
\item 194. Moreover, limiting such uses is likely to be quite contentious, especially because these uses “require reliable water supplies . . . .” \textit{See Dunning, supra} note 172, at 455.
\end{itemize}
unnecessary, or unjustified uses of water.\textsuperscript{195} Actively applying the public trust doctrine will thus ensure that the SWRCB exercises its continuing authority to responsibly manage the state’s water resources.\textsuperscript{196}

CONCLUSION

Climate change poses serious threats to California’s water systems.\textsuperscript{197} The drought of 2014 illustrates this threat and the desperate need for action.\textsuperscript{198} The SWRCB must either respond to these threats with a real paradigm shift in water management, or risk leaving California’s water systems vulnerable to unpredictable consequences.\textsuperscript{199} Whether the Board adopts a policy of responding to an ESA trigger or adopts some other method of proactive management, change is necessary.\textsuperscript{200} However, the Board cannot administer the public trust doctrine actively and effectively without resources—namely, money and personnel. For this reason, the California Legislature needs to take action. The Legislature is aware of climate change and its expected impacts upon California’s waterways. In responding to climate change, the Legislature must enact legislation, such as a targeted funding bill, to create jobs directed at administering the public trust. The Board would also benefit from a legislative remedy that places the burden of information gathering on water rights holders, so that the Board is more capable of carrying out its public trust duties. Finally, the legislature must answer public trust questions, such as: How often should public trust impacts be considered? Every year? Every five years? How much water is required to remain instream for the public trust? How does the public trust translate into acre-feet limits, if at all? Allowing the Board to struggle to

\textsuperscript{195} Cf. Nat’l Audubon Soc’y v. Superior Court, 658 P.2d 709, 728 (Cal. 1983) (“Just as the history of this state shows that appropriation may be necessary for efficient use of water despite unavoidable harm to public trust values, it demonstrates that an appropriative water rights system administered without consideration of the public trust may cause unnecessary and unjustified harm to trust interests.” (emphasis added)).

\textsuperscript{196} Note that the same limitations exist for protection of beneficial uses, which require only “reasonable” protection. See WATER § 13241 (requiring “reasonable” protection of beneficial uses, allowing economic factors to be taken into consideration).

\textsuperscript{197} See supra Introduction.

\textsuperscript{198} See Ben Wolfgang, In Drought-Ravaged California, Obama Sounds Alarm on Climate Change, WASH. TIMES (Feb. 14, 2014), http://www.washingtontimes.com/news/2014/feb/14/drought-ravaged-california-obama-sounds-alarm-clim/; see also NELSON ET AL., supra note 5, at viii, x (“Global warming is not an issue that we can afford to address with a “wait and see” approach. We must take action immediately or we are at risk of irreversibly damaging some of the West’s precious water resources. . . . The time to prepare is now.”); Doremus & Tarlock, supra note 8, at 63 (noting that “[a]s a matter of law . . . California has the freedom to revise water rights to serve the modern world,” a world threatened by climate change).

\textsuperscript{199} Many commentators echo this concern. See, e.g., NELSON ET AL., supra note 5, at iv (“[T]he prospect of climate change should serve as a catalyst for paradigm shifts in the way we manage water. Long-term climate change is adding even more uncertainty to the already difficult task of water resource planning and management.”), 1 (noting that climate change “will require changes in how our current water systems are managed”).

manage California’s most valuable resource with limited funding and little guidance is an abdication of the Legislature’s responsibility. Working together, the SWRCB and the state Legislature are uniquely poised to craft a strategy for proactively managing California’s water systems now, before it is too late.

201. Other California agencies have a role to play as well—such as the California Department of Fish and Game, which has a statutory obligation to notify the SWRCB of “the amounts of water, if any, required for the preservation and enhancement of fish and wildlife resources” when the SWRCB appropriates new uses. See WATER § 1243.

We welcome responses to this Note. If you are interested in submitting a response for our online companion journal, Ecology Law Currents, please contact ecologylawcurrents@boalt.org. Responses to articles may be viewed at our website, http://www.boalt.org/elq.