

OF FARMERS' TAKES AND FISHES' TAKINGS:
FIFTH AMENDMENT COMPENSATION CLAIMS WHEN
THE ENDANGERED SPECIES ACT AND
WESTERN WATER RIGHTS COLLIDE

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I. INTRODUCTION

Upper Klamath Lake, a large, shallow tarn, sits astride the Klamath Basin¹ in Southern Oregon, snugly nestled between mountainous national forests and a high-altitude desert. Klamath Basin is occasionally referred to as the Everglades of the Northwest due to its teeming population of wildlife; the Basin boasts six national wildlife refuges, and it serves as prime flyway for waterfowl, hosting the largest winter gathering of bald eagles in the contiguous United States. Fed by snowpack melting high in the alpine regions surrounding the Basin, Upper Klamath Lake is home to scores of fish species, including the coho salmon, the shortnose suckerfish, and the Lost River suckerfish. The Klamath Lake region is also home to thousands of small farmers who fructify more than 400,000 acres of drained farmland every year with wheat, barley, hay, and potatoes.² Although rich in biological diversity, the Basin is technically classified as arid high desert because it receives less than fourteen inches of rain annually, which renders all agriculture in the area utterly dependent on irrigation.³

Klamath Basin is also well known for its thinly stretched natural resources, water not the least of them. Conflicts regarding water use in the Basin have occurred with alarming frequency in the past several years, and virtually every resident of the Klamath Basin has been involved in one of these water skirmishes at some point, including irrigators, tribes, municipal water districts, fish and fowl. These small battles culminated

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¹ For general information on the Klamath Basin, see Don Thompson, *Livelihoods Flow with Klamath River*, SAN DIEGO UNION-TRIB., Sept. 8, 2002, at A4, available at LEXIS, News Library, SDUT File; A. REED MARBUT, OR. STATE BAR ENVTL. & NATURAL RES. SECTION, *WATERS OF THE KLAMATH BASIN* (2001), available at <http://www.kmtg.com/pdfs/WatersOfKlamath.pdf> (on file with the Harvard Environmental Law Review).

² Michael Grunwald, *Scientific Report Roils a Salmon War*, WASH. POST, at A1, February 4, 2002, available at 2002 WL 10945841; see also MARCIA ARMSTRONG, SISKIYOU COUNTY FARM BUREAU, *THE KLAMATH BASIN CRISIS: BACKGROUND AND SIX POSITIONS*, at <http://www.klamathbasincrisis.org/sixpositions.htm> (last visited Oct. 17, 2002) (on file with the Harvard Environmental Law Review).

³ U.S. GEOLOGICAL SERV., *KLAMATH BASIN—ESTIMATION OF WATER USE*, at http://oregon.usgs.gov/projs_dir/or007/klamplan.html (last visited Nov. 20, 2002) (on file with the Harvard Environmental Law Review).

in outright warfare in the spring of 2001, precipitated by sparse snow-pack that reduced streamflows to half of their normal levels.

Recognizing that meager snowmelt spelled doom for endangered fish residing in Upper Klamath Lake, the Fish and Wildlife Service ("FWS") and the National Marine Fisheries Service ("NMFS") launched studies to determine whether low water levels would, indeed, jeopardize these riparian species.⁴ Both agencies concluded that the dearth of water was adversely affecting the coho salmon and both species of suckerfish, and they warned that these species could be at serious risk if water were diverted from the system as usual.⁵ Accordingly, on April 7, 2001, the Bureau of Reclamation ("the Bureau"), under the mandates of the Endangered Species Act ("the ESA"), shut down the main irrigation canal servicing farmland in the Klamath Basin. In the process, the Bureau cut off about ninety percent of its agricultural customers and spawned a regional outcry the likes of which the Northwest had not seen since the spotted owl controversy was put to rest in the early 1990s.⁶

A record drought occurred in the spring of 2001. The 1400 family farms throughout the region quickly shriveled, exposing cracked earth and weeds where the prior year wheat, onions, barley, potatoes, and peppermint grew.⁷ Although irrigators received 70,000 acre-feet⁸ late in the growing season, the delivery was only a fraction of the 450,000 acre-feet normally released from the lake each year, and certainly not enough to avert widespread loss of crops.⁹ As a result, farmers lost millions of dollars, with estimates ranging from \$200 million to just under \$1 billion.¹⁰ Meanwhile, in the neighboring towns of Klamath Falls, Oregon, and Tulelake, California, businesses began to close, school populations dipped as much as thirty percent, and ranchers made futile attempts to sell their sheep and cattle.¹¹

⁴ Press Release, U.S. Dep't of the Interior, National Academy to Review Scientific Decisions, Needs of Aquatic Endangered Species in Klamath Basin Project (Oct. 2, 2001) (on file with the Harvard Environmental Law Review).

⁵ See Beth Quinn, *Oregon Irrigators May Ask Bush Secretary to Put Crops over Endangered Fish*, KNIGHT-RIDDER TRIB. BUS. NEWS, Mar. 15, 2001, 2001 WL 16512863.

⁶ *Government Shuts Off Irrigation Tap in Oregon; Farmers Assail Move, Aimed at Protecting Fish*, ST. LOUIS POST-DISPATCH, Aug. 24, 2001, at A6, available at 2001 WL 4479635.

⁷ See Robert McClure, *Parched Farmers Ask for Water Relief*, SEATTLE POST-INTELLIGENCER, July 4, 2001, at B1, available at 2001 WL 3562276.

⁸ The volume of water that will cover an area of one acre to a depth of one foot, approximately 43,560 cubic feet or almost 326,000 gallons. UTAH DIV. OF WATER RES., UTAH'S WATER RESOURCES: PLANNING FOR THE FUTURE glossary, at <http://www.water.utah.gov/waterplan/uwrpff/Glossary.htm> (2001) (on file with the Harvard Environmental Law Review).

⁹ Press Release, U.S. Dep't of the Interior, Interior Secretary to Order Water Release to Klamath Farmers (July 24, 2001) (on file with the Harvard Environmental Law Review).

¹⁰ See Jeff Barnard, *Farmers in Klamath Basin File New Lawsuit over Water*, SEATTLE TIMES, Oct. 12, 2001, at B5, available at 2001 WL 3524105.

¹¹ *Court Awards Compensation for Federal Takings*, ENV'T NEWS SERV., May 9, 2001, 2001 WL 8663058; see also Douglas Jehl, *Conservation Reform Pushed Farmers Find*

Seething with resentment, farmers mobilized with furious rallies and civil disobedience. The Klamath towns brought in over 8000 supporters to the area to orchestrate a bucket brigade in a symbolic act of protest, passing buckets of water drawn out of Upper Klamath Lake down a queue of hundreds of hands before depositing the precious contents into the parched irrigation canal.¹² Some communities illegally opened the canal gates several times over the summer before the gates were padlocked by federal authorities.¹³ Others seized control of the irrigation headgates and planted an upside down American flag on the bulwark while releasing diversions of water into the thirsty fields.¹⁴ Even worse, local police refused to arrest the perpetrators, and eventually federal agents were brought in to patrol the gates around the clock.

Local efforts failing, farmers resorted to the legal system for relief. In desperation, the irrigation districts petitioned the United States District Court in Eugene, Oregon, to de-list the three fish from the endangered species roster, but Judge Ann Aiken refused to do so, intimating that action should, in fact, have been taken much earlier to protect the fish.¹⁵ Looking farther afield, the irrigators followed with great interest a little-noticed case in the throes of litigation in the Federal Claims Court. The case, *Tulare Lake Basin Water Storage District v. United States*,¹⁶ addressed the claim of a group of California water users averring that the federal government owed them compensation under the Fifth Amendment Takings Clause when their water rights were abridged by the enforcement of the ESA. To the Klamath farmers' delight, on April 30, 2001, the court ruled that the federal government owed the California irrigators compensation when federal environmental regulation interfered with their right to use water.¹⁷ Following in their stead, the Klamath farmers filed suit against the federal government in the Court of Federal Claims on October 11, 2001, alleging damages to the tune of \$1 billion.¹⁸

The Klamath Basin crisis is a microcosm of an emerging problem in the American West. Throughout the region, the population explosion is straining the limits of finite natural resources, particularly western water, which is used and abused by irrigators, municipalities, recreation-seekers and, of course, wildlife. In wet years, the existing supply is able to accommodate all of these uses, but in dry years these various parties clash over who is entitled to how much, a debate informed by federal water

Endangered Species Act Putting Them Unduly in Peril, PITTSBURGH POST-GAZETTE, Jun. 24, 2001, at A16, available at 2001 WL 22204364.

¹² *Id.*

¹³ Patrick May, *Farmers Protest Fish Protection Policies in Oregon's Klamath Basin*, KNIGHT-RIDDER TRIB. BUS. NEWS, August 22, 2001, 2001 WL 26627098.

¹⁴ Grunwald, *supra* note 2.

¹⁵ McClure, *supra* note 7.

¹⁶ 49 Fed. Cl. 313 (2001).

¹⁷ *Tulare Lake*, 49 Fed. Cl. at 324.

¹⁸ Barnard, *supra* note 10.

contracts and state allocation schemes, which are by no means mutually exclusive systems. The broadly written ESA has largely rendered the argument moot, however, essentially decreeing that the needs of endangered species will be valued above all other uses. The *Tulare Lake* decision has reignited the argument, threatening explosive changes in western water allocation and endangered species protection.

Focusing primarily on the ramifications of the *Tulare Lake* decision, this paper contemplates the interplay between western water rights, the ESA, and the Fifth Amendment Takings Clause in light of the historic dynamic between federal agencies and state water authorities. Part II examines the convoluted landscape of western water allocation, emphasizing the development and maturation of two parallel western water regimes, one federal and one state. It then turns to key provisions in the ESA and examines the importance of the ESA in protecting a bevy of endangered riparian species in western waters. Part III consists of a discussion of the interaction between western water rights and the ESA, fleshing out the conclusion that the ESA provisions trump both federal water contracts and state water rights when they come into conflict with the Act. Part IV examines the traditional Fifth Amendment takings doctrine, discusses the 1987 revolution in takings principles and considers the application of takings jurisprudence in the natural resources context. The *Tulare Lake* case is then explored in depth. Part V concludes with the contention that *Tulare Lake* was wrongly decided, due in part to its questionable legal reasoning and in part to unhappy enforcement consequences that may flow from a widespread application of its holding.

II. THE SETTING OF THE CONFLICT

A. *Western Water Allocation*

Water is the lifeblood of the West. Most of the land located westward of the 100th meridian is characterized by aridity combined with a paucity of steady rainfall, and thus water has always been westerners' liquid gold.¹⁹ The seventeen states making up this land—North Dakota, South Dakota, Nebraska, Kansas, Oklahoma, Texas, Colorado, Wyoming, Montana, Idaho, New Mexico, Arizona, Utah, Nevada, California, Washington, and Oregon—average less than twenty inches of rainfall a year, whereas, in contrast, the eastern half of the United States generally

¹⁹ See Holly Doremus, *Water, Population Growth, and Endangered Species in the West*, 72 U. COLO. L. REV. 361, 362 (2001). Indeed, Wallace Stegner once said, "Water is the true wealth in a dry land." WESTERN WATER POLICY REVIEW ADVISORY COMM'N, WATER IN THE WEST: THE CHALLENGE FOR THE NEXT CENTURY xiii (1998), available at <http://www.den.doi.gov/wwprac/reports/final.htm>.

receives forty or more inches per year.²⁰ The lack of water deeply impacts western life—indeed, it is a

central fact of existence, and a whole culture and set of values have grown up around it. In the East, to “waste” water is to consume it needlessly or excessively. In the West, to waste water is *not* to consume it—to let it flow unimpeded and undiverted down rivers.²¹

In the quest to squeeze every benefit out of each ounce of this scarcest of resources, westerners have adapted to the climate and developed methods by which the capture and exploitation of water is possible: dams and canals. Water diversion, particularly for purposes of irrigation, has become a way of life in the West, one without which settlers in the nineteenth and twentieth centuries might never have staked their claims and established burgeoning western conurbations.²²

1. State Water Allocation

As hordes of migrants pushed west in the nineteenth century, some for trapping, some for mining, some for farming, the brutality and frailty of their adopted land—land with no regular source of water—quickly confronted them. Recognizing the importance of securing a reliable reserve of water, they harnessed the rivers and catalogued their flow. The system of eastern water allocation, a doctrine called riparian rights,²³ did not adapt well to the demands for certainty in the desert West,²⁴ however, and settlers were forced to improvise, birthing a nascent western system of water allocation dubbed prior appropriation. First used in nineteenth

²⁰ See WESTERN WATER POLICY REVIEW ADVISORY COMM'N, *supra* note 19, at 2-1.

²¹ MARC REISNER, *CADILLAC DESERT: THE AMERICAN WEST AND ITS DISAPPEARING WATER* 12 (Penguin Books 2d ed. 1993) (1986).

²² On the basis of his numerous western odysseys, John Wesley Powell reported to Congress that the areas receiving less than twenty inches of rainfall a year must offer a system of irrigation in order to even entertain the possibility of agriculture. See WESTERN WATER POLICY REVIEW ADVISORY COMM'N, *supra* note 19, at 2-1 (citing JOHN WESLEY POWELL, *REPORT ON THE LANDS OF THE ARID REGION OF THE UNITED STATES, WITH A MORE DETAILED ACCOUNT OF THE LANDS OF UTAH* (Harvard Common Press 2d ed. 1983) (1879)).

²³ Riparian regimes award water rights only to those property owners whose land borders the water source. The doctrine leans heavily on the principle of “reasonable use,” whereby a riparian owner is free to use the water in any reasonable manner so long as it does not impinge on another owner’s reasonable use. The doctrine was incompatible with arid climates because rights attached only to land adjacent to the water, a rarity in the semi-desert West. Reasonable use principles also failed to maximize the use of water. See Jennie L. Bricker & David E. Filippi, *Endangered Species Act Enforcement and Western Water Law*, 30 ENVTL. L. 735, 739–40 (2000).

²⁴ See Marcus J. Lock, *Braving the Waters of Supreme Court Takings Jurisprudence: Will the Fifth Amendment Protect Western Water Rights From Federal Environmental Regulation?*, 4 U. DENV. WATER L. REV. 76, 77 (2000).

century mining camps, prior appropriation developed in an ad hoc manner that honored customary usage,²⁵ but the principles of the doctrine gradually seeped into state law, and great bureaucracies have grown and flourished while administering them.²⁶

As a system, prior appropriation depends on the mantra, "first in time, first in right."²⁷ In essence, the first person to put a quantity of water to beneficial use has exclusive rights to that water, and later users can only make additional withdrawals on the condition that the prior person's rights are first met. Prior appropriation is therefore designed to protect certainty regarding water usage,²⁸ since the value of a water right derives solely from the security of priority that the entitlement brings. It recognizes property rights in the *use* of the water, while it reserves the ownership of the water itself for the public.²⁹ Although often treated as real property, then, a water right is really an "incorporeal hereditament."³⁰

Under prior appropriation, the result is a hierarchy of water allocation linked to beneficial use and based on the initial acquisition date of the water right.³¹ Appropriators enjoy equal footing for all beneficial uses and are entitled to divert their water to non-riparian lands for those uses³² so long as they continue to beneficially take their full measure of water. If they do not, the rights to the water are forfeited. During times of drought, senior users take their full allocation of water first by "calling the river;" if no more water is available, junior users must relinquish the claim to their appropriation.³³ The regime is not forgiving, but it developed out of the need to ensure that, at the very least, the most senior users would always have sufficient water to use.³⁴ Similarly, the system gives junior holders a certainty of sorts—the knowledge that they will receive no water in times of scarcity and should therefore plan accordingly.³⁵ "If western irrigators used the riparian system of proportionate reduction in a year of severe drought, probably no one would have sufficient water for irrigation, and no crops would survive. This is exactly the result that the prior appropriation doctrine was designed to avoid."³⁶

²⁵ See *id.* at 80.

²⁶ See A. Dan Tarlock, *The Future of Prior Appropriation in the New West*, 41 NAT. RESOURCES J. 769, 770 (2001).

²⁷ See Melissa K. Estes, Comment, *The Effect of the Federal Endangered Species Act on State Water Rights*, 22 ENVTL. L. 1027, 1044 (1992).

²⁸ See Bricker & Filippi, *supra* note 23, at 739.

²⁹ See Lock, *supra* note 24, at 82. A water right is considered usufructuary.

³⁰ *Id.* at 82. In other words, such a legal right is intangible but nonetheless attaches to property and is inheritable.

³¹ See Lock, *supra* note 24, at 82.

³² See Estes, *supra* note 27, at 1044.

³³ Bricker & Filippi, *supra* note 23, at 739.

³⁴ *Id.*

³⁵ See *id.*

³⁶ *Id.* at 739–40.

While the doctrine evolved, western states relied on federal judicial decisions³⁷ honoring state autonomy to choose allocation systems and dole out water accordingly, a task the federal government happily ceded to state legislatures.³⁸ Rejecting the notion of a federal common law of water, Congress passed the Desert Land Act of 1877,³⁹ effecting a "severance of all waters upon the public domain . . . from the land itself."⁴⁰ Congress' purpose was to reserve for public use all non-navigable waters under the law of the states and formally recognize water rights acquired through local customs while asserting supremacy over the management of federal public lands.⁴¹ Western states responded, all adopting a version of prior appropriation but fine-tuning the details, some modifying its application with administratively granted permits, and some even creating fusion systems, which incorporated key tenets of riparian law into the prior appropriation structure.⁴²

Nonetheless, states continued to legislate in the shadow of federal prerogatives. In their constitutions and statutes, states claimed ownership of the waters that ran within their boundaries, but these assertions were mere recitations of the states' power to govern allocation in the public interest to achieve the greatest benefit.⁴³ In reality, the federal government was free, by express legislation or otherwise, to interfere with state disposition of water if federal purposes were implicated in that disposition.⁴⁴ For instance, under the larger umbrella of congressional power to regulate commerce, the federal government had retained ultimate authority over navigable waters under the navigation servitude theory.⁴⁵ Similarly, as an adjunct to the infrequently invoked Property Clause,⁴⁶ the Supreme Court granted the federal government a proprietary interest in western waters via federal reserved rights. In *United States v. Rio Grande Irrigation Company*, the Court legitimized federal limitation of state rights in order to protect stream flow and exercise control over public lands.⁴⁷ Federal reserved rights culminated in the *Winters* doctrine,⁴⁸ where the Court imposed implied federal water rights on a state prior appropriation sys-

³⁷ See, e.g., *Cal. Or. Power Co. v. Beaver Portland Cement Co.*, 295 U.S. 142, 163–65 (1935) (deferring to state sovereignty in fashioning water allocation schemes as state governments saw fit).

³⁸ See David H. Getches, *The Metamorphosis of Western Water Policy: Have Federal Laws and Local Decisions Eclipsed the States' Role?*, 20 STAN. ENVTL. L.J. 3, 6 (2001).

³⁹ 43 U.S.C. §§ 321–339 (2000) (as amended).

⁴⁰ *Cal. Or. Power*, 295 U.S. at 158.

⁴¹ See *id.* at 158, 163–64.

⁴² See Getches, *supra* note 38, at 7.

⁴³ See *id.* at 7–8.

⁴⁴ See *id.* at 8.

⁴⁵ See Michael A. Yuffee, Note, *Prior Appropriations Water Rights: Does Lucas Provide a Takings Action Against Federal Regulation Under the Endangered Species Act?*, 71 WASH. U. L.Q. 1217, 1228–31 (1993).

⁴⁶ U.S. CONST. art. IV, § 3, cl. 2.

⁴⁷ See *United States v. Rio Grande Dam and Irrigation Co.*, 174 U.S. 690 (1899).

⁴⁸ See *Winters v. United States*, 207 U.S. 564 (1908).

tem where the water flowed through federally owned riparian land. Federal interest in meddling with state regimes, then, has generally remained dormant, but the potential for involvement has served as an ever-present backdrop to state allocation schemes.

2. Federal Water Allocation

Although prior appropriation functioned well as a method of allocating water, sustainability of western settlement required the ability to store water. Initially, private enterprises endeavored to construct suitable dams and canals, but, on the whole, they failed due to a lack of capital and rampant free-riding.⁴⁹ Communities and states experimented with other arrangements, but with the exception of a few Spanish, Indian, and Mormon settlements, larger-scale dams and irrigation works could not get off the ground.⁵⁰

Finally, Teddy Roosevelt and the U.S. government stepped in to rescue western irrigators, using the 1902 Reclamation Act⁵¹ as a vehicle. The reclamation program—so named to “reclaim” desert lands and transform them into agricultural oases—was designed to settle the West by providing federal financial and engineering assistance for water development projects.⁵² Originally, Congress envisioned a system wherein individual irrigators would gradually reimburse the newly formed Bureau of Reclamation for the costs of these projects through usage payments, but the government quickly found that exacting such payments would render farmers insolvent.⁵³ A hasty revision in the approach yielded a system of special water districts as the only entities with which the Bureau would contract when authorizing and building projects. After contracting for Bureau water, the districts operated the projects and repaid government costs with revenues collected from water users and property owners in the district.⁵⁴

Federal dam building has left an indelible footprint on the water-scarce West. Throughout most of the twentieth century, the Bureau of Reclamation acted as the single largest provider of capital throughout the region, dispensing subsidized loans and grants for behemoth water projects.⁵⁵ Eager for “free” infrastructure, states competed fiercely in the legal arena for federal water works. Across the board, state governments passed legislation authorizing the creation of water districts, vesting them

⁴⁹ See Getches, *supra* note 38, at 10.

⁵⁰ See REISNER, *supra* note 21, at 42.

⁵¹ 43 U.S.C. § 383 (2000).

⁵² See Getches, *supra* note 38, at 11.

⁵³ See REISNER, *supra* note 21, at 115–16.

⁵⁴ See Getches, *supra* note 38, at 11.

⁵⁵ See WESTERN WATER POLICY REVIEW ADVISORY COMM'N, *supra* note 19, at 2-9; see also REISNER, *supra* note 21, at 317–18 (naming a few of the more infamous projects).

with considerable autonomy under state law. Moreover, as a condition for approval of the facility, the districts were required to assume control over all water rights in the areas to be served.⁵⁶ Authorization of projects routinely involved the subordination of state-granted water rights, and the projects' contractual terms occasionally even superceded state water law.⁵⁷

The Bureau of Reclamation blithely built dam after dam for more than half a century. By the 1970s, however, Bureau activities grew to be widely criticized, and Bureau dams became increasingly bad investments not only financially and ecologically, but also in terms of feasibility, safety, community impacts, and interregional inequities. In the late 1970s, the Carter administration, fueled by frustration over patently rotten Bureau projects, developed a "hit-list" of proposed federal dams to be axed once and for all.⁵⁸ Carter encountered fierce resistance by members of Congress in his attempt to stamp out these projects—some commentators have even attributed Carter's failure to gain re-election to his hit list⁵⁹—but it was clear, even after Reagan took office, that federal dam building had entered an age of decline.

The apogee of federal water projects passed several decades ago, but the legacy of the Bureau's building spree remains, dotting the western landscape. Currently, the Bureau of Reclamation manages 355 storage reservoirs, 254 diversion dams, 16,047 miles of canals, and 37,193 miles of laterals.⁶⁰ Reclamation reservoirs store roughly 119 million acre-feet of water⁶¹ to deliver more than one-third of the surface water consumed by western irrigators.⁶² The Bureau is the largest supplier of irrigation water in the western United States, regularly fulfilling contract obligations by distributing 25 million acre-feet or more per year to western farms.⁶³ The Bureau's ecological impacts linger, as well. In the words of a report by a federal commission studying western water policy,

[d]ams have flooded valleys and displaced farmers and communities, blocked or disrupted fish migrations, reduced naturally occurring flood frequencies and magnitudes, disrupted natural temperature fluctuations, altered low flows (sometimes increased, sometimes decreased to zero), reduced sediment and nutrient loads, changed channel-sediment characteristics (especially particle size

⁵⁶ See Getches, *supra* note 38, at 12.

⁵⁷ See *id.*

⁵⁸ For a description of the controversial Narrows Dam, illustrating just how bad Bureau projects could be, see REISNER, *supra* note 21, at 410–34.

⁵⁹ See *id.* at 308–29.

⁶⁰ Michael R. Moore et al., *Water Allocation in the American West: Endangered Fish Versus Irrigated Agriculture*, 36 NAT. RESOURCES J. 319, 333 (1996).

⁶¹ See Getches, *supra* note 38, at 14.

⁶² Moore et al., *supra* note 60, at 321.

⁶³ *Id.* at 333.

and mobility), narrowed and shrunk river channels, changed channel patterns, and eliminated flood plains.⁶⁴

Perhaps more salient for future water battles, the listing of more than 180 species as endangered is attributed to Bureau of Reclamation projects in the West.⁶⁵

B. *The Endangered Species Act*

1. *Endangered and Threatened Species in the West*

While the West has busied itself with irrigation, mining, and the establishment of urban populations, the use and abuse of water resources has been rampant, much to the detriment of riparian life found in the waterways of the region. By the end of the twentieth century, dire statistics revealed the extent to which human settlement and expansion had taken a toll on native fish species. At the turn of the millennium, freshwater fish held the title of the single most imperiled vertebrate group in the United States.⁶⁶ Approximately sixty percent of the listed species are considered either totally aquatic or need an aquatic ecosystem to complete their life-cycle.⁶⁷ Much of the threat faces species native to western waters. Indeed, more than twenty native western fish species have become extinct during the twentieth century,⁶⁸ and sixty-eight have been listed as endangered or threatened in sixteen western states.⁶⁹ An additional eighty-six species have officially been designated as candidates for listing.⁷⁰ Were all of these species to become extinct, over seventy percent of native fish species west of the Rocky Mountains would be lost forever.⁷¹

Perhaps even more alarming, however, is the tight correlation between jeopardized riparian life and human alterations of habitat. Human enterprise—including water diversions, dams, reservoirs, and channeling and watershed disturbances—is the single largest culprit contributing to the demise of western fish. Agricultural activity, in particular, is responsible for the decline of almost seventy-five percent of these species.⁷² Of

⁶⁴ WESTERN WATER POLICY REVIEW ADVISORY COMM'N, *supra* note 19, at 2-12 to 2-13.

⁶⁵ Moore et al., *supra* note 60, at 334.

⁶⁶ Doremus, *supra* note 19, at 366.

⁶⁷ William Turner, *About Endangered Species*, WATERBANK NEWSLETTER, at <http://www.waterbank.com/Newsletter/nws1.html> (last visited Oct. 2, 2002) (on file with the Harvard Environmental Law Review).

⁶⁸ See WESTERN WATER POLICY REVIEW ADVISORY COMM'N, *supra* note 19, at 2-13.

⁶⁹ Moore et al., *supra* note 60, at 326.

⁷⁰ See *id.* at 326 n.28.

⁷¹ See Doremus, *supra* note 19, at 366-67.

⁷² Moore et al., *supra* note 60, at 325.

all human activity, agricultural diversions disproportionately impact freshwater fish, because withdrawals on annual stream flow have massive effects. While thirty percent of average annual flow is considered necessary to maintain instream water uses,⁷³ many portions of the West's major river systems regularly drop below this benchmark,⁷⁴ reducing flows to levels insufficient to support aquatic life.

Against the backdrop of such dismal statistical findings, the ESA struggles to shield threatened fish from poorly planned human development. Occupying a unique position in federal environmental legislation, the ESA is both procedural and substantive, and it works as a federal mechanism for land and water planning,⁷⁵ a responsibility usually reserved for state and local governments. The ESA is also one of the most powerful and comprehensive environmental laws currently on the books; in a 1994 article, then-Secretary of the Interior, Bruce Babbitt, wrote of the Act, "[t]he ESA is undeniably the most innovative, wide-reaching, and successful environmental law which has been enacted in the last quarter century."⁷⁶

In enacting the ESA, Congress made clear that it intended to protect and revitalize populations of threatened and endangered species, judging the value of the existence of each of these species to be "incalculable."⁷⁷ To that end, the ESA governs federal agency action that may imperil endangered species in section 7 of the Act and non-federal action in section 9, often flatly prohibiting any action redounding to the harm of species in both provisions of the Act.⁷⁸ Moreover, section 4 of the ESA charges the Secretary of the Interior with the responsibility of demarcating certain critical habitat to these species,⁷⁹ a designation with significant impact on western activity, especially with regard to water allocation and other natural resource decisions. Finally, section (c)(2) mandates that state water rights will be given special deference in enforcing the mandates of the Act.⁸⁰

⁷³ *Id.* at 323.

⁷⁴ Doremus, *supra* note 19, at 368.

⁷⁵ The Act has been dubbed the "pit bull" of environmental statutes, and it has "become the most important national land use control law" in the United States. GEORGE CAMERON COGGINS ET AL., *FEDERAL PUBLIC LAND AND RESOURCES LAW 855* (Foundation Press 4th ed. 2001) (1981).

⁷⁶ Bruce Babbitt, *The Endangered Species Act and "Takings": A Call for Innovation Within the Terms of the Act*, 24 ENVTL. L. 355, 356 (1994) (crediting the ESA for the resurgence of numerous endangered species, including the American alligator, the bald eagle, the peregrine falcon, and the spotted owl).

⁷⁷ See *Tennessee Valley Authority v. Hill*, 437 U.S. 153, 154 (6th Cir. 1978) (articulating Congressional intent in the Tellico Dam fiasco by stating that, in enacting this statute, Congress meant "to halt and reverse the trend toward species extinction—whatever the cost").

⁷⁸ 16 U.S.C. §§ 1536(a)–1536(b), 1540(a)–1540(b), 1540(e) (2000).

⁷⁹ 16 U.S.C. §§ 1532(5), 1533(b)(2) (2000).

⁸⁰ See 16 U.S.C. § 1531(c)(2) (2000).

2. Provisions of the Endangered Species Act

a. Section 7—Federal Duties

Frustrated by what it perceived to be an isolated struggle by a few lone agencies to protect endangered species, Congress enacted section 7 of the ESA in order to force all agencies, in consultation with FWS, to pursue preservation goals.⁸¹ Section 7 of the ESA provides for review of all federal actions that may affect endangered species, requiring agencies to take responsibility for conservation in carrying out their projects and prohibiting any agency activity found to jeopardize the existence of any species.⁸²

Section 7 imposes on federal actors an affirmative duty to conserve listed species and a negative duty not to jeopardize their continued existence.⁸³ According to the provisions of section 7(a)(1), all federal agencies are affirmatively required to carry out programs for the conservation of listed species, including the use of all methods which are necessary to bring any endangered species or threatened species to the point at which those methods are no longer necessary.⁸⁴ Despite this sweeping mandate, agencies are given considerable latitude to craft the substance of their own conservation programs. Section 7(a)(2), on the other hand, requires federal agencies to insure that their actions are not likely to jeopardize the continued existence of a listed species.⁸⁵ This prohibition encompasses a ban on all destruction or adverse modifications to designated critical habitat, including watersheds and other riparian areas, if those modifications would considerably diminish the value of the habitat for survival and recovery.⁸⁶ When consultation with the FWS reveals that a proposed agency action will, indeed, be likely to jeopardize protected species or their critical habitat, FWS is required to suggest “reasonable and prudent alternatives” that would avoid jeopardizing the species.⁸⁷

These federal duties extend to all activities directly undertaken by federal agencies and to nonfederal actions undertaken with federal assistance or authorization. Thus, section 7 applies to water supplies with a federal nexus, just as it applies to federal irrigation projects, extending the umbrella of coverage to a host of federal agencies.⁸⁸ Water delivery

⁸¹ See BRIAN CZECH & PAUL R. KRAUSMAN, ENDANGERED SPECIES ACT: HISTORY, CONSERVATION, BIOLOGY, AND PUBLIC POLICY 25 tbl.1 (2001).

⁸² *Id.*

⁸³ See Doremus, *supra* note 19, at 380.

⁸⁴ See, e.g., Carson-Truckee Water Conservancy Dist. v. Watt, 549 F. Supp. 704 (D. Nev. 1982), *aff'd in part and rev'd in part*, 741 F.2d 257 (9th Cir. 1984) (ruling the ESA may require the federal government to subordinate state-created rights and federal contract rights to conserve endangered fish).

⁸⁵ Endangered Species Act § 7(a)(2), 16 U.S.C. § 1536(a)(2) (2000).

⁸⁶ 50 C.F.R. § 402.02 (2001).

⁸⁷ 16 U.S.C. § 1536(b)(3)(A) (2000).

⁸⁸ See Estes, *supra* note 27, at 1035 (discussing involvement in federal water projects

under an existing water contract, as well as renewal of water contracts, is also considered federal "action" for purposes of section 7,⁸⁹ thereby subjecting such contracts to ESA jurisdiction provided that "the federal agency retains some measure of control over the activity."⁹⁰ For instance, due to the stringency of section 7's requirements, the Bureau of Reclamation often must impose more rigorous restrictions in Bureau water contracts when the use may jeopardize an ESA-listed species than would be imposed on other water development entities.⁹¹ Further, the consultation requirement brings existing and future federal water projects under scrutiny, since all projects are subject to evaluation to determine whether modifications can be made to protect species and their habitats.⁹²

b. Section 9—Prohibition on the Take of Endangered Species

Possibly one of the most far-reaching provisions of the ESA, section 9 imposes a series of prohibitions on actions that "take" endangered animals. The statute defines "take" to mean any attempt "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or attempt to engage in any such conduct."⁹³ According to regulations promulgated by the FWS interpreting this provision, the term "harm" includes any significant habitat modification that results in the death or injury of listed wildlife by impairing essential behavior patterns, such as "breeding, feeding or sheltering."⁹⁴ In limited circumstances, FWS will issue an incidental take permit when the take will not appreciably reduce the likelihood of survival and recovery of species in the wild "if such taking is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity."⁹⁵ In return, the grantee must pledge to "minimize and mitigate the impacts of such taking" to the maximum extent practicable

by the Bureau of Reclamation, the Federal Energy Regulatory Commission and the Army Corps of Engineers).

⁸⁹ See *Natural Res. Def. Council v. Houston*, 146 F.3d 1118, 1125 (9th Cir. 1998). Water delivery is subject to § 7 only if the agency retains some discretion under the project's statutory authorization.

⁹⁰ *Klamath Water Users Protective Ass'n v. Patterson*, 204 F.3d 1206, 1213 (9th Cir. 1999).

⁹¹ Moore et al., *supra* note 60, at 334; see also CZECH & KRAUSMAN, *supra* note 81, at 92 (claiming that the third most frequent cause of species endangerment in the U.S outside of Hawaii and Puerto Rico is reservoirs and surface water diversions). Czech and Krausman note that dams and reservoirs geographically limit the natural range of fish species, blocking movements of species that require access to other portions of rivers to complete their life cycles. *Id.* at 102–03. Fish may also be injured by excessive withdrawals of ground or surface water that reduce streamflows below minimum levels necessary to sustain aquatic life. Further, facilities used to pump or divert water may injure or trap fish.

⁹² See J. David Aiken, *Balancing Endangered Species Protection and Irrigation Water Rights: the Platte River Cooperative Agreement*, 3 GREAT PLAINS NAT. RESOURCES J. 119, 123 (1999).

⁹³ 16 U.S.C. § 1532(19) (2000).

⁹⁴ 50 C.F.R. § 17.3 (2001).

⁹⁵ 16 U.S.C. § 1539(a)(1)(B) (2000).

and prepare a conservation plan detailing the mitigation measures to be employed.⁹⁶ Section 9 applies to all persons, including corporations, private entities and non-federal government actors,⁹⁷ such as state and local governments⁹⁸ and irrigation districts.⁹⁹ Section 9 violations may arise, then, from any number of state-authorized actions, including the approval of timber harvests or the allocation of state water rights.¹⁰⁰ Because the great majority of endangered species are found on private land or adjacent waterways, with a substantial number of them occurring entirely on such land,¹⁰¹ the section 9 prohibition on adverse habitat modification opens the door even further for federal involvement in land management. Regulation interpreting section 9 “harm” allows the threat of adverse modification of critical habitat to stop private development in its tracks. This extensive scope of regulatory oversight was upheld in *Babbitt v. Sweet Home Chapter of Communities for a Great Oregon*, where, in a 6 to 3 margin, the Supreme Court affirmed the agency’s determination that “harm” included adverse habitat modification.¹⁰² The opinion emphasized that habitat modification will constitute a take any time a member of the listed species is killed or injured,¹⁰³ threatening private landowners with violation should they appreciably change the character of their land, and, by extension, potentially circumscribing private water holders’ control over their rights to water.

c. Section 4—Critical Habitat Designations

In enacting the ESA, Congress recognized that the loss of critical habitat was the primary cause of wildlife endangerment and extinction, finding that “[i]n many cases, the process of extinction has been associated with an increase in man’s ability to alter habitat for his own de-

⁹⁶ See 16 U.S.C. § 1539(a)(2)(B) (2000).

⁹⁷ See 16 U.S.C. § 1532(13) (2000).

⁹⁸ Jean O. Melious, *Enforcing the Endangered Species Act Against the States*, 25 WM. & MARY ENVTL. L. & POL’Y REV. 605, 619 (2001) (citing *Palila v. Hawaii Dep’t of Land and Natural Res.*, 471 F. Supp. 985 (1979), *aff’d*, 639 F.2d 495 (9th Cir. 1981) and *Strahan v. Coxe*, 127 F.3d 155 (1st Cir. 1997)).

⁹⁹ See Doremus, *supra* note 19, at 391–92.

¹⁰⁰ See Oliver A. Houck, *Why Do We Protect Endangered Species, and What Does That Say About Whether Restrictions on Private Property to Protect Them Constitute “Takings”?*, 80 IOWA L. REV. 297, 305 (1995).

¹⁰¹ See Michael J. Bean, *The Endangered Species Act and Private Land: Four Lessons Learned from the Past Quarter Century*, 28 ENVTL. L. REP. (ENVTL. L. INST.) 10,701 (1998); see also Barton H. Thompson, Sr., *The Endangered Species Act: A Case Study in Takings & Incentives*, 49 STAN. L. REV. 305, 310 (1997) (noting that “[a]s of 1993, almost eighty percent of all ESA protected species” enjoyed habitat on privately owned land, and “more than one-third of those protected species did not inhabit any federal land, making it impossible” to secure recovery through traditional means of federal land management. Less than a quarter of listed species had habitats located primarily on federal land).

¹⁰² 515 U.S. 687 (1995).

¹⁰³ *Id.* at 709.

vices."¹⁰⁴ Perceiving this threat, Congress provided a remedy by requiring the designation of critical habitat for each listed species,¹⁰⁵ instructing the FWS or NMFS to designate critical habitat to "the maximum extent prudent and determinable" concurrent with the proposed listing.¹⁰⁶ To prevent unfounded designations of critical habitat by overworked agencies, however, the ESA allows agencies to refrain from designating habitat at the time of listing if, as a result of insufficient knowledge, they are unable at that time to determine the range of critical habitat.¹⁰⁷ For purposes of the statute, critical habitat encompasses areas essential to the conservation of the species that may require special management considerations or protection; regulations promulgated by FWS and NMFS specify that critical habitat means "the entire habitat or any portion thereof, if, and only if, any constituent element is necessary to the normal needs or survival of that species."¹⁰⁸ Despite this clear directive, critical habitat has not been identified for a large majority of the listed species.¹⁰⁹

Designation of critical habitat for endangered riparian species often proves to be problematic with regard to minimum flows. Neither FWS nor NMFS has attempted to designate specific instream flow amounts as part of a species' critical habitat.¹¹⁰ NMFS has chosen instead to enumerate essential features of riparian critical habitat as constituent elements:

Essential habitat types for these species can be generally described to include the following: (1) juvenile rearing areas; (2) juvenile migration corridors; (3) areas for growth and development to adulthood; (4) adult migration corridors; and (5) spawning areas. Within these areas, essential features of critical habitat include adequate: (1) [s]ubstrate, (2) water quality, (3) *water quantity*, (4) *water temperature*, (5) *water velocity*, (6) cover/shelter, (7) food, (8) riparian vegetation, (9) space, and (10) safe passage conditions [*italics added*].¹¹¹

¹⁰⁴ House Merchant Marine and Fisheries Comm., Endangered Species Act Amendments of 1978, H.R. REP. No. 95-1625, at 5 (1978), *reprinted in* 1978 U.S.C.C.A.N. 9453, 9455.

¹⁰⁵ 16 U.S.C. §§ 1532(5), 1533(b)(2) (2000).

¹⁰⁶ *Id.* § 1533(a)(3).

¹⁰⁷ 16 U.S.C. § 1533(a)(3) (2000); 50 C.F.R. § 424.12(a)(2) (2001).

¹⁰⁸ Endangered and Threatened Species, Notice on Critical Habitat Areas, 40 Fed. Reg. 17,764 (Dep't of the Interior Apr. 22, 1975).

¹⁰⁹ Only about twenty-two percent of listed species' critical habitat have been designated by the FWS or NMFS. *See* Aiken, *supra* note 92, at 123. The failure of the agencies to list critical habitat stems partially from a hesitancy to embark on the time-consuming analysis required of the economic impacts entailed for such a designation, and partially from political pressure applied by opponents of designation, often private owners who have much to lose if portions of their holdings are designated.

¹¹⁰ *See* Bricker & Filippi, *supra* note 23, at 744.

¹¹¹ Designated Critical Habitat: Critical Habitat for 19 Evolutionarily Significant Units of Salmon and Steelhead in Washington, Oregon, Idaho, and California, 65 Fed. Reg.

NMFS has concluded that although water quantity is an essential feature of riparian critical habitat, "it is not practical to describe specific values or conditions" for each essential habitat feature, including water quantity.¹¹² Thus, reduced instream flow alone may not constitute an impingement on critical habitat, but diminished flows caused by water diversion may be considered a component of potential violations.¹¹³ Indeed, individuals have faced liability when they withdrew water and thereby impaired designated critical river habitat.¹¹⁴ However, regardless of whether stream flow is listed as critical habitat or as a constituent element of critical habitat, depletion of flows by water rights holders constitutes a Section 9 take under the ESA if fish are "taken" in the process.¹¹⁵

d. Special Deference to State Water Law Under Section (c)(2)

Under section (c)(2) of the ESA, it is "the policy of Congress that Federal agencies shall cooperate with State and local agencies to resolve water resource issues in concert with conservation of endangered species."¹¹⁶ Drafted as an amendment in 1982 in response to western water interests concerned about the interplay between the ESA and state-allocated water rights, section (c)(2) states that agencies responsible for enforcing the ESA must attempt to accommodate state water rights. Not the resounding affirmation of the ascendancy of state water rights embodied in past legislation,¹¹⁷ and certainly not the protective language anticipated by large-scale state water users,¹¹⁸ section (c)(2) merely encourages cooperation and information sharing between state governments and federal agencies to resolve the tension created by the competition for the West's water. In the wake of the passage of section (c)(2), commentators recommended that federal regulators seize upon the language as a policy directive to avoid direct collision between the ESA and state water rights and opt instead to use the "least intrusive means available" of en-

7764, 7773 (Nat'l Oceanic & Atmospheric Admin. Feb. 16, 2000) (consolidating information laid out in 50 C.F.R. pt. 226.212).

¹¹² Bricker & Filippi, *supra* note 23, at 744.

¹¹³ *Id.*

¹¹⁴ *See, e.g.,* Riverside Irrigation Dist. v. Andrews, 758 F.2d 508, 511-14 (10th Cir. 1985) (depleting stream flow that adversely modifies endangered species' critical habitat or jeopardizes its existence constitutes a take under the ESA).

¹¹⁵ *See generally* Estes, *supra* note 27 (arguing that, because habitat includes adequate streamflows, the overappropriation constitutes an ESA taking).

¹¹⁶ 16 U.S.C. § 1531(c)(2) (2000).

¹¹⁷ Reclamation Act, 43 U.S.C. § 383 (2000).

¹¹⁸ Section (c)(2) was inserted despite strong lobbying for an alternate proposal based on § 101(g) of the Clean Water Act, 33 U.S.C. § 1251(g) (2000), prohibiting federal interference with state water rights. The proposal would have provided that neither existing state water rights, nor the state authority to allocate them, were superceded by the ESA. *See* A. Dan Tarlock, *The Endangered Species Act and Western Water Rights*, 20 LAND & WATER L. REV. 1, 19 (1985).

forcing the ESA to defuse potential crises.¹¹⁹ Subsequent court decisions have neither endorsed nor rejected these principles. Just a handful of cases have addressed this overlooked provision; none of these cases has disregarded the importance of mollifying state water interests, yet none has interpreted the language to create any affirmative federal duty to honor state water schemes.¹²⁰ More a hortatory provision than a mandatory directive to allay the impact of sections 7 and 9 of the Act, section (c)(2)'s weak wording posed one of the most persistent questions in the West during the ensuing two decades: what might the impact of the ESA be on western water allocation?

III. ESA VS. WATER RIGHTS: COMPETITION FOR WATER, SCARCEST OF RESOURCES

Despite the three-decade span of the ESA, conflicts between state water rights and the Act's prohibition against the taking of endangered species were uncommon until the early 1990s, when, due to competing demands for water, western streams first felt the pangs of overappropriation. Indeed, environmental attorneys and water lawyers alike had questioned for quite some time whether the overappropriation of water, either by federal agencies or state schemes, would constitute a taking under the ESA.¹²¹ There was also widespread speculation regarding the legality of ESA interference in state water allocation due to federalism concerns.¹²² Since that time, several cases have been litigated regarding both state and federal water allocation; almost without exception, the ESA, protecting riparian and riverine life, has won out over state and federal water allocation. As one commentator has noticed, "[i]t made little difference whether the irrigators were purchasing water from federal water projects, or whether appropriators were simply exercising their water rights under state law."¹²³ If FWS determined that appropriated water was needed to

¹¹⁹ *Id.* at 29.

¹²⁰ In *Sierra Club v. City of San Antonio*, 112 F.3d 789, 798 (5th Cir. 1997), the court pointed to section (c)(2) as evidence that abstention by federal courts in favor of state administrative processes is not proscribed by the ESA. *Westlands Water District v. United States Department of the Interior*, 850 F. Supp. 1388, 1424–25 (E.D. Cal. 1994), cited § (c)(2) as basis for granting standing to irrigation districts to challenge a biological opinion. In *United States v. Glenn-Colusa Irrigation District*, 788 F. Supp 1126, 1134 (E.D. Cal. 1992), the court definitively held that although the ESA requires that federal agencies cooperate with states to resolve water resource issues in concert with conservation of endangered species, Congress by no means intended to suggest that state water rights carry a special privilege to ignore the ESA.

¹²¹ See *Estes*, *supra* note 27, at 1051–52 (reading between the lines to conclude that failure of an ESA amendment mandating federal deference to state water law could only mean that Congress intended for the ESA to trump state allocation in the face of direct conflict).

¹²² See *id.*

¹²³ Aiken, *supra* note 92, at 126.

accomplish the recovery of species, the endangered fish got the first claim.¹²⁴

A. ESA Impacts on Federal Water Contracts

Section 7 of the ESA obligates all federal agencies to refrain from jeopardizing endangered species by agency action, and "agency action" is defined broadly. Thus, section 7 is applicable whenever the agency exercises any modicum of discretion; in other words, section 7 dictates do not apply only in those rare circumstances when the agency lacks any discretion to make or require changes that might alter the effects of a proposal on listed species.¹²⁵ Renegotiation or renewal of Bureau water contracts with irrigation districts constitutes discretionary Bureau action and is therefore subject to compliance with the ESA.¹²⁶ Further, contracts, including those to which the federal government is a party, are subject to subsequently enacted legislation. By extension, the ESA controls water contracts whenever the government retains "some measure of control over the activity."¹²⁷ In sum, the needs of municipal and agricultural water users are secondary to the growing necessity to retain water for the use of aquatic species.¹²⁸ Three recent cases involving the clash between ESA requirements and Bureau of Reclamation contracts confirm this conclusion.

Written in the early stages of ESA enforcement, *Carson-Truckee Water Conservancy District v. Clark* addressed the Bureau of Reclamation's authority to prioritize endangered species protection over the demands of federally allocated municipal and industrial water use.¹²⁹ The District sought to compel the Secretary of the Interior to operate the Washoe Project on the Stampede Reservoir for municipal and farming purposes rather than for the protection of the endangered cutthroat trout and the cui-ui fish species, contending that the Secretary is only obligated to act to avoid jeopardizing the bare survival of the species. Instead, the court ruled that the Secretary may give endangered species priority over all other purposes until the fish are no longer listed by the ESA, thereby extending the Secretary's duty to the realm of replenishment, not just conservation.¹³⁰ The court founded its opinion, in large part, on the ESA's definition of "conserve" and the Supreme Court's subsequent interpretation of that word based on its reading of the Act's leg-

¹²⁴ *Id.*

¹²⁵ Doremus, *supra* note 19, at 385 (citing *Sierra Club v. Babbitt*, 65 F.3d 1502, 1512 (9th Cir. 1995)).

¹²⁶ See *NRDC v. Houston*, 146 F.3d 1118, 1125 (9th Cir. 1998).

¹²⁷ *Klamath Water Users Protective Ass'n v. Patterson*, 204 F.3d 1206, 1213 (9th Cir. 1999).

¹²⁸ Doremus, *supra* note 19, at 385.

¹²⁹ 741 F.2d 257 (9th Cir. 1984).

¹³⁰ *Id.* at 262.

islative history. Although brief, the case established a new balance of power in federal water allocation—if FWS determines that appropriated water in a federally administered reservoir is needed in order to bring endangered species back from the brink of extinction, water will be reserved for the fish.¹³¹

In *Barcellos & Wolfson v. Westlands Water District*,¹³² the Eastern District of California, presided over an irrigation district's challenge to cancellation of a Bureau of Reclamation water contract in order to provide water for the jeopardized winter-run chinook salmon and the delta smelt. The Bureau, consistent with its section 7 obligations, had announced reductions in irrigation allotments in order to satisfy ESA requirements. The district court held that the water service agreement between the Bureau, as the supplier of water, and the local irrigation district, did not confer any absolute contract right to unqualified delivery of irrigation water. Indeed, the court found that the Bureau's required compliance with the ESA constituted "cause" for releasing it from its contractual obligations under the water service agreement. Thus, the Bureau, as an arm of the federal government, was authorized to reduce irrigation water diversions in order to conserve endangered species.

The same year, the Ninth Circuit came to the same conclusion working with a virtually identical fact pattern. *O'Neill v. United States*,¹³³ concerned the passage of the 1992 federal Central Valley Project Improvement Act ("the CVPIA"), which directed the Secretary of the Interior to

dedicate and manage annually eight hundred thousand acre-feet of Central Valley Project yield for the primary purpose of implementing the fish, wildlife and habitat restoration purposes and measures authorized by this title; to assist the State of California in its efforts to protect the waters of the San Francisco Bay/Sacramento-San Joaquin Delta Estuary; and to help meet such obligations as may be legally imposed upon the CVP project under State or Federal law following the date of enactment of this title, including but not limited to additional obligations under the Federal Endangered Species Act.¹³⁴

Given the demands of the CVPIA, the Bureau was unable to meet its obligations under its long-term contract with the Westlands Water District, which provided that the government would not be held liable for damages arising from "a shortage on account of errors in operation,

¹³¹ See *id.*

¹³² 849 F. Supp. 717 (E.D. Cal. 1993).

¹³³ 50 F.3d. 677 (9th Cir. 1995).

¹³⁴ *Id.* at 681 (citing section 3402(f) and section 3406(b)(2) of the CVPIA).

drought, or any other causes."¹³⁵ Accordingly, it announced that the District was to receive only fifty percent of its contractual supply of water for 1993.¹³⁶

The District sued for special performance, but the Court of Appeals held that the contractual clause guaranteeing governmental immunity unambiguously relieved the Bureau of liability for the unavailability of water resulting from ESA requirements.¹³⁷ Further, the court found that even if the 1963 service contract had obligated the Bureau to supply the full contractual allotment, the Bureau would not be bound to the contractual terms if barred from doing so by subsequent federal legislation, since the contract was not immune from later enacted statutes.¹³⁸ In the court's eyes, the necessity of complying with the provisions of the ESA was, enough to absolve the government from any liability in failing to fulfill the contractual water delivery obligations.

This troika of cases illustrates the extent to which section 7 of the ESA trumps Bureau of Reclamation obligations to deliver water under water service agreements. Under *Carson-Truckee*, the ESA can impel the Bureau to rededicate the entire water supply of any federal project to endangered species recovery, former allocation plans notwithstanding.¹³⁹ Moreover, the *Barcellos* and *O'Neill* cases indicate that provisions in federal water contracts guaranteeing the Bureau immunity from damages for shortages arising from any circumstance will excuse ESA-enforced deficits in water delivery. All told, the three cases demonstrate the breadth of the courts' ability to brush aside otherwise firm government obligations to water users when Bureau conveyances violate section 7 of the ESA, using sweeping immunity language as a tool to accomplish the task.

B. ESA Impacts on State Water Allocation

Section 9 of the ESA prevents any person, including individual appropriators, irrigation districts and state water resources boards, from taking any listed species. Taking of endangered fish through overappropriation violates section 9 if streamflows are reduced below levels required to sustain those species. Numerous parties involved in state water appropriation and allocation are potentially subject to liability under the ESA if withdrawals deplete water necessary to sustain riparian species. First, individual appropriators can be held liable under section 9 for taking endangered fish. Although enforcement against individual water users poses difficulty, under the prior appropriation doctrine the most junior

¹³⁵ *Id.* at 683.

¹³⁶ *See id.* at 681.

¹³⁷ *See id.* at 689.

¹³⁸ *See O'Neill*, 50 F.3d at 686.

¹³⁹ *See Aiken*, *supra* note 92, at 125.

water users are technically vulnerable to liability if a stream falls below safe levels. Indeed, if diversions must be reduced to prevent the take of an imperiled fish, prior appropriation will deprive junior users of their water allotment.¹⁴⁰ Second, large-scale diverters, such as irrigation districts, face liability under section 9 for excessive withdrawals, despite standing contracts with the Bureau of Reclamation or other state water agencies. Additionally, even if minimum streamflows are ensured, irrigation works used to divert water that take aquatic species by harming or entraining fish with pumps and dams will violate section 9.¹⁴¹ Finally, state regulatory bodies may be liable under section 9 for permitting appropriators to make withdrawals that harm listed species.¹⁴² When states allocate water by issuing water rights or make licensing decisions regarding irrigation, the effects of these decisions on endangered species can be interpreted as state action, making state governments or water agencies accountable for section 9 violations.¹⁴³ Consequently, the ESA has vast potential to interfere with existing state water allocation, and courts have appeared willing to allow it to do so.

Pre-dating the bulk of ESA litigation, *Cappaert v. United States*¹⁴⁴ paved the way for the presumption in favor of ESA protection over state water rights should the two conflict. At issue was the fate of the Devil's Hole pupfish, a rare species of fish found only in a single underground cave in the Death Valley National Monument. Swimming in a small pool deep in the cave's bowels, the pupfish faced extinction when groundwater pumping by the Cappaerts under state permit threatened to dry up the pool.¹⁴⁵ The Supreme Court held that in establishing Death Valley as a national monument, President Truman had, by implication, set aside groundwater to support the pupfish, thereby acquiring a reserved right in unappropriated water that was superior to the right of future users. Although the litigants did not invoke the ESA, *Cappaert* was first in a long line of cases that subordinated state water rights to a federal interest in protecting aquatic wildlife.¹⁴⁶

Riverside Irrigation District v. Andrews,¹⁴⁷ adjudicating the propriety of the issuance of a dredge and fill permit, produced a thorough examination of the relationship between the ESA and state water rights. In the course of building a dam and reservoir on a tributary of the South Platte

¹⁴⁰ See Doremus, *supra* note 19, at 408–09. As Doremus puts it, “first in time tends to be first in right in terms of the opportunity to consume the available increment of species and their habitat.” *Id.* at 407–08.

¹⁴¹ See *id.* at 391.

¹⁴² See Melious, *supra* note 98, at 620 (citing Strahan v. Coxe, 127 F.3d 155 (1st Cir. 1997)).

¹⁴³ See *id.* at 612.

¹⁴⁴ 426 U.S. 128 (1976).

¹⁴⁵ See *id.*

¹⁴⁶ See Houck, *supra* note 100, at 313.

¹⁴⁷ 758 F.2d 508 (10th Cir. 1985).

River, Riverside requested a temporary permit to discharge sand and gravel during construction.¹⁴⁸ The Army Corps of Engineers concluded that the reservoir to be constructed would occasion an increased use of water and thereby deplete the stream flow of the tributary.¹⁴⁹ In reducing the tributary's water volume, the critical habitat of the whooping crane, an endangered species, would be severely compromised.¹⁵⁰ In light of this threat the Corps denied the permit, not because of the effects of the deposit of the dredge and fill material during construction, but because of the adverse environmental impacts to the cranes' critical habitat.¹⁵¹

Riverside challenged the Corps' decision, which was upheld in the federal district court in Colorado. The Court of Appeals affirmed and remanded; on remand, the district court dismissed the complaint and rendered a judgment for the government.¹⁵² On appeal, the Tenth Circuit held that the Corps had not exceeded its authority in denying the permit, rejecting Riverside's position that the federal government lacked authority to create water rights beyond federal reserved rights and those encompassed by various doctrines.¹⁵³ The Court affirmed the Corps' power to protect downstream habitat through regulation of stream flows in order to protect endangered species because the ESA required the Corps to consider both the direct and indirect impacts of the proposed project.¹⁵⁴ Further, the court found that nothing in the Clean Water Act nullified the federal interest in protecting the environment, and therefore Congress intended an accommodation between environmental health and the state's interest in allocating water.¹⁵⁵

The high watermark of ESA enforcement came with *United States v. Glenn-Colusa Irrigation District*,¹⁵⁶ which conclusively held that state water rights are subordinate to the ESA. The United States brought an action against the District to enjoin it from pumping its full allotment of Sacramento River water, as the diversion was killing Sacramento River winter chinook salmon, protected fish under the ESA.¹⁵⁷ The District argued that state water rights should prevail over the Endangered Species Act. Ruling for the United States, the Court held that Congress' intent was to afford endangered species the highest of priorities, and therefore state water rights could not prevail over the restrictions set forth in the Act.¹⁵⁸ Accordingly, the Court found that although the ESA requires fed-

¹⁴⁸ *Id.* at 511.

¹⁴⁹ *Id.*

¹⁵⁰ *See id.* at 512.

¹⁵¹ *Id.* at 511-12.

¹⁵² *Riverside Irrigation Dist. v. Stipo*, 658 F.2d 762 (10th Cir. 1981).

¹⁵³ *Andrews*, 758 F.2d at 512.

¹⁵⁴ *Id.* at 512-13.

¹⁵⁵ *See id.* at 513.

¹⁵⁶ 788 F. Supp. 1126 (E.D. Cal. 1992).

¹⁵⁷ *Id.* at 1129-31.

¹⁵⁸ *Id.* at 1132.

eral agencies to cooperate with state and local agencies to resolve water resource issues in concert with conservation of endangered species, Congress by no means intended to suggest that state water rights carry a special privilege to disregard the ESA.¹⁵⁹ Moreover, the Act was found to be enforceable even before NMFS adopted a recovery plan, identified critical habitat or issued protective regulations.¹⁶⁰ This ruling, subsequently mirrored in other courts,¹⁶¹ set the stage for current battles between the state water rights movement and federal enforcement of the ESA.

Although section (c)(2) of the ESA directs federal agencies to cooperate with state water authorities to accommodate state water rights, these cases bespeak the extent to which private water rights granted by the state may be restricted by federal enforcement of the ESA. Commentators urge that conflicts between the ESA and state water rights should be avoided at all costs, and they argue that only when other protection strategies will fail to protect species should federal agencies resort to enforcing maintenance of minimum streamflows.¹⁶² Even if this policy is employed, however, the Klamath conflict illustrates that competition for water between farmers and fish in the West is ineluctable. These cases, then, serve as a warning to private appropriators using water which is habitat for endangered species that, under the ESA, the needs of listed fish come before those of junior *and* senior appropriators, even though their water withdrawals have no federal connection.¹⁶³ Further, such cases put state water agencies and state and local authorities on notice that the ESA has the power to depose them in some regulatory areas of land-use planning and water distribution.¹⁶⁴ With many of the legal questions surrounding the ESA-water rights battle resolved, courts having categorically found that fish triumph over farmers, western irrigators have sought to turn such defeats into victories over the federal government by lodging Fifth Amendment takings claims demanding compensation.

¹⁵⁹ *Id.* at 1134.

¹⁶⁰ *Id.* at 1135.

¹⁶¹ *See, e.g.*, *Sierra Club v. Lujan*, No. MO-91-CA-069, 1993 WL 151353, at *13 (W.D.Tex. Feb. 1, 1993) (reducing spring flows by excessive pumping from Edwards Aquifer constituted a take of the endangered fountain darter fish).

¹⁶² *See* Doremus, *supra* note 19, at 397 (quoting Tarlock, *supra* note 118, at 19, whose proposal was patterned after section 101(g) of the Clean Water Act, 33 U.S.C. § 1251(g) (2000)).

¹⁶³ *See* Aiken, *supra* note 92, at 125-26.

¹⁶⁴ *See* Doremus, *supra* note 19, at 411.

IV. FIFTH AMENDMENT TAKINGS OF WATER RIGHTS

A. *Traditional Takings Jurisprudence*

The notion of eminent domain—the power by which a sovereign state is entitled to “take” private property for public use—has antecedents stretching back to English medieval constitutionalism.¹⁶⁵ Transplanted to the North American continent, the United States government retained this attribute of sovereignty, yet the Framers guaranteed a check on the potential for arbitrary government usurpation of private lands through this sovereign right. By ratifying the Fifth Amendment to the Constitution, the Framers ensured that the federal government would be prevented from taking private property for public use without paying the property owner fair compensation for the value of the property appropriated.¹⁶⁶ Early on, it was recognized that a governmental “taking” could take two forms: either via actual appropriation of the physical property, or via regulation so burdensome that a property owner’s ability to control his land was all but completely abridged.¹⁶⁷ Thus, when government action—either physical or regulatory—impacts private property rights, the takings clause of the Fifth Amendment is potentially implicated.¹⁶⁸ Despite this straightforward proposition, Supreme Court takings jurisprudence has mandered throughout the twentieth century, creating doctrinal twists and turns and, in the process, producing a rather convoluted body of law. Nonetheless, Supreme Court takings cases can be lumped into two discrete eras, each perhaps equally muddled.¹⁶⁹ The Court’s treatment of the Fifth Amendment takings clause during the first era, or prior to the 1980s, saw a distinct—if not always comprehensible—doctrine develop. The second era, the late 1980s, witnessed a revolution in takings law, in which the Supreme Court revamped its lax stance toward the government’s use of eminent domain and signaled that, in the future, it would look with a more favorable eye toward property owners’ claims.

Prior to the late 1980s, a traditional takings analysis developed, generally honoring two situations in which the government would be obligated to compensate private property owners. The first to be recognized

¹⁶⁵ See Raymond R. Coletta, *The Measuring Stick of Regulatory Takings: A Biological and Cultural Analysis*, 1 U. PA. J. CONST. L. 3, 20 n.35 (1998).

¹⁶⁶ U.S. CONST. amend. V states, “[N]or shall private property be taken for public use, without just compensation.” State governments are also barred from taking private property for public use without just compensation under the Fourteenth Amendment, which states, “No State shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States; nor shall any State deprive any person of life, liberty, or property, without due process of law.” U.S. CONST. amend. XIV, § 1.

¹⁶⁷ See Yuffee, *supra* note 45, at 1231–32.

¹⁶⁸ See *Pa. Coal Co. v. Mahon*, 260 U.S. 393, 414–15 (1922).

¹⁶⁹ See Lock, *supra* note 24, at 78.

was a trespassory action where the government physically invaded or occupied privately owned property. In *Loretto v. Teleprompter Manhattan CATV Corp.*,¹⁷⁰ the Supreme Court affirmatively recognized the right to compensation in circumstances of physical invasion, no matter how trifling the economic implications of physical presence. Specifically, the Court noted that a permanent physical occupation renders null one of the property owner's most cherished sticks in the bundle of rights—the power to exclude others from the property.¹⁷¹ Thus, the Court ruled that when state action results in physical invasion of private property, the application of a per se takings rule is appropriate.¹⁷²

The Supreme Court also established a second takings category prior to the 1980s—total nonpossessory takings—in which compensation was deemed necessary. When the Pennsylvania state government imposed a restriction on the use of mineral estates that caused surface subsidence, the Court concluded the regulation involved a taking because it resulted in an uncompensated taking of private property.¹⁷³ The nebulous principle that emerged from this landmark case—*Pennsylvania Coal Co. v. Mahon*—is simply that if a regulation “goes too far,” it will be viewed as a taking of private property.¹⁷⁴ Half a century later, however, the Court signaled that it would approach the takings question by weighing a number of factors. In *Penn Central Transportation Co. v. New York City*,¹⁷⁵ the Court, using a balancing of factors approach, deemed constitutional a legislative scheme in which the owner of Grand Central Station was forbidden to alter the station's façade in return for transferable development rights.

By the end of this era, takings jurisprudence could be lumped into two categories: takings via permanent physical occupation of private property by the government and takings via governmental regulation that rendered the economic value of private property nugatory.¹⁷⁶ A case could be made, with some hesitancy, for a third provisional category, wherein government regulation had not totally destroyed the economic value of

¹⁷⁰ 458 U.S. 419 (1982).

¹⁷¹ See Yuffee, *supra* note 45, at 1236–37.

¹⁷² See *United States v. Causby*, 328 U.S. 256 (1946) (finding a physical invasion and therefore a taking of an easement in property when the United States, in so immediately invading the airspace above Causby's land by flying military airplanes directly overhead, severely reduced Causby's enjoyment and use of his own property); *Kaiser Aetna v. United States*, 444 U.S. 164 (1979) (holding the government requirement that a property owner open its marina to public access amounted to a taking, indicating that where the federal government does not own the property and does not have a right that supercedes the private owner's right, a taking can occur).

¹⁷³ See *Pa. Coal Co.*, 260 U.S. 393, 412–13 (“The statute forbids the mining of anthracite coal in such a way as to cause the subsidence of, among other things, any structure used as a human habitation As applied to this case, the statute is admitted to destroy previously existing rights of property and contract.”)

¹⁷⁴ *Id.* at 415.

¹⁷⁵ 438 U.S. 104 (1978).

¹⁷⁶ See Lock, *supra* note 24, at 87.

the property but nonetheless had gone too far.¹⁷⁷ Harking back to the *Pennsylvania Coal* case, the Court had periodically invoked fewer bright-line considerations and adopted an ad hoc factual approach, relying on a combination of factors to justify a determination that a regulation had gone too far.¹⁷⁸ The scheme, as a whole, was not always simple or elegant, but the hard-edged rules lent some clarity to the analysis.

In a series of cases in the late 1980s, however, the Supreme Court embarked on a refurbishment of the Fifth Amendment just compensation clause, triggering a takings revolution and breathing new legal life into an already robust Reagan-era property rights movement. At the same time, the doctrinal developments also managed to inject a new measure of uncertainty into the nebulous takings jurisprudence.¹⁷⁹ In *Keystone Bituminous Coal Ass'n v. DeBenedictis*,¹⁸⁰ handed down in 1987, the Court concluded a Pennsylvania regulation preventing surface subsidence, which uncannily resembled the one that had been struck down in *Pennsylvania Coal*, could be enforced without compensation.¹⁸¹ The Court reasoned that because the regulation was promulgated for the purpose of promoting health and safety, no taking occurred.¹⁸² The Court also took up a strand of argumentation employed in the *Pennsylvania Coal* dissent, namely that the regulation did not constitute a total economic loss because it only applied to the petitioner's right to sell coal. Noting that the petitioner still retained some elements of rights to the property, the Court held that the proper analytic framework in which to view the question of economic devaluation was against the total diminution standard, using the notion of conceptual severance; unless the regulation destroyed the exercise of all sticks in the bundle of rights, enforcement of the regulation would not be considered an uncompensated taking.¹⁸³

¹⁷⁷ *Id.*

¹⁷⁸ See Mark Sagoff, *Muddle or Muddle Through? Takings Jurisprudence Meets the Endangered Species Act*, 38 WM. & MARY L. REV. 825, 846-47 (1997); see also Lock, *supra* note 24, at 87 (listing a number of factors, including the regulation's economic impact on the property owner, the extent to which the owner's investment-backed expectations had been thwarted by the regulation, the character of the governmental action, and whether everyone concerned secures an average reciprocity of advantage through the regulation).

¹⁷⁹ These cases were accompanied by a freshet of others, all revamping the traditional takings doctrine. Among the most notable were *First English Evangelical Lutheran Church v. County of Los Angeles*, 482 U.S. 304 (1987) (holding land use restrictions could constitute a temporary taking for which compensation is due) and *Hodel v. Irving*, 481 U.S. 704 (1987) (taking away the right to exclude through intestate succession, one very substantial right attached to property ownership, constitutes a taking, even when justified by a legitimate government purpose, regardless of negligible economic implications, if the diminution of value is considerable).

¹⁸⁰ 480 U.S. 470 (1987).

¹⁸¹ At the time it appeared that *Pennsylvania Coal* had been silently overruled by *Keystone*, but the Court later cited *Pennsylvania Coal* with deference, if not approval.

¹⁸² See *Keystone*, 480 U.S. at 475-76.

¹⁸³ See *id.* at 500-02.

The Court then performed an about-face in *Nollan v. California Coastal Commission*,¹⁸⁴ also a 1987 case, involving a requirement that a beachfront landowner allow a public passage easement on his property as a condition for receiving a permit to expand his dwelling. The Court found that the requirement effected a taking, and it ruled that there must be an "essential nexus" between the condition attached to receiving a permit and the purpose to be achieved by the regulation itself.¹⁸⁵ Later, in a similar case, *Dolan v. City of Tigard*,¹⁸⁶ the Court found that not only must the essential nexus test be satisfied, but there must also be a rough proportionality between the permit and the condition.

Finally, the judicial tour de force authored by Justice Scalia, *Lucas v. South Carolina Coastal Council*,¹⁸⁷ placed the finishing touches on a new doctrine, which entered "the realm of the nearly unfathomable."¹⁸⁸ David Lucas bought two beachfront lots on the South Carolina coast in 1986, the cost of which totaled \$975,000.¹⁸⁹ Two years after purchasing the lots, however, the South Carolina legislature prohibited the construction of permanent habitable structures on certain beachfront property.¹⁹⁰ Lucas sued, claiming that the Act effectively forced him to leave the lots in a natural state, depriving him of control, rendering the value of the land worthless, and effecting a taking of his property.¹⁹¹ In a 5-4 decision, the Supreme Court vindicated Lucas' claims. The Court first affirmed the basic per se rules of takings that had developed over the decades—physical invasion and regulation resulting in total deprivation of economic value is always compensable because "a total deprivation of beneficial use is, from the property owner's perspective, the equivalent of a physical appropriation."¹⁹² The Court then wedged the door open a crack by providing an exception. Even in instances of total economic deprivation, the government may have a pressing interest in legislating; the state can only resist compensation when the "logically antecedent inquiry into the nature of the owner's estate shows that the proscribed use interests were no part of his title to begin with."¹⁹³ In other words, "[a]ny limitation so severe cannot be newly legislated or decreed, but must inhere in the title itself, in the restrictions that background principles of the State's law of property and nuisance already place upon land ownership."¹⁹⁴

¹⁸⁴ 483 U.S. 825 (1987).

¹⁸⁵ *Id.* at 837.

¹⁸⁶ 512 U.S. 374 (1994) (finding a rough proportionality lacking where the city demanded a donation of floodplain land and a bike pathway dedication in exchange for permit approval to expand the building on the land).

¹⁸⁷ 505 U.S. 1003 (1992).

¹⁸⁸ COGGINS ET AL., *supra* note 75, at 215.

¹⁸⁹ *Lucas*, 505 U.S. at 1006-07.

¹⁹⁰ *Id.* at 1008-09.

¹⁹¹ *Id.* at 1009.

¹⁹² *Id.* at 1017.

¹⁹³ *Id.* at 1027.

¹⁹⁴ *Lucas*, 505 U.S. at 1029.

This new generation of takings cases, focused on redefining the treatment of regulatory takings, pointed to three factors determinative of whether a regulation would be deemed to thwart all productive uses of the owner's property. First, the nature of the government restriction must be reasonably related to a valid public purpose.¹⁹⁵ Second, the impact of the regulation will be examined to ascertain whether the property really does not have any economically feasible use.¹⁹⁶ Finally, compensation will not be required when the government restricts uses that traditionally have been limited under background principles of state law.¹⁹⁷ These three ingredients preserve the ad hoc flavor of the pre-Lucas era, yet they indicate the Court will add a dash of state property law and background nuisance principles to the mix, pointing to a new friendlier Court stance toward property owners and a concomitant skepticism toward government-provided rationales regarding challenged regulation.¹⁹⁸

B. Takings of Natural Resources

Early in the doctrinal development of takings jurisprudence, academics and jurists alike raised questions about how the Fifth Amendment guarantee against government takings in the absence of just compensation would be applied to publicly owned natural resources.¹⁹⁹ Whereas most takings litigation had involved private property in which the owner's fee simple interest was not contested, takings of natural resources entailed some interest less than a fee simple absolute. Thus, the added element of original or paramount government ownership tended to be viewed as curtailing the property interest in question. However, the converse of this statement has exacerbated the complexity of natural resources takings cases; because a natural resources user only possesses a carved-out interest in the property as a non-fee simple holder, the questions of total economic deprivation and conceptual severance assume a central analytical role in resolving these disputes.

Many commentators argue that Fifth Amendment compensation is extremely rare in the context of natural resources takings.²⁰⁰ The difficulty inherent in bringing such a complaint lodges in the nature of the right itself; paramount federal title often diminishes the private property interest that is taken, and if a private property right does not exist, the taking limitation cannot apply.²⁰¹ An additional obstacle is found in

¹⁹⁵ *Dolan v. City of Tigard*, 512 U.S. 374, 374 (1994); *Nollan v. Cal. Coastal Comm'n*, 483 U.S. 825, 825 (1987).

¹⁹⁶ *See Dolan*, 512 U.S. at 374; *Nollan*, 483 U.S. at 825.

¹⁹⁷ *See Dolan*, 512 U.S. at 374; *Nollan*, 483 U.S. at 825.

¹⁹⁸ *See COGGINS ET AL.*, *supra* note 75, at 242-43.

¹⁹⁹ *See id.* at 214.

²⁰⁰ GEORGE CAMERON COGGINS & ROBERT L. GLICKSMAN, 1 PUBLIC NATURAL RESOURCES LAW § 4:5, at 4-12 to 4-12.1 (1990 & Supp. 2002).

²⁰¹ *See COGGINS ET AL.*, *supra* note 75, at 222.

the balancing of factors required in a regulatory takings context. Should a deprivation of an interest that nonetheless does not completely annihilate the value of that property interest be deemed a regulatory taking, the court must consider the public interest served by the regulation, which in natural resources cases is typically a strong justification for finding no taking.²⁰²

Other commentators reason that, with the rise of an increasingly sympathetic Supreme Court, compensation for takings involving natural resources may be ordered more frequently.²⁰³ Under a Supreme Court disposed to rule favorably for compensation, property interests may be viewed not through the lens of the total economic loss when measured against the denominator of all the collective sticks in the bundle, but rather by disaggregating all of the sticks in the bundle, measuring loss against each separate stick-as-denominator.²⁰⁴ Moreover, regulation of natural resources through a permit or contract system might give rise to a taking if no economically viable use of the property remains after permit or contract conditions are imposed, including instances in which permits or contracts are denied outright by state or federal agencies.²⁰⁵ Some academics have also noted the property-minded stance of the Court of Federal Claims and its apparent desire to compensate property owners caught in the regulatory and judicial processes.²⁰⁶ These factors suggest an atmosphere more receptive to takings claims arising from environmental regulations, including the ESA.²⁰⁷

In 1994, the federal government reported that no ESA cases had been brought in the Court of Federal Claims challenging governmentally-imposed limitations on development of land.²⁰⁸ Since then, twelve cases, many involving logging restrictions, have raised takings claims to ESA property limitations, several alleging section 9 constraints in order to protect critical habitat, with a smattering of section 7 permit disputes for good measure.²⁰⁹ These filings are a harbinger of the large numbers of

²⁰² See *id.*

²⁰³ See *id.* at 243.

²⁰⁴ Interview with Patricia Beneke, Visiting Professor, Harvard Law School, in Cambridge, Mass. (Feb. 11, 2002) (on file with the Harvard Environmental Law Review).

²⁰⁵ Murray D. Feldman & Michael J. Brennan, *Judicial Application of the Endangered Species Act and the Implications for Takings of Protected Species and Private Property*, in PRIVATE PROPERTY AND THE ENDANGERED SPECIES ACT 25, 36 (Jason F. Shogren ed., 1998).

²⁰⁶ Thompson, *supra* note 101, at 324–27.

²⁰⁷ See Feldman & Brennan, *supra* note 205, at 35.

²⁰⁸ Thompson, *supra* note 101, at 325; see also Babbitt, *supra* note 76, at 361 (saying, in the midst of the 1994 pro-property attacks on the continued vitality of the ESA, “I marched some of my folks over to the Court of Federal Claims, where hundreds of takings cases of all kinds are filed in waves of protest, to look for cases alleging ‘takings’ due to the ESA. I found that in the twenty years of its modern form, there has not been a single case filed in that court alleging a taking under the ESA.”).

²⁰⁹ See Thompson, *supra* note 101, at 328. Since Thompson’s 1997 article, nine other cases have been adjudicated, reflecting the rate at which the filing of similar claims may be

takings claims on the horizon as a result of the broad reach of ESA habitat protection policies.²¹⁰

Although the intersection between ESA mandates and the Fifth Amendment command of just compensation was explored in greater depth throughout the last years of the twentieth century, it was not until the twenty-first century that a takings claim was tried in the realm of water rights. During the gap between the 1987 Supreme Court takings revolution and the first water rights taking case, several commentators speculated as to how such a dispute would be resolved by courts. Acknowledging the fact-dependent nature of the takings doctrine, many of the articles stressed the ambiguities inherent in the adjudication of the question but ultimately concluded it was unlikely that claimants would be entitled to compensation for interference by the ESA with their water rights.²¹¹ Thus, only recently has the federal system been called upon to decide a takings case in the sphere of water rights. With *Tulare Lake Basin Water Storage District v. United States*,²¹² the Court of Federal Claims explored the perilous crossroads of state water allocation and species protection, and, in the end, resolved the dispute with a resounding affirmation of property rights.

C. Tulare Lake and Takings of Water

The California Aqueduct begins at Oroville Dam, an inverted pyramid of such improbable dimensions—the height of the Pan Am Building, the length of the Golden Gate Bridge—that it appears much smaller than it actually is Below the dam . . . the Feather River joins the Sacramento, which flows through the Delta out to San Francisco Bay At the south end of the Delta. . . a wide canal leads out of the forebay toward a rectangular building resembling the nonnuclear end of a very large nuclear power plant. The building houses the delta pumps—a battery of ten-thousand horsepower machines that suck Feather River water thirty miles across the Delta before it can escape to

anticipated in the coming years.

²¹⁰ See Feldman & Brennan, *supra* note 205, at 35.

²¹¹ See Yuffee, *supra* note 45, at 1253 (“Because Lucas does not place ESA regulation of a prior appropriator . . . in either a per se compensable or uncompensable category, the Courts will be left to balance the public interest and social value of species preservation versus those interests in a system of water resource allocation. Under the weight of this balance, it seems likely that the ESA regulation could survive unscathed.”); see also Lock, *supra* note 24, at 110 (resolving that “[f]or now the only prediction one can make with any degree of certainty is that the takings clause of the Fifth Amendment entitles . . . appropriator[s] to compensation where federal regulation reduces the value of a water right, located on a non-navigable stream, to zero”).

²¹² 49 Fed. Cl. 313 (2001).

sea, then lift it the first three hundred feet toward its ultimate thirty-four-hundred-foot rise over the Tehachapi Mountains. The water disappears inside and reappears thirty stories up the hill, at the beginning of the California Aqueduct The aqueduct [winds] southward through the pale foothills, as level as a railroad grade, and disappear[s] in valley heat. It is 444 miles long, the longest river, if you can call it that, in California, and it is entirely man-made.²¹³

The Oroville dam and its spawn, the California Aqueduct, are the lynchpins of California water allocation, a combined federal and state enterprise to transport water from the snow-drenched northern mountains to the arid but fertile southern half of the state in the hopes of greening the desert with agriculture.²¹⁴ The State Water Project ("the SWP"), state-run, and the Central Valley Project ("the CVP"), federally-run, work in concert to exploit California water resources with these vast intertwined peregrinations of canals, pumps, lifts and conduits.²¹⁵ Ultimately, the water that is distributed to end-users is allocated in accordance with state water permits granted to the Bureau of Reclamation and the California Department of Water Resources ("DWR"), which in turn enter into contracts with local water districts, obligating the Bureau and the Department to deliver specified quantities of water.²¹⁶

Early on, the Bureau and DWR had decreed that the behemoth California aqueduct would carry massive loads of water to sprawling southern California farm holdings, some of which were located in Tulare Lake and Kern Counties. Tulare Lake County was slated to receive 118,500 acre-feet a year, while its larger associate, Kern County Water Agency, planned to slake its thirst with no less than 1,153,400 acre-feet annually.²¹⁷ The permits, however, explicitly stated that neither the state nor the Bureau could be held liable for shortages of water due to drought or to other causes beyond its control.²¹⁸

In 1992, during a protracted six-year drought in California, NMFS initiated discussions with the Bureau and DWR to determine the impact of the SWP and the CVP on two endangered fish species found on the

²¹³ REISNER, *supra* note 21, at 355–56.

²¹⁴ See Plaintiffs' Motion for Summary Judgment on Liability at 3, *Tulare Lake* (No. 98-101 L) (on file with the Harvard Environmental Law Review) [hereinafter Plaintiffs' Motion].

²¹⁵ *Id.* at 3, 4 n.6.

²¹⁶ *Tulare Lake*, 49 Fed. Cl. at 315; see also Defendant's Memorandum in Support of Defendant's Cross-Motion for Summary Judgment and in Opposition to Plaintiffs' Motion for Summary Judgment on Liability, at 3 n.7, *Tulare Lake* (No. 98-101 L) (on file with the Harvard Environmental Law Review) [hereinafter Defendant's Memorandum].

²¹⁷ Plaintiffs' Motion, *supra* note 214, at 5.

²¹⁸ *Tulare Lake*, 49 Fed. Cl. at 315.

Sacramento River.²¹⁹ The winter-run chinook salmon²²⁰ and the delta smelt²²¹ had been hit particularly hard during this dry spell, and continued diversions to agriculture through the labyrinthine Aqueduct resulted in inadequate stream flows for salmon and smelt spawning and rearing.²²² A biological opinion issued by MNFS concluded that operation of the SWP and CVP was likely to jeopardize the existence of the winter-run chinook salmon, and the agency thus proposed reasonable and prudent alternatives to protect the fish by restricting the time and manner of pumping water out of the Delta.²²³ In the succeeding year, MNFS again found the salmon to be in jeopardy,²²⁴ while FWS issued its own biological statement opining that the delta smelt was imperiled by the interlaced projects.²²⁵ Again, in 1994, the FWS found the smelt to be at continued risk and imposed comparable pumping limitations.²²⁶ Due to the enactment of these pumping limitations, Tulare Lake County alleged it had been deprived of approximately 9770 acre-feet of contractually guaranteed water in 1992, at least 26,000 acre-feet in 1993, and at least 23,050 acre-feet in 1994.²²⁷ Tulare Lake and Kern County, along with others, brought suit against the federal government in the Court of Federal Claims, claiming water rights had been taken from them when the Government had imposed water restrictions required by the ESA.²²⁸

At issue in the litigation was whether SWP water rights constitute property protected by the Fifth Amendment and, if so, whether the United States' taking of those SWP rights without just compensation constituted a per se taking of property in violation of the Fifth Amendment.²²⁹ The United States also posed—and suggested an answer in the negative—the question of whether a regulatory taking took place with respect to the water delivery contracts.²³⁰ Absent from the slate of legal issues to be addressed, however, was whether the Bureau possessed the authority to protect endangered fish under the ESA by limiting diversions: that authority had implicitly been recognized by both parties at the

²¹⁹ *Id.*

²²⁰ The winter-run chinook salmon are a distinct population of chinook on the Sacramento River. These fish head to the upper Sacramento from December to June, and their spawning season extends from mid-April to August. Endangered and Threatened Species, Winter Run Chinook Salmon, 52 Fed. Reg. 6041, 6042 (Nat'l Oceanic & Atmospheric Admin. Feb. 27, 1987) (notice of determination).

²²¹ The delta smelt is a diminutive fish with a one-year life span. Endangered and Threatened Wildlife and Plants, Determination of Threatened Status for the Delta Smelt, 58 Fed. Reg. 12,854 (Fish & Wildlife Serv. Mar. 5, 1993).

²²² See Defendant's Memorandum, *supra* note 216, at 28.

²²³ See *id.* at 28–29.

²²⁴ See *id.* at 30.

²²⁵ See *id.* at 31.

²²⁶ See *id.* at 32.

²²⁷ *Tulare Lake*, 49 Fed. Cl. at 316.

²²⁸ *Id.* at 313.

²²⁹ See Plaintiffs' Motion, *supra* note 214, at 11–20.

²³⁰ See Defendant's Memorandum, *supra* note 216, at 52.

outset. Both parties moved for summary judgment, and Judge John Paul Wiese presided over these arguments.

The Court of Federal Claims, true to predictions regarding its predictions, championed the interests of the water rights holders, ruling in a notable statement that “[t]he federal government is certainly free to preserve the fish; it must simply pay for the water it takes to do so.”²³¹ In so doing, Judge Wiese toppled three defenses mounted by the United States. First, the United States maintained that the implementation of the pumping limits merely frustrated the contracts’ purpose and therefore did not constitute an appropriation of the plaintiffs’ property rights. The Government pointed to the language of *Omnia Co. v. United States*,²³² which stated, “for consequential loss or injury resulting from lawful governmental action the law affords no remedy. . . . If, under any power, a contract or other property is taken for public use, the Government is liable; but if injured or destroyed by lawful action, without a taking, the Government is not liable.”²³³ Thus, the United States argued, when expectations under a contract are merely frustrated by lawful government action that is not directed against the claimant, no taking occurs.²³⁴ The Court, however, was not convinced, finding that the *Omnia* argument did not govern the issue in question because, unlike *Omnia*, the plaintiffs had more than a mere expectancy of fulfillment of a contract, but rather an identifiable interest in a stipulated volume of water.²³⁵ The Court viewed the “plaintiffs’ contract rights in the water’s use as superior to all competing interests,”²³⁶ noting that the right to the use of the water is a compensable contractual right sufficiently matured to take it out of the realm of an analysis under *Omnia*.

After finding a proscription of compensable contractual rights, the Court turned to the nature of the taking, exploring the “admittedly unusual”²³⁷ situation of water entitlements. Citing *Lucas*, the Court first noted a fundamental canon of takings jurisprudence: regulations that are too restrictive, such as those that deprive property of its entire economically beneficial or productive use, are considered categorical takings and, like physical takings, require no balancing.²³⁸ The Court then drew a distinction between physical appropriations and regulatory takings that

²³¹ *Tulare Lake*, 49 Fed. Cl. at 324.

²³² See Defendant’s Memorandum, *supra* note 216, at 34 (quoting 261 U.S. 502 (1922) (deeming a government requisitioning the entire production of steel plate for the year, rendering nugatory *Omnia*’s claim to purchase certain quantities of steel at below-market price, to be a mere frustration of contract because *Omnia* could claim only a contract expectancy, not an ownership right in the steel)).

²³³ 261 U.S. at 510.

²³⁴ See Defendant’s Memorandum, *supra* note 216, at 34.

²³⁵ *Tulare Lake*, 49 Fed. Cl. at 318.

²³⁶ *Id.*

²³⁷ *Id.* at 319.

²³⁸ *Id.* at 318.

hinges on whether the governmental intrusion is so immediate and direct that it subtracts from a property owner's full enjoyment of the property and limits her ability to exploit it.²³⁹ With this distinction in mind, the Court characterized a mere restriction on the use of water rights as a physical taking, reasoning that the right of property in water is usufructuary, so the right consists solely of the entitlement to use the water. To deny the right of use would be to extinguish all value attached to that right. "To the extent . . . the federal government, by preventing plaintiffs from using the water to which they would otherwise have been entitled, has rendered the usufructuary right to that water valueless, they have thus effected a physical taking."²⁴⁰ With that, the Court declined out of hand to entertain balancing tests for a regulatory taking.

Having concluded that a deprivation of water amounts to a physical taking, the Court rejected governmental defenses based on the doctrine of reasonable use and the public trust doctrine. Pausing briefly on the issue of contractual immunity, the Court found that the provisions absolving the SWP from delivering water due to drought or circumstances beyond its control did not serve to immunize it in circumstances where the water was available but could not be allocated. Distinguishing the case from *O'Neill v. United States*,²⁴¹ where the contract waived government liability for "any damage, direct or indirect, arising from a shortage on account of errors in operation, drought, or any other causes," the Court found that here there was no such broad exemption because the contract did not render the plaintiffs' interest in the water contingent, as it did in *O'Neill*. To immunize the Government from liability, water rights must be truly conditional; contractual provisions merely providing defenses against breach of contract in certain specified circumstances will not guarantee an exemption.²⁴²

Finally, the Court addressed whether state nuisance law would impose limits on the plaintiffs' titles that rendered their loss of water non-compensable.²⁴³ The government advanced the argument that state nuisance law prevents water rights from extending to unreasonable methods of diversion, including those that harm wildlife, and therefore background principles of California law exempted the Government from

²³⁹ *Id.* at 319.

²⁴⁰ *Tulare Lake*, 49 Fed. Cl. at 319. The Court noted that its characterization of denial of water rights as a physical appropriation was supported by *International Paper Co. v. United States*, 282 U.S. 399 (1931), extensively quoted by the Plaintiffs' Motion for Summary Judgment on Liability, *supra* note 214, at 18-19, which held that "[t]he petitioner's right was to the use of the water; and when all the water that it used was withdrawn from the petitioner . . . and turned elsewhere by government requisition . . . it is hard to see what more the Government could do to take the use." *Int'l Paper*, 282 U.S. at 407.

²⁴¹ 50 F.3d 677 (1995).

²⁴² *Tulare Lake*, 49 Fed. Cl. at 321.

²⁴³ *Id.* at 321-24.

compensating the Tulare Lake and Kern County irrigation districts.²⁴⁴ The Court recognized that reasonable use of California water necessarily entailed preservation of fish and wildlife, but it rejected the defendant's argument nonetheless, observing that whether a particular method or quantity for diversion is unreasonable is a determination reserved for the State Water Resources Control Board ("the SWRCB"), not the Court.²⁴⁵ However, that very body had placed its imprimatur of reasonableness on the diversions of water in question, as it was the agency that oversaw and approved those allocations.²⁴⁶ Judge Wiese held, "[t]hat the use now being challenged was not always unlawful is evident from the fact that it was specifically authorized by the state."²⁴⁷ To that end, he ruled that the plaintiffs had shown that their rights to the water allotment were unimpeded by state nuisance law. In conclusion, the Judge emphasized the same point—that the SWRCB could at any time have modified the permits to reflect the definitional changes of 'reasonable use' but chose not to do so.²⁴⁸ Given the SWRCB's refusal to revisit the permit allocations, the appropriation of these contractually conferred rights constituted a taking and demanded compensation under the Fifth Amendment.²⁴⁹ The Court denied the United States' cross-motion for summary judgment and granted the summary judgment requested by Tulare Lake District.

The *Tulare Lake* decision took many interested parties by surprise.²⁵⁰ Certainly, this was not the first time that water had been deemed a property right,²⁵¹ but it was the first time that claimants had been compensated for the failure to receive that water. Even more unexpected was that compensation was awarded in the face of the potent justifications brought to bear by the ESA. Most commentators hypothesizing *ex ante* about the contours of a possible decision had assumed that the Court of Federal Claims would analyze the restriction of water flow as a regulatory taking, as opposed to as a *per se* physical taking; thus, the invocation of *Loretto* and *Causby*, rather than *Lucas*, came as a shock. The decision reinforced

²⁴⁴ See Defendant's Memorandum, *supra* note 216, at 44–47.

²⁴⁵ *Tulare Lake*, 49 Fed. Cl. at 321–22.

²⁴⁶ *Id.* at 323–24.

²⁴⁷ *Id.* at 323.

²⁴⁸ *Id.* at 324.

²⁴⁹ Although both parties alluded to the amounts apposite for compensation, Judge Wiese only ruled on the liability issue and reserved the question of damages for later.

²⁵⁰ See Tarlock, *supra* note 26, at 793 n.90 (opining, "[t]he [Tulare] court applied the *per se* physical invasion test, but the Penn Central balancing test would have been more appropriate"). Interview with Patricia Beneke, Visiting Professor, Harvard Law School, in Cambridge, Mass. (Mar. 11, 2002) (on file with the Harvard Environmental Law Review). Ms. Beneke confirmed that the environmental community reacted similarly to Judge Wiese's ruling.

²⁵¹ See Plaintiffs' Motion, *supra* note 214, at 18–19 (listing numerous cases upholding water allocations as a property right such as *United States v. Great Falls Mfg. Co.*, 112 U.S. 645 (1884), *Dugan v. Rank*, 372 U.S. 609 (1963), *Ivanhoe Irrigation Dist. v. McCracken*, 357 U.S. 275 (1958), and *Int'l Paper Co. v. United States*, 282 U.S. 399 (1931)).

the theretofore-untested belief that the takings clause could be used as a powerful weapon by state water users to resist federal environmental regulation threatening the exercise of their water rights.²⁵²

V. AFTER *TULARE LAKE*:
THE FUTURE OF ESA AND WESTERN WATER RIGHTS

The *Tulare Lake* decision, when it has been noted at all, has not been viewed approvingly in natural resources circles. Many scholars believe the case was wrongly decided, and environmentally minded attorneys speculate that the case will not be endorsed by higher courts. Indeed, the tenor of comments regarding the case implies that the *Tulare Lake* principles, as they stand, are unlikely to take root in the canon of Fifth Amendment takings jurisprudence.²⁵³

Such criticism of the *Tulare Lake* decision is certainly warranted on two grounds. First, legal analysts contend that maintenance of minimum flows in contravention of water allotments should have been analyzed under a regulatory takings framework as opposed to a physical invasion standard. Because water rights have never been considered held in fee absolute, the encroachment on use as a stick within the bundle of water rights should not be considered a physical invasion. Second, parties interested in the protection of species fear that the practical result of a rule of total compensation could be the depauperization of federal coffers and subsequent transfer of millions, perhaps billions, of dollars to farmers during any dry spell when there is not enough water to go around. Consequently, the government's unwillingness—or inability—to compensate appropriators who are shorted water allotments could lead to desultory enforcement efforts and uncertainty regarding water rights themselves. Given the legal dubiety and potential ramifications of the physical invasion, and thus total compensation, standard, courts would be wise to rethink the *Tulare Lake* case and instead promote more effective means of resolving western water allocation conflicts.

A. *Tulare Lake's Questionable Legal Grounding*

The *Tulare Lake* decision arguably hinged on the “physical invasion” versus the “regulatory taking” distinction. The District argued that the contract rights entitling it to use a specific quantity of water were utterly extinguished by the restriction on pumping, thereby amounting to a physical taking. The United States, on the other hand, maintained that the limitation on the District's right to use the water was a regulatory action,

²⁵² See Lock, *supra* note 24, at 78.

²⁵³ See, e.g., Tarlock, *supra* note 26, at 793 n.90 (noting that the *Penn Central* balancing test would have been more appropriate than the per se physical invasion standard).

which should be examined under the *Penn Central* test. From the outset, the Court framed the issue as turning on whether the governmental intrusion was "so immediate and direct as to subtract from the owner's full enjoyment of the property and to limit his exploitation of it," citing *Causby*.²⁵⁴ Because a mere restriction on the use completely eviscerated the right itself, the Court found there had been a complete occupation of property.²⁵⁵

This analysis misunderstands the physical occupation test and the nature of water rights. First, physical invasion cases have uniformly involved actual governmental entry upon the affected owner's property, disturbing the owner's control in the process.²⁵⁶ For instance, even *Causby*, the keystone of the Court's resolution of the physical-regulatory inquiry, involved the actual encroachment of military planes into the plaintiff's airspace. The fly-overs not only disturbed *Causby's* real property, but they also intruded into the area above it, rendering it a physical invasion.²⁵⁷ Similarly, in *International Paper*, the government physically occupied the plaintiff's property by diverting the company's water for its wartime consumptive use.²⁵⁸ These cases, then, were inapposite in deciding *Tulare Lake*, because, in contrast, the federal government never physically invaded the District's water. By placing rate and timing restrictions on the District's pumping, the government enacted a regulation that had the incidental effect of reducing the value of the contracts, but such regulation was never a physical occupation of any of the District's property. Indeed, the regulation could not have resulted in a physical invasion because the District did not have possession of the water, but rather the mere use of it.

Yet even if the District's water users held a fee simple title—a conventional unqualified property right—an argument against a physical invasion claim should have prevailed. As the United States reasoned in the *Tulare Lake* litigation,²⁵⁹ regardless of the strength of the District's property right, there are some sticks the exercise of which that bundle does not comprehend, destruction of the riverine ecosystem being one of them. Just as in *Keystone*,²⁶⁰ where public policy militated against the legiti-

²⁵⁴ *Tulare Lake*, 49 Fed. Cl. at 319. The court also mentioned *International Paper*, 282 U.S. 399 (1931) and *Dugan v. Rank*, 372 U.S. 609 (1963) as support.

²⁵⁵ See *Tulare Lake*, 49 Fed. Cl. at 319.

²⁵⁶ See Yuffee, *supra* note 45, at 1246.

²⁵⁷ The *Causbys* were eventually ousted by the fly-overs because the noise rendered the land almost valueless to them; in *Causby*, then, both of the necessary elements of the physical takings test were present: physical invasion and actual displacement, or loss of control, of the owner. *United States v. Causby*, 328 U.S. 256, 261–63 (1946).

²⁵⁸ See *Int'l Paper*, 282 U.S. at 407. *International Paper* held that New York water rights were recognized by the state as real property. The claim that the government had actually invaded the company's rights to water was therefore much more potent than that made by *Tulare Lake*, where the water was never considered to be real property.

²⁵⁹ See Defendant's Memorandum, *supra* note 216, at 38–52.

²⁶⁰ *Keystone Bituminous Coal Ass'n v. DeBenedictis*, 480 U.S. 470 (1987).

zation of the right to cause surface subsidence, so too should the *Tulare Lake* court have found that no privilege inhered in the right to use water in ways that would harm the river and its riparian inhabitants. Moreover, the physical invasion claim should have been defeated by a simple comparison to *Keystone*; there, the Supreme Court held that an owner of subsurface coal rights could be required, in the public interest of preserving the surface estate, to leave some of the coal in place in order to prevent subsidence. Correspondingly, the same argument should have been adopted in *Tulare Lake*, reasoning by analogy that the appropriator of water could be required, in the public interest of preserving endangered riparian species, to leave some of that water instream to prevent dangerously low streamflow levels.²⁶¹ In light of these considerations, the governmental action in question would have been much more aptly examined with a regulatory takings analysis.

Had the regulatory takings three-tiered test been employed, it is highly unlikely that the Court would have found a compensable taking. Using the balancing test of the three factors—interference with reasonable investment-backed expectation, economic impact, and the character of the government action—the District's claims would have failed. Because the delivery of water in drought-prone areas is, by definition, somewhat uncertain, and in this case bounded by contractual disclaimers, the District's reasonable investment-backed expectations must have been limited. Further, the District's expectations must also have been informed by state law principles concerning reasonable use of water and protection of wildlife.²⁶² The District would also have struggled to prove economic loss. Looking to the economic unit, or the denominator against which to measure the total loss, the District's master contract of 75 years indicates that the total economic utility of the contract had not been substantially diminished by the *de minimus* foregone water deliveries.²⁶³ Finally, the character of the government action is encompassed by background principles of law promoting wildlife conservation, a legitimate governmental pursuit.²⁶⁴ Under this three-step analysis for regulatory takings, it is likely that the *Tulare Lake* decision would have been resolved more fittingly.

²⁶¹ See Joseph L. Sax, *The Constitution, Property Rights and the Future of Water Law*, 61 U. COLO. L. REV. 257, 263 (1990) (observing that the Supreme Court has, at times, been extremely deferential to regulators, sustaining even diminutions of ninety percent of value without ordering compensation).

²⁶² See Defendant's Memorandum, *supra* note 216, at 44.

²⁶³ See Defendant's Memorandum, *supra* note 216, at 60–63. Adherence to the constraints of *Keystone* would, in fact, mandate employing the conceptual severance standard. Just as in *Keystone*, if the District in *Tulare Lake* did not sustain a total economic loss of *all* its contractually allocated acre-feet of water, compensation would not be in order, regardless of the extent to which the District inflated its alleged damages per acre-foot. See *infra* note 268.

²⁶⁴ See generally *Yuffee*, *supra* note 45; *Lock*, *supra* note 24.

B. Tulare Lake's Policy Ramifications

Although some scholars have critiqued in passing the legal reasoning of *Tulare Lake*, as yet no one has examined the policy implications of the decision, which may prove to be surprisingly reverberant despite the fact that the Federal Court of Claims handed down the ruling. If the case is followed widely, or simply followed consistently by the Court of Claims, the demands for compensation will quickly outstrip the supply of federal funds available to pay claimants. "One doesn't have to follow congressional affairs very closely to know that there will be no money, or very little money, to pay compensation claims in this era of efforts to achieve a balanced budget and deficit reduction."²⁶⁵ Indeed, there will never be enough money to go around if the federal government is required to remunerate ESA violators every time section 9 prevents them from taking an endangered species.²⁶⁶ For instance, in the *Tulare Lake* litigation, the District alleged that the value of the water taken ranged from between \$100 to \$1,000 per acre-foot.²⁶⁷ Similarly, the Klamath Basin irrigators' suit in the Federal Court of Claims pled \$1 billion in damage to their crops.

The strain on the federal treasury will conceivably be felt by citizens,²⁶⁸ their awareness heightened, perhaps, by incendiary rhetoric spewed by political opponents of the ESA. The perceived financial crunch might lead to lobbying by disgruntled taxpayers to reduce the level of species protection under the argument that the government is overregulating habitat and in the process wasting public resources that ought to be allocated elsewhere.²⁶⁹ Indeed, frustrated irrigators may even use the compensation requirement as a platform from which to mobilize a popular backlash against the ESA reminiscent of the 1994 property

²⁶⁵ Joseph L. Sax, *Using Property Rights to Attack Environmental Protection*, 14 *PACE ENVTL. L. REV.* 1, 10–11 (1996).

²⁶⁶ See Babbitt, *supra* note 76, at 366.

²⁶⁷ Plaintiff's Motion, *supra* note 214, at Ex. 1, paras. 15–17. Compensation for the foregone water of Tulare Lake Basin Water Storage District, which claimed a taking of 118,500 acre-feet in 1992, could total up to \$11,850,000, which is a paltry sum compared to that potentially due Kern County Water Agency, which alleged takings of 1,153,400 acre-feet in 1992–1994. *Tulare Lake*, 49 Fed. Cl. at 315.

²⁶⁸ If compensation is to be made available, however, it is useful to ask how compensation should be computed. In takings cases, the government is obliged to recompense property owners for the fair market value of the property that was taken. See generally *Wheeler v. City of Pleasant Grove (Wheeler IV)*, 896 F.2d 1347 (11th Cir. 1990). An appropriate valuation would reflect the actual amount the water user pays. For irrigators receiving water through Bureau of Reclamation projects, this figure would be substantially lower than fair market value of water on the resale market because Bureau water flowing to farmers is heavily subsidized. See REISNER, *supra* note 21, at 338 (lambasting the Bureau for selling water for approximately one tenth of its value on the open market).

²⁶⁹ See Thompson, *supra* note 101, at 363–64 (noting that opponents of the ESA argue that if taxpayers are not willing to pay for habitat, then the habitat is not really worth preserving).

rights movement.²⁷⁰ Faced with a loss of public support for ESA enforcement and a drain on available compensation funds, and reasoning that Congress might abandon the ESA rather than continue to pay on a grand scale,²⁷¹ regulators will logically choose to go out of their way to concoct schemes in which the ESA could be enforced without compensation. If this is not possible, they will likely begin to skimp on enforcement because they will not be able to afford, either politically or financially, to regulate anymore. Given these two options, enforcement will fall along federal and state lines; waters with a federal nexus will continue to be policed for ESA violations, using elaborate contractual disclaimers to escape compensation, while state-governed waters will fall through the regulatory cracks for lack of enforcement leverage in the face of mandatory compensation.

1. Federal Farmers and Fish

Because federal agencies likely view large-scale compensation as a slow death for the ESA, they will avoid taking action that triggers the Fifth Amendment, casting around instead for ways to protect endangered species without compensating. Water managed by federal projects will provide a more suitable domain in which to do so because the agencies themselves control the water allocating mechanism: contracts. Given the disparate holdings in *O'Neill* and *Tulare Lake* just based on variations in contractual provisions, federal agencies will simply tighten up the language in their water contracts across the board to conform to the *O'Neill* standard. Instead of employing the contractual formulation in *Tulare Lake* disclaiming responsibility for "any damage, direct or indirect, arising from shortages in the amount of water to be made available for delivery . . . under this contract caused by drought, operation of area of origin statutes or any other cause beyond its control,"²⁷² federal contracts will use the *O'Neill* version, absolving the government from liability for "any damage, direct or indirect, arising from a shortage on account of errors in operation, drought, or any other causes."²⁷³ Presumably, the use of the *O'Neill* wording will provide the government with contractual immunity

²⁷⁰ A conservative grassroots movement, closely allied with "Contract with America" adherents, which backed compensation for landowners when environmental rules prevented them from using their land as they saw fit.

²⁷¹ See Glenn P. Sugameli, *Takings Bills Threaten Laws that Protect Private Property, People, Public Lands, and Natural Resources*, SB14 A.L.I.-A.B.A. 221, 230 (1996). The defeated Washington state takings bill, Referendum 48, provides a good example of the extent to which even a small-scale enactment of a compensation policy yields power to break the bank. The legislation could have cost local governments up to \$1 billion annually for takings studies alone and exposed them to payments of as much as \$11 billion.

²⁷² *Tulare Lake*, 49 Fed. Cl. at 321.

²⁷³ *O'Neill v. United States*, 50 F.3d 677, 683 (9th Cir. 1995).

from liability from any cause of water shortage, including ESA mandated minimum streamflows.

If the Bureau of Reclamation incorporates the *O'Neill* "any other causes" language in every water contract into which it enters, all federally connected water—approximately one-third of the surface water consumed by western agriculture—will, in a sense, be immunized from takings claims. Freed from the specter of mass compensation, the federal government will be unencumbered in its efforts to meet the needs of endangered species in the driest years. In turn, the farmers and irrigation districts that are forced to agree to even more restrictive contractual terms will have to readjust their expectations with the knowledge that they will not be able to depend on the delivery of federal water with great certainty during occasional western droughts.²⁷⁴

Some critics of farming in the West might herald this change as a welcome purgative of western irrigated agriculture, praising the ESA for acting as a "sturdy hammer for dislodging long-established extractive water uses that have worked over so many western watersheds and drained them of much of their vitality."²⁷⁵ There is some merit to this view. The Bureau of Reclamation has long colluded with large agricultural fiefdoms—in contravention of the Reclamation Act itself, which limits acreage²⁷⁶—to deliver massive quantities of severely discounted water, often disregarding the harmful ecological impacts in the process.²⁷⁷ Reformation of this system is long overdue, and the infusion of ESA species protection considerations represents a healthy step toward recalibrating the imbalance in water allocation between competing interests and forcing the western agricultural machine to internalize some of its most pernicious externalities.

On the other hand, irrigated agriculture in the West represents approximately fifteen percent of total U.S. harvested acreage, accounting for a disproportionate thirty-eight percent of U.S. crop sales.²⁷⁸ Western farming is a major producer of the nation's food, and the industry is a mainstay of western states' economies. To subject one-third of western agriculture to widespread insecurity regarding the delivery of water seems an unwise and unfair choice given the U.S. need for a secured

²⁷⁴ See Moore et al., *supra* note 60, at 334.

²⁷⁵ *Id.* at 322.

²⁷⁶ 43 U.S.C. §§ 390dd, 431 (2000). Prior to 1982, the Reclamation Act ostensibly conditioned delivery of water on restrictions in size by refusing water to farms larger than 160 acres, a requirement that was widely and blatantly violated by countless numbers of western irrigators. In 1982, Congress "reformed" the acreage limit to guarantee subsidized Bureau water to farms no larger than 960 acres. See Reclamation Reform Act of 1982 § 204, 43 U.S.C. § 390dd (2000). This limitation is still rampantly violated; some corporate farms have aggregate holdings in the tens of thousands of acres yet they still receive cheap water funded by municipal water users. See REISNER, *supra* note 21, at 337–40.

²⁷⁷ See generally REISNER, *supra* note 21 (examining the process and effects of settling the arid American West).

²⁷⁸ See Moore et al., *supra* note 60, at 330.

source of produce and the western economic dependence on irrigated agriculture. Even former Secretary of the Interior Bruce Babbitt, well-known for his environmental sympathies, recognized the ESA's potential to generate uncertainty, stating, "[t]he government should administer the ESA in a way that is sensitive to private property, and demonstrate that the administration of the ESA has stopped short not only of a constitutional taking, but is actually sensible and does not inflict unnecessary inconvenience and hardship on citizens."²⁷⁹ To be sure, the potential of the ESA to act as a catalyst for more efficient agriculture should be encouraged, but not at the expense of the destruction of a substantial portion of western farming. To the extent that importing *O'Neill* language into every federal water contract will generate stymieing uncertainties, then, federal agencies must contemplate a more cooperative effort to meet irrigators' needs while ensuring protection of endangered fish.

2. *State Farmers and Fish*

In contrast to species swimming in water with a federal nexus, endangered fish residing in state-allocated water are in danger of abandonment by federal agencies. The federal government will have no greater ability to pay for takings of state water than it will for Bureau of Reclamation water, and it will search for ways in which to regulate minimum streamflows in states without paying compensation under the takings clause. Under doctrines such as the navigation servitude and federal reserved rights, the federal government will meet with limited success, but these theories will only carve out a portion of state-regulated western waters wherein the exercise of federal hegemony will be legitimate. Unlike water dispensed by the Bureau of Reclamation, which can be managed in accordance with the ESA via contractual terms, federal agencies have no leverage over state waters by which they can mandate minimum streamflows without compensating. For the remainder of these state waters, then, federal agencies face the quandary of deciding between enforcing ESA-fueled infringement of state water rights and recompensing appropriators accordingly, or avoiding compensation by neglecting to protect endangered fish in state streams.

In light of potential political and fiscal pressure arising from strict enforcement policies, "the threat of litigation will surround, and to some extent circumscribe, any federal agency enforcement that affects private property rights, including rights to water."²⁸⁰ The federal government will likely pursue the avoid-and-neglect tactic as its only viable option, simply refusing to acknowledge conflicts when the ESA caroms against state water rights. Indeed, federal agencies have already done their utmost to

²⁷⁹ Babbitt, *supra* note 76, at 361.

²⁸⁰ See Bricker & Filippi, *supra* note 23, at 753-54.

circumvent clashes between the two, recognizing that a legal or political battle between frustrated farmers and federal regulators could be extremely disruptive.²⁸¹

Numerous techniques of avoidance are at the agencies' disposal.²⁸² Most common is the decision not to list species as endangered in the first place. Although the ESA demands that the decision to list a species as endangered be based solely on biological and scientific considerations,²⁸³ FWS and NMFS have repeatedly been accused of end-running the ESA to placate political actors who lobby the agencies on behalf of economic interests.²⁸⁴ For instance, in the face of an information asymmetry regarding the health of a given species, FWS can postpone its decision to list indefinitely.²⁸⁵ Furthermore, even if biological opinions indicate that listing is imperative, FWS is at liberty to conclude that pending proposals for other species preclude immediate listing for the species in question.²⁸⁶ Another method of evasion often employed is interminable delay in designating critical habitat for a listed species. Despite explicit ESA instructions to designate critical habitat at the time of listing, FWS has consistently failed to do so; critical habitat has been specified for less than fifteen percent of listed species.²⁸⁷ Finally, FWS initially dragged its feet in producing recovery plans for listed species, and the plans it eventually generated were often "extraordinarily vague, and therefore unlikely to force any action."²⁸⁸ In more egregious circumstances, FWS has exhibited reluctance to bring enforcement actions against ESA violators and has failed to reinstate consultation after demonstrable infractions of incidental take permits.²⁸⁹ These avoidance strategies are not foolproof, though. Citizens can petition for the listing of species, and citizen suit provisions in the ESA ensure that agency decisions are monitored, occasionally forcing federal agencies into enforcing the ESA against their will.

²⁸¹ Interview with Patricia Beneke, Visiting Professor, Harvard Law School, in Cambridge, Mass. (Mar. 11, 2002) (on file with the Harvard Environmental Law Review).

²⁸² For a more comprehensive discussion, see Oliver A. Houck, *The Endangered Species Act and Its Implementation by the U.S. Departments of Interior and Commerce*, 64 U. COLO. L. REV. 277, 285-92 (1993).

²⁸³ 16 U.S.C. § 1533(b)(1)(A) (2000).

²⁸⁴ See, e.g., *N. Spotted Owl v. Hodel*, 716 F. Supp. 479 (W.D. Wash. 1988) (finding FWS decision not to list the northern spotted owl as endangered under the ESA arbitrary and capricious because FWS failed to provide its own or other expert analysis supporting the decision).

²⁸⁵ See Thompson, *supra* note 101, at 313; see also 16 U.S.C. § 1533(a)(3) (2000); 50 C.F.R. § 424.12(a)(2) (2001).

²⁸⁶ See Thompson, *supra* note 101, at 313.

²⁸⁷ See *id.* at 315.

²⁸⁸ Holly Doremus, *Adaptive Management, the Endangered Species Act, and the Institutional Challenges of "New Age" Environmental Protection*, 41 WASHBURN L. J. 50, 59 (2001).

²⁸⁹ See Doremus, *supra* note 19, at 407.

By and large, however, the federal government will be confronted by its impotence to regulate state water without compensating. Given this dynamic, endangered fish in state waters will lack the protection that species in the federal bailiwick will possess. Whether FWS stalls or refuses outright to list species predominantly located in state streams or whether it merely fails to designate minimum flows as a component of the species' critical habitat, state fish will suffer from the agency's disinclination to enforce rules for which compensation is required. Similarly, farmers reliant on state-allocated water will not necessarily find themselves subject to the same rigid enforcement of ESA-mandated minimum flows that farmers using water with a federal nexus will experience. States boasting pure appropriation doctrine—systems that are not tempered by permits or infusions of riparian rights tenets—may continue to offer irrigators dependent on state water rights the freedom to exploit their full allocation of water, while federal agencies turn a blind eye to possible ESA violations. To the extent that compensation stands in the way of ESA enforcement in state-governed waters, then, federal agencies must persuade state authorities to devise methods of preservation if endangered riparian species are to be rescued from their presently precarious situation.

3. *Incongruity in Enforcement*

The compensation principle attached to the ESA-enforced taking of water rights articulated in *Tulare Lake* creates a radical disparity in treatment for both farmers and fish depending on whether the water in question has a federal linkage. If the water is divvied out by the Bureau of Reclamation based on a federal contract drafted according to the *O'Neill* template, or if it is subject to federal dominion under the navigation servitude or federal reserved rights, appropriators will irrigate in the face of great uncertainty while endangered fish populating the same water will be unimpeded in the rituals of their life-cycle. Meanwhile, irrigators' rights to state-allocated water may remain untouched by ESA regulation despite possible negative effects of overappropriation, preserving the certitude necessary for western farming; however, the species dwelling in these waters will be overlooked by the agencies whose very purpose it is to conserve them. Such stark incongruities will not be of import when a listed species can be recovered in federally related water, but if certain listed species reside solely in water governed by state allocation systems,²⁹⁰ those species' long-range vitality is tenuous. As Barton H. Thompson notes, "compensation policy is likely to affect not only

²⁹⁰ See *supra* note 77 (such as the presumed situation of the snail darter in the infamous Tellico Dam controversy, where the species was ostensibly biologically limited to one stretch of the Tennessee River).

how many resources in total are devoted to biodiversity protection, but how much land versus other resources will be used to help protect endangered species, and on an even more discrete level, which parcels of land will be set aside as habitat.²⁹¹ Similarly, compensation policy set by *Tulare Lake* will affect not only which water sources will be targeted for federal monitoring of appropriation impacts on riparian life, but also, by extension, which irrigators will be favored with certainty of water usage and which endangered species will be protected. Because the dissimilitude of treatment between state and federal farmers and fish is not only unfair for federally reliant farmers, but it is ecologically catastrophic for state-supported fish, both federal and state authorities must seek to remedy the repercussions of the *Tulare Lake* rule.

4. Resolution to the Conflict?

It is clear that the inequitable consequences that result from compensation under *Tulare Lake* are unacceptable, and both federal agencies and state governments must take action to guarantee as much certainty to farmers as is feasible while ensuring the eventual recovery of endangered species. The federal government can only succeed in avoiding the conflict for a limited time, after which citizen suits will be brought under the ESA to compel the agencies to enforce the statute. Infused with the outside will to enforce the Act but lacking the capability, the government will seek to dampen the impacts of the *Tulare Lake* decision and rectify its disparate policy effects. Federal regulators face a whole gamut of options; in the extreme, they may choose to employ a carrot or a stick approach to avoid compensation by encouraging state enforcement of the ESA, or they may accomplish the same objective by melding the two enforcement styles. At the ends of the spectrum, however, the Department of the Interior entertains two very different alternatives: threaten states with liability for overallocating streams known to contain endangered fish, or negotiate amicably with states to provide financial assistance and expertise in reforming state allocation systems to work in harmony with the needs of endangered species.

In view of Tenth and Eleventh Amendment constraints on federal power to compel states to enact and enforce the ESA through specific allocations of water for wildlife concerns,²⁹² the federal government may turn to novel legal theories to compel the administration and exercise of state water rights. The notion of state liability under ESA is just such a theory with great potential to force states' hands via a decidedly stick-oriented approach. According to a few decisions validating the theory, states and state agencies fall under the broad rubric of "persons" for the

²⁹¹ Thompson, *supra* note 101, at 365.

²⁹² See Bricker & Filippi, *supra* note 23, at 751. See generally Melious, *supra* note 98.

purposes of section 9, so their actions are subject to violations of section 9 "take."²⁹³ Just as federal contracting is considered federal action under section 7, so too is state regulation and licensing considered state action; therefore, if regulation or licensing decisions result in the take of endangered species through significant habitat modification, states can be held liable for section 9 violations. Using the threat of state liability, then, federal enforcement agencies would bypass individual appropriators, whose withdrawals wreak incremental damage, and instead focus its energy on applying pressure on states to reform their entire allocation systems.

The First Circuit recently endorsed the state liability argument in *Strahan v. Coxe*,²⁹⁴ ruling that Massachusetts' commercial fishing regulatory system constituted a taking of the endangered right whale because its licensure scheme specifically required procedures that were likely to result in the risk of harming the protected animals. The Court drew a distinction between conscious and independent infractions of federal law by individual actors, such as state-licensed drivers who choose to break federal laws, and regulatory decisions that by their very nature allow activities that threaten to violate federal prohibitions, such as the issuance of fishing licenses that will result in harm to species. Further, the court noted that state liability does not raise federalism concerns because the ESA does not direct states to regulate in a certain way, but rather simply details actions that will constitute the taking of endangered species. District courts have now begun to follow suit.²⁹⁵ At this point, then, existing case law indicates that state licensing programs which specifically allow activities that take species may lead to section 9 liability, although the application of the theory may be factually dependent. Although no case has addressed state liability under the ESA in the context of state allocation of water, it is possible that the federal government could use this theory to drastically alter current state practices of water appropriation. By arguing that the ESA is violated by state-administered prior appropriation schemes that allow for the overappropriation of waters, the federal government may push states into redesigning their systems in order to avoid ESA liability.

On the opposite end of the spectrum, federal regulators may pursue a cooperative approach by encouraging states to take advantage of flexible ESA devices that meet the needs of species and concomitantly afford irrigators the certainty of water supply that they require. Indeed, section 6 of the ESA provides explicitly for processes in which states and the federal government can forge cooperative agreements to establish and

²⁹³ Bricker & Filippi, *supra* note 23, at 741.

²⁹⁴ 127 F.3d 155 (1st Cir. 1997).

²⁹⁵ See *United States v. Town of Plymouth*, 6 F. Supp. 2d 81, 90-92 (D. Mass. 1998) (holding a town that did not sufficiently regulate off-road vehicle use on its beaches was responsible for taking of threatened piping plovers by those vehicles).

maintain active programs for the conservation of endangered species.²⁹⁶ As an incentive to enter into such an agreement, states become eligible for funding through the Cooperative Endangered Species Conservation Fund; the Fund finances large chunks of restoration program costs, including land acquisition²⁹⁷ and, presumably, water rights buy-outs. Bargaining in the shadow of section 6, federal regulators can employ carrot-based negotiation strategies to encourage states to set aside minimum streamflows for endangered species and to encourage states to build species protection mechanisms into their allocation systems. With voluntary federal-state collaborative processes such as those outlined by section 6, large strides can be made toward softening the Act's impact on irrigators' and states' economic-bottom line while guaranteeing that the endangered species swimming in western streams are preserved and recovered for future generations.

Whether the federal government chooses to pursue a hard-line litigation approach of state ESA liability, a cooperative consensus-building strategy between all interested parties such as the one prescribed by section 6, or a combination of both carrot and stick tactics, it is manifest that federal agencies will somehow circumscribe the effects of *Tulare Lake* in the federal arena. What remains to be seen is how the Department of Interior will do so, and what the effects of the Department's decision will be on states' autonomy in the water rights sphere.

VI. CONCLUSION

One year after the Klamath canal gates were closed, the Basin is still no less embroiled in water-related controversy. The winter of 2001–2002 promised a snowpack eagerly anticipated at 116% of annual norms, and farmers ushered in a new growing cycle, bolstered by the FWS announcement that it would not seek to curtail water allocations during the summer of 2002.²⁹⁸ This decision was largely based on the pronouncements issued by the National Academy of Sciences in early 2002, which cast doubt on the “scientific foundation” for the FWS and NWFS April 2001 rulings that irrigators' demands for water were threatening the survival of the endangered fish.²⁹⁹ This study, in conjunction with the *Tulare Lake* decision, shifted the power dynamics at work in the Basin, and farmers became increasingly militant as they realized that they finally had a “chip in the game.”³⁰⁰ In the spring of 2002, amidst the clamor of

²⁹⁶ 16 U.S.C. § 1535(b) (2000).

²⁹⁷ See Melious, *supra* note 98, at 629.

²⁹⁸ See Press Release, Bureau of Reclamation, Bureau of Reclamation Announces Biological Assessment for Klamath Basin Operations (Feb. 27, 2002) (on file with the Harvard Environmental Law Review).

²⁹⁹ Grunwald, *supra* note 2.

³⁰⁰ Lynda V. Mapes, *Court to Feds: Pay Farmers; Ruling Orders Compensation When*

environmentalists' protestations, the Bush administration released pent-up waters to Klamath irrigators and heralded a ten-year plan that would ostensibly put to rest future water conflicts in the area.³⁰¹ However, in the wake of a warm and dry fall, controversy sprang anew: tens of thousands of Chinook salmon, unable to move upstream due to diminished streamflows, were found stranded and dying of disease in warm shallow pools of the Klamath River.³⁰² The waterway, littered with bloated carcasses of dead fish, served as yet another testament to the harsh realities of the Klamath water wars. Once again, science was called into question and threw the Basin and the Bureau off balance: a harbinger, perhaps, of the uncertainty surrounding western resource allocation in the coming years.

How the Klamath controversy plays out may be indicative of what is to come in future western water battles, those where alliances have already solidified but open conflict remains dormant until the next drought strikes. Even before Klamath, though, clashes between fish and farmers had bubbled to the surface throughout the West, presaging the current troubles. For instance, in the Methow Valley of Idaho, federal agencies turned off irrigators' water in May of 1999 to protect endangered Upper Columbia spring chinook and steelhead.³⁰³ In the Walla Walla basin, the river had run entirely dry on the Oregon side, caused by irrigation withdrawals permitted by Washington state water law, before FWS negotiated a settlement with farmers.³⁰⁴ Similarly, water rights have also been curtailed in the Columbia, Yakima, and Wenatchee basins to protect endangered fish.³⁰⁵

Just as it did in the Klamath Basin, the unexpected *Tulare Lake* ruling promises to exacerbate these growing tensions throughout the West, where agriculture, fish and, increasingly, city-dwellers appear to be rushing headlong toward an irreconcilable conflict over water resources. As environmental concerns lock horns with rural movements to preserve the "old West lifestyle" of ranching, farming, and logging, the uneasy federal-state balance superimposed thereon is brought into sharper focus by considerations of compensation. What is revealed is a picture of fu-

Water Supply Goes to Fish. SEATTLE TIMES, May 4, 2001, at A1, available at 2001 WL 3507874. For instance, late in 2001, farmers walked away from the table in an all-Basin negotiation intended to create long-term solutions for the allocation and use of water. See Barnard, *supra* note 10.

³⁰¹ Press Release, U.S. Dep't of the Interior, Klamath Basin Fed. Working Group, Secretaries Norton and Veneman, Senator Smith Open "A" Canal Headgates, Provide Water to Irrigators (Mar. 29, 2002) (on file with the Harvard Environmental Law Review).

³⁰² Jeff Barnard, *Tribe Despairs over Loss of Thousands of Salmon: Management of Water from Klamath River Poses Problems for Farmers, Fish, and Indians*, SAN JOSE MERCURY NEWS, Oct. 6, 2002, at 27, available at 2002 WL 26819803.

³⁰³ Lynda V. Mapes, *Court: Government Must Pay Land Owners for Water Lost to Species Protection*, KNIGHT-RIDDER TRIB. BUS. NEWS, May 4, 2001, 2001 WL 20962787.

³⁰⁴ *Id.*

³⁰⁵ *Id.*

ture relations between federal agencies and state officials, one where both participate in a carefully choreographed series of legal chess moves to blunt the other's offensives. States allocate water under prior appropriation. Check. Their overappropriation of waters violates the ESA. Check. A federal prohibition on water withdrawals to protect endangered species violates the Fifth Amendment takings clause. Check.

With these legal and social implications in mind, the Federal Court of Claims would be well suited to reconsider the *Tulare Lake* holding; if *Tulare Lake* is endorsed in the Klamath suit, federal agencies will likely temporarily ease ESA enforcement efforts, and endangered fish in state-allocated water may be in great danger during that time. Nonetheless, it is certain the federal government will eventually react, whether initiated at the behest of the reigning administration or spurred to action by citizen suits demanding governmental accountability regarding the ESA. Perhaps federal agencies will respond with the crushing checkmate blow of state ESA liability, perhaps with an olive branch under section 6 through proposals for Basin-wide compacts, or perhaps with some accommodation in between. If any solution is to have staying power, however, it must ensure that certainty of water has been secured for irrigators while safeguarding the precious ecological biodiversity found in western waters today.

