

Water Law and the Endangered Species Act

--David N. Cassuto & Steven Matthew Reed¹

This chapter examines the interaction between the Endangered Species Act (“ESA” or “Act”) and water law at the state and federal levels. Water rights and water use are limited by the ESA’s powerful federal mandates, which protect endangered and threatened species and their habitats. Section I of this chapter presents an overview of the relationship between the ESA and water law. Section II looks closely at the history and statutory precepts of the ESA. It focuses on the sections most pertinent to water law – specifically: the listing of threatened and endangered species and their habitats, federal duties to conserve listed species, and the prohibition against “taking” a listed species.

Section III offers a broad outline of the cause-and-effect relationship between the ESA and water law, explaining how water use can harm riparian life, and discussing which water uses and rights potentially conflict with the Act. Section IV examines the Act’s effect on state water rights, focusing on several significant judicial decisions. Section V looks at the ESA’s effect on federal water law, and likewise examines a number of relevant cases. Section VI explores the implications of the Act on the federal Bureau of Reclamation, a dominant player in water use in the western United States. Section VII discusses the often ignored but increasingly important impact of the ESA on groundwater rights. Finally, section VIII concludes with some thoughts for the future.

I. Introduction

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a. *The Nature of Water Rights*

Water rights are notoriously complex, highly litigious, and in constant flux. The laws and rules that have evolved around their management encompass everything from individual domestic use to massive federal reclamation projects. Two entirely different legal regimes operate in the United States: riparianism in the East, and prior appropriation in the West.

Riparianism is an ancient concept that bases water rights in the ownership of land. Riparian rights once entitled riparian landowners to use the entire flow of the watercourse that their lands adjoined. This “natural flow doctrine” evolved into “reasonable use,” which allowed riparian landowners the right to make reasonable use of that water so long as that use did not harm other riparians.

Prior appropriation, on the other hand originated in the mid-19th century as settlers pushed into the arid lands of the western United States. It arose from the common law of placer mining on the vast federal landholdings in the West. The miners needed water to work their claims. Since they did not own the land on which their claim resided, riparian doctrine offered little help. Instead, the doctrine of “first in time – first in right” held sway. The first person to divert unappropriated water from a natural stream and put it to a “beneficial” use gained the right to make continued use of the water.

Both riparianism and prior appropriation have been modified and refined over the years, so that neither now exists in its pure form. Rather, regulated riparianism (discussed below) governs most water use east of the 100th meridian, and prior appropriation based on a permitting system is found in jurisdictions to the west. In addition, a few states (including California, Oklahoma and Nebraska) utilize a combination of the two.

b. The Emergence of the Endangered Species Act

In 1973, Congress, riding a wave of national environmental activism, passed the Endangered Species Act,² an omnibus statute whose impact spidered into all realms of water rights and management. The ESA's wide arc and powerful language make it one of the strongest weapons in the federal government's arsenal of environmental laws. Its direct effect on public and private lands and its ability to quash long-standing land-use and water-use practices testify to its strength as well as its potential for controversy. It is just one component of an ongoing governmental effort that began in the 1960s to shift national water use patterns from consumption at all costs, to consumption balanced with conservation. Heralded by proponents and maligned by detractors, thirty-six years after its enactment, the ESA remains intensely controversial. Today, the ESA continues to shake up traditional notions of water rights, private property and the balance of economic and environmental interests.

The ESA's power to impact water rights came into stark relief in 1978 when the United States Supreme Court had to decide whether the "survival of a relatively small number of three-inch fish [the snail darter] among all the countless millions of species extant would require permanent halting [construction] of the virtually completed [Tellico] Dam for which Congress had expended more than \$100 million."³ The Court determined that it did, that "[t]he plain intent of Congress in enacting this statute was to halt and reverse the trend toward species extinction, whatever the cost,"⁴ thereby confirming the Act's power to

² Endangered Species Act of 1973, Pub. L. No. 93-205 (codified at 16 U.S.C. §§ 1531 (2001)).

³ *Tennessee Valley Authority v. Hill*, 437 U.S. 153, 172 (1978).

⁴ *Id.* at 184.

subdue economic expansion.⁵ And while the 1970s and 1980s witnessed the application of the Act to a broad range of water-related activities, it was not until the 1990s that the Act's full potential to affect water rights emerged.

Pitched battles arose over water use and water's role in the protection of endangered and threatened species. Participants included states, the federal government, the Bureau of Reclamation, irrigators, municipalities, environmentalists, and myriad other interested parties. For environmentalists, the ESA represents a laudable effort to find a balance between intensive water consumption and the restoration and maintenance of ecosystems.⁶ However, for those whose livelihoods depend upon contractually-guaranteed water deliveries, the Act represents an ongoing threat to their economic survival. At its core, the ESA is science-based law fortified by a clear, substantive mandate from Congress. These characteristics put it at odds with water rights, which are constrained by tradition and legal murkiness.

Just about anyone whose water use, control, or decisions affect a listed species or its critical habitat is potentially vulnerable under the ESA. That includes individual users, irrigation districts, and also state regulatory bodies.⁷ Traditionally, control over water regulation and use has rested primarily with the states. However, the reach of the ESA meant that state control faced increased federal scrutiny. The same dynamic arose with respect to wildlife. Though wildlife protection historically was left to individual states,⁸

⁵ Congress later amended the ESA to allow a so-called "God Squad" to determine whether the importance of the project outweighed the threat to a species survival. *See* 16 U.S.C. § 1536(h) (2001), *see also infra* note 36 and accompanying text.

⁶ HOLLY DOREMUS & A. DAN TARLOCK, *WATER WAR IN KLAMATH BASIN: MACHO LAW, COMBAT BIOLOGY, AND DIRTY POLITICS* 10 (2008).

⁷ *See* Cori S. Parobek, *Of Farmers' Takes and Fishes' Takings: Fifth Amendment Compensation Claims When the Endangered Species Act and Western Water Rights Collide*, 27 HARV. ENVTL. L. REV. 177, 196 (2003).

⁸ TONY A. SULLINS, *ENDANGERED SPECIES ACT* 115 (2001).

the ESA gives the federal government the power to oversee and override state regulations.

Ultimately, the ESA reflects a shift in priorities in America's relationship with its natural resources. Species protection is now a substantive requirement, "not just a luxury to be provided if consistent with resource development."⁹ It is slowly bringing change to water allocation, particularly in the western United States. Like any law, however, the ESA is only as strong as its enforcement. For much of its history, courts routinely interpreted the ESA broadly, adding potency to its already strict language.¹⁰

The strength of the Act lies in its broad reach, ability to impact land and water use, and its substantive and procedural roles. The precedent established in *Tennessee Valley Authority v. Hill*,¹¹ whereby the Court deferred to the clear mandate of Congress, has been applied consistently over the last three decades. As discussed below, however, courts have recently called this broad interpretation into question.¹² Nevertheless, when both direct and indirect impacts of water use are considered, the ESA remains far-reaching and powerful.¹³ As with any powerful and controversial statute, it has also generated significant litigation.

II. Overview of the Endangered Species Act

a. Background

⁹DOREMUS & TARLOCK, *supra* note 6, at 89.

¹⁰ See *Carson-Truckee Water Conservancy Dist. v. Clark*, 741 F.2d 257, 262 (9th Cir. 1984); *Defenders of Wildlife v. Andrus*, 428 F.Supp. 167, 170 (D.D.C. 1977).

¹¹ *Tenn. Valley Auth. v. Hill*, 437 U.S. 153 (1978).

¹² See, e.g., *Nat'l Ass'n of Home Builders v. Defenders of Wildlife*, 551 U.S. 644 (2007).

¹³ See *Riverside Irrigation Dist. v. Andrews*, 568 F.Supp. 583 (D. Colo. 1983).

Enacted in 1973 to “halt and reverse the trend towards species extinction, whatever the cost,”¹⁴ the ESA’s stated purpose is to conserve endangered and threatened species and the ecosystems upon which they depend.¹⁵ Its strength stems from its ability to restrain private conduct as well as federal actions. The ESA has several key terms and definitions that are essential for understanding its relationship with water law. Any examination of the ESA’s relationship to water rights must begin with the Act’s three fundamental themes: endangered species, threatened species, and critical habitat.

The term “endangered species” refers to “any species which is in danger of extinction throughout all or a significant portion of its range”¹⁶ This is distinguished from a “threatened species,” which includes “any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.”¹⁷ The term “species” encompasses any “subspecies of fish or wildlife or plants, and any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature.”¹⁸

The ESA protects endangered and threatened species and their habitats by blocking any activities that might jeopardize their survival. Two federal agencies share responsibility for implementing the Act: the Fish and Wildlife Service (FWS), under the umbrella of the Department of Interior, is charged with terrestrial species and freshwater fish, while the National Marine Fisheries Service (NMFS), under the Department of Commerce, is responsible for marine species and anadromous fish.

¹⁴ *Hill*, 437 at 184.

¹⁵ 16 U.S.C. § 1531(b) (2009).

¹⁶ 16 U.S.C. § 1532(b); 50 C.F.R. § 424.02(e) (2009).

¹⁷ 16 U.S.C. § 1532(20); 50 C.F.R. § 424.02(m).

¹⁸ 16 U.S.C. § 1532(16).

The law offers four key mechanisms for protecting endangered and threatened species and their ecosystems: (1) listing;¹⁹ (2) agency consultation and protection duties;²⁰ (3) mandatory agency responsibility to conserve endangered species;²¹ and (4) prohibition against “takings.”²² There are two paths for implementation and enforcement of these requirements: one for when federal agencies are involved, and one for individuals or entities whose actions constitute a “take” of a species. Thus, the ESA’s reach extends to most activities and decisions made regarding water use in the United States, whether by private landowners or the federal government.

b. Section Four – Listing and Critical Habitat Designation

Section Four²³ is the “keystone”²⁴ of the ESA. It outlines the process of listing species as threatened and endangered. While many species not listed under the ESA may be locally or nationally rare, the Act’s substantive protection extends only to those species specifically listed under Section Four. Under this section, the Secretaries of Commerce and Interior are vested with a “mandatory non-discretionary duty to list qualified species as threatened or endangered.”²⁵ Listing decisions must be made “solely on the basis of the best scientific and commercial data available.”²⁶

The Act outlines five criteria for the Secretary to consider when determining whether to list, de-list, or reclassify a species: (1) the present or threatened destruction, modification, or curtailment of the species’ habitat or range; (2) overutilization for

¹⁹ 16 U.S.C. § 1533.

²⁰ 16 U.S.C. § 1536(a)(2).

²¹ 16 U.S.C. § 1536(a)(1) .

²² 16 U.S.C. § 1538.

²³ 16 U.S.C. § 1533.

²⁴ H.R. REP. No. 97-567, at 10 (1982), *reprinted in* 1982 U.S.C.C.A.N. 2807, 2810.

²⁵ H.R. REP. No. 97-835, at 20 (1982).

²⁶ 16 U.S.C. § 1533(b)(1)(A).

commercial, recreational, scientific, or educational purposes; (3) disease or predation; (4) the inadequacy of existing regulatory mechanisms; and (5) other natural or manmade factors affecting the species' continued existence.²⁷

c. Critical Habitat

Working in tandem with the listing process is the equally powerful and important designation of critical habitat. At the time a species is listed as threatened or endangered, a listing agency “shall . . . designate any habitat of such species which is then considered to be critical habitat.”²⁸ Although the duty is mandatory, agencies often fail to comply.²⁹ Critical habitat is defined as areas occupied by listed species that contain “physical or biological features . . . essential to the conservation of the species.”³⁰ While economic considerations cannot factor into listing decisions for species, this is not the case for critical habitat designations. The decision to delineate critical habitat must be founded on “the best scientific data available and *after taking into consideration the economic impact*” of the designation.³¹

While listed species attract the most public attention, critical habitat designations often have the greatest impact on water rights. “Designation of a threatened or endangered species’ critical habitat can have a major effect on the acquisition and

²⁷ 16 U.S.C. § 1533(a)(1)(A)-(E); 50 C.F.R. § 424.11(c)(1)-(5).

²⁸ 16 U.S.C. § 1533(a)(3)(A)(i); 50 C.F.R. § 424.12(a) . *See* Forest Guardians v. Babbitt, 174 F.3d 1178, 1192 (10th Cir. 1999), *amending* Forest Guardians v. Babbitt, 164 F.3d 1261 (10th Cir. 1998) (holding that designation of critical habitat is nondiscretionary).

²⁹ “As of 1999, only ten percent of listed species had a designated critical habitat.” Reed D. Benson, *So Much Conflict, Yet So Much in Common: Considering the Similarities Between Western Water Law and the Endangered Species Act*, 44 NAT. RESOURCES J. 29, note 59 (citing Thomas F. Darin, *Designating Critical Habitat Under the Endangered Species Act: Habitat Protection Versus Agency Discretion*, 24 HARV. ENVTL. L. REV. 209, 224 (2000)).

³⁰ 16 U.S.C. § 1532(5)(a)(i).

³¹ 16 U.S.C. § 1533(b)(2); 50 C.F.R. § 424.12(a)(emphasis added).

exercise of water rights because its designation may function as a de facto reservation of water.”³² Obviously, fish habitat is limited by the extent of water, and critical fish habitat can be affected by a number of activities, especially lowered water levels. Unfortunately for fish, no attempt has been made to designate specific instream flow quantities as critical habitat. Rather, NMFS has elected to list essential features of riparian critical habitat.³³ For example, in enumerating critical habitat for salmon and steelhead in the Pacific Northwest, the agency laid out the following habitats:

(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 (1) safe passage conditions.³⁴

While it acknowledged the importance of sufficient water for species habitat, NMFS deemed it impossible to enumerate the particulars of each essential habitat feature for each listed species. Thus, reduced instream flow alone does not necessarily may not rise to the level of an actionable impact on critical habitat, the resulting diminution of flow can form a component of potential violations.³⁵ There is no standard interpretation of what critical habitat means or of its function in the enforcement of the ESA.³⁶ Even if the parameters of critical habitat are not well-defined, there is no doubt that exercising water

³² DAN TARLOCK, LAW OF WATER RIGHTS AND RESOURCES, § 9:29 (2007).

³³ Parobek, *supra* note 7, at 191.

³⁴ Designated Critical Habitat: Critical Habitat for 19 Evolutionarily Significant Units of Salmon and Steelhead in Washington, Oregon, Idaho, and California, 65 Fed. Reg. 7764, 7773 (Feb. 16, 2000).

³⁵ See Parobek, *supra* note 7 at 192.

³⁶ MICHAEL J. BEAN AND MELANIE J. ROWLAND, THE EVOLUTION OF NATIONAL WILDLIFE LAW 251 (3rd ed. 1997).

rights often can and does adversely affect it. When those adverse impacts occur, controversy inevitably follows.

d. Section 7 – Federal Duties

Section 7³⁷ requires federal agencies to conserve listed species and to ensure that their actions pose no jeopardy to listed species or their critical habitats. At its heart is § 7(a)(2),³⁸ which demands that every federal agency “insure that any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize the continued existence” of an endangered or threatened species, or result in adverse modification of critical habitat. The breadth of this language has generated significant litigation concerning the extent of “agency action” as it applies to water use.³⁹ As the Court noted in *TVA v. Hill*:

One would be hard pressed to find a statutory provision whose terms were any plainer than those in [Section] 7 of the Endangered Species Act. Its very words affirmatively command all federal agencies ‘to *insure* that actions *authorized, funded, or carried out* by them do not *jeopardize* the continued existence’ of an endangered species or ‘*result* in the destruction or modification of habitat of such species.’ This language admits of no exception.⁴⁰

Few federal statutes evince this level of clarity or as strong a mandate.

³⁷ 16 U.S.C. § 1536.

³⁸ 16 U.S.C. § 1536(a)(2).

³⁹ See *Natural Resources Defense Council v. Houston*, 146 F.3d 1118, 1125 (9th Cir. 1998) (renewal of existing water contract constitutes agency action); *O’Neil v. United States*, 50 F.3d 677, 680-81 (9th Cir. 1995) (delivery of water under existing contract constitutes agency action). *But see* *Platte River Whooping Crane Trust v. FERC*, 962 F.2d 27, 32-33 (D.C. Cir. 1992) (no “action” when agency was required to issue a license under the license’s existing terms).

⁴⁰ *Tennessee Valley Authority v. Hill*, 437 U.S. 153, 173 (1978).

Federal agencies fulfill their Section 7 mandate by requiring all agencies or license applicants to consult with the Secretary of the Interior (or Commerce if the affected species falls within that department's purview) prior to undertaking any federal action. The applicant, Secretary, and relevant parties have 90 days to complete the consultation process. When the process is completed, the Secretary provides the applicant with a written biological opinion addressing whether the proposed action affects listed species.⁴¹ The assessment must be based on the best scientific evidence available and is subject to judicial review if arbitrary and capricious. If the Secretary determines that the proposed action jeopardizes listed species, s/he shall suggest possible alternatives.⁴²

A federal agency has three options upon such a determination by the Secretary. It can terminate the action,⁴³ implement the proposed alternative,⁴⁴ or seek an exemption from the ESA Committee,⁴⁵ commonly referred to as the "God Squad." Composed of six cabinet members and a presidential nominee from each effected state, the ESA Committee has sole authority to grant exceptions to section 7(a)(2) -- if certain requirements are met.⁴⁶ As a general matter, almost all conflicts between proposed development and endangered species get resolved at the consultation stage by incorporating mitigation measures into project planning.⁴⁷

Section 7 duties apply to all water supplies and all hydrological activities with a federal nexus. This includes all projects undertaken by federal agencies and non-federal entities that receive federal assistance or authorization. Furthermore, the section applies

⁴¹ 16 U.S.C. § 1536(b)(3)(A).

⁴² *Id.*

⁴³ 16 U.S.C. § 1536(a)(2).

⁴⁴ 16 U.S.C. § 1536(b)(3)(A).

⁴⁵ 16 U.S.C. § 1536(h).

⁴⁶ 16 U.S.C. § 1536(h)(1)(A).

⁴⁷ WILLIAM GOLDFARB, WATER LAW 105 (2nd ed. 1988).

to water delivery under existing water contracts and their renewal, so long as the agency “retains some measure of control over the activity.”⁴⁸ Future water projects are also implicated if their creation, use, or effects jeopardize listed species or their habitats.

Federal courts (especially the Ninth Circuit) have emphasized the importance of federal agency compliance with the Act’s procedural requirements.⁴⁹ The Section 7 test for straightforward physical activities such as erecting a dam or other structure is comparatively uncomplicated. However, when applied to programmatic federal actions, the analysis becomes more complex.⁵⁰ Perhaps the most important and controversial rule relating to the ESA is codified at 50 C.F.R. § 402.03. It states that “Section 7 and the requirements of this part shall apply to all actions in which there is *discretionary* federal involvement or control.”⁵¹

As discussed below, judicial interpretations of “discretionary” have significantly impacted the relationship between the ESA and water law. Depending on how one interprets the term, it can potentially limit the liability of federal agencies to only those actions that involve a choice. Such was the Supreme Court’s reading in *National Association of Homebuilders v. Defenders of Wildlife*,⁵² a case with major implications for water use (discussed in Section V).

e. Section 9 – Prohibition Against “Take”

⁴⁸ See *Klamath Water Users Protective Ass’n v. Patterson*, 204 F.3d 1206, 1213 (9th Cir. 1999).

⁴⁹ Reed D. Benson, *Dams, Duties, and Discretion: Bureau of Reclamation Water Project Operations and the Endangered Species Act*, 33 COLUM. J. ENVTL. L. 1, 12 (2008).

⁵⁰ BEAN & ROWLAND, *supra* note 36, at 247.

⁵¹ 50 C.F.R. § 402.03 (2009)(emphasis added).

⁵² *Nat’l Ass’n of Home Builders v. Defenders of Wildlife*, 551 U.S. 644 (2007).

The ESA's second substantive protection mechanism is found in Section 9. "If the ESA is the 'pit bull' of environmental regulation, then Section 9 of the ESA is that pit bull's longest and sharpest teeth."⁵³ Its language is simple, unambiguous, and far-reaching.⁵⁴ It prohibits "any person" from "taking" a species that has been listed as endangered.⁵⁵ The term "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct.⁵⁶ "Harm" includes "significant habitat modification or degradation where it actually kills or injures wildlife."⁵⁷ The section's prohibitions are applicable to both endangered and threatened species.⁵⁸

f. Habitat Modification

Habitat modification alone can constitute a "taking" of wildlife. NMFS has interpreted "harm" to include habitat modification "where it actually kills or injures fish or wildlife by significantly impairing essential behavioral patterns, including breeding, spawning, rearing, migrating, feeding or sheltering."⁵⁹ The Supreme Court upheld this interpretation in 1995, stating that defining 'harm' to include "significant habitat modification or degradation that actually kills or injures wildlife" was a reasonable reading of the statute.⁶⁰

⁵³ SULLINS, *supra* note 8, at 39.

⁵⁴ See Federico Cheever, *An Introduction to the Prohibition Against Takings in Section 9 of the Endangered Species Act of 1973: Learning to Live with a Powerful Species Preservation Law*, 62 U. COLO. L. REV. 109 (1991).

⁵⁵ 16 U.S.C. § 1538(a)(1)(B).

⁵⁶ 16 U.S.C. § 1532(19).

⁵⁷ 50 C.F.R. § 17.3.

⁵⁸ 16 U.S.C. § 1533(d).

⁵⁹ Endangered and Threatened Wildlife and Plants; Definition of "Harm," 64 Fed. Reg. 60,727 (November 8, 1999). See also *Palila v. Hawaii Dep't of Land & Natural Res.*, 639 F.2d 495 (9th Cir. 1981).

⁶⁰ *Babbitt v. Sweet Home Chapter of Cmtyss for a Great Oregon*, 515 U.S. 687, 708 (1995).

Some federal courts have held that state or local governments violate the Act by permitting private actions that harm protected species.⁶¹ Furthermore, the threat that their actions could constitute adverse modification of critical habitat often suffices to stop private development of water.⁶² Though instream flow amounts have not been designated as critical habitat, if water use impairs river habitat so as to cause harm to a listed fish, federal agencies can and do argue that the responsible entity has committed a taking.⁶³

Despite its broad mandate, there are limits to Section 9's impact on water use. NMFS has promulgated a list of habitat-modifying activities that may constitute a take, noting that in all instances a causal link must be established between the activity and the injury or death of the listed species.⁶⁴ Water activities implicated in the list include water withdrawals, screening, and constructing barriers that impair access to habitat or migration. In addition, state licensing activities may also constitute a "take" under Section 9.⁶⁵

g. Enforcement of Section 9

Any "person" subject to the jurisdiction of the United States is subject to the Section 9 prohibitions.⁶⁶ In 1988 Congress amended the ESA so that Section 9 applies not only to individuals, but to all governmental, business, and private entities. There are

⁶¹ See *Strahan v. Coxe*, 127 F.3d 155 (1st Cir. 1997).

⁶² Parobek, *supra* note 7, at 190

⁶³ Jennie L. Bricker and David E. Filippi, *Endangered Species Act Enforcement and Western Water Law*, 30 ENVTL. L. 735, 744 (2000).

⁶⁴ Endangered and Threatened Wildlife and Plants; Definition of "Harm," 64 Fed. Reg. 60,727 (November 8, 1999).

⁶⁵ *Coxe*, 127 F.3d 155.

⁶⁶ 16 U.S.C. § 1538(a)(1).

four mechanisms for its enforcement: criminal enforcement,⁶⁷ civil penalties,⁶⁸ injunctions,⁶⁹ and citizen suit enforcement.⁷⁰⁷¹ Since the majority of endangered fish species reside in water located on private land and/or adjacent waterways, Section 9's prohibition on habitat modification enables significant federal involvement in the management of water resources.⁷²

III. Interaction Between Water Law and the Endangered Species Act

Generally, the ESA affects water rights in one of two ways. It can limit the traditional exercise of established water rights, or it can restrict or modify new water projects. Currently, freshwater fish comprise the most jeopardized vertebrate group in the United States.⁷³ Since any death or injury to a listed fish can potentially give rise to a cause of action under the ESA, the implications for water use are profound. Whether diverting water for agriculture in Arizona, or withdrawing underground water for drinking in Texas, potentially the results are the same. Water uses that result in the direct or incidental death of listed species fall within the statute's reach. Water uses that cause harm to listed species through modification of critical habitat are likewise implicated.

a. Impact of Water Uses on Riparian Life

⁶⁷ 16 U.S.C. § 1540(b)(1).

⁶⁸ 16 U.S.C. § 1540(a).

⁶⁹ 16 U.S.C. § 1540(e)(6).

⁷⁰ 16 U.S.C. § 1540(g)(1)(A)-(C).

⁷¹ 16 U.S.C. § 1532(13).

⁷² Parobek, *supra* note 7, at 190.

⁷³ Holly Doremus, *Water, Population Growth, and Endangered Species in the West*, 72 U. COLO. L. REV. 361, 366 (2001).

Water uses tend to harm riparian life in two ways.⁷⁴ First, depletion of water through diversions and other uses reduces the in-stream flow of the water body, effectively destroying the organism's habitat. Thirty percent of average annual flow is considered necessary to maintain instream water uses.⁷⁵ Second, entrainment traps organisms in pools, behind screens, and other places where they are cut off from their essential habitat.

b. Who Can Run Into Problems?

The most commonly litigated battles between individual users and the ESA involve irrigation rights. Diverting water for irrigation lowers stream flow and can destroy critical habitat. In addition, fish and other aquatic organisms can be trapped and killed in water diversion and irrigation infrastructure such as channels and screens. Water use for agriculture is particularly dangerous to fish. "Of all human activity, agricultural diversions disproportionately impact freshwater fish, because withdrawals on annual stream flows have massive effects."⁷⁶ Federal agencies face liability whenever there is agency *discretion* on their part in making a decision. For example, an Army Corps of Engineers decision regarding proper reservoir levels potentially could face an ESA challenge. Local irrigation districts, which act as middlemen between the government and water users, receive their water via contracts with the federal government.

In addition, the Bureau of Reclamation, the primary federal provider of water for irrigation, is potentially vulnerable under the ESA because it stores, releases, diverts and delivers water in a comprehensive scheme to provide water to thirsty farmers and cities,

⁷⁴ See DOREMUS & TARLOCK, *supra* note 6, at 95.

⁷⁵ Doremus, *supra* note 73, at 368.

⁷⁶ Parobek, *supra* note 7, at 186-87.

primarily in the West.⁷⁷ The strength and relative rigidity of the Act mean that it usually prevails when it comes into conflict with state and federal water allocation policies. If there is a determination that water is needed to accomplish the recovery of a species, the endangered fish receive priority over water rights.⁷⁸

Water users most often cite one or more of three claims when there is a conflict between their water rights and the ESA: that the Act's interference constitutes an uncompensated taking of their property rights, that the ESA water-withholding is a violation of contract rights, or that Congress did not intend that the ESA preempt traditional state control over water.⁷⁹ As explained below, these arguments have usually failed. However, recent court decisions suggest a different trend.

IV. The Endangered Species Act and State Water Law

Under the Supremacy Clause of the United States Constitution,⁸⁰ federal regulation trumps state law when the two conflict. Despite this constitutional authority, Congress traditionally defers to the states when it comes to water use. Conflicts between the ESA and state law usually arise out of the Act's impact on land and water planning, both of which have long been the province of state and local governments. Because water allocation enjoys a strong tradition of state deference, the imposition of the ESA and its powerful federal mandate has created significant controversy. Numerous federal statutes,

⁷⁷ Reed D. Benson, *Whose Water is It? Private Rights and Public Authority Over Reclamation Water*, 16 VA. ENVTL. L.J. 363, 366 (1997).

⁷⁸ Parobek, *supra* note 7, at 194.

⁷⁹ JOSEPH L. SAX ET AL., *LEGAL CONTROL OF WATER RESOURCES: CASES AND MATERIALS* 651 (4th ed. 2006).

⁸⁰ U.S. CONST. art. VI, cl. 2.

including the Reclamation Act of 1902,⁸¹ the Federal Power Act⁸² and the Clean Water Act⁸³ all defer to state control over water. The ESA does not. This departure from traditional practice has been the source of constant strife between the competing needs of fish and human water users.

a. Section (c)(2) Cooperation Language

The ESA refers to state water allocation laws only once. Section (c)(2) states that “[I]t is further declared to be 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.”⁸⁴ This call for cooperation and conservation contrasts with the forceful language of the rest of the Act. Nevertheless, it still does not defer to state water schemes.⁸⁵ Interestingly, this mediating language was not in the original ESA. It was included in one of several amendments that sought to dilute federal authority at the behest of those adversely affected by its reach.

In practice, however, the provision has little bite. It “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.”⁸⁶ While the section

⁸¹ 43 U.S.C. §§ 371-573 (2009) (codified as amended in scattered sections). Section 383 provides that “nothing in this Act shall be construed as affecting or intending to affect or in any way interfere with the laws of any States . . . relating to the control, appropriation, use or distribution of water used in irrigation . . . and the Secretary of the Interior shall proceed in conformity with such laws . . .”

⁸² 16 U.S.C. §§ 791-828 (2009). Section 821 requires federally-licensed hydropower projects to comply with state laws relating to the “control, appropriation, use, or distribution” of water.

⁸³ 33 U.S.C. § 1251 *et seq* (2001). Section 1251(g) (the “Wallop Amendment” states that: “It is the policy of Congress that the authority of each State to allocate quantities of water within its jurisdiction shall not be superseded, abrogated or otherwise impaired by this chapter. It is the further policy of Congress that nothing in this chapter shall be construed to supersede or abrogate rights to quantities of water which have been established by any state.”

⁸⁴ 16 U.S.C. § 1531(c)(2).

⁸⁵ *See California v. United States*, 438 U.S. 645, 653-70 (1978).

⁸⁶ Parobek, *supra* note 7, at 92.

requires cooperation, it does not spell out what that cooperation entails and consequently offers little insight as to how to resolve conflicts between instream water requirements mandated under the ESA and state water law.⁸⁷ The ESA has been successfully invoked to return water to streams for the protection of endangered and threatened aquatic organisms despite preexisting state allocations. Its language of cooperative federalism has worked to the detriment of water right holders, ensuring that court challenges to the Act's authority generally lose⁸⁸ although comparatively few cases have addressed this potentially significant provision.⁸⁹

b. Significant Court Decisions

Tensions between the ESA and state water rights drew national attention in the 1990s, primarily in the West, where streams were over-appropriated, human populations were growing at dizzying rates, and a struggle emerged to transition water use from traditional, agricultural allocations to uses that meet the needs of growing cities. However, the analysis of the Act's impact on state water rights began in earnest in 1983 Colorado district court decision, *Riverside Irrigation District v. Andrews*.⁹⁰

Andrews involved the construction of a dam and reservoir on a tributary of the South Platte River. The Army Corps of Engineers denied plaintiffs a nationwide permit to discharge dredge material for construction of the dam, reasoning that the increased consumption of water resulting from the dam's construction would deplete stream flow,

⁸⁷ See Jennie L. Bricker and David E. Filippi, *Endangered Species Act Enforcement and Western Water Law*, 30 ENVTL. L. 735, 751 (2000).

⁸⁸ DOREMUS & TARLOCK, *supra* note 6, at 96.

⁸⁹ See U.S. v. Glenn-Colusa Irrigation Dist., 788 F.Supp. 1126 (E.D. Cal. 1992); Sierra Club v. City of San Antonio, 112 F.3d 789, 798 (5th Cir. 1997); Westlands Water District v. United States Department of the Interior, 850 F.Supp. 1388, 1424-25 (E.D. Cal. 1994).

⁹⁰ *Riverside Irrigation Dist. v. Andrews*, 568 F.Supp. 583 (D.C. Colo. 1983).

potentially causing a downstream impact on the habitat of the endangered whooping crane. It was not the filling activity itself that would affect the whooping crane but rather that the chain reaction resulting from the dam's completion would increase consumptive use. The permit was denied on that basis.

Citing *TVA v. Hill*, the *Andrews* court reaffirmed the mandatory obligation of federal agencies to consider the environmental impacts of projects that they authorize or fund.⁹¹ On appeal, the Tenth Circuit rejected the irrigation district's claim that the federal government lacked authority to create water rights beyond federal reserved rights and similar doctrines.⁹² It specifically stated that the Corps is required by the ESA to consider not only the direct impact of projects on listed species, but *indirect* impacts as well: "The fact that the reduction in water does not result 'from direct federal action does not lessen the appellee's duty under Section 7 [of the Endangered Species Act].'"⁹³ The court also rejected plaintiffs' claim that denial of the permit impaired the state's right to allocate water within its jurisdiction, holding that the clear declaration of agency duties in ESA Section 7 trumped policy statements found in the Clean Water Act.⁹⁴

The *Riverside* decision is relevant to a current water battle raging in the eastern United States. The waters of the Chattahoochee River Basin are the subject of extensive litigation and interstate negotiation by Georgia, Alabama, and Florida. The Chattahoochee imbroglio signifies a new trend – as water shortages move into the Eastern United States from their traditional bastions in the West, water disputes inevitably follow. *Riverside's* conclusion, that the possibility of indirect, downstream

⁹¹ *Id.* at 588.

⁹² *Riverside Irrigation Dist. v. Andrews*, 758 F.2d 508 (1985).

⁹³ *Id.* at 512 (citing *National Wildlife Federation v. Coleman*, 529 F.2d 359, 374 (5th Cir. 1976)).

⁹⁴ *Id.* at 513.

critical habitat impairment caused by streamflow depletion is in violation of the ESA, could give Florida and Georgia leverage in their fight against upstream Georgia users.⁹⁵ If the two downstream states can prove that Georgia's water use impacts a designated species, then Georgia's water withdrawals may face limitation under the ESA.

Only one court decision specifically addressed the implications of section (c)(2) on state water rights. The "high watermark of ESA enforcement"⁹⁶ was reached in 1992 in *United States v. Glenn-Colusa Irrigation District*,⁹⁷ wherein a California district court affirmed that state water rights are subordinate to the ESA. NMFS brought an action to protect winter-run Chinook salmon, a threatened species. The agency sought an injunction enjoining the irrigation district from "taking" salmon in the course of pumping water from the Sacramento River, in violation of the ESA. The court concluded that, because of the priority given to listed species by Congress, state water rights must yield to the federal mandates of the ESA.⁹⁸

The court rejected the irrigation district's argument that the language of section (c)(2) meant that Congress had sought cooperation between state and federal agencies regarding application of the ESA to water law. It concluded that "[t]his provision does not require . . . that state water rights should prevail over the restrictions set forth in the Act. Such an interpretation would render the Act a nullity. . . . [T]he District's state water rights do not provide it with a special privilege to ignore the Endangered Species Act."⁹⁹

⁹⁵ See George William Sherk, *The Management of Interstate Water Conflicts in the Twenty-First Century: Is it Time to Call Uncle?*, 12 N.Y.U. ENVTL. L.J. 764, 794 (2005). A recent decision in this dispute, wherein the trial court ruled that the Army Corps of Engineers exceeded its authority when it permitted Georgia to withdraw an additional 500 million gallons of water per day from the disputed waterway can be found at: *In re Tri State Litigation*, 2009 WL 2371506 (M.D.Fla.) (2009).

⁹⁶ See Parobek *supra* note 7 at 198.

⁹⁷ 788 F.Supp. 1126 (E.D. Cal. 1992).

⁹⁸ *Id.* at 1134.

⁹⁹ *Id.*

The court further concluded that “the District may have certain remedies against the California Department of Fish and Game . . . , [b]ut . . . [it] has an independent responsibility to refrain from taking endangered species, quite aside from the allocation of responsibility under California law for maintenance of the fish screen or protection of fish in general.”¹⁰⁰ Thus, state water rights must be and are subordinate to the mandate of the ESA.¹⁰¹

V. The Endangered Species Act and Federal Water Law

ESA jurisprudence has also made clear that federal water rights -- like state water rights -- are trumped by the ESA. Federal courts in general, and the Ninth Circuit in particular, have stressed that federal agencies must comply with the ESA’s procedural requirements. These requirements provide for a “systematic determination of the effects of a federal project on endangered species.”¹⁰²

a. Clean Water Act and the National Homebuilders Decision

In *National Association of Homebuilders v. Defenders of Wildlife*,¹⁰³ the United States Supreme Court revisited Section 7(a)(2). Its decision was much different than the result reached 30 years earlier in *TVA v. Hill*. Whereas the earlier decision found clear statutory intent and plain meaning on the part of Congress, in 2007 the Court determined

¹⁰⁰ *Id.* at 1133.

¹⁰¹ See Parobek, *supra* note 7 at 199 (“These cases . . . serve as a warning to private appropriators using water which provides 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.”).

Thomas v. Peterson, 753 F.2d 754, 764 (9th Cir. 1985) (citing *TVA v. Hill*, 437 U.S. 153, 184-93 (1978)).

¹⁰³ Nat’l Ass’n of Home Builders v. Defenders of Wildlife, et al, 551 U.S. 644 (2007).

that the Act contained “a fundamental ambiguity that is not resolved by that statutory text.”¹⁰⁴

The case arose out of a permitting dispute under the Clean Water Act (CWA). In 2002, Arizona applied for EPA authorization to administer the National Pollution Discharge Elimination System (NPDES) in the state, pursuant to section 402(b) of the CWA. Section 402(b) of the CWA provides that EPA “shall approve” the transfer of permitting authority to a State upon application and a showing that the State has met nine specified criteria.¹⁰⁵ Upon review of Arizona’s application, however, the EPA concluded that the NPDES permitting transfer could impact endangered and threatened species in the state. The EPA sought consultation with the FWS under Section 7(a)(2). While concluding that the NPDES transfer would not impact listed species, FWS nevertheless worried that such a transfer would lead to more permits being issued, some of which could threaten listed species.

The EPA disagreed with FWS’s position, maintaining that Section 402(b) of the CWA forced it to approve the transfer upon Arizona meeting the nine criteria. Defenders of Wildlife, the Center for Biological Diversity, and an Arizona resident filed a petition for review of EPA’s decision in the Ninth Circuit. The Ninth Circuit then allowed other parties to intervene as petitioners, including the National Association of Homebuilders. The court concluded that Section 7(a)(2) of the ESA required EPA to determine whether its transfer decision would jeopardize listed species, thus implicitly adding a tenth criterion.¹⁰⁶ It dismissed the argument that EPA’s approval was not subject to 7(a)(2) because such approval was not discretionary, and vacated EPA’s transfer decision. The

¹⁰⁴ *Id.* at 665.

¹⁰⁵ 33 U.S.C. § 1342(b) (2001).

¹⁰⁶ *Defenders of Wildlife v. U.S. Environmental Protection Agency*, 420 F.3d 946, 971 (2005).

Supreme Court granted *certiorari* to determine whether Section 7(a)(2) imposed that tenth requirement.

The gravamen of the dispute lay in the competing legislative commands found in the CWA and the ESA, respectively. The CWA dictates that the EPA “shall approve” a transfer application unless it finds that the State lacks adequate authority to perform the nine functions in the enumerated criteria.¹⁰⁷ The ESA mandates that “[e]ach Federal agency shall . . . insure that any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize” listed species or their habitats.¹⁰⁸ The Court drew a distinction between the instant case and *TVA v. Hill*, noting that the construction project at issue in *Hill* was *discretionary*.¹⁰⁹ It concluded that the agency action in *Homebuilders* was *non-discretionary*, because the agency was *required* by statute to undertake action once specified triggering events had occurred.¹¹⁰

The Court’s ruling deferred to the agency’s reasonable interpretation of section 7(a)(2) as applying only to “actions in which there is discretionary Federal involvement or control.”¹¹¹ “Since the transfer of NPDES permitting authority is not discretionary, but rather is mandated once a State has met the criteria set forth in § 402(b) of the CWA, it follows that a transfer of NPDES permitting authority does not trigger § 7(a)(2)’s consultation and no-jeopardy requirements.”¹¹² The Court’s decision limits the traditional scope of the ESA by restricting Section 7(a)(2)’s reach to only those actions that truly are discretionary.

¹⁰⁷ 33 U.S.C. § 1342(b).

¹⁰⁸ 16 U.S.C. § 1536(a)(2) (2001).

¹⁰⁹ *Nat’l Ass’n of Home Builders*, 551 U.S. 664 at 668.

¹¹⁰ *Id.* at 669.

¹¹¹ *Id.* at 672 (citing 50 C.F.R. § 402.03 (2007)).

¹¹² *Id.*

The implications of the *Homebuilders* decision are profound. Many if not most agency actions are arguably compelled by statute. By focusing on the “discretionary” trigger, the Court’s reasoning seems to run counter to the language of the ESA and case law stretching back to *TVA*. Where species protection was always given the utmost priority, the *Homebuilders* decision now questions this assumption. “Undoubtedly, the extent of agency discretion over current operations of established water projects, and therefore the extent to which the ESA applies to current operations, will continue to be disputed for some years.”¹¹³ The Court’s interpretation is likely to facilitate the reconsideration of numerous agency actions initially cast “non-discretionary.” Deference may come to trump species protection. Should this happen, the ESA will lose its commanding authority.

b. Property Rights Fifth Amendment Takings Claims

In light of judicial deference to the ESA over state and federal water allocation, water users have turned to other approaches to protect their water rights. For example, users have begun asserting takings claims, arguing that their Fifth Amendment rights have been violated. This strategy has resulted in several noteworthy successes.

In *Tulare Lake Basin Water Storage District v. United States*,¹¹⁴ the Court of Federal Claims “explored the crossroads of state water allocation and species protection, resolving the dispute with a resounding affirmation of property rights.”¹¹⁵ In *Tulare*, water users in California brought suit, claiming that the United States had expropriated their contractually-conferred right to the use of water in the Tulare Basin. Plaintiffs

¹¹³ Doremus & Tarlock, *supra* note 6 at 100.

¹¹⁴ *Tulare Lake Basin Water Storage Dist. v. United States*, 49 Fed. Cl. 313 (2001).

¹¹⁵ Parobek, *supra* note 7.

sought Fifth Amendment compensation for their loss. The case concerned the delta smelt and winter-run Chinook salmon, both of which are listed under the ESA. The USFWS and the NMFS restricted water out-flows to help the fish, leading to a collision between the ESA and private water rights. The court concluded that water rights constitute property protected by the Fifth Amendment.¹¹⁶ Then, in an unexpected turn, it declared that: “[t]o the extent . . . that the federal government, by preventing plaintiffs from using the water to which they would otherwise have been entitled, have rendered the usufructuary right to that water valueless, they have thus effected a physical taking.”¹¹⁷ In other words, the court determined that the impact of the ESA on water-right holders in the Tulare Basin could and did constitute a *physical* rather than a regulatory taking – an actual expropriation of property rather than a regulation that simply rendered the property valueless.

The court based its decision on the terms of the water supply contract, which stated that neither the *state nor its agents* may be held liable for “any damage, direct or indirect, arising from shortages in the amount of water to be made available for delivery to the Agency under this contract caused by drought, operation of area of origin statutes, or any other cause beyond its control.”¹¹⁸ It noted that the contract shielded the state and its agents, but not the federal government and that federal actions were responsible for interrupting the water deliveries to plaintiffs.¹¹⁹ Thus, since the deprivation of plaintiffs’ water rights amounted to a taking and the federal government enjoyed no contractual

¹¹⁶ *Tulare Lake Basin*, 49 Fed. Cl. 313 at 319.

¹¹⁷ *Id.*

¹¹⁸ *Id.* at 320.

¹¹⁹ *Id.* at 321.

shield from liability, the government was liable for restricting water deliveries because of the ESA.

The *Tulare* holding surprised many. While this was not the first time that courts had equated water rights with property rights, it was the first time that failure to receive water had been deemed a compensable taking. In addition, and “[e]ven more unexpected was that compensation was awarded in the face of the potent justifications brought to bear by the ESA”¹²⁰ The court’s classification of the U.S.’s actions as a physical rather than regulatory taking raises a host of questions. Water rights holders do not own the water itself; they rather possess a (usufructuary) right to use that water. Yet the court’s application of land-based reasoning to water appears not to acknowledge this distinction. The resulting lack of clarity has injected significant uncertainty into the already uncertain realm of takings jurisprudence.

Several years later, the United States Court of Appeals for the Federal Circuit revisited the issue of whether deprivation of a water right constituted a physical taking and agreed with the *Tulare* court that it did. In *Casitas Municipal Water District v. United States*,¹²¹ a California water district sued, claiming that the Bureau of Reclamation’s diversion of irrigation water and the additional costs of installing a fish ladder, both done to protect steelhead trout under the ESA, constituted an uncompensated taking of property. The court concluded that the Bureau faced no liability under a breach of contract theory. In its view, the issuance of the biological opinion under the ESA was a sovereign act that precluded the government from contractual liability.¹²² However, the

¹²⁰ Parobek, *supra* note 7 at 211.

¹²¹ *Casitas Municipal Water Dist. v. United States* 543 F.3d 1276 (Fed. Cir. 2008).

¹²² *Id.* at 1288.

court found that the Bureau's directive that the district divert water for the operation of the fish ladder amounted to a taking.

As in *Tulare*, the claim centered on a provision in the water contract between the district and the government, which stated that "the District shall have the perpetual right to use all water that becomes available through the construction and operation of the Project" ¹²³ The government argued that it was not liable for failure to deliver the water because the provision refers only to the district's right to water that becomes *available*, which would mean only water made available in the reservoir, not in the river. The court disagreed, stating that the provision "constitutes a promise by the United States that Casitas shall have the perpetual right to water made available by construction and operation of the Project and that the United States will not appropriate any of the Project water for other uses (i.e., fish ladder or delivery under water contracts)." ¹²⁴

Also as in *Tulare*, the court found that the restrictions on the water imposed by the Bureau constituted a physical taking. The fact that the government did not itself divert the water was irrelevant. "[T]he water that is diverted away from the Robles-Diversion Canal is permanently gone. Casitas will never, at the end of any period of time, be able to get that water back. The character of the government action was a physical diversion for a public use—the protection of an endangered species. The government-caused diversion to the fish ladder has permanently taken that water away from Casitas. This is not temporary, and it does not leave the right in the same state it was before the government action." ¹²⁵ For all these reasons, the court concluded, a physical taking had occurred.

¹²³ *Id.* at 1286.

¹²⁴ *Id.* at 1286-1287.

¹²⁵ *Id.* at 1296.

These two cases illustrate the emergent notion that water rights are property rights and that expropriating such rights without compensation amounts to a compensable taking. In light of this trend, federal agencies are likely to avoid taking actions that trigger the Fifth Amendment. They will instead seek alternatives to protect endangered species that do not incur obligations for large-scale compensation of water-users.¹²⁶

c. Federal and Indian Reserved Rights

To date, the ESA has had only limited interaction with federal and Indian reserved water rights. However, the potential for litigation in the future is very real. First articulated for Indian reservations in *Winters v. United States*,¹²⁷ and applied to non-Indian purposes in *Arizona v. California*,¹²⁸ the reserved rights or “Winters” doctrine stands for the proposition that when the federal government sets aside land for a specific purpose, it impliedly reserves rights to appurtenant water to the extent necessary for the purpose of the reservation. Cases stemming from reserved rights cases have arisen almost entirely in the western United States. Indian Tribes have sometimes used the ESA to preserve tribal fisheries but one could easily foresee circumstances where tribal water claims run afoul of the ESA.¹²⁹ The federal government has the power to regulate Indian Tribes under the Indian Commerce Clause. However, federal officials must consult with affected tribes if a proposed ESA action may have an impact on tribal resources.¹³⁰

¹²⁶ Parobek, *supra* note 7 at 217.

¹²⁷ *Winters v. United States*, 207 U.S. 564 (1908).

¹²⁸ *Jones, Chairman of Navajo Tribal Council of Navajo Indian Tribe v. Healing, Chairman of Hopi Council of Hopi Indian Tribe*, 373 U.S. 892 (1963).

¹²⁹ Dan Tarlock, *Law of Water Rights and Resources* § 9:48.1 (2007).

¹³⁰ *Id.* (citing Secretarial Order No. 3207, American Indian Tribal Rights, Federal Trust Responsibilities, and the Endangered Species Act, June 5, 1997).

The most significant case to grapple with the interaction between reserved water rights and the ESA was *Cappaert v. United States*.¹³¹ In that case, the Court applied the Winters doctrine to shut down groundwater pumping by private land owners in Nevada. The water withdrawals lowered the level of a subterranean pool that serves as the sole known home of the endangered Desert Pupfish. The pool and the fish reside in the Devil's Hole National Monument. The Supreme Court affirmed an injunction limiting the local land owners' groundwater withdrawals in order to maintain the pool's water at the level necessary to sustain the fish. The Court reasoned that, when creating the Monument, Congress knew of the pupfish and must have intended to reserve sufficient water to preserve its habitat. Nevertheless, the Court emphasized that the Winters doctrine reserves only the amount of water necessary to fulfill the purpose of the reservation, a rule that raised at least as many questions as it resolved.¹³²

VI. Federal Water Projects and the Bureau of Reclamation

Despite the Bureau of Reclamation's legendary power and influence, it too must withhold water from delivery when necessary to protect endangered species¹³³ (although as per *Tulare*, such withholdings could constitute a taking). The ESA also places limits on the number of permits issued for new water projects if those projects present any risk to listed species.¹³⁴ ESA consultations are required before the Bureau can make any new water supply commitments, even if those new commitments involve simply reconsidering

¹³¹ *Cappaert v. United States*, 426 U.S. 128 (1976).

¹³² The Court also stretched the limits of credibility by calling the pupfish habitat surface water, as opposed to underground water. *See Id.* at 142.

¹³³ *O'Neill v. United States*, 50 F.3d 677 (9th Cir. 1995); *Rio Grande Silvery Minnow v. Keys*, 333 F.3d 1109 (10th Cir. 2003).

¹³⁴ *Riverside Irrigation Dist.*, 758 F.2d 508.

existing water delivery contracts.¹³⁵ The Bureau must further consult on existing water supply projects if these operations have the potential to jeopardize listed species.¹³⁶ The latter may involve reducing contracted for water deliveries to irrigators if the water is needed to ensure the survival of species or habitat.

Renegotiation or renewal of Bureau water contracts with irrigation districts constitutes discretionary Bureau action and therefore, under *National Homebuilders*, is subject to compliance with the ESA.¹³⁷ Several cases in recent years have defined the Bureau's responsibilities under § 7. The following cases illustrate the extent to which Section 7 trumps Bureau of Reclamation obligations to deliver water under water service agreements.

a. Water-Related ESA Section 7 Jurisprudence

In *Carson-Truckee Water Conservancy District v. Clark*,¹³⁸ the Ninth Circuit weighed a water district's claim that the ESA did not obligate the Bureau's operation of a reservoir in a way that conserved two species of listed fish at the expense of farming and municipal water use. The court concluded that sections 7(a)(2) and 7(a)(1) direct the Secretary to actively pursue a species conservation policy.¹³⁹ The district had focused exclusively on 7(a)(2), which the court found inapplicable because no project had been undertaken that threatened a listed species. Rather, it was the affirmative duty to "conserve" under 7(a)(1) that controlled. "ESA . . . directs the Secretary to use programs

¹³⁵ *Natural Resources Defense Council v. Houston*, 146 F.3d 1118 (9th Cir. 1998).

¹³⁶ *Pacific Coast Federation of Fishermen's Associations v. U.S. Bureau of Reclamation*, 138 F.Supp. 2d 1228 (N.D. Cal. 2001).

¹³⁷ Parobek, *supra* note 7, at 194.

¹³⁸ *Carson-Truckee Water Conservancy Dist. et al v. William P. Clark, et al*, 741 F.2d 257 (9th Cir. 1984).

¹³⁹ *Id.* at 261-262.

under his control for conservation purposes where threatened or endangered species are involved. [T]he Secretary here decided to conserve the fish and not to sell the project's water. Given these circumstances, the ESA supports the Secretary's decision to give priority to the fish until such time as they no longer need ESA's protection."¹⁴⁰ Under this reasoning, when insufficient water exists for both endangered species protection and other uses, the conservation mandate of the ESA trumps municipal and industrial water use.

In *Barcellos & Wolfsen v. Westlands Water District*,¹⁴¹ a California irrigation district sought a judgment requiring the Bureau to sell it irrigation water per the terms of an existing water contract. It challenged the Bureau's cancellation of the contract, an action the Bureau deemed necessary to provide water for Chinook salmon and delta smelt under Section 7. The district court concluded that the agreement between the Bureau and the irrigators did not confer any absolute contract right to delivery of irrigation water. The court found instead that the overriding obligations of the ESA released the Bureau from its contractual obligations. It noted that "[i]f Congress has directed that the Bureau reserve water for environmental purposes, Movants cannot be heard to insist that their rights require the Bureau to disobey the law."¹⁴² Thus, the Bureau was able to reduce contractually-held water rights because of the demands of the ESA.

In *O'Neil v. United States*,¹⁴³ the Ninth Circuit again held that the terms of a water delivery contract did not obligate the federal government to deliver the full amount of water when doing so would contradict the ESA. The terms of the contract stated that

¹⁴⁰ *Id.* at 262.

¹⁴¹ *Barcellos & Wolfsen v. Westland Water Dist.*, 849 F.Supp. 717 (E.D. Cal. 1993).

¹⁴² *Id.* at 732.

¹⁴³ *Edwin R. O'Neil v. United States*, 50 F.3d 677 (9th Cir. 1995).

the government would not be liable for water shortages arising out of errors in operation, drought, or “any other causes.” The court held that shortages created through compliance with the ESA were “other causes” under the terms of the contract and thus relieved the Bureau of liability. Thus, the fifty percent reduction in water deemed necessary for fish preservation under the ESA was allowed.

In *Natural Resources Defense Council v. Houston*,¹⁴⁴ another Ninth Circuit case, environmental groups sued to enjoin the Bureau from entering into renewal contracts to supply water, when doing so would endanger Chinook salmon. The Bureau’s argument that the renewals were not “agency actions” and therefore not subject to the ESA did not hold sway. The court noted that under the pertinent regulation, “[a]ction means all activities or programs of any kind authorized, funded, or carried out, in whole or in part, by Federal agencies”,¹⁴⁵ and thus, negotiating and executing contracts constituted an “agency action.” The argument that the Bureau had no discretion to alter the terms of the contract was likewise rejected, noting that “water rights are based on the amount of available project water . . . and that the Secretary . . . has the discretion to set rates to cover an appropriate share of the operation and maintenance costs.”¹⁴⁶

*Klamath Water Users Protective Association v. Patterson*¹⁴⁷ involved a contract, dating to 1917, in which the Bureau took possession of a dam but gave the California Oregon Power Company (COPCO) the right to operate it. Operation of the dam is subject to federal law, including the ESA, and when two species of fish were listed, one as endangered, one as threatened, FWS issued a biological opinion requiring specified

¹⁴⁴ *Natural Resources Defense Council, et al v. David Houston, et al*, 146 F.3d 1118 (9th Cir. 1998).

¹⁴⁵ *Id.* at 1125 (citing 50 C.F.R. § 402.02).

¹⁴⁶ *Id.* at 1126.

¹⁴⁷ *Klamath Water Users Protective Ass., et al v. Roger Patterson, et al*, 204 F.3d 1206 (9th Cir. 1999).

minimum water levels.. The irrigators argued that, as third-party beneficiaries under the contract, they were entitled to enforce the contract’s existing terms. The Ninth Circuit disagreed, holding that such an interpretation “would open the door to all users receiving a benefit from the Project achieving similar status”¹⁴⁸

The irrigators further claimed that the Bureau did not control the dam’s operation and it was therefore precluded from making decisions regarding water-level. Again the court disagreed, noting that the contract makes clear that the Bureau retained overall authority over decisions relating to the water.¹⁴⁹ Consequently, the terms of the contract did not supersede the dictates of the ESA.

“*O’Neill* and *Klamath* leave open the possibility that some Bureau of Reclamation project authorizations could survive an ESA challenge. Since Section 7 applies only to discretionary federal actions, under certain circumstances, the Bureau could argue under *National Homebuilders*, that the authorizing legislation leaves no discretion to adjust water deliveries for conservation purposes and that therefore Section 7 does not apply.¹⁵⁰ Nevertheless, the power of the ESA remains clear. As a general matter, the Bureau must comply with Section 7 when its contracting or project operations affect listed species, it must consult on operations of existing projects where water use will impact listed species, and its duties under Section 7(a)(2) take priority over its contractual commitments.¹⁵¹

VII. Groundwater

¹⁴⁸ *Id.* at 1212.

¹⁴⁹ *Id.* at 1212-1213.

¹⁵⁰ Doremus & Tarlock, *supra* note 15 at 99.

¹⁵¹ Reed D. Benson, *Dams, Duties, and Discretion: Bureau of Reclamation Water Project Operations and the Endangered Species Act*, 33 COLUM. J. ENVTL. L. 1, 12-13 (2008).

Lakes, rivers, and marshes are not the only water sources of water that provide critical habitat for endangered species. Underground water and aquifers are enormously important as well. Approximately half of the United States population uses groundwater for drinking,¹⁵² and half of all water used in irrigated agriculture is groundwater.¹⁵³ Over-exploitation of groundwater poses a serious threat to water sustainability in the United States. Furthermore, as the home of several ESA-listed plants and animals, aquifers provide critical habitat for species whose survival is potentially jeopardized by water withdrawals. Groundwater, while generally managed differently than surface water, is not immune from the ESA. The Act itself makes no distinction between the two. It focuses solely on impacts on species.

While there have not yet been many cases involving groundwater and the ESA, use patterns and shrinking habitat virtually guarantee future litigation. In one of the few cases to date, the city of San Antonio prevailed over an ESA challenge by the Sierra Club. **Sierra Club v. City of San Antonio**¹⁵⁴ centered on the city's reliance on the Edwards Aquifer for its water. The aquifer also houses numerous threatened and endangered species, including the tiny fountain darter. In 1996 the region suffered a severe drought, and the resulting overdrafting of groundwater threatened the habitat of the fountain darter. The Sierra Club brought suit, alleging that the defendants were "taking" an endangered species in violation of the Act. It sought an injunction requiring San Antonio to reduce water withdrawals to maintain the minimum natural flows necessary for the fish's survival.

¹⁵² John D. Leshy, *Interstate Groundwater Resources: The Federal Role*, 14 HASTINGS W.-N.W. J. ENVTL. L. & POL'Y 1475, 1476 (2008).

¹⁵³ *Id.*

¹⁵⁴ *Sierra Club v. City of San Antonio*, 112 F.3d 789 (5th Cir. 1997).

The district court granted a preliminary injunction limiting withdrawals but the city successfully appealed. The Fifth Circuit concluded that the Sierra Club did not establish a substantial likelihood of success on the merits, noting that the Edwards Aquifer Authority (a state authority) had proceeded with a rulemaking for the granting of permits and critical period management and the lower court's injunction conflicted with these actions. The court highlighted the "elaborate and comprehensive nature of the state regulatory scheme in issue,"¹⁵⁵ and decided that regulation of the aquifer was best left to the Authority.

VIII. Conclusion: Thoughts on the Future

The ESA remains a very powerful federal statute. As judicial interpretations of its language evolve, so too will water uses evolve in tandem. Because it is not subservient to state water law, the ESA can provide leverage to change the status quo of water allocation.¹⁵⁶ The ESA is only as strong as its interpretation, however, and that interpretation is subject to judicial caprice. Despite what many took for granted as clear mandates from Congress regarding the protection of endangered and threatened species, subsequent amendments to the Act and recent judicial opinions render this assumption suspect. Despite its recent dilution, the ESA remains a forceful and explicit statute with significant power to impact both government and private activities. In the explosive realm of water rights, the ESA continues to stand out for its clear Congressional mandate of species protection.

¹⁵⁵ *Id.* at 793 (citing *Burford v. Sun Oil Co.*, 319 U.S. 315, at 318 (1943)).

¹⁵⁶ *Doremus & Tarlock*, *supra* note 6 at 97.