Diversions of Nevada's Truckee River Foreshadow Doom for Endangered Species

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Recommended Citation
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NOTE

DIVERSIONS OF NEVADA’S TRUCKEE RIVER
FORESHADOW DOOM FOR ENDANGERED
SPECIES*

INTRODUCTION

The reservation of the Pyramid Lake Paiute Tribe of Indians surrounds Pyramid Lake in Nevada. For over 70 years upstream diversion from the Truckee River reduced the amount of water that reached the lake. This in turn imperiled the lake’s indigenous fish. In 1973, the federal government initiated action on behalf of the Tribe to obtain additional river flows for the lake. However, the Supreme Court held that the water rights involved were adjudicated in another suit, concluded almost forty years before; thus res judicata barred reappraisal.¹

Then in 1986, the Paiute Tribe asserted a new cause of action. It charged that the Navy’s act of diverting water, which otherwise would flow into Pyramid Lake, violated provisions of the Endangered Species Act (ESA).² In March of 1990, the Ninth Circuit affirmed denial of the Tribe’s ESA claims in Pyramid Lake Paiute Tribe of Indians v. United States Department of the Navy.³ In so doing, the court discounted federal regulations and substantial case law and passed up a crucial opportunity to clarify important issues and terms in the ESA.

This note discusses the Tribe’s claim that the Navy harmed an endangered fish in Pyramid Lake and thus violated the prohibition against “taking” an endangered species in section 9 of the ESA. The court purported to evaluate whether the diversions effected a taking since they harmed the fish and adversely modified its habitat. Since, however, the Tribe was unable to prove that the Navy alone actually caused degradation of the species’ habitat, the court never reached the issue of harm.

*This note is one section of the thesis that received the 1991 Award for the Best Natural Resource Thesis, awarded by the Natural Resource Section of the State Bar of New Mexico.
3. 898 F.2d 1410 (9th Cir. 1990).
A logical expansion of the court’s holding is that, in cases where multiple entities degrade a single habitat, it can never be proved that any single degrader is an actual causer; every contributor is exempt from responsibility. Consequently, destruction of the habitat remains un-checked, further imperiling endangered species and creating the antithesis of Congress’ intent in passing the ESA: conservation of endangered species and their habitats. Instead of absolving multiple habitat degraders, preservation of endangered species requires adoption of an equitable policy to allocate responsibility among contributors.

The opinion also rendered the definition of harm in section 9 of the ESA ineffectual and left unsettled whether harm would be restrictively or expansively construed by the Ninth Circuit. So, Tribe v. Navy left the interpretation of section 9 problematic. The opinion, as a result, not only denied relief to the endangered species in this case, but also created confusion regarding interpretation of section 9 for future ESA claims. The Ninth Circuit, therefore, through its opinion in Tribe v. Navy, held the power to clarify key terms and major issues crucial to effective application of section 9. Yet, the court relinquished a pivotal opportunity to continue to delineate the contours of the ESA.

STATEMENT OF THE CASE

Conflict arose between the Tribe and the Navy because of the Navy’s diversion of water from the Truckee River for a Nevada naval air station.4 The Navy operates Fallon Naval Air Station, where it conducts flight training.5 The desert conditions of Nevada create unique dangers to aircraft.6 So, to diminish the risk of these dangers, the Navy surrounded its

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4. Both the Tribe and the Navy have adjudicated water rights to the Truckee River. The land held by the Navy for use as buffer zones is part of the Newlands Reclamation Project (established by the Bureau of Reclamation in 1903). The Secretary of the Interior, through the Bureau of Reclamation, controls and limits diversions from the Truckee and Carson Rivers for use in the Newlands Project. These limits are in the Bureau’s Operating Criteria and Procedures ("OCAP") for the Newlands Project, which are subject to preexisting water rights on the Truckee and Carson Rivers. See Pyramid Lake Paiute Tribe v. Morton, 354 F. Supp. 252 (D.D.C. 1972), cert. denied, 420 U.S. 962 (1975); Truckee-Carson Irr. Dist. v. Dept. of Int., 742 F.2d 527 (9th Cir. 1984), cert. denied, 472 U.S. 1007 (1985).

5. As a result, the station is the location of aircraft which repeatedly take off and land. The remote desert location provides the Navy with training capabilities not available at any other naval facility. Tribe v. Navy, 898 F.2d at 1412.

6. The main dangers include poor visibility caused by dust storms, damage to aircraft engines from foreign objects, and an increased risk of fire. Id.
runways with "buffer zones." The Navy leased the land to farmers who grew irrigated crops in the buffer zones beginning in the 1950s. Since then, the Navy has diverted water from the Truckee River to irrigate this out-lease land.

Absent diversions, the Truckee empties exclusively into Pyramid Lake on the Tribe's reservation. The cui-ui, an endangered species of fish, is found only in Pyramid Lake. Historically, the river's flow kept the lake's level constant and provided river spawning opportunities for the cui-ui. Between 1920 and 1940, diversions of Truckee River water caused the level of Pyramid Lake to drop forty feet and the surface area to shrink by about twenty thousand acres. The lowered level of the lake limited the cui-ui's ability to reach its spawning grounds in the Truckee River.

In 1984, the Navy announced plans to expand its out-lease program which required additional diversions of Truckee River water. The Tribe challenged this proposed expansion and argued that the Navy's diversion of Truckee water violated the ESA because it jeopardized the continued existence of the cui-ui. In an ultimately unsuccessful effort to avoid litigation, the parties entered a memorandum of understanding: the Tribe held back its lawsuit and in return the Navy delayed long-term expansion and entered year-to-year leases only. When efforts to negotiate a binding resolution failed, the Tribe filed this lawsuit.

**ANALYSIS OF THE COURT'S DISMISSAL OF THE TRIBE'S SECTION 9 CLAIM**

**The Tribe's Claim**

According to the Tribe, the Navy violated section 9 of the ESA which makes it unlawful for any person to "take" endangered species. The

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7. In 1967, the cui-ui (pronounced "kwee- wee") (Chamistes cujus), the only pure species remaining in the genus Chasmistes, was declared endangered. 32 Fed. Reg. 4001 (1967). Id. at 1413. See 50 C.F.R. § 17.11(h) (1990). The Lahontan cutthroat, also found in Pyramid Lake, was originally listed as endangered, but was later upgraded to a threatened species. 40 Fed. Reg. 29863 (1975). Brief for Appellee, supra note 4, at 4. See 50 C.F.R. § 17.11(h) (1990).


9. The Navy planned to expand the program by leasing an additional 734 acres, the remainder of its project land, and to increase lease terms from five to ten years. Brief for Appellee, supra note 4, at 8. Tribe v. Navy, 898 F.2d 1410 (9th Cir. 1990).

10. The Navy was awaiting the results of an independent consultant's report as to alternative means of achieving the goals of the out-leasing program that would require less water than the proposed plan. Id. at 9.

ESA defines "taking" as actions that "harm" listed species. The regulations implementing the ESA define "harm" as:

an act which actually kills or injures wildlife. Such act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.

Thus, modification of an endangered species' habitat, in a way that significantly impairs its reproduction, amounts to an unlawful taking.

The Tribe contended that the Navy's existing agricultural leases diverted 15,000 acre-feet of Truckee water annually. These diversions took away water that the cui-ui needed for spawning, an activity essential for survival of the species. According to the Tribe, the diversions harmed the cui-ui and adversely modified its habitat, and thus constituted an unlawful taking of an endangered species.

The Navy's Defense

The Navy responded that the diversions did not constitute harm as defined in section 9 through three arguments. First, the Navy pointed out that it initiated formal consultation for its year-to-year leases (1985, 1986, and 1987), in accordance with Federal regulations, and obtained non-jeopardy biological opinions from the Fish and Wildlife Service (FWS). Since the opinions concluded that the leases did not threaten the cui-ui, the Navy asserted that its diversions evaded the section 9 definition of harm.

15. 50 C.F.R. section 402 interprets and implements sections 7 (a)-(d) of the ESA. These regulations grant authority to and impose requirements upon Federal agencies regarding endangered or threatened species. For instance, when a Federal agency contemplates action ("all activities . . . by Federal agencies") 50 C.F.R. § 402.02 (1990) which is likely to affect an endangered species, it must enter into formal consultation with the Fish and Wildlife Service or the National Marine Fisheries Service. 50 C.F.R. §§ 402.01(b), 402.14(a) (1990).
16. Brief for Appellee, supra note 4, at 27.

The Tribe unsuccessfully rebutted this assertion by claiming that the opinions were incompetent. The Tribe proved that the FWS's investigation for the opinions neglected to assess the indirect effects of the Navy's out-lease program. For authority, the Tribe cited C.F.R. section 402.14 which required the FWS to evaluate the "effects" of the federal agency's action when formulating its opinion. 50 C.F.R. § 402.14(g)(3) (1990).

"Effects" is defined as direct and indirect effects of an agency's action on a species "or critical habitat, together with the effects of other activities that are interrelated or interdependent with that action, that will be added to the environmental baseline. The environmental baseline includes the past and present impacts of all Federal, State, or private actions . . . in the action area, the anticipated impacts of all proposed Federal projects in the action area . . . and the impact of State or private actions which are contemporaneous with the consultation in process. . . . Interrelated actions are
Second, the Navy argued that the Tribe unjustifiably stretched section 9 so that any use of Truckee water constituted significant habitat modification or degradation and hence was a taking. Based on *Palila v. Hawaii Department of Land & Natural Resources (Palila II)*, the Navy claimed that only "habitat degradation that might result in extinction of an endangered species" constituted harm. Since the FWS’s opinions concluded that the Navy’s leases would not jeopardize the cui-ui, the leases would not lead to the extinction of the cui-ui and, by definition, would not harm the species.

Finally, the Navy claimed that the Tribe produced no evidence that any one year’s diversion by the Navy, in and of itself, precipitated the inability to spawn. Instead, the Navy said documentation showed only that total diversions from the Truckee harmed the cui-ui. Since the Tribe failed to prove that the Navy’s diversions alone provoked catastrophic modification of the cui-ui’s habitat, the Navy contended that its diversions did not harm the cui-ui.

The Court’s Holding

The Ninth Circuit stated that [i]n *Palila [II]*, this court ruled that habitat degradation that could result in extinction constitutes ‘harm’ under section 9. However, the court decreed that the Navy’s diversions were not a taking since the evidence failed to establish “that any one year’s diversion those that are part of a larger action.” 50 C.F.R. § 402.02 (1990) (emphasis added). “Indirect effects are those that are caused by the proposed action and are later in time, but still are reasonably certain to occur.” *Id.*

The Tribe showed that the non-jeopardy biological opinions issued by the FWS were based only on direct effects from the Navy’s out-lease program. The opinions solely analyzed effects of Truckee diversions on cui-ui spawning runs that occurred during the one year in which each lease was in effect. So, indirect effects, caused by the proposed action but later in time, could not have been evaluated in the FWS’s inquiry. Brief for Appellant, *supra* note 14, at 7.

18. 649 F. Supp. 1070 (D. Hawaii 1986), aff’d, 852 F.2d 1106 (9th Cir. 1988).
20. The Tribe countered that Palila II offered no support for this proposition because the *Palila II* court expressly declined to decide whether a more inclusive definition of harm could be applied: degradation which retards recovery of a species. The possibility thus remained that the Ninth Circuit might endorse an expansive construction of harm that included preclusion of a species’ recovery. Consequently, *Palila II* did not support the Navy’s contention that only degradation inducing extinction defines harm. Reply Brief for Appellant at 23, *Tribe v. Navy*, 898 F.2d at 1410 (9th Cir. 1990).
22. *Id.* Specifically, the Navy argued that “[t]he obvious additional problem with the Tribe’s ‘taking’ theory is that it cannot distinguish among users of Truckee River water.” *Id.* At trial, on the other hand, FWS biologists presented the following deductions: 1) The Navy’s current diversions harm the cui-ui and adversely impact on its survival. 2) Reducing water to the Navy’s out-lease program would significantly benefit the cui-ui, after the initial year. Brief for Appellant, *supra* note 14, at 25-26.
. . . actually caused the cui-ui’s spawning problems."\(^{24}\) Thus, the court dismissed the Tribe’s claim of harm.

**Analysis of the Holding**

Analysis of the court’s ruling reveals that, in truth, the Ninth Circuit never reached the issue of whether the Navy harmed the cui-ui, because of the Tribe’s inability to prove that only the Navy degraded the cui-ui’s habitat. On its face, the opinion appeared to apply a *Palila II* definition of harm—“habitat degradation that could result in extinction”\(^{25}\)—or, in the alternative, a nebulous “actual causer” definition. But, the court could not have used either definition. The court concluded that the cui-ui did not suffer harm, based on its decision that the evidence failed to prove the diversions actually caused its spawning problems.\(^{26}\)

Based on the facts of the case, the court’s holding is incongruent with application of either definition. Testimony at trial established that the diversions harmed and adversely affected the cui-ui’s survival. Such testimony verified the Navy as an actual causer of cui-ui habitat degradation that could result in extinction. Thus, from these facts, the conclusion that the diversion did not harm the cui-ui is incompatible with either: 1) a definition of harm as habitat degradation that could result in extinction or, 2) a definition of harm, which is “actually caused” habitat degradation. The court’s ruling and its recitation of the *Palila II* standard, therefore, shed no light on what influenced the court’s conclusion.

On the other hand, another statement illumines the court’s basis for its finding of no harm. Immediately after its holding statement, the court remarked that “the Tribe fail[ed] to distinguish the Navy from the other users of Truckee River water.”\(^{27}\) It appears the court determined that the Tribe must first prove the Navy was the one and only actual causer. If so, then the court’s holding is compatible with the facts because the Navy was not the only entity diverting Truckee water. According to the court’s opinion, the Tribe must prove that the Navy was the sole actual causer before a claim of harm in section 9 would be evaluated. Since the Tribe failed to prove that the Navy was the only actual causer, the court never decided whether the Navy’s diversions harmed the cui-ui.

**Overview of ESA Section 9 Cases**

The Ninth Circuit’s ruling takes on greater import after reviewing earlier cases involving section 9 claims. In the years immediately fol-

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\(^{24}\) Id. (emphasis added). The District Court did not address the issue of whether the Navy’s out-lease program harmed the cui-ui. The Ninth Circuit determined that the record was complete enough for it to address that issue for the first time on appeal. *Id.*

\(^{25}\) Id.

\(^{26}\) Id.

\(^{27}\) Id. (emphasis added).
lowing passage of the ESA in 1973, section 9 was "a simple but little-noticed provision in that Act." 28 Originally, the federal government used section 9 primarily as a means to curtail hunting or collecting of endangered species. 29 For example, the court upheld seizure of a cream, derived from the endangered sperm whale, in Delbay Pharmaceuticals v. Department of Commerce. 30

In contrast, use of section 9 as a means to protect the habitats of endangered species proved ineffectual. As an illustration, in Sierra Club v. Froehlke, 31 the Sierra Club unsuccessfully tried to stop construction of the Meramec Park Lake Dam in Missouri. Creation of the dam would result in the flooding of caves that were home to the endangered Indiana bat. The Sierra Club alleged that the construction violated section 9 because destruction of its habitat harmed the bat. The court refused to interpret flooding the caves as harming the bat and thus approved construction of the dam. Next, in 1977, the federal appeals court in Hill v. Tennessee Valley Authority 32 declined to reach the section 9 issue. Three years later, in North Slope Borough v. Andrus, 33 a district court dismissed a section 9 claim that federal agency action would result in a taking at some time in the future.

"Section 9 was initially not recognized as a potent element of the ESA. Potentially, however, Section 9 is only limited by the definition of 'take.'" Comment, The Whooping Crane, The Platte River, and Endangered Species Legislation, 66 Neb. L. Rev. 175, 192 (1987).
30. 409 F. Supp. 637 (D.D.C. 1976). Because section 9 prohibited interstate shipment of illegally taken endangered wildlife, the court upheld seizure of the Lotrimin. An economic hardship exemption, pursuant to the Endangered Species Act of 1969, gave Delbay's predecessor in interest the right to import and sell spermaceti in interstate commerce. Delbay contended that the ESA of 1973 was enacted after his spermaceti was legally in the country. Thus, the 1973 act had no effect on the subsequent use of the legally imported spermaceti. The court reasoned that even if the regulation permitted the plaintiff's spermaceti, some persons illegally imported spermaceti. To allow any spermaceti to enter interstate commerce increased enforcement difficulties. Id.
31. 534 F.2d 1289 (8th Cir. 1976). The Indiana Bat was found primarily in Missouri, Kentucky, and Tennessee. The entire population numbered 700,000 of which 10,000 to 15,000 would be affected by the reservoir. At trial, an expert testified that the project would jeopardize the continued existence of the bat. Id. at 1303.
32. The court considered section 9 insignificant since it briefly dealt with this issue in two footnotes. For example, footnote 14 reads as follows: "In light of this conclusion [that 'closure of the Tellico Dam & consequent creation of the Tellico reservoir will jeopardize the continued existence of the snail darter or destroy or modify the critical habitat thereof'] we do not deem it necessary to decide whether defendant's activities constitute an illegal 'taking' of the species..." 549 F.2d 1064, 1069-70 nn. 13-14.
33. Environmental organizations and native Alaskans brought action to enjoin the Secretary of the Interior from carrying out a lease sale of federal properties with oil and gas potentials off the northern coast of Alaska in the Beaufort Sea. It was alleged that the lease sale would lead to the eventual degradation of the critical habitat of the Bowhead whale and endanger the whale's existence. Plaintiffs presented evidence that exploitation and production of oil and gas in the Beaufort Sea could create a definite threat to the Bowhead's continued survival. However, they were unable to prove that the lease sale itself was a threat to the Bowhead's existence. 486 F. Supp. 332, 360-62 (D.D.C.), aff'd in part, rev'd in part, 642 F.2d 589 (D.C. Cir. 1980).
In 1981, *Palila v. Hawaii Department of Land & Natural Resources (Palila I)* dramatically changed the interpretation of section 9 by including environmental modifications, which adversely affect an entire endangered species, as a taking. Prior to this case, only action that directly killed a member of a listed species qualified as a taking prohibited by section 9. *Palila I* also became the first case to invalidate an action based solely on section 9.

In *Palila I*, environmentalists sought to force the Hawaii Department of Land & Natural Resources to remove permanently all feral sheep and goats from the critical habitat of the Palila. The Palila, an endangered species, is solely indigenous to Hawaii. The bird evolved in the ecosystem of the mamane and naio forests of Mauna Kea, and so uniquely adapted to those forests that it could not survive anywhere else. The feral sheep and goats decimated the mamane and naio forests by browsing. Consequently, the Palila population declined. The court found that Hawaii’s sheep and goat management program contributed to environmental modification or degradation of the Palila’s habitat. This degradation, in turn, injured or killed the bird and was thus an illegal taking. The environmentalists won their injunction; on appeal, the Ninth Circuit affirmed this decision.

*Palila I*’s expansion of section 9 case law to include habitat modification gained national recognition, though adoption of this expansion was not uniform among courts. Courts in California and Florida cited and fol-

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34. 471 F. Supp. 985 (D. Hawaii 1979), aff’d, 639 F.2d 495 (9th Cir. 1981).
37. “A ‘feral’ animal is one that was once domesticated or is descended from domesticated animals, but is now living as a wild creature.” *Palila v. Hawaii Dep’t of Land & Natural Resources (Palila II)*, 649 F. Supp. 1070, 1071 n.1 (D. Hawaii 1988), aff’d, 852 F.2d 1106 (9th Cir. 1988).
38. The Palila is a member of the Hawaiian Honeycreeper family. *Palila v. Hawaii Dep’t of Land & Natural Resources (Palila I)*, 471 F. Supp. at 988.
39. The shape of the Palila’s bill allows it to feed easily on the seed pods of the mamane. This feature, however, makes it almost impossible for the Palila to adapt to a different food source. Comment, supra note 36, at 283. "The Palila’s only food is the hard, bean-like seed of the mamane, a small tree commonly found in high areas on the island of Hawaii. The Palila evolved a thick beak, unique among the Honeycreepers, to crack these seeds." Note, *Palila v. Dep’t of Land & Natural Resources*, supra note 29, at 184 n.16.
40. *Palila I*, 471 F. Supp. at 989-90. “Before the arrival of Europeans in Hawaii in the late 1700s, no grazing mammals existed in the islands. Native trees such as the mamane evolved without thorns or unpalatable leaves, features which would have protected them from such grazing animals. As a result, they proved extremely vulnerable to grazing after the introduction of sheep. . . .” Note, *Palila v. Dep’t of Land & Natural Resources*, supra note 29, at 184 n.16.
42. *Palila I*, 639 F.2d 495 (9th Cir. 1981).
allowed the Ninth Circuit in ruling that habitat degradation was a taking. For instance, in *Fund for Animals v. Florida Game & Fresh Water Fish Commission*, high water had trapped a deer herd in a small area of the Florida Everglades. To prevent starvation of the entire herd, a wildlife commission proposed a hunt to eliminate some of the deer. Environmental groups alleged that use of airboats would disrupt behavior patterns of endangered species in the area. The court cited *Palila I*, but reasonably concluded that use of the vehicles for only four days would not significantly modify or degrade the species' habitat.

On the other hand, not all courts extended a section 9 taking to include habitat modification. As an illustration, plaintiffs tried to block construction of an oil pipeline from Washington to Minnesota in *No Oilport! v. Carter*. Laying of the pipeline across Puget Sound allegedly was a taking of endangered species in the area. The court, ceremoniously, stated that a taking included environmental modification or degradation of habitat which actually injures or kills wildlife. But, then it refused to acknowledge that highly disruptive activity, necessary to construct the pipeline, might alter any endangered species' habitat to such an extent as to qualify as a taking.

The Fish and Wildlife Service reacted to *Palila I* by authorizing a new definition of harm. The Acting Secretary for the FWS explained that *Palila I* could "incorrectly imply that under the . . . [old] definition of 'harm,' a taking may occur from habitat modification alone." The FWS thus redefined harm to its present form in an attempt to condemn habitat modification.

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44. 550 F. Supp. 1206, 1207 (S.D. Fla. 1982).
45. Id.
46. The Florida panther, Everglades kite, and Indigo snake exist in the area where the deer were trapped. Id. at 1210.
47. Id.
49. Id. at 365.
50. Id.
51. When Congress enacted the ESA it did not define harm. Instead, Congress left it to the FWS to define harm in its regulations that implement the ESA.
52. Id. at 1076.
modification under section 9 only if modification actually killed or injured wildlife. The goal of the second Palila suit was removal of all mouflon sheep from the Palila’s habitat. Defendants claimed that the new definition of harm mandated a result different from Palila I. They introduced census data which proved that the number of Palila had remained constant or even increased slightly since Palila I. No individual thus actually died as a result of the mouflon’s presence. Also, the defendants’ expert testified that the mouflon ate primarily shoots and sprouts of the mamane, whereas the Palila ate primarily the seeds and pods. No rivalry for food ensued between the animals, so no taking occurred. He conceded that the mouflon degraded the forests, but argued that this destruction amounted to only “potential” injury, which was not within the definition of harm. The court rejected these claims as “a shortsighted and limited interpretation of ‘harm.’” The court emphasized that the new definition stressed a link between habitat modification and injury by eliminating habitat modification from “harm” unless death or injury befell protected wildlife. But, evidence of death or injury to a member of an endangered species was unnecessary because harm applied to a species as a whole. Nor did harm require proof that habitat degradation presently drove a species to extinction. Rather, habitat destruction that prevents recovery, by affecting essential behavior patterns, denotes actual injury. Thus, harm does not require a decline in population.

Applying this reasoning, the court held that the mouflon’s browsing irreversibly damaged the mamane forest by preventing its regeneration. Degradation by the mouflon stymied the Palila’s recovery and survival by suppressing available and future food supply and nesting sites. The mouflon thus harmed the species as a whole in spite of statistics showing no present decline in Palila. The Ninth Circuit affirmed the ruling that harm included extinction caused by habitat destruction, concluding that this interpretation fell within the new definition of harm.

53. Whether the new definition really changed the first definition of “harm” became a major issue in Palila II. D. Rohlf, supra note 51, at 63-64.
54. The mouflon sheep were not included in Palila I because study of the mouflon had not been completed. Palila II, 649 F. Supp. at 1071. The mouflon sheep originally came from Corsica and Sardinia. The mouflon were brought to “Mauna Kea with the original hope that they would upgrade the existing feral sheep and modify some of their undesirable characteristics.” Id. at 1074. The mouflon were maintained for “sport-hunting purposes within the Mauna Kea Game Management Area.” Id.
55. Id. at 1075.
56. Id.
57. Id. at 1077.
58. Id. at 1075.
59. Id. at 1080.
60. Palila v. Hawaii Dep’t of Land & Natural Resources (Palila II), 852 F.2d 1106, 1108 (9th Cir. 1988).
ment, the Ninth Circuit qualified its affirmation by not reaching the issue of "whether . . . harm [also] included habitat degradation that precludes recovery of an endangered species."61

Commentators hailed Palila II for providing a powerful tool for habitat preservation and endangered species protection.62 Case law also indicated judicial confidence in the perimeters of harm as set forth in Palila II. For instance, in Sierra Club v. Lyng,63 the court commended and twice cited Judge King's analysis in Palila II relating to the definition of harm.64 The Lyng court ruled that timber management activities resulting in adverse habitat modification harmed the endangered red-cockaded woodpecker.65 The court pronounced that the Forest Service's action did not merely impair recovery.66 Rather, the service's methods produced a decline in the number of woodpeckers.67 But, the court stated that harm does not require proof of death of individual members of a species.68

Also, the court in Defenders of Wildlife v. Administrator, Environmental Protection Agency,69 cited Palila II as expansively construing a taking. Plaintiffs, in that case, alleged an illegal taking as a consequence of the EPA's approval of strychnine for certain above-ground uses.70 Following the lead in Palila II, the court adopted an exceptionally broad

61. Id. at 1110-11 (emphasis added).
63. 694 F. Supp. 1260 (E.D. Tex. 1988), aff'd in part, rev'd in part, Sierra Club v. Yeutter, 926 F.2d 429 (5th Cir. 1991) (The Fifth Circuit affirmed the district court's conclusion that the Forest Service's even-aged management practices violated the ESA.).
64. Id. at 1271 n.8.
65. The red-cockaded woodpecker (Picoides borealis) is a small bird found in pine forests of southern states. "The woodpecker prefers to nest in old growth pine trees, where it forages on insects and occasionally on small fruits and seeds . . . The last remaining populations of these birds are concentrated in the national forests, primarily because the old growth pines on private land have largely been eliminated." Id. at 1265.
66. The Davy Crockett National Forest went from 46 colonies of red-cockaded woodpeckers in 1983 to 27 in 1987 (a 41% depopulation). The Angelina National Forest went from 38 colonies in 1983 to 22 in 1987 (a 42% depopulation). The Sabine National Forest went from 25 colonies in 1978 to 7 in 1987 (a 76% depopulation). Id. at 1271.
67. Id.
68. Id. at 1270. Conclusion of the suit permanently enjoined the Forest Service from harvesting timber in that area since the Forest Service failed to convert from even-aged to uneven-aged management techniques which would preserve "old growth" pines within 1,200 meters of any red-cockaded woodpecker colony site. Id. at 1278.
69. 688 F. Supp. 1334 (D. Minn. 1988), aff'd in part, rev'd in part. 882 F.2d 1294 (8th Cir. 1989) (The Eighth Circuit affirmed the district court's ruling that the EPA's strychnine registrations constituted takings under the ESA.).
70. The EPA registered pesticides and rodenticides containing strychnine to control rodents, lagomorphs (rabbits, hares and pikas) and birds. (Up to one-half million pounds of strychnine bait is used annually for rodent control.) The EPA required that baits be placed in a manner in which targeted species alone were likely to ingest the poison. However, there can also be "secondary" poisoning, as when a carnivore ingests a bird which has ingested strychnine. In this case, there was evidence of "secondary" strychnine poisoning of endangered species. Id. at 1338-39.
definition of taking and barred the EPA from further registration of strychnine pesticides.  

Palila II, therefore, served as a model for interpreting harm to preserve endangered species and their habitats, as these cases illustrate.

Implications of the 9th Circuit’s Holding

The Ninth Circuit, in Tribe v. Navy, lost a critical opportunity to resolve issues fundamental to the application of section 9 of the ESA by avoiding the issue of multiple habitat degraders and by misstating in Tribe v. Navy its holding in Palilla II.

The Holding Relieved Multiple Contributors to a Single Habitat’s Degradation from Responsibility.

The court never reached the issue of whether the Navy harmed the cui-ui because of the Tribe’s inability to prove that the Navy solely degraded the cui-ui’s habitat. If it must be proved that one of several contributors to a habitat’s degradation is the “actual causer,” then all contributors will be immune from liability. For example, to establish that the Navy was the only actual causer was impossible since others also used Truckee water. If the Tribe next sued the city of Reno, based on section 9, the same reasoning would relieve Reno of liability. Inability to prove that one entity solely caused a habitat’s destruction, since multiple entities contributed to the degradation, results in no one being held responsible for the harm.

Apportionment of Responsibility Among All Contributors Would Better Conserve Endangered Species

Preservation of endangered species requires application of an equitable policy to allocate responsibility among contributors, rather than exempting multiple habitat degraders. The Navy understandably emphasized the inequity of holding it solely responsible for the degradation of the cui-ui’s habitat. Yet, limiting responsibility simply because many contribute to the degradation eliminates all Truckee water users from liability. So, potent utilization of section 9 for habitat conservation required the court to employ a strategy for resolving the issue of habitat degradation by multiple contributors.

Other areas of the law offer alternatives for assigning liability when more than one actor simultaneously causes injury. As an illustration, in Bartlett v. New Mexico Welding Supply, Inc., the New Mexico Court of Appeals abolished joint and several liability under which the “concurrent negligence of numerous tortfeasors combine[d] to cause a single

71. Id. at 1354-55.
indivisible injury, [and] each defendant [was] fully (jointly and severally) liable for the entire injury." Application of joint and several liability potentially resulted in only one tortfeasor being totally and individually liable for the tort of several. Recognizing the inequity, the Bartlett court "imposed several liability on tortfeasors by extending the application of comparative fault apportionment from plaintiff/defendant comparisons to comparisons of the tortious conduct of all persons—plaintiffs, defendants and even non-party wrongdoers."

The concept of comparative fault apportionment in tort litigation can be applied to multiple habitat degraders. In Tribe v. Navy, for instance, evidence established that diversions of Truckee water harmed the cui-ui. The percentage of liability for each entity diverting Truckee water could be established by measuring the number of acre-feet diverted by each user. Comparative fault apportionment thus offers one alternative to resolve the situation of habitat degradation by multiple contributors. An alternative, therefore, existed which the Ninth Circuit might have adopted to fairly apportion fault among all Truckee water users whose diversions contributed to the degradation of the cui-ui's habitat. Apportionment of fault would have effected a better result by carrying out congressional intent of conserving endangered species, while at the same time assuring that no one water user bare the entire burden of that task.

The Opinion Rendered the Definition of Harm Ineffectual and Left Unsettled Whether Harm Would be Broadly or Narrowly Construed

In Tribe v. Navy, the Ninth Circuit misquoted its own holding in Palila II, which left unclear the meaning of harm and how narrowly or broadly the court will interpret section 9 in future cases. Though the court changed only one word, that deviation significantly clouded the meaning of harm. The deviation also profoundly altered the proposition established by Palila II that the Ninth Circuit endorsed an expansive definition of harm, which included acts that degrade a species’ habitat and thereby preclude its recovery.

74. Id.
75. In lieu of litigation, the Tribe also had at least one other option. Negotiation is increasingly being used for resolving controversies relating to American Indian water rights and resource management. Folk-Williams, The Use of Negotiated Agreements to Resolve Water Disputes Involving Indian Rights, 28 Nat. Res. J. 63 (1988).
76. The Ninth Circuit’s failure to overrule the district court led commentators and other courts to conclude that the Ninth Circuit affirmed the district court’s finding that harm included preclusion of a species’ recovery. The following statement illustrates this proposition: "Palila II’s emphasis on how an activity affects species recovery as the standard to determine whether a taking has occurred breaks new legal ground with respect to section 9." D. Rohlf; supra note 51, at 65 (emphasis added). See Sierra Club v. Lyng, 694 F. Supp. 1260, 1270 (E.D. Tex. 1988) aff’d in part, rev’d in part. Sierra Club v. Yeutter, 926 F.2d 429 (5th Cir. 1991) (reversed on other grounds).
In *Palila II*, the court appeared to use a broad definition of harm, by stating that habitat destruction resulting in extinction was within the definition of harm. This statement implied that habitat destruction resulting in extinction was *not the only* definition of harm. However, in *Tribe v. Navy*, the court appeared to use a narrow definition of harm by stating that harm constitutes habitat destruction resulting in extinction. This statement implied that harm included habitat destruction *only* if extinction resulted. Thus, by substituting *within* in *Palila II* to *constitutes* in *Tribe v. Navy*, the court changed its position in *Palila II* to imply that harm means only habitat destruction leading to extinction.

By misquoting its holding, the court left the meaning of harm in the ESA evasive and ineffectual. Additionally, through its misstatement, the court reversed its broad interpretation of section 9 in *Palila II* by applying a narrow interpretation in *Tribe v. Navy*. As a result of the court's wavering from one interpretation to another, there is uncertainty as to which way it will lean in the future.

The Clear Meaning, Related Provisions, and Legislative Intent of the ESA Do Not Support a Restrictive Interpretation of Harm

In view of the Ninth Circuit's ostensible shift to a restrictive construction of harm, it becomes relevant to consider the merit of that position. Arguments exist in favor of both an expansive and a restrictive construction. For example, an expansive view of what constitutes harm, in the context of a section 9 taking, finds support from several sources. First, the ESA itself directly supports a broad view of harm. The intent of Congress in enacting the ESA is explicit:

> The purposes of this chapter are to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved.

Hence, the evident purpose of the ESA is to protect endangered species *and* their habitats. This two-fold purpose confirms that habitat degradation or modification which harms protected species is a taking within the clear meaning of the Act.

Additionally, by enacting the ESA, Congress advanced its goal of

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77. *Palila v. Hawaii Dep't of Land & Natural Resources (Palila II)*, 852 F.2d 1106, 1108 (9th Cir. 1988).
78. *Pyramid Lake Paiute Tribe of Indians v. United States Dep't of Navy*, 898 F.2d 1410, 1420 (9th Cir. 1990).
conserving endangered species. To allow habitat destruction which prevents recovery but stops short of extinction would hinder conservation.\textsuperscript{82} This deduction, likewise, favors a definition of harm that includes habitat degradation that precludes recovery since Congress intended for endangered species to recover. Accordingly, the ESA suggests an expansive construction of harm.

Second, the ESA’s legislative history indicates the goal of a broad scheme for protecting endangered species. The Ninth Circuit itself in \textit{Palila II} remarked that interpretation of harm must mirror congressional policy. The court then quoted a Senate Report on the ESA as follows: "‘Take’ is defined in . . . the \textit{broadest} possible manner to include \textit{every conceivable} way in which a person can ‘take.’"\textsuperscript{83} This corroborates that a taking should include any habitat degradation that precludes recovery. Legislative history thus directly supports a broad construction of the term harm.

Lastly, related provisions of the ESA are consistent with an expansive view of harm. An ESA amendment created exceptions to section 9’s taking prohibition through permits authorizing "incidental takings" of endangered species.\textsuperscript{84} Such permits are allowed, however, only if the incidental taking "will not appreciably reduce the likelihood of the survival and recovery of the species."\textsuperscript{85} Since Congress prohibited an incidental taking if it significantly reduced a species’ recovery, it follows that Congress likewise intended to prohibit habitat degradation which retards recovery.

There are also arguments that favor a restrictive construction of harm. For instance, some insist that a broad interpretation, which prohibits acts not allowing recovery, renders section 7’s jeopardy standard pointless.\textsuperscript{86} But, section 7 affects only \textit{federal} agency action, whereas section 9’s

\textsuperscript{82} See Note, \textit{Habitat Conservation Plans Under The Endangered Species Act.} 24 San Diego L. Rev. 243, 254 (1987). ("Emphasizing survival over recovery runs counter to the ESA’s purposes of conservation and of bringing about recovery.")

\textsuperscript{83} Palila v. Hawaii Dep’t of Land & Natural Resources (Palila II), 852 F.2d 1106, 1109 (9th Cir. 1990) (emphasis added).

\textsuperscript{84} “To obtain a permit for an ‘incidental taking’ the applicant must submit a Habitat Conservation Plan outlining the likely impact of the taking.” Note, \textit{Habitat Conservation Plans}, supra note 82, at 260 (This note explains and evaluates section 10 (a) of the ESA under which incidental takings are permitted). See \textit{generally} Note, \textit{Where Have All the Butterflies Gone? Ninth Circuit Upholds Decision to Allow Incidental Taking}, 16 Golden Gate U.L. Rev. 93 (1986) (This note discusses \textit{Friends of Endangered Species, Inc. v. Jantzen}, 760 F.2d 976 (9th Cir. 1985). In that case, the Ninth Circuit held that a FWS permit allowing the incidental taking of certain endangered butterflies from the San Bruno Mountain in California did not violate the ESA.); Comment, \textit{Conflicting Values: The Religious Killing of Federally Protected Wildlife}, 30 Nat. Res. J. 709, 723-24 (1990). (This article includes a short passage regarding other ESA exemptions. For example, there is only one Indian exemption and it is only applicable in Alaska.)


taking prohibition applies to *all persons*. A broad construction of harm merely results in the provisions overlapping.  

Another concern with an expansive interpretation of harm embraces its impact on private land use. Activities on non-federal land that adversely impact recovery of endangered species would become illegal under a broad interpretation of harm. The ESA’s legislative history, however, does not indicate intent to create sweeping controls on non-federal land use.  

Notwithstanding, Congress created exceptions for incidental takings as noted above.

Finally, opponents claim that an expansive definition of harm poses problems when several separate entities effect a taking. In fact, the two issues are independent and do not affect each other. If multiple entities are exempt from liability for a taking, as in *Tribe v. Navy*, then the definition of harm is irrelevant. Since it cannot be proven that any one is an actual causer, then no contributor will be liable regardless of how broadly harm is construed. If, however, fault is apportioned among all contributors, then the same standard applies to each. Therefore, a broad definition of harm creates no more problems when numerous unconnected entities effect a taking.

The issue of an expansive versus a restrictive interpretation of harm raises considerable debate. The impact of a broad interpretation on private land use poses significant problems. But the problems can be mitigated by using existing exemptions and advocating for additional exemptions. A broad construction of section 9, on the other hand, harmonizes with the clear meaning, related provisions, and legislative intent of the ESA. Therefore, despite the Ninth Circuit’s vacillating from a broad to a narrow interpretation of harm, the more persuasive arguments favor an expansive construction.

**CONCLUSION**

In view of its previous role as a forerunner in endangered species protection, the Ninth Circuit’s section 9 holding in *Tribe v. Navy* is disappointing and perplexing. In the early years of the ESA, section 9, which prohibits taking endangered species, offered little protection. Then, through the *Palila* cases, the Ninth Circuit became a national leader in

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87. Id. at 171 (Section 7 and section 9 “can coexist and provide diverse methods for achieving the same goal: protection of endangered species’ critical habitat.”).

88. D. Rohlf, supra note 51, at 66-67. See also Tarlock, *The Endangered Species Act and Western Water Rights*, 20 Land & Water L. Rev. 18-19 (1985). (Congress was aware of the Western States’ concerns that state-created water rights might be displaced by environmental regulations); Rolston III, *Property Rights and Endangered Species*, 61 U. Colo. L. Rev. 283 (1990) (The ESA prohibits “taking” endangered species of both animals and plants. A double question arises when endangered species are on private property: “Do endangered species prohibitions against taking animals and plants on private land also involve a taking of property that requires just compensation?”).
upholding an expansive view of section 9. As a result, section 9 emerged as a potentially forceful instrument for habitat conservation and endangered species protection.

For example, the court upheld environmental modifications which adversely affected an entire species as a taking. Previously, only acts that directly killed a member of a listed species were deemed as takings. It also appeared for awhile that habitat destruction that prevented recovery of a species, by affecting essential behavior patterns, would be upheld as a taking. The Ninth Circuit's progressive stand in favor of a broad construction of section 9 influenced courts throughout the United States.

_Tribe v. Navy_ provided a means for the Ninth Circuit to continue to delineate the contours of section 9. The opinion, however, raises more questions than it answers. For instance, the court purported to, but in truth did not, evaluate whether the Navy's diversions effected a taking since they harmed the cui-ui and jeopardized its survival. A closer reading reveals that the court never reached the issue of harm since the Tribe failed to prove that the Navy alone actually caused degradation of the cui-ui's habitat. According to the holding, only if the Tribe first proved that the Navy was the only actual causer would a claim of harm in section 9 be evaluated. If multiple contributors degrade a single habitat, then it can never be proved that any one actually caused the destruction and all are exempt from blame. Degradation of the habitat remains unchecked, further imperiling the endangered species. Consequently, even when habitat destruction obliterates an entire species, no contributors will be accountable.

Congress' intent in passing the ESA was to conserve endangered species and their habitats. Application of section 9 for that purpose required the Ninth Circuit to adopt a policy for resolving the issue of a single habitat's degradation by multiple entities. One alternative, comparative fault apportionment in tort litigation, is applicable to environmental issues such as section 9. An option thus existed whereby the court could have fairly distributed responsibility among all Truckee water users whose diversions degraded the cui-ui's habitat. Therefore, instead of exempting the Navy as one of several degraders, application of section 9 required the court to employ an equitable policy for spreading responsibility among all degraders.

The opinion also rendered the definition for harm in section 9 vague and ineffectual. The court misquoted its own holding in *Palila II* to imply that harm included only habitat destruction that results in extinction. Its holding in _Palila II_, however, suggested that habitat destruction resulting in extinction was not the only possible definition of harm. By changing the exact wording used in _Palila II_, the court effected a different intimation. This deviation caused confusion regarding the meaning of harm
in section 9. Also, by misquoting *Palila II*, the court left indefinite the proposition established in *Palila II*, that the Ninth Circuit supported an expansive view of harm. In *Tribe v. Navy*, the court took a restrictive view of harm, though the more persuasive arguments favor an expansive interpretation.

The *Tribe v. Navy* opinion raised several doubts regarding interpretation of section 9 of the ESA. The decision leaves uncertain how section 9 should be applied when there are several contributors to a single habitat's degradation. It is vague from the decision what constitutes harm within section 9. It is unclear whether a restrictive or expansive construction of harm will be favored by the Ninth Circuit. Consequently, the survival of untold numbers of endangered species may be further jeopardized. Their advocates will have no idea from the opinion how to proceed in order to establish an ESA taking. The Ninth Circuit failed to clarify important terms and issues in section 9 that would protect endangered species and their habitats.

JUDITH LUCK