Recent Developments in Endangered Species Case Law

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The recent controversy over spotted owls and logging rights in the Pacific Northwest has polarized proponents of species conservation and proponents of development. Not since the infamous snail darter threatened to prevent the operation of a multi-million dollar hydroelectric project has the tension between continued economic and technological development and natural resource conservation been presented so starkly. It is in this environment that the Endangered Species Act of 1973 (ESA) must come up for reauthorization. As a result of the spotted owl controversy, the Bush administration has indicated that it will attempt to have the ESA amended.2

If amendments to the ESA are attempted, the focus will be on providing greater involvement for the "God Committee," a decision making body which can exempt a project from the restrictions of the ESA, and incorporating economic factors into the endangered species analysis.3 The changes are unlikely to affect the bulk of endangered species cases, however, and the ESA in its present form continues to merit close study.

Although the ESA receives widespread attention only when a situation like the spotted owl controversy arises, it has in fact become an increasingly pervasive and important statute which has begun to reach almost every human activity involving land use. The ESA has been the basis for litigation of a diverse variety of human activities, ranging from oil and gas exploration4 and timber harvesting,5 to the

3. Id.
registration of pesticides and the diversion of water. The scope of the ESA encompasses all actors: federal and state agencies and private individuals. Recent litigation interpreting the ESA has expanded the reach of the Act, enhancing the conservation of species under the ESA. This article discusses recent developments in ESA case law, particularly the recent expansive interpretations of section 7(a)(1) and section 9.

Section 7(a)(2): Interagency Cooperation

Section 7(a)(2) brings the consideration of protected species into the decision making process of federal agencies. Section 7(a)(2) requires that federal agencies insure that their actions are not likely to jeopardize the continued survival of protected species. The requirement to insure no jeopardy to the continued survival of a protected species has been the most litigated section of the ESA. In Tennessee Valley Authority v. Hill, the Supreme Court established that section 7(a)(2) required federal agencies to give "first priority to the declared national policy of saving endangered species." Sections 7(b) through 7(d) provide a procedural process that


8. ESA § 7(a)(2), 16 U.S.C. § 1536(a)(2). The Fish and Wildlife Service regulations provide that the continued existence of a species would be "jeopardized" if the action "reasonably would be expected directly or indirectly to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species." 50 C.F.R. § 402.02 (1990).


10. Id. at 185. For a discussion of the background of TVA v. Hill, see Plater, Reflected in a River: Agency Accountability and the TVA Tellico Dam Case, 49 Tenn. L. Rev. 747 (1982).
facilitates compliance with the requirement of section 7(a)(2).\textsuperscript{11}

Early cases interpreting section 7 established that this section acted as a mandate to all federal agencies to consult with the Fish and Wildlife Service (FWS) or the National Marine Fisheries Service (NMFS) concerning the effect of their actions on protected species.\textsuperscript{12}

Recent cases have continued to develop the procedural requirements of section 7. In \textit{Connor v. Burford},\textsuperscript{13} the Ninth Circuit limited incremental-step consultation under section 7(a)(2); the court held that biological opinions prepared in fulfillment of the section 7(a)(2) duty must consider the full impact of the action. The Ninth Circuit recognized that incremental-step consultation had been upheld on a number of occasions when the action involved oil and gas lease sales made pursuant to the Outer Continental Shelf Lands Act, but declined to expand the incremental-step consultation approach to other situations.\textsuperscript{14} The Ninth Circuit held that a biological opinion that focused only on the initial stages of an agency action failed to meet the procedural requirement to use the best available data.\textsuperscript{15}

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\textsuperscript{11} ESA § 7 (b)-(d), 16 U.S.C. § 1536 (b)-(d).
\textsuperscript{13} 848 F.2d 1441 (9th Cir. 1988).
\textsuperscript{14} \textit{Burford}, 848 F.2d at 1456-57. For decisions approving incremental-step consultation in the context of oil and gas lease sales under OCSLA, see \textit{False Pass v. Clark}, 733 F.2d 605 (9th Cir. 1984); \textit{North Slope Borough v. Andrus}, 642 F.2d 589 (D.C. Cir. 1980).
\textsuperscript{15} \textit{Burford}, 848 F.2d at 1453.
\end{flushright}
Following Burford, the Ninth Circuit again held that biological opinions need to consider all post leasing activities.\textsuperscript{16} In Sierra Club v. Marsh,\textsuperscript{17} the Ninth Circuit established that the requirement to use the best available data was a continuing obligation. If new information concerning the impact of an action on a species comes to light, the agency has a duty to reinitiate consultation.\textsuperscript{18} This continuing obligation insures that the affect of an action on a protected species is analyzed using only the best available data.

The scope of section 7(a)(2) has been expanded recently in two important areas. Species which are to be considered for listing are now protected and federal agency actions outside U.S. boundaries must now comply with section 7(a)(2).

Protection for Species Which Are Awaiting Listing Determinations

The growing number of species awaiting determinations for placement on a protected list caused Congress to amend the ESA to provide protection for species which were proposed for listing, but which had yet to be listed.\textsuperscript{19} In Enos v. Marsh,\textsuperscript{20} the Ninth Circuit established the requirements federal agencies must meet when dealing with species proposed for listing. The Ninth Circuit held that when action is going to affect species proposed for listing, the federal agency must confer with the FWS informally and obtain a biological


\textsuperscript{17} 816 F.2d 1376 (9th Cir. 1987).

\textsuperscript{18} Id. at 1387-88.

\textsuperscript{19} ESA § 7(a)(4), 16 U.S.C. § 1536(a)(4). As of 1989, there were 1,566 species of animals and 1,595 species of plants awaiting evaluation for listing on the endangered and threatened species list. Gavin, What's Wrong with the Questions We Ask in Wildlife Research?, 17(3) WILDLIFE SOC'Y BULL. 345, 348 (1989).

\textsuperscript{20} 769 F.2d 1363 (9th Cir. 1985).
The court treated the application of 7(a)(2) to proposed species as purely procedural; the federal agency is not prevented from going forward with the contemplated action if the FWS should find a likelihood of jeopardy, nor is the agency prevented from making an irretrievable commitment of resources.

Application of Section 7(a)(2) Outside U.S. Territory

A recent important case has expanded the scope of the duty to insure no jeopardy to include agency action outside the territory of the United States. In 1986, the FWS issued interpretive regulations which provided that section 7(a)(2) did not apply to federal agency action outside the United States. The restriction of the scope of section 7(a)(2) to domestic action removed protection for over 500 species that occur exclusively outside the United States. In addition, it restricted the protection of migratory animals which depend on habitat in foreign countries as well as in the United States. As a result, the FWS regulations threatened to severely hamper the ability of the ESA to protect species listed as threatened or endangered. In Defenders of Wildlife v. Hodel, the court held that the plain language of the ESA requires a determination of jeopardy any time a federal agency action affects an endangered or threatened species, regardless of whether the species occurs in a foreign country or not.

21. Id. at 1368.
22. Id.
24. 50 C.F.R. § 402.01(a) (1987).
25. Id. § 17.11.
While the procedural requirements of 7(a)(2) continue to evolve, recent interpretations of section 7(a)(1) and section 9 have led to an expansion of the substantive portions of the ESA.

SECTION 7(a)(1): THE DUTY TO CONSERVE

Courts have interpreted section 7(a)(1) expansively in recent cases. Section 7(a)(1) requires the Secretary of the Interior to use programs administered by him to further the purposes of the ESA. It also requires all other federal agencies, in consultation with the Secretary, to use their authorities to further the purposes of the ESA.28 Courts interpreting section 7(a)(1) have looked to the stated purposes of the ESA to determine the extent of the duty imposed by this section.

Section 2(b) states that the purposes of the ESA are to conserve the ecosystems upon which endangered and threatened species depend and also to provide programs for the conservation of the endangered and threatened species themselves.29 The ESA defines "conserve" as "the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this chapter are no longer necessary."30

Courts have thus interpreted section 7(a)(1) to require federal agencies to act affirmatively in a manner that leads to the recovery

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28. ESA § 7(a)(1), 16 U.S.C. § 1536(a)(1). Section 7(a)(1) states: "The Secretary shall review other programs administered by him and utilize such programs in furtherance of the purposes of this chapter. All other Federal agencies shall, in consultation with and with the assistance of the Secretary, utilize their authorities in furtherance of the purposes of this chapter by carrying out programs for the conservation of endangered species and threatened species listed pursuant to section 1533 of this title.

Id.

29. ESA § 2(b), 16 U.S.C. § 1531(b).

of protected species. This affirmative duty to increase the populations of protected species places a greater burden on federal agencies than does the section 7(a)(2) duty to insure that agency action is not likely to jeopardize the continued survival of protected species. Under section 7(a)(1), it is no longer sufficient for a federal agency to assert that it determined no jeopardy would result from its contemplated action; instead, the agency must show that the contemplated action will further the conservation of the protected species in question.

Section 7(a)(1) was first addressed in *Defenders of Wildlife v. Andrus.* The FWS issued hunting regulations that allowed hunting of migratory game birds to begin one half hour before sunrise and to continue one half hour after sunset. The regulations were challenged by Defenders of Wildlife because of the concern that protected birds could not be distinguished from other birds during times of low visibility. Defenders of Wildlife argued that hunting should be restricted to after sunrise and before sunset.

The court interpreted section 7(a)(1) to require federal agencies to conserve and increase populations of protected species. The FWS argued that the proper focus was whether the regulations violated section 7(a)(2); that as long as the regulations did not jeopardize the continued existence of a protected species, there was no violation of the ESA. The court rejected this argument and held that the definition of "conserve" provides that federal agencies "must use all methods necessary. . . ." The FWS cannot limit its focus to what it considers the most important management practice, in this

32. Id. at 169.
33. Id.
34. Id. at 170.
35. Id. at 169.
36. Id. at 170.
case the preservation of habitat, but must also consider other effects on the protected species, including the effect of accidental shootings. The court held that the hunting regulations were arbitrary and could not be upheld because the rulemaking process was not adequately focused on the obligation to conserve.

The second case addressing section 7(a)(1) also involved hunting regulations issued by FWS. In Connor v. Andrus, hunters challenged FWS regulations which banned all hunting in certain areas because of the presence of the endangered Mexican Duck. The plaintiffs claimed that there was no evidence that hunting in areas where the Mexican Duck is present posed a threat to the species. The FWS did not refute this claim, instead arguing that it had an affirmative duty to conserve species and had the discretion to choose what regulations to issue in fulfillment of this duty.

Although the court recognized the affirmative duty that section 7(a)(1) places on federal agencies, it held that this duty is not met by regulations which do not address the causes of harm to a species. The court required federal agencies to establish a rational basis for the promulgation of regulations. The court found no evidence that the hunting ban would increase the population of the endangered duck species and struck the regulations down.

These two early cases applying section 7(a)(1) suggested that regulations had to be justified by an administrative record that clearly

37. Id. at 170.
38. Id.
40. Id. at 1039.
41. Id. at 1040.
42. Id. at 1041.
43. Id.
44. Id.
45. Id. at 1041-42.
established the regulations would indeed further the purposes of the ESA. The extent to which agency regulations had to effectively conserve protected species continued to develop in later cases. In *National Wildlife Federation v. Hodel*, the National Wildlife Federation challenged continued FWS approval of lead gunshot for hunting in foraging areas of the protected bald eagle. The FWS and the National Wildlife Federation agreed that lead gunshot caused inadvertent poisoning of bald eagles. The FWS was actively addressing the problem, but had decided to allow lead gunshot for one more season. The National Wildlife Federation sought to enjoin the approval of lead gunshot for the additional season, arguing that continued approval was in contravention of the FWS's duty to conserve protected species. The FWS acknowledged that it had a duty under section 7(a)(1) to conserve protected species, but argued that the duty does not abrogate the discretion to choose how to achieve this end.

The court held that the FWS regulations were arbitrary because the FWS had failed to articulate a rational connection between the factors found and the choice made. The court noted that it could not uphold the choice the FWS made because the decision to approve the continued use of lead gunshot was not supported by a record indicating the factors considered by the FWS.

*Defenders of Wildlife v. Andrus, Connor v. Andrus, and National*
Wildlife Federation v. Hodel established that agency discretion in promulgating regulations for the protection of species is limited. More recently, however, courts have suggested that the agency should be accorded greater deference. Litigation concerning the promulgation of sea turtle regulations by the National Marine Fisheries Service (NMFS) illustrates both a restrictive and a deferential approach to agency responsibility under section 7(a)(1).

In Louisiana v. Verity, the court addressed the issue of whether NMFS could promulgate regulations that focused on only one cause of endangerment to sea turtles without addressing other threats. The appellants, relying on Connor v. Andrus, argued that the regulations violate section 7(a)(1) unless it can be shown that they effectively conserve the protected species. The Fifth Circuit accorded substantial deference to NMFS in interpreting section 7(a)(1). The Fifth Circuit held that NMFS had demonstrated that the regulations adequately address the incidental takings of sea turtles and that is all that it need demonstrate; an agency is not required to demonstrate that the measures taken will save a species from extinction.

Despite the Fifth Circuit’s holding, NMFS suspended the regulations after shrimpers protested the regulations’ enforcement. The National Wildlife Federation brought suit to enjoin the suspension of the regulations. In reviewing the suspension of the

54. 853 F.2d 322 (5th Cir. 1988).
55. Id. at 332.
56. Id. at 333. The Fifth Circuit stated, "regulations aimed at preventing the taking of a protected species cannot be invalidated on the ground that the record fails to demonstrate that the regulatory effort will enhance the species' chance of survival. Insofar as Connor v. Andrus . . . requires such a showing, we disapprove its holding." Id.
58. Id.
regulations, the district court accorded little deference to NMFS.\textsuperscript{59} The court treated the suspension of regulations as a conservation measure and found it inadequate, stating, "[t]he Secretary has utterly failed to show how the 45-day suspension of any protection for endangered and threatened turtles, during the height of the Gulf shrimping season, will foster conservation."\textsuperscript{60}

When agency action differs from regulations of the type found in \textit{Verity}, section 7(a)(1) effectively acts as a bar to the action, unless it can be shown that the species is benefitted. In \textit{Sierra Club v. Clark},\textsuperscript{61} the court addressed an attempt by the FWS to implement a sport hunting season on a threatened species, the eastern timber wolf. The Eighth Circuit held that a sport hunting season of a threatened species runs counter to the purposes of the ESA and that the FWS had therefore violated its section 7(a)(1) duty to conserve protected species.\textsuperscript{62} The FWS approved a sport hunting season because it determined, pursuant to its section 7(a)(2) duty, that a sport hunting season would not be likely to jeopardize the continued existence of the eastern timber wolf. \textit{Sierra Club v. Clark} illustrates that under section 7(a)(1) it is no longer sufficient that an agency's action meets the burden of insuring no jeopardy under section 7(a)(2). Applied in this manner, section 7(a)(1) subsumes section 7(a)(2).

The affirmative duty to further the purposes of the ESA by conserving protected species is becoming a firmly established

\textsuperscript{59} The court accorded limited deference because "an agency changing its course by rescinding a rule is obligated to supply a reasoned analysis for the change beyond that which may be required when an agency does not act in the first instance." \textit{Id.} (citation omitted). The suspension of regulations by NMFS is thus a special circumstance that requires closer judicial scrutiny than would otherwise be the case.

\textsuperscript{60} \textit{Id.}

\textsuperscript{61} 755 F.2d 608 (8th Cir. 1985).

\textsuperscript{62} \textit{Id.}
interpretation of section 7(a)(1). The extent of this duty and whether the duty applies equally to all federal agencies is the focus of recent cases interpreting section 7(a)(1).

In *Carson-Truckee Water Conservancy District v. Watt,* the plaintiffs challenged the Secretary's decision not to sell water from the Washoe water project, instead allocating all available water to the endangered species found in Pyramid Lake. The plaintiffs argued that the Secretary is required only to avoid jeopardizing the continued survival of protected species, but the district court held that the decision was proper because the Secretary has a duty to develop programs for restored protected species to the point where protection of the ESA is no longer required.

On appeal, the appellants argued that the Secretary's duty is defined solely by section 7(a)(2) and therefore the Secretary is authorized only to take actions that avoid jeopardizing the continued existence of a protected species. The Ninth Circuit rejected this argument, affirming the district court's interpretation that section 7(a)(1) specifically directs the Secretary to use programs administered by him to further the conservation purposes of the ESA. The Ninth Circuit held that section 7(a)(1) directs the Secretary to actively pursue a species conservation policy, and that the ESA supports the Secretary's decision to give priority to the endangered fish species.


64. *Carson-Truckee,* 549 F. Supp. at 709.

65. *Id.* at 710.


67. *Id.* at 261-62. The court distinguished agency action that is intended to conserve a species from all other types of agency action, finding section 7(a)(2) inapplicable when the action is intended to conserve a species. *Id.*
until they no longer need the protection of the ESA.\textsuperscript{68} In support of this interpretation of section 7(a)(1), the Ninth Circuit noted that "Congress intended to 'halt and reverse the trend towards species extinction, whatever the cost.'"\textsuperscript{69} The Ninth Circuit did not address the question of whether section 7(a)(1) mandated the use of the water entirely for conservation purposes had the Secretary chosen not to allocate it to the endangered species.\textsuperscript{70}

The most recent case addressing section 7(a)(1) also involved the endangered species in Pyramid Lake and the threat posed to the species by the diversion of water. In \textit{Pyramid Lake Paiute Tribe v. United States Department of Navy},\textsuperscript{71} the Navy argued that section 7(a)(1) requires Federal agencies to develop conservation programs only to the extent that the programs are consistent with the primary mission of the agency.\textsuperscript{72} The Tribe contended that the Navy has an obligation to consider the range of alternative actions and adopt the one least detrimental to protected species.\textsuperscript{73}

The Ninth Circuit stated that section 7(a)(1) is neither as expansive as the Tribe proposed nor as limited as the Navy argued.\textsuperscript{74} According to the Ninth Circuit, the Tribe's interpretation of section 7(a)(1) would divest Federal agencies of all discretion in determining

\textsuperscript{68} \textit{Id.} at 262.
\textsuperscript{69} \textit{Id.}
\textsuperscript{70} \textit{Id.} at 262 n.5.
\textsuperscript{71} 898 F.2d 1410 (9th Cir. 1990). In this case, the appellants argued that the Navy's use of water to minimize dust and enhance safety at a desert flight training station violated the duty to conserve protected species. \textit{Id.} at 1417. The Navy leases water rights from the Carson-Truckee Water Conservancy District to local farmers who irrigate crops around the runways at Fallon airforce base. The crops minimize dust around the runways, thereby enhancing visibility for planes taking off and landing. \textit{Id.} at 1412.
\textsuperscript{72} \textit{Id.} at 1417.
\textsuperscript{73} \textit{Id.}
\textsuperscript{74} \textit{Id.} at 1417-18.
how to fulfill the duty to conserve. The discretion to be afforded Federal agencies is not as great as the Navy argued, however. The Ninth Circuit held that the plain language of the ESA indicates endangered and threatened species are to be afforded the highest priority, and the legislative history makes it clear that this priority is not to be tempered by the primary missions of federal agencies. The Ninth Circuit qualified the legislative history of the ESA, however, by noting that Congress had amended the ESA since Tennessee Valley Authority v. Hill, indicating a modification of the previous policy that species be preserved at all costs. The Ninth Circuit affirmed the district court's finding that the Navy did not abuse its discretion in violation of section 7(a)(1).

The facts in Pyramid Lake favored the Navy; the FWS approved the Navy's action and found no violation of section 7(a)(2). FWS's approval was one reason the Ninth Circuit concluded that section 7(a)(1) had not been violated. In addition, the Ninth Circuit noted that the Navy's actions were not placing the endangered species in Pyramid Lake in grave danger, and therefore

75. Id. at 1418.
76. Id.
77. Id. at 1418 n.16. The example the Ninth Circuit provided in support of this suggestion was the creation of the exemption process which allows agencies, in circumscribed instances, to have their actions exempted from the requirements of section 7(a)(2). Id. Since the Congressional amendments, however, courts have continued to cite TVA v. Hill for the proposition that endangered species are to be given the highest priority. See, e.g., Roosevelt Campobello Int'l Park Comm'n v. E.P.A., 684 F.2d 1041, 1049 (1st Cir. 1982) ("Agencies continue to be under a substantive mandate to use all methods and procedures which are necessary to prevent the loss of any endangered species, regardless of the cost") (emphasis omitted). See also Erdheim, The Wake of the Snail Darter: Insuring the Effectiveness of Section 7 of the Endangered Species Act, 9 ECOLOGY L.Q. 629, 636 (1981) ("The most significant fact about the amendments . . . was that the substantive standard . . . [was] not changed.").
78. Pyramid Lake, 898 F.2d at 1419.
79. Id. at 1418.
TVA v. Hill did not compel adoption of the Tribe's demanding interpretation of section 7(a)(1).\textsuperscript{80} Based on these facts, the Ninth Circuit noted that even under a stringent interpretation of section 7(a)(1), the Navy would probably not be found in violation of the ESA.\textsuperscript{81}

Although resolution of Pyramid Lake did not require a probing analysis of section 7(a)(1), the Ninth Circuit took the opportunity to consider the scope of section 7(a)(1). The court distinguished agencies within the Department of Interior (DOI) from all other Federal agencies, explaining that while section 7(a)(1) imposes an affirmative duty on non DOI agencies, that duty is not as great as the duty placed on DOI agencies.\textsuperscript{82} The Ninth Circuit based its holding on the fact that FWS regulations governing interagency consultation provide that conservation recommendations made by the FWS to other Federal agencies are considered "advisory"\textsuperscript{83} thus the action agency has discretion to decide whether to implement FWS conservation recommendations.\textsuperscript{84}

\textsuperscript{80} Id.

\textsuperscript{81} Id. The Ninth Circuit did not find the endangered species to be in grave danger as a result of the navy's activities, nor did it find that the Tribe's recommendations would be particularly helpful. The court stated, "our reasoning hinges primarily on the district court's finding that the Tribe's proposals would be of insignificant effect upon the availability of water..." "An insignificant conservation measure in the context of ESA is oxymoronic..." The court went on to note that the ESA definition of "conserve" contemplates only the use of all methods which are necessary. \textit{Id}.

\textsuperscript{82} Id. The court focused on DOI because the FWS, a DOI agency, is the most active agency in wildlife conservation, and because the endangered species in Pyramid Lake are the responsibility of the FWS. However, the National Marine Fisheries Service (NMFS), a Department of Commerce agency, shares responsibility for species conservation under the ESA. In accordance with the Ninth Circuit's analysis, NMFS, as well as agencies under the DOI, should be distinguished from all other Federal agencies because their primary mission is the conservation and management of flora and fauna.

\textsuperscript{83} Id. n.18 (citing 50 C.F.R. § 402.14(j) (1989)).

\textsuperscript{84} Id.
Pyramid Lake narrows the scope of responsibility for non-DOI agencies. After Pyramid Lake, however, the extent to which non-DOI agencies must adopt conservation measures when the failure to do so would place a protected species in grave danger, is still unclear. Because Pyramid Lake is not a compelling case factually, it is likely courts will continue to interpret section 7(a)(1) strictly for all Federal agencies when it is plain that failure to adopt conservation measures will result in harm to the species.  

SECTION 9: THE TAKING PROHIBITION

Section 9(a)(1)(B) is an increasingly important provision of the ESA. Although a number of prior wildlife laws contained provisions prohibiting the taking of animals, none have been as broad in scope as section 9(a)(1)(B). Section 9(a)(1)(B) makes it unlawful to "take" any species listed as endangered pursuant to section 4 of the ESA. Section 3(19) defines "take" as, "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." The section 9 taking prohibition is broader in scope than traditional taking prohibitions largely because of its scope.

85. In situations where the facts more closely resemble TVA v. Hill, courts will find it difficult to ignore the legislative history cited by the Supreme Court in TVA v. Hill. Representative Dingell made it clear section 7 was intentionally stringent when he stated, "The purposes of the bill included the conservation of the species and of the ecosystems upon which they depend, and every agency of government is committed to see that those purposes are carried out . . ." TVA v. Hill, 437 U.S. 153, 184 (1978) (quoting 119 CONG. REC. 42913 (1973)).


88. The prohibitions contained in section 9(a) are limited specifically to endangered species. ESA § 9(a), 16 U.S.C. § 1538(a). The Secretary can make section 9(a)(1) applicable to threatened species on a case by case basis pursuant to section 4(d). ESA § 4(d), 16 U.S.C. § 1533(d).

89. ESA § 3(19), 16 U.S.C. § 1532(19).
of the definition the FWS gave "harm" in its agency regulations. The FWS defined "harm" to include environmental degradation that injures or kills wildlife by significantly disrupting essential behavioral patterns, including breeding, feeding, or sheltering.90

The first case to illustrate the potential reach of section 9 was Palila v. Hawaii Department of Land & Natural Resources (Palila I).91 In Palila I, a number of citizen groups brought suit against the state agency managing the habitat of the endangered Palila, a finch-billed member of the Hawaiian Honeycreeper family.92 For a number of years, the Hawaii Department of Land and Natural Resources had been managing a population of feral goats in the Palila’s critical habitat in order to provide hunting opportunities for sportsmen.93 The plaintiffs challenged this practice because the feral goats were causing damage to the vegetation upon which the Palila depended for its survival.94 The district court held that the maintenance of feral goats in the Palila’s critical habitat amounted to an unlawful taking under section 9.95

On appeal, the appellants argued that no taking had occurred because appellees could not show the Palila to be in danger of reaching a population level from which the species could not recover.96 The Ninth Circuit dismissed this argument, noting that the presence of feral goats in the Palila’s habitat satisfied the FWS’s definition of "harm" because the goats caused "significant

90. 50 C.F.R. § 17.3 (1989).
91. 471 F. Supp. 985 (D. Haw. 1979), aff’d, 639 F.2d 495 (9th Cir. 1981).
92. Id. at 988.
93. Id. at 989. For a thorough discussion of the background events leading to litigation, see Tobin, Interorganizational Implementation of the Endangered Species Act: A Hawaiian Case Study, 4 J. LAND USE & ENVTL. L. 309 (1989).
95. Id. at 995.
96. Palila I, 639 F.2d at 497.
environmental modification or degradation" which actually injures or kills wildlife. The Ninth Circuit affirmed the district court, noting that Congress had been informed that habitat destruction is a primary threat to endangered species. In Palila I, there had been no federal agency action; had there been, the destruction of habitat that had been designated critical could have been found to violate section 7(a)(2). Section 9 thus acts to protect critical habitat from threats that are not covered by section 7(a)(2).

Palila I indicated that section 9 of the ESA has a broader scope than previous taking prohibitions. The plaintiffs did not have to produce evidence of the mortality of specific individuals to succeed on a taking claim; they merely had to show that the Palila’s survival was dependant on the last remaining mamane-naio forest, which the feral goats were destroying. After Palila I, the extent of the scope of section 9 still remained uncertain, however.

In Palila II, the district court again addressed the threat to the Palila. In the interim, the FWS had redefined "harm." In interpreting the new FWS definition of "harm", the court reaffirmed that "harm" can include significant habitat destruction. While noting that harm to wildlife includes altering essential behavioral patterns, the court appeared to limit the notion of harm to negative

97. Id.
98. Id. at 498.
99. 50 C.F.R. § 17.95 (1990). The Palila’s habitat was designated as a critical habitat in 1977.
100. Section 7(a)(2) requires Federal agencies to insure their actions will not "result in the destruction or adverse modification of habitat...which is determined...to be critical." ESA § 7(a)(2), 16 U.S.C. § 1536(a)(2).
103. Palila II, 649 F. Supp. at 1075. The court held the amended definition did not substantively change the previous definition of harm. Id.
impacts on a species which threaten the continued existence or recovery of a species.\textsuperscript{104}

After \textit{Pallila II}, for section 9 to be violated under a "harm" analysis, a showing must be made that the harm to individual organisms has an effect at the population or species level. The court's discussion of harm implicitly incorporates the analyses of sections 7(a)(1) and 7(a)(2). A determination that the harm threatens the survival of the species incorporates the section 7(a)(2) analysis of "not likely to jeopardize the continued survival," and a determination that harm threatens the recovery of a species is similar to the section 7(a)(1) analysis of a "duty to conserve."

In \textit{Pyramid Lake Paiute Tribe v. United States Department of the Navy}, the Ninth Circuit appeared to limit the holding in \textit{Pallila I}, suggesting a finding of harm can be made only when the survival of a species is threatened.\textsuperscript{105} This type of injury requirement was met easily in \textit{Pallila I} and \textit{Pallila II}.\textsuperscript{106} In \textit{Sierra Club v. Lyng},\textsuperscript{107} a recent case dealing with harm to the red-cockaded woodpecker as a result of timber harvesting, this requirement was also met. In \textit{Lyng}, the habitat at issue was not the sole habitat of the species, but the court nonetheless found that degradation of this habitat would impact the species sufficiently to consider it a threat to the continued existence of the species.\textsuperscript{108} \textit{Sierra Club v. Lyng} is significant because it

\textsuperscript{104} Id. The court stated, "this would include activities that significantly impair essential behavioral patterns to the extent that there is an actual negative impact or injury to the endangered species, threatening its continued existence or recovery." \textit{Id.}

\textsuperscript{105} 898 F.2d 1410 (9th Cir. 1990).

\textsuperscript{106} The habitat of the Palila had been designated critical, and the sole population of the species was dependent on that habitat; thus any damage to the Palila's habitat threatened the species as a whole.


\textsuperscript{108} The court made a finding of fact that by 1995 the red-cockaded woodpecker would be extinct in Texas. \textit{Id.} at 1266.
expanded the reach of section 9 by establishing that the section 9 prohibition against harm includes habitats relied upon by populations of an endangered species, regardless of whether the habitat has been designated critical habitat or not.\footnote{109}

Section 9 is an effective bar to other indirect harms in addition to habitat destruction. In\footnote{109} National Wildlife Federation v. Hodel,\footnote{110} the court held that the continued approval of lead gunshot by the FWS when it was known that lead caused inadvertent poisonings of protected species constituted a taking. The EPA's registration of strychnine for above-ground use was similarly held to be a taking violation because protected species, as well as the intended pest species, died from the strychnine.\footnote{111} In Defenders of Wildlife v. EPA, the Eighth Circuit held that a "taking occurs when the challenged activity has `some prohibited impact on an endangered species.'"\footnote{112} The court determined that the EPA's strychnine registration had a prohibited impact on endangered species.\footnote{113} Because strychnine can be used only if it is registered, the Eighth Circuit held that the EPA registration constituted a taking and upheld the district court's injunction of the registration.\footnote{114}

\footnote{109} No critical habitat has been designated for the red-cockaded woodpecker. See 50 C.F.R. § 17.95 (1990). In fact, critical habitat has been designated for only 10 of 67 birds on the list. \textit{Id.}

\footnote{110} 23 Env't. Rep. Cas. (BNA) 1089 (E.D. Cal. 1985).

\footnote{111} Defenders of Wildlife v. EPA, 882 F.2d 1294 (8th Cir. 1989).

\footnote{112} \textit{Id.} at 1300-01, (citing \textit{Palila I}, 639 F.2d at 497, and \textit{Lyng}, 694 F. Supp. at 1268-72).

\footnote{113} \textit{Id.} at 1301. To support this determination, the court cited NWF v. Hodel, 23 Env't Rep. Cas. (BNA) 1089, 1092-93 (E.D. Cal. 1985).

\footnote{114} \textit{Id.} The court went on to note that the taking was not permitted because the EPA had no authorization from the FWS for the incidental takings. \textit{Id.} The registration was struck down even though the EPA was acting under authority granted by the Federal Insecticide Fungicide and Rodenticide Act (FIFRA); the court held that a Federal agency must still comply with the ESA, even if acting under a different statute. \textit{Id.} at 1299 (citing Conservation Law Found. v. Andrus, 623 F.2d 712, 715 (1st Cir. 1979)). It had been established as early as 1979, in
After National Wildlife Federation v. Hodel and Defenders of Wildlife v. EPA, agency activities, no matter how remote, may be found to violate section 9 if they facilitate actions by third parties which have a prohibited impact on endangered species. Palila II also suggests a departure from a number of cases which held that section 9 does not protect against prospective harm. In Palila II, the court rejected the defendant's argument that any effect the sheep had on the vegetation was only a potential harm that is not covered under the definition of harm. The court stated, "Congress could not have intended such a shortsighted and limited interpretation of 'harm.' A finding of 'harm' does not require . . . a finding that habitat degradation is presently driving the species further toward extinction."

Recent cases interpreting section 9 have thus expanded the prohibition to include injury that is prospective and to cover remote actions that facilitate takings by third parties. The interpretation of section 9 and section 7(a)(1) in recent cases suggests the sections are collapsing into a single analysis. Under the "harm" analysis of section 9, courts are beginning to determine whether the action hinders the recovery of a species, an analysis similar to that used under section 7(a)(1). Once section 9 has been found to be violated, courts have

Conservation Law Foundation v. Andrus, that section 7(a)(2) of the ESA applied of its own force, regardless of what statute a Federal agency was acting under. Defenders of Wildlife v. Administrator, EPA, establishes that this analysis applies to section 9 as well.


117. Id.
been quick to find a section 7(a)(1) violation as well. The growing interdependence of section 9 and section 7(a)(1) provides greater force to both sections and thus enhances the conservation of species under the framework of the ESA.

**CONCLUSION**

Recent interpretations of the substantive sections of the ESA have focused increasingly on the question of the recovery of a species, rather than on the question of whether a species' survival is threatened. This analysis shifts the focus to the purposes of the ESA, the conservation of species, to the point where the protection of the ESA is no longer required. This emphasis on the purposes of the ESA results in an outcome determinative analysis which effectively protects species when sufficient information is before the court. If the information before the court indicates that recovery of the species will be hindered, it is likely the contemplated action will be barred. Recent interpretation of the ESA has thus expanded the reach of the Act, providing a more comprehensive system for protecting threatened and endangered species.