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FEDERAL PROTECTION OF UNIQUE ENVIRONMENTAL INTERESTS: ENDANGERED AND THREATENED SPECIES

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Endangered species protection has long been favored by many Americans, who watched regretfully as the numbers of American eagles, buffaloes and other species dwindled toward extinction. Only recently, however, has species protection become a matter of public controversy, subsumed in the more general "development v. environment" debate. In this Article, Professor Rosenberg surveys the federal government's role in species protection, with a special focus on the Endangered Species Act of 1973. Prompted by the much-publicized Supreme Court decision in the "snail darter case"—TVA v. Hill—Congress extensively amended the Act in 1978. After a detailed analysis of these amendments, Professor Rosenberg concludes that, though Congress made some significant changes in the federal system of species protection, the strong pro-species policy embodied in the 1973 Act remains intact.

I. INTRODUCTION

Society's awareness of environmental interests continues to expand as events place increasing varieties of environmental concerns before the public. The nuclear power incident at the Three Mile Island power plant¹ provides a chilling example of one serious environmental problem. But beyond the confines of the obvious issues involving nuclear safety or air and water pollution, there is a growing consciousness of specialized environmental problems that have previously escaped the attention of the legal profession and the general public.² One of these

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1. See N.Y. Times, Mar. 29, 1979, at 1, col. 2 (city ed.).

2. An increasing amount of environmental litigation is being brought by individuals and

interests—endangered species protection—serves as the focus of this Article. That society has acted to protect this special interest may be surprising at a time when environmental protection activities in general have been challenged on economic grounds as being inflationary and as inefficient allocations of resources.³ In spite of these economically based attacks upon environmental regulation, congressional and judicial support for endangered species protection has continued.

This area of federal regulatory policy is especially important because it concerns the preservation of unique, irreplaceable environmental assets. The protection of these biologically significant interests reflects a heightened level of social sensitivity to highly important, yet abstract, concerns. Whether the motivation is grounded upon genetic, philosophical, ecological, patriotic or economic reasoning, endangered species preservation has been supported by society through protective legislation. It is possible that social perceptions of a desirable quality of life have gradually expanded to include endangered species preservation as a necessary component.

It has long been recognized that the expanding number and variety of federal actions have constituted a major cause of environmental disruption and damage. The extensive litigation brought under the National Environmental Policy Act⁴ (NEPA) within the last decade attests to that fact.⁵ In fact, one of the purposes of NEPA has been to make

organizations who are claiming violation of specialized environmental review statutes, in addition to allegations of noncompliance with the National Environmental Policy Act (NEPA), 42 U.S.C. §§ 4321-4347 (1976). See W. RODGERS, HANDBOOK ON ENVIRONMENTAL LAW 822-34 (1977).

3. In spite of recent national public opinion polls indicating continued public support for environmental protection, see 9 ENVIR. REP. (BNA) 1617 (1978), (citing Resources For the Future national opinion study), and EPA studies illustrating the large annual net economic benefit derived from air pollution control, *id.* at 2031 (1979) (air pollution control benefits), Carter administration officials have attacked environmental control efforts as being inflationary. Alfred E. Kahn, Chairman of the Council on Wage and Price Stability, testifying before the House Banking, Finance, and Urban Affairs Committee on November 22, 1978 stated that

[w]e can't have cleaner air and cleaner water and safer products and reduced industrial accidents while at the same time having just as much of everything else as before. . . . And if we continue to demand, all of us, just as much of all those other things as before while now demanding additional amounts of environmental and occupational protection, then this does produce inflation.

Id. at 1369 (quoting testimony before House Banking, Finance and Urban Affairs Committee). Mr. Kahn stated on another occasion that economic marginal cost principles should even be applied to health-based pollution regulations. He noted, "The absence of a clear threshold at which health effects occur for most pollutants adds uncertainty and further argues for cost-benefit analysis." [1979] ENVIR. REP. (BNA) 2131. The current economically oriented attacks have focused primarily upon industrial air and water pollution controls and have not been aimed at the specialized environmental requirements considered in this Article.

4. 42 U.S.C. § 4321-4347 (1976).

5. See generally W. RODGERS, *supra* note 2, at 750-97.

agencies aware of environmental interests so that they will consider these interests in exercising their statutory authorities.⁶ The legislative action in the endangered species area, however, has transcended NEPA to provide independent procedural and substantive standards for agencies to meet.⁷ Simple compliance with the NEPA mandate will not satisfy the separate requirements of these specialized statutes.⁸ Recent legislation in this area, the Endangered Species Act (ESA),⁹ employs a system of administrative review of federal agency actions that has been structured to achieve the goal of preserving endangered and threatened species by integrating that specialized concern into the decisionmaking processes of all federal agencies. It is the application of this developing federal species preservation policy to the actions of the federal government itself that will be explored in the following discussion.

This Article will examine (1) the nature of this special environmental interest, (2) the changing congressional policies in this area, (3) the administrative review mechanism and standards created pursuant to the statutes and (4) the relative merits of both systems in achieving their protective purposes. Through such an analysis we may better understand the way in which American society, through its legal system, has chosen to value these special resources having a recognized yet unquantifiable importance to modern life.

II. UNIQUE ENVIRONMENTAL INTERESTS

In a sense, all environmental interests are unique—a high-quality air or water level, for instance, provides special health and welfare benefits that are not available at a lower quality—but are, nonetheless, distinguishable from the “unique” benefits accorded by preserving endangered species. Air and water quality can be enhanced or deterio-

6. Section 102(1) of the National Environmental Policy Act states that “[T]he Congress authorizes and directs that, to the fullest extent possible: (1) the policies, regulations, and public laws of the United States shall be interpreted and administered in accordance with the policies set forth in this [act]” 42 U.S.C. § 4332 (1976). In addition, the federal government is directed by NEPA to “improve and coordinate Federal plans, functions, programs, and resources . . . [in order to] (4) preserve important historic, cultural, and natural aspects of our national heritage, and maintain, whenever possible, an environment which supports diversity and variety of individual choice.” *Id.* § 4331(b)(4).

7. See Rosenberg & Olson, *Federal Environmental Review Requirements Other Than NEPA: The Emerging Challenge*, 27 CLEV. ST. L. REV. 195, 204-13 (1979).

8. The recent U.S. Supreme Court decision in *TVA v. Hill*, 437 U.S. 153 (1978), is a prime example. In that case, the NEPA environmental impact statement for the proposed Tellico Dam had been found adequate and was approved by the federal courts prior to the Endangered Species Act challenge that ultimately stopped the project. See *Environmental Defense Fund v. TVA*, 492 F.2d 466 (6th Cir. 1974); *Environmental Defense Fund v. TVA*, 468 F.2d 1164 (6th Cir. 1972).

9. 16 U.S.C.A. § 1536 (West Cum. Supp. 1979).

rated by specific human actions. These resources are rechargeable in most circumstances through the workings of the natural environmental system. Consequently, social decisions can result in changes in these environmental quality levels. By comparison, the destruction of a particular life form completely removes that special environmental asset from the world. The asset in a very real sense is a nonrenewable resource. A social policy that is indifferent to the continued existence of other forms of life reflects an anthropomorphic world view, which considers animal and plant life to be expendable resources. Such an attitude raises serious philosophical questions concerning the right of mankind to exterminate an entire biological species. From a more practical standpoint, a social policy that ignores the preservation of wildlife permits the depletion of the genetic pool, which could prevent future scientific and medical discoveries. America has chosen to turn away from an insensitive policy toward endangered species. Recognizing the finality of decisionmaking in this area, Congress has created special protections for endangered and threatened species. As long as endangered species are recognized as being worthy of special consideration under the law, the complex values discussed above must be inserted into the calculus for making potentially disruptive federal decisions.

In a world of competing interests, the attainment of a particular environmental value will depend upon the relative weight society accords to that interest. If it is of low relative importance, it will be subordinated to other concerns. All too often, however, individual programmatic or legislative decisions are made without any consideration of the indirect effects of those decisions. Consequently, environmentally damaging policy choices may result even if not consciously intended. From an analytical standpoint, it is important to determine the way in which Congress has directly protected endangered species in competition with other social interests. This is best reflected by the legal system through which the allocative decisions are made. In what ways are the balancing decisions actually carried out? Assuming that endangered species constitute irreplaceable or unique interests, has federal law provided an adequate mechanism to further these interests? This is the ultimate question to be addressed by this Article.

Prior to examining the legislative and administrative developments in this area of special environmental interest, certain patterns in the emerging federal policy should be emphasized. First, federal law has existed in this field since the turn of the century. Although the

initial legislation was limited in scope and relatively unsophisticated by our present standards, it did recognize the need for federal action to protect these important interests at a time of great national development. The early statutes focused upon the harmful effects of private activities and not those of the federal government. Consequently, this legislation took the form of criminal and civil penalties against the illicit commerce in certain animal species. The direction of these early statutes also reflected an era of a smaller federal establishment with much more limited functions and authorities.

As time passed, Congress enacted additional legislation that incrementally enlarged the scope of the federal law. As the nature and effects of federal actions dramatically expanded during the last two decades, it became apparent that the emerging policy encouraging endangered species protection would have to be applied to the activities of the federal government. The enactment of NEPA stood as a general mandate requiring the federal agencies to be sensitive to a broad range of environmental interests and "to the fullest extent possible" exercise their authorities "in accordance with the policies set forth in [NEPA]."¹⁰

The specialized statutes addressing endangered species issues, however, set independent rules for federal agencies, requiring consultation with expert bodies prior to taking a potentially damaging action. This trend towards an administrative review of proposed federal activity was reflected in a number of environmental or conservation statutes and was later reinforced by section 7 of the Endangered Species Act of 1973 (ESA).¹¹ The "expert agency" consultation requirement, as developed in the endangered species field, changes the structure of federal agency decisionmaking by internalizing an advocate within the bureaucratic system. In theory, a legislatively mandated referral of proposed federal actions early in the planning process should improve the quality of agency decisions and in so doing reduce the need for public interest litigation. Such a system also holds the potential for conflict between the agency sponsoring a project and the reviewing agency. This tension in the system at least creates an awareness on the part of project agen-

10. National Environmental Policy Act of 1969, Pub. L. No. 91-190, § 102, 83 Stat. 852 (1970) (codified in 42 U.S.C. § 4332 (1976)).

11. Pub. L. No. 93-205, § 7, 87 Stat. 884 (1973) (current version at 16 U.S.C.A. § 1536 (West Cum. Supp. 1979), as amended by Act of Dec. 28, 1979, Pub. L. No. 95-159, 93 Stat. 1225) ("The Secretary [of the Interior or of the Commerce] shall review other programs administered by him and utilize such programs in furtherance of the purposes of this chapter. All other Federal departments and agencies shall, in consultation with . . . the Secretary, utilize their authorities in furtherance of the purposes of this chapter.").

cies that they must make special efforts to assess the impacts of their actions upon endangered species and to minimize any anticipated adverse effects. Under the "expert agency" approach, the intention is to provide internal regulation of agency actions within the federal bureaucracy by fostering early consultation and an informal negotiation process with the reviewing agency. The success of such a procedure largely depends upon the aggressiveness and power of the reviewing agency. It can also have the effect of expanding access to the decisionmaking process not only to the reviewing agency but also to state, local and public interest groups.

The administrative review provisions of federal law in the area of endangered species protection create special procedural and substantive standards for federal agencies to follow in the conduct of their individual statutory mandates. Although judicial review of environmentally damaging agency decisions remains available under NEPA or other statutes, the ESA shifts the initial "outside" consideration of agency proposals to a nonjudicial body. This structure also reflects an increasing emphasis and interest by environmental and conservation groups in the administrative process as the source of desirable decisions. In this era of challenge to the general principles of environmental protection, the specialized systems of review of federal activities and preferential standards for endangered species preservation may provide needed protection for this irreplaceable interest.

III. ENDANGERED SPECIES LEGISLATION

Although the major federal legislative actions in the areas of air and water pollution have occurred only within the last decade, statutes concerning wildlife and endangered species protection have existed since the turn of the century.¹² Whether initially motivated by the understanding that the emerging American industrial and population growth patterns were resulting in a precipitous decline in the nation's wildlife,¹³ or by some other goal, legislators in the state and federal governments produced a series of haphazard and uncoordinated statutes addressing limited problems.¹⁴ Though the problem of species

12. See note 18 and accompanying text *infra*.

13. The devastation of the American buffalo and passenger pigeon population during the nineteenth century serves as a grim reminder of the effects of an insensitive national policy toward wildlife. See Dickens, *The Law and Endangered Species of Wildlife*, 9 GONZ. L. REV. 57, 65 n.53 (1973).

14. See Coggins, *Federal Wildlife Law Achieves Adolescence: Developments in the 1970's*, 1978 DUKE L.J. 753, 760.

damage and extinction on the global and American scene became more pronounced during this period,¹⁵ the federal government played only a limited role in species protection. The regulation of wildlife was considered a state function, not to be disturbed by the federal government.¹⁶ The initial federal legislation was not viewed as protecting endangered or rare species as a class, but rather was directed at specific species problems. In addition, the scope of federal governmental actions during the earlier part of this century was considerably less extensive than it is at present. Government action, therefore, was not the target of the initial statutes enacted to protect wildlife. The inadequacy of this limited approach, the recognition of the federal involvement in species depletion and the increasing public support for species protection resulted in "a coordinated program to head off, or at least forestall, what had appeared to be the inevitable destruction of numerous wildlife species."¹⁷ As discussed below, this "coordinated program" now includes specific obligations for federal agencies, although prior law did not impose such duties.

The first federal statute in the area of species protection was the Lacey Act of 1900,¹⁸ which in part prohibited the transportation in interstate commerce of game animals and game or song birds taken in

15. For example, geologically based estimates made in 1969 determined that for the one million years prior to man's presence on Earth species extinctions occurred at a rate of one every one thousand years. By 1969, however, the rate of extinction for birds and mammals had increased to between one and two every year. See S. REP. NO. 526, 91st Cong., 2d Sess. 2 (1969), *reprinted in* [1969] U.S. CODE CONG. & AD. NEWS 1413, 1414. The International Union for the Conservation of Nature and Natural Resources then listed approximately 275 species of mammals and 300 species of birds as rare and endangered, and the U.S. Department of Interior identified 89 other species as endangered within the United States. *Id.* As recently as 1978, the Department of Interior estimated that 20 species were becoming extinct within the United States every decade and that a larger number were being classified as "endangered." H.R. REP. NO. 1625, 95th Cong., 1st Sess. 5 (1978), *reprinted in* [1978] U.S. CODE CONG. & AD. NEWS 9453, 9455. By 1978, the Department's listing of endangered and threatened species had grown to 228 domestic and 457 foreign species. *Id.* at 6, *reprinted in* [1978] U.S. CODE CONG. & AD. NEWS at 9456.

16. In *Geer v. Connecticut*, 161 U.S. 519 (1896), the Supreme Court held that the commerce clause did not prevent a state from prohibiting the transportation of wildlife outside its jurisdiction because of a property-based theory of ownership. *Id.* at 530-32. The Court, however, recently overruled that case in *Hughes v. Oklahoma*, 441 U.S. 322, 335 (1979). In *Hughes*, the Court chose to apply general commerce clause rules to evaluate and subsequently invalidate an Oklahoma statute prohibiting the transportation and sale of minnows outside of the state. *Id.* at 336-38. This decision leaves uncertain the permissible scope of state wildlife protection generally and endangered species preservation in particular. Justice Brennan asserted:

We consider the States' interests in conservation and protection of wild animals as legitimate local purposes similar to the States' interest in protecting the health and safety of their citizens. . . . But the scope of legitimate state interests in "conservation" is narrower under this analysis than it was under *Geer*.

Id. at 337.

17. M. BEAN, *THE EVOLUTION OF NATIONAL WILDLIFE LAW* 370 (1977).

18. Act of May 25, 1900, ch. 553, 31 Stat. 187.

violation of state law.¹⁹ This act thus provided federal sanctions only for the infraction of other, nonfederal laws and hence did not constitute a major federal involvement in wildlife or species protection. Because the Lacey Act was not specifically intended to preserve rare animals,²⁰ and the states were initially slow to act in this area, the impact of this first federal law on endangered species was minimal.²¹

Following the passage of the Lacey Act, federal policy continued in an uncoordinated manner, protecting limited forms of wildlife for a wide range of purposes. For instance, in 1926 Congress enacted the Black Bass Act,²² making it unlawful to transport in interstate commerce large or smallmouth bass "caught, sold, purchased, or possessed"²³ in violation of local law. This law was not a federal recognition of the fish's endangerment, but rather a recognition of its desirability as a sport fish in need of state management. Until recently, no federal action had been taken to inventory and protect either animal or plant species in a comprehensive fashion. This has been attributed to the belief that Congress was without authority to legislate in this

19. *Id.* §§ 3, 5 (current version at 16 U.S.C. § 667(e) (1976); 18 *id.* § 43).

The present section of the codified federal law covers a broad range of activities connected with the commercial and noncommercial movement of any "wildlife taken, transported, or sold" in a manner violating federal, state or foreign law or regulation. 18 U.S.C. § 43(a)-(b) (1976). The statute provides for civil penalties of up to \$5,000 for each violation and criminal penalties of up to \$10,000 per violation and/or imprisonment for up to one year. *Id.* § 43(c)(1)-(d). The term "wildlife" is defined to mean "any wild mammal, wild bird, amphibian, reptile, mollusk, or crustacean, or any part, egg, or offspring thereof, or the dead body or parts thereof, but does not include migratory birds for which protection is afforded under the Migratory Bird Treaty Act, as amended." *Id.* § 43(f)(3).

20. The original Act was intended to allow the Secretary of Agriculture to undertake "the preservation, distribution, introduction, and restoration of game birds and other wild birds." Act of May 25, 1900, ch. 553, § 1, 31 Stat. 187 (current version at 16 U.S.C. § 701 (1976)). The Act also stated that its purpose was "to aid in the restoration of such birds in those parts of the United States adapted thereto where the same have become *scarce* or *extinct*, and also to regulate the introduction of American or foreign birds or animals in localities where they have not heretofore existed." *Id.* (emphasis added). The Secretary of Agriculture was given the power to exclude certain species from the country, *id.* § 2 (repealed 1909) (mongoose, fruit bat, English sparrow, starling and other injurious species), possibly because they were not naturally occurring predators. Although this programmatic function could be viewed as a predecessor to existing federal agency responsibilities regarding endangered species, see 16 U.S.C.A. § 1536 (West Cum. Supp. 1979), the regulatory function sought to protect agricultural and horticultural interests and not endangered species.

21. In 1949, the statute was amended to allow the Secretary of the Treasury to regulate the "transportation of wild animals and birds under humane and healthful conditions." Act of May 24, 1949, ch. 139, § 2, 63 Stat. 89 (codified as amended at 18 U.S.C. § 42(c) (1976)).

22. Act of May 20, 1926, ch. 346, 44 Stat. 576 (codified as amended at 16 U.S.C. §§ 851-856 (1976)). The statute imposed a penalty for conviction of a fine of up to \$200 and/or imprisonment for up to three months. *Id.* § 3. The Black Bass Act was amended in 1930 to grant the Secretary of Commerce administrative responsibility for the program. Act of July 2, 1930, ch. 801, §§ 1-9, 46 Stat. 845 (codified at 16 U.S.C. §§ 851-856 (1976)).

23. Act of May 20, 1926, ch. 346, § 2, 44 Stat. 576 (codified at 16 U.S.C. § 852 (1976)).

area²⁴ and had resisted the legislative temptation for that reason. The legislative void, however, was more likely due to a less laudable rationale. The reluctance of Congress to authorize a comprehensive federal program for the preservation and enhancement of endangered species is probably best explained by a lack of social awareness and interest in the entire subject. The environmental movement in general is of recent vintage, and species protection, being a specialized component of that movement, has made its greatest advances within the last decade.

Modern legislative approaches to endangered species protection can be traced to the Endangered Species Protection Act of 1966²⁵ and the amendments that followed. The 1966 statute was the first federal law directly addressing the question of threatened species extinction. The Secretary of the Interior was directed to "provide a program for the conservation, protection, restoration, and propagation of selected species of native fish and wildlife . . . that are threatened with extinction."²⁶ Although modest in scope, the Act did initiate a program that considered the issue of habitat destruction—a prime cause of species extinction²⁷—and authorized the Secretary of the Interior to use Land and Water Conservation Fund resources to acquire lands in order to protect threatened species.²⁸

24. See Dickens, *supra* note 13, at 66; Palmer, *Endangered Species Protection: A History of Congressional Action*, 4 ENV'L AFFAIRS 255, 257-58 (1975). A most thorough and thoughtful consideration of this issue appears in Coggins & Hensley, *Constitutional Limits on Federal Power to Protect and Manage Wildlife: Is the Endangered Species Act Endangered?*, 61 IOWA L. REV. 1099 (1976). The authors identify four possible bases for federal wildlife regulation: (1) the treaty power, (2) the commerce clause, (3) the property clause, and (4) an alleged inherent power to legislate on matters of national scope or concern. *Id.* at 1122-43.

25. Pub. L. No. 89-669, 80 Stat. 926 (1966) (repealed in part 1973). Sections 1 through 3 of this statute were repealed in 1973 with the passage of the Endangered Species Act of 1973. Pub. L. No. 93-205, 87 Stat. 903 (1973). Other sections of the 1966 law were retained.

26. Pub. L. No. 89-669, § 1(a), 80 Stat. 926 (1966). The Act defined "threatened species" in *id.* § 1(c) (repealed 1973). This section also originated the formal listing process, which identified species threatened with extinction.

27. *Id.* The statute specifically referred to four causes of species extinction: loss of habitat, overexploitation, disease, and predation. *Id.* The Senate Report on the legislation noted:

Within the next few decades the economic growth of this country, its expanding population and spreading urbanization, will require more working and living space, more highways, more lands under intensive agriculture, more rivers and streams harnessed, more forests cut than the Nation has ever experienced.

Within this same span of time, unless immediate and vigorous action is taken, as many as 30 to 40 types of birds and nearly an equal number of mammals will join the ghosts of the heath hen and the passenger pigeon. Many animals are in dire straits because their skins are in demand. Alligators are killed wantonly to provide leather for specialty and decorative wearing apparel.

S. REP. NO. 1463, 89th Cong., 2d Sess. 2 (1966) reprinted in [1966] U.S. CODE CONG. & AD. NEWS 3342, 3343. These threatened species were limited to "native fish and wildlife" and, consequently, foreign animal species and domestic flora were excluded from coverage by implication.

28. Pub. L. No. 89-669, § 2(b)-(c), 80 Stat. 926 (1966) (current version at 16 U.S.C. 1534(a)(1)).

In terms of federal agency consideration of endangered species, the 1966 Act charged the Secretary of Interior with the duty to review the agency's existing programs and to use those programs "to the extent practicable, . . . in furtherance of the purpose of this act."²⁹ Moreover, the Secretary was required to consult with and assist other federal agencies to integrate the policies of the Act "where practicable."³⁰ Although the lineal ancestor of section 7 of the Endangered Species Act,³¹ section 2(d) of the 1966 Act lacked the mandatory character of the later statute. The "practicability" requirement of section 2(d),³² in combination with the policy limitation that species protection was an agency objective when "consistent with the primary purposes"³³ of the agency, significantly weakened the impact of the 1966 Act.

As an initial legislative approach, the 1966 Act recognized the imperiled state of some species of American fauna and charged the Department of the Interior with the obligation of establishing an endangered species program. Although the statute can be criticized for a number of obvious shortcomings,³⁴ it did represent an expression of

(1976)). Section 2(c) of the statute authorized the appropriation of \$15 million from the Land and Water Conservation Fund with no annual appropriation exceeding \$5 million. This represented the first instance in which federal law directed the Secretary of Interior to consider endangered species in the agency's program. See Palmer, *supra* note 24, at 259.

29. Pub. L. No. 89-669, § 2(d), 80 Stat. 926 (1966) (repealed 1973).

30. *Id.*

31. See note 53 and accompanying text *infra*.

32. Act of Oct. 15, 1966, Pub. L. No. 89-669, § 2(d), 80 Stat. 926 (repealed 1973).

33. Section 1(b) of the 1966 Act read:

It is further declared to be the policy of Congress that the Secretary of the Interior, the Secretary of Agriculture, and the Secretary of Defense, together with the heads of bureaus, agencies, and services within their departments, shall seek to protect species of native fish and wildlife, including migratory birds, that are threatened with extinction, and, insofar as is practicable and consistent with the primary purposes of such bureaus, agencies, and services, shall preserve the habitats of such threatened species of lands under their jurisdiction.

Pub. L. No. 89-669, § 1(b), 80 Stat. 926 (1966) (current version at 16 U.S.C. § 1531 (1976)).

This section made species protection subservient to primary agency purposes. In addition, the species protection policy was limited to three enumerated agencies that were ostensibly selected because of their land management functions. In the Act's legislative history, however, the Senate Commerce Committee report lamented that "[i]t would be most unfortunate and a waste of money to carry out an endangered species program designed to conserve and protect the species and their habitat and find that *other Federal agencies* are not taking similar steps in regard to the species and habitat found *on their lands*." S. REP. NO. 1463, 89th Cong., 2d Sess. 3 (1966), *reprinted in* [1966] U.S. CODE CONG. & AD. NEWS 3342, 3344 (emphasis added).

34. Probably the most significant deficiency was that the 1966 Act did not prohibit or limit the "taking" of endangered species, except upon land within the National Wildlife Refuge System. Pub. L. No. 89-669, § 4(c), 80 Stat. 926 (1966) (codified as amended at 16 U.S.C. § 668d (1976)). Consequently, local laws were left to protect endangered species from overexploitation. In addition, the 1966 Act did not protect foreign animal life or any plant life; it did not prohibit the transportation, sale or exchange of endangered species in interstate commerce; and it failed to

congressional concern for threatened species. In 1966, the broad-based environmental consciousness embodied in NEPA had yet to arise; federal agencies could maintain their staunch position of project or program orientation, and the issue of endangered species protection was, therefore, beyond serious consideration.

Three years after the initial federal legislation, Congress enacted the Endangered Species Conservation Act of 1969.³⁵ The 1969 Act made minor modifications in the system of preserving native fish and wildlife that had been established by the prior law. A new definition of "fish or wildlife" extended protection to invertebrates as well as vertebrates.³⁶ In addition, the Act enhanced the Department of Interior's habitat protection program by authorizing the acquisition of privately owned property "for the purpose of conserving, protecting, restoring, or propagating any selected species of native fish and wildlife that are threatened with extinction."³⁷ Finally, the 1969 legislation amended the Lacey Act to expand its prohibition against commerce in illegally taken wildlife specifically to include the classification of

establish affirmative, unavoidable federal agency duties to actively protect endangered species. See M. BEAN, *supra* note 17, at 373-74.

35. Pub. L. No. 91-135, § 1-5, 83 Stat. 275 (1969) (repealed 1973). The 1969 Act amended and incorporated §§ 1-3 of the 1966 Act. *Id.* § 12(a)-(e). The Senate Report on the 1969 Act identified two rationales for strengthening endangered species protection. First, on a practical level, species preservation is important to ensure sufficient reproduction to sustain a "controlled exploitation" of the species. A corollary to this economic interpretation is that each extinct species removes unique genetic material from the finite global supply, which might be useful in the future to improve animal life through cross breeding. Second, the Report identified an ethical reason for preserving species:

On a more philosophical plane, the gradual elimination of different forms of life reduces the richness and variety of our environment and may restrict our understanding and appreciation of natural processes. Moreover, in hastening the destruction of different forms of life merely because they cannot compete in our common environment upon man's terms, mankind, which has inadvertently arrogated to itself the determination of which species shall live and which shall die, is assuming an immense ethical burden. Henry Beston has indirectly suggested the magnitude of this burden in urging that man adopt a new and wiser concept of animals.

S. REP. NO. 526, 91st Cong., 1st Sess. 3, *reprinted in* [1969] U.S. CODE CONG. & AD. NEWS 1413, 1415.

36. Section 1 of the Act defined "fish or wildlife" to mean "any wild mammal, fish, wild bird, amphibian, reptile, mollusk, or crustacean, or any part, products, egg, or offspring thereof, or the dead body or parts thereof." Pub. L. No. 91-135, § 1, 83 Stat. 275 (1969). This legislative change was apparently motivated by a restrictive definition previously adopted by the Department of Interior, which had limited the term's meaning to vertebrates only. See M. BEAN, *supra* note 17, at 375 n.15.

37. Pub. L. No. 91-135, § 12(c), 83 Stat. 275 (1969) (repealed 1973). The Congress authorized \$1 million per year for each of the fiscal years 1970, 1971 and 1972. *Id.* This acquisition authority was to be exercised only for privately held lands within the boundaries of areas already administered by the Secretary of Interior. These acquisition programs were especially helpful in preserving species with little or no commercial or economic value. See S. REP. NO. 526, 91st Cong., 1st Sess. 1-3, *reprinted in* [1969] U.S. CODE CONG. & AD. NEWS 1413, 1414-15.

"amphibian, reptile, mollusk, or crustacean."³⁸

Although the 1969 Act had a minimal effect on American endangered species, it did have a substantial impact on the international trade in these animals. The Secretary of Interior was directed to establish a list of species and subspecies of fish or wildlife "threatened with world wide extinction,"³⁹ and the importation of these listed species was prohibited without first securing a permit from the Secretary.⁴⁰ This listing procedure required the Secretary of Interior to consult with the Secretary of State and the foreign country or countries in which the endangered species was found and to base the decision to list a species on "the best scientific and commercial data available."⁴¹ Willful violation of this section would be punishable by a fine of up to \$10,000 or one year in prison or both.⁴² Nonwillful violators were to be punished with a civil penalty of up to \$5,000 and the forfeiture of the illegally imported items.⁴³ Finally, the Act directed the Secretaries of State and

38. Pub. L. No. 91-135, § 7(a), 83 Stat. 275 (1969) (codified at 18 U.S.C. § 43(f)(3) (1976)). The Senate report indicated that the new definition for "wildlife" was the "most important" of all the definitions provided in the section because of the expansion in coverage. See S. REP. NO. 526, 91st Cong., 1st Sess. 14, reprinted in [1969] U.S. CODE CONG. & AD. NEWS 1413, 1427.

39. Pub. L. No. 91-135, § 3(a), 83 Stat. 275 (1969) (repealed 1973). Although this listing decision was to be made after consultation with "other interested Federal agencies," *id.* (emphasis added), § 3(a) did not require the participation of federal agencies in the listing process.

40. *Id.* § 2 (repealed 1973). Permits could be issued for zoological, educational, scientific, or propagational purposes. *Id.* § 3(c) (repealed 1973). This provision recognized the important function of zoos and other similar organizations in the protection of endangered species. Not all such permit applications, however, were approved by the Secretary of Interior. In fact, approximately one-half were denied. See Palmer, *supra* note 24, at 263. The statute also provided for the issuance of permits to "minimize undue economic hardship." See Pub. L. No. 91-135, § 3(b), 83 Stat. 275 (1969) (repealed 1973). This "economic hardship" permit was to be made available to persons who had contracted for the importation of an endangered species prior to its formal listing but had not yet taken delivery. The apparent congressional motivation here was to mitigate the economic loss created by the formal listing of a species and possible to avoid an allegation that the regulatory action constituted a compensable "taking" under the fifth amendment.

41. *Id.* § 3(a) (repealed 1973). The listing procedure was to comply with the rulemaking dictates of § 553 of the Administrative Procedure Act. See *id.* § 3(d). The designation of endangered species would, therefore, be considered a "rule" and the procedural requirements of § 3(d) thus were enacted with the intention that interested parties be involved in the decision to add or delete species to the list, both informally prior to and formally after, publication of the proposed rule in the Federal Register. See S. REP. NO. 526, 91st Cong., 1st Sess. 6, reprinted in [1969] U.S. CODE CONG. & AD. NEWS 1413, 1418-19. The Senate report indicated that, in order to protect species in immediate jeopardy, no judicial review of the Secretary's final listing decision would be available. *Id.* at 6, reprinted in [1969] U.S. CODE CONG. & AD. NEWS at 1419. This "telescoped" procedure was justified by the review of all listed species once every five years required by § 3(a). The purported removal of these listing decisions from judicial review is questionable in light of the Supreme Court's decision in *Abbott Laboratories v. Gardner*, 387 U.S. 136, 140 (1967), and *Association of Data Processing Service Organization, Inc. v. Camp*, 397 U.S. 150, 156 (1970). See also 4 K. DAVIS, ADMINISTRATIVE LAW § 28.07 (1972).

42. Pub. L. No. 91-135, § 4(b), 83 Stat. 275 (1969) (repealed 1973).

43. *Id.* § 4(a)(1) (repealed 1973).

Interior to "seek the convening of an international ministerial meeting . . . prior to June 30, 1971" in order to conclude an international convention on the conservation of endangered species.⁴⁴ This convention was held in February of 1973 and resulted in the Convention on International Trade in Endangered Wild Fauna and Flora, which was signed in Washington, D.C. on March 3, 1973.⁴⁵ This international agreement undoubtedly served as an inspiration for the 1973 Endangered Species Act.

Regardless of the success the 1969 Act had with the problem of international trade in endangered species, it did not satisfactorily solve the problem of damage to domestic species. The limited restriction upon destructive federal activities was clearly inadequate in the face of expanding federal involvement in developmental projects. Federal policy on species protection relied heavily on state regulation of wildlife resources⁴⁶ and only focused on species that had reached a state of endangerment. Federal action in the endangered species area, however, developed into a more complete protective scheme during the next decade.

The 1973 Act⁴⁷ went far beyond the bounds of the prior two statutes enacted in 1966 and 1969. The prior laws focused only upon species in imminent danger of extinction. The new legislation, however, applied to all plants and animals considered to be both "endangered" and "threatened."⁴⁸ Under its specific language, virtually any species could be protected by the 1973 Act.⁴⁹ Viewing the problem of vanishing species as a serious one, and spurred on by the international convention, Congress passed a broad-based statute that increased the level of federal involvement in the entire area. Chief Justice Burger described the 1973 Act as "the most comprehensive legislation for the

44. *Id.* § 5(b) (repealed 1973).

45. See 68 DEPT STATE BULL. 619 (May 14, 1973). For a discussion of the convention, see Palmer, *supra* note 24, at 263-66.

46. See note 6 *supra*.

47. Endangered Species Act of 1973, Pub. L. No. 93-205, 87 Stat. 884 (codified as amended at 16 U.S.C.A. §§ 1531-1543 (West 1974 & Cum. Supp. 1979), as amended by Act of Dec. 28, 1979, Pub. L. No. 95-159, 93 Stat. 1225).

48. The statute defines an "endangered" species as one which is in danger of extinction throughout all or a significant portion of its range." 16 U.S.C. § 1532(4) (1976) (recodified at 16 U.S.C.A. § 1532(6) (West Cum. Supp. 1979)). A "threatened" species is one which is "likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." *Id.* § 1532(15) (recodified at 16 U.S.C.A. § 1532(20) (West Cum. Supp. 1979)). The 1973 Act clearly envisioned the listing process to be a dynamic one with species entering and leaving the list at various times.

49. See 16 U.S.C. § 1532(5), (9) (1976) (recodified at 16 U.S.C.A. § 1532(8), (14) (West Cum. Supp. 1979)); *id.* § 1532(11) (current version at 16 U.S.C.A. § 1532(16) (West Cum. Supp. 1979)).

preservation of endangered species ever enacted by any nation.”⁵⁰

The overall purposes of the 1973 Act were to conserve ecosystems upon which endangered species depend, to protect the species themselves and to implement international agreements in the area.⁵¹ In addition, the policy implemented by the legislation was specifically directed at the federal government, whose departments and agencies were required to “conserve endangered species and threatened species . . . [and to] utilize their authorities in furtherance of the purpose of [the Act].”⁵² To underscore the federal role in the species preservation effort, Congress added an interagency cooperation section—section 7—which reiterated agency responsibilities and established a substantive standard for agency actions that affect endangered or threatened species.⁵³ This “cooperation” requirement of the Act served as the major focus for litigation of endangered species issues in the much-publicized, recent case before the United States Supreme Court—*TVA v. Hill*.⁵⁴

Beyond the creation of these general requirements, the 1973 Act mandated a federal listing process for endangered and threatened species of animals and plants,⁵⁵ which was to be administered primarily by

50. *TVA v. Hill*, 437 U.S. 153, 180 (1978). Although the 1973 Act was generally acclaimed as a broadening and strengthening of national species protection legislation, there was some criticism of the bill's drafting, its lack of deadlines and its lack of federal supervision of state enforcement actions. See Coggins, *Conserving Wildlife Resources: An Overview of the Endangered Species Act of 1973*, 51 N.D.L. REV. 315, 337 (1974).

51. 16 U.S.C. § 1511(b) (1976).

52. *Id.* § 1531(c). The term “conserve” was specifically and extensively defined in the statute to mean

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. Such methods and procedures include, but are not limited to, all activities associated with scientific resources management such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, and transplantation, and, in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, may include regulated taking.

Id. § 1532(2) (1976) (recodified at 16 U.S.C.A. § 1532(3) (West Cum. Supp. 1979)) (emphasis added).

53. Prior to amendment in 1978, 16 U.S.C. § 1536 (1976) provided that all federal agencies were required to take “such action necessary to insure that actions authorized, funded, or carried out by them do not jeopardize the continued existence of such endangered species and threatened species or result in the destruction or modification of (the critical) habitat of such species.” The standard established by this section became critical to the United States Supreme Court's decision in *TVA v. Hill*, 437 U.S. 153 (1978). This strict standard has recently been moderated by the 1979 amendments, which merely require that agencies must ensure that any action “is not likely to jeopardize the continued existence” of an endangered species or its habitat. Act of Dec. 28, 1979, Pub. L. No. 96-159, § 40(1)(c), 93 Stat. 1225 (to be codified at 16 U.S.C. § 1536(7)(a)(2)).

54. 437 U.S. 153 (1978).

55. The 1973 Act specifically included plants within the definition of “species”. 16 U.S.C. § 1532(11) (1976) (current version at 16 U.S.C.A. § 1532(16) (West Cum. Supp. 1979)). Prior acts did not cover plants. In addition, the word “plant” was defined to mean “any member of the plant

the Department of Interior.⁵⁶ The listing process serves to identify those particular life forms to be selected by the federal government for the protection provided by the Act.⁵⁷ The Act provides five specific criteria to be used by the Secretary of Interior for determining whether a species should be formally listed.⁵⁸

The major effects of a species listing by the Department of Interior under the 1973 Act were threefold. First, all federal agencies had to "insure that actions authorized, funded, or carried out by them do not jeopardize the continued existence" of the species or adversely affect the critical habitat of the species.⁵⁹ The broad interpretation given this

kingdom, including seeds, roots and other parts thereof." *Id.* § 1532(9) (1976). The 1978 amendments to the Act left the definition of "plants" intact, 16 U.S.C.A. § 1532(14) (West Cum. Supp. 1979), but made some subtle, yet important changes in the definition of "species," see 16 U.S.C.A. § 1532(16) (West Cum. Supp. 1979). The 1973 Act directed the Smithsonian Institution to review "species of plants which are now or may become endangered or threatened" and report the results to Congress. 16 U.S.C. § 1541 (1976). The Conference Committee assigned this reporting responsibility to the Smithsonian Institution because it had "no bias in the eventual outcome of the study." H.R. REP. NO. 740, 93d Cong., 1st Sess. 28, *reprinted in* [1973] U.S. CODE CONG. & AD. NEWS 3001, 3007. This reference to the impartial character of the Smithsonian indicates the practical importance of a decision to list a species as endangered or threatened. The Smithsonian report, which lists approximately 3100 species of endangered or threatened plants, is printed in H.R. Doc. No. 51, 94th Cong., 1st Sess. (1975). The Secretary of Interior has listed twenty species of flora as endangered and two as threatened. See 41 Fed. Reg. 58,408 (1976). The Secretary has accorded the Smithsonian report no special priority and has treated it as a petition for listing. See 41 Fed. Reg. 24,524 (1976).

56. The administrative responsibilities under the Act fall primarily upon the Secretary of Interior. Certain marine species, however, are under the jurisdiction of the Secretary of Commerce pursuant to the executive Reorganization Plan No. 4 of 1970, 35 Fed. Reg. 15,627 (1970). In addition, the Secretary of Agriculture is accorded responsibilities under the Act and under the International Convention on Trade in Endangered Species of Wild Fauna and Flora with respect to the import and export of plants. See 16 U.S.C.A. § 1532(15) (West Cum. Supp. 1979).

57. See M. BEAN, *supra* note 17, at 390-95.

58. 16 U.S.C. § 1533(a)(1)(1)-(5) (1976). The criteria set out by the statute for use by the Secretary in determining whether a species should be formally listed are:

- (1) the present or threatened destruction, modification or curtailment of its habitat or range;
- (2) overutilization for commercial, sporting, scientific, or educational purposes;
- (3) disease or predation;
- (4) the inadequacy of existing regulatory mechanisms; or
- (5) other natural or manmade factors affecting its continued existence.

These criteria appear to give the Secretary of Interior wide discretion in listing or delisting species. As of November 30, 1978, 177 species of fauna in the United States have been formally listed as endangered and 37 species of fauna have been listed as threatened. COUNCIL ON ENVIRONMENTAL QUALITY, ENVIRONMENTAL STATISTICS 1978, at 171 (1979).

59. 16 U.S.C. § 1536 (1976) (amended 1978, 1979). This provision, § 7 of the 1973 Act, must have been one of the most initially underestimated provisions of federal environmental law. The Senate Report on the Act merely summarized the language of § 7. See S. REP. NO. 307, 93d Cong., 1st Sess. 8-9, *reprinted in* [1973] U.S. CODE CONG. & AD. NEWS 2989, 2997. Furthermore, the Conference Report failed to mention the section apparently because it had not been the subject of any disagreement among the conferees. H.R. REP. NO. 740, 93d Cong., 1st Sess. 25-6, *reprinted in* [1973] U.S. CODE CONG. & AD. NEWS 3001, 3002-08. Even at a time when most

language by the Supreme Court in *TVA v. Hill*⁶⁰ made the listing decision one of great importance to federal agencies because of its impact upon planned projects. The 1978 amendments to the Act were, to a large extent, addressed to mitigating the effect of the *Hill* decision by establishing multi-layered administrative review of project/species conflicts and by providing standards to guide these decisions.⁶¹ The second significant effect of listing an endangered species was the possible employment of the Act's civil and criminal penalties should there be an importation, taking, commercial exchange, or regulatory violation.⁶² Of particular importance was the language establishing as a matter of federal law that the "taking" of endangered fauna was illegal.⁶³ In this way the federal policy favoring the preservation of vanishing species found a direct application against the actions of private individuals and organizations,⁶⁴ deterring intentionally destructive conduct. Third, the listing of an endangered or threatened species required the identification of its critical habitat.⁶⁵ The purpose of the 1973 Act was not only to protect the specific endangered species of plant or animal life but also to preserve the physical environment necessary for continued survival of the species. This comprehensive approval of species protection was laudable. Unfortunately, the statute did not define the term "criti-

observers had no idea of the potential significant of the section, however, at least one commentator recognized the power inherent in the mandatory language of § 7. See Coggins, *supra* note 50, at 329 n.118.

60. 437 U.S. 153 (1978).

61. See 16 U.S.C.A. § 1536 (West Cum. Supp. 1979) (amended 1979).

62. See 16 U.S.C. § 1538(a)(1)-(2) (1976).

63. The term "take" under the 1973 Act is defined to mean "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." 16 U.S.C. § 1532(14) (1976) (recodified at 16 U.S.C.A. § 1532(19) (West Cum. Supp. 1979)). This broad definition of the term "take" would seemingly cover both direct and indirect damage to endangered species and their habitat. It has never been successfully argued, however, that this definition encompasses indirect governmental activities having an adverse effect upon endangered species.

64. 16 U.S.C. § 1540 (1976) (amended 1978). The Act defines the term "person" to include not only private entities but also "any officer, employee, agent, department, or instrumentality of the Federal Government, of any State or political subdivision thereof, or any foreign government." *Id.* § 1532(8) (1976) (recodified at 16 U.S.C.A. § 1532(13) (West Cum. Supp. 1979)).

65. The definition of an "endangered species" under the 1973 Act included "any species which is in danger of extinction throughout all or a significant portion of its range." 16 U.S.C. § 1532(4) (1976) (recodified at 16 U.S.C.A. § 1532(6) (West Cum. Supp. 1979)). This language indicated that the drafters of the 1973 Act considered the possibility that a species could be endangered in only part of its natural habitat. Furthermore, when preparing the formal listing the Secretary of Interior was directed to "specify with respect to each such species over what portion of its range it is endangered or threatened." *Id.* § 1533(c)(1) (amended 1978). It is possible that a species could be endangered only in a limited geographical area and still be formally "listed." The prohibitions in the Act, however, generally apply to "taking" of listed endangered species with no distinction made for specific locations.

cal habitat" or even detail the standards to guide the Secretary of Interior in defining the term.⁶⁶ Under section 7 of the 1973 Act, the establishment of the "critical habitat" for a listed species was an extremely important decision. All federal agencies were obligated to ensure that their actions did not "result in the destruction or modification of [a critical habitat]."⁶⁷ By adding this language to the statute, Congress established a generally applicable federal duty to avoid actions having adverse effects upon not only endangered species but also their immediate environment. Consequently, from the federal agency viewpoint, the setting of precise critical habitat boundaries was often as significant as the initial decision to formally list the species.⁶⁸

After passage of the Endangered Species Act, the federal government reluctantly responded to the mandate of section 7 of the Act.⁶⁹ During this period many federal agencies were learning through active litigation and the development of administrative policy how best to satisfy the requirements of NEPA—the general purpose environmental act. A great deal of attention was paid to NEPA compliance with the idea that other specialized environmental laws could be satisfied by a

66. The Fish and Wildlife Service and National Marine Fisheries Services, sharing jurisdiction under the 1973 Act, jointly issued regulations in 1973 defining what they considered to be critical habitat. This definition, being a generally applicable description, is not specific, but rather describes a broadly-defined environment needed for both the survival and the subsequent recovery of the species.

"Critical habitat" means by air, land, or water area (exclusive of those existing man-made structures or settlements which are not necessary to the survival and recovery of a listed species) and constituent elements thereof, the loss of which would appreciably decrease the likelihood of the survival and recovery of a listed species or a distinct segment of its population. The constituent elements of critical habitat include, but are not limited to: physical structures and topography, biota, climate, human activity, and the quality and chemical content of land, water, and air. Critical habitat may represent any portion of the present habitat of a listed species and may include additional areas for reasonable population expansion.

50 C.F.R. § 402.02 (1978). See text accompanying note 196 *infra*.

67. 16 U.S.C. § 1536 (1976) (amended 1978, 1979).

68. An examination of the existing critical habitat designations will illustrate the impact of these administrative determinations upon federal agency action. Critical habitats frequently cover a large portion of two or more states. See 50 C.F.R. § 17.96 (1978) (critical habitat for plants). The myriad of federal activities occurring in these states would come under the § 7 requirements. *TVA v. Hill*, 437 U.S. 153 (1978), demonstrated the perils of ignoring the mandate of the 1973 Act.

69. The lead agency under the administrative scheme established by the 1973 Act—the Department of the Interior—was slow to exercise any of the authority granted to it by the statute. Professor Coggins wrote in late 1974:

The inescapable consequence [of having a great degree of administrative discretion but no statutory deadlines for action] has been that, in the first nine months that the new Act has been effective, no additions to the existing endangered species lists have been made; no threatened species list has been published; no protective (or any other) regulations have been promulgated; no standards relating to state-federal agreement have been issued; no petitions have been processed; and so forth.

Coggins, *supra* note 50, at 337.

judicially acceptable environmental impact statement (EIS). As a result, section 7 was viewed by the federal agencies as advisory and as not requiring any separate compliance, either substantively or procedurally.⁷⁰ Until the United States Supreme Court ruled on the statute in *TVA v. Hill*, there was little judicial interpretation of section 7 and its effect upon federal agency action. The handful of cases decided in the five-year period between the passage of the 1973 Act and its significant amendment in 1978 demonstrate the unfamiliarity of both the federal courts and the public interest litigation groups with the scope of the legislation.⁷¹ The cases also reflect the gradual recognition of the strong pro-endangered species congressional policy embodied in section 7, which requires advance agency consultation with the Fish and Wildlife Service and a substantive standard by which to measure proposed actions. A brief review of the federal case law will illustrate the trend as it developed prior to passage of the 1978 amendments.

IV. JUDICIAL REVIEW UNDER SECTION 7

Although section 7 became effective in 1973, surprisingly few cases arose under its authority prior to 1978. In one such case, *Sierra Club v. Froehlke*,⁷² the court was asked to enjoin an Army Corps of Engineers dam project located in Meramac Park, Missouri, in part because construction of the dam would jeopardize the continued existence of the endangered Indiana bat. It was also claimed that the reservoir built for the dam would flood the critical habitat of this variety of bat. The Sierra Club maintained that the Corps ignored warnings from the Department of the Interior about the impact of the dam on the Indiana

70. This interpretation appears erroneous in light of the strong language employed in § 7. One commentator, citing the statements of Representative John Dingell, the House manager of the endangered species bill, found that the interagency cooperation provision created "an inflexible obligation to protect endangered species." Note, *Obligations of Federal Agencies Under Section 7 of the Endangered Species Act of 1973*, 28 STAN. L. REV. 1247, 1254, 1255 (1976).

71. Allegations of Endangered Species Act violations, especially after the notoriety attributable to the *TVA v. Hill* controversy, are appearing more frequently in litigation and are challenging a wide variety of federal actions. Often the Act is merely mentioned as one possible ground for a plaintiff's complaint and the reviewing court does not reach the merits of the claim. See, e.g., *Massachusetts v. Andrus*, 594 F.2d 872 (1st Cir. 1979) (Outer Continental Shelf oil and gas leases on the Georges Bank); *Libby Rod & Gun Club v. Poteat*, 594 F.2d 742 (9th Cir. 1979) (dam construction on the Kootenai River in Montana); *Texas Comm. on Natural Resources v. Bergland*, 573 F.2d 201 (5th Cir. 1978), cert. denied, 439 U.S. 966 (1979) (clear-cutting of national forests in Texas); *Adams v. Vance*, 570 F.2d 950 (D.C. Cir. 1978) (Eskimo whaling rights); *Hopson v. Kreps*, 462 F. Supp. 1374 (D. Alaska 1979) (Eskimo whaling rights); *South Carolina Wildlife Fed. v. Alexander*, 457 F. Supp. 118 (D. S.C. 1978) (water pollution caused by construction and operation of dams in South Carolina and Georgia).

72. 534 F.2d 1289 (8th Cir. 1976).

bat population. In rejecting the Sierra Club's position, the United States Court of Appeals for the Eighth Circuit viewed the mandate of section 7 to be mainly procedural and concluded that, once a project agency had consulted with the Department of Interior, it had satisfied its obligation under the ESA. In terms of the substantive effect of the Fish and Wildlife Service's expert opinion⁷³ concerning the project's impact on endangered species, the court stated, "Consultation under Section 7 does not require acquiescence. . . . [T]he responsibility for the [project] decision after consultation is not vested in the Secretary [of Interior,] but in the agency involved."⁷⁴ The Eighth Circuit viewed the FWS's function as being strictly advisory, with no veto power over the actions of other federal agencies. At no point did the court examine the specific obligations imposed by the Act that were intended to ensure that endangered species would not be jeopardized by agency action.

Though section 7 was accorded a rather weak interpretation in *Froehlke*, the result in the case can be explained on other grounds. First, the continued existence of a species was not threatened by the federal action; the court noted that there are approximately 700,000 Indiana bats in existence and that this Corps of Engineers project would affect the habitat of only about 10,000.⁷⁵ Also, the appeals court and the district court below had approved the environmental impact statement prepared for the project,⁷⁶ and, consequently, the court may have believed that the adequate EIS relieved the Corps of its obligation to consider any other environmental effect.

During 1976, the same year that *Sierra Club v. Froehlke* was decided, the United States Court of Appeals for the Fifth Circuit also ruled on a section 7 case—*National Wildlife Federation v. Coleman*.⁷⁷ The *Coleman* case concerned the construction of a federally assisted highway through a portion of the sole habitat of the endangered bird species called the Mississippi sandhill crane. At the time of the litigation, only four of these cranes were known to exist. The district court had dismissed the National Wildlife Federation's complaint, which was based upon allegations of section 7 violations.⁷⁸ On appeal, however,

73. The Secretary of the Interior has delegated his consultation power to both the FWS and NMFS. Interagency Cooperation—Endangered Species Act of 1973, 50 C.F.R. §§ 402.02, .04 (1978).

74. 534 F.2d at 1303.

75. *Id.*

76. *Id.* at 1301. The district court had held that plaintiffs had failed to meet their burden of proof on all issues. 392 F. Supp. 130, 144 (E.D. Mo. 1975).

77. 529 F.2d 359 (5th Cir.), *cert. denied*, 429 U.S. 979 (1976).

78. 400 F. Supp. 705 (S.D. Miss. 1975).

the Fifth Circuit gave section 7 requirements considerably more weight than did the Eighth Circuit in *Sierra Club v. Froehlke*. Speaking for the court, Judge Simpson determined that there was a mandatory duty imposed upon federal agencies to consult with the Department of Interior and to ensure that agency activities did not jeopardize endangered species.⁷⁹ Although the court recognized no project-stopping veto power granted the Interior Department by the ESA,⁸⁰ it did take a significant step in expanding the scope of section 7 consultation. Judge Simpson stated that the Department of Transportation had failed to consider properly not only the direct but also the indirect effects of the highway's construction on the sandhill crane.⁸¹

A comprehensive review of a project would require the sponsoring agency to evaluate secondary impacts in much the same way as does an EIS. Implicit in the court's holding in *Coleman*, therefore, is the substantive principle that section 7 of the ESA mandates a broad-based analysis of the impact of a federal project on endangered species. Because a project lacking this wide-ranging analysis probably will not withstand judicial scrutiny, the practical effect of the Fifth Circuit's decision is to require the submission of a federal project to the Department of the Interior for such an analysis. In *Coleman*, for example, the highway's construction was enjoined until the Department of the Interior determined that project modifications brought the activity into compliance with section 7 requirements.⁸² By reaching this result, the court effectively gave the Department of Interior limited authority to regulate highways built with federal aid.

Not all the endangered species cases have involved the use of the Endangered Species Act to halt federal developmental projects. In *Defenders of Wildlife v. Andrus*,⁸³ a district court had an opportunity to review the FWS regulations on the sport hunting of migratory game birds. Plaintiffs alleged that, since the regulations permitted hunting before sunrise and after sunset, endangered bird species would be inadvertently killed because hunters could not distinguish between them and other birds during those periods.⁸⁴ In striking down the regula-

79. 529 F.2d at 371.

80. Judge Simpson's view did not grant a veto power to the Department of Interior but did subject the project agency's decision that its project did not adversely affect the species to judicial review under a "clear error of judgment" test. *Id.* at 371-72.

81. *Id.* at 373.

82. *Id.* at 375.

83. 428 F. Supp. 167 (D.D.C. 1977).

84. *Id.* at 168-69.

tions as being arbitrary and unlawful, the court rejected the contention of the FWS that its duty under the ESA was solely to avoid jeopardizing the continued existence of protected species. The court ruled instead that the FWS had an affirmative duty to increase the population of protected species and to use all necessary methods to "bring these species back from the brink so that they may be removed from the protected class."⁸⁵ Consequently, the sport hunting regulations could not stand.⁸⁶

Defenders of Wildlife v. Andrus may present an unusual case since the programs and regulations of an agency acting under the authority of the Secretary of Interior were involved and not those of a project-oriented, developmental agency. Under section 7 of the ESA, the Secretary is directed to review the programs under his authority and "utilize such programs in furtherance of the purposes of this [Act]."⁸⁷ This same standard arguably should be the mandate of every federal agency, and, hence, the affirmative duties identified by the district court would be generally applicable. The expansive substantive interpretation given the statute by the court in *Defenders of Wildlife* may be considered part of an emerging trend in the law.

The application of the Endangered Species Act and the consequences of that application were again considered in *Connor v. Andrus*.⁸⁸ Plaintiff in *Connor* successfully challenged FWS and Texas migratory waterfowl regulations on substantive administrative law grounds. The agency rules prohibiting the hunting of the endangered Mexican duck in designated portions of New Mexico, Texas and Arizona were struck down as being unsupported by a rational basis and representing a clear error of judgment.⁸⁹ The district court determined that the federal and state hunting ban would *not* serve to increase the population of the endangered species. This surprising conclusion stemmed from the court's determination that the hunting ban would indirectly aid in the destruction of the critical habitat of the endangered duck species.⁹⁰ The court concluded that designated "no hunting" lands would be put to a more intensive land use because they could no longer be reserved for duck hunting. The ultimate result of this land

85. *Id.* at 170.

86. *Id.*

87. 16 U.S.C. § 1536 (West Cum. Supp. 1979), as amended by Act of Dec. 28, 1979, Pub. L. No. 96-159, § 4, 93 Stat. 1225.

88. 453 F. Supp. 1037 (W.D. Tex. 1978).

89. *Id.* at 1041-42.

90. *Id.* at 1041 n.2.

use shift, the court felt, would be to eliminate necessary habitat for the Mexican duck and thus further reduce the size of species populations. Therefore, in order to protect the habitat of the duck, the *Connor* court enjoined the Fish and Wildlife Service's regulations, thereby permitting the endangered species to be hunted in three states.⁹¹

With this limited amount of prior judicial review, the United States Supreme Court approached the best known case involving the Endangered Species Act—*TVA v. Hill*.⁹² This case, involving the now famous snail darter, turned endangered species protection into a matter of considerable public controversy. *TVA v. Hill* merits a detailed discussion here because of the substantive legal principles involved in the case and because the decision led to the most recent amendments to the ESA.

Beginning in 1966, Congress authorized annual funds for the construction of the Tellico Dam on the Little Tennessee River. In 1967, construction was commenced on the \$100 million structure, which will flood 16,500 acres when completed.⁹³ After litigation over the adequacy of the environmental impact statement concluded,⁹⁴ a University of Tennessee ichthyologist, Dr. David A. Etnier, discovered the existence of a small fish that he named the snail darter. He determined that the segment of the Little Tennessee River that was to be impounded was the sole habitat of the species.⁹⁵ Pursuant to the Endangered Species Act, which was enacted on December 28, 1973, the snail darter was listed by the Department of the Interior as an endangered species on

91. *Id.* at 1041-42. At the time of issuance, this decision was unsettling for a number of reasons. First, it placed the burden of showing a rational basis for the regulation upon the federal agency acting to protect an endangered species. *Id.* at 1040. Here, the district court did not defer to, or acknowledge, any agency expertise in the endangered species field. *Id.* The court, using only information gathered at a hearing on plaintiff's motion for preliminary injunction, invalidated a regulation that had been formally proposed, redrafted and finally issued as a formal agency regulation. *Id.* at 1039. To condemn this regulation as having "no rational basis," *id.* at 1041-42, would seemingly require a more broadly based factual determination. Second, the court enjoined enforcement of the agency regulation without discussing the traditional tests for injunctive relief. It is difficult to imagine just how plaintiff could have satisfied the requisite showings of irreparable harm, likelihood of success on the merits, and public interest, see 43 C.J.S. *Injunctions* § 17 (1978), in order to justify the award of the injunction. And third, this decision could have encouraged other individuals and organizations to challenge protective regulations in local federal districts. Taking the *Connor v. Andrus* decision at face value, however, it ironically supports the evolving philosophy that in ESA cases federal agencies must exercise their responsibilities in a manner that minimizes the total adverse effects upon endangered species, both direct and indirect.

92. 437 U.S. 153 (1978).

93. 549 F.2d 1064, 1067 (6th Cir. 1977), *aff'd*, 437 U.S. 153 (1978).

94. See *Environmental Defense Fund v. TVA*, 492 F.2d 466 (6th Cir. 1974); *Environmental Defense Fund v. TVA*, 468 F.2d 1164 (6th Cir. 1972).

95. 549 F.2d at 1067-68.

October 9, 1975,⁹⁶ and, in April of 1976, the river segment in which the fish is found was formally designated a critical habitat.⁹⁷

Suit was filed in February of 1976 to enjoin completion of the project.⁹⁸ Even though the trial court agreed with the Department of the Interior that completion of the dam would probably result in the complete destruction of the snail darter species,⁹⁹ it refused to grant the permanent injunction sought by plaintiffs.¹⁰⁰ The court was persuaded that the continuation of funding for the project indicated a congressional determination that the ESA did not bar completion. Undoubtedly, the court's belief that the project could not be modified to mitigate the effect upon the snail darter certainly contributed to its decision. As if to confirm the district court's decision, Congress soon appropriated \$9 million for continuing work on the Tellico project.¹⁰¹

On appeal, the United States Court of Appeals for the Sixth Circuit took a position diametrically opposed to that of the lower court. In a strongly worded opinion by Judge Celebrezze, the court found that the TVA dam project had violated section 7 of the Act, and, consequently, further construction was permanently enjoined.¹⁰² In reversing the district court, the Sixth Circuit acknowledged that the ESA did not provide the Secretary of the Interior with veto power over the activities of other federal agencies. The court, however, did note that "compliance standards" set by the Interior Department, could be considered upon judicial review.¹⁰³

Of greater significance was the court's resolution of the "on-going project" issue. The threshold question was whether the ESA applied to any project initiated prior to the enactment of the statute. In unequivocal terms the court stated that the Act did apply to ongoing projects, reasoning that detrimental impacts upon endangered species may not be apparent prior to construction.¹⁰⁴ The degree to which the project was completed was not influential in the Sixth Circuit's opinion; the

96. 40 Fed. Reg. 47,505-06 (1975) (codified in 50 C.F.R. § 17.11 (1978)).

97. 41 Fed. Reg. 13,926-28 (1976) (codified in 50 C.F.R. § 17.95 (1978)).

98. 419 F. Supp. 753 (E.D. Tenn. 1976), *rev'd*, 549 F.2d 1064 (6th Cir. 1977), *aff'd*, 437 U.S. 153 (1978).

99. *Id.* at 757.

100. *Id.* at 764.

101. Public Works for Water and Power Development and Energy Research Appropriations Act of 1977, Pub. L. No. 94-355, 90 Stat. 889 (1976).

102. 549 F.2d at 1070, 1075.

103. *Id.* at 1070. In this respect, the Sixth Circuit appears to have adopted the view of the Fifth Circuit expressed in *National Wildlife Federation v. Coleman*. See note 80 *supra*.

104. *Id.* at 1071.

court viewed the possible destruction of a species as the decisive factor. Judge Celebrezze wrote: "[W]hether a dam is 50% or 90% completed is irrelevant in calculating the social and scientific costs attributable to the disappearance of a unique form of life."¹⁰⁵ Consequently, the court issued a permanent injunction.¹⁰⁶ Undaunted, the appropriations committees of both Houses of Congress sponsored legislation that continued funding for the Tellico project.¹⁰⁷

Finally, in 1978, the United States Supreme Court issued its decision on the snail darter controversy and resoundingly supported the Sixth Circuit's interpretation of the ESA.¹⁰⁸ The Court found the language of section 7 unambiguous and concluded that the operation of the Tellico dam violated both the spirit and the wording of the Act. The Court first noted that the fundamental factual issue in the case was undisputed—the TVA had admitted that the Tellico Dam would destroy the snail darter species and its critical habitat.¹⁰⁹ The Court then turned to the crucial legal issue of whether this fact rendered the TVA in violation of the ESA. The TVA argued that Congress did not intend to subject this major, on-going project to the rigors of the ESA. This argument was rejected out of hand by the Court.¹¹⁰ After reviewing the legislative history of the ESA, the Court concluded that the 1973 Act "represented the most comprehensive legislation for the preservation of endangered species ever enacted by any nation."¹¹¹ Moreover, the Court determined that, under the provisions of the Act, species extinction was to be avoided "whatever the cost" and endangered species were to be accorded "priority over the 'primary missions' of federal agencies."¹¹² Viewing this policy decision as clearly within the prov-

105. *Id.*

106. *Id.* at 1075. Judge Celebrezze added, "This injunction shall remain in effect until Congress, by appropriate legislation, exempts Tellico from compliance with the Act or the snail darter has been deleted from the list of endangered species or its critical habitat materially redefined."
Id.

107. Public Works for Water and Power Development and Energy Research Appropriations Act of 1978, Pub. L. No. 95-96, 91 Stat. 797 (1978).

108. 437 U.S. 153 (1978).

109. *Id.* at 170-72.

110. *Id.* at 173-74.

111. *Id.* at 180.

112. *Id.* at 184-85. The majority also disposed of the TVA's second line of defense that the ESA should not be applied retroactively to affect an on-going federal project. The Court ruled that the § 7 requirements must be met when any project activities remain to be "authorized, funded, or carried out." *Id.* at 189. Furthermore, the TVA argument that continuing appropriations for the Tellico project represented a limited implied repeal of the ESA was solidly rejected. The most that the Court was willing to accept was that the congressional committees did not think that the ESA was applicable to the Tellico dam project. Standing alone, the Court felt that this did not constitute a statutory repeal. *Id.* at 189-93. This portion of the Supreme Court's decision

ince of the Congress, the Court found no legislative or statutory authority vested in the judiciary to override the congressional decision.¹¹³

The most significant principle to be extracted from the *TVA v. Hill* decision is that the 1973 Endangered Species Act imposed upon all federal agencies both a consultation requirement and a substantive decisionmaking standard upon which courts can evaluate agency compliance.¹¹⁴ In addition, when the facts clearly indicate that a federal action will completely extinguish an endangered life form or critical habitat, the judiciary will have very little choice but to enjoin the activity. The Court's decision did not address the more difficult factual situations in which species or habitat impact is unclear or debatable. Left for future cases are questions concerning (1) when agencies must

is especially noteworthy because it virtually eliminates one possible defense to future ESA actions—that of retroactivity. Since the date of this Supreme Court opinion, other federal courts have cited the Court's language regarding the issue of implied legislative repeal. In *Preterm, Inc. v. Dukakis*, 591 F.2d 121, 131 (1st Cir. 1979), the appeals court referred to *TVA v. Hill* as disfavoring repeal by implication, especially in the form of appropriation measures. It went on, however, to distinguish the facts in the Endangered Species Act context from those before the court involving federal funding for abortions. *Id.* at 133-34. See also *Zbaraz v. Quern*, 596 F.2d 196, 201-02 (7th Cir. 1979) (referring to *TVA v. Hill* and distinguishing it).

The Supreme Court has recently rejected a constitutional challenge to the validity of two other protective wildlife statutes—the Eagle Protection Act, 16 U.S.C. § 668A (1976), and the Migratory Bird Treaty Act, 16 U.S.C. § 703 (1976). In *Andrus v. Allard*, 100 S. Ct. 318 (1979), the Court upheld Department of the Interior regulations that prohibited commercial activity in parts of birds legally killed prior to the amendment of the statutes. Although it decided the crucial 5th amendment claim with questionable reasoning, the Court once again took a highly protective position regarding wildlife preservation. *Id.* at 328.

113. 437 U.S. at 187-88.

114. See *id.* at 173-74, 182-88. One court, considering a challenge to federal dam construction and operation after *TVA v. Hill*, criticized the efforts of the Tennessee Valley Authority in attempting to circumvent the command of the ESA and avoid its substantive purpose by noting, "Thus stands a multimillion dollar facility that cannot be utilized for anything other than a monument to governmental bungling." *South Carolina Wildlife Fed. v. Alexander*, 457 F. Supp. 118, 134-35 (D.S.C. 1978).

The Supreme Court's decision in *TVA v. Hill* and the 1978 amendments to the Endangered Species Act have made most courts aware of the legal protections, both procedural and substantive, afforded endangered species. At least one federal court, however, has recently ignored the law developed in the last two years. In *Catholic Action of Hawaii/Peace Education Project v. Brown*, 468 F. Supp. 190 (D. Hawaii 1979), the United States Navy proposed to relocate a munitions storage facility capable of storing nuclear weapons to the West Loch branch of its Pearl Harbor Naval Base in Honolulu, Hawaii. *Id.* at 191-92. Plaintiffs sought an injunction against the move, claiming a violation of NEPA, the ESA and the National Historic Preservation Act. *Id.* at 191. No environmental impact statement had been prepared due to an alleged conflict with the Atomic Energy Act, 42 U.S.C. § 2014(y) (1976). The Navy had concluded, without any consultation with the Fish and Wildlife Service or the Advisory Council on Historic Preservation, that the project would not affect any endangered species nor any historic property. 468 F. Supp. at 192. In denying the injunction, the district court accepted all the Navy's assertions in complete satisfaction of the statutes involved without any specific consideration of the federal case law or the relevant legislation. This case is an extreme aberration of the emerging case law and can be best explained by the nature of the proposed federal action.

take protective actions with respect to endangered species, and (2) what level of proof is necessary to establish an agency's obligation to act.

By interpreting section 7 expansively, and halting the Tellico Dam project, the Supreme Court practically invited congressional amendment of the ESA. As expected, congressional reaction to the *TVA v. Hill* decision was quick. Within four months of the Court's decision, Congress passed the Endangered Species Act Amendments of 1978.¹¹⁵ Despite the adverse publicity generated by the snail darter controversy, however, strong congressional support for endangered species protection continued. Congress did not choose to exempt the Tellico project from the application of section 7, and the substantive scope of that section was not significantly weakened. Instead, an amendment was enacted that reaffirmed the pre-existing policy against federal actions damaging endangered species and their habitats. The new statute emphasized agency consideration of the species question early in the planning process and created a system of administrative review to resolve the serious project/endangered species conflicts that would arise in the future. The 1978 amendments were followed by a technical amendments act in 1979,¹¹⁶ which clarified the 1978 amendments and extended the funding authorization for the federal endangered species program.¹¹⁷

V. THE 1978 ENDANGERED SPECIES ACT

TVA v. Hill dramatically focused public attention upon an extreme conflict between a public works project and endangered species protection. It was inevitable that Congress would act by either eliminating the immediate problem embodied in the Tellico controversy¹¹⁸ or by

115. Pub. L. No. 95-632, 92 Stat. 3751 (1978) (amending Endangered Species Act of 1973, Pub. L. No. 93-205, 87 Stat. 884).

116. Act of Dec. 28, 1979, Pub. L. No. 96-159, 93 Stat. 1225.

117. When Congress enacted the 1978 amendments, it only provided a funding authorization for activities taken pursuant to the Act before March 31, 1980. See 16 U.S.C.A. § 1542(1)(2) (West Cum. Supp. 1979). This short authorization period ensured that the federal endangered species program would be reexamined by Congress in less than one year. Senate Bill 1143, the 1979 three-year authorization bill, was finally passed on December 19, 1979 and signed by the President on December 28, 1979, 15 WEEKLY COMP. OF PRES. DOCS. 2288 (Dec. 31, 1979). Although described as a funding measure, the 1979 amendments made some subtle and significant changes in the law. As is frequently the case, these "technical amendments" to a complex statute were approved without substantial discussion.

118. In the signing statement for the 1978 Endangered Species Act, President Carter stressed his belief that no amendment to the Act was necessary. 14 WEEKLY COMP. OF PRES. DOC. 2002 (Nov. 10, 1978).

Justice Powell, in his dissent in *TVA v. Hill*, stated that the Court's decision would prompt quick congressional action to overturn the majority's position. He noted:

establishing a general procedure for resolving such conflicts. In *TVA v. Hill*, the Supreme Court had accorded section 7 a very expansive interpretation and had raised endangered species issues as a major environmental hurdle before an ever-expanding range of federal actions.¹¹⁹ Other project/species conflicts would certainly arise in the future, and congressional leaders were pressed to provide federal agencies with the guidance needed to avoid the recurrence of a Tellico situation.

Legislative proposals amending the 1973 Act were developed by both the House and the Senate before the *TVA v. Hill* decision was issued.¹²⁰ The first bill to appear, H.R. 10883,¹²¹ was essentially a funding authorization needed to continue the federal endangered species program for three years.¹²² As such, it was absolutely essential as a programmatic authorization; yet the bill contained no reference to either section 7 or the ongoing Tellico litigation. House action concerning the problems with section 7 and the Tellico project was delayed until oversight hearings could be held.¹²³ The Senate, however, di-

I have little doubt that Congress will amend the Endangered Species Act to prevent the grave consequences made possible by today's decision. Few, if any, Members of that body will wish to defend an interpretation of the Act that requires the waste of at least \$53 million, . . . and denies the people of the Tennessee Valley area the benefits of the reservoir that Congress intended to confer. . . . If Congress acts expeditiously, as may be anticipated, the Court's decision probably will have no lasting adverse consequences.

437 U.S. at 153, 211. Justice Powell's apparent expectation that Congress would exempt the Tellico project from the coverage of the Act never materialized either through statutory amendment or administrative action in 1978. *But see* note 149 and accompanying text *infra*.

119. The potential impact of the Act, and particularly § 7, can be illustrated by the following statistics. In the spring of 1978, there were 621 endangered and 39 threatened species of animals and plants formally listed. At that time, 111 animal species and 1,867 plant species had been proposed for listing. *See* H.R. REP. NO. 1026, 95th Cong., 2d Sess. 2-3 (1978). With an increase in the number of listed species, and the associated increase in critical habitat areas, project/species conflicts will be even more likely. The Department of Interior estimated that the number of § 7 consultations in the 1979 fiscal year alone would reach 20,000. This must be compared to a total of 4,500 consultations undertaken in the entire five-year period prior to fiscal 1979. *See* S. REP. NO. 874, 95th Cong., 2d Sess. 203 (1978). The Committee report on S. 2899, the Senate bill amending the Act, specifically noted that, "[t]estimony received by the committee indicates that a substantial number of Federal actions currently underway appear to have all the elements of an irresolvable conflict with the provisions of the act." *See id.* at 2.

120. The Supreme Court issued its opinion in *TVA v. Hill* on June 15, 1978. Two bills, H.R. 10883 and S. 2899, were reported from committees to the House of Representatives and the Senate, respectively, prior to June 15th.

121. 95th Cong., 2d Sess. (1978). The House bill was unanimously passed by the House Committee on Merchant Marine and Fisheries and was reported to the House on March 31, 1978 in order to comply with the provisions of § 402 of the Congressional Budget Act. *See* H.R. REP. NO. 1026, 95th Cong., 2d Sess. 1, 2 (1978).

122. The Senate bill, S. 2899, 95th Cong., 2d Sess. (1978), providing for an exemption process through an Endangered Species Committee, contained a similar program authorization for three fiscal years. *See* S. REP. NO. 874, 95th Cong., 2d Sess. 2 (1978).

123. The House Committee report on H.R. 10883 specifically acknowledged the emerging problems with § 7 and noted:

rectly confronted the emerging conflict that had focused upon the *TVA v. Hill* litigation by providing in its bill—S. 2899—a general procedure for exempting federal actions from the strict requirements of section 7.¹²⁴ This procedure, employing a cabinet-level Endangered Species Committee, was intended to provide “flexibility”¹²⁵ in the case of a conflict between a federal project and endangered species. This “flexibility,” however, was not to be gained at the expense of the interagency consultation process that was already mandated by the 1973 Act. In fact, the Senate committee report reflected a belief that “full and good faith consultation between the project agency and the Fish and Wildlife Service or the National Marine Fisheries Service” would eliminate most controversies prior to any consideration by the newly created Endangered Species Committee.¹²⁶ Aware of the increasing likelihood of future Tellico controversies and the danger of piecemeal exemptions, the Senate passed an exemption provision that would serve as the model for the 1978 amendments to the Act.

After the Supreme Court issued its opinion in *TVA v. Hill* on June 15, 1978, the movement to substantively amend the 1973 Act began to gain momentum. The Senate passed its version of the Endangered Species Act Amendments—S. 2899—on July 19, 1978.¹²⁷ At that point,

The committee plans to conduct extensive oversight hearings on the impact of section 7 of the act on Federal development activities during April 1978. The committee feels that any amendments to section 7 of the act should be withheld until it has had an opportunity to thoroughly review the operation of section 7.

H.R. REP. NO. 1026, 95th Cong., 2d Sess. 3 (1978).

124. S. Rep. No. 874, 95th Cong., 2d Sess. 3 (1978). The Senate Committee on Environment and Public Works, which reported S. 2899, indicated that, even though the proposed bill did not exempt the Tellico project from the Act, it believed the project to be “the type of Federal action which should be eligible for review by the Endangered Species Committee . . . and given appropriate consideration for an exemption under the new review process mandated in this legislation.” *Id.* at 2. Ironically, when the Endangered Species Committee finally did consider the project pursuant to the provisions of the 1978 amendments, it unanimously rejected the exemption request, using the same standards contained in S. 2899. See N.Y. Times, Jan. 24, 1979, at A-21, col. 3 (city ed.); note 143 *infra*.

125. The term “flexibility” can have a myriad of meanings, especially in the political context. The Senate Committee on Environment and Public Works, possibly anticipating the United States Supreme Court decision in *TVA v. Hill*, indicated that “some flexibility is needed in the act to allow consideration of those cases where Federal action cannot be completed or its objectives cannot be met without directly conflicting with the requirements of section 7.” S. Rep. No. 874, 95th Cong., 2d Sess. 3 (1978). It seems clear that the Senate Committee considered § 7 consultation to be mandatory and a finding that a federal action would jeopardize endangered species to be sufficient to stop a federal project.

126. *Id.* at 5-6. The Senate’s approach stressed a thorough exhaustion of threshold questions in the consultation process prior to any formal consideration of an exemption request by the Endangered Species Committee. This interpretation fortifies the role and power of the Fish and Wildlife Service or National Marine Fisheries Service in the process and also narrows the number of possible exemption petitions likely to reach the Endangered Species Committee. *Id.*

127. 124 CONG. REC. S11,158 (daily ed. July 19, 1978). The final vote on S. 2899 was 94 to 3

however, the House had only developed a bill—H.R. 10883—to extend funding authorization for three years. Consequently, considerable effort was put forth to produce a bill that would not only address the section 7 issues and the Tellico Dam problem but also result in a comprehensive amendment to the 1973 Act. As the Ninety-Fifth Congress drew to a close, H.R. 14104¹²⁸ was passed by the House of Representatives after receiving eleven floor amendments.¹²⁹ The next day, both the House and the Senate approved a conference report on the endangered species legislation.¹³⁰ Nearly one month later, President Carter signed the legislation that was to become the Endangered Species Act of 1978,¹³¹ and nearly fourteen months later, the President signed into law a bill further refining the major 1978 amendments.¹³²

in favor of passage. The committee bill, however, was modified by eleven floor amendments. *Id.* at S11,111-49.

128. The original comprehensive House bill—H.R. 13807—was introduced on August 9, 1978 and considered by the Subcommittee on Fisheries and Wildlife Conservation of the Committee on Merchant Marine and Fisheries. Eight days of hearings and five days of markup sessions preceded the subcommittee's unanimous adoption of the bill. This proposal, in the form of a clean bill H.R. 14104, was reported to the full Committee on September 18, 1978. The next day the Committee sent the bill to the House of Representatives for consideration. See H.R. REP. NO. 1625, 95th Cong., 2d Sess. 3-4 (1978), reprinted in [1978] U.S. CODE CONG. & AD. NEWS 9453, 9453-54.

129. 124 CONG. REC. H12,868-905 (daily ed. Oct. 14, 1978). The most notable floor amendment was offered by Representative John J. Duncan of Tennessee. Mr. Duncan's proposal, which passed on a vote of 231-157, would have exempted the Tellico dam project from the coverage of the Endangered Species Act. *Id.* at H12890-93. Citing high local employment on the project, increasing energy needs, the near-complete status of the project and the alleged transplantation of the endangered snail darter, Representatives Duncan, Lloyd and Quillen of the Tennessee delegation and Representative Roncalio of Wyoming argued forcefully in favor of the Tellico exemption provision. *Id.*

130. The managers of both the Senate and House bills asserted to their colleagues that the Conference Report on S. 2899 reflected a minor accommodation with the other house that preserved the essence of their original bills. Senator John C. Culver of Iowa noted that the conference agreement contained

"many elements of the original Senate bill" and that this is a very sensible solution to a very complex and controversial issue. It provides flexibility in the administration of the Endangered Species Act, and avoids ad hoc exemptions or an emasculation of the act while at the same time maintaining strong protection for our endangered fish, wildlife, and plants.

124 CONG. REC. S19,160 (daily ed. Oct. 14, 1978). In recommending acceptance of the Conference Report, Representative John M. Murphy stressed its similarity to the House bill and added that "this is a good bill. It introduces significant flexibility into the Endangered Species Act. But we have not gutted the act in the process." *Id.* at H13,579.

131. 14 WEEKLY COMP. OF PRES. DOC. 2002 (Nov. 13, 1978).

132. See note 117 *supra*. The wisdom of amending the federal endangered species law in such short succession may be questioned. Although a part of the 1979 amendments involve a subject untreated in 1978 amendments (International Convention Implementation), the majority of the legislative modifications represent both substantive and procedural changes in federal law that should have been considered with the original 1978 amendments.

A. Tellico Dam Provision

The Tellico Dam controversy, as highlighted by the *TVA v. Hill* decision, provided a dramatic example of the conflicting values of regional development and species preservation. In many ways, Congress' disposition of the Tellico issue reflected the congressional treatment of the entire Act during the 1978 amendment process—procedural modification, but reaffirmation of pro-species legislative policy. It was feared that adverse congressional reaction to the snail darter case would result in a significant weakening of the entire federal endangered species program. At the very least, an exemption of the Tellico project from the Act's coverage seemed a distinct possibility. The bill that was finally enacted, however, did not establish an exemption for Tellico or even create a special test for evaluating the merits of the project. Instead, the TVA dam and reservoir project was to be considered in a system of administrative review guided by statutory principles.¹³³ Although the future of the Tellico project was to be determined in an expedited fashion,¹³⁴ this determination was to be made under the same general exemption procedure¹³⁵ established in section 7 of the Act for all future project/species conflicts.¹³⁶ By denying the TVA preferential treatment

133. See 16 U.S.C.A. § 1539(i)(1) (West Cum. Supp. 1979).

134. The procedure bypassed the normal first stage review board analysis required for future projects. See 16 U.S.C.A. § 1536(g) (West Cum. Supp. 1979) (amended 1979). The statute required the Endangered Species Committee considering the Tellico project and the Grayrocks Dam and Reservoir project on the Laramie River in Wyoming to meet within 30 days of the date of enactment and render a decision no later than 90 days after enactment. If no decision was issued by that date, the exemptions would automatically issue. *Id.* § 1539(i)(1). This is a much shorter time schedule than is provided for future exemption requests. See 16 U.S.C.A. § 1536(g)-(h) (West Cum. Supp. 1979) (amended 1979).

135. See 16 U.S.C.A. § 1536(h) (West Cum. Supp. 1979) (amended 1979). The Conference Report indicated the difficulty generally encountered in the resolution of the Tellico and Grayrocks projects, which had been judicially enjoined at the time of the conference. The conference report succinctly described the necessary tradeoff regarding this issue: "The language [regarding the Tellico and Grayrocks projects] adopted by the conference committee is an attempt to address the specific project concerns voiced in the House with the Senate desire to preserve the integrity of the exemption process." H.R. REP. NO. 1804, 95th Cong., 2d Sess. 24-25, *reprinted in* [1978] U.S. CODE CONG. & AD. NEWS 9453, 9492.

136. For a detailed discussion of the § 7 exemption procedure, see notes 228-309 and accompanying text *infra*. Two other exemption procedures are authorized by the amended Act. First, if the Secretary of Defense "finds that such exemption is necessary for reasons of national security," the Endangered Species Committee must grant the exemption "for any agency action." 16 U.S.C.A. § 1536(j) (West Cum. Supp. 1979). This exceedingly broad power caused President Carter to mention in his bill signing statement that "I am asking . . . that the exercise of possible national security exemptions by the Secretary of Defense be undertaken only in *grave circumstances posing a clear and immediate threat to national security*." 14 WEEKLY COMP. OF PRES. DOC. 2002 (Nov. 1, 1978) (emphasis added). Second, the President is authorized to grant exemptions "for the repair or replacement of a public facility" in any area declared to be a major disaster area under the Disaster Relief Act of 1974. 16 U.S.C.A. § 1536(p) (West Cum. Supp. 1979).

in this case, Congress fortified both the requirement of the Act that project agencies must consult federal species experts in the early stages of the project planning process and the substantive mandate that agencies' actions must not "jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modifications of [critical habitat]." ¹³⁷ Relief from this strict standard could only come by way of administrative exemption. ¹³⁸

A good illustration of how the general exemption process created by the 1978 amendments is designed to work is provided by the application of the process to the Tellico project. Under the exemption process, a statutorily designated Endangered Species Committee (ESC) decided whether the Tellico project could be completed. The Committee, composed of selected federal agency heads and one state representative, ¹³⁹ was directed to evaluate the project on the basis of three standards. In order to grant an exemption, the panel had to find that (1) there were no "reasonable and prudent" alternatives to completion of the dam, ¹⁴⁰ (2) the benefits of completion "clearly outweigh[ed] the benefits of alternative courses of action consistent with conserving the species or its critical habitat," ¹⁴¹ and (3) the action was "in the public

137. 16 U.S.C.A. § 1536(a) (West Cum. Supp. 1979).

138. *Id.*

139. The Committee is composed of seven members, including six officials of the federal government (the Secretaries of Agriculture, the Army and the Interior, the Administrators of the Environmental Protection Agency and the National Oceanic and Administration, and the Chairman of the Council of Economic Advisors) and one member selected by the President from nominees recommended by state governors. 16 U.S.C.A. § 1536(e)(3) (West Cum. Supp. 1979). The original Senate bill—S. 2899—provided for seven members, but the chairman of the Council on Environmental Quality (CEQ) was substituted for the Administrator of the National Oceanic and Atmospheric Administration. S. REP. NO. 874, 95th Cong., 2d Sess. 3 (1978). The House bill—H.R. 14,104—allowed for only six members on its version of the Endangered Species Committee and omitted the Administrator of EPA and the Chairman of the Council of Economic Advisors while adding the Chairman of CEQ. See H.R. 1404, 95th Cong., 2d Sess., § 7(e) (1978), 124 CONG. REC. H12,878 (daily ed. Oct. 14, 1978).

140. 16 U.S.C.A. S 1539(i)(1) (West Cum. Supp. 1979); *id.* § 1536(h)(1)(A)(i). This standard also appears in § 4(f) of the Department of Transportation Act. 49 U.S.C. § 1653(f) (1976). That provision prohibits "the use of any publicly owned land from a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance . . . , or any land from an historic site . . . unless (1) there is no feasible and prudent alternative to the use of such land, and (2) such program includes all possible planning to minimize harm to such [areas]." This standard might have seemed unreasonably strict to proponents of the Tellico project in light of the exacting interpretation given those words in *Citizens to Protect Overton Park v. Volpe*, 401 U.S. 402 (1971), in which the Supreme Court said that the standard "is a plain and explicit bar to the use of federal funds for construction of highways through parks—only the most unusual situations are exempted." *Id.* at 411. This prompted Representative Robin L. Beard of Tennessee to offer a floor amendment to H.R. 14104 changing the phrase "no feasible and prudent alternative" to read "no reasonable and prudent alternative." See 124 CONG. REC. H12,881 (daily ed. Oct. 14, 1978).

141. 16 U.S.C.A. § 1536(h)(1)(A)(ii) (West Cum. Supp. 1979).

interest."¹⁴² On January 23, 1979, the Endangered Species Committee by unanimous action granted an exemption for a Wyoming dam project but simultaneously *denied* the application for the Tellico dam. The ESC found that the Tellico project failed to meet the first two prongs of the statutory exemption test.¹⁴³ Describing the project as "ill conceived and uneconomical in the first place,"¹⁴⁴ Secretary of the Interior Cecil D. Andrus announced the Committee's decision.¹⁴⁵ The supporters of the Tellico project, however, refused to accept defeat at the hands of the ESC.¹⁴⁶ Attacking the economic findings of the Committee¹⁴⁷ and claiming that the endangered snail darter had been successfully trans-

142. *Id.* The term "public interest" is undefined in the Act. The third prong of the normal exemption procedure is a finding that agency action for which exemption is sought is of regional or national significance. *Id.* § 1536(h)(1)(A)(iii). This test was omitted in review of the Tellico and Grayrocks projects upon the specific directive of Congress. *Id.* § 1539(i)(1). Congress evidently assumed that these projects met the "significance" test. The Conference Report described "in the public interest" as a finding of the Endangered Species Committee that "an agency action must affect some interest, right or duty of the community at large in a way which they would perceive as positive." H.R. REP. NO. 1804, 95th Cong., 2d Sess. 20, *reprinted in* [1978] U.S. CODE CONG. & AD. NEWS 9453, 9488.

143. *See* Application for Exemption for Tellico Dam and Reservoir Project 2-3 (1979) (on file with author). The ESC determined that there were reasonable and prudent alternatives to the project and that the benefits of the Tellico proposal did not clearly outweigh the benefits stemming from other options. Had the ESC failed to act by February 8, 1979, both the Tellico and the Grayrocks projects would have been automatically exempted from the Act. *See* 16 U.S.C.A. § 1539(i)(1) (West Cum. Supp. 1979).

144. *See* 9 ENVIR. REP. (BNA) 1776 (1979).

145. Soon after the ESC decision was issued, the TVA directed its staff to prepare an options paper outlining potential solutions to the Tellico problem. On February 19, 1979, the staff produced a paper discussing two approaches—a river development option and a reservoir plan. *See* 9 ENVIR. REP. (BNA) 1833, 2043-44 (1979). Even if, as a final resolution of the Tellico controversy, the project would have had to be abandoned, it is certain that the actual financial loss suffered by the government would have been greatly minimized by the appreciated value of the land acquired for the project. *See* 124 CONG. REC. H12892 (daily ed. Oct. 14, 1978) (remarks of Rep. Forsythe). In addition, Senator John H. Chafee, in successfully arguing against a subsequent legislative attempt to exempt the Tellico project, stated that 38,000 acres of land had already been acquired for the project and that only \$22 million of the \$116 million spent for the dam had gone for construction. 125 CONG. REC. S7547, S7552 (daily ed. June 13, 1979). A similar argument was made by Senator John C. Culver in a later unsuccessful effort to block the Tellico exemption amendment. *See id.* at S12,270, S12,275 (daily ed. Sept. 10, 1979).

146. Senator Howard H. Baker, Jr. of Tennessee unsuccessfully attempted to amend the Endangered Species Act authorization extension bill—S. 1143—to exempt the Tellico project, both before the Senate Environment and Public Works Committee on May 9, 1979 and the full Senate on June 13, 1979. The Committee vote was 8-3 against the amendment. *See* 37 CONG. Q. 888, 1142-43 (1979). However reluctant the Senate may have been to grant the Tellico project a special exemption, the House of Representatives had no such hesitation. On August 2, 1979, the House voted to exempt the Tellico project by a 258 to 156 majority. *See* 125 CONG. REC. H7223 (daily ed. Aug. 2, 1979).

147. The Endangered Species Committee's finding that the Tellico project was economically unsound was attacked by proponents of the dam who claimed that the annual benefit/cost deficit of approximately \$720,000 was due to the "creative accounting" of the ESC. *See* 125 CONG. REC. S12,273 (daily ed. Sept. 10, 1979) (remarks of Sen. Sasser). Other TVA studies had shown a net benefit of 2.3-2.6 to 1 and 3.3 to 1. *See* 125 CONG. REC. S12,278 (daily ed. Sept. 10, 1979).

planted,¹⁴⁸ proponents of the dam sought special legislative relief for their project. After being rebuffed several times during 1979, they finally secured a statutory exemption by appending the Tellico provision to the Energy and Water Development Appropriations Act.¹⁴⁹

The Tellico Dam case reveals a number of things about the system of project evaluation mandated by the 1978 Act. It illustrates how the administrative review procedure functions when presented with a request for a deviation from the clear congressional policy choice favoring the preservation of endangered species. The Tellico case proved that a high-level governmental panel could withstand significant political pressures supporting an exemption request. Although the Tellico case may present an unusual and extreme example of project/species conflict because of the degree of completion of the project, the amount of funds already expended, the nature of the imperiled species and the amount of local support, it does focus attention on the method that Congress has created for making these difficult decisions involving conflicting social values. Although Congress may have reversed itself on the Tellico issue and passed a special exemption, this does not reflect an intrinsic weakness in the national support for endangered species protection or the administrative review system created by the Act. The clarity of the federal statutory policy imposing a consultation requirement and a substantive standard for agency decisionmaking will ensure that a similar factual situation does not recur.¹⁵⁰

148. It was asserted that the snail darter had been successfully transplanted into the Hiwassee River in Tennessee and was reported in other states as well. Furthermore, it was claimed that the species was no longer present in its original habitat—the Little Tennessee River. This latter point was made to demonstrate the ultimate irrationality of barring the completion of the Tellico dam and not to illustrate the destructive impact of the previous construction activity. See 125 CONG. REC. S12,273 (daily ed. Sept. 10, 1979). In a letter to Representative Thomas P. O'Neill, Jr., however, Secretary of the Interior Cecil D. Andres disputed the conclusion that the transplantation had been successful. See 125 CONG. REC. H7218 (daily ed. Aug. 2, 1979).

149. The Energy and Water Development Appropriations Act of 1980, Pub. L. No. 96-69, 93 Stat. 437 (1979), became the vehicle for the Senate's concurrence with the House exemption. There was some evidence that the House members had threatened to delay passage of the \$10.8 billion appropriations measure if the Senate did not accede to the Tellico exemption amendment. See 125 CONG. REC. S12,274-75 (daily ed. Sept. 10, 1979) (remarks of Sen. Johnston and Culver). On September 10, 1979, the Senate finally agreed by a vote of 48 to 44 to exempt the Tellico project from the Endangered Species Act and any other federal law. *Id.* at S12,279.

150. Of greater likelihood is a series of legislative attacks upon the new § 7 procedural and substantive requirements. Ironically, President Carter's decision to sign the Energy and Water Development Appropriations bill, which included the Tellico exemption, may have forestalled more damaging modifications to the Endangered Species Act. In his signing statement the President noted that "I am convinced that this resolution of the Tellico matter will help assure the passage of the Endangered Species Act reauthorization without weakening amendments or further exemptions." 15 WEEKLY COMP. OF PRES. DOC. 1760 (Sept. 15, 1979). On December 28, 1979, the President signed the three-year funding authorization bill for the ESA, which contained a number of modifications in the § 7 standards. See notes 117, 132 & 146 *supra*.

An analysis of other provisions of the Endangered Species Act and its 1978 amendments is warranted at this point. The examination will reveal a scientific system of species protection that minimizes countervailing economic considerations and stresses early planning review as a means of avoiding damaging governmental actions. Significantly, the system is essentially administrative and accords the judiciary an extremely limited role.

B. Listing of Endangered and Threatened Species

The starting point for a governmental system protecting life forms from extinction is the identification of those biological entities worthy of the special protections created by law. Although some varieties of animal life have been preserved by specific legislative actions,¹⁵¹ since 1969 the identification of endangered species has been undertaken as an administrative function of the Fish and Wildlife Service within the Department of Interior.¹⁵² The 1973 Act devoted more attention to the listing process¹⁵³ and expanded eligible species to include plants as well as fish and wildlife.¹⁵⁴ Listing authority, originally residing with the Secretary of Interior, was to be shared under the Act with the Secretary of Commerce, who had jurisdiction over marine species by virtue of a 1970 executive reorganization plan.¹⁵⁵ In addition, the 1973 statute created two categories into which listed species could be placed—threatened and endangered.

With the passage of the 1973 Act, the Secretaries of Interior and Commerce were provided with specific procedural guidance¹⁵⁶ in the maintenance of the endangered species list. With the exception of brief

151. *E.g.*, 16 U.S.C. §§ 668-668d (1976) (bald eagles); 16 U.S.C. §§ 851-856 (1976) (black bass); 16 U.S.C.A. § 1371 (West 1974 & Cum. Supp. 1979) (marine mammals).

152. Endangered Species Conservation Act of 1969, Pub. L. No. 91-135, § 3(a), 83 Stat. 275 (1969) (repealed 1973). This statute required the Secretary of Interior to list formally in the Federal Register fish or wildlife species "deemed to be threatened with worldwide extinction." *Id.* § 2. Any person importing such "fish or wildlife" could be subject to both civil and criminal penalties. *Id.* § 4. The intention of this legislation was to control the international trade in endangered wildlife.

153. Endangered Species Act of 1973, § 4, 16 U.S.C. § 1533 (1976) (amended 1978, 1979).

154. *See id.* § 3(11), 16 U.S.C. § 1532(16) (amended 1978).

155. *See* Reorganization Plan No. 4 of 1970, 84 Stat. 2090 (1970); (creating the National Oceanic and Atmospheric Administration). The powers of the Secretary of Commerce were mainly confined to the initial listing of a species or a re-listing from threatened to endangered status. De-listing or downgrading from endangered to threatened status can only be accomplished with the consent of the Secretary of Interior. *See* Endangered Species Act of 1973, § 4(A)(2), 16 U.S.C. § 1533(a)(2)(A)(B)(1976).

156. *See* 1973 Act, § 4(b)(1), 16 U.S.C. § 1533(b)(1) (1976) (amended 1978, 1979); *id.*, 16 U.S.C. § 1533(a)(2)(A), (B) (1976); *id.*, 16 U.S.C. § 1533(c)(1)(1976)(amended 1978).

definitions of the terms "endangered" and "threatened,"¹⁵⁷ however, the Act left the matter of deciding whether to list a species to the administrative discretion of the two agencies involved.¹⁵⁸ The listing decision was to be based on "the best scientific and commercial data available"¹⁵⁹ and made after discussion with interested parties.¹⁶⁰ In essence, the decision to list a species formally was to be dependent upon a scientific determination of the likelihood of species extinction.¹⁶¹ Although listing was theoretically to be a non-discretionary act, once that determination was made the ultimate decision to list rested squarely within the prerogative of the listing agency.¹⁶² After *TVA v. Hill*, the importance of the listing decision, when considered in combination with the section 7 procedural and substantive duties, became magnified. It became apparent that the listing of an endangered

157. The 1973 statute defines an "endangered species" as one "in danger of extinction throughout all or a significant portion of its range," *id.* § 3(4), 16 U.S.C. § 1532(4) (1976), and a "threatened species" as one that is "likely to become an endangered species within the foreseeable future," *id.* § 3(11), 16 U.S.C. § 1532(11) (1976).

158. There appear to be no regulations in force that explain the listing process or the standards for listing. The regulations that have been published merely identify endangered or threatened species once they have been found eligible for listing. See 50 C.F.R. § 17.11, .12 (1978). See also *id.* § 402.05(b) (1978) (criteria for determining the critical habitat of a listed species). New regulations governing the listing of species and designation of critical habitat have been proposed. 44 Fed. Reg. 47,862 (1979).

159. 16 U.S.C. § 1533(b)(1) (1976) (amended 1978, 1979). This standard for listing was originally provided in the 1969 Act and similar language appears in other wildlife statutes. See M. BEAN, *supra* note 17, at 376 n.21. The 1978 amendments modified this standard for the designation of critical habitat to be "the best scientific data available." 16 U.S.C.A. § 1533(f)(4) (West Cum. Supp. 1979). It is unclear whether this difference in language reflects a congressional intent to exclude "commercial data" from the critical habitat determination or whether the omission is merely an oversight.

160. The 1973 Act required that the Secretary making the listing decision consult with "affected States, interested persons and organizations, other interested Federal agencies, and [where appropriate, foreign countries]." 16 U.S.C. § 1533(b)(1) (amended 1978, 1979).

161. Although the listing of an endangered or threatened species is theoretically a scientific judgment by the Fish and Wildlife Service or the National Marine Fisheries Service, some congressmen have criticized these agencies for having no established guidelines for species listing. In the course of the floor debate on H.R. 14104, one legislator asserted that the decision to consider a species for listing was "based entirely on the whim of the service biologist." See 124 CONG. REC. H12,870 (daily ed. Oct. 14, 1978) (remarks of Rep. Beard). Representative John Buchanan of Alabama specifically questioned "the accuracy and objectivity" of the FWS proposal to list the Cahaba Shiner and the Goldline Darter as endangered species. See 124 CONG. REC. H12,872 (daily ed. Oct. 14, 1978).

162. Under the 1973 Act, there was no time constraint imposed upon the Secretary with the responsibility to list formally a threatened or endangered species. Therefore, an external request for listing or de-listing of a species did not have to be acted upon within any predetermined time period. In addition, the Fish and Wildlife Service often proposed the formal listing of a species but waited a long period before acting or never made the regulation final. This was the claim of Representative Robin L. Beard of Tennessee, who successfully argued in favor of an eighteen-month authorization period in the Act, rather than the three-year period originally considered by the House. See 124 CONG. REC. H12,870 (daily ed. Oct. 14, 1978) (remarks of Rep. Beard).

or threatened species and the designation of its critical habitat could dramatically affect the future of many federal projects.

The *TVA v. Hill* decision placed a heavy emphasis on section 7 consultation and a strict duty on federal agencies not to "jeopardize the continued existence"¹⁶³ of listed endangered species or their habitats. When Congress considered the 1978 amendments to the Act, there seemed to be a general consensus in favor of making the ESA more "flexible."¹⁶⁴ It was thus possible that major legislative modifications could have been made in the keystone of the Act—the listing process. A number of these suggested changes were ostensibly proposed to improve the functioning of the process, but they could have seriously weakened the statute. The underlying theory of American species legislation has been to identify and protect biological species regardless of their commercial or aesthetic value. A variety of plant or animal that is in danger of extinction should be preserved because of its uniqueness and the threat to that special quality. The federal policy has been based upon scientific determinations that a particular species is endangered, not political decisions that the specific plant or animal is worthy of federal protection.¹⁶⁵ In this way federal law regards all species as being equal in their value to society.

Against all the pressure to amend the Act to make it compatible with a variety of interests,¹⁶⁶ the formal listing process emerged relatively intact. The procedure, however, has been modified in several ways. The listing agency remains free to select any species¹⁶⁷ of plant

163. 16 U.S.C.A. § 1536(a) (West Cum. Supp. 1979) (amended 1979).

164. Throughout the development of the 1978 amendments, modifications were suggested in the hope of building flexibility into what had been characterized by the Supreme Court in *TVA v. Hill* as a rigid system. This was the common perception in Congress and one that spurred the actual amendment process. See H.R. REP. NO. 1625, 95th Cong., 2d Sess. 13-14, reprinted in [1978] U.S. CODE CONG. & AD. NEWS 9453, 9463-64. The changes that were finally made to the federal endangered species program were usually made to accommodate the developmental interest and were often described as "compromises." *Id.*

165. An attempt to narrow the scope of species eligible for federal protection, however, recently surfaced in a floor amendment to the Senate bill extending the funding authorization for the Endangered Species Act—S. 1143. Senator Henry Bellmon of Oklahoma offered an amendment that would have limited the protection of the Act to those species determined by the Secretary of the Interior to have "an economic or aesthetic value to man." The proposed amendment was defeated by a vote of 80 to 14. 125 CONG. REC. S7554-56 (daily ed. June 13, 1979). Such a proposal raises serious questions about the direction of the federal policy on endangered species and the morality of designating certain life forms as less worthy of continued existence than others.

166. Eleven floor amendments were added to both the House and Senate versions of the ESA when the bills—H.R. 14104 and S. 2899—were before the respective bodies. See notes 120, 128 & 129 *supra*. Most of these amendments were exemptions of particular interests from the coverage of the Act. See, e.g., 16 U.S.C.A. § 1536(j) (West Cum. Supp. 1979) (national security exemption).

167. The Act only excludes one type of life form from its coverage. In the definition of "en-

or animal for listing based upon a scientific determination of endangerment.¹⁶⁸ The 1978 amendments redefined the term "species" to exclude groupings below the subspecies level and certain invertebrate animals.¹⁶⁹ Although this would appear to reduce the number of animals eligible for listing, the precise impact of the definitional change at this point is unclear.¹⁷⁰ A listing decision must still be based upon "the best scientific and commercial data available,"¹⁷¹ although the standard for a critical habitat designation has been framed in slightly different language.¹⁷²

dangered species," insects that the Secretary of the Interior considers a "pest whose protection under the provisions of this chapter would present an overwhelming and overriding risk to man" are excluded. 16 U.S.C.A. § 1532(6) (West Cum. Supp. 1979). In a debate concerning the extension of the Act's funding authorization, Senator John C. Culver explained the exception for insects constituting pests as one that was necessary for the control of crop-threatening insects such as locusts and boll weevils whose numbers "may not be plentiful one year, but, due to a sudden surge of breeding, may overrun croplands the next year. That was the one narrow exception." 125 CONG. REC. S7555 (daily ed. June 13, 1979).

168. The Secretary involved must also conduct a "status review" on the species before it is formally proposed for listing as either endangered or threatened. See Act of Dec. 28, 1979, Pub. L. No. 96-159, § 3(1), 93 Stat. 1225 (to be codified at 16 U.S.C. § 1533(b)(1)). This amendment extends the status review requirement presently applicable for petitioned listing changes, 16 U.S.C.A. § 1533(c)(2) (West Cum. Supp. 1979) (amended 1979), to those originating within the Departments of the Interior and Commerce. The stated intention of this additional procedural obligation is to provide the listing agency with the most current data base upon which to reach a decision. See H.R. REP. NO. 697, 96th Cong., 1st Sess., 9-10, reprinted in [1979] U.S. CODE CONG. & AD. NEWS 4776, 4776-77.

169. See 16 U.S.C.A. § 1532(16) (West Cum. Supp. 1979). This provision originated in similar form in the House bill—H.R. 14104—and was accepted by the Conference Committee. See 124 CONG. REC. H12,879 (daily ed. Oct. 14, 1978). There was very little explanation given for the change. The Conference Report notes:

The existing definition of "species" in the act includes subspecies of animals and plants, taxonomic categories below subspecies in the case of animals, as well as distinct populations of vertebrate species." *The definition included in the conference report would exclude taxonomic categories below subspecies from the definition as well as distinct populations of invertebrates.*

H.R. REP. NO. 1804, 95th Cong., 2d Sess. 24-25, reprinted in [1978] U.S. CODE CONG. & AD. NEWS 9453, 9492 (emphasis added).

170. In the course of the floor debate in the House of Representatives on H.R. 14104, concern was voiced over the potential number of animal and plant species and subspecies that could be considered for listing under the Act. Representative Robert Duncan claimed that the Fish and Wildlife Service had estimated that there were approximately 1.4 million full species of animals and 600,000 full species of plants in the world. In addition, he asserted that there were three to five times as many subspecies. Responding to the threat of the "unreasonable application of this act," Representative Duncan successfully offered a floor amendment redefining and limiting "species" to, "a group of fish, wildlife, or plants, consisting of physically similar organisms capable of interbreeding but generally incapable of producing fertile offspring through breeding with organisms outside of this group." See 124 CONG. REC. H12,897-98 (daily ed. Oct. 14, 1978) (remarks of Rep. Duncan). This amendment was agreed to by the full House, but it did not survive the Conference Committee deliberations. See 124 CONG. REC. H12,897 (daily ed. Oct. 14, 1978) (remarks of Rep. Dingell in strenuous opposition).

171. 16 U.S.C.A. § 1533(b)(1) (West Cum. Supp. 1979).

172. *Id.* § 1533(f)(4) ("best scientific data available"). For a detailed discussion of the amendments concerning critical habitat, see notes 194-227 and accompanying text *infra*.

Three alterations were made in the nature of the actual regulation announcing the listing of a species. First, when a formal listing is proposed, the agency must indicate, "to the maximum extent prudent," the critical habitat of the newly listed species.¹⁷³ Second, in an apparent effort to make the decision to list a species an understandable one, Congress has required that the listing agency publish a summary of the data it considered in arriving at its determination.¹⁷⁴ This requirement is reasonable, and it conforms to administrative norms established in other areas of environmental law.¹⁷⁵ As the listing decision becomes subject to closer judicial scrutiny, the sufficiency of this portion of the listing regulation will undoubtedly be questioned. Third, in response to the charge that many species were proposed for listing but never finally listed,¹⁷⁶ the Act was amended to require a regulatory proposal to become final within two years or be withdrawn.¹⁷⁷ It was argued that federal agencies would be reluctant to take actions affecting species proposed for listing because of the fear of becoming embroiled in an ESA controversy once the species was formally listed. The "two year" rule could result in delaying the proposal of a species for listing until

173. 16 U.S.C.A. § 1533(a)(1) (West Cum. Supp. 1979). This provision is a modification of an amendment to § 1533 that appeared in both the House and Senate bills. The original proposal to amend § 1533 would have required the designation of a critical habitat concurrently with the listing of a species unless "an emergency exists because no critical habitat information is available or there are other contingencies." S. 2899, 95th Cong., 2d Sess. § 10, 124 CONG. REC. S11159, S11,120 (daily ed. July 19, 1978). See also 124 CONG. REC. S11130-31 (daily ed. July 19, 1978) (remarks of Sen. Garn). In a colloquy between Senators Garn and Nelson on the effect of this stricter habitat designation requirement, it was made clear that the inability to specify all areas of critical habitat would not stop the listing of a species. *Id.* The language actually enacted seems to impose an even weaker standard on the listing agencies.

174. 16 U.S.C.A. § 1533(f)(3) (West Cum. Supp. 1979).

175. One similar requirement, having a judicial rather than legislative origin, is the *Kennecott* statement derived from the decision of the United States Court of Appeals for the District of Columbia Circuit in *Kennecott Copper Corp. v. EPA*, 462 F.2d 846 (D.C. Cir. 1973), which demanded an explanation of the EPA's decisionmaking process in setting air quality standards.

176. This was the assertion of Representative Robin L. Beard in the floor debates on H.R. 14104. See 124 CONG. REC. H12,868, H12,870 (daily ed. Oct. 14, 1978). Regardless of whether the statement reflects the actual concerns of federal agencies, it does by implication suggest another, more vexing problem. If an agency action would jeopardize the continued existence of a species proposed for listing but not finally listed, could an application be made to the § 7 review board or Endangered Species Committee for an exemption from § 7? Section 7(a) requires consultation and avoidance of harm to "species listed pursuant to section 4 of this Act." 16 U.S.C.A. § 1536(a) (West Cum. Supp. 1979) (amended 1979). Subsequent sections within the exemption procedure only refer to "endangered or threatened species" without reference to their listing. See, e.g., 16 U.S.C.A. § 1536(g)(1) (West Cum. Supp. 1979) (amended 1979). It could be argued that mere proposal for listing is insufficient to protect a species from damaging federal actions.

177. 16 U.S.C.A. § 1533(f)(5) (West Cum. Supp. 1979) (amended 1979). The effect of the automatic withdrawal at the expiration of the two-year period is to preclude a future re-proposal unless there is "sufficient new information . . . to warrant the proposal of a regulation." *Id.* The purpose of this approach is to force swift administrative action in order to limit the uncertainty of federal agencies faced with the policy embodied in § 7 of the Act.

scientific studies have progressed to the point at which the FWS or the NMFS is absolutely certain that a final listing will be feasible within a short period of time.

The most noticeable statutory change in the listing of endangered species involves the procedural formalities now necessary prior to the issuance of a final listing regulation and critical habitat designation.¹⁷⁸ The 1973 law had only provided for publication of the proposed listing regulation in the Federal Register prior to becoming final¹⁷⁹ and for the right to request a public hearing on the regulatory proposal.¹⁸⁰ In an effort to make the decision to list a particular species one which involves, to some degree, the citizenry living in the vicinity of the endangered species, the 1978 amendments impose four procedural duties. First, the proposed action must be published, in its entirety, in the Federal Register,¹⁸¹ and, if a critical habitat is to be designated, a summary of the proposal is to appear in a newspaper of general circulation "within or adjacent to such habitat."¹⁸² This was denominated "gen-

178. 16 U.S.C.A. § 1533(f)(2)(B)(i)-(iv) (West Cum. Supp. 1979) (amended 1979). These procedural requirements are imposed "[i]n the case of any regulation proposed by the Secretary to carry out the purposes of this section with respect to the *determination and listing of endangered or threatened species* and their critical habitats." 16 U.S.C.A. § 1533(f)(2)(B) (West Cum. Supp. 1979) (emphasis added). Although the obligations created by this section clearly apply to the act of initially listing a species as either threatened or endangered, it is uncertain whether these procedures must be employed when a listed species has its classification changed or when a species is delisted altogether. The Conference Committee's report merely discusses the procedures in conjunction with the "listing" of a species. See H.R. REP. NO. 1804, 95th Cong., 2d Sess. 27, *reprinted in* [1978] U.S. CODE CONG. & AD. NEWS 9484, 9485-86.

179. 16 U.S.C. § 1533(f)(2)(A)(i) (1976).

180. *Id.* § 1533(f)(2)(A)(ii). This section allows "any person who feels that he may be adversely affected by the proposed regulation" to file objections and formally request a public hearing within 45 days of the proposal. The granting of the hearing was discretionary but, if denied, the reasons had to be set forth in the Federal Register. Compare *id.* with 16 U.S.C.A. § 1533(f)(2)(B)(iv)(I)-(II) (West Cum. Supp. 1979), as amended by Act of Dec. 28, 1979, Pub. L. No. 96-159, § 3(3), 93 Stat. 1225.

181. 16 U.S.C.A. § 1533(f)(2)(B)(i)(I) (West Cum. Supp. 1979) (amended 1979). This Federal Register notice requirement is carried over from the previous statute. See text accompanying note 179 *supra*.

182. The 1978 amendments initially required the complete text of the listing proposal to be published in a local newspaper. 16 U.S.C.A. § 1533(f)(2)(B)(i)(II) (West Cum. Supp. 1979) (amended 1979). The Conference Report provides no guidance as to the precise kind of newspaper publication that would satisfy the requirement. See H.R. REP. NO. 1625, 95th Cong., 2d Sess. 27, *reprinted in* [1978] U.S. CODE CONG. & AD. NEWS 9453, 9468. The general circulation newspaper sold closest to the proposed critical habitat should suffice. The 1979 Act modified this obligation so that only a summary of the regulation need be published locally. See Act of Dec. 28, 1979, Pub. L. No. 96-159, § 3(2), 93 Stat. 1225 (to be codified at 16 U.S.C. § 1533(f)(2)(B)(i)(II)). A map of the proposed critical habitat area must also be published. *Id.* The legislative history underlying this change indicates that a summary should contain "the biological justification for the listing, the justification for the critical habitat designation, and a brief description of the activities that may adversely modify the critical habitat or may be impacted by the designation of such habitat." H.R. REP. NO. 697, 96th Cong., 1st Sess. 9, 102, *reprinted in* [1979] U.S. CODE CONG. &

eral notice" by the drafters of the statute. Second, the essence of the complete regulation must be offered for publication in "appropriate scientific journals."¹⁸³ The purpose of this provision is to inform the general scientific community of the decision to list; this form of notice, however, probably will not produce timely evidence for the FWS or NMFS to consider.¹⁸⁴ Third, "actual notice" of the proposed listing and any environmental assessment or impact statement prepared on the proposal must be given to "all general local governments located within or adjacent to the proposed critical habitat, if any."¹⁸⁵ This requirement, like the one involving newspaper publication, is only applicable when critical habitats are specified at the time of species listing. Thus, the listing agency may refrain from habitat designation in order to avoid these additional procedural obligations. Finally, the 1978 amendments require that a public "meeting,"¹⁸⁶ and in some cases an additional public "hearing,"¹⁸⁷ be conducted near the location of the endangered species proposed for listing. Although this form of public involvement in the administrative process makes it possible for local groups to make their opinions known about a listing proposal or habitat designation, it may also be used to delay the completion of the listing procedure. Because several meetings and hearings can be de-

AD. NEWS 4776, 4778. In light of the current agency practice of protecting desirable species by not specifically locating habitats, the mandatory public identification of critical habitat required by this amendment could have a damaging effect on species preservation.

183. 16 U.S.C.A. § 1533(f)(2)(B)(ii) (West Cum. Supp. 1979).

184. This provision was also appended to the Senate bill—S. 2899—by a floor amendment offered by Senator Jake Garn of Utah. *See* 124 CONG. REC. S11,111, S11,136-37 (daily ed. July 19, 1978). Senator Garn believed that offering the regulatory proposals for journal publication would cause increased public awareness of species regulation and enable wildlife experts outside of the government to provide much-needed information prior to final listing. *Id.* Considering the delay inherent in the publication process and the statutorily mandated two-year time limit between a proposed and a final listing, however, it is unlikely that useful expert opinion could be received in time.

185. 16 U.S.C.A. § 1533(f)(2)(B)(iii) (West Cum. Supp. 1979). The statute terms this "actual notice" although the Conference Report indicates that the requirement may be satisfied by use of the A-95 review process. H.R. REP. NO. 1804, 95th Cong., 2d Sess. 27, *reprinted in* [1978] U.S. CODE CONG. & AD. NEWS 9453, 9494.

186. 16 U.S.C.A. § 1533(f)(2)(B)(iv)(I)-(II) (West Cum. Supp. 1979) (amended 1979). A "public meeting" may constitute notice of the species listing when no critical habitat is specified. When a proposal includes the designation of a critical habitat, the public meeting is mandatory "within the area in which such habitat is located." The public meeting is expected to be "of an informal variety that would permit a colloquy between representatives of the Department and local citizens." H.R. REP. NO. 1804, 95th Cong., 2d Sess. 27, *reprinted in* [1978] U.S. CODE CONG. & AD. NEWS 9453, 9494-95. The emphasis is clearly upon the informational, rather than adversarial, nature of these meetings. The legislative history of the 1979 amendments confirms this informal characterization. H.R. REP. NO. 697, 96th Cong., 1st Sess. 9, *reprinted in* [1979] U.S. CODE CONG. & AD. NEWS 4776.

187. 16 U.S.C.A. § 1533(f)(2)(B)(iv)(II) (West Cum. Supp. 1979) (amended 1979).

manded on the same proposed listing regulation, the date of final effectiveness could be postponed for a significant period of time.¹⁸⁸ However useful this expansion of public participation may seem in the abstract, it probably will not provide any scientific information necessary for the listing determination.¹⁸⁹ Since that decision is technical in nature,¹⁹⁰ opposition to or support of a listing proposal on economic, social, or other non-scientific grounds will not be considered by the agency involved.

The procedural modifications of the endangered species listing process mandated by the recent amendments will delay the issuance of final listing decisions.¹⁹¹ The public meeting and hearing requirement will certainly contribute to the delay, and it may make federal agency officials reluctant to propose the listing of a species when they have anything less than overwhelming evidence to support their proposals. In addition, the costs of operating the administrative procedure will undoubtedly increase. These modifications may be viewed by some as a beneficial change in the regulatory approach of the federal government concerning endangered and threatened species. Raising the in-

188. The statute specifies that a hearing shall be held if "requested" when a listing proposal is accompanied by a designation of critical habitat. The granting of such an automatic right to a hearing could be used to delay the final adoption of a listing regulation and could possibly cause the two-year time limits contained in *id.* § 1533(f)(5) to elapse, which would bar any formal listing without new information. See note 177 and accompanying text *supra*. The 1979 amendments addressed this problem by limiting the availability of the public hearing to situations in which a request is made within 15 days of the public meeting. See Act of Dec. 28, 1979, Pub. L. No. 96-159, § 3(3), 93 Stat. 1225 (to be codified at 16 U.S.C. § 1533(f)(2)(B)(iv)(II)).

189. The federal decision to list a species as either "endangered" or "threatened" is guided by the standard of endangerment from specific causes. 16 U.S.C. § 1533(a)(1) (1976). Once a listing proposal is made, presumably adequate biological data exists to support the action. It is possible, though unlikely, that a public meeting or hearing will disclose credible scientific evidence that the species proposed for listing is in fact not endangered or does not have a critical habitat within the locality. Such information, if forthcoming, would be helpful in the regulatory proceeding. On the other hand, general statements concerning projected and speculative economic and social effects of listing the species, although irrelevant to the listing determination, are likely to be made.

190. See text accompanying note 165 *supra*.

191. The statute requires that both general and actual notice be provided at least 60 days before the effective date of the regulation. 16 U.S.C.A. § 1533(f)(2)(B)(i)&(iii) (West Cum. Supp. 1979). This is not a substantial delay. It is possible, however, that both a public meeting and a hearing could be required for the proposed listing or habitat designation. The amendments stipulate that the proposed regulation may not become effective until 60 days after the *last* public meeting or hearing. 16 U.S.C.A. § 1533(f)(2)(B) (West Cum. Supp. 1979). Although the problem has been somewhat mitigated by the 1979 amendments, these procedural requirements could be used to extend the period between the time of the listing proposal and the final effective date. See note 188 *supra*. In the event that expeditious action need be taken to protect fish, wildlife or plants facing any emergency posing a significant risk to their well-being, however, emergency regulations may be issued for a 240-day period without complying with standard procedures. See 16 U.S.C.A. § 1533(f)(2)(C)(ii) (West Cum. Supp. 1979), as amended by Act of Dec. 28, 1979, Pub. L. No. 96-158, § 5, 93 Stat. 1225.

formational threshold needed to justify protective action in this context, however, could result in a failure to act, which, even if temporary, might have devastating effects upon the continued existence of a species. Like health-related environmental standards,¹⁹² species preservation should be accorded priority in the face of indicative but not overwhelming evidence of species endangerment. If a regulatory error is made, it should be in favor of species preservation. An overly restrictive or unnecessary rule can always be altered or eliminated. The extinction of a species, on the other hand, is not reversible. The statutory changes in the listing process, although superficially procedural, may have subtle effects that will alter the substantive federal species policy to require a higher standard of information in order to substantiate protective regulatory action. Taken as a whole, however, the 1978 and 1979 amendments retain the structure and theory of the pre-existing law, which permits the unrestricted listing of plant and animal species based exclusively upon biological information showing "endangerment." With this critical element of the federal species program maintained without substantial modification, the system of species protection according primary responsibility to administrative agencies having expertise in wildlife matters has been preserved.¹⁹³

192. Environmental regulation must often be undertaken without conclusive scientific evidence. The question has been framed in terms of deciding when regulation will be permitted in the face of varying levels of uncertainty about the possible harmful effects of a substance on human health. The United States Court of Appeals for the District of Columbia Circuit resolved such a conflict by reasoning that the essential purpose of the Clean Air Act was to protect public health and welfare. Therefore, complete certainty about the harmful effects of lead emissions from gasoline was not necessary before the Environmental Protection Agency could regulate lead additives to motor fuel. The court, through Judge Skelly Wright, determined that, in order to protect public health, regulatory action should err on the side of over- rather than under-protection. *See Ethyl Corp. v. EPA*, 541 F.2d 1 (D.C. Cir. 1976) (en banc), *cert. denied*, 426 U.S. 941 (1977). By analogy it could be argued that, in order to preserve unique forms of life, a similar judicial deference to administrative action should be shown.

193. The General Accounting Office, in a recent evaluation of the federal endangered species program, has been critical of the program's management. Among the GAO's recommendations were the following: (1) existing policies, procedures and practices should be consistently applied; (2) listed species should be de-listed or reclassified when warranted; (3) a priority system for listing actions should be prepared; and (5) staffing and funding should be increased. *See GENERAL ACCOUNTING OFFICE, ENDANGERED SPECIES: A CONTROVERSIAL ISSUE NEEDING RESOLUTION* (CED-79-65, 1979). *See also* 10 ENVIR. REP. (BNA) 730 (1979). In response to these criticisms, Congress in 1979 directed the federal agencies to issue guidelines to improve the mechanical functioning of the listing petition process, to establish evaluative criteria for listing petitions, to set a ranking system for determining priority in petition review and to create a system for recovery plans. *See* Act of Dec. 28, 1979, Pub. L. No. 96-159, § 3(b), 93 Stat. 1226 (to be codified at 16 U.S.C. § 1533(h)).

C. *Habitat Designation*

The listing process has been shown to serve the crucial function of identifying those particular life forms that are in danger of becoming extinct. Such an identification is a basic and essential component of the federal program to preserve endangered species. The 1973 statute recognized the close relationship between the continued survival of species and the preservation of their habitat. Once an endangered and threatened species has been formally listed, the determination of the critical habitat of the listed species may follow.¹⁹⁴ In many ways specification of critical habitat may be as significant as the listing of the species. For instance, while it might be difficult to establish that a proposed federal action would "jeopardize the continued existence"¹⁹⁵ of a listed species, it would be easier to determine whether that same activity would "result in the destruction or adverse modification"¹⁹⁶ of the designated critical habitat. The designation of a species' critical habitat involves the identification of specific physical boundaries within which federal activities must comply with the substantive and procedural requirements of section 7 of the Act.¹⁹⁷ It was feared, especially after *TVA v. Hill*, that an area formally named as a critical habitat would be totally ineligible for federal, federally sponsored, or federally licensed activity.¹⁹⁸ Consequently, when Congress amended the Act in 1978, an

194. Under the 1973 Act, there was no requirement that critical habitats be designated simultaneously with the listing of endangered and threatened species. In fact, the term "critical habitat" was never defined at any place in the statute. The only possible reference to critical habitat is found in a direction to the listing agency to "specify with respect to each such species over what portion of its range it is endangered or threatened." 16 U.S.C. § 1533(c)(1) (1976) (amended 1978). Since the passage of the 1973 Act, nearly 700 plant and animal species have been listed as endangered or threatened. Yet, during that same period, only 29 critical habitats have been formally established. COUNCIL ON ENVIRONMENTAL QUALITY, ENVIRONMENTAL QUALITY ANNUAL REPORT 1978, at 334 (1979) (Tables 7-8). The 1978 amendments specifically permitted the designation of critical habitat for species that had been listed prior to the amendments but that had no listed habitats. These designations would be subject to the same limitations applicable to all new habitat designations. See 16 U.S.C.A. § 1532(5)(B) (West Cum. Supp. 1979).

195. 16 U.S.C.A. § 1536(a) (West Cum. Supp. 1979).

196. *Id.* At least the critical habitat is a specifically defined geographical area. It would not be difficult to determine whether the proposed federal action would have direct effects on this particular area. Obviously, it is more difficult to predict indirect impacts upon a critical habitat or an endangered species in general.

197. *Id.* § 1536(a).

198. In addition to the perception that endangered species programs posed a threat to local economic development, the information base and the professional competence of the Fish and Wildlife Service were severely criticized by one legislator during debate on the House bill amending the ESA. Representative David R. Bowen of Mississippi noted the following in his floor speech:

For the first time we are going to have proposed final regulations actually based on the best scientific data available—current, not old data, but current data. I might indicate that [Representative Jack Brooks of Texas] . . . asked a question about the Houston

effort was made to restrict the high degree of discretion that had been previously exercised to establish critical habitats for listed species.¹⁹⁹

The first task confronted by Congress was to define the term "critical habitat" in order to guide the administrative agencies in the establishment of those protected areas.²⁰⁰ It was commonly believed that existing critical habitat designations were overinclusive, encompassing any area where an endangered species could possibly live.²⁰¹ Furthermore, there was substantial concern that the federally established habitats could extend over vast tracts of land and could include areas needed not for present survival but for future expansion of species populations.²⁰² From the starting point of interpreting "critical habitat" to mean any place where an endangered or threatened species presently lived or could live in the future,²⁰³ Congress substantially limited the definition of the term. In places where species are located at the time of formal listing, critical habitat can only be designated where the area is "essential to the conservation of the species" and might "require special management considerations or protection."²⁰⁴ The standard for habitat where endangered species are presently found appears to be narrowed by the combination of these two elements.²⁰⁵ There-

toad. That is a good example of the mistakes and, frankly, what I must consider the ineptitude we have seen from time to time on the part of many of the officials of the Office of Endangered Species. They did designate as the habitat of the Houston toad a paved parking lot in downtown Houston. When it was brought to their attention, they then discovered that their maps and research data were somewhat out of date. So, this legislation obviously goes to correct that kind of problem.

124 CONG. REC. H12,868 (daily ed. Oct. 14, 1978).

199. The broad grant of discretionary authority accorded the Fish and Wildlife Service to set critical habitat was especially troubling to Congressmen from states having projects embroiled in Endangered Species Act litigation. See *id.* at H12,876 (daily ed. Oct. 14, 1978) (remarks of Rep. Johnson of Colorado).

200. See note 65 and accompanying text *supra*.

201. The sentiment was expressed that critical habitats should only be established for "what is actually needed for survival of this species." 124 CONG. REC. H12,876 (daily Oct. 14, 1978) (remarks of Rep. Bowen of Mississippi). Although such a narrow view of critical habitat did not prevail, it does reflect a common point of view during the course of the debates.

202. S. REP. NO. 874, 95th Cong., 2d Sess. 9, 10 (1978). The prime example of this phenomenon is the proposed critical habitat for the grizzly bear, which covers nearly 10 million acres in three states. The Senate Committee questioned the advisability of the Fish and Wildlife Service's using the same factors to "extend the range" of an endangered species as are used in determining areas truly critical "to the continued existence of the species." *Id.* It was recommended that the concept of a critical habitat be strictly construed in order to avoid the "regulations and prohibitions which apply to critical habitats." *Id.* at 10. The reference was apparently directed to the § 7 requirements.

203. 16 U.S.C.A. § 1532(5)(A)-(C) (West Cum. Supp. 1979).

204. *Id.* § 1532(5)(A)(i)(I)-(II).

205. This appears to be the intention of the legislators who supported the provision that ultimately became *id.* § 1532(5)(A)(i)(I). The Senate bill—S. 2899—contained a definition of "critical habitat," which, with slight change, was enacted into law. See S. 2899, 95th Cong., 2d Sess., § 2(1)

fore, the "essential" habitat for a species could be quite limited in extent, possibly not even as large as the area actually occupied by the species. On the other hand, the 1978 amendments also allow for critical habitat to be established for places not presently occupied by the endangered species.²⁰⁶ Once again, the area must be "essential for the conservation of the species."²⁰⁷

The interpretation of this phrase is the major issue to be confronted regarding habitat designation. While paraphrasing the statute's language to a large degree, recently proposed regulations also state that species population growth should be a factor to be considered when critical habitats are administratively established in the future.²⁰⁸ If the objective of the Act is to encourage a federal policy of species conservation,²⁰⁹ then critical habitat determinations must include the area necessary to bring endangered species populations "to the point at which the measures provided [in the statute] are no longer necessary."²¹⁰ Such a policy seems better served by the recent administrative interpretation than by a more restrictive definition established for nonbiological reasons.²¹¹

Throughout the 1978 amendment process, the foundation of the Endangered Species Act, which had required biologically based agency decisionmaking, withstood most efforts to integrate economic consider-

(1978), 124 CONG. REC. S11,158 (daily ed. July 19, 1978). On the other hand, the House bill—H.R. 14104—left the House Merchant Marine and Fisheries Committee with a proposal to amend the definition used by the Fish and Wildlife Service to read "any air, land, or water area . . . the loss of which would significantly decrease the likelihood of conserving such species." H.R. 14104, 95th Cong., 2d Sess. § (5) (1978), 124 CONG. REC. H12,879 (daily ed. Oct. 14, 1978). The House committee substituted the word "significantly" for the word "appreciably" in order to prevent the designation of virtually all the habitat of a listed species as its critical habitat." H. REP. NO. 1625, 95th Cong., 2d Sess. 25, reprinted in [1978] U.S. CODE CONG. & AD. NEWS 9453, 9475. Unsatisfied with the committee provision, Representative Robert Duncan of Oregon offered a floor amendment to make the definition similar to the Senate language. 124 CONG. REC. H12896-97 (daily ed. Oct. 14, 1979).

206. 16 U.S.C.A. § 1532(5)(A)(ii)(B) (West Cum. Supp. 1979).

207. *Id.* § 1532(5)(A)(ii)(A).

208. See 44 Fed. Reg. 47,862 & 47,864 (1979).

209. The statute provides, in the findings, purposes, and policy section, that "[i]t is further declared to be the policy of Congress that all Federal departments and agencies shall seek to conserve endangered species and threatened species and shall utilize their authorities in furtherance of the purposes of this chapter." 16 U.S.C. § 1531(c) (1976).

210. The definition of "conservation" in the Act states in part that the term "means to use and 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." 16 U.S.C.A. § 1532(3) (West Cum. Supp. 1979).

211. An obscure provision taken from the Senate bill prohibits, as a general rule, the designation as critical habitat of "the entire geographical area which can be occupied by the threatened or endangered species." See *id.* § 1532(5)(C). This limitation was undoubtedly inserted into the law in order to discourage the designation of massive areas as critical habitat.

ations into the species protection program. One area in which economic interests were given direct recognition, however, was the specification of critical habitat.²¹² The new section requires that a federal official designating a critical habitat "consider the economic impact, and any other relevant impacts," of that designation.²¹³ The official is then given the discretion to exempt portions of a potential critical habitat if the benefits of exempting the portion outweigh the benefits derived from designating the entire area.²¹⁴ Because this power to exclude habitat²¹⁵ for economic reasons is discretionary, however, the FWS and the NMFS apparently can establish critical habitat on the basis of pure biological necessity, even if there are countervailing economic values.²¹⁶ As a check on the unbridled use of the exemption power, the statute prohibits the exclusion of habitat when "the failure to designate such area as critical habitat will result in the extinction of the species."²¹⁷ This restriction does not appear to bind the discretion of the FWS or NMFS except when a listed species exists only in a narrow geographical area.

The inclusion of economic considerations into the habitat designation process has both programmatic and symbolic significance. In

212. *Id.* § 1533(b)(4).

213. *Id.* The recently proposed joint regulations implementing this section of the Act reflect the exact language of the statute and provide no insight into the administrative interpretation of 16 U.S.C.A. § 1533(b)(4) (West Cum. Supp. 1979). See 44 Fed. Reg. 47,862 & 47,864 (1979) (proposed 50 C.F.R. § 405.12(c)).

214. 16 U.S.C.A. § 1533(b)(4) (West Cum. Supp. 1979). This comparison of benefits is to encompass more than economic impacts, although the statute does not specify what other interests must be considered. In the House floor debate Representative William J. Hughes requested that these "other relevant impacts" be specifically enumerated in the statute. His proposed list included "social, ecological, economic, scientific, archeological, and national security impacts, as well as any other local or national concerns." 124 CONG. REC. H12877 (daily ed. Oct. 14, 1978). The newly proposed federal regulations mention that noneconomic impacts are to be considered but give no further explanation. See 44 Fed. Reg. 47,864-65 (1979) (proposed 50 C.F.R. § 405.12(c) and § 405.15(c)(6)(iii)(A)-(C)).

215. See 44 Fed. Reg. 47,862 & 47,865 (1979) (proposed 50 C.F.R. § 405.15(c)(6)(iii)(D)).

216. The Committee report on H.R. 14104, in which the economically based critical habitat exemption provision first appears, concurs in this view. In the Committee's discussion of this section it was noted that

[e]conomics and any other relevant impact shall be considered by the Secretary in setting the limits of critical habitat for such a species. The Secretary is not required to give economics or any other "relevant impact" predominant consideration in his specification of critical habitat for invertebrates. The consideration and weight given to any particular impact is completely within the Secretary's discretion.

H.R. REP. NO. 1625, 95th Cong., 2d Sess. 25, reprinted in [1978] U.S. CODE CONG. & AD. NEWS 9453, 9467.

217. 16 U.S.C.A. § 1533(b)(4) (West Cum. Supp. 1979). This language was inserted in the bill during the Conference Committee deliberations, yet there is no mention of it or the entire paragraph in the Conference Report or in the brief floor debate during the consideration of the Conference Report.

terms of the endangered species program, the statutory grant of authority to consider nonbiological factors could result in the designation of an inadequate area for species conservation.²¹⁸ Instead of designating an area that is biologically necessary to protect a species, the federal official could formally recognize fewer or smaller areas as critical habitat based upon economic considerations.²¹⁹ The effect of this latter possibility would be to increase the risk of species depletion and make it more difficult to anticipate accurately the adverse impacts of agency actions upon endangered species at early stages in the planning process. As the Tellico Dam controversy has vividly demonstrated,²²⁰ early consideration of the effects of a project upon endangered species can avoid costly delays and extensive litigation.

Symbolically, the legislative decision to add economic considerations to the critical habitat determination represents a deviation from the previous congressional policy favoring the preservation of endangered and threatened species. The pre-1978 law focused upon the scientifically determined status of endangerment in plant and animal species. The decision to recognize a particular form of life as being worthy of federal protection was to be made without reference to particular political or economic interests.²²¹ Under the legal regime cre-

218. Since the passage of the 1978 amendments, a number of animal and plant species have been formally listed as either endangered or threatened. In no case was a critical habitat designated. The reasons given for this omission were (1) that a foreign species was involved and habitats are not specified as a rule for those species and (2) that the species was a plant and would be made more vulnerable to destruction if a critical habitat was designated. The policy embodied in Executive Order 12114 (Environmental Effects Abroad of Major Federal Actions) would seem to make the first ground questionable. See 15 WEEKLY COMP. OF PRES. DOC. 10 (Jan. 8, 1979). See also 44 Fed. Reg. 21,288 (1979) (Caribbean monk seal); *id.* at 23,062 (Bolson tortoise), *id.* at 24,248 (Chapman rhododendron); *id.* at 29,478 (Totoaba), *id.* at 32,604 (Tennessee purple cone-flower); *id.* at 42,910 (West African manatee); *id.* at 42,911 (American alligator); *id.* at 43,700 (bunched arrowhead).

219. The proposed regulations—44 Fed. Reg. 47,865 (1979) (proposed 50 C.F.R. § 405.15(c)(6)(iii))—do not reflect any bias favoring the exclusion of potential critical habitat areas. First, the decision to propose a critical habitat will be made on a purely biological basis. Second, the federal agency involved will begin to accumulate information on the economic and other effects of the designation. Third, a "draft impact analysis" will be prepared, which evaluates the data received. Fourth, a "final impact analysis" will be performed to "analyze and discuss both the beneficial and detrimental economic and other relevant impacts of possible Critical Habitat configurations." Based upon this analysis, the decision whether to exclude any territory from the biologically based assessment will be made.

220. In that case, the endangered snail darter was not even formally recognized as a distinct species or listed until well after the Tellico dam project was initiated. See *TVA v. Hill*, 437 U.S. at 157-62 (1978). The discovery of an endangered species on site during the course of an ongoing federal project may delay, and could entirely stop, the project.

221. The 1973 Act provided for no exemptions or exclusions from the scope of § 7 analysis, and, as the United States Supreme Court interpreted the section in *TVA v. Hill*, once a finding was made that an agency action had "jeopardized the continued existence" of a listed species or destroyed or modified its critical habitat, the action could not proceed. 437 U.S. at 173. The 1973

ated by the 1973 Act, protection of endangered species and their habitats was the singular purpose of the statute. The endangered species program could pursue an independent course, unencumbered by the countervailing considerations frequently found in other federal regulatory schemes. Unlike other areas of environmental regulation, there was to be no balancing of costs,²²² estimation of technological capabilities²²³ or dependence upon governmental subsidy.²²⁴ This was an area of federal wildlife policy to be guided by the findings of the professional biologist, beyond the political arena and the influence of special interest groups.²²⁵ The unique value represented by the endangered or threatened organism was to be protected by this insulated regulatory system. The new statutory provision, originating in the House bill,²²⁶ raised great concern that the objective, scientific nature of the habitat designation process would be jeopardized by the discretion given to the Secretary of the Interior to consider economic effects.²²⁷ Once eco-

statute, however, did exempt and continues to exempt as a potential endangered species certain pests whose protection "would present an overwhelming and overriding risk to man." 16 U.S.C. § 1532(4) (1976) (recodified at 16 U.S.C.A. § 1532(6) (West Cum. Supp. 1979)).

222. A good illustration of the consideration of costs in the setting of environmental standards is the establishment of the "best conventional pollutant control technology" in the Clean Water Act. See 33 U.S.C.A. § 1314(b)(4)(B) (West Cum. Supp. 1979).

223. An example of environmental regulation based upon pollution control technology is found in the Clean Air Act, 42 U.S.C. § 7411(a)(1), (c)(7) (Supp. I 1977) (standard for new sources performance).

224. The federal government provides significant grant assistance for the design and construction of publicly owned waste-water treatment works. 33 U.S.C. § 1282 (1976 & Supp. I 1977). Effluent limitations for these water pollution point sources are largely dependent upon federal financial assistance. See 33 U.S.C. § 1311(b)(1)(B), (2)(B) (1976 & Supp. I 1977).

225. There was, however, some indication that the Fish and Wildlife Service had deliberately failed to list two species of insects living in the vicinity of the ongoing New Melones Lake Dam project in California for fear of provoking an adverse congressional reaction. See 124 CONG. REC. H12870 (daily ed. Oct. 14, 1978) (remarks of Rep. Beard); H.R. REP. NO. 1625, 95th Cong., 2d Sess. 13, reprinted in [1978] U.S. CODE CONG. & AD. NEWS 9453, 9463. These allegations reflect the practical effects of the endangered species program and the challenges such a single value system experiences in a world of competing interests.

226. H.R. 14104, 95th Cong., 2d Sess. § 2(2) (1978), 124 CONG. REC. H12,877 (daily ed. Oct. 14, 1978). The committee bill reaching the floor of the House required the consideration of economic and other impacts in designating critical habitat, but only for invertebrate species. This provision had the effect of potentially weakening federal protection for a life form solely because of its invertebrate structure; the first time priorities of varying levels of protective concern had been integrated into the federal program. One legislator spoke in favor of such a distinction. See 124 CONG. REC. H12,881 (daily ed. Oct. 14, 1978) (remarks of Rep. Burgener). A floor amendment offered by Representative John Buchanan eliminated this dichotomy by requiring the economic analysis for all species—both vertebrate and invertebrate. 124 CONG. REC. H12,898 (daily ed. Oct. 14, 1978) (Remarks of Rep. Buchanan). In addition, the Secretary was empowered to exclude any portion of the habitat from formal designation "if he determines that the benefits of such exclusion outweigh the benefits of specifying the area as part of the critical habitat." 124 CONG. REC. H12,877 (daily ed. Oct. 14, 1978).

227. Fearing that the new provision would be abused by federal administrators, six members of the House Merchant Marine and Fisheries Committee filed "Additional Views" with the Com-

conomic factors are used to limit the establishment of critical habitat, a future amendment might restrict the Act's coverage to limited segments of wildlife, to animals only, or solely to large federal construction projects. The opponents of the amendment objected to the provision not only because of its substantive deficiencies, but also because it represented a precedent for reducing endangered species protection based upon a comparison of costs. This would interject into the theory of federal endangered species law the notion that species preservation was a relative value, which would have to compete for priority on a case-by-case basis. The doctrinal shift reflected in the habitat designation section and the provision granting a section 7 exemption represents a significant departure from prior policy. It is uncertain whether this trend will continue in future legislation.

D. Exemption from Section 7 Requirements

In the wake of the *TVA v. Hill* decision, the substantive and procedural obligations of section 7 of the ESA loomed as substantial obstacles to federal and federally regulated developmental activity throughout the nation.²²⁸ While two projects—Tellico and Grayrocks—received the direct attention of Congress,²²⁹ there was increasing concern that, with the passage of time, more project/species conflicts would arise, requiring the abandonment of projects or the resort to specific legislative amendment.²³⁰ Chief Justice Burger's opin-

mittee's formal report on H.R. 14104. These members believed that the section would grant too much discretion to the Secretary of the Interior, which could be used to circumvent the policy of the ESA. The intensity of their belief is best reflected in the following passage:

As currently written, the critical habitat provision is a startling section which is wholly inconsistent with the rest of the legislation. It constitutes a loophole which could readily be abused by any Secretary of the Interior who is vulnerable to political pressure, or who is not sympathetic to the basic purposes of the Endangered Species Act.

H.R. REP. NO. 1625, 95th Cong., 2d Sess. 69, *reprinted in* [1978] U.S. CODE CONG. & AD. NEWS 9453, 9483.

228. After *TVA v. Hill*, and the issuance of an injunction to stop the Grayrocks project, the Endangered Species Act was considered an anti-development statute. In floor debate, Representative James P. Johnson of Colorado explained his view of the dangers posed by the Act as follows:

Mr. Chairman, I want to follow up what the gentleman from Wyoming said, because it is not just the Grayrocks Dam which is endangered by the [ESA], but it is every project in the drainage area of the North and South Platte Rivers. That means every project from . . . Denver . . . , every project they propose, every water project or storage project in the towns along the rivers, everything they propose, every electrical generating plant is endangered by the provisions of this act.

124 CONG. REC. H12,876 (daily ed. Oct. 14, 1978).

229. 16 U.S.C.A. § 1539(i)(1) (West Cum. Supp. 1979). This expedited review ultimately resulted in the granting of an exemption for the Grayrocks project but a denial for the Tellico project. See note 143 and accompanying text *supra*.

230. The Committee Report on H.R. 14104 noted that, as of September 25, 1978, there were

ion in *TVA v. Hill* had convinced Congress that section 7 provided an inflexible standard that granted endangered species a preferential position. Under the Court's interpretation of section 7, the biological decisions of the FWS would take on great importance. A finding that a federal project would "jeopardize the continued existence"²³¹ of an endangered species, or "result in the destruction or modification"²³² of critical habitat, could delay the planning and construction of the project and possibly stop it entirely after lengthy litigation. The *TVA v. Hill* decision led to an attack on the basic policy of the 1973 Act, which favored the protection of all endangered or threatened species regardless of aesthetic or commercial value. Critics characterized the Act as an unreasonable requirement that would adversely affect regional development. The loss of local employment was compared to the reduction of an "obscure" species to illustrate the insensitivity of environmentalists to more immediate social needs.²³³

The result of this political debate was the formation of a new legislative policy continuing the protective elements of prior law²³⁴ but pro-

137 animal and 1850 plants species proposed for listing and that the Department of the Interior estimated that it would formally list 414 domestic species and designate 293 critical habitats before 1980. H.R. REP. NO. 1625, 95th Cong., 2d Sess. 13, reprinted in [1978] U.S. CODE CONG. & AD. NEWS 9453, 9463. Although the estimates of listing prior to 1980 have proven to be far too high, their mention reflects the concern that project/species conflicts will occur with greater frequency in the future.

231. Under the 1973 law, the section entitled "Interagency Cooperation" (§ 7) read as follows:

The Secretary shall review other programs administered by him and utilize such programs in furtherance of the purposes of this chapter. All other Federal departments and 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 *and by taking such action necessary to insure that actions authorized, funded, or carried out by them do not jeopardize the continued existence of such endangered species and threatened species or result in the destruction or modification of habitat of such species* which is determined by the Secretary, after consultation as appropriate with the affected States, to be critical.

16 U.S.C. § 1536 (1976) (emphasis added) (current version at 16 U.S.C.A. § 1536(a) (West Cum. Supp. 1979), as amended by Act of Dec. 28, 1979, Pub. L. No. 96-159, § 4, 93 Stat. 1225).

232. *Id.*

233. In defense of the protective purpose of the Act, Representative John D. Dingell eloquently noted that many of the "obscure" species, which have been commonly viewed as no more than curiosities, have provided man with important products and knowledge. He characterized the effort to ignore these species as shortsighted. See 124 CONG. REC. H12,871 (daily ed. Oct. 14, 1978).

234. The 1979 amendments modified the language and structure of § 7, which resulted in the formation of three subsections—16 U.S.C.A. § 1536(a)(1)-(3). Each federal agency must now ensure that any of its actions are "not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of [critical] habitat." Act of Dec. 28, 1979, Pub. L. No. 96-159, § 4(1)(c), 93 Stat. 1225 (to be codified at 16 U.S.C. § 1536(a)(2)). It would appear that the previous standard applicable to federal actions has been weakened to permit a proposed project to proceed despite some uncertainty about the effects

viding an administratively based system of conflict resolution. This new system, grounded upon the section 7 obligation of interagency consultation, will grant, in appropriate cases, exemptions from the substantive and protective command of the statute.²³⁵ The underlying assumption of the exemption procedure, however, is that most potential conflicts can be avoided through consultation and project modification early in the federal agency planning process.²³⁶ Under this theory, very few cases should reach the cabinet-level Endangered Species Committee. This new exemption procedure must be closely evaluated in order to understand the congressional attempt to reconcile endangered species protection with the developmental and programmatic needs of federal agencies.

1. Consultation

The 1978 statute strongly reaffirms the position and importance of the interagency consultation requirement embodied in section 7 of the preexisting law.²³⁷ Specific reference has been made to consultation as a means of avoiding project/species conflicts.²³⁸ In addition, the 1979 legislation requires all federal agencies to confer with the Departments

of the action. The interpretation of the word "likely" will ultimately determine the strength of the federal policy. A lax definition of the term could result in an erosion of the precautionary character of the Endangered Species Act. The Conference Report discussion of this subject, while reaffirming the procedural rigor of § 7, reflects this subtle modification. H.R. REP. NO. 697, 96th Cong., 1st Sess. 12, *reprinted in* [1979] U.S. CODE CONG. & AD. NEWS 4776, 4780.

235. The successful exemption applicant is not totally free to obliterate an endangered species or critical habitat in pursuing an agency action. If the Endangered Species Committee grants an exemption, it must specify in its formal order announcing the exemption "mitigation and enhancement measures" that will be taken by the applicant. 16 U.S.C.A. § 1536(j)(1) (West Cum. Supp. 1979). The statute requires such measures as are "necessary and appropriate" to minimize the adverse effects of the agency's actions. It also mentions several specific measures, such as "live propagation, transplantation, and habitat acquisition and improvement," as examples. 16 U.S.C.A. § 1536(h)(1)(B) (West Cum. Supp. 1979). The Conference Report, however, makes it clear that the required mitigation and enhancement measures must be reasonable in cost and technologically feasible in application. H.R. REP. NO. 1804, 95th Cong., 2d Sess. 22, *reprinted in* [1978] U.S. CODE CONG. & AD. NEWS 9453, 9474.

236. The basic assumption of both the House and Senate committees was that "many if not most" species/project conflicts could be resolved by early consultation with the FWS or the NMFS. H.R. REP. NO. 1625, 95th Cong., 2d Sess. 13, *reprinted in* [1978] U.S. CODE CONG. & AD. NEWS 9453, 9463; S. REP. NO. 874, 95th Cong., 2d Sess. 5-6 (1978). The exemption process would be reserved for the most intractable conflicts that are not susceptible to negotiated planning modifications.

237. The emphasis on mandatory interagency consultation was strengthened by new language added to the preexisting § 7. The basic structure of § 7 was retained, but an additional reference to the consultation duty was included by the Conference Committee to the Senate provision. H.R. REP. NO. 1804, 95th Cong., 2d Sess. 18, *reprinted in* [1978] U.S. CODE CONG. & AD. NEWS 9484, 9486.

238. See text accompanying note 126 *supra*.

of the Interior and Commerce when an action is likely to adversely affect a species proposed for formal listing or a critical habitat proposed for designation.²³⁹ Although this new mandate does not impose the same consultation duties and procedural responsibilities required for impacts upon formally listed species, it does reflect the practical understanding that species and habitats in the process of being listed cannot be ignored. The amended act continues the existing practice of having the FWS or the NMFS review proposed federal agency actions to determine their impact upon endangered and threatened species and their critical habitats. There are no waivers of or exemptions from the duty to consult, even if an exemption from the substantive standard of section 7 is later granted.²⁴⁰ Concurrently with the initiation of the formal consultation procedure, the project agency must seek information from the FWS or the NMFS concerning whether a listed species or one proposed for listing "may be present in the area" of the proposed action.²⁴¹ If these expert agencies suggest that there may be endangered or threatened species in the area, the project agency must then prepare a "biological assessment" to further identify the presence of affected species.²⁴² The apparent intent underlying this requirement is to en-

239. Act of Dec. 28, 1979, Pub. L. No. 96-159, § 4(1)(c), 93 Stat. 1225. In the legislative history, this new duty to confer is characterized as "informal discussions with the wildlife agencies of the Federal Government about the possible adverse impact of agency actions on proposed species." H.R. REP. NO. 697, 96th Cong., 1st Sess. 13, *reprinted in* [1979] U.S. CODE CONG. & AD. NEWS 4776, 4780. Due to the indefinite nature of a listing proposal, the project agency need not restrict its commitment of resources pending the outcome of its conference. It is clear, however, that should the proposed species or habitat be formally listed, the full panoply of § 7 protections become effective "regardless of the state of completion of the project." *Id.* (citing *TVA v. Hill*).

240. The only exception to the consultation and administrative exemption procedure concerns the statute's grant of Presidential power to undertake "repair or replacement of a public facility substantially as it existed prior to" a disaster. 16 U.S.C.A. § 1536(p) (West Cum. Supp. 1979). Even this provision is limited to emergency situations in which the ordinary review procedures cannot be followed. The only other statutory exemption is provided for Department of Defense actions necessary for national security. *Id.* § 1536(j). A close reading of the statute indicates that § 7 consultation is still required, even though an exemption from the substantive policy of the section is automatically available. This provision was derived from a Senate floor amendment offered by Senator Scott of Virginia. The discussion of this amendment, however, does not clarify the Senator's intent. See 124 CONG. REC. S11,147-48 (daily ed. July 19, 1978) (remarks of Sens. Scott and Culver). A floor amendment to the House bill—H.R. 14104—would have exempted "military functions" from all provisions of the ESA. See 124 CONG. REC. H12,898-900 (daily ed. Oct. 14, 1978) (remarks of Reps. McKay and Dingell). The Conference Report is silent on this issue.

241. 16 U.S.C.A. § 1536(c) (West Cum. Supp. 1979) (amended 1979). The statute does not require that formal consultation and the request for species information be initiated at precisely the same moment, but it would be logical, in light of the statutory time limits, to do so. See notes 243 & 244 *infra*.

242. The biological assessment becomes a mandatory responsibility of the project agency once the FWS or the NMFS determines that there may be an effect on listed species and those proposed for listing. 16 U.S.C.A. § 1536(c) (West Cum. Supp. 1979). This requirement applies to agency

courage the production of current biological data that will assist the FWS or NMFS in making its decision concerning the effect of the proposed project upon endangered species. The timing of the assessment,²⁴³ however, and its performance by the federal agency proposing the potentially disruptive activity, may diminish the usefulness of the biological assessment requirement.²⁴⁴

Once the consultation process has been initiated, the project agency is precluded from making any "irreversible or irretrievable commitment of resources," which would foreclose less destructive alternatives to the proposed action.²⁴⁵ Although this does not restrain agencies from taking any project-related action,²⁴⁶ it does permit the FWS or NMFS to make an endangered species impact appraisal without being influenced by previous expenditures of large amounts of federal funds. This problem has also been confronted in the context of applying the NEPA environmental impact statement requirement to ongoing projects.²⁴⁷ If the proposed activity is later found not to jeopardize endangered species or their habitat, or if an exemption is granted, all funding can be effectively used to complete the project.

actions for which "no contract for construction has been entered into and for which no construction has begun" as of November 10, 1978. *Id.* The fact that a species proposed for listing could trigger this biological analysis reflects the importance of that preliminary designation to federal agencies undertaking projects.

243. The § 7 consultation is to be concluded within 90 days of its initiation, *id.* § 1536(b), but the biological assessment need only be completed within 180 days of its commencement, *id.* § 1536(c). Both of these time limits can be extended by agreement. *Id.* Furthermore, the 1978 act allows the biological assessment to be prepared in conjunction with NEPA compliance activities, *id.* § 1536(c), which suggests that the assessment may be made by a consultant, may be superficial and may be prepared in advance of the § 7 consultation.

244. The 1979 amendments provide that the biological assessment may be conducted by "any person who may wish to apply for an exemption under subsection (g) of [16 U.S.C. § 1536]." Act of Dec. 28, 1979, Pub. L. No. 96-159, § 4(4), 93 Stat. 1225 (to be codified at 16 U.S.C. § 1536(c)(2)). Such a group of "persons" includes the project agency, the state governor, or the permit or license applicant. 16 U.S.C.A. § 1536(g)(1) (West Cum. Supp. 1979), *as amended by* Act of Dec. 28, 1979, Pub. L. No. 96-159, § 4(7), 93 Stat. 1225. This new section could result in a delegation of the biological assessment responsibility to the parties most interested in the completion of the project. Since these assessments "are designed to assist Federal agencies in determining whether Section 7(a)(2) consultation should be initiated," H.R. REP. NO. 697, 96th Cong., 1st Sess. 14, *reprinted in* [1979] U.S. CODE CONG. & AD. NEWS 4776, 4781, and since an exemption may permanently insulate a project from species review, this delegation of an important function to a potentially adverse party seems inadvisable. Therefore, close supervision of the biological assessment by wildlife agencies is recommended.

245. 16 U.S.C.A. § 1536(d) (West Cum. Supp. 1979) (amended 1979).

246. The statute only precludes commitments of resources that would foreclose "the formulation or implementation of *any reasonable and prudent alternative measures* which would avoid jeopardizing the continued existence of any endangered or threatened species or adversely modifying or destroying the critical habitat of any such species." *Id.* This could be viewed as a very strict standard that prohibits even preliminary construction activity.

247. See W. RODGERS, *supra* note 2, at 766-67.

The consultation procedure ends with the issuance of a written opinion by the Secretary of the Interior or Commerce "detailing how the agency action affects the [endangered or threatened] species or its critical habitat."²⁴⁸ Thus, the initial function of the opinion is to isolate the impact, if any, of the proposed activity. This provision assumes that the reviewing agency will be able to predict, with a defensible degree of accuracy, the effects of a proposed action upon diverse plants and animals in many locations. The predictive capacity of the agency will undoubtedly be challenged.²⁴⁹ In addition, the Secretary's opinion must suggest "reasonable and prudent alternatives"²⁵⁰ to the proposal under review that would not adversely affect endangered species.²⁵¹ By requiring the suggestion and analysis of less damaging alternatives, the Act places a great burden on the FWS or the NMFS to produce a wide variety of project modifications within a relatively short time period.²⁵²

The 1978 amendments have carefully modified the nature of the interagency consultation process to make it a more formal administrative proceeding. There will undoubtedly continue to be informal contacts between the project agencies and the FWS or NMFS,²⁵³ but the

248. 16 U.S.C.A. § 1536(b) (West Cum. Supp. 1979) (amended 1979).

249. *But see* note 192 *supra*.

250. 16 U.S.C.A. § 1536(b) (West Cum. Supp. 1979) (amended 1979). This same standard, similar to the "no feasible and prudent" alternative test found in § 4(f) of the Department of Transportation Act, 49 U.S.C. § 1653(f) (1976), reappears in the 1978 amendments as one of the tests for the Endangered Species Committee to use in evaluating exemption requests. *See* 16 U.S.C.A. § 1536(h)(1)(A)(i) (West Cum. Supp. 1979); note 140 *supra*.

251. 16 U.S.C.A. § 1536(b) (West Cum. Supp. 1979) (amended 1979). It is unclear whether this list of alternatives could include a "no action" option because the alternative to be suggested must be one that "can be taken by the Federal agency or the permit or license applicant in implementing the agency action." *Id.* (emphasis supplied). The legislative history behind this provision is helpful but not determinative. The House report suggests a more limited interpretation of "reasonable and prudent" alternatives analysis. It states:

The search for alternatives in the consultation process should be limited to those that are "reasonable and prudent." *The committee does not intend that the Secretary and the Federal agency should, at the consultation stage, be required to review all possible alternatives to the agency action including those inconsistent with the project's objectives and outside of the Federal agency's jurisdiction.* It is the intent of the Committee that the consultation process be completed within 90 days or such time as is mutually agreed upon by the Secretary and the Federal agency.

H.R. REP. NO. 1625, 95th Cong., 2d Sess. 20, reprinted in [1978] U.S. CODE CONG. & AD. NEWS 9453, 9470 (emphasis added).

252. The statute does not specifically indicate when the Secretary's opinion is to be made available, although the overall intention is clearly to expedite § 7 consultation proceedings. The statute states that the opinion is to be made available "[p]romptly after the conclusion of [the] consultation." 16 U.S.C.A. § 1536(b) (West Cum. Supp. 1979).

253. Informal interagency contacts apparently have been common for years in the operation of the § 7 process. During the floor debate on the ESA amendments, Representative Robin L. Beard criticized the consultation procedure for being too informal. He noted that "most of these consultations, at least in many cases, were merely telephone calls. In many instances a dozen of

rigor of the statutory exemption procedure and the contested nature of many proposed federal projects will demand that the written opinion state specific conclusions that are supported by adequate documentation.²⁵⁴ These factors, in conjunction with the desire of the FWS and the NMFS to avoid any appearance of impropriety through *ex parte* contacts,²⁵⁵ will increase the pressure to conduct a more formal administrative procedure. Considering the great number of consultations anticipated and the importance of the written opinions, substantial increases in congressional funding will be necessary to enable the species review system to function as originally planned.²⁵⁶

2. Review Board Evaluation

The Secretary's written finding that the proposed project may jeopardize the continued existence of any endangered or threatened species,²⁵⁷ or negatively affect critical habitat, bars any further action on the proposed project. Once that finding is made, the exemption procedure must be initiated. The statutory exemption process provides for a two-tiered review structure. The first level of evaluation is performed by a review board and the second by the Endangered Species Committee (ESC). The statute permits an exemption application to be made by a federal agency, a state governor, or the initial applicant for the fed-

them were placed to the same agency, regarding the same project." 124 CONG. REC. H12,870 (daily ed. Oct. 14, 1978).

254. The written opinion issued at the conclusion of the consultation process has become a critical administrative determination. If the Secretary decides that there is no effect upon endangered or threatened species or their habitats, the proposed action may proceed without violating § 7 of the Act. On the other hand, if adverse effects are found, a formal exemption must be sought. Consequently, the post-consultation opinion may be controversial and may be subject to judicial review. The Act's citizen suit provision grants to "any person" the right to seek an injunction against "violation of any provision of this chapter or regulations issued under the authority thereof." 16 U.S.C. § 1540(g)(1)(A) (1976).

255. Such a situation could arise if a federal agency, to which a private developmental firm had come for a necessary permit, license or financial support, was to act as the agent for the private interest before the FWS or NMFS. Informal interagency contacts could be hidden from the public in general and wildlife groups in particular, making the consultation proceeding a potentially biased one.

256. Independent funding authorizations are provided for the operations of the review boards and the Endangered Species Committee. 16 U.S.C.A. § 1536(g) (West Cum. Supp. 1979) (amended 1979). The consultation functions, however, are to be funded by the general authorization for the ESA. *Id.* § 1542.

257. 16 U.S.C.A. § 1536(b) (West Cum. Supp. 1979) (amended 1979). If there is a determination of "no effect", then the project agency can proceed with its proposal. If later endangered species were found in the area, a new consultation would have to be undertaken. The decision finding "no effect," like the "negative declaration" in the NEPA context, can be a fertile source of litigation. See W. RODGERS, *supra* note 2, at 755.

eral permit or license.²⁵⁸ A prerequisite for consideration is a timely filed²⁵⁹ application detailing how the proposed agency action meets the statutory exemption standards and describing the completed consultation process.²⁶⁰ This application must be filed with the appropriate Secretary,²⁶¹ who then forwards it to a three-person review board formed to consider the exemption request.²⁶² Once constituted, the re-

258. 16 U.S.C.A. § 1536(g)(1) (West Cum. Supp. 1978) (amended 1979). There was some opposition to the inclusion of the actual "permit or license applicant" in the list of potential applicants for a § 7 exemption. When the Committee report was issued on H.R. 14104, several members appended their "Additional Views," which criticized this extension of permission to apply for an exemption. These congressmen feared that the exemption procedure would be "flooded with cases of dubious merit," and suggested that the state Governor or federal agency be required to concur in the privately initiated request to avoid a squandering of time and resources. H.R. REP. NO. 1625, 95th Cong., 2d Sess. 68, *reprinted in* [1978] U.S. CODE CONG. & AD. NEWS 9453, 9482. It would also be conceivable that the federal licensing or permitting agency, discovering the effect of the action upon endangered species, might choose not to pursue an exemption while the license applicant would proceed with the appeal. As a matter of federal policy, a consensus of opinion between the licensing agent and the applicant should exist before an exemption petition can be considered.

259. The 1978 statute required a written exemption application to be filed with the Secretary of Interior or Commerce "not later than 90 days after the completion of the consultation process." 16 U.S.C.A. § 1536(g)(2)(A) (West Cum. Supp. 1979) (emphasis added) (amended 1979). The "completion of the consultation process" was never specifically defined in the 1978 act. In the proposed regulations governing the exemption procedure, the 90-day time limits commences to run from two different points. For agency actions other than the issuance of permits or licenses, the period runs from the "termination of the consultation process and the issuance of the biological opinion." 44 Fed. Reg. 7777, 7779 (1979) (proposed 50 C.F.R. § 403.02(d)(1)). For actions involving licenses or permits, the period commences upon the "denial of the permit or license by the affected Federal agency." *Id.* (proposed 50 C.F.R. § 403.02(d)). This latter starting point could come after the biological opinion, giving, in the second instance, a longer period in which to file for an exemption. The 1979 amendments codify this regulatory position by allowing a permit or license applicant to file for an exemption "not later than 90 days after the date on which the Federal agency concerned takes final agency action, for purposes of chapter 7 of title 5, United States Code, with respect to the issuance of the permit or license." Act of Dec. 28, 1979, Pub. L. No. 96-158, § 4(7), 93 Stat. 1225 (to be codified at 16 U.S.C. § 1536(g)(2)(A)). The legislative history indicates that an applicant for a permit or license should not even be able to apply for an exemption until "after final agency action on the permit or license application at issue." *Conference Report*, S. 1143, at 14. The finality required is that which would allow for judicial review under the Administrative Procedure Act. This seemingly requires the permit or license applicant to exhaust administrative appeal remedies within the permitting or licensing agency prior to resorting to the statutory exemption process. *See National Wildlife Fed'n v. Endangered Species Committee*, 10 ENVIR. REP. (BNA) 659 (D.D.C. 1979) (complaint filed). *See also* 11 ENVIR. REP. (BNA) 2193.

260. In response to the command of 16 U.S.C.A. § 1536(f) (West Cum. Supp. 1979), the Departments of the Interior and Commerce jointly proposed regulations governing exemption applications, the review boards and the Endangered Species Committee. *See* 44 Fed. Reg. 7777-80 (1979) (proposed 50 C.F.R. §§ 403.01-.04). The rules specify the contents of the exemption application. 45 Fed. Reg. 23,354 (to be codified at 50 C.F.R. pts. 450-453).

261. In those instances in which a proposed action would adversely affect both marine and terrestrial species, the review board must be jointly convened by the Secretaries of the Interior and Commerce to consider the exemption request. Act of Dec. 28, 1979, Pub. L. No. 96-159, § 4(8), 93 Stat. 1227 (to be codified at 16 U.S.C. § 1536(g)(3)(B)).

262. A separate review board is to be empanelled for each exemption application. Of the three members, one is to be a federal administrative law judge, one is to be appointed by the

view board will receive a variety of information to guide its decision, including the exemption application, the Secretary's "views and recommendation,"²⁶³ and other testimonial and documentary evidence.²⁶⁴ The board inquiry can be wide-ranging, although statutorily imposed time limits would necessarily restrict the scope of action.

The review board is directed to make an initial determination and then, if warranted, issue a formal report to the Endangered Species Committee. There are four threshold findings that must be made. The failure of the applicant to satisfy any one of the four tests terminates the exemption procedure, with the result that no action may be taken on the proposed project. First, the board must find that an "irresolvable conflict"²⁶⁵ exists between the federal action and the preservation of endangered or threatened species and their habitats. This appears to require a review of the findings included in the Secretary's written opinion produced as a result of the consultation process. Considering the time available and the limited resources, it is unlikely that the fundamental findings of the Secretary will often be reversed. Second, the review panel must evaluate the conduct of the applicant during the

Secretary involved, and the last is to be an individual from the affected state who is appointed by the President. In order to expedite matters, the appointments must be made within 30 days after the exemption application is submitted. 16 U.S.C.A. § 1536(g)(3)(A)(i)-(iii) (West Cum. Supp. 1979). In an effort to encourage state involvement, the statute requires a solicitation of nominees from the governors of the affected states. The President, however, need only consider this list and need not make his selection from it. *Id.* § 1536(g)(2)(B), (3)(A)(ii).

263. Within 60 days of the filing of an exemption application, the Secretary must transmit his "views and recommendations with respect to the application" to the review board. *Id.* § 1536(g)(4). This document will undoubtedly be similar, if not identical, to the biological opinion required in the initial consultation process. See notes 248-52 and accompanying text *supra*. If new information or alternatives are suggested in the exemption application, however, the Secretary should attempt to respond to them to the extent possible in the brief period provided.

264. To assist in the gathering of the necessary information, the review boards are provided with the power to conduct adjudicatory hearings pursuant to the Administrative Procedure Act and to collect data from both agencies and individuals. 16 U.S.C.A. § 1536(g)(9)(A)-(B) (West Cum. Supp. 1979). No subpoena power was accorded the review boards, however, even though the Endangered Species Committee was granted that authority. See *id.* § 1536(e)(9).

265. The term "irresolvable conflict" was specifically defined in the 1978 amendments to be, with respect to any action authorized, funded or carried out by a Federal agency, a set of circumstances under which, after consultation as required in section 7(a) of this Act, completion of such action would (A) jeopardize the continued existence of an endangered or threatened species, or (B) result in the adverse modification or destruction of a critical habitat.

Id. § 1532(11) (amended 1979). This test appears to require an affirmation of the initial finding of a § 7 violation made in the Department of the Interior or Commerce written opinion under the consultation process. The 1979 amendments clarified this issue by altering the definition so that an irresolvable conflict will be found when the proposed agency action would "violate section 7(a)(2)." See Act of Dec. 28, 1979, Pub. L. No. 96-159, § 2, 93 Stat. 1225 (to be codified at 16 U.S.C. § 1532(11)).

required consultation process²⁶⁶ to determine whether it has acted "in good faith" and with a "reasonable and responsible" effort to formulate less damaging project variations.²⁶⁷ Third, the review board must find that the exemption applicant has followed the consultation procedure by preparing a biological assessment as required by statute.²⁶⁸ Finally, the board must determine that no "irreversible or irretrievable commitment of resources" has been made that would foreclose less damaging alternatives to the proposal being considered.²⁶⁹ Taken together these threshold tests require the review board to find that the consultation procedure has been diligently and honestly used to reach a resolution of the conflict. The statutory duty to consult as a precondition to further administrative review encourages compliance with the consultation procedure of the statute and should serve to eliminate most conflicts at an early stage. The threat of losing the primary method of appeal will encourage project and licensing agencies to comply carefully with the section 7 consultation requirements.²⁷⁰ With that result, the 1978 amendments accomplish an important objective of the 1973 Act.

If the review board decides that the exemption applicant has met all the tests mentioned above,²⁷¹ it must then prepare a report, which will serve as the basis for the Endangered Species Committee consider-

266. In order to emphasize the importance of good faith agency compliance with the § 7 consultation requirement, the 1979 amendments specified that the threshold tests must be satisfied by the exemption applicant and "the Federal agency concerned." Act of Dec. 28, 1979, Pub. L. No. 96-159, § 4(9)(B), 93 Stat. 1225 (to be codified at 16 U.S.C. § 1536(g)(5)(B)). The congressional intent was to prohibit federal agencies from ignoring their consultation duties by having a permit or license applicant apply for an exemption. See H.R. REP. NO. 697, 96th Cong., 2d Sess. 15, reprinted in [1979] U.S. CODE CONG. & AD. NEWS 4776, 4783.

267. 16 U.S.C.A. § 1536(g)(5)(B)(i) (West Supp. 1979), as amended by Act of Dec. 28, 1979, Pub. L. No. 96-159, § 4(9), 93 Stat. 1225. This standard seemingly requires some evidence of a willingness to compromise in the consultation process. Again, the consultation procedure is intended to filter out and resolve most of the project/species conflicts at an early stage.

268. *Id.* § 1536(g)(5)(B)(ii), as amended by Act of Dec. 28, 1979, Pub. L. No. 96-159, § 4(9), 93 Stat. 1225.

269. *Id.* § 1536(g)(5)(B)(iii), as amended by Act of Dec. 28, 1979, Pub. L. No. 96-159, § 4(9), 93 Stat. 1225.

270. An overzealous interpretation of the consultation duty could result in the FWS and the NMFS being inundated with review requests for tremendous numbers of proposed projects, licenses, and permits, some having only the most remote possible impact upon endangered species or their habitats. In a recent case involving project review under the Fish and Wildlife Coordination Act, the FWS was found to have illegally ignored its statutorily imposed duty to review agency actions. The FWS had unsuccessfully argued that it had insufficient personnel to discharge its obligations. See *Sun Enterprises Ltd. v. Train*, 394 F. Supp. 211 (S.D.N.Y. 1975), *aff'd*, 532 F.2d 280, 290 (2d Cir. 1976). Without sufficient funding, a similar case could arise under the Endangered Species Act.

271. A finding that the threshold tests were not satisfied is a final agency action and subject to judicial review. See 16 U.S.C.A. § 1536(g)(5) (West Cum. Supp. 1979).

ation that will follow.²⁷² The statute imposes time constraints upon all the functions of the review board.²⁷³ The board's report, anticipating several of the findings to be made by the Endangered Species Committee,²⁷⁴ is intended to provide the Committee with data upon which to base its ultimate decision and order.²⁷⁵ The board is to function as a factfinder for the ESC rather than an advocate for granting or denying the exemption.²⁷⁶ The information contained in the report would discuss: (1) the existence of reasonable and prudent alternatives to the agency action; (2) the nature and extent of benefits related to both the proposed agency action and alternatives less damaging to endangered species; (3) whether the agency action is in the public interest and of national or regional significance; and (4) the reasonable mitigation and enhancement measures that could be considered by the ESC.²⁷⁷ Since this data will likely serve as the record before the Endangered Species Committee, its contents will obviously have an important influence upon the Committee's deliberations.²⁷⁸

272. This two-level system of administrative review for exemption requests originated in the House bill—H.R. 14104. Much of the structure and language survived intact in § 7 of the 1978 and 1979 amendments. See 124 CONG. REC. H12,877, H12,878 (daily ed. Oct. 14, 1978). The House bill, however, provided the review board with a more significant role by granting it the authority to recommend the grant or denial of an exemption to the Endangered Species Committee. *Id.* The Senate bill—S. 2899—only created a single level of review, with the ESC making all decisions. See *id.* at S11,158-59 (daily ed. July 19, 1978).

273. Once the review board is appointed, it must reach its threshold determination within 60 days, unless a longer time period is agreed upon by the exemption applicant and the Secretary involved. 16 U.S.C.A. § 1536(g)(5) (West Cum. Supp. 1979), *as amended by* Act of Dec. 28, 1979, Pub. L. No. 96-159, § 9, 93 Stat. 1225. If the process is to continue, the report of the board must be submitted to the Endangered Species Committee within 180 days after the threshold determination. This time limit cannot be extended by agreement. 16 U.S.C.A. § 1536(g)(7) (West Cum. Supp. 1979). With the 90 day limit placed upon the ESC's consideration of the exemption applications, *id.* § 1536(h)(1), a final administrative decision could be required within 360 days after the initial application for exemption.

274. See *id.* § 1536(h)(1).

275. In the event an exemption is granted, the ESC must issue an order indicating that the exemption has been made and setting out the mitigation and enhancement measures required of the applicant. *Id.* § 1536(j)(1).

276. The Conference Report briefly articulated its conception of the review board's role within the exemption procedure. It noted that "[t]his provision differs from the House bill in that the board would merely be summarizing testimony and evidence received during the hearings, rather than making recommendations to the committee [ESC] on compliance with specific criteria. The board would be expected to describe the various options available to the committee." H.R. REP. NO. 1804, 95th Cong., 2d Sess. 21, *reprinted in* [1978] U.S. CODE CONG. & AD. NEWS 9484, 8988. In spite of the mundane tone of the description, the review board possesses important powers. It first screens unworthy applicants and later acts as a *de facto* consultant for the Endangered Species Committee by preparing the formal record for its decision and providing a range of technically feasible and prudent options. *Id.* at 20, *reprinted in* [1978] U.S. CODE CONG. & AD. NEWS at 9487; 16 U.S.C.A. § 1536(h)(1)(A) (West Cum. Supp. 1979).

277. 16 U.S.C.A. § 1536(g)(7) (West Cum. Supp. 1979).

278. The Conference Report, after describing the review board's report as a factual summary,

3. Endangered Species Committee Review

At the pinnacle of this complex system of administrative review stands the Endangered Species Committee. By the time an exemption request reaches the Endangered Species Committee, a substantial amount of consultation, review and negotiation has been undertaken to modify the sponsoring agency's proposal to bring it into compliance with the substantive policy of section 7. Through this early intervention into the agency planning process, many serious effects adverse to endangered species should be avoided. Created to make what Congress considered to be the political decisions²⁷⁹ involving the most intractable project/species conflicts, the ESC is provided with enumerated standards²⁸⁰ upon which to guide its action. This provision places the ultimate decisionmaking power into the hands of a high-level administrative body rather than a legislative or judicial entity. The future performance of the Committee will disclose whether such a system can efficiently and fairly resolve the serious petitions reaching it.²⁸¹

The 1978 amendments²⁸² state that the ESC is to consist of six federal agency officials and one person, appointed by the President, to represent the state in which the federal project would be carried out,²⁸³

stresses the importance of the document to the Endangered Species Committee. Actually, the decision of the Committee may be based entirely on the record developed by the review board. H.R. REP. NO. 1804, 95th Cong., 2d Sess. 21, *reprinted in* [1978] U.S. CODE CONG. & AD. NEWS 9484, 9468. In light of the limited time available to the ESC, in most cases it is unlikely that the Committee will exercise its authority to conduct a second evidentiary hearing on the exemption application and instead will rely on the information derived from the review board's hearing.

279. Throughout the congressional deliberations mention was made of the political nature of the decision to exempt a particular federal project from the command of the statute. This would be especially true when a species faces extinction as the result of federal action. The ESC also serves the practical function of relieving Congress of the obligation to consider and specially amend the ESA for individual exemption requests. *See* 124 CONG. REC. H12,869 & 12,887 (daily ed. Oct. 14, 1978) (remarks of Rep. Bowen). On the other hand, Representative James M. Jeffords suggested that Congress should retain control in the case of possible species extinction by providing for automatic congressional review of the exemption request. *See id.* at H12872.

280. 16 U.S.C.A. § 1536(h)(1)(A), (B) (West Cum. Supp. 1979).

281. Aside from the Tellico and Grayrocks exemption decisions, which were made soon after the passage of the 1978 amendments to the Act, *see* note 143 *supra*, there have been no exemption applications considered by an Endangered Species Committee. Two oil refinery projects, however, one in Eastport, Maine, and the other in Portsmouth, Virginia, could ultimately reach the ESC. The Eastport Project is said to threaten the bald eagle and the humpback whale. The Environmental Protection Agency denied a Clean Water Act discharge permit after § 7 consultation. The Pittston Corporation, sponsor of the refinery, has filed an exemption request, thus triggering the full exemption procedure. *See* 44 Fed. Reg. 33,721-22 (1979). Suit has been filed to prohibit the formal consideration of the application until the proponent has exhausted its administrative remedies within the permitting agency (EPA). *See* [1979] ENVIR. REP. (BNA) 659. The 1979 amendment discussed in note 259 *supra* would seemingly settle this issue.

282. 16 U.S.C.A. § 1536(e)(3)(A)-(G) (West Cum. Supp. 1979). *See also* note 139 *supra*.

283. The state representatives on both the review board and the ESC are to be appointed by

with the Secretary of the Interior serving as the Committee's chairperson.²⁸⁴ The Committee may gather evidence and deliberate for a maximum of ninety days before rendering its decision on the exemption request.²⁸⁵ In order to grant the exemption, the ESC must make statutorily mandated findings, with at least five of the seven members voting affirmatively.²⁸⁶ Anything less leaves the status quo of project disapproval intact. In addition, the Secretary of State can block the ESC's consideration of an exemption if granting the exemption would violate the terms of an American international obligation.²⁸⁷ The Committee format gives the majority of votes to federal agency officers rather than state or local representatives, but that does not ensure that a unified federal viewpoint will materialize. It is also not possible to characterize the federal membership of the panel as being uniformly pro-environmental or pro-developmental in outlook.

The Endangered Species Committee is to rule on exemption petitions based upon several specific criteria, all of which must be met. First, there must be "no reasonable and prudent" alternatives to the proposed agency action.²⁸⁸ The legislative drafters of this provision were careful to distinguish this standard from the "no feasible and prudent" test judicially established in *Citizens To Preserve Overton Park v.*

the President. The House version was changed in reaction to concerns by the Department of Justice that permitting membership of both bodies to be open to state governors or their appointees would potentially violate the "appointments clause" of the Constitution, U.S. CONST. art. II, § 2, cl. 2. H.R. REP. NO. 1625, 95th Cong., 2d Sess. 19-31, reprinted in [1978] U.S. CODE CONG. & AD. NEWS 9453, 9479-81. Relying on *Buckley v. Valeo*, 424 U.S. 1, 118 (1976), Assistant Attorney General Patricia M. Wald argued that the "administration and enforcement of public law" could not be constitutionally performed by one not appointed directly or indirectly by the President. By way of floor amendment, this view was incorporated into the 1978 amendments to the ESA. See 124 CONG. REC. H12882 (daily ed. Oct. 14, 1978) (remarks of Rep. Bowen). In *Buckley*, the Supreme Court invalidated the composition of the Federal Election Commission, which had by statute four of six members appointed by congressional leaders. 424 U.S. at 126-27. The Justice Department's analysis of the constitutionality of the ESC appointment procedure is probably unnecessarily strict.

284. 16 U.S.C.A. § 1536(e)(5)(B) (West Cum. Supp. 1979).

285. *Id.* § 1536(e)(7)(A)-(C), (h)(1).

286. *Id.* § 1536(e)(5)(A). In addition, the Endangered Species Committee is only authorized to function officially when a quorum of five members is present, with no proxy voting permitted. *Id.* See also *id.* § 1536(e)(10). Consequently, the absence of three Committee members could bar the operation of the body without regard to the 90-day limit on action. See *id.* § 1536(h)(1).

287. *Id.* § 1536(i). This section is intended to grant the Secretary of State power to block an exemption that would jeopardize American performance under the binding provisions of international law. The Conference report cites several examples. H.R. REP. NO. 1804, 95th Cong., 2d Sess. 22, reprinted in [1978] U.S. CODE CONG. & AD. NEWS 9484, 9490. The wisdom of according the Department of State such unchecked authority is to be questioned, especially when its technical ability to evaluate proposed actions and predict "potential implications," 16 U.S.C.A. 1536(i) (West Cum. Supp. 1979), is at best unestablished.

288. 16 U.S.C.A. § 1536(h)(1)(A)(i) (West Cum. Supp. 1979).

Volpe,²⁸⁹ which was considered to be so strict that few if any exemptions could be granted. By comparison, the "no reasonable and prudent" alternative criterion was believed to grant the ESC more flexibility²⁹⁰ in dealing with exemption requests.

Second, the Endangered Species Committee must compare the benefits of completing the proposed agency action with the benefits derived from another course of action that would not violate the substantive policy of section 7.²⁹¹ This comparison of benefits is intended to reflect the strength or weakness of the initial proposal relative to less damaging alternatives. Furthermore, it must be established that the total benefits of the applicant's proposed action "clearly outweigh" the benefit of other suggested proposals.²⁹² This language may require that the evidence used in the calculus be of a high quality or that the initial proposal has benefits associated with it that are far greater than those generated by alternatives. Once again, the function of the ESC is to develop alternative proposals against which the original course of action can be evaluated. If an alternative provides greater benefits than the original proposal, the exemption must be denied. The variety of benefits to be included in this calculation is potentially unlimited—encompassing interests that are and are not easily quantifiable.²⁹³ As a result, the precise comparison of benefits apparently anticipated by the statute will actually be a subjective administrative determination that may be open to dispute. This second exemption test avoids any re-

289. 401 U.S. 402, 405 (1971); see note 140 *supra*.

290. In a confusing colloquy during the Senate's consideration of S. 2899, Senators Nelson and Baker discussed the implications of the "no feasible and prudent alternative" test versus the "no reasonable and prudent alternative" standard embraced by the Senate bill. The former test was rejected because it was perceived to have limited exemptions to very few cases. The latter test was accepted because it was thought to allow the ESC the flexibility to consider a wide range of factors, including environmental and community impacts, economic feasibility and engineering soundness, in its determination of "reasonable" alternatives. 124 CONG. REC. S11,145 (daily ed. July 19, 1978) (remarks of Sen. Baker). The result of adopting this language is to make the required finding easier to reach.

291. See 16 U.S.C.A. § 1536(h)(1)(A)(ii) (West Cum. Supp. 1979).

292. *Id.*

293. The Conference Report reflects an intent to create a multi-interest benefit assessment going beyond ecological and economic considerations. It states:

The committee does not intend, however, that the Endangered Species Committee evaluation should be limited to these criteria. They should also consider the national interest, including actions authorized, funded or carried out by the Secretary of Defense; the *esthetic, ecological, educational, historical, recreational and scientific value* of any endangered or threatened species; and any other factors deemed relevant.

H.R. REP. NO. 1804, 95th Cong., 2d Sess. 20, reprinted in [1978] U.S. CODE CONG. & AD. NEWS 9484, 9488 (emphasis added). This statement is taken from the House report on the House bill. H.R. REP. NO. 1625, 95th Cong., 2d Sess. 22, reprinted in [1978] U.S. CODE CONG. & AD. NEWS 9453, 9472.

quirement that the benefits of completing the proposed federal project be weighed against any direct conception of the value of the species endangered by the activity. Instead, a broad-based evaluation of the benefits related to less destructive project alternatives stands as a substitute for the value of the species itself.²⁹⁴

Third, the proposed agency action must be found to be in "the public interest."²⁹⁵ This term is undefined in the Act, although the legislative history explains that, "[t]o be 'in the public interest,' an agency action must affect some interest, right or duty of the community at large in a way which they would perceive as positive."²⁹⁶ The "public interest" requirement would exclude those exemption requests that can be characterized as being purely private in nature. Even the granting of a federal permit or license for a private activity, however, might have significant social implications that could easily satisfy the test.

Fourth, the project for which the exemption is sought must be of "national or regional significance" to qualify for an exemption.²⁹⁷ The word "significance" reflects the economic or social importance of the undertaking and has no relationship to the species involved. This provision was originally intended to restrict section 7 exemptions to federal projects of national importance.²⁹⁸ During the development of the legislation, this standard was modified to encompass situations of a lesser magnitude. Ultimately, the definition of "regional significance" will determine whether the section 7 exemption will be available to any federal or federally related action regardless of the geographic extent of its impact.²⁹⁹ It is likely that all but the smallest projects will be able to

294. The Senate committee, when discussing the "comparison of benefits" test in the Senate bill, identified the primary reason for rejecting a direct value comparison between the agency proposal and the endangered species. "The committee recognized the difficulty of simply comparing species value with a proposed Federal action. The balancing of the benefits of alternative courses of action mandated by the criteria [for an exemption] will allow a more logical comparison of the alternative options." S. REP. NO. 874, 95th Cong., 2d Sess. 7 (1978).

295. 16 U.S.C.A. § 1536(h)(1)(A)(ii) (West Cum. Supp. 1979).

296. H.R. REP. NO. 1804, 95th Cong., 2d Sess. 20, *reprinted in* [1978] U.S. CODE CONG. & AD. NEWS 9484, 9488.

297. 16 U.S.C.A. § 1536(h)(1)(A)(iii) (West Cum. Supp. 1979).

298. An early draft of the House bill maintained that one of the criteria for an exemption was that the proposed project be "required in the national interest." Those House committee members who filed "Additional Views" as an appendix to the House report were troubled by the dilution of the standard as finally enacted and clearly expressed their support for a narrower test. H.R. REP. NO. 1625, 95th Cong., 2d Sess. 68, *reprinted in* [1978] U.S. CODE CONG. & AD. NEWS 9453, 9483.

299. The colloquy between Representatives Bowen and AuCoin during the House deliberations is support for a liberal construction of the term "regional." In the context of federal timber sales, Representative Bowen stated that a regionally significant project could (1) occur in only one state, (2) result from the cumulative effect of a number of individually insignificant actions, and (3) be found in the regional economic impact of an isolated federal activity. 124 CONG. REC.

comply with this component of the exemption test.

Should the Endangered Species Committee find that all four of the prior requirements have been met, it must then establish such "reasonable mitigation and enhancement measures . . . as are necessary and appropriate to minimize the adverse effects of the agency action."³⁰⁰ In exchange for permission to complete the project as planned, the ESC is authorized to impose these conditions, which must be implemented by the exemption applicant. The statute suggests several varieties of measures, including species propagation, transplantation and critical habitat acquisition.³⁰¹ The Committee, however, appears to have a great deal of discretion to go beyond this list as long as the choices are "reasonable." The reasonableness of a particular measure will undoubtedly be determined by its cost, effectiveness in protecting the species involved and technological availability.³⁰² The imposition of these protective requirements could add greatly to the cost of a federal project receiving a section 7 exemption,³⁰³ with the result that a successful exemption applicant could seek judicial review of the specified mitigation and enhancement measures.³⁰⁴ Because the statute requires the measures not only to mitigate the anticipated adverse effects but also to enhance the condition of the endangered species or habitat, it is likely that extensive exemption conditions will be imposed.³⁰⁵ By requiring enhancement actions in addition to mitigation measures, the damaging activity au-

H12,871 (daily ed. Oct. 14, 1978) (remarks of Reps. AuCoin and Bowen). See also H.R. REP. NO. 1804, 95th Cong., 2d Sess. 20, reprinted in [1978] U.S. CODE CONG. & AD. NEWS 9484, 9488. These sources would suggest that the "regional significance" test will be easily satisfied in the future.

300. 16 U.S.C.A. § 1536(h)(1)(B) (West Cum. Supp. 1979). This language was taken directly from the House bill without change. See H.R. 14104, 95th Cong., 2d Sess. § 3(f)(2) (1978), 124 CONG. REC. H12,878 (daily ed. Oct. 14, 1978). The Senate bill contained a similar provision, which required the inclusion of "all reasonable mitigation measures" determined to be needed by the Secretary of the Interior or Commerce. See S. 2899, 95th Cong., 2d Sess. § 3(g) (1978), 124 CONG. REC. S11,159 (daily ed. July 19, 1978).

301. 16 U.S.C.A. § 1536(h)(1)(B) (West Cum. Supp. 1979).

302. The Conference Report lists these elements but acknowledges that others might be considered. H.R. REP. NO. 1804, 95th Cong., 2d Sess. 22, reprinted in [1978] U.S. CODE CONG. & AD. NEWS 9484, 9490.

303. The statute carefully notes that the exemption applicant is responsible for the costs of the measures, and in the case of a federal or federally funded project these actions must be authorized prior to construction and actually funded along with other aspects of the project. 16 U.S.C.A. § 1536(j)(1) (West Cum. Supp. 1979). Oddly, these costs are not to be considered as project costs in any cost/benefit analysis. *Id.* § 1536(j)(2).

304. See *id.* § 1536(n). Judicial review of "any decision" of the Endangered Species Committee is provided for "any person" in the United States Courts of Appeals. Argument over the reasonableness or inadequacy of the mitigation and enhancement measures set by the Committee could be heard under this jurisdictional provision as long as a written petition for review is filed within 90 days of the issuance of the ESC's formal order. *Id.* § 1536(h), (j)(1).

305. There was an unsuccessful attempt to delete the "enhancement" obligation from the stat-

thorized by the exemption may indirectly result in special protection for the species that would not have been otherwise available.

The selection of effective mitigation and enhancement techniques is a critical component of the section 7 exemption procedure. Although the creation of an exemption violates the strict pro-species protection theory present in the 1973 Act, the inclusion of mitigation and enhancement measures attempts to reconstruct the protective attributes of the prior policy. There are, however, several weaknesses in the system. First, the selection of the measures to be imposed must occur in a relatively short period of time within the exemption process.³⁰⁶ Such a hurried decision could result in inadequate protective actions. Second, once the exemption is granted, it is permanently effective and cannot be withdrawn later if other endangered or threatened species are found on or near the site of the exempted federal action.³⁰⁷ Similarly, the mitigation and enhancement measures required by the ESC's formal order and accepted by the exemption applicant cannot be modified in the future, when their effectiveness is known or new species effects are determined. Third, there is no way to secure compliance with the mitigation and enhancement obligations agreed to by the exemption applicant. The exemption applicant must only submit an annual report to the Council on Environmental Quality describing its compliance.³⁰⁸ No specific authority is provided for the oversight of the mitigation procedures or for the suspension or withdrawal of the exemption if the required measures are not properly implemented. Once an exemption is granted and the conditions accepted, there is no continued leverage to ensure that the federal action taken has as few adverse effects as possible.³⁰⁹

ute while the bill was being considered by the House. 124 CONG. REC. H12,901-02 (daily ed. Oct. 14, 1978) (remarks of Rep. Buchanan).

306. The Endangered Species Committee must make all of its determinations within 90 days. See 16 U.S.C.A. § 1536(h)(1) (West Cum. Supp. 1979).

307. *Id.* § 1536(h)(2)(A). The 1979 amendments attempted to clarify the question of the permanency of an exemption granted by the ESC. As a general proposition, once an exemption is granted the project may proceed to completion as long as a biological assessment has been performed. This is true whether or not new endangered species are later discovered. Reconsideration of the exemption can occur only if the Secretary of the Interior or Commerce finds that extinction for a species not previously subjected to formal consultation or biological assessment will result from project completion. If extinction cannot be found, then the exemption stands. The exemption may only be removed if the ESC affirmatively votes to eliminate it within 60 days of the Secretary's finding. See Act of Dec. 28, 1979, Pub. L. No. 96-159, § 4(11), 93 Stat. 1225 (to be codified at 16 U.S.C. § 1536(h)(2)(A)-(B)). Because exemptions, once granted, are generally permanent, added importance is placed on the quality of data available throughout the administrative process.

308. 16 U.S.C.A. § 1536(j)(2) (West Supp. 1979).

309. Apparently it would be possible for public interest groups to use the citizen suit provision

In concluding the analysis of the section 7 exemption procedure, it is worth noting that major emphasis has been placed upon interagency consultation as the primary means of avoiding project/species conflicts. If serious consideration is given to the mandated consultation, there will be more contact in the nature of negotiation between the project agencies and the FWS or the NMFS. The prerequisites for exemption demand that consultation be undertaken in good faith. It is extremely important that the concept of "good faith" contain an element of openness to ensure that important decisions are not obscured from public view.

Despite the continued congressional support for species protection, the 1978 amendments do anticipate the possibility that the extinction of a species could result from the granting of a section 7 exemption. It is clear that the value inherent in unique life forms will not be protected in all cases, and that Congress has for the first time conceded that federally related activities may be authorized even though they cause the extinction of a species. This departure from the pre-existing policy is unfortunate and probably unnecessary. All decisions made by the ESC should be carefully considered and thoroughly explained in order to encourage public support and survive judicial review. The sustained performance of the Endangered Species Committee in granting or denying exemption applications will significantly affect the integrity of the entire consultation and review system. Consequently, the orientation of that Committee will greatly influence the course of the federal endangered species program in the future.

VI. CONCLUSION

The 1978 and 1979 amendments to the Endangered Species Act represent the first Congressional reappraisal and redefinition of the policy embodied in section 7 of the 1973 Act that federal actions must not adversely affect endangered and threatened species or their critical habitats. After the *TVA v. Hill* decision, many legislators perceived the policy of the ESA as being anti-developmental and a serious obstacle to an ever-increasing number of federal actions. With the political climate emotionally charged and favoring the granting of relief for the Tellico and Grayrocks projects, it was inevitable that some change would be made in either the procedure or substance of the pre-existing

of the statute "to enjoin any person . . . who is alleged to be in violation of any provision of [the Act]." 16 U.S.C. § 1540(g)(1)(A) (1976). If mitigation and enhancement measures are considered to be provisions of the Act, this injunctive remedy would be available.

law. Under these circumstances, a more drastic curtailment of the protections afforded endangered species could have occurred.

The outcome of the congressional consideration of section 7 of the 1973 Act was to reaffirm both the procedural and substantive elements of that section. The strong pro-species policy of section 7 was not altered, though slight modifications in the administrative functions of listing and critical habitat designation were made. Furthermore, the consultation duty of federal project agencies was thoroughly reemphasized in the new procedural structure of the Act, which permits exemptions for federal actions that may reduce endangered species populations in only a carefully limited range of situations. The potential for conflicts between species and projects will undoubtedly continue, but the 1978 and 1979 amendments have created an enhanced administrative system organized with the expectation that early project review, negotiation and appeal can minimize the adverse effects of federal activities. The future will reveal whether such an administratively based system will succeed in shifting agency attitudes so as to inculcate a mandate of species protection into all federal decisions.

The recent enactments make endangered species protection a visible interest that cannot be ignored by federal agencies. If it has done nothing more, *TVA v. Hill* has awakened the federal bureaucracy to the existence of the species preservation issue. A great deal will have been accomplished if federal officials do not intentionally or inadvertently plan projects or license activities that have destructive effects on endangered species. Moreover, the new statutory approach reflects a significant shift of important decisionmaking authority, at least initially, from the judiciary to the federal administrative agencies. The structure transfers a great deal of power to the reviewing federal officials, and it assumes a large amount of competence and efficiency in the Fish and Wildlife Service, the National Marine Fisheries Service and the Endangered Species Committees. Congressional financial support for these agency functions will determine, in large measure, the success or failure of the administrative system.

In addition, the 1978 and 1979 amendments to the ESA have significant implications for the theory of environmental review of federal actions. Section 7 of the Endangered Species Act must be compared to the policy of the National Environmental Policy Act, especially its environmental impact statement (EIS) requirement. NEPA mandates the integration of a wide range of environmental concerns into the formal agenda of all federal agencies. It creates a general standard of opera-

tion, which must then be put into effect through the myriad of agency actions and decisions required by the organic statutes that define agency responsibilities. NEPA adds to these obligations the duty to prepare an environmental impact statement when a federal agency's behavior will legally constitute a "major federal [action] significantly affecting the quality of the human environment."³¹⁰ Although there has been significant debate over whether the NEPA obligations create substantive or merely procedural hurdles for agencies to meet, the trend appears to be towards a more restrictive interpretation of the statute.³¹¹ Contemporaneous with this development in NEPA law has been the increased emphasis placed upon specialized environmental protection statutes, such as the Endangered Species Act, to provide specific substantive standards against which agency actions can be measured. The interpretation of section 7 provided by the 1978 and 1979 amendments to the ESA clearly indicate that endangered species conservation is an environmental interest that cannot be satisfied by mere mention in an agency EIS. Furthermore, the amended ESA reflects a preference in policy that must be seriously considered and accommodated by agency project planning. The emphasis placed upon the Act as an independent source of power to regulate federal actions may herald a movement away from litigation under NEPA. If the substantive policy enunciated by the Endangered Species Act results in the effective protection of endangered species, it would not be surprising to find an increased number of specialized environmental review statutes being proposed in the future.

On the more general theoretical level, the enactment of the recent amendments to the ESA is also significant. For the first time, economic and developmental concerns have been integrated into an area of federal wildlife law that has previously been founded solely upon biological principles. This reflects a social choice that the nation is unwilling to preserve and enhance endangered species despite all other considerations. Endangered species protection has become a relative value—one that does not find uniform support in all circumstances. Although this result is not surprising in the political world of competing interests, it does illustrate the idea that all environmental values—including support of endangered species—must function in a world of compromise. No interest or value is of high enough importance that it will have uni-

310. 42 U.S.C. § 4332(2)(c)(1) (1976).

311. See *Strycker's Bay Neighborhood Council v. Karlen*, 100 S. Ct. 497, 499-500 (1980); *Vermont Yankee Nuclear Power Corp. v. NRDC*, 435 U.S. 519, 558 (1978).

form priority over all other social or economic policies. In this way, American society, through its elected representatives, has made a critical moral decision concerning the relative value of nonhuman forms of life. It has accepted a policy that in the main protects endangered species but also contemplates the possibility of extinction through government-authorized action. At least these statutes articulate this social choice and present a method for making the choices between species protection and other social goals. In this respect, the legislation serves a valuable purpose. It has isolated what have previously been unrelated and often highly damaging federal actions and has subjected them to a uniform evaluative procedure and a protective substantive standard. In so doing, Congress has placed an awesome responsibility upon the federal agency officials who are to administer the endangered species program. The future challenge for federal agencies will be to plan and execute their programs in conformity with the elaborate procedural structure of the Endangered Species Act and the protective purposes of the law. It will be the task of others to ensure that this challenge is met.

