Bradley C. Karkkainen

Endangered Species Protection in the United States: From Prohibition to Proactive Management

1 Introduction

The Endangered Species Act (ESA),[1] enacted in 1973, was among the first statutes in the world to broadly prohibit the killing or harming of species listed as "endangered" or "threatened," and it remains arguably the strongest such legislation ever enacted.[2] The ESA is strikingly sweeping in scope, biocentric in orientation, and absolute in character. It requires the listing of virtually any plant or animal species in danger of extinction, however trivial its apparent economic, aesthetic, or other value to humans.[3] With limited exceptions, it flatly prohibits the killing or harming of any member of a listed animal species, without regard to economic costs or other anthropocentric considerations.[4]

[1] Endangered Species Act of 1973 (ESA), Pub. L. 93–205, as amended, codified at 7 U.S.C. § 135, 16 U.S.C. §§ 1531 et seq.

[2] Holly Doremus, Comment, *Patching the Ark: Improving Legal Protection of Biological Diversity*, 18 Ecology L.Q. 265 (1991) (characterizing the Endangered Species Act as "the strongest legislation ever devised for the protection of non-human species").

[3] ESA § 4 (a) & (b), 16 U.S.C. § 1533 (a) & (b) (requiring the listing of "endangered" and "threatened" species "solely on the basis of the best scientific and commercial data available").

[4] ESA § 9 (a)(1)(B) & (C), 16 U.S.C. § 1538(a)(1)(B) & (C) (prohibiting the "take" of any listed endangered species of fish or wildlife); ESA § 3(19), 16 U.S.C. § 1533(19) (defining "take" to mean "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, to to attempt to engage in any such conduct").

But the statute's commands, while sweeping, are almost entirely negative in character. Although the ESA prohibits actions that "harm" listed fish and wildlife species, it does not require affirmative conservation measures to assist struggling species. Nor does it require preventive measures to keep species from becoming endangered in the first place. In light of its emphasis on essentially negative proscriptions of behavior—commands of the "Thou shalt not" type—one prominent commentator has aptly characterized the ESA as a "prohibitive policy."[5]

The last decades have seen a gradual reorientation of endangered species policy away from enforcement of the ESA's prohibitory provisions, and toward a more proactive managerial approach. This approach aims to go beyond prohibitions on harm to listed species by promoting affirmative, forward-looking conservation measures that might benefit not only the listed species themselves but also the broader biotic communities, habitats, and ecosystems of which they are a part. A crucial enabler of this shift is a previously obscure waiver provision, section 10(a) of the statute, which authorizes federal authorities to permit limited "take" (or harm) of a listed species if accompanied by an approved Habitat Conservation Plan, provided the authorities find that the "take" will be "incidental" and will not substantially impair the species' prospects of survival and recovery.[6]

This paper argues that the expanded use of Habitat Conservation Plans in the context of endangered species policy is emblematic of a broader shift now taking place in U.S. environmental law and policy, away from detailed "primary rules" (in H.L.A. Hart's term) directly proscribing behaviors thought to be environmentally harmful, toward more flexible managerial approaches employing a mix of procedural ("secondary") rules, more general substantive standards, the expanded use of incentives to promote affirmative conservation-enhancing behaviors, and integrated "adaptive management" approaches.

[5] Stephen L. Yaffee, Prohibitive Policy: Implementing the Federal Endangered Species Act (1982).

[6] Endangered Species Act § 10(a), 16 U.S.C. § 1539(a) (authorizing the issuance of permits for the "taking" of listed species if the taking "is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity," provided that the taking "will not appreciably reduce the likelihood of the survival and recovery of the species in the wild.") The permit applicant must also submit and secure government approval for a Habitat Conservation Plan designed to "minimize and mitigate" harm to the listed species. *Ibid* § 1539(a)(2)(A).

2 Endangered Species Act: The Basics

Unlike other federal environmental statutes like the Clean Air Act, the Clean Water Act, the Resource Conservation and Recovery Act (RCRA), and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the Endangered Species Act is a fairly simple statute.

Section 4 of the statute requires the Secretary of the Interior, as titular head of the Fish and Wildlife Service (FWS), to issue regulations listing species as "endangered" or "threatened"[7] if, solely on the basis of the "best scientific and commercial data available,"[8] the Secretary determines that the species is "in danger of extinction throughout all or a significant portion of its range" ("endangered"),[9] or is "likely to become an endangered species within the foreseeable future" ("threatened").[10] For marine, anadromous, and catadromous species, the listing determination is to be made by the Secretary of Commerce as titular head of the National Marine Fisheries Service.

Section 4 also authorizes citizens to petition for listing determinations, and generally requires the Secretary to respond to such petitions within twelve months, either by listing the species, declining to list, or explaining why listing is precluded or unnecessary under one of several narrow exceptions specified in the statute.[11]

Concurrently with the listing determination, the Secretary must also designate "critical habitat" for the listed species[12]—that is, habitat occupied by the species and containing "those physical or biological features essential to the conservation of the species," as well as such additional lands as the Secretary determines are "essential for the conservation of the species."[13] Finally, the Secretary is also required to develop "recovery

[7] ESA § 4(a) (mandating that the Secretary "shall by regulation … determine whether any species is an endangered species or a threatened species").

[8] ESA § 4(b)(1)(a), 16 U.S.C. § 1533(b)(1)(a) (setting out the "basis for (listing) determinations").

[9] ESA § 3(6) (defining "endangered species").

[10] ESA § 3(20) (defining "threatened species").

[11] ESA § 4(b)(3)(A) & (B).

[12] ESA § 4(a)(3) (mandating designation of critical habitat "concurrently with making a (listing) determination").

[13] ESA § 3(5)(A) (defining "critical habitat").

plans" for listed species,[14] although these recovery plans have no binding legal effect and no deadline is specified for their promulgation.

Much of the work of the Endangered Species Program of the Fish and Wildlife Service goes into Endangered Species Act listing determinations, critical habitat designations, and development of recovery plans. And since all these federal actions, as well as the agency's failure to take a required action, are subject to judicial review under the Administrative Procedure Act[15] and/or the Endangered Species Act's citizen suit provision,[16] they have been the subject of much litigation,[17] typically brought by environmental organizations seeking to compel additional species listings, more expansive or timelier critical habitat designations, or the issuance of recovery plans. These lawsuits and the court orders that sometimes follow often force the agency to expend even more resources on listing, critical habitat designation, and recovery plan development[18]—much to the consternation of current and former Interior Department

[14] ESA § 4(f) (requiring the Secretary to "develop and implement plans … for the conservation and survival of endangered species and threatened species … unless he finds that such a plan will not promote the conservation of the species").

[15] Because the Endangered Species Act contains no statutory review provision, judicial review may be had under the Administrative Procedure Act, which authorizes any person "adversely affected" by a "final agency action" alleged to be unconstitutional, ultra vires, "arbitrary and capricious," or "otherwise not in accordance with law" to seek judicial review of the allegedly wrongful action. Administrative Procedure Act, 5 U.S.C. Chapter 7, §§702, 706. The U.S. Supreme Court has held that judicial review under the APA is not precluded by the Endangered Species Act's citizen suit provision, see infra, although there is potentially some overlap between the two causes of action. *See* Bennett v. Spear, 520 U.S. 154, 175 (1997) ("No one contends (and it could not be maintained) that the causes of action against the Secretary set forth in the ESA's citizen suit provision are exclusive, supplanting those provided by the APA.").

[16] ESA § 11(f) (authorizing citizen suits to enjoin violations of the statute or its implementing regulations, or "against the Secretary where there is alleged a failure of the Secretary to perform any act or duty … which is not discretionary").

[17] As of 5 September 2008, the Westlaw Federal Courts Database listed 2140 cases citing the Endangered Species Act. While not all of these are ESA judicial review or citizen suit cases, many are.

[18] *See, e.g.*, Center for Biological Diversity v. Norton, 163 F. Supp. 2d 1297, 1299–1300 (D.N.M. 2001) (ordering FWS to complete a 12-month finding on a petition to list the Sacramento Mountains checkerspot butterfly as an endangered species with critical habitat, and holding that the agency's budgetary crisis, allegedly caused by other judicially-imposed listing and critical habitat deadlines, does not excuse its obligation to meet statutory deadlines).

officials who complain that their time and scarce agency resources could be better spent on species recovery.[19]

Although the listing, critical habitat, and recovery plan determinations absorb a great deal of agency time, attention, and resources, it is the principal operative provisions, Sections 7 and 9, that have the greatest substantive effect.

Section 7, the so-called "consultation requirement," prohibits federal agencies from taking any action—including funding or permitting non-federal projects—that would "jeopardize" the continued existence of listed endangered or threatened species of plants or animals.[20] It further requires that agencies consult with the Fish and Wildlife Service (or National Marine Fisheries Service) in the course of making this determination, and in finding "reasonable and prudent alternatives" to any action that would result in "jeopardy."[21]

Section 9 prohibits trafficking in and "taking" of fish and wildlife species listed as endangered.[22] The statute defines "take" to include "harm,"[23] and by regulation, "harm" includes adverse habitat modification that "actually kills or injures wildlife" by impairing essential func-

[19] *See* Jason M. Patlis, *Riders on the Storm, or Navigating the Crosswinds of Appropriations and Administration of the Endangered Species Act: A Play in Five Acts*, 16 Tul. Envtl. L.J. 257, 311–12 (2003) (stating that FWS has long resisted spending money on critical habitat designations because it believes they provide little protection to listed species, but as of July 2002 it was faced with a backlog of 250 species listing proposals, 420 court-ordered critical habitat designations, and reevaluation of 180 "not prudent" findings relating to critical habitat, with 30 to 40 new listing petitions coming in annually).

[20] ESA § 7(a)(2), 16 U.S.C. § 1536(a)(2) (requiring federal agencies to "insure that any action authorized, funded, or carried out by such agency … is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the adverse modification of [designated critical] habitat").

[21] Consultation is required, inter alia, in determining whether there is likely to be "jeopardy" to a listed species or adverse modification of its critical habitat, 16 U.S.C. § 1536(a)(2) & (a)(4). The Services are required to issue a so-called "biological opinion" which "detail[s] how the agency action affects the species or its critical habitat" and sets out "reasonable and prudent alternatives" which would avoid "jeopardy" and adverse modification of critical habitat. 16 U.S.C. § 1536(b).

[22] ESA § 9(a)(1), 16 U.S.C. § 1538(a)(1) (prohibiting the import, export, possession, sale, delivery, transport, shipping, and "take" of fish or wildlife species listed as endangered).

[23] ESA 3(19), 16 U.S.C. 1532(19) ("The term 'take' means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect … .").

tions such as breeding, feeding, and nesting.[24] Unlike section 7 which applies only to federal agencies in the first instance, section 9 applies to "any person,"[25] and thus its prohibitions directly reach the actions of private parties, including private landowners who may be prohibited from engaging in land uses that adversely modify endangered species habitat. It should also be noted that while on its face section 9 applies only to species listed as "endangered," the Secretaries of Interior and Commerce have promulgated regulations extending the "take" prohibition to species listed as "threatened." By its terms, however, section 9 protects only fish and wildlife species, not plants;[26] there is no direct federal prohibition on harm to listed plant species, except on federal land or by the action of federal agencies.

Both provisions are framed in simple, absolute, prohibitory terms, and in the colorful phrase of some commentators, both have proven they can be "pit bulls" in practice: once their powerful legal jaws lock on a target, their grip is tenacious, bone-crushing, and extremely difficult to shake.[27]

Section 7 showed its muscularity early on, in the now famous case of *TVA v. Hill*.[28] In that case, environmentalists, recreational users, and local farmers had opposed construction of a government-sponsored dam on a wild and scenic stretch of the Little Tennessee River in eastern Tennessee, one of the last free-flowing streams in an area studded with hydroelectric dams built to bring electricity to a poverty-stricken rural region. Through litigation under the National Environmental Policy Act,[29] dam opponents managed to halt the project for a time to require the Tennes-

[24] 50 C.F.R. § 17.3 provides as follows: "*Harm* in the definition of 'take' in the Act means an act which actually kills or injures wildlife. Such act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering."

[25] 16 U.S.C. 1538(a)(1) ("[I]t is unlawful for *any person* to … .") (emphasis added).

[26] See *ibid* ("… with respect to any endangered species of fish or wildlife … .").

[27] The analogy of the ESA to a pit bull has become commonplace in the U.S. environmental law literature, but it is widely attributed to former Assistant Secretary of the Interior Don Barry. *See, e.g.*, Madeline June Kass, *A Least Bad Approach for Interpreting ESA Stealth Provision*s, 32 Wm. & Mary Envtl. L. & Pol'y Rev. 427, 449 & n.128 (2008).

[28] TVA v. Hill, 437 U.S. 153 (1978).

[29] National Environmental Policy Act of 1969, codified at 42 U.S.C. 4321 et seq. Section 102(2)(c) of that statute requires federal agencies to provide a "detailed statement" of the environmental impacts of, and alternatives to, any "major federal action" that "significantly affects the quality of the human environment."

see Valley Authority (TVA), the project's sponsor, to complete a required Environmental Impact Statement.[30] In the interim, however, a biologist at the nearby University of Tennessee discovered a previously unknown species of fish, the snail darter, which apparently used this reach of the Little Tennessee River as its only habitat.[31]

As fish go, the snail darter was unremarkable: about three inches long and tannish in color; lacking any commercial, aesthetic, or sport-fishing value; to the naked eye hardly distinguishable from some 130 other species of darter, including as many as 90 distinct darter species found in the state of Tennessee, of which at least 45 occupy portions of the Tennessee River system.[32]

But the (then) newly enacted Endangered Species Act gave the snail darter a rather remarkable legal stature. Opponents of the Tellico Dam petitioned the Secretary of the Interior to list the snail darter as an endangered species. After determining that the fish's only known habitat was the stretch of the Little Tennessee River that would be completely inundated by the dam's reservoir whose warm, slack water would be unsuitable for the snail darter which required cooler, free-flowing water, the Secretary listed the species as endangered and designated the relevant stretch of the Little Tennessee River as its critical habitat.

At that point, dam opponents filed a new lawsuit, contending that completion of the dam would "jeopardize the continued existence" of a listed endangered species, contrary to the prohibitions contained in ESA section 7(a). The trial court agreed with the plaintiffs' factual claims, but exercised its equitable discretion to deny them injunctive relief, stating that it would be "absurd" to order the cancellation of a $78 million project that was already 80 % complete by the time the suit was filed, and that was started before the Endangered Species Act was even enacted.[33]

The Court of Appeals accepted the trial court's factual findings but reversed its denial of an injunction, holding that in such a case of a clear violation of the statute, an injunction was the only suitable remedy. The Supreme Court affirmed. While its rhetoric suggests the Court was not

[30] *See* Environmental Defense Fund v. TVA, 339 F. Supp. 806 (E.D. Tenn.), *aff'd*, 468 F.2d 1164 (6th Cir. 1972) (enjoining completion of the Tellico Dam until the required environmental impact statement is produced).

[31] *See* TVA v. Hill, 437 U.S. at 159–60.

[32] *See ibid*.

[33] *Ibid* at 166–67.

entirely happy with the result,[34] the Court held that the statute was clear on its face,[35] and that it meant what it said and said what it meant: federal agencies are prohibited from taking any action that will jeopardize the continued existence of a listed species, even if that action began before the statute's enactment, is substantially completed, and has been the subject of repeated Congressional authorizations and appropriations of funds.

Since *TVA v. Hill*, Section 7 has been invoked literally hundreds of times, compelling federal agencies to consult with FWS and NMFS to determine whether their projects or programs implicate endangered species, whether there is potential jeopardy, and what "reasonable and prudent alternatives" might be available. While this process has resulted in the cancellation or termination of only a small handful of federal projects, it has resulted in the modification of a great many, either to secure conformity with "reasonable and prudent alternatives" recommended by FWS or NMFS, or further back in earlier stages of project planning as agencies seek to tailor their efforts to preclude the necessity for formal section 7 consultation[36] or to minimize the possibility of a "jeopardy" determination if formal consultation is required.[37] While these effects are difficult, if not impossible, to quantify, there can be little doubt that the ESA section 7 substantive prohibition on "jeopardy" and its accompanying consultation procedures, coupled with the threat of judicial review, citizen suit enforcement, and the transparency afforded by NEPA's information disclosure requirements, have operated as a powerful constraint on federal agency actions.

Ironically, although the section 9 "take" prohibition—applying to "any person" and prohibiting any "harm" to individuals of a species, even short of "jeopardy" to the continued existence of the species as a whole—

[34] *See ibid* at 172–73 (describing the result as "curious" and a "paradox").

[35] *Ibid* at 173 ("One would be hard pressed to find a statutory provisions whose terms were any plainer than § 7 … .").

[36] FWS has stated that it prefers to resolve ESA section 7 issues through "informal consultation" with project agencies wherever possible, and in addition it issues "counterpart regulations" categorically exempting large tranches of low-impact federal actions from the section 7 consultation requirement. *See* Jamison Colburn, *The Indignity of Federal Wildlife Habitat Law*, 57 Ala. L. Rev. 417, 450–51 (2005).

[37] By some estimates, as few as 0.3 % of all formal and informal section 7 consultations result in "jeopardy" determinations. *See* Jamie Grodsky, *The Paradox of (Eco)Pragmatism*, 87 Minn. L. Rev. 1037, 1044 n.26 (2003) and sources cited therein.

is in important ways much broader in scope than section 7, its effects are probably less widely felt. Federal activities are addressed primarily through section 7. Non-federal (state and local) government activities as well as actions by private parties are subject to the section 9 "take" prohibition,[38] but FWS and NMFS have no systematic way of monitoring or inspecting activities on non-federal lands that might implicate listed species or their habitat; nor, for their part, are non-federal parties required to consult with FWS or NMFS for purposes of determining whether section 9 is implicated. Consequently, it is widely believed that most violations of section 9 go unreported, undetected, and unenforced,[39] and in many cases the violators may not even be aware that they are violating the Act. Nor has there been much citizen suit litigation to enforce section 9 against private parties, again likely due to the difficulty of detecting and proving violations occurring on lands to which private plaintiffs have no right of access.

Where section 9 conflicts do arise, however, is in the context of proposed changes in land use, which typically require regulatory and permitting approvals by local, and sometimes regional and state, government agencies. Typically these approvals require public hearings, and in many states they may require environmental impact assessments under state "little NEPA" statutes. These procedures, in turn, may trigger scrutiny and input by conservation and environmental organizations as well as state environmental and natural resources officials. It is in this context that the possible presence of, and harm to, endangered species and their habitat may be invoked.

At least at the outset, federal FWS and NMFS officials are likely to be somewhat passive participants in these processes, brought in to consult on possible endangered species impacts. But as controversies develop, federal officials have been known to take a more active role, sometimes to the point of threatening section 9 enforcement if state and local officials

[38] *See* ESA § 3(13), 16 U.S.D. 1532(13) (defining the term "person" (as it appears in 9) to include an individual, corporation partnership; federal, state, or local government; or any officer, employee, agent, department, or instrumentality of any government).

[39] *See, e.g.*, Reed D. Benson, *Dams, Duties, and Discretion: Bureau of Reclamation Water Project Operations and the Endangered Species Act*, 33 Colum. J. Envtl. L. 1, 52 & n.292 (2008). An exception is border enforcement of the section 9 prohibitions on the import, export, transportation, and sale of listed species and their parts and derivatives, provisions that implement U.S. obligations under the Convention on International Trade in Endangered species (CITES).

issue regulatory approvals for land use changes that would result in substantial harm to endangered species habitat.

Although such controversies are rare, they are almost always heated when they do occur. Landowners subject to section 9 almost invariably feel that they are being horribly mistreated, their rights as landowners trampled by a rigid, overreaching federal statute that places the interests of obscure species of birds, rodents, even insects above their own palpable human interests in making a living from their land—in the colorful words of Justice Scalia, finding their land "conscripted to national zoological use."[40] Worse, perhaps, from the landowners' perspective, the section 9 "take" prohibition appears to be absolute: if it applies, it applies with full force, no room for compromise, trade-offs, cost-benefit balancing, or reasonableness constraints.

And worst of all, perhaps, it appears quite arbitrary. Other landowners proposing similar land use changes on lands on which, by chance, endangered species are not found, face no limitations whatsoever. Other landowners who changed land uses and destroyed or modified habitat for the very same species at an earlier date, before the species was listed as threatened or endangered, are home free. Other landowners engaging in similar land use changes on habitat for species not yet listed are also subject to no restrictions, even if their habitat-destroying land use changes may lead to the species' eventual listing. Small wonder, then, that affected landowners often feel they are being unfairly singled out. Small wonder that, although section 9 is rarely enforced, its enforcement is met with howls of protest.

Small wonder, too, that while the Endangered Species Act is arguably the most beloved of all the federal environmental statutes among environmentalists of a certain stripe because of its singularly, ruthlessly, and uncompromisingly biocentric approach, it is simultaneously perhaps the most reviled and resented of all the federal environmental statutes among landowners of another stripe—again, for what they perceive to be its biocentrism (and concomitant lack of concern for humans impacts), its rigidity, its seeming obtuseness to trade-offs and cost-benefit balancing. In short, many landowners resent it for the very qualities that endear it to environmentalists.

[40] Babbit v. Sweet Home Chapter of Communities for a Great Oregon, 515 U.S. 687, 714 (1995) (Scalia, J., dissenting).

3 From Prohibition to Proactive Management

There is some evidence that the Congress that enacted the Endangered Species Act in 1973 had no idea it was enacting such a far-reaching and powerful piece of legislation. Its predecessor statutes—the Endangered Species Preservation Act of 1966 and the Endangered Species Conservation Act of 1969—merely provided for listing of endangered species and authorized federal land acquisition for their protection.[41] Although there was a great deal of support in 1973 for strengthening these statutes in light of the widely publicized plight of such iconic (and charismatic) species as the sperm whale, bald eagle, brown pelican, peregrine falcon, American alligator, gray wolf, and grizzly bear, few people imagined that the original list of 109 species would swell to over 1 900 today.[42] Nor, apparently, did many of the new statute's congressional supporters understand that the seemingly innocuous section 7 "consultation requirement" or the equally harmless-sounding section 9 prohibition on "take" would have such sweeping substantive effects.[43] The statute passed almost unanimously and with very little debate as to its substantive provisions.[44]

Only after its enactment did its scope and meaning become apparent. It has remained highly controversial since the *TVA v. Hill* case first thrust it onto the national stage.

Yet while the Endangered Species Act looks tough and can bite hard, it bites only infrequently. The Fish and Wildlife Service and National Marine Fisheries Service are populated largely by biologists, not law enforcement officers. These agencies do not have do not have the history or culture of tough law enforcement agencies, and they tend to be fairly weak politically, without a large popular constituency or powerful champions in Congress. Consequently, they are disinclined to foment controversy. Critics charge that the statute has been underenforced from the outset, and systematic underenforcement arguably only exacerbates the sense of arbitrariness experienced by the relatively small number of landowners who do come under its grip.

[41] *See* Kass, *op. cit. supra* note 27, at 447–48.

[42] *See* Kass, *op. cit. supra* note 27, at 450 & n.134 (citing statement by a prominent member of Congress that "[We] envisioned trying to protect … pigeons and things like that. We never thought about mussels and ferns and flowers and all these subspecies of squirrels and birds").

[43] *See* Kass, *op. cit. supra* note 27, at 450–51.

[44] *Ibid.*

Political pressure has been building for some time to "reform" the Endangered Species Act, although there is little consensus in Congress as to exactly what such reforms should look like. Landowner-oriented interests argue for trimming the scope of the statute and softening its impact on landowners. Many environmentalists argue for maintaining the statute as is but strengthening its enforcement.

Yet for some time there has been a third pole in this policy debate, one that rarely receives much popular media coverage in the pitched battle between landowners and environmentalists. Many scientists and other environmental policy experts have argued that the essentially negative prohibitions of the statute—establishing a "do no harm" standard with respect to listed endangered and threatened species—falls well short of an enlightened policy on species and habitat protection. They emphasize several factors.

First, the Endangered Species Act does nothing for any species until it is so diminished in numbers that it is literally in danger of extinction. Just as with human health care, relying exclusively on this kind of last-ditch "emergency room care" can be much more costly and much more dangerous than earlier routine interventions and preventive maintenance. By the time the ESA kicks in, they argue, the remaining conservation options may be relatively few in number, costly, and risky.

Second, and related to the first, the ESA is based on a policy of what economists call "discontinuous pricing"—but in this case, the discontinuity is extreme. In effect, the ESA places no value at all on species or their habitats until there are just a few left, and at that point they are treated as having virtually infinite value under the seemingly absolute commands of the statute, which (as we saw above) admit of no trade-offs or cost-benefit calculations. Not only does this strike many landowners as irrational and arbitrary, but arguably at the margins it may create a perverse incentive to make sure that you convert habitat early, *before* the species associated with it are listed as endangered, because there is no cost or consequence to doing so. Latecomers to the habitat conversion process will be penalized, potentially very heavily.

Third, the emphasis in the ESA is on species-by-species protection. It protects habitats—and by implication, the larger biotic communities that occupy those habitats—only indirectly and as a means to species protection, and again, only late in the day, typically after most of the habitat has been destroyed or degraded. It pays no attention whatsoever to larger landscape-scale conservation that might provide "umbrella" protection

to larger suites of species, both those currently endangered or threatened and those that are not yet so imperiled.

Fourth, even with respect to the species it seeks to protect, the ESA is essentially a "hands-off," "do-no-harm" measure. It neither requires nor does anything to encourage affirmative conservation measures that might actually benefit listed species or their habitats, such as restoration of degraded habitats by removing invasive plant species and replanting of native species. Indeed, and again at the margins, it may actually create disincentives for landowners to restore endangered habitat types (like tallgrass prairies here in the upper Midwest), because to do so might invite some endangered species to find its way there and thereby limit the landowner's future options. But often the "do-no-harm" standard may be of less benefit to a species than even a relatively modest and less costly affirmative conservation measure. To that extent, the ESA may provide suboptimal and inefficient benefits to the very species it is trying to protect.

These criticisms are not new. Many of them have been in circulation for the better part of three decades, almost since the ESA's enactment. And at one point, Congress did take at least one of these criticisms—the "do-no-harm" versus "affirmative benefits" critique—into account.

In 1980, the ESA was amended to add a seemingly modest waiver provision, section 10(a), which authorizes the Secretary of Interior (or Commerce) to approve the "taking" of listed species under carefully controlled circumstances. The Secretary may issue an "incidental take permit" if 1) the taking is incidental to, and not the purpose of, an otherwise lawful activity, 2) the applicant demonstrates that the taking will not appreciably reduce the species' prospects of survival and recovery in the wild, and 3) the application is accompanied by, and the Secretary approves, a Habitat Conservation Plan designed to minimize and mitigate harm to the listed species.[45]

The Incidental Take/Habitat Conservation Plan provision was added to the statute to accommodate a compromise proposed in connection with the Mission Blue butterfly and several other species resident in a large (3,400 acre) tract of undeveloped land on San Bruno Mountain, south of San Francisco, one of the largest open spaces left on the San Francisco Peninsula. The landowners wished to develop the area for residential and commercial purposes. Local conservation groups objected,

[45] ESA § 10(a), 16 U.S.C. § 1539(a).

citing the effects on the Mission blue butterfly and other endangered species, and the Fish and Wildlife Service opined that there would, indeed, be "harm" and therefore a "taking" of these listed species if the development went forward as planned. At that point, the landowner/developer, working in collaboration with state and local officials, other local landowners, and conservations groups, came forward with a revised proposal. The developers would scale back their proposed development to about 14 % of the tract in question, and in exchange for the necessary development approvals would convey a portion of the remaining land to the county and dedicate the rest to privately owned open space use for preservation as butterfly habitat. In addition, the developer would undertake a habitat restoration program, removing invasive plant species, replanting with native plants and shrubs on which the Mission Blue depended for feeding, breeding, and sheltering, and paying for periodic prescribed burns, replicating the naturally occurring fire regime that suppressed invasive plants and promoted regeneration of native plants adapted to periodic low-intensity fires.[46]

In short, the developer proposed what appeared to be a sensible tradeoff: modest reductions in the quantity of habitat, in exchange for qualitative improvements to the remaining habitat that, according to most experts, would more than offset the small reduction in habitat size, producing a net benefit to the species in question.

FWS was intrigued by the proposal, but it found it had no statutory authority to derogate from the absolute "no take" prohibition of section 9. Thereupon members of the California congressional delegation prevailed upon Congress to amend the statute to allow the San Bruno Mountain compromise, and others like it, to go forward.[47]

The legislative history clearly indicates that Congress intended section 10(a) Incidental Take permits to be issued only in genuine "win-win" situations—that is, where (as in San Bruno Mountain) both the landowner and the protected species would be better off by authorizing a limited take coupled with affirmative habitat conservation measures, than they would be under strict application of the prohibitory "no take" rule alone.

[46] *See generally* Friends of Endangered Species v. Jantzen, 760 F.2d 976 (9th Cir. 1985) (recounting the San Bruno Mountain story and rejecting challenges to the issuance of an Incidental Take Permit).

[47] *See* Karin P. Sheldon, *Habitat Conservation Planning: Addressing the Achilles Heel of the Endangered Species Act*, 6 N.Y.U. Envtl. L.J. 279, 297–99 (1998).

For more than a decade after its enactment, however, section 10(a) was rarely invoked, as only fourteen HCPs were approved between 1982 and 1992.[48] Several factors were at play. First, habitat conservation planning can be a costly exercise, and many landowners, especially those with relatively small tracts of land, found the exercise simply not worth the cost.[49] Second, in many cases the science of conservation planning is highly uncertain. This in turn means that the prospects of developing a defensible plan and securing its approval are also highly uncertain, especially insofar as uncertain science is an open invitation to public controversy.[50] Third, approval of an Incidental Take Permit under section 10(a) is not "as of right." Instead, the statute gives the Secretary broad discretionary authority to reject or demand modifications in even the most defensible plan,[51] adding to the landowner/developer's regulatory uncertainty. Fourth, and perhaps most crucially, the FWS' limited enforcement capacity probably meant that most development plans moved forward quietly without Incidental Take Permits, and without real fear of FWS scrutiny and enforcement.[52]

All that changed, however, when Bruce Babbitt became Secretary of the Interior under President Bill Clinton in 1992. Babbitt was eager to find a way to avoid what he colorfully terms Endangered Species Act "train wrecks"—head-on collisions between landowners and environmentalists over species protection on private lands. He and his staff were also eager to move beyond the narrow, reactive, species-specific focus of the ESA, and toward larger, landscape-scale, proactive habitat conservation planning.

Babbitt's strategy was two-fold: first, ramp up ESA section 9 enforcement, to get landowners' attention. And second, ramp up the use of

[48] Sheldon, *op. cit. supra* note 47, at 299–300.

[49] *Ibid* at 301.

[50] *Ibid* at 302.

[51] The language authorizing the issuance of Incidental Take Permits is framed in broadly permissive and discretionary, not mandatory terms, *See* ESA § 10(a)(1), 16 U.S.C. 1539(a)(1) ("The Secretary *may* issue, *under such terms and conditions as he shall prescribe … .* ") (emphasis added). As if to underscore the point, the provision specifically authorizes the Secretary to impose additional "terms and conditions" at his discretion. *See ibid* § 10(a)92)(B) ("The permit shall contain *such terms and conditions as the Secretary deems necessary or appropriate* to carry out the purposes of this paragraph … .") (emphasis added).

[52] Michael J. Bean et al., Reconciling Conflicts under the Endangered Species Act: The Habitat Conservation Planning Experience 41 (1991).

section 10(a) Habitat Conservation Plans, using the threat of section 9 enforcement to bring reluctant landowners to the bargaining table where FWS officials could press for forward-looking conservation plans that could potentially benefit multiple species.

Babbitt's greatest opportunity came in southern California, where development pressure in suburban San Diego, Orange, and Riverside Counties was chewing up vast tracts of the California Coastal Sage Scrub habitat on which many endemic species depend. Seeking to avoid additional ESA listings, California had recently enacted a Natural Communities Conservation Planning (NCCP) Act, seeking to empower broad "stakeholder" committees of state and local officials, conservationists, landowners, and developers to engage in regional-scale conservation planning. But in the absence of a legal "stick," the NCCP process was faltering in most parts of the state.

Babbitt seized a strategic opportunity to inject new life into the NCCP process. Listing the California gnatcatcher, a small songbird, as "threatened" under the ESA, would threat to bring development in the Coastal Sage Scrub lands to a screeching halt—or at a minimum, throw a great deal of uncertainty into the development process. Under this background threat—what I have dubbed elsewhere a "penalty default" regulatory option—the parties in San Diego, Orange, and Riverside Counties began to negotiate in earnest, eventually hammering out sweeping, landscape-scale habitat conservation plans that dedicated large tracts to permanent use as core habitat reserves, and limited development in areas adjacent to the core reserves to those uses most compatible with habitat protection. These habitat plans, which benefit not only the California gnatcatcher but an entire suite of species dependent on the Coastal Sage Scrub, were incorporated into municipal and county-level land use plans and zoning ordinances, where they became legally enforceable as part of the land development process. In exchange, Secretary Babbitt exercised his discretionary statutory authority under section 4(d) of the ESA[53] to exempt the California gnatcatcher from the blanket "no-take" prohibition of section 9, and put in place a series of special 4(d) rules authoriz-

[53] ESA § 4(d), 16 U.S.C. § 1533(d) (authorizing the Secretary to "issue such regulations as he deems necessary and advisable to provide for the conservation of" any species listed as "threatened" under the ESA. Arguably, then, listing the gnatcatcher as "threatened" rather than "endangered" expanded the range of the Secretary's discretion.

ing incidental "take" of the gnatcatcher insofar as it is incident to development authorized under land use laws implementing the Coastal Sage Scrub NCCP plans.

The Southern California NCCP plans also included several additional novelties. First, they required developers to pay into a fund to support ongoing monitoring and management of the habitat reserves. Second, they provided for a limited form of "adaptive management," allowing species conservation and mitigation measures to be adjusted (within bounds) as conditions on the ground changed, and as scientists learned more about the protected species and their habitat. In short, the Southern California NCCP plans represented the transformation of the ESA from a narrowly prohibitory, species-specific, and parcel-specific statute, to a broadly proactive affirmative conservation planning and management program, operating at landscape scales and emphasizing multiple-species, habitat-oriented interventions.

Would that I could end this tale on that happy note. But the intervening years have not been kind to the Endangered Species Act, nor to the Habitat Conservation Planning Program. I will not recount all the reasons here for this recent "Little Dark Age" in species protection. Suffice it to say that the downside of a conservation planning and management approach, which inevitably requires a good deal of agency discretion, is that the discretion can be, and sometimes is, abused by those who do not share the conservation goals set forth in the statute. Strict rule-bound approaches may (arguably) be somewhat easier for NGOs and interested citizens to police—though the sad history of ESA underenforcement through the years might caution otherwise.

But at the end of the day, this may simply be a trade-off we need to accept. Narrow rule enforcement will simply not give us the kind of broad, affirmative, proactive, adaptive, multi-species conservation measures we so desperately need. That is a lesson we are also learning in other areas of environmental law, such as water quality and watershed protection where we have strictly enforced pollution-control rules against big municipal and industrial polluters for years, but now find that the biggest culprits are our own lawns, gardens, roadways, farms, and automobiles emitting airborne pollutants that settle eventually in the nation's waters, as well as smokestacks as far away as Asia emitting toxic heavy metals like mercury that end up in our water here in Minnesota—requiring a rethinking of our basic approach, toward broadly integrative and adaptive management at vastly larger landscape scales.

Ultimately, then, as we emerge from this "Little Dark Age" in environmental law, we may be seeing the beginnings of a convergence, as we begin finally to appreciate the interconnectedness of these fragile webs of life, and the need for affirmative and adaptive approaches to allow us to learn as we go.

More broadly, the shift from narrow prohibitory rule-enforcement to affirmative and proactive management in the ESA context is consistent with a number of other broad shifts in environmental law in the United States. Although the connections may not seem apparent at first, a family of environmental law "reforms" that have emerged in the last two decades have attempted to lighten the hand of enforcement in favor of an expanded zone of monitored self-regulation. These include the emergence of market-based incentive approaches, "self-policing" through EPA's enforcement penalty structure (which rewards regulated parties for self-identifying, self-reporting, and self-correcting problems), measures to encourage the adoption of corporate and governmental Environmental Management Systems, negotiated rulemaking in facility-, firm-, or industry-specific contexts, as well as expended reliance on information disclosure as a kind of quasi-regulatory measure that harnesses a host of market and social pressures for industries to seek voluntarily to improve their own environmental performance. The goal of these measures, I take it, in not simply to lighten the hand of regulation for its own sake—though that may be a welcome element from the regulated industry's perspective. Instead, the core notion is that while the negative incentives imposed by harsh punitive rules may be effective up to a point, they create no dynamic incentive for parties to take affirmative measures to improve their own environmental performance. That, I take it, is also the core lesson of the Endangered Species Act story recounted here.