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REGIONAL HABITAT CONSERVATION PLANNING UNDER THE ENDANGERED SPECIES ACT: PUSHING THE LEGAL AND PRACTICAL LIMITS OF SPECIES PROTECTION

by

J. B. Ruhl*

THE Endangered Species Act¹ (ESA) is like a controversial movie — most people either hate it or love it. Fellini would approve of its elegant simplicity: The Secretaries of the Interior and Commerce determine whether any animal or plant species is “endangered” or “threatened” and they then publish a list of such species and any of their designated “critical habitat.” No person subject to the jurisdiction of the United States may “take” any listed animal species by killing or injuring any species members. However, an “incidental take,” one which is not the purpose of the proposed activity, may be allowed through one of two procedures. For actions authorized, funded, or carried out by a federal agency, the ESA requires consultation with the Secretary to ensure the agency’s action will not “jeopardize” any listed species. For actions lacking a federal nexus, the Secretary may issue a permit to allow an incidental take subject to similar conditions. Like Fellini’s work, however, this apparently simple plot breeds complexity and strong emotions.

To many, the ESA is the epitome of an anti-growth agenda, seemingly used as a pretext for stopping development rather than for the ostensible purpose of species protection. To its staunch supporters, however, the ESA represents one of the purest statements of the environmentalist ethic and a powerful weapon against the ravaging of spaceship Earth. To those who work with the ESA on a regular basis, it, like many other environmental laws, has its good and bad points.

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1. Endangered Species Act of 1973, Pub. L. No. 93-205, 87 Stat. 884 (codified at 16 U.S.C. §§ 1531-1541 (1988)). The statutory provisions, including definitions and application of key terms, are discussed *infra*, text and accompanying notes 7-49.

That the ESA often has been used as a front for causes other than species protection is not in doubt.² A recent novel example is a federal lawsuit to prevent the United States Army's closing of Fort Hood in Killeen, Texas.³ Plaintiffs' argued unsuccessfully that the black-capped vireo, a small song bird protected under the ESA, thrived on the Army's brush clearing practices and thus would be harmed if the Army were to abandon the base and leave the habitat to return to its natural maturing conditions. Of course, the real reason for opposing the Army's decision was to avoid the economic losses which would result from the reduced local human population.

But even where the motives are purely in the interests of the species, the ESA can seem to require questionable commitments of scarce resources. Enforcement of the ESA exacts a stiff local penalty through loss of development and business growth, and it demands a significant share of a federal budget which currently faces large deficits and cuts in basic social services. Sometimes these social costs are perceived (or portrayed) as saving an insect or vermin that some would otherwise advocate killing as a matter of pest control.

On the other hand, the staggering loss of species resulting from deforestation of tropical rain forests serves to confirm the soundness of promoting biological diversity as a societal goal.⁴ Science and medicine owe much to ugly and obscure plants, insects, and animals which many of us either do not know exist or would not miss were they to cease to exist.⁵ We would be wrong in many cases, however, to equate a species' obscurity or displeasing looks with lack of biological importance or economic value, and the ESA is an effective tool for preventing us from doing this. Indeed, the fact that the ESA goes to such lengths to protect any species from extinction without regard to either their aesthetic elegance or whether a direct economic value to society can be identified is recognition of the unknown and perhaps unknowable value of biological diversity.⁶

This Article does not attempt to resolve all the compelling questions posed by the conflicting policy objectives associated with the ESA. Rather, the Article focuses on an important emerging issue — the concept of a regional habitat conservation plan (RHCP) — that perhaps more than any other issue under the ESA today finds those conflicting policies in a head-on collision. An RHCP is a mechanism for allowing current and future

2. See Salzman, *Evolution and Application of Critical Habitat Under the Endangered Species Act*, 14 HARV. ENVTL L. REV. 311, 319 (1990).

3. *Keep Hood Alive and Kicking, Inc. v. Department of the Army*, No. W-90-CA-166 (W.D. Tex. Aug. 14, 1990) (Memorandum Opinion and Order).

4. See J. GRADWOHL & R. GREENBERG, SAVING THE TROPICAL RAINFORESTS 33-50 (1988); Ehrlich & Ehrlich, *Extinction: Life in Peril*, in LESSONS OF THE RAINFOREST, 95-105 (S. Head & R. Heinzman eds. 1990); Lovejoy, *Species Leave the Ark One by One*, in THE PRESERVATION OF SPECIES 13, 15 (B. Norton ed. 1986).

5. See J. GRADWOHL & R. GREENBERG, SAVING THE TROPICAL RAINFORESTS 50-51 (1988); Vermeij, *The Biology of Human-Caused Extinction*, in THE PRESERVATION OF SPECIES 28, 32-34 (B. Norton ed. 1986).

6. See J. MCNEELY, ET AL., CONSERVING THE WORLD'S BIOLOGICAL DIVERSITY (1990); Norton, *On the Inherent Danger of Undervaluing Species*, in THE PRESERVATION OF SPECIES 110, 111-19 (B. Norton ed. 1986).

development in a large geographic area to obtain ESA approval at an early stage. Because such development otherwise would have to undergo ESA review on a project-by-project basis, the RHCP can provide "one-stop shopping" to resolve a region's present and future ESA issues. But do not expect to find any reference in the ESA to a "regional habitat." The concept is a result of the combined efforts of land developers trying to avoid the dire consequences of the ESA's prohibitions, environmentalists trying to enforce and sometimes even to broaden the reach of those prohibitions, and federal officials trying to cope with these two opposing groups by using vague and outdated laws and regulations.

Part I of this Article provides an overview of the ESA's basic regulatory structure, including the designation of protected species, the resolution of federal-action and non-federal projects which may affect listed species, and the scope of enforcement authority. Although the ESA has evolved from focusing merely on protection of species members to including the glimmer of a habitat conservation strategy, the ESA is not fully able to achieve that purpose as presently structured. In general, this Article demonstrates that the statute in its present form and through its implementing regulations and policy leaves gaping uncertainties as to how habitat conservation goals are to be achieved, making the law nearly incomprehensible in the situations most needing guidance. Part II discusses the impetus for and the history of the RHCP phenomenon, showing it to be an inevitable response to the shortcomings of the ESA. Because it offers the hope of avoiding the full effect of many of those shortcomings, the RHCP approach is gaining support as a method of enforcing and complying with the ESA. The RHCP approach, however, has its own pitfalls. Part III of the Article examines the problems faced and created by the RHCP approach as it has evolved. The Article concludes that the current legal bases for, and manner of implementation of, the RHCP approach seem destined to undermine its effectiveness. This thesis is tested in Part IV by using a case study of the ongoing attempts to resolve a variety of endangered species issues in the Hill Country terrain around Austin, Texas. The case study demonstrates that confusion will exist under the law, as currently implemented, when human urbanization and endangered species meet over a large geographical area. Finally, Part V of this Article recommends actions at the legislative and administrative levels which could ameliorate these problems and help save the ESA from self-destructing under the pressures of its legal and practical limitations.

I. OVERVIEW OF THE STATUTORY FRAMEWORK

Congress enacted the ESA in response to a key finding that various species "have been rendered extinct as a consequence of economic growth and development untempered by adequate concern and conservation."⁷ Congress' major purposes for enacting the ESA were to "provide a means whereby the

7. 16 U.S.C. § 1531(a)(1) (1988). See also H.R. REP. NO. 567, 97th Cong., 2d Sess. 9-10, reprinted in 1982 U.S. CODE CONG. & ADMIN. NEWS 2807, 2809-10 [hereinafter House Report]. For recent and more thorough discussions of the history of the ESA, see Salzman, *supra*

ecosystems upon which endangered species and threatened species depend may be conserved [and] to provide a program for the conservation of such endangered species and threatened species."⁸ An understanding of the present ESA structure and its history is necessary to a study of the reasons for and problems inherent in the rise of the RHCP phenomenon.

A. *Species Listing And Critical Habitat Designation*

Section 4, the cornerstone of the ESA, requires the Secretary to designate any species which is "endangered"⁹ or "threatened"¹⁰ as a result of virtually any "natural or manmade factors affecting its continued existence."¹¹ In the case of the Secretary of Interior, that function and most others required under the ESA are carried out by the United States Fish and Wildlife Service (Service). The Service has promulgated species listing regulations¹² consistent with Congress' directive that listing decisions be based "solely on the basis of the best scientific and commercial data available."¹³

Section 4 also requires the Service to designate "critical habitat"¹⁴ for a listed species "to the maximum extent prudent and determinable."¹⁵ Critical habitat constitutes "specific areas within the geographical area occupied by the species,"¹⁶ but it expressly "shall not include the entire geographical area which can be occupied."¹⁷ Rather, the specific designated areas are those which are "essential to the conservation of the species and . . . which may require special management considerations."¹⁸ However, even an area fitting those narrow criteria can be denied critical habitat designation if the

note 2, at 312-23; Note, *Habitat Conservation Plans Under the Endangered Species Act*, 24 SAN DIEGO L. REV. 243, 243-47 (1987).

8. 16 U.S.C. § 1531(b) (1988).

9. "Endangered species" means "any species which is in danger of extinction throughout all or a significant portion of its range." *Id.* § 1532(6). Insects determined to be pests are excluded. *Id.* A species may be "any subspecies of fish or wildlife or plants, and any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature." *Id.* § 1532(16).

10. "Threatened species" means "any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." *Id.* § 1532(20).

11. *Id.* § 1533(a)(1)(E). Congress envisioned that "[t]he listing process under section 4 is the keystone of the Endangered Species Act." House Report, *supra* note 7, at 8, reprinted in 1982 U.S. CODE CONG. & ADMIN. NEWS 2807, 2810. The Service is required to publish lists of all listed species. 16 U.S.C. § 1533(c)(1) (1988).

12. See 50 C.F.R. § 17 (1989). The Service has promulgated complete lists of endangered and threatened species. *Id.* §§ 17.11 (wildlife), 17.12 (plants). As of August 31, 1990, there were 592 total listed endangered and threatened animal and plant species occurring in the United States. XV Endangered Species Technical Bulletin, U.S. Fish & Wildlife Service, No. 8, at 8 (August 1990).

13. 16 U.S.C. § 1533(b)(1)(A) (1988).

14. *Id.* § 1532(5).

15. *Id.* § 1533(a)(3). The ESA requires publication of all designated critical habitat. *Id.* § 1533(c)(1).

16. *Id.* § 1532(5)(A)(i). The Secretary can designate specific areas outside the occupied geographical area if such areas are determined to be essential for conservation of the species. *Id.* § 1532(5)(A)(ii).

17. *Id.* § 1532(5)(C).

18. *Id.* § 1532(5)(A)(i).

Service finds that the designation is not necessary to prevent extinction and "that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat."¹⁹

The Service can initiate a species listing or critical habitat designation either on its own or by "the petition of an interested person."²⁰ Except in cases of an "emergency posing a significant risk to the well being of any species,"²¹ in which case a listing becomes immediately effective for up to 240 days, the listing process requires the promulgation of a proposed rule, within one year of which the Service must issue a final rule designating the species as endangered or threatened.²² Critical habitat is designated concurrently with the final listing rule unless the Service decides that additional time up to one year is needed.²³ Listed species may be the subject of a recovery plan²⁴ and monitoring program²⁵ designed to promote recovery of the species to non-endangered and non-threatened status. With recovery as the ultimate goal, the Service must update its species lists at least every five years.²⁶

B. Take Prohibition And Incidental Take Authorities

The central prohibitory ESA provision is section 9(a)(1), which provides "with respect to any endangered species of fish or wildlife listed pursuant to Section 1533 of this title it is unlawful for any person subject to the jurisdiction of the United States to . . . (B) take any such species within the United States or the territorial sea of the United States."²⁷ That protection can extend to threatened species if the Service deems it "necessary and advisable to provide for the conservation of such species."²⁸ The Service may approve certain violations of this prohibition through one of two sections: section 7 deals with situations in which an activity is authorized, funded, or carried out by a federal agency, and section 10 deals with any other prohibited taking.

Section 7 requires federal agency consultation with the Service to carry out species conservation programs and to ensure that agency actions or prospective actions do not jeopardize the continued existence of any listed or proposed species or result in destruction or adverse modification of any des-

19. *Id.* § 1533(b)(2). In that sense the critical habitat designation differs substantially from endangered and threatened species listing, which may not take cost/benefit analysis into account. *Id.* § 1533(b)(1)(A). The Service has published its designations of critical habitat. See 50 C.F.R. §§ 17.95 (wildlife), 17.96 (plants) (1989).

20. 16 U.S.C. § 1533(b)(3) (1988).

21. *Id.* § 1533(b)(7).

22. *Id.* § 1533(b)(5)-(6).

23. *Id.* § 1533(b)(6)(C).

24. *Id.* § 1533(f). As of August 31, 1990, there were 266 approved recovery plans covering listed endangered and threatened species occurring in the United States. XV Endangered Species Technical Bulletin, U.S. Fish and Wildlife Service, No. 8, at 8 (August 1990).

25. 16 U.S.C. § 1533(g).

26. *Id.* § 1533(c)(2).

27. *Id.* § 1538(a)(1). "Take" means "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." *Id.* § 1532(19).

28. *Id.* § 1533(d).

ignated or proposed critical habitat.²⁹ The section 7(a)(2) "consultation" process³⁰ for existing listed species, and designated critical habitat in particular, imposes a formal relationship between the Service and the federal agency for such agency action. For major projects the federal agency must provide the Service with a biological assessment of the impact of the agency action.³¹ Based on the biological assessment, the Service issues its written biological opinion "setting forth the Secretary's opinion, and a summary of the information on which the opinion is based, detailing how the agency action affects the species or its critical habitat."³²

If the Service believes that the proposed action is likely to jeopardize the continued existence of the species or cause adverse modification of critical habitat,³³ the Service must suggest any "reasonable and prudent alternatives"³⁴ to the proposed agency action which will allow the agency to go forward without violating section 7. If the alternatives are not acceptable to the federal agency, it may seek an exemption from the ESA by petitioning

29. Four separate consultation processes are established for actions covered under section 7. Section 7(a)(1) requires federal agencies to "utilize their authorities in furtherance of the purposes of this chapter by carrying out programs for the conservation of endangered species and threatened species." *Id.* § 1536(a)(1). Consultation with respect to any federal agency action is required for listed endangered or threatened species under section 7(a)(2), *id.* § 1536(a)(2), and for species proposed for listing under section 7(a)(4). *Id.* § 1536(a)(4). Section 7(a)(3) authorizes consultation with respect to any *prospective* federal agency action if there is reason to believe the action might affect a listed endangered or threatened species. *Id.* § 1536(a)(3).

30. *Id.* § 1536(b)-(d).

31. *Id.* § 1536(c).

32. *Id.* § 1536(b)(3)(A).

33. No objective, broadly applicable criteria for making this determination exist. The statute defines neither "jeopardy" nor "adverse modification," and the Service has only conceptually defined those terms in connection with its regulations implementing the consultation processes. 50 C.F.R. § 402 (1989). Under those regulations, "jeopardize the continued existence of" means "to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species." 50 C.F.R. § 402.02 (1989). "Destruction or adverse modification" means

a direct or indirect alteration that appreciably diminishes the value of critical habitat for both the survival and recovery of a listed species. Such alterations include, but are not limited to, alterations adversely modifying any of those physical or biological features that were the basis for determining the habitat to be critical.

Id. The Service has explained that, rather than assign generally applicable numerical or other objective criteria to the "survival" standard, the analysis must be conducted "on a case-by-case basis, taking into account the particular needs of and the severity and immediacy of threats posed to a listed species." 51 Fed. Reg. 19926, 19934 (1986) (codified at 50 C.F.R. § 402.02).

34. 16 U.S.C. § 1536(b)(3)(A) (1988). Although Congress has not elaborated in the statute on what would be reasonable and prudent within the meaning of this provision, the Service has defined "reasonable and prudent alternatives" to mean

alternative actions identified during formal consultation that can be implemented in a manner consistent with the intended purpose of the action, that can be implemented consistent with the scope of the Federal agency's legal authority and jurisdiction, that is economically and technologically feasible, and that the [Service] believes would avoid the likelihood of jeopardizing the continued existence of listed species or resulting in the destruction or adverse modification of critical habitat.

50 C.F.R. § 402.02 (1989).

the Endangered Species Committee.³⁵ By contrast, if the Service issues a "no jeopardy" opinion, or if the federal agency accepts the Service's alternatives, the Service will issue its statement authorizing the federal agency to carry out or allow "incidental taking"³⁶ of the species members subject to conditions on the manner of taking and any other suggested conservation measures.³⁷ The Service has promulgated a rather complex, and at points vague, set of regulations to guide other federal agencies through this consultation process.³⁸

In the case of projects which are not federally authorized, funded, or carried out, section 10 authorizes the Service to issue a permit to allow a taking which is "incidental to, and not the purpose of, the carrying out of an otherwise lawful activity."³⁹ Before the Service can issue such a permit, the applicant must provide a conservation plan specifying the impact of the taking, the applicant's efforts to minimize and mitigate such impacts, and the reasons why alternatives to the taking are not being used.⁴⁰ The Service must

35. 16 U.S.C. § 1536(e)-(m) (1988). Congress added the procedure for appealing to the Endangered Species Committee to the ESA following the landmark decision in *Tennessee Valley Auth. v. Hill*, 437 U.S. 153 (1978), in which the Court halted the nearly complete Tellico Dam in Tennessee because its operation would destroy the designated critical habitat of the endangered snail darter. For a thorough discussion of the origin of the Endangered Species Committee, see Salzman, *supra* note 2, at 316-21; Plater, *In the Wake of the Snail Darter: An Environmental Law Paradigm and Its Consequences*, 19 U. MICH. L.J. REF. 805 (1986).

36. "Incidental take," although not the subject of a specific statutory definition provision, is described elsewhere in the statute as a take which is "incidental to, and not the purpose of, the carrying out of an otherwise lawful activity." 16 U.S.C. § 1539(a)(1)(B) (1988). The Service has adopted this meaning for purposes of its regulations implementing section 7. See 50 C.F.R. § 402.02 (1988).

37. 16 U.S.C. § 1536(b)(4) (1988).

38. See 50 C.F.R. § 402 (1989). The regulations for consultation procedures, *id.* at Subpart B, are poorly organized and contain many terms and concepts not included in the statutory language. For a complete understanding of the procedures, it is essential to refer to the preamble of the Service's final adoption rule. 51 Fed. Reg. 19926 (1986) (codified at 50 C.F.R. § 402). In general, the process is initiated through an "informal consultation" designed to determine whether the proposed action may affect a listed species or its designated critical habitat. See 50 C.F.R. § 402.13 (1988). Depending on the outcome of that procedure, "formal consultation" involving the agency's preparation of a biological assessment and the Service's delivery of a biological opinion may be necessary. *Id.* § 402.14. The regulations apply similar procedures for the "early consultation" process the Service employs for prospective applications under section 7(a)(3) of the ESA. *Id.* § 402.11. See also Salzman, *supra* note 2, at 316 n.23; Note, *supra* note 7, at 246 n.24.

39. 16 U.S.C. § 1539(a)(1)(B) (1988). Congress added the section 10 incidental take permitting procedure to the ESA in 1982 to resolve "the concerns of private landowners who are faced with having otherwise lawful actions not requiring Federal permits prevented by section 9 prohibitions against taking." H.R. CONF. REP. NO. 835, 97th Cong., 2d Sess. 29, *reprinted in* 1982 U.S. CODE CONG. & ADMIN. NEWS 2860, 2870 [hereinafter Conference Report]. See also House Report, *supra* note 7, at 15, *reprinted in* 1982 U.S. CODE CONG. & ADMIN. NEWS 2807, 2815.

40. 16 U.S.C. § 1539(a)(2)(A) (1988). Congress explained that the conservation plan concept "is modeled after a habitat conservation plan that has been developed by three Northern California cities, the County of San Mateo, and private landowners and developers to provide for the conservation of the habitat of three endangered species and other unlisted species of concern within the San Bruno Mountain area of San Mateo County." Conference Report, *supra* note 39, at 30-31, *reprinted in* 1982 U.S. CODE CONG. & ADMIN. NEWS 2807, 2871-72. Under the San Bruno Mountain conservation plan, which the Service ultimately approved in a section 10 permit, private landowners wishing to develop the endangered species' habitat areas of San Bruno Mountain executed an agreement with local city and county jurisdictions. The

find that the taking will indeed be incidental, that its impacts will be minimized and mitigated to the maximum extent practicable, and that the taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild.⁴¹ The Service also must be satisfied that the conservation plan will be adequately funded and implemented.⁴² These and other requirements are only loosely defined in the statute. Since the Service's current implementing regulations merely parrot the statutory language, they fail to give meaning to the various criteria imposed.⁴³ Guidance documents, currently in the drafting stages, attempt to fill some of those gaps by requesting the permit applicant to provide voluminous amounts of information responsive to numerous issues; however, they fail to describe the regulatory criteria in any useful detail.⁴⁴

C. Enforcement and Other Programs

Section 11 provides the Service with various civil and criminal enforcement options to ensure that sections 7, 9, and 10 are properly followed.⁴⁵ Citizens may also enforce the ESA through a citizen suit provision⁴⁶ or by providing information to the Service which leads to successful federal enforcement.⁴⁷ The Service can also promote the purposes of the ESA by exer-

landowners agreed to preserve over 85 percent of the species' habitat, to establish a funding program to cover habitat management and enhancement, and to carry out development in permitted areas according to specified guidelines set forth on a tract-by-tract basis. *See* San Bruno Mountain Area Habitat Conservation Plan (November 1982) [hereinafter San Bruno HCP] (available from the Department of Environmental Management, Planning Department, County of San Mateo, California).

San Bruno Mountain covers approximately 3,600 acres of land, including habitat occupied by the endangered Mission Blue butterfly. *Id.* at I-1. Over 95 percent of the land was undisturbed open space, with over half of that in the public domain. *Id.* at I-3. The San Bruno HCP designated an additional 800 acres of privately-owned open space to public parkland and allowed 368 acres to be developed. *Id.* The San Bruno HCP included detailed conservation plans for developable lands which all of the private landowners agreed to follow. *Id.* at Vol. II; *see* Agreement with Respect to the San Bruno Mountain Area Habitat Conservation Plan (1982) (available from the Department of Environmental Management, Planning Department, County of San Mateo, California). Subsequent court challenges to the San Bruno HCP confirmed that it was consistent with, and indeed the model for, section 10. *See*, *Friends of Endangered Species v. Jantzen*, 760 F.2d 976 (9th Cir. 1985).

41. 16 U.S.C. § 1539(a)(2)(B)(i)-(ii), (iv) (1988). Congress expressly intended that "[t]he Secretary will base his determination as to whether or not to grant the permit, in part, by using the same standard as found in section 7(a)(2) of the Act, . . . that is, whether the taking will appreciably reduce the likelihood of the survival and recovery of the species in the wild." Conference Report, *supra* note 39, at 29, *reprinted in* 1982 U.S. CODE CONG. & ADMIN. NEWS 2807, 2870. *See also* House Report, *supra* note 7, at 31, *reprinted in* 1982 U.S. CODE CONG. & ADMIN. NEWS, 2807, 2831. Indeed, because issuing a section 10 permit involves Federal agency approval of an action, the Service maintains that consultation (with itself) is required prior to issuance. *See* 50 Fed. Reg. 39681, 39683-84 (1985) (codified at 50 C.F.R. §§ 13, 17).

42. 16 U.S.C. § 1539(a)(2)(B)(iii), (v) (1988).

43. *See* 50 C.F.R. §§ 17.22(b), 17.32(b) (1989). The Service has described its rules as "largely identical to the express language of section 10(a)." 50 Fed. Reg. 39681, 39682 (1985) (codified at 50 C.F.R. §§ 13, 17).

44. *See* Draft Conservation Planning Guidelines, U.S. Fish and Wildlife Service, Region 1 (1989) [hereinafter Draft Guidelines].

45. 16 U.S.C. § 1540(a) (civil penalties), (b) (criminal violations) (1988).

46. *Id.* § 1540(g).

47. *Id.* § 1540(d).

cising its authority under section 5 to acquire land in connection with a species conservation program.⁴⁸ Under section 6, the Service can cooperate with states to establish conservation area management agreements or program-wide cooperation agreements.⁴⁹

Despite the many tools available under the ESA for species protection and conservation, the statute leaves important issues unaddressed. For example, the concept of critical habitat is only vaguely defined, suggesting that the Service must develop and apply criteria on virtually a case-by-case basis. That, plus the sheer difficulty of managing critical habitat once it is identified,⁵⁰ has led to infrequent use of the critical habitat designation procedure.⁵¹ Similarly, the jeopardy standard employed in section 7 consultations is left entirely undefined, making it another difficult concept to translate into species protection goals. Many of the basic documents contemplated, such as the biological assessment under section 7 and the conservation plan under section 10, also are described only in the most conceptual of terms. To the extent Congress intended the Service to fill these statutory gaps by administrative regulation, the Service has either done so by adding more complexity and ambiguity, as in the case of its section 7 consultation regulations, or has failed to do so in any meaningful way, as is the case under section 10. In light of the ecologic and economic impacts of species protection policy a great deal more guidance should be forthcoming either from Congress or the Service as to how that policy will work generally, rather than leaving it completely to an issue-by-issue analysis. This lack of general guidance and criteria is in large part responsible for the rise, and possible fall, of the RHCP phenomenon.

II. THE IMPETUS FOR AND HISTORY OF REGIONALIZED SOLUTIONS TO ENDANGERED SPECIES ISSUES

For all its focus on preservation and protection of species, the ESA's statutory structure remains remarkably ignorant of ecological reality. The driving force behind most endangered species issues is not merely the protection of a species, but rather the protection of its habitat, because more often than not the quality or quantity of the habitat determines whether the species will become endangered.⁵² Yet the statutory concept of critical habitat is not

48. *Id.* § 1534.

49. *Id.* § 1535.

50. The Service often cites management problems such as the control of vandalism and collectors as reasons why critical habitat designation would not be prudent. See Salzman, *supra* note 7, at 332-35.

51. *Id.* at 331-32 (statistics showing the Service has designated critical habitat for about 22 percent of the listed species with habitat in the United States, mostly for fish).

52. See Carlton, *Property Rights and Incentives in the Preservation of Species*, in *THE PRESERVATION OF SPECIES* 255, 255-56 (B. Norton ed. 1986). Several witnesses stressed protection of habitat at hearings in 1973 leading to enactment of the ESA. See Salzman, *supra* note 2, at 314-15. The habitat acquisition authority in section 5 and critical habitat designation process in section 4, however, do not provide for comprehensive habitat management programs, and the ESA generally is regarded as ineffective for protecting ecosystems. See Leitzell, *Species Protection and Management Decisions In an Uncertain World*, in *THE PRESERVATION OF SPECIES* 243, 248-50 (B. Norton ed. 1986).

particularly well-suited to dealing with that level of analysis. A critical habitat designation is limited generally to only those "specific areas within the geographical area occupied by the species . . . essential to the conservation of the species."⁵³ The statute thus constrains the Service from approaching habitat conservation issues broadly. On the other hand, the strong protection section 7(a) gives to critical habitat in cases of federal-action projects⁵⁴ suggests that the Service should not be given broad license to designate such areas without careful delineation, strong scientific support, and meaningful opportunity for public input. Only in the infrequent cases where a species' endangerment can be linked to the circumstances of a well-defined, relatively small geographic area which can be effectively managed is the critical habitat approach to habitat management likely to make political and ecological sense.

Instead, the Service has sought to gain more flexibility with regard to habitat protection in a rather subtle, roundabout way, through its regulatory definition of "harm." Under the statute, "take" includes "harm," but "harm" is undefined. The Service's regulations, however, define "harm" to include "significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering."⁵⁵ That definition has the potential to vastly expand the reach of the Service's habitat protection by freeing the Service from the rigid confines of critical habitat and by expressly including a species' breeding, feeding, and sheltering habitats within the category of protected habitat. Indeed, any habitat associated with the species' "essential behavioral patterns," could potentially be subject to ESA protection. The requirement that the habitat degradation actually kill or injure a species member could serve to limit what can be classified as harm; however, the Service has suggested that its broad concept of what might be called "behavioral habitat" will "encompass all lands that harbor or could support the listed species."⁵⁶ Depending on how the Service believes actual injury is demonstrated, the expansive view of what comprises behavioral habitat could put all habitat that harbors or supports a listed species off limits to development. Indeed, as will be seen, the Service appears, in the context of RHCPs, to have relaxed the standard of proof of actual injury so much as to act contrary to congressional intent.

A. *Habitat Protection As The Impetus For Regionalized Planning*

The effect of the Service's attempt to expand habitat protection options

53. 16 U.S.C. § 1532(5)(A)(i) (1988) (emphasis added).

54. *Id.* § 1536(a)(2). No similar express prohibition of destruction or adverse modification of critical habitat exists with respect to non-federal actions through sections 9 or 10. See Salzman, *supra* note 2, at 315. See *California ex. rel. Brown v. Watt*, 520 F. Supp. 1359, 1387-88 (C.D. Cal. 1981) (section 9 of the ESA prohibits only immediate injury to species member), *modified*, 683 F.2d 1253 (9th Cir. 1982), *rev'd sub nom. Secretary of Interior v. California*, 464 U.S. 312 (1984).

55. 50 C.F.R. § 17.3 (1989).

56. Draft Guidelines, *supra* note 44, at 6.

through its "harm" definition may not have been so substantial had it not been for the numerous political and ecological sources of conflict over the scope and flexibility of the ESA generally. Federal law has left land-use-planning decisions primarily to state and local governments.⁵⁷ A broadly-based habitat protection authority under the ESA would fundamentally alter that structure, and because the desirability of some aspect of a species' occupied or useful habitat for human development is often a contributing factor to a species' endangerment, the Service's approach creates fertile ground for political imbroglio. Yet, in many ways the statute leaves the Service ill-equipped to deal with these conflicts and virtually throws those on either side of the political spectrum into turmoil.

First, the ESA is set up to operate on a project-by-project basis. Its accounting for habitat management issues over the long term of region-wide land development is neither comprehensive nor insightful. The Service's effort to integrate consideration of the "cumulative impacts"⁵⁸ of all prior projects into each new project's section 7 consultation or section 10 permit review is doomed from the start, because by the time "cumulative impacts" can be identified to have added up to a "harm" of an endangered species through "significant habitat modification or degradation," any attempt to institute well-planned regional habitat management is probably too late.

Second, true to the hands-off approach of Federal law in the field of land-use-planning, the ESA does not vest the Service with a basis for providing project siting and other land use solutions. The Service must conduct consultation under section 7 and permit review under section 10 on the basis of the applicant's choice of site location and development plan. Where those choices are poor in the Service's opinion, it is limited principally to an all-or-nothing option under both section 7, which allows it to reach only a "jeopardy" or "no-jeopardy" opinion, and section 10, under which it may either approve or deny the permit application based on standards similar to those employed under section 7. Even with its section 5 habitat acquisition authority, which is severely limited by budget constraints, the Service cannot play much part in regional habitat protection planning in those circumstances.

In short, the Service's consideration of any section 7 or section 10 action is functionally limited to the applicant's project time-frame and property boundary, which may have nothing to do with an endangered species' population trends and ecological boundaries. One result can be fragmentation of

57. See Ruhl, *Interstate Pollution Control and Resource Development Planning: Outmoded Approaches or Outmoded Politics?*, 28 NAT'L RESOURCES L.J. 293, 309 (1988).

58. The Service defines "cumulative impacts" as "those effects of future State or private activities, not involving Federal activities, that are reasonably certain to occur within the action area of the Federal action subject to consultation." 50 C.F.R. § 402.02 (1989). A biological assessment prepared in satisfaction of the section 7 consultation procedures must include "[a]n analysis of the effects of the action on the species and habitat, including consideration of cumulative effects, and the results of any related studies." *Id.* § 402.12(f)(4). The Service attempted to explain the procedure and scope of the cumulative impacts analysis in its final adoption rule for the consultation procedures. See 51 Fed. Reg. 19,926, 19,932-33 (1986) (codified at 50 C.F.R. § 402).

a suitable habitat area, which sometimes renders all available habitat in the area unsuitable.⁵⁹ Efforts to mitigate the adverse effects of each successive project can lead to a patchwork approach rather than the necessary comprehensive ecosystem management strategy, which is unsatisfactory to environmental activists seeking a more holistic, biologically significant approach. Also left unsatisfied are the property owners and developers seeking approval for projects after region-wide development is perceived to have crossed the "harm" line of cumulative adverse habitat impacts. Those projects, unlike earlier projects which are perceived as having slipped by, could face intensified standards for section 7 consultation or section 10 permit review as the Service attempts through its cumulative impacts analysis to slow the tide of regional habitat loss. Hence, often a substantial portion of a community would prefer that the ESA review criteria apply earlier in time to cover even the very first project in a listed species' behavioral habitat region. This would allow the community to plan how the habitat management issues will be resolved on a regional basis and to distribute the costs of development restrictions and conservation measures among all affected property owners from the time of the first project. The RHCP approach thus can be attractive in those circumstances, and the Service's concept of behavioral habitat, though it may not be properly applied under the statute, is particularly well-suited to providing the basis around which the RHCP can form.

B. *The RHCP Experience To Date*

The first attempt to develop anything like an RHCP took place in the Coachella Valley near Palm Springs in Riverside County, California, to protect the Coachella Valley fringe-toed lizard.⁶⁰ The fringe-toed lizard is specially adapted to the open areas of wind-blown sand and the associated dune ecosystem in that region.⁶¹ Local development, principally of luxury communities centered around the attractive desert valley setting, had severely encroached upon the dunes and had purposely created wind buffers impeding the blowsand perceived as a nuisance to humans.⁶² As a result, what was once up to 260 square miles of the blowsand dune ecosystem had shrunk to half that size, and much of what was left was subject to irreversible degrada-

59. See VERMEIJ, *The Biology of Human-Caused Extinction*, in *THE PRESERVATION OF SPECIES* 28, 29-30 (B. Norton ed. 1986).

60. See Coachella Valley Fringe-toed Lizard Habitat Conservation Plan (June 1985) [hereinafter Coachella Valley RHCP] (available from the Nature Conservancy, California Field Office, Chair of the Coachella Valley Habitat Conservation Plan Steering Committee). Although it covered numerous development projects within a 3,600-acre area, the San Bruno HCP was not truly an RHCP in the sense that it did not cover future, unproposed projects and it was agreed to by all affected private landowners. See *supra* note 40. In essence, everyone who would have sought an individual section 10 permit joined into a group section 10 permit, agreeing to abide by development restrictions overseen by local jurisdictions. See Note, *supra* note 7, at 249-50. Beginning with the Coachella Valley effort, however, RHCPs ventured into provisions allowing unproposed projects to take advantage of the RHCP and resulting section 10 permit. The magnitude of area covered by RHCPs also increased tremendously over that covered by the San Bruno HCP.

61. See Coachella Valley RHCP, *supra* note 60, at S-2, II-1 to II-9.

62. See *id.* at S-3, II-9 to II-12, III-3 to III-6.

tion.⁶³ Research concluded that the development had led to a steadily dwindling fringe-toed lizard population.⁶⁴ In response, the Service in 1980 listed the fringe-toed lizard as threatened and suggested it would require ESA review under section 7 or section 10 for any development located in the dune habitat or in the way of blowsand flow. Soon thereafter, the local community, including developers, environmentalists, and city and county governments, with the private, non-profit Nature Conservancy at the helm, embarked on a six-year effort to develop an acceptable RHCP.

In June 1985, the final Coachella Valley RHCP was submitted to the Service in support of a multi-jurisdictional Section 10 incidental take permit application, which was granted.⁶⁵ The one hundred plus pages included extensive discussions of the scientific background, present and anticipated land use plans and issues, overall long-term planning principles, conservation methods, intergovernmental implementation structures, and biological monitoring programs. The Coachella Valley RHCP approach, which according to the Service has thus far been fully and successfully implemented,⁶⁶ sets aside about fifteen percent of the existing undisturbed blowsand dune habitat in three permanently maintained preserves purchased at a cost of over \$25 million. Preserve management and RHCP implementation is conducted through designated intergovernmental districts within the RHCP area. Funding is supplied by federal and state sources and the Nature Conservancy, as well as through development mitigation fees set initially at \$600 per acre and applied to all private landowners in a 70,000 acre area approximating the lizard's range. To the extent feasible, local land use decisions, administered through eight Districts, each with HCP Plan Units, will be consistent with the overall RHCP objectives. In return, the Section 10 permit "will allow local government to continue the exercise of traditional land use controls, permitting development in certain areas occupied by the [lizard] and still remain in compliance with the ESA."⁶⁷

The Coachella Valley RHCP is the only final, permitted, permanent, and successfully funded and implemented RHCP to date. Several others are in advanced stages but are either severely stalled or limited in scope. One involves an effort begun in 1984 to protect several listed endangered species on North Key Largo, Florida, a barrier island in the northern Florida Keys.⁶⁸ By late 1989, the Growth Management Division of Monroe County, Florida, working with a committee of private landowners and local, regional, state,

63. *See id.* at II-17 to II-23.

64. *See id.* at II-12 to II-17, IX-1 to IX-7.

65. The section 10 permit applicants were the county and city governments only. *See id.* at S-1. This illustrates one of the key differences between a limited habitat conservation plan such as the San Bruno HCP, *see supra* note 40, and a broad RHCP intended to facilitate local governments' present and future land development planning.

66. The Coachella Valley RHCP planning and conservation approach is set forth in detail at Parts V and VI. *See* Coachella Valley RHCP, *supra* note 60.

67. *Id.* at S-1.

68. *See* North Key Largo Habitat Conservation Plan (Dec. 1989) [hereinafter North Key Largo RHCP] (available from the Growth Management Division of Monroe County, Florida). The species covered in the North Key Largo RHCP include the American crocodile, Key Largo woodrat, Key Largo cottonmouse, and Schaus swallowtail butterfly. *Id.* at i.

and federal agency representatives, had developed an RHCP covering a twelve mile long stretch of hardwood hammock forest island habitat occupied by the species.⁶⁹ The hammock forests, which are the only tropical forests in the continental United States, are among the most aesthetically pleasing areas for development in the Florida Keys and had been subject to extensive loss prior to the listing of the species.⁷⁰

Finalized in December 1989, the lengthy and impressively documented North Key Largo RHCP allowed about fifteen percent of the remaining habitat to be developed, placing the rest in a permanent "conserved habitat" status.⁷¹ The purchase of the preserve lands would be funded by federal and state resources and a variety of private mechanisms including hotel room taxes, toll road fees, and a one-time \$2500 per unit development fee. However, at last report, although the Service had approved of the RHCP, no section 10 permit had been issued because the county government failed to adopt the RHCP and changes in land ownership had reduced support from the development community.⁷²

Somewhat more successful, but more limited in scope, is the effort of Riverside County, California, and ten area cities to protect the Stephens' kangaroo rat, a rodent listed as endangered in October 1988.⁷³ The Service concluded the listing was justified because of the continual decline of the arid, low-lying grasslands east of Los Angeles occupied by the rat. The decline was caused by a long history of dry farming and grazing and, more recently, by increased urban development.⁷⁴ What had once been a habitat range of 300,000 acres had dwindled by 1988 to about 22,000 acres.⁷⁵

By March 1990, the county and cities with jurisdiction in that area had proposed, and the Service had approved, a short-term RHCP allowing habitat destruction only outside of nine designated preserve study areas.⁷⁶ This incidental take authorization would last two years and would allow either 4,400 acres or twenty percent of the occupied, nonreserved habitat, whichever was less, to be destroyed while permanent reserve areas involving up to 11,000 acres would be established.⁷⁷ Funding for the necessary studies and reserve area purchases would come from a \$1950 per acre development fee as well as other federal and state sources.⁷⁸ Recently, however, a public

69. *See id.* at ii-iii.

70. *See id.* at 2-19.

71. *See id.* at 19-56.

72. Much of the land designated for conservation had been purchased by state and federal governmental entities, thus reducing the need for development fee-based funding. Interview with Bob Smith, Monroe County Planning Department, Plantation Key Branch (November 2, 1990).

73. *See* Final Environmental Impact Statement and Environmental Impact Report: Section 10(a) Permit to Allow Incidental Take of the Endangered Stephens' Kangaroo Rat at Riverside County, California (March 1990) [hereinafter Stephens' Kangaroo Rat RHCP] (available from the Planning Department of the County of Riverside, California).

74. *See id.* at i.

75. *See id.*

76. *See id.* at ii-iii.

77. *See id.* at iii-v.

78. *See id.* at v. All participating jurisdictions executed a lengthy and complex imple-

entity owning a major portion of the affected area threatened to remove its property from the RHCP and pursue its own section 10 permit.⁷⁹

Riverside County's concept of adopting a short-term RHCP to allow time for long-term conservation feasibility studies was recently followed in Clark County, Nevada, in a plan to conserve and manage over 400,000 acres of desert tortoise habitat. This fast-growing area provides habitat for numerous listed species, the most sensitive of which is the desert tortoise, listed as threatened in 1990. Declines in tortoise population were found to be primarily attributable to land development, habitat degradation, disease, and road kills. After an initial emergency listing, federal, state, and local governments joined with real estate, development, and environmentalist communities to establish an RHCP.⁸⁰

A large portion of desert tortoise habitat is located on federal land necessarily subject to section 7 consultation; accordingly, the Draft RHCP is proposed to limit development only in about 300,000 acres of non-federal lands.⁸¹ During the proposed three-year duration of the short-term section 10 permit, incidental take of between 2,000 and 3,700 tortoises will occur as a result of over 22,000 acres of new development.⁸² During the short-term permit period, at least 400,000 acres within fourteen designated potential tortoise management areas would be studied to formulate long-term conservation solutions controlling all future development and land use.⁸³ Although the Bureau of Land Management has adopted tortoise management guidelines for federally-owned lands in the area that are generally consistent with the proposed RHCP,⁸⁴ the diversity of federal, state, local, and private land ownership and land uses in the area poses a substantial challenge to the success of the short-term RHCP.

In addition to these RHCPs, several other RHCPs are reported to be in various planning stages.⁸⁵ If the several RHCPs which have reached final status are any indication, however, these other regional applicants have a long, rocky road ahead. Indeed, the RHCP experience thus far suggests several generic problems: (1) planning is difficult, controversial, and time consuming; (2) adequate funding for costly biological research and land

menting agreement to demonstrate funding adequacy to the Service. See Implementation Agreement for the Short-term Habitat Conservation Plan for the Stephens' Kangaroo Rat (Apr. 9, 1990) (available from the Riverside County, California Planning Department).

79. Interview with Rich Fairhurst, Planning Department of Riverside County, California (October 10, 1990).

80. See Final Draft Short-Term Habitat Conservation Plan for the Desert Tortoise in Clark County, Nevada (September 25, 1990) (available from RECON Environmental Consultants, San Diego, California), at 18, 83-87. Funding for the RHCP Studies was obtained by development fees imposed by local ordinances on all undeveloped land in the study area. *Id.* at 19, 26-27.

81. *Id.* at 103.

82. *Id.* at 104-07.

83. *Id.* at 87-99.

84. *Id.* at 45, 87.

85. See Beatly, Preserving Biodiversity Through The Use of Habitat Conservation Plans (August 1990) (available from Department of Urban and Environmental Planning, University of Virginia).

acquisitions is hard to come by; (3) the time needed to develop reliable biological data and conservation solutions may extend beyond the region's acceptable time-frame; and (4) creating and sustaining the necessary broad-based public and private support becomes more tenuous as the territorial scope and biological diversity of the RHCP increases. These difficulties appear to one degree or another in each RHCP as a result of deficiencies inherent in the RHCP regulatory structure as it is presently implemented.

III. THE DEFICIENCIES OF CURRENT REGIONAL HABITAT CONSERVATION PLANNING PROCEDURES

Not long after the section 10 permitting procedure was added to the ESA, some commentators predicted that the section 10 process would erode ESA protections by easing the burden required for approval of conduct resulting in an incidental take.⁸⁶ However, far to the contrary, the advent and evolution of *regionalized* section 10 permitting has caused more confusion, delay, and political turmoil than would normally be the case under section 7. This is largely the result of both the uncertain legal bases for the RHCP approach and the Service's general lack of guidance covering the RHCP process.

A. *The Shaky Legal Foundation For The RHCP Approach*

For a variety of reasons, section 10 has become, to put it bluntly, a painfully slow and confusing procedure for regional habitat management planning. One contributing factor is that the legal basis for *regional* section 9 enforcement and section 10 permitting is far from certain. Although Congress believed that section 10 would promote creative partnerships between the private sector and local, state, and federal governments,⁸⁷ it is not clear that Congress intended the partnership to extend beyond the facilitation and enforcement of a private developer's conservation plan for its *individual* project.⁸⁸ Indeed, the statute makes no reference to the Service's involvement in region-wide development planning, but rather authorizes permits only for a taking which is "incidental to, and not the purpose of, the carrying out of an otherwise lawful activity."⁸⁹ The statute thus appears to contemplate the Service's review of, and action on, a *specific* proposed activity. By contrast, the RHCP approach necessarily includes approval not only of the various current and proposed development activities in the region, but also of future

86. See Note, *supra* note 7, at 270.

87. See Conference Report, *supra* note 39, at 30, reprinted in 1982 U.S. CODE CONG. & ADMIN. NEWS 2860, 2871.

88. That is precisely what took place in formation of the San Bruno HCP, upon which Congress modeled section 10 of the ESA. See *supra* note 40. There is no evidence Congress foresaw section 10 as resulting in issuance of blanket permits for unproposed projects. See Note, *supra* note 7, at 248-49, 260-61. Indeed, Congress recognized that because "significant development projects often take many years to complete . . . adequate assurances must be made to the financial and development communities that a section 10(a) permit can be made available for the life of the project." Conference Report, *supra* note 39, at 31, reprinted in 1982 U.S. CODE CONG. & ADMIN. NEWS 2860, 2872 (emphasis added). Thus, every indication is that Congress addressed permits only for known proposed projects.

89. 16 U.S.C. § 1539(a)(1)(B) (1988).

unproposed projects. To that end, the Service has gone so far as to advise that "[an RHCP] plan area should not be limited to those sites involved with one or a few private proposals up for immediate consideration when a local agency pursues a permit."⁹⁰ Rather, the plan should include "the maximum number of development proposals affected by Section 9 of the Act,"⁹¹ which is to "include all future actions reasonably certain to occur within the plan area."⁹² About all that can be said in defense of the legal authority for this extent of regional permitting, however, is that the statute does not expressly preclude it as an approach.

More significantly, the enforcement foundation of the RHCP approach (*i.e.*, the Service's extension of the harm definition to include destruction of non-critical habitat important to the species' behavioral patterns) is questionable. The amount of habitat made subject to development restrictions was vast in each of the several RHCPs concluded thus far. Historical habitat losses experienced in each case could be statistically linked to species population decline; however, no evidence of *actual* injury to species members was presented in connection with specific proposed projects or specific habitat areas. In essence, the Service placed all behavioral habitat off limits based only on the available statistical evidence of species population decline.⁹³

90. Draft Guidelines, *supra* note 44, at 5.

91. *Id.* at 6.

92. *Id.* at 8.

93. The Service appears to have come full circle in this regard. Its original definition of harm included any "act or omission which actually injures or kills wildlife, including acts which annoy it to such an extent as to significantly disrupt essential behavioral patterns." 46 Fed. Reg. 29,490 (1981). The definition expressly included "significant environmental modification or degradation which has such effects." *Id.* An April 17, 1981 memorandum by the Department of Interior Solicitor's Office suggested that the definition could be construed to mean "any significant environmental modification or degradation that disrupts essential behavioral patterns will fall under the definition of harm, regardless of whether an actual killing or injuring of wildlife is demonstrated." *Id.* at 29,491. That result, the solicitor concluded, would be "inconsistent with the intent of Congress." *Id.* Most legal commentary at the time agreed with the Solicitor. *Id.* at 29,490. Existing case law, though ambiguous, also appeared to support that conclusion. *Id.* at 29,491-92.

In response, the Service proposed a definition of harm limited to "an act or omission which injures or kills wildlife." *Id.* at 29,490. That proposal, however, met ringing criticism as completely eliminating habitat modification as a potential source of take. *See* 46 Fed. Reg. 54,748-49 (1981). The Service explained that, although the suggestion "that habitat modification alone is a taking . . . is without support in the Act or legislative history," the Service did not intend or believe it had to eliminate habitat modifications as a potential source of take. *Id.* at 54,750. Instead, the Service adopted the definition in effect to this day, explaining that "it makes it clear that habitat modification or degradation, standing alone, is not a taking pursuant to section 9. To be subject to section 9, the modification or degradation must be *significant*, must *significantly impair essential* behavioral patterns, and must result in *actual* injury to a protected wildlife species." *Id.* (emphasis in original).

Later, however, when it promulgated final rules for the section 7 consultation process, the Service advised that it believed destruction of undesignated habitat can form the basis for a jeopardy opinion because

[a]n action could jeopardize the continued existence of a listed species through the destruction or adverse modification of its habitat, regardless of whether that habitat has been designated as "critical habitat." Thus, the failure of the Service to designate critical habitat for a given species does not automatically mean that its habitat is without protection.

Had Congress intended habitat protection to extend so broadly as to restrict development in all behavioral habitat within a region, presumably it would have so provided rather than crafting the narrow concept of critical habitat and requiring the Service expressly to designate such protected areas by rulemaking. Indeed, Congress' decision expressly to limit protection of critical habitat to federal-action projects subject to section 7 consultation strongly suggests that the Service has exceeded its authority by establishing a habitat protection mechanism extending to purely private and state-action projects subject only to section 10 permitting.

Regardless of the ecological sense of its decision, Congress has structured the ESA such that, on the face of the statute, private and state-action projects may adversely affect critical habitat provided an actual taking of a species individual does not occur. The Service's harm definition not only reverses that decision but goes further by expanding the habitat subject to protection well beyond the narrowly-defined concept of critical habitat, thus rendering critical habitat designation an entirely superfluous procedure. The Service's objective of establishing a broad-based habitat protection strategy may be laudable to many; nevertheless, the Service's method appears to stretch the tools Congress has given it beyond their legal and practical limits.

Moreover, even if the concept and application of behavioral habitat is valid under the ESA, the Service's failure to delineate it by rulemaking is directly contrary to the basic statutory structure. The Service's abstract notion of harm resulting from the destruction of behavioral habitat has been tested and approved only in two cases, each of which involved a homogeneous, well-defined habitat area for which irrefutable statistical evidence identified the destruction of the habitat as the principal factor behind long-term species population decline.⁹⁴ Even assuming those judicial decisions faith-

51 Fed. Reg. 19,926, 19,927 (1986). The Service has watered down this concept even further through its pursuit of RHCPs, which, by equating behavioral habitat with all habitat which will support the species, lays the groundwork for elevating the harm concept to the regional level. Indeed, to the extent the Service has attempted through RHCPs to exercise control over behavioral habitat modification in large areas, it appears to have relaxed its requirement that actual injury to a protected wildlife species be demonstrated, relying instead on gross statistical data and inferences to link regional habitat losses to species population decline. In any event, proof of actual injury seems to have fallen out of the equation.

94. See *Palila v. Hawaii Dep't of Land and Natural Resources*, 852 F.2d 1106 (9th Cir. 1988), *aff'g*, 649 F. Supp. 1070 (D. Haw. 1986) (*Palila II*); *Sierra Club v. Lyng*, 694 F. Supp. 1260 (E.D. Tex. 1988). In *Palila II*, the courts ordered the Hawaii Department of Land and Natural Resources to remove mouflon sheep from the designated critical habitat of the palila, a listed endangered bird. In 1979, the Department had been ordered to remove feral goats and sheep from the critical habitat area because reliable statistical evidence showed they had foraged on the plants upon which the palila depended for survival, thus causing a decline in the palila population. See *Palila v. Hawaii Dep't of Land & Natural Resources*, 471 F. Supp. 985 (D. Haw. 1979), *aff'd*, 639 F.2d 495 (9th Cir. 1981) (*Palila I*). That decision was unusual in that the courts found a prohibited take had occurred even though no federal action was involved to invoke the section 7 prohibition on adverse modification of critical habitat. See Salzman, *supra* note 2, at 327-28. The *Palila I* courts therefore appeared to have based the decision on an interpretation of the harm definition applied through section 9 of the ESA. The Service thereafter redefined harm to its current definition. See *supra* note 93. The mouflon sheep addressed in *Palila II*, which the Department had stocked in the critical habitat area in the 1960s for sport hunting, had not been covered in the *Palila I* complaint and thus remained in the critical habitat area. Applying the current definition of harm, the *Palila II* courts found

fully apply the statute as intended, which is doubtful, extending ESA protection from that limited context to large geographical areas covering diverse habitats, without strong evidence that links specific developments in specific habitat within that area with actual injury to species members, requires a great leap of faith. Even in circumstances where statistical evidence of species decline could serve as reliable evidence of actual injury, the Service's actions go beyond the intent of the statute by proceeding without rulemaking and by requiring regional rather than project-by-project review. Yet this is precisely the policy the Service is now pursuing throughout the nation.

B. *The Service's Faulty Implementation*

Even if the Service's authority for regional permitting had sound legal footing, certain characteristics of the RHCP process as the Service thus far has implemented it make the experience less than desirable for much of the regulated community. Principal among these characteristics is the absence of meaningful administrative procedures or substantive guidelines. The Service declined in 1985 to issue what it described as a "cookbook set" of criteria for satisfying the conservation plan requirement of section 10;⁹⁵ however, in place of such a comprehensive approach the Service has provided the bare minimum of procedural and substantive advice, much of which remains in draft form and largely uncirculated.⁹⁶ Beyond that, the regulated commu-

that the same evidence considered in *Palila I* showed the mouflon sheep were also destroying the palila's critical habitat and thus were harming the palila.

In *Lyng*, plaintiffs showed that a severe decline of forty percent in the population of the red-cockaded woodpecker, a listed endangered species, was caused directly by the timber management practices of the United States Forest Service in the national forests of East Texas. These practices had the effect of isolating woodpecker colonies, thus interfering with breeding behavior, and reducing the old growth pine forest habitat upon which the woodpecker relied for food and shelter. Following *Palila I* and *Palila II*, the *Lyng* court concluded the woodpecker had been harmed, and thus taken within the meaning of section 9 of the ESA. 694 F. Supp. at 1270-71. The Court also found, however, that the Forest Service had jeopardized the woodpecker's survival in violation of section 7. *Id.* at 1272-73.

Palila II and *Lyng* thus are limited in how far they will support the Service's use of the harm definition as the driving force behind RHCPs. *Palila II* involved activity in clearly designated critical habitat, albeit not by any actor subject to section 7. *Lyng* involved activity by a federal actor which was clearly jeopardizing the continued existence of a listed species, thus making the question of whether a harm occurred under section 9 largely superfluous. Thus far, no case has confronted an application of the harm definition used to halt private activity in a large, loosely defined area of behavioral habitat.

95. 50 Fed. Reg. 39,681, 39,682 (1985). The Service rejected requests for regulations which would delineate "specific procedures, types of alternatives to be considered, detailed criteria and definitions, and a number of other items to cover the entire range of incidental take permit applications that might be filed." *Id.* The Service argued that because it had been able to negotiate and process the San Bruno HCP without the benefit of regulations and solely on the basis of the language of section 10, it would not cause confusion "to promulgate the final regulations in relatively broad terms consistent with the statutory language." *Id.* at 39,683. See also *id.* at 39,684-85. Yet the Service recognized that its regulations would need to "accommodate projects that differ substantially from the San Bruno project in size; planned duration; the number of different local, State, and Federal agencies that have jurisdiction over some aspect of the project; or the number of listed and unlisted species that may be involved." *Id.* at 39,682.

96. See Draft Guidelines, *supra* note 44. As of November 1990, the Service stated that it was "in the process of drafting guidelines for habitat conservation planning; however, a final

nity must divine what will satisfy the Service in terms of defining protected habitat, crafting conservation and mitigation measures, balancing long-term human growth with species protection, and installing a financially and politically secure habitat conservation structure. To some, the Service appears all too ready to thrust the habitat protection issue upon a region by threatening enforcement actions for failure to adopt an RHCP, but then to leave it to that region's local governments and development and environmental communities to reinvent the wheel when proposing the solution.

That lack of legal framework virtually guarantees a slow process, high frustration levels, and thus a sharp dichotomy between short-term and long-term results. The regional community may gain satisfaction because, in the long-term, the RHCP will help establish orderly growth and perhaps even increased economic opportunity resulting from intangible quality-of-life benefits associated with a strong habitat protection plan. By contrast, any development project with a planning horizon substantially shorter than the time needed to devise the RHCP (which the experience to date shows can take at least several years) will face financial ruin. If that voice is large enough in the community, the planning process will begin in a state of political turmoil and only get worse.

Careful development and cautious application of interim project development approval procedures early in the RHCP process could alleviate the disparity between short-term and long-term effects. Thus far the Service has generally declined to approve such interim relief or offer guidance as to how to implement an acceptable interim program within the context of a developing RHCP. This reluctance may stem from the fear that availability of an interim project approval procedure will undermine the need for a long-term resolution and thus dampen the commitment of the development community and local governments to the RHCP. But an interim procedure could provide benefits such as funds necessary to conduct ecological research important to the RHCP and working examples of the conservation and mitigation measures under consideration.

C. Practical Incentives For RHCP Breakdown

The absence of an interim project approval procedure coupled with the long time-frame for final RHCP approval might lead some project developers to attempt to thwart or abandon the RHCP process altogether. One alternative for a frustrated developer would be to seek an individual section 10 permit. Presumably the Service would attempt to suppress that option, however, by tracking all but the most critically needed projects into the RHCP. By contrast, in cases where a particular project can be identified with a federal-action nexus of some sort, the developer can force the Service to conduct a project-specific section 7 consultation, which the Service cannot delay or subsume by the section 10 RHCP process. For many species, the

version is not expected in the near future." Letter from R. K. Robinson, U.S. Fish & Wildlife Service Office of Management Authority to author (November 5, 1990).

Service would be hard-pressed to reach a jeopardy opinion for an individual project using this option, particularly in light of the contemporaneous region-wide effort to establish large-scale habitat protection preserves and conservation measures.

A final alternative, of course, is simply to ignore the ESA altogether. With the legal bases for RHCPs so uncertain and the Service's enforcement resources so limited, a developer whose project has a short time-limit might perceive the risk of ESA liability for habitat destruction as insignificant, or at least as much less significant than the certain losses and delays associated with waiting for the completion of the RHCP process. Particularly where the developer could obtain assurances that no physical injury to a species member would result from the habitat destruction, which would be very possible to do in the case of migratory species, the Service would be at the absolute margin of or beyond its enforcement authority. Although forcing the Service to test the limits of its enforcement authority by this approach might not coincide with all concepts of good citizenship, in most such cases no illegal conduct could be shown to have occurred.

The most acute circumstances in this regard would occur in the case of species *proposed* for endangered status. Although section 7 requires consultation for proposed species, section 9 does not prohibit their taking and section 10 does not require a permit even for intentional takes. Anytime a species is proposed for ESA listing or even mentioned in that context, some persons will see an advantage to eliminating the species' habitat before it is listed. If, however, the proposed listing carries with it the prospect of a cumbersome, slow RHCP process focused on a vast expanse of habitat, the incentive to destroy such habitat ahead of the listing is hyperintensified. Any developer who has done so before the listing is automatically put at an economic advantage at the time that the species is listed over those who did not. Again, such conduct may not be perceived by all as good citizenship, but the legal requirements do not compel good citizenship. Ultimately, how clearly and reasonably the Service presents and implements the regional planning process will have a great deal to do with how the regulated community will act. Thus far, however, the Service has not made great strides in that regard.

IV. A CASE STUDY

The observations made thus far herein have been based largely on the structure of the statute and on the Service's administrative implementation efforts. The impetus for the RHCP process finds its identification in the way the statute works, which overall is unresponsive to broad ecological concepts. The deficiencies in the use of the process today flow largely from the Service's method of implementation, which has not been orderly or informative. Historically, the Service has succeeded in bringing about several RHCPs and, more recently, in inducing a larger number of RHCPs to be undertaken. A case study of one of those currently under development in Texas, however, shows that the observations flowing from the statutory structure and administrative approach are all too real in current experience

and are reaching the point of pushing the ESA beyond its legal and practical limits.

The Hill Country geography around the city of Austin in central Texas is home to a number of threatened and endangered plant and animal species, the best known of which are two birds, the black-capped vireo and golden-cheeked warbler.⁹⁷ The black-capped vireo, a small migratory songbird wintering in tropical Mexico and nesting in central Texas, was listed as an endangered species in October 1987. The vireo's habitat consists primarily of a brushy, mid-successional growth mixture of juniper, shin oak, and sumac.⁹⁸ The golden-cheeked warbler migrates between Central America and central Texas. It returns exclusively to the Texas Hill Country to nest during the spring months in the dense, mature upland juniper and deciduous woodlands found throughout the area.⁹⁹ The warbler was the subject of an emergency endangered species listing in May 1990.¹⁰⁰

By the late-1980s, the unusual concentration of protected species around Austin had led to several species protection confrontations between the development and environmentalist communities.¹⁰¹ A general economic slump in the region made it more difficult for local governments, which had a history of a strong environmental protection policy, to continue to side with environmentalists at the expense of what few development opportunities existed to reinvigorate the local economy. By mid-1988, the intervention of the Service rocked the stalemate situation by suggesting that it would

97. At the time the Austin RHCP study was initiated, nine different "species of concern" existed in the Austin area: two birds, the black-capped vireo and golden-cheeked warbler; five invertebrates, the Tooth Cave spider, Tooth Cave pseudo scorpion, Tooth Cave ground beetle, Kretschmarr Cave mold beetle, and Kretschmarr Cave harvestman; and two plants, the canyon mock orange, and bracted twistflower. See AUSTIN RHCP GOALS, POLICIES, AND OBJECTIVES, at 1 (Jan. 1990). Several species were added as the study progressed.

98. See Texas Parks & Wildlife Department, *The Black-capped Vireo in Texas* (1988). For in-depth studies of the black-capped vireo, see Final Report, Black-capped Vireo Monitoring Program, Travis County, Texas and Vicinity (1989) (available from the Austin RHCP Secretary, City of Austin Environmental and Conservation Services Department); C. Pease & L. Gingerich, *The Habitat Requirements of the Black-capped Vireo and Golden-cheeked Warbler Populations near Austin, Texas* (1990) (available from the Austin RHCP Secretary, City of Austin Environmental and Conservation Services Department).

99. See Texas Parks & Wildlife Department, *The Golden-cheeked Warbler in Texas* (1989). For in-depth studies of the golden-cheeked warbler, see R. Wahl, D. Diamond, & D. Shaw, *The Golden-cheeked Warbler: A Status Review*, U.S. Fish & Wildlife Service (1990); Kroll, *Habitat Requirements of the Golden-cheeked Warbler: Management Implications*, 33 J. RANGE MGMT. 60 (1980); W. Pulich, *The Golden-Cheeked Warbler: A Bioecologic Study*, Texas Parks & Wildlife Department (1976).

100. 55 Fed. Reg. 18,844 (1990). The Service also issued a proposed rule for permanent listing. *Id.* at 18,846. Although the warbler was not a listed species at the time it was first included in the Austin RHCP process, Congress intended that unlisted species could be included in a section 10 conservation plan so as to maximize the long-term effects of the plan. See Conference Report, *supra* note 39, at 30, reprinted in U.S. CODE CONG. & ADMIN. NEWS (P. L. 97-304) 2807, 2871; 50 Fed. Reg. 39,681, 39,683 (1985).

101. For a review of the main events leading to plans for an RHCP in Austin, see Austin American-Statesman, June 3, 1990, at H1, col. 3. This case study of the Austin RHCP relies principally on publicly available information and resources. To the extent significant issues and events in the RHCP process are not reported in publicly available sources, which the author knows to be the case with the Austin RHCP, the author would add that to the list of problems with the RHCP process as experienced to date.

take action against habitat destruction allegedly constituting a harm of endangered species.¹⁰² The alternative the Service offered was development of an RHCP.

The Austin Regional Habitat Conservation Plan (Austin RHCP) thus was conceived in late 1988 "as an appropriate strategy to provide a reasonable balance between protection of endangered species and economic development in the area."¹⁰³ A 15-member Executive Committee representing various local governmental agencies and the development and environmentalist communities organized the Austin RHCP. From its inception, the guiding force was the ostensibly neutral Texas Nature Conservancy, whose Director was also named the Executive Committee Chairman. In addition to the Executive Committee, the Austin RHCP organization team included a Steering Committee charged with fund-raising and overall planning guidance and a Biological Advisory Team (BAT) of nine experts to provide the necessary biological research.¹⁰⁴

In its first public newsletter, which was not published until April 1989, the Executive Committee described its vision of the Austin RHCP:

The Plan will result in the acquisition and dedication of sufficient areas of habitat to ensure the preservation of endangered species. In addition, the Plan will allow developers to proceed with project approval through the local development process, without having to acquire separate federal approval which can take considerable additional time. The Plan would conform to provisions of the Federal Endangered Species Act, and the U.S. Fish and Wildlife Service, which administers this act, has expressed a general preference for this type of regional planning effort. Once FWS approves the Plan, federal intervention in the local development process is only required in cases of unreasonable conflicts or criminal violations.¹⁰⁵

Several significant observations became apparent from that early statement of goals. First, the process from development of the plan through habitat acquisition would be costly. Indeed, since biological data on the species was

102. Service representatives attended and spoke at a public meeting convened by the Austin Chamber of Commerce in February 1988, to discuss plans for an RHCP and constraints upon development until an RHCP is approved. *See also* Austin RHCP Executive Committee Minutes of the Meeting of Feb. 10, 1989, at 6 (David Tilton, U.S. Fish & Wildlife Service representative, stated that Austin area "developers would be facing significant problems in trying to proceed in the absence of a concerted, regional planning effort"); Newsletter of the Austin Regional Habitat Conservation Plan, Vol. I, No. 1, at 1 (April 1989) (summarizing statement of David Tilton, Service representative to Austin RHCP).

103. *See* Newsletter of the Austin Regional Habitat Conservation Plan, Vol. I, No. 1, at 2 (April 1989). Funding of biological research was the subject of a substantial portion of the initial Executive Committee meeting. *See* Austin RHCP Executive Committee Minutes of the Meeting of Feb. 10, 1989, at 1-2.

104. For a detailed description of the Austin RHCP planning structure, see Newsletter of the Austin Regional Habitat Conservation Plan, Vol. I, No. 1, at 2 (April 1989); Austin RHCP Executive Committee Minutes of the Regular Meeting of July 28, 1989, at 3-5; Austin RHCP Goals, Policies and Objectives (Jan. 1990). The Austin RHCP was renamed the Balcones Canyonlands Habitat Conservation Plan in 1990 to describe more accurately the territory covered. *See* Newsletter of the Balcones Canyonlands Habitat Conservation Plan, Vol. II, No. 1, at 2 (Spring 1990).

105. Newsletter of the Austin Regional Habitat Conservation Plan, Vol. I, No. 1, at 2.

sorely lacking, the central focus of the Austin RHCP during its formative months was on obtaining funding sufficient to support the BAT's biological studies, which the Executive Committee described as a matter of urgency.¹⁰⁶ Second, other than sending a representative to Executive Committee meetings, the Service was to be largely uninvolved in the Austin RHCP structure. Representatives from several local governments within the three-county geographic planning area were members of the Executive Committee, but it was apparent that the Service would act principally as the final arbiter and, unfortunately, not as a major planning force. Finally, the focus of the process was placed on region-wide habitat protection, with the ultimate objective being a one-time dedication of habitat in exchange for permanent relief from project-by-project ESA review. These combined circumstances virtually guaranteed that a long, tumultuous period lay ahead for the Austin RHCP.

Indeed, the Austin RHCP faced a dilemma from the start. The threat of Service or citizen ESA enforcement often serves as the leverage needed to convince a local development community to support any RHCP. In the Austin RHCP situation, however, no enforcement against private or state-action projects on non-federal land could be pursued for the taking of the covered plant species,¹⁰⁷ and knowledge of the habitat and range of the invertebrate species covered by the Austin RHCP was limited. The enforcement threat therefore hung largely on the bird species. But the warbler, which occupies the mature woodlands habitat most attractive to human development, was not a listed endangered or threatened species.¹⁰⁸ Moreover, both the vireo, which was listed at the time, and the warbler have predictable migratory habitats, making it possible by timing of development to clear their respective habitats without any threat of direct injury to the species members. Hence, the Service's enforcement threat in the case of the Austin RHCP was weak at its inception.

The Service issued no clear enforcement policy or development guidelines

106. *Id.* at 1.

107. Section 9 of the ESA does not prohibit taking listed plant species on non-federal land. 16 U.S.C. § 1538(a)(2) (1988).

108. At the time, the Migratory Bird Treaty Act protected the warbler and the vireo as migratory birds. 16 U.S.C. §§ 703-718 (1982); 50 C.F.R. § 10.13 (1989) (list of protected species). That protection requires, however, only that a federal permit be obtained to hunt, capture, band, or otherwise handle the nest, eggs, or individuals of the species. *See* 50 C.F.R. §§ 20-21 (1989) (regulations for migratory birds). At the time, the Texas Parks and Wildlife Department also listed both the warbler and vireo as threatened species pursuant to Texas laws making it illegal to shoot or physically harm, possess, sell, or transport such listed species without a permit. *See* TEX. PARKS & WILD. CODE ANN. §§ 68.001-68.021 (Vernon 1976 & Supp. 1991); Texas Parks & Wild. Dep't, 31 TEX. ADMIN. CODE §§ 65.171-65.177 (West 1989). An Austin City Ordinance provided local regulation requiring that certain development projects within certain parts of the City's corporate limits and extraterritorial jurisdiction conduct a habitat survey for all species covered in the Austin RHCP and notify the Service, other federal, state, and local agencies, and the Austin RHCP Executive Committee if the proposed development would degrade such habitat. *See* Austin City Ordinance 89-0817-H (August 17, 1989) (Texas law prohibited the City from enforcing any endangered species protection beyond its city limits in the absence of an RHCP and section 10 permit. *See* TEX. PARKS & WILD. CODE ANN. § 83.006 (Vernon Supp. 1991). None of these laws, however, could have provided the scope of protection extended listed species under the ESA, particularly insofar as protection of habitat is concerned.

to clarify that situation. Rather, during 1989 the Service basically sat on the sidelines while the commitment to the Austin RHCP slowly eroded. For its part, the Executive Committee admirably moved the biological research process forward as fast and as far as funding would allow, and the BAT began producing important findings which could help to identify acquisition habitat and to develop conservation measures.¹⁰⁹ Truly significant strides were made in funding, planning, public education, and overall process development.

But in August 1989, the Executive Committee abandoned a study of interim-period development approval criteria, deciding instead to await review of a draft RHCP before recommending approval of any habitat destruction within the planning area.¹¹⁰ If the reality had not already sunk in, the Executive Committee's decision not to issue interim development guidelines sent a strong message to the development community, particularly developers with projects already far into the planning process, that final project approval would not result from the Austin RHCP for at least several years to come. Indeed, in early 1990 environmentalists and developers clashed over warbler habitat clearing practices which had begun in two major developments in the Austin RHCP planning area.¹¹¹ The developers apparently had weighed the risk of enforcement against the costs of enduring the RHCP process and had decided to commence clearing. Complaints to the Service led to an announcement that the Service would consider emergency listing of the warbler to protect such habitat;¹¹² however, no enforcement steps were taken against the developers for the habitat that was cleared.

In quick succession, events thereafter unfolded which exposed many of the problems inherent in the RHCP process. First, the potential impact of the Austin RHCP was realized when the BAT released maps designating the suitable habitat of the bird, plant, and invertebrate species within the planning area.¹¹³ When overlaid, literally hundreds of thousands of acres, mostly the highly-prized developable lands, were covered. Then, in April

109. The BAT eventually produced several comprehensive biological reports and mapping studies covering the ten species included in the Austin RHCP. See Balcones Canyonlands Habitat Conservation Plan (formerly Austin RHCP) Executive Committee Special Announcement at 6-7 (1990). The materials are available from the Austin RHCP Secretary, City of Austin Environmental and Conservation Services Department.

110. See Newsletter of the Austin Regional Habitat Conservation Plan, Vol. I, No. 6, at 1 (Sept. 1989). See also Newsletter of the Balcones Canyonlands Habitat Conservation Plan (formerly Austin RHCP), Vol. II, No. 1, at 11 (Spring 1990); Austin RHCP Executive Committee Minutes of the Regular Meeting of February 23, 1990, at 5; Austin RHCP Executive Committee Minutes of the Regular Meeting of March 30, at 6. The failure to adopt interim measures ultimately led the Mayor of Austin to submit a resolution to the United States Conference of Mayors, which passed, requesting Congress to direct the Service "to create guidelines for interim or short-term plans for cities that will generate revenues to create preserves from development mitigation fees." Resolution No. 62, United States Conference of Mayors (1990).

111. See Austin American-Statesman, May 8, 1990, at B1, col. 1; Austin American-Statesman, June 3, 1990, at H4, col. 5; Austin RHCP Executive Committee Minutes of the Regular Meeting of April 27, 1990, at 6-7.

112. Austin American-Statesman, June 3, 1990, at H4, col. 5.

113. Austin American-Statesman, March 31, 1990, at A1, col. 3.

1990, the Executive Committee's announcement of the BAT's recommended conservation measures, which included acquisition of vast habitat preserves and imposition of stiff development fees, further dimmed the prospect of economic resurgence in the Austin area.¹¹⁴ Open feuding among the Executive Committee members about the merits of the recommendations and the very future of the Austin RHCP process fully exposed how fragile the Austin RHCP was even 18 months after its inception.¹¹⁵

The Service broadened the division between environmentalists and landowners to its extremes when, on April 30, 1990, it announced emergency listing of the warbler.¹¹⁶ The Service's announcement was portrayed by some Austin RHCP Executive Committee Members as a "total moratorium" on development within the 67,000 acres of warbler habitat the BAT had identified within the Austin RHCP area, with the only hope being the Service's final approval of the RHCP.¹¹⁷ Even at this stage of affairs, however, the Service was ill-prepared to deal with the myriad of issues raised by the listing and by the Austin RHCP in general. At a standing-room-only public meeting convened on May 11, 1990, the USFW merely issued a one-page guidance containing only ambiguous recommendations limited in practical effect to subdivision lot owners.¹¹⁸ The Service had no clear answers to

114. Austin American-Statesman, April 28, 1990, at B1, col. 2. The BAT later suggested that almost 60,000 acres of preserve land would need to be acquired. See Austin American-Statesman, June 16, 1990, at A1, col. 5. A controversial twist was added to the picture when the BAT identified as part of the preserve areas land held by the Resolution Trust Corporation in the aftermath of the savings and loan failures. The BAT requested that the lands not be sold in the normal course of the Resolution Trust Corporation's business. See Austin American-Statesman, Sept. 30, 1990, at H1, col. 1.

115. One Executive Committee member opined that levying development fees in affected areas could result in "an impact fee of \$10,000 a unit We will in effect just kill anything" in terms of development. *Id.* at Col. 6. (quoting David Armbrust) Another member claimed, however, that he would never consent to an RHCP "that bails out developers . . . who are going to be allowed to destroy (endangered species) habitat under this plan." *Id.* at B5, col. 1. (quoting Bill Bunch).

116. 55 Fed. Reg. 18,844 (1990). The Service proclaimed that "an emergency posing a significant risk to the well-being of the golden-cheeked warbler exists as a result of on-going and imminent habitat destruction by both illegal and legal clearing." *Id.* at 18,844. Such clearing, the Service concluded, "also increases fragmentation and is more detrimental than indicated merely by acres of habitat lost." *Id.* The Service intended the emergency listing substantially to reduce habitat clearing. *Id.* at 18,845. Although the Service estimated that up to 260,000 acres of suitable habitat for the warbler exists, the emergency listing did not identify its locations or what and where development restrictions would apply. *Id.* at 18,844.

Indeed, in the proposed rule to list the warbler as an endangered species, the Service "concluded that critical habitat is not presently determinable." 55 Fed. Reg. 18,846, 18,848 (1990). Although the Service bases the proposed warbler listing principally on "[t]he present or threatened destruction, modification, or curtailment of its habitat or range," nowhere in the proposed rule does the Service explain the implications the listing would have on human activities within the 260,000 acres of suitable habitat, most of which lies *outside* the area that would be encompassed by the Austin RHCP. *Id.* at 18,847.

117. Austin American-Statesman, May 3, 1990, at A1, col. 5 (quoting David Armbrust).

118. See U.S. Fish & Wildlife Service, Guidance Concerning Golden-Cheeked Warbler (May 11, 1990). The Service intended this guidance, issued without any form of rulemaking or administrative procedure, "to help people determine whether or not an activity they are planning may affect the golden-cheeked warbler." *Id.* Presumably, the Service envisioned these so-called guidelines as applying generally to the tens of thousands of landowners located within the warbler's enormous but loosely-defined behavioral habitat area. As such, both the

public questions concerning the effect of the listing outside the Austin RHCP area, the scope and method of enforcement against habitat destruction, and the ability of project developers to seek individual approvals outside the context of the Austin RHCP.¹¹⁹

Soon after the listing announcement and public meeting project developers and local governments began bailing out of the Austin RHCP. The first to jump ship was the 3M Company, which had been planning a major facility expansion in an area mapped as containing warbler habitat. 3M announced in June 1990 that it would seek an individual section 10 permit or section 7 consultation to allow it to destroy roughly 15 acres of warbler habitat known to be occupied by species individuals.¹²⁰ Later 3M offered to donate a 215-acre preserve of prime warbler habitat, at a cost of approximately \$1 million, in return for the project approval.¹²¹ While 3M was refining its proposal, in late June 1990, the Service gave section 7 consultation approval to the State's plan to destroy warbler habitat in connection with federal-aid improvements to a dangerous stretch of roadway.¹²² Shortly thereafter, the State announced it would seek individual project approvals for several other roadway improvement plans,¹²³ and another private developer announced it would seek an individual section 10 permit for a major development in the invertebrate habitat area.¹²⁴

That the sentiment of some local jurisdictions also had swung clearly against the Austin RHCP became clear in the summer of 1990 by the resistance of several smaller local jurisdictions within and near the Austin RHCP area to offer support to the recommended conservation and development fee

delineation of the warbler's behavioral habitat and the issuance of landowner guidelines appear in every relevant respect to be substantive rules of general applicability within the meaning of the Administrative Procedure Act, thus requiring advance public notice and comment prior to promulgation. See 5 U.S.C. §§ 552(a)(1), 553(b) (1988). Similarly, at the public meeting, Service representatives referred attendees to habitat maps prepared by the Austin RHCP BAT, apparently adopting the maps for purposes of Service enforcement of the ESA, though without any official rulemaking or other administrative procedure.

119. See Austin American-Statesman, May 12, 1990, at A1, col. 1-2. The Service's observer on the Austin RHCP explained that, although the agency "recognized the need for interim guidelines for the larger, regional plans such as the BCHCP, [they] may take two to three years to develop and implement." Newsletter of the Balcones Canyonlands Habitat Conservation Plan (formerly Austin RHCP) Vol. II, No. 1, at 11 (Spring 1990).

120. See Austin American-Statesman, May 17, 1990, at A1, col. 4; Austin American-Statesman, June 12, 1990, at A1, col. 1.

121. See Austin American-Statesman, June 24, 1990, at H1, col. 1; Austin American-Statesman, July 28, 1990, at D10, col. 2.

122. See Austin American-Statesman, June 23, 1990, at A1, col. 5. Approval of the improvement of this roadway had been one of the most divisive species protection issues in the Austin area. See Austin American-Statesman, June 28, 1990, at B1, col. 5.

123. See Austin American-Statesman, July 12, 1990, at 1 (Southwest Neighbor section), col. 1.

124. See Austin American-Statesman, July 31, 1990, at A1, col. 1; Austin American-Statesman, October 10, 1990, at B5, col. 5. This series of announcements was a sharp turn of events from early 1989, when a developer announced that the Service had given his individual section 10 permit application and conservation plan proposal only a "lukewarm reception." Austin RHCP Executive Committee Minutes of the Regular Meeting of Feb. 10, 1989, at 4.

concepts.¹²⁵ Several cities announced they would seek total exemption from ESA enforcement with respect to platted subdivision lots within their boundaries based on the habitat characteristics.¹²⁶ These events substantiate the observation that the absence of interim approval guidelines combined with a long planning time-frame will cause many developers and local jurisdictions to seek individual solutions to ESA issues rather than support an RHCP. Such rejection of the RHCP approach inevitably leads to criticism by the environmentalist community and consequent entrenchment of the two sides. Indeed, the dam finally burst in September 1990, when the Austin RHCP Executive Committee endorsed 3M's final proposed conservation plan offered in connection with a section 7 consultation.¹²⁷ The Executive Committee's action further divided the local development and environmentalist communities.¹²⁸

125. See Austin American-Statesman, June 14, 1990, at 1 (Southwest Neighbor section), col. 1.

126. See Austin American-Statesman, August 2, 1990, at 1 (Southwest Neighbor section), col. 1; Balcones Canyonlands HCP (formerly Austin RHCP) Executive Committee Minutes of Work Session of August 10, 1990, at 6. Several jurisdictions, however, requested and were granted permission to be included within the Austin RHCP area. See Balcones Canyonlands Habitat Conservation Plan (formerly Austin RHCP) Executive Committee Minutes of Regular Meeting of June 29, 1990, at 3, 4.

127. See Austin American-Statesman, September 29, 1990, at A1, col. 1. The Executive Committee for several prior meetings had hotly debated the position it should take with respect to individual section 10 and section 7 applicants. The issue first arose when it became known that BAT consultants to the Austin RHCP had also consulted for some of the individual applicants. See Balcones Canyonlands HCP (formerly Austin RHCP) Executive Committee Minutes of Work Session of July 13, 1990, at 2-3. The Executive Committee eventually dealt with that issue by placing restrictions on the consultants and requiring the applicants to donate money to the RHCP to gain access to the consultants. See Balcones Canyonlands HCP (formerly Austin RHCP) Executive Committee Minutes of Regular Meeting of July 27, 1990, at 6-7. At that same meeting, extensive discussion was held concerning 3M's proposal and the issue of interim development approvals was revisited, with several Executive Committee members disagreeing as to the effect individual approvals would have on the RHCP process. *Id.* at 3-4. The Executive Committee then confirmed its earlier decision not to develop interim approval procedures and expressed concern over the potential for conflict between individual section 10 and section 7 project approvals prior to RHCP completion. See Balcones Canyonlands HCP (formerly Austin RHCP) Executive Committee Minutes of Work Session of August 10, 1990, at 3-4. The Executive Committee decided to develop interim consistency criteria under which individual projects could be assessed. See *id.* at 4; Balcones Canyonlands HCP (formerly Austin RHCP) Executive Committee Minutes of Regular Meeting of August 24, 1990, at 4. 3M's proposal apparently satisfied those criteria.

128. David Braun, Chairman of the Executive Committee, described 3M's proposal as "setting the standards for the kind of conservation plan we want to see." Austin-American Statesman, Sept. 29, 1990, at A1, col. 2. By contrast, Executive Committee member Bill Bunch stated he had "serious concerns about large-scale industrial developments moving forward before we have all the preserves secured." *Id.* at A20, col. 1. Even prior to its announcement, citizens representing small landowners and environmentalist groups had complained to the Executive Committee about 3M's proposal, expressing concern that "big projects with a lot of money . . . could buy their way out of waiting." Balcones Canyonlands HCP (formerly Austin RHCP) Executive Committee Minutes of Regular Meeting of August 24, 1990, at 7 (comments of Robert Brandes); see also Balcones Canyonlands HCP (formerly Austin RHCP) Executive Committee Minutes of Work Session of Sept. 14, 1990, at 4-5, 7-8. In fact, the Austin RHCP had been a focal point of controversy between developer and environmentalist communities at its inception and through the entire planning process. See Austin RHCP Executive Committee Minutes of Regular Meeting of Feb. 10, 1989, at 4-5 (debate between developer and environmentalist representatives on Executive Committee). See, e.g., Austin RHCP

These events severely damaged the progress of the Austin RHCP. A poorly-attended public comment meeting in August 1990 indicated either a lack of public interest or inadequate publicity, either of which is an obstacle to a successful RHCP.¹²⁹ The Executive Committee responded, however, by discontinuing its public newsletter in September 1990, even though, as it announced at the time, it had yet to develop an interlocal government consensus on the Austin RHCP, a draft RHCP, a draft EIS, a preliminary section 10 application, or a habitat acquisition funding plan.¹³⁰ To its credit, by that time the Executive Committee had compiled and made available hundreds of pages of biological reports, financial plans, and planning reports, but fully two years after the Austin RHCP had begun, the biggest and most complex tasks still lay ahead.

Given that state of tension and frustration, it is not surprising that the Fall of 1990 saw the boiling point of controversy over the RHCP as well as the warbler listing itself. By late August, environmentalists had begun objecting to the efforts of some area developments and public projects, those with some form of federal nexus, to sidestep the RHCP process by seeking section 7 consultation. One Austin RHCP Executive Committee member went so far as to accuse section 7 consultations as "being illegally and improperly substituted for the Section 10(a) process."¹³¹ Although the Service nonetheless approved 3M's proposed development through a section 7 no jeopardy opinion,¹³² section 7 review of other proposed developments and public projects appeared interminably stalled.¹³³ The prospect of any meaningful interim review and approval process thus seemed beyond reach.

Executive Committee Minutes of Regular Meeting of Apr. 27, 1990, at 6-7 (Earth First! representatives criticize Executive Committee response to allegations of developer habitat clearing); Austin RHCP Executive Committee Minutes of Regular Meeting of March 30, 1990, at 5, 7 (Executive Committee debate over public release of species habitat maps).

129. See Austin American-Statesman, August 17, 1990, at B3, col. 1. The problem appears to be a lack of adequate advertisement of the meeting. See Balcones Canyonlands HCP (formerly Austin RHCP) Executive Committee Minutes of Regular Meeting of August 24, 1990, at 3-4. To its credit, however, the Executive Committee had gone far in making its materials and meetings public, and had by late 1990 attracted a fairly regular group of attendees at its meetings. See *id.* at 2-3.

130. See Balcones Canyonlands Habitat Conservation Plan (formerly Austin RHCP) Executive Committee Special Report (1990). In July 1990, the Executive Committee's planning consultants delivered a list of 20 major points still requiring direction from the Executive Committee, including such fundamental issues as strategy for selecting and acquiring preserve lands, creation of a federal conservation district, and establishing the interlocal legal agreements needed to implement the RHCP. See Balcones Canyonlands HCP (formerly Austin RHCP) Executive Committee Minutes of Regular Meeting of July 27, 1990, at 5-8.

131. Memorandum from Bill Bunch to HCP Interim Guidelines Subcommittee (August 20, 1990).

132. See Austin American-Statesman, November 15, 1990, at A1, col. 2; Austin American-Statesman, November 16, 1990, at F1, col. 2.

133. During November 1990, the Service rejected a local municipality's request to receive blanket approval based on habitat, insisted upon extensive studies of invertebrate species potentially affected by a proposed shopping mall development, and requested updated invertebrate and warbler habitat surveys before considering the state highway departments' proposal for a road improvement project. See Austin American-Statesman, November 1, 1990, at A1, col. 5; Austin American-Statesman, November 8, 1990, at A1, col. 1; Austin American-Statesman, November 12, 1990, at B3, col. 1.

The development community reacted by attacking the warbler listing directly. A noted expert on the warbler had raised questions as to the scientific bases for the listing in July 1990,¹³⁴ which fueled arguments from the Texas Highway Department, the Texas Parks and Wildlife Commission, and private development interests to delay the permanent listing to allow time for more studies.¹³⁵ When Congressional and Administration representatives agreed to hear the case for further study, much of which was based on a biological study of the warbler which the Service appeared to have ignored,¹³⁶ they met with environmentalists' cries of "sleazy politics."¹³⁷

Although often the focus of these outbursts of controversy, the BAT was able by early December to propose its draft RHCP.¹³⁸ The proposal, however, did little to foster consensus. The BAT proposed a preserve system of over 64,000 acres, at a cost of over \$93 million, to be managed by an independent conservation authority to be created by the state legislature.¹³⁹ The proposal calls for the federal government to supply over \$31 million, the state to fund over \$7.5 million, and the remainder to be obtained through a combination of public capital improvement assessments, private development fees, and land donations.¹⁴⁰ These proposals, albeit ambitious, appear to have little chance of ever being fulfilled given the resistance to such levels of funding the designated federal, state, and private sources have already expressed.¹⁴¹ The question thus remains open whether the interests which

134. See Letter of Warren M. Pulich to Alisa Shull, U.S. Fish & Wildlife Service (July 8, 1990); Letter of Warren M. Pulich to Manuel Lujan, Secretary of the Interior (July 24, 1990). Both of Dr. Pulich's letters raised substantial questions regarding the scientific and statistical methodologies of the reports upon which the Service based the emergency listing.

135. See Austin American-Statesman, October 16, 1990, at A1, col. 1; Letter of Frank D. Holzmann, Texas Department of Highways and Public Transportation, to Robert M. Short, U.S. Fish & Wildlife Service (July 6, 1990); Report of the National Association of Home Builders to Secretary of Interior Manuel Lujan on Problems With the Endangered Species Act (August 6, 1990); Letter from Acting Regional Director, U.S. Fish & Wildlife Service to Phil Gramm, United States Senator (October 16, 1990).

136. See Benson, *Habitat Area Requirements of the Golden-cheeked Warbler on the Edwards Plateau* (Oct. 1990) (available from Bioacoustics Laboratory, Texas A&M University); Dr. Benson's report raises questions as to the biological validity of several assumptions upon which the Service based the emergency listing.

137. See Austin American-Statesman, December 5, 1990, at A8, col. 1; Austin American-Statesman, December 6, at A1, col. 5.

138. See Preliminary Draft Balcones Canyonlands Habitat Conservation Plan (December 1990).

139. See *id.* at 11-1 to 11-7, Appendix 1.

140. See *id.* at 10-1 to 11-7.

141. See Letter from Chuck Nash, Chairman, Texas Parks & Wildlife Commission to Selma Sierra, Department of the Interior Office of External Affairs (September 26, 1990). Chairman Nash stated that "[t]he funding requirements being asked of the Texas Parks and Wildlife department of \$7.5 million would not, in my opinion, receive a favorable vote by the Commission at this time. Nor do I believe Congress will appropriate \$30 million." The proposal that over \$6 million of preserve funding would come from land donations also seemed doubtful of being realized. Several area landowners had previously characterized reliance on such "voluntary" funding means as illegal taking, indicating stiff resistance to the concept in general. See Letter of Jeffrey Bordelon to Kent Butler, Austin RHCP BAT Project Manager (October 25, 1990). To channel the proposed federal expenditures, the Service has opened discussions on the establishment of a national wildlife refuge to encompass almost 30,000 acres of the habitat area. See Public Meeting Notice, Balcones Canyonlands Wildlife Refuge (Feb. 1991) (copy available from Refuge Manager, Bureau of Reclamation, Austin, Texas).

became so divided by over two years of delay and controversy can agree to any form of realistic compromise.

The Austin RHCP, now known as the Balcones Canyonlands RHCP, has not unraveled completely, yet it has come precariously close.¹⁴² In all likelihood, an approved RHCP will be attained, but only after many years of work and at the expense of great cost to the local economy and further polarization of the local environmentalist and developer communities. And even a final RHCP does not guarantee long-term implementation. Overall, the Austin RHCP has not been a healthy experience for Austin and it has engendered much caution and concern in the nearby San Antonio area, which also houses several endangered species habitat areas. It is difficult to believe that this is how Congress had hoped section 10 would be implemented when the provision was enacted in 1982.

V. CONCLUSIONS AND RECOMMENDATIONS

The Austin RHCP experience confirms many of the observations that can be made based on the statutory structure and regulatory implementation about the potential success of the RHCP approach generally: the Austin RHCP has taken over two years to develop even so far as the draft stage; support among local jurisdictions and the development community began eroding soon after an interim approval process was ruled out; funding sources are still just a vision; and individual section 7 and section 10 authorizations are creeping into the process, which will only further diminish the momentum for an RHCP. Similar problems are reported for other RHCPs. Perhaps these difficulties tell us that the RHCP concept in general is not a good one. The alternative of project-by-project review has its own downsides, but in the long run it may provide a more orderly and practical means of implementing Congress' goals. Good reasons exist, however, for approaching species protection in terms of regional habitat management. With certain legislative and administrative modifications, the ESA structure could support and promote a more successful RHCP approach.

A. Legislative Recommendations

1. Defining and Designating Behavioral Habitat

The initial question for Congress, of course, involves the extent to which habitat protection by itself will be a driving force behind the ESA. Regardless of the ecological considerations, the critical habitat concept has not proven entirely effective in promoting species protection. The Service has squirmed its way around that limitation through the behavioral habitat con-

142. In late February 1991, the Executive Committee approved the draft RHCP and presumably will now begin seeking local government, state and service approvals, although its estimated price tag has risen to \$115 million. For its part, the Service issued its final rule listing the warbler as an endangered species, albeit still without final resolution of the critical habitat question. See 55 Fed. Reg. 53,153 (Dec. 27, 1990). Hence, already well into 1991, the prospect of a final, approved, and implemented RHCP for Austin seems beyond grasp before 1992.

cept. But behavioral habitat is simply too broad a concept to be integrated into a workable statutory structure without some very definite designation procedures and guidelines. Instead, the Service has used it essentially to level sweeping development moratoriums in regions without ever precisely defining its characteristics or limits and without full public participation.

If behavioral habitat has any place in the ESA, then, Congress should define it and the Service should be required to designate it in much the same manner as critical habitat is designated, i.e., by rulemaking contemporaneous with the species listing and subject to the full public participation of normal rulemaking procedures. Congress' definition should carefully enumerate the behavioral characteristics (e.g., breeding, shelter, feeding, etc.) which are to be considered in defining the habitat range. The designation process, like that for critical habitat, should take cost/benefit analysis into account so that a behavioral habitat range does not overrun or unduly suppress important human activity.

Once designated, destruction of behavioral habitat should not be considered a take in violation of the statute unless strong evidence is present that links such destruction to the species' population decline. The Service's designation should include guidelines as to which and how much habitat deserves such take status. Those guidelines then would form the basis for organization of an RHCP.

2. *Endorsing and Defining the RHCP Process*

Congress also must provide its views on the efficacy and operation of the RHCP process generally. Presently, no structure defining the necessary constituents of an RHCP exists in the statute. What role should the Service play? Which state and local governments are essential? What are the reasonable dimensions of an RHCP? These fundamental questions remain unanswered fully a decade after the need for conservation planning in the ESA was recognized.

At the very least, Congress can provide guidelines for the RHCP process which will smooth the rough spots experienced to date. A key ingredient would be requiring that interim approval mechanisms be employed. Particularly if behavioral habitat is required to be designated, which it should, the Service should also be able to announce interim habitat destruction guidelines. Congress should also define the acceptable funding mechanisms. Funding through private development fees is likely to be necessary to make any RHCP work, and such fees should be applied equitably to all projects in the designated behavioral habitat. Finally, Congress should provide the intergovernmental implementation structure making long-term maintenance of the RHCP more feasible. It may be necessary for the Federal government to become more active in the creative partnership by providing not only a permit and some funding, but also a continuing management role in each RHCP.

3. *Reexamining The Listing Process*

One irony of the ESA is that the hammer-like effects of a species listing encourage pre-listing habitat destruction. Often the Service would be unable to fund adequate studies prior to listing that could be used in an RHCP process to avoid the need for listing in the first place. The result is an all-or-nothing process in which the Service swoops down on a region with a listing and habitat destruction moratorium. Congress could greatly assist the goal of habitat conservation by routing a phased listing approach under which species in the early phases of decline would receive enough protection to support an RHCP designed to fund species studies, but not so much protection as to lead to a development moratorium. The Service could monitor habitat destruction in these phases and determine whether and when to initiate the behavioral habitat designation process and whether and when to progress the species to threatened or endangered status. At that point, at least, the framework for an RHCP would be in place.

B. Administrative Recommendations

Even if Congress took none of the steps described above, the Service could do much through its administrative policy to support the RHCP process. Substantive regulations and guidance statements are needed to further define the necessary ingredients of an RHCP. For example, many agencies have detailed regulations describing the contents of, and the procedures for implementing an Environmental Impact Statement under the National Environmental Policy Act.¹⁴³ No reason why the Service cannot give the same level of regulatory guidance for RHCP preparation exists. Based on the Austin RHCP experience, moreover, public education about the RHCP process could be vastly improved, which could provide more support for the RHCP process in general. Overall, whether RHCPs fail or succeed depends largely on community support, an unlikely condition without proper education and information. Asking a community to virtually stop its economy to prepare an RHCP is asking a great deal; the Service should be expected to give the same in return.

143. 42 U.S.C. §§ 4321-4370, 4332(2)(c) (1982); *see, e.g.*, 40 C.F.R. §§ 1500-1508 (Council on Environmental Quality); 33 C.F.R. § 325, App. B (Corps of Engineers); 40 C.F.R. § 6 (Environmental Protection Agency).

