



Winter 2015

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Recommended Citation

Sam Kalen, *Landscape Shifting Paradigm for the Endangered Species Act: An Integrated Critical Habitat Recovery Program*, 55 Nat. Resources J. 47 (2015).

Available at: <https://digitalrepository.unm.edu/nrj/vol55/iss1/4>

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SAM KALEN*

Landscape Shifting Paradigm for the Endangered Species Act: An Integrated Critical Habitat Recovery Program

ABSTRACT

This article explores how the designation of critical habitat under the Endangered Species Act provides an opportunity for landscape-level planning to conserve species. The Act's requirement to designate critical habitat has generated considerable controversy. Some question its utility, including even those who aggressively pursue species conservation. Other industry and local communities challenge the economic analyses accompanying designations. For many years, designating critical habitat only occurred after litigation, well after the Act suggests designation. The general malaise surrounding the program, therefore, is well documented. Yet policy-makers and scholars shy away from crafting innovative proposals for resolving the principal issues hovering around the critical habitat program. This article fills that gap by examining those problems and suggesting how each of the primary issues can be resolved. The critical habitat program should change to reflect the Act's objective: securing landscape-level management prescriptions to promote species conservation. The article refers to this new approach as "An Integrated Critical Habitat Recovery Program."

I. INTRODUCTION

With our foundational environmental laws approaching forty-plus years, scholars and policy-makers naturally assess the resiliency of these aging statutes. But what about the Endangered Species Act (ESA),¹ which many consider "among the most popular and well-known laws ever passed by Congress?"² Former Secretary Bruce Babbitt simply

* Professor, University of Wyoming College of Law. The author would like to thank the participants at the 2013 Colloquium on Environmental Scholarship at Vermont Law School, as well as Debra Donahue and Mark Squillace, for their helpful comments and observations. I also would like to thank my research assistant Andrew Pope, as well as the editors of the *Natural Resources Journal* for all their assistance.

1. Endangered Species Act of 1973, 16 U.S.C. §§ 1531-1544 (2012).

2. Phillip A. Davis, *Economy, Politics Threaten Species Act Renewal*, CONG. Q. WKLY. (Jan. 4, 1992), at 16, available at <http://library.cqpress.com/cqweekly/document.php?id>

dubbed the law “extraordinary.”³ It is a “keystone law that infuses all our environmental laws with a sense of direction and purpose—to harmonize development and resource use with the protection of our natural heritage.”⁴ It embodies the laudable goal of conserving endangered and threatened species, as well as the “ecosystems upon which they depend.”⁵ And it surely has survived the test of time. The Act continues to experience growing pains. It has transitioned through several phases of development, with each phase attempting to enhance conservation efforts. But lately, the Act’s growth has stuttered.⁶ Instead of providing direction and purpose for the environmental legal system, new initiatives address peripheral issues and support orchestrated conservation efforts that avoid listing species under the Act.⁷ The ESA nevertheless enjoys sufficient growth potential. The designation of critical habitat (CH),⁸ in section 4 of the ESA, is one such example. Critical habitat contains physical or biological features essential to the conservation of the

=WR102405733. See generally REBUILDING THE ARK: NEW PERSPECTIVES ON ENDANGERED SPECIES ACT REFORM (Jonathan H. Adler ed., 2011); THE ENDANGERED SPECIES ACT AND FEDERALISM: EFFECTIVE CONSERVATION THROUGH GREATER STATE COMMITMENT (Kaush Arha & Barton H. Thompson, Jr. eds., 2011); ENDANGERED SPECIES ACT: LAW, POLICY, AND PERSPECTIVES (Donald C. Baur & WM. Robert Irvin eds., 2d ed. 2010); THE ENDANGERED SPECIES ACT AT THIRTY: VOL. 1: RENEWING THE CONSERVATION PROMISE (Dale D. Goble, J. Michael Scott, & Frank W. Davis eds., 2005); SAM KALEN & MURRAY FELDMAN, ESA: ENDANGERED SPECIES ACT (2d ed. 2012); BALANCING ON THE BRINK OF EXTINCTION: THE ENDANGERED SPECIES ACT AND LESSONS FOR THE FUTURE (Kathryn A. Kohm ed., 1991); RICHARD LITTELL, ENDANGERED AND OTHER PROTECTED SPECIES: FEDERAL LAW AND REGULATION (1992); DANIEL J. ROHLF, THE ENDANGERED SPECIES ACT: A GUIDE TO ITS PROTECTIONS AND IMPLEMENTATION (1989); Oliver A. Houck, *The Endangered Species Act and Its Implementation by the U.S. Departments of Interior and Commerce*, 64 U. COLO. L. REV. 277 (1993); James C. Kilbourne, *The Endangered Species Act Under the Microscope: A Closeup Look from a Litigator’s Perspective*, 21 ENVTL. L. 499 (1991).

3. Bruce Babbitt, Lecture, *The Future Environmental Agenda for the United States*, 64 U. COLO. L. REV. 513, 518 (1993).

4. BRUCE BABBITT, TO REAUTHORIZE THE ENDANGERED SPECIES ACT: WHY, WHERE AND HOW WE SHOULD TRANSLATE OUR SUCCESS STORIES INTO LAW 4 (1997) (on file with author).

5. Congress’ stated purpose was, in part, “to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved” 16 U.S.C. § 1531(b). The Ninth Circuit observed “Congress enacted the ESA and NEPA for the purpose of protecting the ecosystem for future generations.” *Mount Graham Coal. v. Thomas*, 53 F.3d 970, 974 (9th Cir. 1995). Earlier congressional efforts to protect endangered species lacked sufficient protection and conservation mechanisms. See generally Endangered Species Preservation Act of 1966, Pub. L. No. 89-669, 80 Stat. 926; Endangered Species Conservation Act of December 5, 1969, Pub. L. No. 91-135, 83 Stat. 275.

6. For an interesting account of ESA initiatives during different administrations, see generally J.B. Ruhl, *Endangered Species Act Innovations in the Post-Babbittian Era—Are there Any?*, 14 DUKE ENVTL. L. & POL’Y F. 419 (2004).

7. See *infra* notes 265–273 and accompanying text.

8. 16 U.S.C. § 1533(a)(3)(A)(i) (2012).

species and which may require special management considerations or protection. CH has the potential to meaningfully address the original ESA goal of conserving ecosystems critical to species survival as well as recovery.

Since the 1980s, the U.S. Fish and Wildlife Service (FWS) and the National Marine Fisheries Service (NMFS) have emphasized the importance of habitat protection under the Act.⁹ For example, the agencies charged with administering the Act recently developed a targeted rule to protect species by using “habitat alterations” as a surrogate for measuring harm to species.¹⁰ The FWS Director, Dan Ashe, recently spoke about the “age-old nemesis of habitat loss and fragmentation” and the need to “think on a landscape level,” examining “all the pieces in an ecological system.”¹¹ Indeed, planning and mitigation on a landscape level has become a dominant theme of the Obama administration’s Interior Department.¹² But the CH program, a provision tailored to conserve habitat and explore meaningful landscape level conservation, has languished until quite recently. In the mid-1990s, CH finally began emerging from its formerly maligned state. During the past few years, FWS designated two of the largest CHs in ESA history: First, it designated habitat for the iconic polar bear,¹³ and second, it recently designated lands for the symbolic

9. See *infra* notes 254–265 and accompanying text.

10. See Incidental Take Statements, 78 Fed. Reg. 54,437, 54,437–48 (proposed Sept. 4, 2013) (to be codified at 50 C.F.R. pt. 402).

11. Milo Mason, *Interview: Daniel M. Ashe*, 27 NAT. RESOURCES & ENV’T 44, 46 (2013). Director Ashe further explained:

I think the 90s we were fond of talking about ecosystems. Landscape conservation is a better term because it is not just science, it’s not just understanding what it takes to be a good ecologist or biologist, and understanding how to manage an ecosystem—assuming that you can do that. But it’s really understanding what makes a landscape tick. . . . [It] encompasses . . . the biological, the ecological, the sociological and political aspects.

Id. at 45.

12. See SECRETARY OF THE INTERIOR, ORDER NO. 3330: IMPROVING MITIGATION POLICIES AND PRACTICES OF THE DEPARTMENT OF THE INTERIOR (Oct. 31, 2013), available at <http://www.doi.gov/news/loader.cfm?csModule=security/getfile&pageid=380602>; see also Alan Kovski, *Impacts on Public Lands To Be Mitigated with ‘Landscape-Level’ Measure*, Jewell Says, BNA DAILY ENV’T REP., NOV. 1, 2013, at A-2, available at <http://www.bna.com/daily-environment-report-p4751/>; Phil Taylor, *Agency Bids to Speed Land-Use Planning, Address Larger Landscapes*, GREENWIRE (Apr. 24, 2014), available at <http://www.eenews.net/greenwire/stories/1059998413>. A focus on landscape level protection became a dominant theme of Deputy Secretary David Hayes before he left office. See DAVID J. HAYES, ADOPTING A LANDSCAPE-LEVEL APPROACH TO MANAGING OUR NATION’S PUBLIC LANDS AND OPEN SPACES (2013) available at http://west.stanford.edu/sites/default/files/DJHayes_Lane_Center_Speech-20130430.pdf.

13. See *infra* note 246 and accompanying text.

northern spotted owl in response to a memorandum by President Obama in February 2011.¹⁴ In May 2014, the FWS and the NMFS nudged even further toward strengthening the CH program by releasing new proposed rules and policy guidance. The Services proposed defining adverse modification and destruction for activities affecting CH, they established procedures for designating CH, and they outlined a policy for excluding areas from CH designation.¹⁵

Despite the recent marginal gains for CH, four issues in particular continue to plague the CH program's ability to reach its fullest potential. This article explores those issues and offers an Integrated Critical Habitat Recovery Program (ICHRP) as the Act's next step toward landscape-level conservation. Part I begins with a capsule summary of the ESA. Although this article addresses only one aspect of the Act in detail, it argues that several of the provisions need to work together more cohesively. The article, therefore, provides an overview of other relevant components of the Act to establish context for the argument to better integrate the CH program.

Part II identifies the four primary issues that have stunted the CH program since its inception. Part II begins by discussing the debate surrounding whether CH is necessary or appropriate. It explains how the FWS promoted a belief that the CH designation achieved only marginal benefits and how that belief contributed toward allowing the CH program to lag behind the Act's other programs. Second, Part II argues how the timing for CH designations is problematic, because the Act requires designations either at listing or shortly thereafter. Third, Part II analyzes how the FWS applies the National Environmental Policy Act (NEPA) to designation decisions. Although I conclude that the Services'¹⁶ current approach toward NEPA's applicability is suspect, I nevertheless suggest that NEPA need not be viewed as a troublesome interloper into the CH

14. See *infra* notes 182 and accompanying text. Even more recently, the Services issued another critical habitat designation for the loggerhead sea turtles "in a move that creates one of the biggest habitat designations ever . . ." Jessica Estepa, *Twin Rules for Loggerhead Sea Turtles Set One of Biggest Habitat Designations Ever*, E&E NEWS PM (July 9, 2014), available at <http://www.eenews.net/eenewspm/stories/1060002581>.

15. See Definition of Destruction or Adverse Modification of Critical Habitat, 79 Fed. Reg. 27,060, 27,061 (proposed May 12, 2014) (to be codified at 50 C.F.R. pt. 402); Implementing Changes to the Regulations for Designating Critical Habitat, 79 Fed. Reg. 27,066, 27,068–75 (proposed May 12, 2014) (to be codified at 50 C.F.R. pt. 424); Policy Regarding Implementation of Section 4(b)(2) of the Endangered Species Act, 79 Fed. Reg. 27,052, 27,053–57 (May 12, 2014) (draft policy announcement and public comment solicitation).

16. This article uses "The Services" to refer to both the Fish and Wildlife Service and the National Marine Fisheries Service and "a Service" when the particular Service is irrelevant.

program. Finally, Part II asserts that the cost benefit analysis associated with designation decisions has become a wasteful exercise.

Part III then proposes how an integrated approach to CH, which I call the ICHRP, can resolve each of these issues. Unless policy-makers completely restructure the CH program, the Act's penultimate mission of protecting habitat at a landscape level will forever be stymied. The solution is neither dramatic nor profound, but it requires altering some attitudes and modifying the timing and content of some ESA provisions. To succeed, we must first focus on species recovery immediately after a listing, and then develop a recovery plan that contains implementable and detailed management goals on a landscape level. Only after these initial steps should a Service proceed to designate CH, which could then incorporate concrete recovery planning goals and prescriptions. And if we do all this, the role of NEPA and cost considerations fold more easily into the process. ICHRP, therefore, could become the next phase in the ESA's growth.

II. ESA OVERVIEW

A. The ESA Generally

The ESA reflects Congress' most ambitious attempt to thwart the loss of species. The Act includes several mechanisms to conserve threatened and endangered species. To begin with, section 4 of the Act triggers the Act's mandates. These mandates generally encompass three programs: one for listing endangered and threatened species; another to designate critical habitat—that is, habitat containing “physical or biological features . . . essential to the conservation of the species and . . . which may require special management considerations or protection;”¹⁷ and the last to develop recovery plans.¹⁸ Congress established a process for deciding what species warrant protection by prescribing a program for listing species as either endangered or threatened.¹⁹ Species²⁰ become listed,

17. 16 U.S.C. § 1532(5)(A) (2012).

18. *Id.* § 1533(f). See generally J.B. Ruhl, *Section 4 of the ESA—The Cornerstone of Species Protection Law*, 8 NAT. RESOURCES & ENV'T 26 (1993).

19. The lawsuit challenging the listing of the polar bear precipitated a legal memorandum from the FWS to distinguish between threatened and endangered species, an interpretation the court upheld. See *In re Polar Bear Endangered Species Act Listing and Section 4(d) Rule Litig.*—MDL No. 1993, 709 F.3d 1, 2–3 (D.C. Cir. 2013).

20. What constitutes a “species” is a threshold issue. The Act defines “species” to include “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.” 16 U.S.C. § 1532(16). See generally Kevin W. Grierson, Note, *The Concept of Species and the Endangered Species Act*, 11 VA. ENVTL. L.J. 463 (1992); Karl Gleaves, Michele Kuruc & Patricia Montanio,

reclassified or delisted either upon a Service's own initiative or pursuant to a petition from an interested party.²¹ Any listing decision must be based upon the best scientific and commercial data available,²² and the Services may not consider economic impacts of a listing when deciding

The Meaning of Species Under the Endangered Species Act, 13 PUB. LAND & RESOURCES L. REV. 25 (1992); Kevin D. Hill, *The Endangered Species Act: What Do We Mean by Species?*, 20 B.C. ENVTL. AFF. L. REV. 239 (1993); Daniel J. Rohlf, *There's Something Fishy Going On Here: A Critique of the National Marine Fisheries Service's Definition of Species Under the Endangered Species Act*, 24 ENVTL. L. 617 (1994). A "species" also might be listed if it so closely resembles a listed species that enforcement becomes difficult. *Ill. Commercial Fishing Ass'n v. Salazar*, 867 F. Supp. 2d 108, 114 (D.D.C. 2012) (upholding similarity of appearance listing). The Services recently acknowledged that the statutory language and their taxonomy for identifying species is possibly outdated. *Implementing Changes to the Regulations for Designating Critical Habitat*, 79 Fed. Reg. at 27,068. See generally JOE ROMAN, LISTED: DISPATCHES FROM AMERICA'S ENDANGERED SPECIES ACT 172–73 (2011) (noting that neither subspecies nor distinct population segments are static terms). The Act further requires that the Service examine whether the species is in danger of extinction "throughout all or a significant portion of its range." Final Policy on Interpretation of the Phrase "Significant Portion of Its Range" in the Endangered Species Act's Definitions of "Endangered Species" and "Threatened Species," 79 Fed. Reg. 37,578, 37,578 (July 1, 2014) (to be codified at 50 C.F.R. Ch. I-II). This concept has generated some debate and the release of an updated policy guidance from the Services. *Id.* at 37,585–610.

21. See 16 U.S.C. § 1533(b)(3)(A). See generally 50 C.F.R. § 424 (2013). After a petition is filed, a Service has ninety days to determine, "to the maximum extent practicable," whether the petition presents "substantial scientific or commercial information" warranting action on the petition. 16 U.S.C. § 1533(b)(3)(A). In accordance with established factors, the Service then has one year to determine whether the petition is warranted or not, or whether it is warranted but precluded. *Id.* § 1533(b)(3)(B)(iii). The one-year period may be extended for six months, under certain circumstances. *Id.* § 1533(b)(6)(B)(i). In 1979, Congress directed that the Secretary develop guidelines for prioritizing the review of species that might require listing. Act of December 28, 1979, Pub. L. No. 96–159, 93 Stat. 1225, 1225–26 (codified as amended 16 U.S.C. § 1533(h)(3)). The statute further provides a mechanism for bypassing the normal procedures and issuing an emergency listing when warranted. 16 U.S.C. § 1533(b)(7). *E.g.*, *City of Las Vegas v. Lujan*, 891 F.2d 927, 930 (D.C. Cir. 1989).

22. 16 U.S.C. § 1533(b)(1)(A). Absolute scientific certainty is not required; rather, the agency must use the best data available and arguably err on the side of species protection. See *Friends of Blackwater v. Salazar*, 691 F.3d 428, 435 (D.C. Cir. 2012) (holding that the agency is not required to conduct independent studies); *Trout Unlimited v. Lohn*, 559 F.3d 946, 958 (9th Cir. 2009) (deferring to the agency's discretion in reviewing available science); *Sw. Ctr. for Biological Diversity v. Babbitt*, 215 F.3d 58, 60–61 (D.C. Cir. 2000) (holding the agency is only required to consider evidence before it). A peer review policy assists in ensuring that the best available science is employed. See *Colo. River Cutthroat Trout v. Salazar*, 898 F. Supp. 2d 191, 197 (D.D.C. 2012). See generally Michael J. Brennan, David E. Roth, Murray D. Feldman & Andrew Robert Greene, *Square Pegs and Round Holes: Application of the "Best Scientific Data Available" Standard in the Endangered Species Act*, 16 TUL. ENVTL. L.J. 387 (2003).

whether to list a species.²³ Needless to say, the failure to list or a delay in listing often occasions litigation.²⁴

Along with the listing process, the Services—except in limited circumstances—must designate CH for each listed species. Habitat and conservation of species are inextricably linked. When Congress crafted and passed the Act, the fundamental tenet of ecology imbued its understanding of what was necessary to conserve species.²⁵ The importance of habitat, therefore, cannot be understated: The Act’s purpose elevates habitat protection when it provides that the Act’s goals “are to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved.”²⁶ Congress also specifi-

23. See 50 C.F.R. § 424.11(b) (2013); see also H.R. REP. NO. 97-835, at 20 (1982) (Conf. Rep.), reprinted in 1982 U.S.C.C.A.N. 2860, 2861 (economic analysis not relevant).

24. See, e.g., *In re Endangered Species Act Section 4 Deadline Litig.*—MDL No. 2165, 704 F.3d 972, 980 (D.C. Cir. 2013) (denying intervenor appeal and effectively approving listing settlement); *Defenders of Wildlife v. Babbitt*, 958 F. Supp. 670, 673 (D.D.C. 1997) (refusing to list contiguous United States population of the Canadian Lynx); *Biodiversity Legal Found. v. Babbitt*, 943 F. Supp. 23, 23 (D.D.C. 1996) (failing to list the Alexander Archipelago wolf); *Sw. Ctr. for Biological Diversity v. Babbitt*, 939 F. Supp. 49, 50 (D.D.C. 1996) (failing to list the Queen Charlotte goshawk); *Sw. Ctr. for Biological Diversity v. Babbitt*, 926 F. Supp. 920, 921–22 (D. Ariz. 1996) (failing to list northern goshawk as distinct population segment); *Friends of the Wild Swan, Inc. v. USFWS*, 945 F. Supp. 1388, 1390 (D. Or. 1996) (challenging failure to list bull trout); *N. Spotted Owl v. Hodel*, 716 F. Supp. 479, 483 (W.D. Wash. 1988) (remanding to reconsider listing northern spotted owl). See generally U.S. GEN. ACCOUNTING OFFICE, *ENDANGERED SPECIES: FACTORS ASSOCIATED WITH DELAYED LISTING DECISIONS* (1993), available at <http://www.gao.gov/assets/220/218327.pdf>. The jaguar’s listing illustrates the turmoil often present surrounding listings. See *Designation of Critical Habitat for Jaguar*, 77 Fed. Reg. 50,214, 50,215–16 (proposed Aug. 20, 2012) (to be codified at 50 C.F.R. pt. 17) (describing history, including congressional funding moratorium). For informative studies about litigation surrounding listing deadlines, see generally Eric Biber & Berry Brosi, *Officious Intermeddlers or Citizen Experts? Petitions and Public Production of Information in Environmental Law*, 58 UCLA L. REV. 321 (2010) (reviewing how litigation may enhance informed decision-making); Benjamin Jesup, *Endless War or End This War? The History of Deadline Litigation Under Section 4 of the Endangered Species Act and the Multi-District Litigation Settlements*, 14 VT. J. ENVTL. L. 327 (2013) (tracing litigation and exploring effects).

25. See generally Sam Kalen, *Ecology Comes of Age: NEPA’s Lost Mandate*, 21 DUKE ENVTL. L. & POL’Y F. 113 (2010).

26. 16 U.S.C. § 1531(b) (2012). The legislative history reflects Congress’ recognition that the “most significant” threat to species is the need to control against “the destruction of critical habitat.” H.R. Rep. No. 93–412 (1973), reprinted in A LEGISLATIVE HISTORY OF THE ENDANGERED SPECIES ACT OF 1973, AS AMENDED IN 1976, 1977, 1978, 1979, AND 1980, SERIAL NO. 97-6, 9th Cong., 2d Sess. (Feb. 1982), at 144; see also *id.* at 141 (“The threat to animals may arise from a variety of sources; principally pollution, destruction of habitat and the pressures of trade.”).

cally designed a provision in the Act to facilitate acquisition of species' habitat.²⁷

Section 4 also establishes a process for developing recovery plans. Recovery plans are integral to the ESA's goals. The Act requires the Service to develop recovery plans for each species, except when it would otherwise undermine species conservation.²⁸ The goal of these recovery plans is "not just to ensure survival, but to ensure that the species recovers to the point that it can be delisted."²⁹ Once developed, though, a recovery plan arguably can escape judicial review because the Services consider the plans as nonbinding.³⁰ Moreover, until the 1990s, recovery

27. 16 U.S.C. § 1534(a) (2012).

28. *Id.* § 1533(f)(1). See generally NAT'L MARINE FISHERIES SERV. & U.S. FISH AND WILDLIFE SERV., INTERIM ENDANGERED AND THREATENED SPECIES RECOVERY PLANNING GUIDANCE VERSION 1.3 (2010) (guidance on recovery planning process), available at http://www.fws.gov/endangered/esa-library/pdf/NMFS-FWS_Recovery_Planning_Guidance.pdf.

29. *Alaska v. Lubchenco*, 723 F.3d 1043, 1054 (9th Cir. 2013).

30. The FWS considers these plans "advisory" in nature, *id.*, and federal agencies are not required to follow these plans, e.g., *Friends of Blackwater v. Salazar*, 691 F.3d 428, 433–34 (D.C. Cir. 2012) (plans non-binding); see also *Fund for Animals, Inc. v. Rice*, 85 F.3d 535, 547 (11th Cir. 1996) ("Section 1533(f) makes it plain that recovery plans are for guidance purposes only."). Yet, the Ninth Circuit recently suggested that the NMFS must "design and carry out 'recovery plans . . .'" *Alaska*, 723 F.3d at 1047; see also Harry R. Bader, *Wolf Conservation: The Importance of Following Endangered Species Recovery Plans*, 13 HARV. ENVTL. L. REV. 517, 530 (1989) (suggesting that recovery plans must be followed); Robert L. Fischman, *Endangered Species Conservation: What Should We Expect of Federal Agencies?*, 13 PUB. LAND L. REV. 1, 14 (1992) ("Whether a recovery plan, once approved by the FWS, binds the FWS or other federal agencies to engage in management measures described is an open legal question."); Robert Meltz, *Where the Wild Things Are: The Endangered Species Act and Private Property*, 24 ENVTL. L. 369, 377 n.48 (1994) (discussing a Department of Justice memorandum concerning the FWS's longstanding treatment of the plans as simply "guidance documents"). In the initial dispute over groundwater pumping from the Edwards aquifer in Texas, the court held that the Secretary of the Interior failed to implement a recovery plan for the listed species. *Sierra Club v. Lujan*, No. MO-91-CA-069, 1993 WL 151353, at *11 (W.D. Tex. Feb. 1, 1993). For a discussion of the Edwards aquifer dispute, see generally Eric M. Albritton, *The Endangered Species Act: The Fountain Darter Teaches What the Snail Darter Failed To Teach*, 21 ECOLOGY L.Q. 1007 (1994).

planning received too little attention³¹ and the FWS had not developed plans for a significant number of species.³²

Next, Congress imposed enforceable obligations on all federal agencies to ensure that federal actions will not likely jeopardize the continued existence of any threatened or endangered species or adversely modify or destroy critical habitat. Pursuant to section 7 of the ESA and its implementing regulations, every federal agency must consult with either the FWS or the NMFS prior to authorizing, funding, or carrying out any action that may affect any listed species.³³ The section 7 consultation

31. See generally ENDANGERED SPECIES ACT: LAW, POLICY, AND PERSPECTIVES 71 (Donald C. Baur & WM. Robert Irvin eds., 2d ed. 2010); Federico Cheever, *The Road to Recovery: A New Way of Thinking About the Endangered Species Act*, 23 *ECOLOGY L.Q.* 1 (1996); Jason M. Patlis, *Recovery, Conservation, and Survival Under the Endangered Species Act: Recovering Species, Conserving Resources, and Saving the Law*, 17 *PUB. LAND & RESOURCES L. REV.* 55 (1996); Jason C. Rylander, *Recovering Endangered Species in Difficult Times: Can the ESA Go Beyond Mere Salvage?*, 42 *ENVTL. L. REP.* 10017 (2012).

32. In 1988, Congress amended section 4 to strengthen the recovery planning process. See Endangered Species Act Amendments of 1988, Pub. L. No. 100-478, 102 Stat. 2306, 2306-07; see also S. REP. NO. 100-240, at 8-10 (1987), reprinted in 1988 U.S.C.A.N. 2700, 2708-09. Recovery plans do not trigger NEPA. National Environmental Policy Act Revised Implementing Procedures, 62 Fed. Reg. 2,375, 2,379 (Jan. 16, 1997) (notice of final revise procedures); U.S. FISH AND WILDLIFE SERV., POLICY AND GUIDELINES FOR PLANNING AND COORDINATING RECOVERY OF ENDANGERED AND THREATENED SPECIES 6 (1990) (developing recovery plan is categorically excluded from NEPA), available at <http://training.fws.gov/resources/course-resources/esa-overview/documents/pdf/90guide.pdf>.

33. Section 7(a)(2) of the Endangered Species Act provides:

Each Federal agency shall, in consultation with and with the assistance of the Secretary, insure that any action authorized, funded, or carried out by such agency (hereinafter in this section referred to as an "agency action") is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species which is determined by the Secretary, after consultation as appropriate with affected States, to be critical, unless such agency has been granted an exemption for such action by the Committee pursuant to subsection (h) of this section.

16 U.S.C. § 1536(a)(2) (2012). This process only applies to discretionary agency actions. 50 C.F.R. § 402.03 (2013); *Nat'l Ass'n of Homebuilders v. Defenders of Wildlife*, 551 U.S. 644, 665 (2007); *Grand Canyon Trust v. U.S. Bureau of Reclamation*, 691 F.3d 1008, 1017 (9th Cir. 2012); *Natural Res. Def. Council v. Salazar*, 686 F.3d 1092, 1098-99 (9th Cir. 2012), *on reh'g en banc*, *Natural Res. Def. Council v. Jewell*, 749 F.3d 776 (9th Cir. 2014); *Karuk Tribe of Cal. v. U.S. Forest Serv.*, 681 F.3d 1006, 1024 (9th Cir. 2012). Other aspects of section 7 include a provision that directs federal agencies to utilize their authorities for the conservation of listed species, 16 U.S.C. § 1536(a)(1), an agency requirement for conferencing on proposed species and proposed CH, 16 U.S.C. § 1536(a)(4), a consultation option, 16 U.S.C. § 1536(a)(3), as well as an exemption process—the Endangered Species Committee or the God Committee as it is called, 16 U.S.C. § 1536(e). See generally M. Lynne Corn & Pamela Baldwin, *Endangered Species Act: The Listing and Exemption Processes*, in *Endangered Species Issues and Analyses* (Paul Foreman ed., 2002); Jared des Rosiers, Note, *The Exemption Pro-*

process generally requires the action agency and Service to determine whether a listed species may be present in the area affected by the proposed federal action, and if so, the action agency and Service must engage in a consultation process.³⁴ This process generally produces one of two outcomes: The Service can agree that the proposed action is not likely to adversely affect the species or critical habitat, and thus end the consultation process; or, the Service or action agency can conclude that the action may affect either the species or the critical habitat. The Service then issues a biological opinion that examines how the action will likely jeopardize the continued existence of the species or adversely modify or

cess Under the Endangered Species Act: How the “God Squad” Works and Why, 66 NOTRE DAME L. REV. 825 (1991); J.B. Ruhl, *Section 7(a)(1) of the “New” Endangered Species Act: Rediscovering and Redefining the Untapped Power of Federal Agencies’ Duty to Conserve Species*, 25 ENVTL. L. 1107 (1995). J.B. Ruhl persuasively argues that section 7(a)(1) can and should be used as a “sword requiring federal agencies to maximize use of significant conservation measures in its action selection” *Id.* at 1133; *see also* John Charles Kunich, *The Fallacy of Deathbed Conservation Under the Endangered Species Act*, 24 ENVTL. L. 501, 545 (1994); Sharon K. Shuttler & Elinor Colbourn, *Natural Resource Restoration: The Interface Between the Endangered Species Act and CERCLA’s Natural Resource Damage Provisions*, 24 ENVTL. L. 717, 730–34 (1994); John W. Steiger, *The Consultation Provision of Section 7(a)(2) of the Endangered Species Act and Its Application to Delegable Federal Programs*, 21 ECOLOGY L.Q. 243, 319 (1994).

34. Consultations occur in accordance with joint interagency regulations and a section 7 consultation handbook. 50 C.F.R. § 402.14 (2013); U.S. FISH & WILDLIFE SERV. & NAT’L MARINE FISHERIES SERV., ENDANGERED SPECIES CONSULTATION HANDBOOK: PROCEDURES FOR CONDUCTING CONSULTATION AND CONFERENCE ACTIVATES UNDER SECTION 7 OF THE ENDANGERED SPECIES ACT (1998), available at http://www.nmfs.noaa.gov/pr/pdfs/laws/esa_section7_handbook.pdf. According to the FWS, “[s]ection 7’s mandatory directive is quite clear in requiring the initiation of consultation upon a determination that an activity or program may affect a listed species or its critical habitat.” Interagency Cooperation, 43 Fed. Reg. 870, 871 (Jan. 4, 1978) (final rulemaking). Absent a written concurrence by the service agreeing with an action agency’s “not likely to adversely affect” assessment, the action agency ought not proceed with the proposed action until either a written concurrence or subsequent completion of the formal consultation process. *See, e.g., Pac. Rivers Council v. Thomas*, 30 F.3d 1050 (9th Cir. 1994) (written concurrence by Service agency before consultation can conclude when a “may affect” but “not likely to adversely affect” determination). Until consultation concludes, the regulations provide, pursuant to section 7(d) of the Act, that the federal agency “shall make no irreversible or irretrievable commitment of resources with respect to the agency action which has the effect of foreclosing the formulation or implementation of any reasonable and prudent alternatives which would avoid violating section 7(a)(2).” 50 C.F.R. § 402.09 (2013). If the proposed action may affect the species, the action agency generally will prepare a biological assessment outlining the agency’s examination of the likely effects on the species and any CH. While these documents generally are not reviewable, courts may permit review if there is no subsequent biological opinion by the Service. *League of Wilderness Defenders/Blue Mountains Biodiversity Project v. Connaughton*, No. 3:12-cv-02271-HZ, 2013 WL 3776305, at *6 (D. Or. July 17, 2013) (allowing review of biological assessment), *aff’d in part, rev’d in part, and remanded by* 752 F.3d 755 (9th Cir. 2014); *see, e.g., Conservation Cong. v. U.S. Forest Serv.*, 720 F.3d 1048, 1056 (9th Cir. 2013) (reviewing the requirements for biological assessment).

destroy CH. The Service also examines if there will be a “taking”³⁵ of the species.³⁶ Section 9 of the Act prohibits any person, including governmental entities, from “tak[ing]” any endangered fish or wildlife species, or from violating any section 4 regulation that governs threatened fish or wildlife species, unless authorized by section 10.³⁷ Congress defined “take” to mean “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.”³⁸ The Services’ regulations further define “take” to include “significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavior patterns, including breeding, feeding, or sheltering.”³⁹ The Act only applies “take” liability to

35. See *infra* notes 36–40 and accompanying text.

36. Formal consultation can only begin when the action agency submits an acceptable biological assessment, using the “best scientific and commercial data available” to the appropriate service. 50 C.F.R. §§ 402.12(j)–(k), 402.14 (c)–(d) (2013). It concludes when the Service agency issues a biological opinion. 16 U.S.C. § 1536(b)(3)(A); 50 C.F.R. § 402.14(l). The biological opinion evaluates the nature and extent of jeopardy posed to affected species by the agency action. 16 U.S.C. § 1536(b)(3)(A). The opinion also must include an Incidental Take Statement (ITS), evaluating the potential “take” of the species and including any mandatory terms and conditions or reasonable and prudent measures to avoid or mitigate against potential “take” liability. See *Incidental Take Statements*, 78 Fed. Reg. 54,437, 54,438–40 (proposed Sept. 4, 2013) (to be codified 50 C.F.R. pt. 402) (permitting use of surrogate factors, including habitat, in designing ITS’s).

37. 16 U.S.C. § 1538(a)(1)(B), (G) (2012). Section 9 also prohibits importation, exportation, sale, possession and trade of such species. *Id.* § 1538(a), (d). Endangered plants and threatened plants if in accordance with a rule under section 4(d) are only protected from activities on federal lands, see 16 U.S.C. § 1538(a)(2)(B), or from being harmed on private land in violation of state law, including trespass, see *Endangered Species Act Amendments of 1988*, Pub. L. No. 100-478, 102 Stat. 2306, 2308–09 (codified as amended at 16 U.S.C. § 1538(a)(2)(B)). See generally Federico Cheever & Michael Balster, *The Take Prohibition in Section 9 of the Endangered Species Act: Contradictions, Ugly Ducklings, and Conservation of Species*, 34 ENVTL. L. 363 (2004); Federico M. Cheever, *An Introduction to the Prohibition Against Takings in Section 9 of the Endangered Species Act of 1973: Learning to Live with a Powerful Species Preservation Law*, 62 U. COLO. L. REV. 109 (1991); Michael E. Field, *The Evolution of the Wildlife Taking Concept from Its Beginning to Its Culmination in the Endangered Species Act*, 21 HOUS. L. REV. 457 (1984); Albert Gidari, *The Endangered Species Act: Impact of Section 9 on Private Landowners*, 24 ENVTL. L. 419 (1994); Lawrence R. Liebesman & Steven G. Davison, *Takings of Wildlife Under the Endangered Species Act After Babbitt v. Sweet Home Chapter of Communities for a Great Oregon*, 5 U. BALT. J. ENVTL. L. 137 (1995). The constitutionality of the take prohibition has survived a challenge. *E.g.*, *Nat’l Ass’n of Home Builders v. Babbitt*, 130 F.3d 1041, 1057 (D.C. Cir. 1997).

38. 16 U.S.C. § 1532(19) (2012).

39. 50 C.F.R. § 17.3 (2012). See generally *Babbitt v. Sweet Home Chapter of Cmty. for a Great Or.*, 515 U.S. 687 (1995) (upholding definition as applied to habitat modifications); *Marbled Murrelet v. Babbitt*, 83 F.3d 1060 (9th Cir. 1996) (using reasonable certain standard); *Am. Bald Eagle v. Bhatti*, 9 F.3d 163 (1st Cir. 1993) (holding that a showing of actual harm is necessary); *Animal Welfare Inst. v. Beech Ridge Energy LLC*, 675 F. Supp. 2d 540 (D. Md. 2009) (applying Ninth Circuit standard). Early on, the FWS required actual death

threatened species if the Service adopts what is commonly called a section 4(d) rule. Section 4(d) of the ESA authorizes the Services to promulgate a rule that would treat threatened species as if they are endangered for purposes of applying the section 9 take liability.⁴⁰

B. Critical Habitat

Michael Bean, a special ESA counselor in the Department of the Interior, aptly notes that when Congress first introduced the concept of CH, it was not only “novel” but also “widely heralded as one of the significant innovations of the new law.”⁴¹ Section 4(a)(3) of the Act requires the Secretary to designate CH for listed species to the “maximum extent prudent and determinable” concurrent with the listing decision or within a year later by promulgating a rule.⁴² The ESA defines CH as:

or injury. Reclassification of the American Alligator and Other Amendments, 40 Fed. Reg. 44,412, 44,416 (Sept. 26, 1975) (to be codified at 50 C.F.R. pt.17); Final Redefinition of “Harm,” 46 Fed. Reg. 54,748, 54,748 (Nov. 4, 1981) (to be codified 50 C.F.R. pt. 17). In 1981, the Associate Solicitor, Division of Conservation and Wildlife, recommended this clarification. See Proposed Redefinition of “Harm,” 46 Fed. Reg. 29,490, 29,490 (proposed June 2, 1981) (to be codified at 50 C.F.R. pt. 17).

40. 16 U.S.C. § 1533(d) (2012). The FWS applies the “take” prohibition generically to all threatened species, unless otherwise exempted, see 50 C.F.R. § 17.31(a), while the NMFS applies the “take” prohibition under section 4(d) with each listing decision.

41. MICHAEL J. BEAN & MELANIE J. ROWLAND, *THE EVOLUTION OF NATIONAL WILDLIFE LAW* 251 (3d Ed. 1997).

42. 16 U.S.C. §§ 1533(a)(3)(A)(i), (b)(6)(C). The Endangered Species Preservation Act of 1966, Pub. L. No. 89-669, 80 Stat. 926 (1966) did not require the designation of critical habitat from the Secretary of Interior. *Conservancy of Sw. Fla. v. USFWS*, 677 F.3d 1073, 1075 (11th Cir. 2012). And while the 1973 Act provided that CH could not be modified or destroyed by agency actions that triggered a section 7 consultation, it “provided no guidance on how or when” critical habitat would be identified. *Id.* at 1075 n.2 (quoting *Ala.-Tombigbee Rivers Coal. v. Kempthorne*, 477 F.3d 1250, 1264 (11th Cir. 2007)). After President Carter’s directive that federal agencies identify critical habitat early (13 Weekly Comp. Pres. Docs. 782, 292 (May 1977)), Congress included language in the 1978 amendments designed to improve the designation process (and added the adjective “adverse” for modification). Endangered Species Act Amendments of 1978, Pub. L. No. 95-632, 92 Stat. 3751, 3751. The addition of the word “adverse” added little to what already had been employed by the FWS. Michael Bean explains how the original amendment by Senator McClure apparently sought to “discourage in a rather unspecific way the inclusion within that habitat of areas beyond those occupied by the species at the time [because Senator McClure was concerned about the grizzly bear designation, see generally Proposed Determination of Critical Habitat for the Grizzly Bear, 41 Fed. Reg. 48,757 (proposed Nov. 5, 1976) (to be codified at 50 C.F.R. pt. 17)], and to forbid the inclusion of any areas into which the species could not be expected to expand naturally,” see BEAN, *supra* note 41, at 256. But the resulting language that emerged from a “deal” in a “closed meeting room” offered little explanation, other than to emphasize that not all habitat of a species need be listed and that a different standard existed between jeopardy and critical habitat. *Id.* at 256–58; see also Daniel J. Rohlf, *Section 4 of the Endangered Species Act: Top Ten Issues for the Next Thirty Years*, 34 ENVTL. L. 483, 491,

(i) the specific areas within the geographical area occupied by the species . . . on which are found those physical or biological features

(I) essential to the conservation of the species and

(II) which may require special management considerations or protection; and

(ii) specific areas outside the geographical area occupied by the species . . . upon a determination by the Secretary that such areas are essential for the conservation of the species.⁴³

Designation is not prudent when it might increase the possibility of harm to the species or would otherwise not be beneficial to the species.⁴⁴ The FWS, for instance, initially suggested that designating CH for the Southern Selkirk Mountains Population of Woodland Caribou might facilitate illegal poaching, a concern it later revisited.⁴⁵ For years, the FWS failed to designate habitat for many species, but courts generally appear reluctant to allow the Services sufficient latitude to refuse to des-

493 (2004). The Secretary's decision whether to designate CH concurrent with a listing decision became problematic, and Congress addressed the timing of the designation in the 1982 amendments. Endangered Species Act Amendments of 1982, Pub. L. No. 97-304, 96 Stat. 1411. See generally James Salzman, *Evolution and Application of Critical Habitat Under the Endangered Species Act*, 14 HARV. ENVTL. L. REV. 311 (1990); Katherine Simmons Yagerman, *Protecting Critical Habitat Under the Federal Endangered Species Act*, 20 ENVTL. L. 811 (1990). For designating CH for pre-1982 species, see generally Implementing Changes to the Regulations for Designating Critical Habitat, 79 Fed. Reg. 27,066 (proposed May 12, 2014) (to be codified at 50 C.F.R. pt. 424).

43. 16 U.S.C. § 1532(5)(A) (2012). The phrase "special management considerations or protection" is defined as "any methods or procedures useful in protecting physical and biological features of the environment for the conservation of listed species." 50 C.F.R. § 424.02(j) (2013). Existing management programs may not justify excluding areas. Designation of Critical Habitat for the Polar Bear (*Ursus maritimus*) in the United States, 75 Fed. Reg. 76,086, 76,101 (Dec. 7, 2010) (to be codified at 50 C.F.R. pt. 17) (noting *Conservation Council for Haw. v. Babbitt*, 24 F. Supp. 2d 1074, 1078 (D. Haw. 1998) and *Ctr. for Biological Diversity v. Norton*, 240 F. Supp. 2d 1090 (D. Ariz. 2003)).

44. 50 C.F.R. § 424.12(a)(1) (2013). Designation of Critical Habitat for the Southern Selkirk Mountains Population of Woodland Caribou (*Rangifer tarandus caribou*), 76 Fed. Reg. 74,018, 74,021 (proposed Nov. 30, 2011) (to be codified at 50 C.F.R. pt. 17).

45. Designation of Critical Habitat for the Southern Selkirk Mountains Population of Woodland Caribou (*Rangifer tarandus caribou*), 76 Fed. Reg. at 74,021. Fear of illegal poaching prevented other designations. See Carl Hulse, *Collectors Are a Threat to Some Rare Species*, *Government Aides Say*, N.Y. TIMES, Dec. 27, 1994, at C4. A similar concern animated the FWS not prudent determination for the jaguar, only to be rejected in court and later changed. Designation of Critical Habitat for Jaguar, 77 Fed. Reg. 50,214, 50,216 (proposed Aug. 20, 2012) (to be codified at 50 C.F.R. pt. 17) (describing history).

ignate habitat altogether.⁴⁶ In recent testimony before Congress, FWS Director Dan Ashe described how the Service initially avoided designating habitat on the basis of prudence findings.⁴⁷ That FWS decision, however, “led to more litigation challenging the failure to designate critical habitat, and the courts ultimately made it clear that [the Service’s] discretion not to designate critical habitat was very limited.”⁴⁸

Absent special circumstances, as determined by the Service, “critical habitat shall not include the entire geographical area which can be occupied by the threatened or endangered species.”⁴⁹ The Act requires that the Service make the designation decision “on the basis of the best scientific data available and after taking into consideration the economic impact, the impact on national security, and any other relevant impact, of specifying any particular area as critical habitat.”⁵⁰ Unlike the listing decision, the Services must consider economic impacts for CH, and they may exclude any area from designation when the failure to do so will not result in the extinction of the species.⁵¹

46. Several courts scrutinized carefully the failure to designate CH. *See, e.g.,* Sierra Club v. U.S. Fish and Wildlife Serv., 245 F.3d 434, 443–47 (5th Cir. 2001). For example, in *Natural Res. Def. Council v. U.S. Dep’t of Interior*, 113 F.3d 1121 (9th Cir. 1997), the plaintiffs challenged the FWS’ decision not to designate CH for the California gnatcatcher. The court agreed that the decision ignored the ESA’s requirement that critical habitat be designated except in those rare instances where the designation would not benefit the species. Daniel Rohlf correctly observes that “litigation since the mid-1990s by environmental groups has led to many court-ordered critical habitat designations . . .” Rohlf, *supra* note 42, at 495. *See also infra* note 224, and accompanying text. But the court does not always rule for CH designation. In a questionable decision, the Eleventh Circuit held that the denial of a petition to designate CH for pre-1978 listed species is not judicially reviewable. *Conservancy of Sw. Fla. v. U.S. Fish and Wildlife Serv.*, 677 F.3d at 1073.

47. TESTIMONY OF DAN ASHE, DIRECTOR, U.S. FISH AND WILDLIFE SERVICE, DEPARTMENT OF THE INTERIOR, BEFORE THE HOUSE NATURAL RESOURCES COMMITTEE, REGARDING “TRANSPARENCY AND SOUND SCIENCE GONE EXTINCT?: THE IMPACTS OF THE OBAMA ADMINISTRATION’S CLOSED-DOOR SETTLEMENTS ON ENDANGERED SPECIES AND PEOPLE” 2 (2013), available at <http://naturalresources.house.gov/uploadedfiles/ashetestimony08-02-13.pdf>.

48. *Id.* Today, the Services believe the instances where no designation would be justified are “rare,” but they are proposing to change their regulations to reflect that some instances may justify no designation. *See* Implementing Changes to the Regulations for Designating Critical Habitat, 79 Fed. Reg. 27,066, 27,068, 27,071–75 (proposed May 12, 2014) (to be codified at C.F.R. pt. 424).

49. Endangered Species Act of 1973, 16 U.S.C. § 1532(5)(C) (2012). In the polar bear case, the court held that anything shy of the “entire” geographical area satisfies the Act. *See* *Alaska Oil & Gas Ass’n v. Salazar*, 916 F. Supp. 2d 974, 988–89 (D. Alaska 2013).

50. 16 U.S.C. § 1533(b)(2) (2012).

51. *See, e.g.,* Designation of Critical Habitat for the Polar Bear (*Ursus maritimus*) in the United States, 75 Fed. Reg. 76,086, 76,096 (Dec. 7, 2010) (to be codified at 50 C.F.R. pt. 17) (excluding two Native Alaska communities because benefits of exclusion outweigh benefits of inclusion, and exclusion “will not result in extinction of the species”). One court posits that the decision not to exclude areas is unreviewable. *See* *Bear Valley Mut. Water Co. v.*

In 2012, the Services fixed a problem with insufficient data for excluded areas by changing the regulations and no longer relying exclusively upon the CH designation map reproduced in the Code of Federal Regulations.⁵² This now allows a Service to exclude areas, such as developed lands inadvertently left inside the CH boundaries, by excluding those areas described in the regulation text.⁵³ But a Service's decision whether to exclude areas under section 4(b)(2) (referred to as the "discretionary 4(b)(2) exclusion analysis")⁵⁴ remains discretionary and not dictated by the economic analysis.⁵⁵ For example, when the FWS designated the Santa Ana sucker habitat, it excluded areas contained within conser-

Salazar, No. SACV 11-01263-JVS, 2012 WL 5353353, at *14 (C.D. Cal. Oct. 17, 2012) ("Any designation decision based on not excluding habitat is not reviewable."). This reasoning seems suspect, though, because a designation "action" is reviewable and a court can review aspects of that decision under an arbitrary and capricious standard.

52. Revised Implementing Regulations for Requirements To Publish Textual Descriptions of Boundaries of Critical Habitat, 77 Fed. Reg. 25,611, 25,611-12 (May 1, 2012) (to be codified 50 C.F.R. pts. 226, 424). The FWS maintains a portal for online information regarding designations. *Critical Habitat Portal*, U.S. FISH & WILDLIFE SERVICE ENVIRONMENTAL CONSERVATION ONLINE SYSTEM, <http://criticalhabitat.fws.gov/crithab/> (last visited Sept. 7, 2013).

53. *See, e.g.*, Proposed Designation of Critical Habitat for the Zuni Bluehead Sucker, 78 Fed. Reg. 5,351, 5,357 (proposed Jan. 25, 2013) (to be codified at 50 C.F.R. pt. 17) (excluding developed lands textually).

54. Revisions to the Regulations for Impact Analyses of Critical Habitat, 78 Fed. Reg. 53,058, 53,060 (Aug. 28, 2013) (to be codified at 50 C.F.R. pt. 424).

55. Yet, Congress limits designating areas owned or controlled by the DOD if the lands are subject to an Integrated Natural Resource Management Plan under the Sikes Act. National Defense Authorization Act for Fiscal Year 2004, Pub. L. No. 108-136, 117 Stat. 1392, 1433 (2003); *see also* Implementing Changes to the Regulations for Designating Critical Habitat, 79 Fed. Reg. 27,066, 27,074 (proposed May 12, 2014) (to be codified at 50 C.F.R. pt. 424) (describing changes to regulations to reflect CH on defense department lands). In 2008, the Department of the Interior Solicitor issued an opinion confirming the Services' long-standing position that the Secretary exercises wide discretion when deciding whether to exclude areas from designation. Memorandum from U.S. Dep't of the Interior Office of the Solicitor to Deputy Sec'y, Assistant Sec'y of Fish Wildlife & Parks, & Dir. of U.S. Fish & Wildlife Serv. 6-9 (Oct. 3, 2008), *available at* <http://www.doi.gov/solicitor/opinions/M-37016.pdf>. This interpretation, to date, has been affirmed, *see, e.g.*, Bldg. Indus. Ass'n of the Bay Area v. U.S. Dep't of Commerce, No. C 11-4118 PJH, 2012 WL 6002511, at *5, *7 (N.D. Cal. Nov. 30, 2012), and the Services solidified it in a recent rulemaking, Revisions to the Regulations for Impact Analyses of Critical Habitat, 78 Fed. Reg. 53,058, 53,059-60 (Aug. 28, 2013) (to be codified at 50 C.F.R. pt. 424). In May 2014, the Services also released for comment a draft policy on when they will consider excluding from CH lands covered by conservation plans, or some other unique status. *See* Policy Regarding Implementation of Section 4(b)(2) of the Endangered Species Act, 79 Fed. Reg. 27,052, 27,052 (May 12, 2014) (draft policy announcement and public comment solicitation). One writer posits that this policy could shape the development of pending conservation efforts, such as for the sage grouse. *See* Alan Kovski, *Proposed Rule Advances to Clarify Policy on Critical Habitat Exclusions for Species*, BNA DAILY ENV'T REP., May 2, 2014, at A-4, *available at* <http://news.bna.com/>

vation plans, as well as areas believed to be appropriate for fostering cooperation with other agencies and furnishing educational value.⁵⁶ For areas managed under a conservation plan, the Services are developing criteria for assessing when those areas might warrant exclusion.⁵⁷

The Services distinguish between “occupied” and “unoccupied” areas when designating CH. Unoccupied areas have a higher threshold for justifying including lands within a designation. The FWS generally interprets “occupied” broadly to include areas a species uses with “sufficient regularity” and “is likely to be present during any reasonable span of time.”⁵⁸ The Services recently promulgated a proposed rule that would clarify that occupancy includes those areas where the species are temporarily or periodically present during any part of their life cycle. The Services refer to this as the species’ “range.”⁵⁹ The Services also propose to amend their regulations to identify unoccupied areas whenever those areas are essential to the conservation of the species, considering the conservation needs and life history of the species.⁶⁰ Unoccupied areas may include lands that, through management, would become essential for species conservation.⁶¹ This may become pivotal as the Services recognize how climate change may force relocation and new management corridors.⁶² Of course, the Service’s ability to assess the potential importance of unoccupied areas as a consequence of climate change is likely to surface during the development of a recovery plan.

Courts arguably vary over the extent to which they will allow the Services to include temporarily occupied habitat. The Ninth Circuit agreed with the Service that it could “designate as ‘occupied’ areas that the [species] uses with sufficient regularity that it is likely to be present

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56. *Bear Valley Mut. Water Co. v. Salazar*, 2012 WL 5353353, at *2, *4.

57. *See* Policy Regarding Implementation of Section 4(b)(2) of the Endangered Species Act, 79 Fed. Reg. at 27,054.

58. *E.g.*, Designation of Critical Habitat for the Polar Bear (*Ursus maritimus*) in the United States, 75 Fed. Reg. 76,086, 76,099 (Dec. 7, 2010) (to be codified at 50 C.F.R. pt. 17); *see generally* *Ariz. Cattle Growers’ Ass’n v. Salazar*, 606 F.3d 1160, 1165 (9th Cir. 2010). “A species,” according to the Service, “does not have to occupy critical habitat throughout the year for the habitat to be considered occupied (*e.g.*, migratory birds).” U.S. FISH & WILDLIFE SERV. & NAT’L MARINE FISHERIES SERV., *supra* note 34, at 4-36.

59. Implementing Changes to the Regulations for Designating Critical Habitat, 79 Fed. Reg. at 27,069.

60. *Id.* at 27,073.

61. *See Id.*

62. *Id.*

during any reasonable span of time.”⁶³ The court added that migratory or transient species present a classic example of why requiring continued presence in an area would be unreasonable.⁶⁴ According to the D.C. Circuit, however, in order for the Service to establish an “occupied” habitat it must be able to show that the species is present within the designated area at the time of the listing.⁶⁵ Similarly, the FWS recently requested a voluntary remand of CH designation for the marbled murrelet, because the FWS failed to identify areas occupied at the time of the listing or “make an explicit determination that unoccupied areas were essential to conservation of the species.”⁶⁶ Courts, however, appear inclined to treat the issue as a factual question entrusted to the Services’ expertise.⁶⁷

Of course, the Services’ existing and yet soon to be altered joint regulations amplify the statutory requirements by requiring that the Services consider primary constituent elements (PCE’s). PCE’s are those “principal biological or physical constituent elements within the defined area that are essential to the conservation of the species.”⁶⁸ No estab-

63. *Ariz. Cattle Growers’ Ass’n*, 606 F.3d at 1165. The court identified certain relevant factors, including: “how often the area is used, how the species uses the area, the necessity of the area for the species’ conservation, species characteristics such as degree of mobility or migration, and any other factors that may bear on the inquiry.” *Id.* at 1164. In another case, the FWS defined occupied habitat as the areas with “consistent use,” where “observations over more than one wintering season demonstrated” the presence of the wintering piping plovers. *Cape Hatteras Access Pres. Alliance v. U.S. Dep’t. of the Interior*, 344 F. Supp. 2d 108, 120 (D.D.C. 2004).

64. *Ariz. Cattle Growers’ Ass’n*, 606 F.3d at 1167 (“The fact that a member of the species is not present in an area at a given instant does not mean the area is suitable only for future occupancy if the species regularly uses the area.”).

65. *See Otay Mesa Prop., L.P. v. U.S. Dep’t. of the Interior*, 646 F.3d 914, 915, 917–18 (D.C. Cir. 2011).

66. *Am. Forest Res. Council v. Ashe*, 946 F. Supp. 2d 1, 41, 43 (D.D.C. 2013) (quoting FWS pleading) (“It appears that the agency should have done a better job of explaining how the areas it designated met the statutory definition of critical habitat. Among other things, FWS did not set a standard for determining ‘occupied’ areas, did not clearly identify which designated areas were occupied at the time of listing, and did not make any findings about unoccupied areas.”).

67. Although the FWS employed old data and acknowledged that the polar bear used certain areas “infrequently,” *Designation of Critical Habitat for the Polar Bear (Ursus maritimus) in the United States*, 75 Fed. Reg. 76,086, 76,099 (Dec. 7, 2010) (to be codified 50 C.F.R. pt. 17), the court upheld the FWS’ exercise of its expertise and use of the best available data when concluding that the areas were occupied. *Alaska Oil & Gas Ass’n v. Salazar*, 916 F. Supp. 2d 974, 989 (D. Alaska 2013). While an isolated past occurrence might be insufficient, *see Otay Mesa Prop., L.P. v. U.S. Dep’t. of the Interior*, 646 F.3d at 915, the Services can render a post-listing determination of occupancy if it distinguishes between “actual changes to species occupancy and changes in available information,” *see Implementing Changes to the Regulations for Designating Critical Habitat*, 79 Fed. Reg. at 27,069.

68. The Services’ joint regulations require considering the available space for both individual and population growth, physiological factors, such as food, water, air, light and

lished formula exists for determining the presence of PCEs.⁶⁹ Instead, the FWS identified a list of non-exclusive criteria that includes nesting grounds, feeding sites, and geologic formations.⁷⁰ In one of the few cases addressing PCEs, the Ninth Circuit rejected the claim that all PCEs must “occur simultaneously” because the argument lacked “legal support.”⁷¹ Notably, these criteria represent specific biological or physical elements that exist in certain habitat areas and are essential to the conservation of the species.⁷² And at least one court suggests that “PCEs must be ‘found’ on an area [to designate] that area as critical habitat.”⁷³

The ESA, however, does not use the term “primary constituent elements,” and the Services are now questioning its utility. Lately, the Services propose to remove the concept of PCEs from the regulations and replace it with the statutory language of “physical or biological features.”⁷⁴ They suggest that adding a PCE concept not present in the statute has “proven confusing,” and they propose to refine their definition of “physical or biological features” to embrace those “features that support the life-history needs of the species.”⁷⁵ A feature might include a “single habitat characteristic” or a combination, and the feature or features might support the “occurrence of ephemeral or dynamic habitat conditions.”⁷⁶

II. PERENNIAL CRITICAL HABITAT ISSUES

The CH program has proven problematic since its inception. But today four discrete issues generally populate the conversation about the CH designation process. These issues range from the desirability of hav-

minerals, cover and shelter, sites for breeding, reproduction and raising of offspring, as well as undisturbed habitats or habitats “representative of the historic geographical and ecological distribution of species.” 50 C.F.R. § 424.12(b) (2013).

69. *Ariz. Cattle Growers’ Ass’n v. Kempthorne*, 534 F. Supp. 2d 1013, 1023 (D. Ariz. 2008).

70. 50 C.F.R. § 424.12(b)(5).

71. *Home Builders Ass’n of N. Cal. v. U.S. Fish & Wildlife Serv.*, 616 F.3d 983, 988–89 (9th Cir. 2010).

72. PCEs for the piping plover, for instance, include “[i]ntertidal sand beaches (including sand flats) or mud flats (between annual low tide and annual high tide) with no or very sparse emergent vegetation for feeding. “In some cases, these flats may be covered or partially covered by a mat of blue-green algae.” *Cape Hatteras Access Pres. Alliance v. U.S. Dep’t. of the Interior*, 731 F. Supp. 2d 15, 24 (D.D.C. 2010).

73. *Cape Hatteras Access Pres. Alliance v. U.S. Dep’t. of the Interior*, 344 F. Supp. 2d 108, 123 (D.D.C. 2004).

74. *Implementing Changes to the Regulations for Designating Critical Habitat*, 79 Fed. Reg. 27,066, 27,071 (proposed May 12, 2014) (to be codified at 50 C.F.R. pt. 424).

75. *Id.*

76. *Id.* at 27,069.

ing the Services identify critical habitat concurrently or somewhat simultaneously with a species' listing, to the specific processes and requirements of a designation. Particularly, the four issues discussed below are (a) whether a CH is worth the time and expense because species' habitat is already protected under the section 7 jeopardy standard; (b) whether, assuming designations achieve sufficient conservation benefits, the existing statutory window provides sufficient time to identify CH; (c) whether NEPA currently does or ought to apply to CH designations; and finally, (d) how the Services should quantify the economic effects of a CH designation. Each of these issues appear separate from one another, and yet they are inextricably linked. The solution to these four perennial issues, therefore, lies in appreciating how they can merge and produce a CH designation program capable of meaningfully contributing toward species conservation.

A. Is CH Necessary or Appropriate?

Undoubtedly, the most significant issue confronting the CH program is whether the existing statutory designation process is necessary or appropriate. Should, for instance, a Service have to designate CH somewhat simultaneously with the listing of a species? Or, does a designation provide any additional benefit to the species, warranting the considerable time and expense?⁷⁷ These are important questions as funds for listing are limited and must be shared with other listing actions.⁷⁸ After all, FWS argues that Congress appropriates considerably less than necessary to handle the Listing Program workload.⁷⁹ During roughly the last two years, for instance, the Services finalized approximately 30 designations⁸⁰ and revised designations for over 15 species.⁸¹

77. See *infra* note 82 and accompanying text. The FWS historically avoided designating CH, reasoning that to do so would not benefit the species, but its analysis appears somewhat elliptical. In one instance, the FWS simply concluded that the designation would not add any additional protection beyond the jeopardy standard. Yet that is only true if the jeopardy standard swallows the CH's adverse modification or destruction proscription. Decision on Designation of Critical Habitat for the Gulf Sturgeon, 60 Fed. Reg. 43,721 (Aug. 23, 1995) (critical habitat designation notice).

78. See Review Notice, 77 Fed. Reg. 69,994, 70,002 (Nov. 21, 2013). "In FY 2002 and each year until FY 2006," for instance, "the Service had to use virtually the entire critical habitat subcap to address court-mandated designations of critical habitat, and consequently none of the critical habitat subcap funds were available for other listing activities." *Id.* at 70,003.

79. See *Id.*

80. See generally Critical Habitat Portal, *supra* note 52.

81. See generally *Id.*

The FWS contributed to the general malaise surrounding designations by implicitly diminishing the importance of CH. For several years, the agency, buoyed by many, effectively suggested that the designation process added little to the existing protections in the section 7 consultation process and jeopardy standard.⁸² Michael Bean observes how CH “remains one of the Act’s most contentious, ambiguous, and confusing concepts. There is no clear, consistent, and shared understanding of what it means or what role it is to play in the Act’s administration.”⁸³

Whether the time and expense of the process warrant retaining the presently configured program is difficult to test empirically. To begin with, CH becomes relevant for agency actions that trigger a section 7 consultation, and once in a section 7 consultation process agencies already must ensure that their actions are not likely to jeopardize the continued existence of a protected species.⁸⁴ In the seminal case of *Tenn. Valley Auth. v. Hill*,⁸⁵ for instance, the FWS listed the species and designated its CH on an emergency basis. While it was the destruction of the habitat that threatened the extinction of the species, the Supreme Court focused on the jeopardy standard. If, therefore, habitat is essential for the survival or recovery of a species, then any adverse modification or destruction of that habitat might be subsumed within the section 7 jeopardy standard.⁸⁶ The NMFS highlighted this discrepancy when it

82. See Jason M. Patlis, *Paying Tribute To Joseph Heller with the Endangered Species Act: When Critical Habitat Isn't*, 20 STAN. ENVTL. L.J. 133, 137–38 (2001). “For many years, the Fish and Wildlife Service . . . largely refused to designate critical habitat on the view that the designation provided no protection for a species beyond that already provided by the section 7 consultation provisions of the” Act. ERIC T. FREYFOGLE & DALE D. GOBLE, *WILDLIFE LAW: A PRIMER* 251 (2009). Indeed, budgetary constraints often made it difficult for the Service to comply with its listing and designation process. *Id.* at 238. The FWS, for instance, listed the Selkirk Mountains population of woodland caribou in 1984, and upon receiving a petition to designate critical habitat in 2003, budgetary constraints prevented the Service from responding to the designation petition. Only after a lawsuit in 2009 did the Service proceed with the designation process. Designation of Critical Habitat for the Southern Selkirk Mountains Population of Woodland Caribou (*Rangifer tarandus caribou*), 76 Fed. Reg. 74,018, 74,021 (proposed Nov. 30, 2011) (to be codified at 50 C.F.R. pt. 17); see also Sinden, *infra* note 191, at 157–59 (noting reluctance toward designations).

83. BEAN, *supra* note 41, at 251.

84. 16 U.S.C. § 1536(a)(2) (2012).

85. *Tenn. Valley Auth. v. Hill*, 437 U.S. 153 (1978). For an interesting discussion about the Court’s apparent treatment of the ESA since *Tenn. Valley Auth.*, see J.B. Ruhl, *The Endangered Species Act’s Fall from Grace in the Supreme Court*, 36 HARV. ENVTL. L. REV. 487 (2012).

86. See *Nat’l Wildlife Fed’n v. Nat’l Marine Fisheries Serv.*, 481 F.3d 1224 (9th Cir. 2007), *amended and superseded by* 524 F.3d 917 (9th Cir. 2008); see also INDUS. ECON., INC., ECONOMIC ANALYSIS OF CRITICAL HABITAT DESIGNATION FOR THE SOUTHERN SELKIRK MOUNTAINS POPULATION OF WOODLAND CARIBOU, at C-12 (2012), available at http://www.fws.gov/idaho/home/Woodland_caribou_FINAL%20DEA%20for%20publication.pdf (“[D]ue to the extremely precarious status of caribou, it is difficult for us to predict the

informed the public about the designated habitat for the Lower Columbia River coho salmon and Puget Sound steelhead. The Service observed that “[m]any actions that adversely modify a species’ critical habitat will also jeopardize its continued existence.”⁸⁷ For some species, existing conservation efforts in the proposed designated habitat make it unlikely that any activities would occur in the area that could even potentially adversely modify or destroy the habitat.⁸⁸

Professor Dave Owen examined over 4,000 biological opinions when attempting to assess the effect of a designation during the section 7 consultation process.⁸⁹ Owen’s analysis suggests that designating CH makes only marginal difference in the level of protection afforded species.⁹⁰ To begin with, a Service rarely concludes that an action might cause adverse modification.⁹¹ And marginal impacts to CH often appear to be tolerated.⁹² The FWS’ national sea turtle coordinator commented, when discussing the upcoming designation of coastline habitat for the loggerhead sea turtle, that “[i]t is a fairly high bar that would need to be reached to make a destruction or adverse effect call.”⁹³ In another case, a

differences between actions required to avoid jeopardy (baseline) and actions required to avoid adverse modification (incremental effects).”).

87. *Questions & Answers on Proposed Critical Habitat for Lower Columbia River Coho Salmon & Puget Sound Steelhead, WEST COAST REGION*, http://www.westcoast.fisheries.noaa.gov/habitat/critical_habitat/qa_on_proposed_critical_habitat_for_lcr_coho_and_ps_steelhead.html (last visited Sept. 6, 2014).

88. *See, e.g., INDUS. ECON., INC., ECONOMIC ANALYSIS OF CRITICAL HABITAT DESIGNATION FOR THE DISTINCT POPULATION SEGMENTS OF LOWER COLUMBIA RIVER COHO AND PUGET SOUND STEELHEAD*, at ES-3 (2012), available at http://www.westcoast.fisheries.noaa.gov/publications/protected_species/salmon_steelhead/critical_habitat/drafteconomicanalysis_pssteelhead_lcrcoho.pdf (“Because of the high level of baseline protection in areas assessed for critical habitat, incremental conservation efforts specifically for these species . . . are considered to be unlikely for most areas.”).

89. *See* Dave Owen, *Critical Habitat and the Challenge of Regulating Small Harms*, 64 FLA. L. REV. 141, 144–45 (2012).

90. *Id.* at 172–73.

91. *Id.* at 163–64, 168 (minor alterations not triggering prohibition).

92. *See* *Ctr. for Biological Diversity v. Bureau of Land Mgmt.*, 422 F. Supp. 2d 1115, 1121 (N.D. Cal. 2006) (invalidating biological opinion that failed to explain how the significant degradation in the designated critical habitat was not adverse); *see also* *Town of Superior v. U.S. Fish & Wildlife Serv.*, 913 F. Supp. 2d 1087, 1137–44 (D. Colo. 2012) (rejecting challenge to no adverse modification or destruction conclusion in biological opinion). In *Rock Creek Alliance v. U.S. Fish & Wildlife Serv.*, 663 F.3d 439 (9th Cir. 2011), the court upheld the Service’s judgment that no adverse modification would occur if the habitat was only marginally impacted.

93. Laura Petersen, *FWS Designates 739 Miles of Coastline as Critical Sea Turtle Habitat*, GREENWIRE, March 22, 2013, available at <http://www.eenews.net/greenwire/stories/1059978349/>. When a Service finds that adverse modification may exist, the Service likely also determines jeopardy—otherwise the Service would in effect be suggesting that the CH designa-

court vacated a biological opinion, where the FWS would have allowed almost half of designated habitat to be degraded.⁹⁴ Of course, for many years, the Services employed a flawed definition of what constitutes adverse modification, possibly skewing any analysis of older biological opinions.⁹⁵

And the apparent snapshot the designation process requires does not necessarily reflect the Service's ultimate judgment about other habitat that might be essential for the recovery or survival of the species.⁹⁶ This invariably should be true, because the Service most likely has yet to develop any recovery plan for the species at this juncture.⁹⁷ Habitat may also shift due to the ever-changing climatic conditions and species' attempt to relocate.⁹⁸ The FWS, however, seldom expands CH after an initial designation, presumably because the same factors that historically retarded the designation process make the revision process even less likely.

tion was flawed. *See* Dow AgroSciences LLC v. Nat'l Marine Fisheries Serv., 707 F.3d 462, 466 (4th Cir. 2013) (noting that services identified reasonable and prudent alternatives to avoid both jeopardy and adverse modification or destruction). For a segment of the woodland caribou, the FWS suggested that only significant alterations of large areas of certain habitat would trigger a finding of adverse modification. *Indus. Econ., Inc.*, supra note 86, at C-12; *see also* INDUS. ECON., INC., ECONOMIC ANALYSIS OF CRITICAL HABITAT DESIGNATION FOR THE GUNNISON SAGE-GROUSE, at C-17 (2013) [hereinafter *Gunnison Sage-Grouse*] (significant alteration and adverse modification), available at <http://www.fws.gov/mountain-prairie/species/birds/gunnisonsagegrouse/20130909DraftEconomicAnalysisFor%20CriticalHabitat.pdf>.

94. *Ctr. for Biological Diversity*, 422 F. Supp. 2d at 1134, 1136 (vacating opinion that allowed degrading almost half of designated habitat for the Peirson's milk-vetch, albeit also vacating no jeopardy determination).

95. *Cf. infra* note 189 and accompanying text.

96. When it proposed listing the lesser prairie chicken, the FWS, for instance, observed that it "recognize[s] that critical habitat designated at a particular point in time may not include all of the habitat areas that we may later determine are necessary for the recovery of the species, considering additional scientific information may become available in the future." Listing the Lesser Prairie-Chicken as a Threatened Species, 77 Fed. Reg. 73,828, 73,885 (proposed Dec. 11, 2012) (to be codified at 50 C.F.R. pt. 17); *see also* Designation of Critical Habitat for Jaguar, 77 Fed. Reg. 50,214, 50,217 (proposed Aug. 20, 2012) (to be codified at 50 C.F.R. pt. 17) ("Habitat is dynamic, and species may move from one area to another over time. We recognize that critical habitat designated at a particular point in time may not include all of the habitat areas that we may later determine are necessary for the recovery of the species.").

97. *See infra* note 226 and accompanying text.

98. "Habitat is dynamic, and species may move from one area to another over time"—particularly as a consequence of changing climatic conditions. Proposed Designation of Critical Habitat for the Zuni Bluehead Sucker, 78 Fed. Reg. 5,351, 5,353 (proposed Jan. 25, 2013) (to be codified at 50 C.F.R. pt. 17). *See also* Implementing Changes to the Regulations for Designating Critical Habitat, 79 Fed. Reg. 27,066, 27,073 (proposed May 12, 2014) (to be codified at 50 C.F.R. pt. 402) (noting dynamic nature of habitat due to climate change).

This all suggests that forcing a CH designation too soon before the Service has developed sufficient baseline data on the habitat is problematic. True, FWS examines present or threatened harm to a species' habitat or range as a criterion for listing,⁹⁹ but the history of the CH program suggests that the information adduced during the listing process is not sufficiently detailed to produce a reliable long-term identification of habitat necessary to arrest the decline of the species and ensure its recovery.

B. Timing and Ability to Identify CH

A corollary question is whether a Service should be able to exclude lands from a designation or avoid designating critical habitat altogether. The Services often lack either the resources or knowledge necessary to designate CH at the time of a proposed listing.¹⁰⁰ Even when they turn their attention to the designation process, they must rely upon somewhat incomplete information.¹⁰¹ After all, most of a Service's resources will have been devoted to the listing process, and those resources will not be free to engage in a significant amount of additional research until they begin the recovery planning process. And so during the designation process, the FWS often relies upon desktop information generated through GIS and satellite imagery, along with other published or publically available material to designate critical habitat. This information is undoubtedly imprecise.¹⁰²

99. 16 U.S.C. § 1533(a)(1)(A) (2012).

100. *See, e.g.*, Lesser Prairie-Chicken as a Threatened Species, 77 Fed. Reg. at 73,885–87.

101. This concern surfaced back in 1978, when NOAA counsel suggested that the ESA should allow the Service to delay a designation if insufficient evidence exists at the time and the statute should permit a later designation when new evidence becomes available. Memorandum from Eric Erdheim, staff attorney, on Analysis of the Endangered Species Act Amendments of 1978 to Eldon V. C. Greenberg, general counsel, at 8 (Aug. 22, 1978) (on file with author).

102. *See, e.g.*, Home Builders Ass'n of N. Cal. v. U.S. Fish & Wildlife Serv., 616 F.3d 983, 991 (9th Cir. 2010) (noting that some development areas might have been inadvertently included in designation, and the Service attempted to exclude them through references to structures). When using GIS for the Polar Bear designation, the FWS relied upon old topographic maps and, consequently, included in its proposed designation a long-since immersed barrier island. Designation of Critical Habitat for the Polar Bear (*Ursus maritimus*) in the United States, 75 Fed. Reg. 76,086, 76,097 (Dec. 7, 2010) (codified at 50 C.F.R. pt. 17). In another context, for instance, the Service relied upon 10-year-old and older surveys as the best available information and a court sustained its conclusion that the species were not present in the area. *See, e.g.*, League of Wilderness Defenders/Blue Mountains Biodiversity Project v. Connaughton, No. 3:12-cv-02271-HZ, 2013 WL 3776305, at *7–*8 (D. Or. July 17, 2013), *aff'd in part, rev'd in part, and remanded in part on other grounds* by 752 F.3d 755, 763 (9th Cir. 2014); *see also* Dow AgroSciences LLC v. Nat'l Marine Fisheries Serv., 707 F.3d 462, 472 (4th Cir. 2013) (relying on outdated water monitoring data). Indeed, sources of information

Indeed, the CH designation process possibly produces the least scientifically reliable decisions under the Act.¹⁰³ During the Bush administration, for instance, the FWS ignored independent peer reviewers' recommendations to add acreage to a proposed CH designation more than ninety percent of the time.¹⁰⁴ Instead, the FWS generally decreased CH acreage from the proposed to the final designation.¹⁰⁵ Admittedly, scientific integrity suffered significantly during the Bush administration and conversely has strengthened considerably during the Obama administration,¹⁰⁶ nevertheless, designation decisions remain suspect.¹⁰⁷

other than what has been generated during the listing process often exist only after a species' listing. See *Designation of Critical Habitat for the Oregon Spotted Frog*, 78 Fed. Reg. 53,538, 53,540 (proposed Aug. 29, 2013) (to be codified at 50 C.F.R. pt. 17) ("[O]ur primary source of information is generally the information developed during the listing process for the species. Additional information sources may include the recovery plan . . . articles in peer review journals, conservation plans . . . scientific status surveys and studies, biological assessments"); see generally *Proposed Designation of Critical Habitat for the Zuni Bluehead Sucker*, 78 Fed. Reg. 5,351, 5,356 (proposed Jan. 25, 2013) (to be codified at 50 C.F.R. pt. 17) (university databases, state recovery plans, surveys and reports, peer review articles, agency reports and monitoring data).

103. Secretary Babbitt instituted a policy of having decisions under section 4 independently peer reviewed. See *Notice of Interagency Cooperative Policy for Peer Review in Endangered Species Act Activities*, 59 Fed. Reg. 34,270, 34,270 (July 1, 1994) (policy statement notice).

104. See D. Noah Greenwald, Kieran F. Suckling & Stuart L. Pimm, *Critical Habitat and the Role of Peer Review in Government Decisions*, 62 *BIOSCIENCE* 686, 687 (2012) (examining peer reviews of proposed designations between 2002 and 2007).

105. *Id.* at 689.

106. See, e.g., *Bear Valley Mut. Water Co. v. Salazar*, No. SACV 11-01263-JVS, 2012 WL 5353353, at *4 (C.D. Cal. 2012) (noting that CH rule had to be reissued because of concerns over "integrity of scientific information"). See generally Michael Senatore, John Kostyack & Andrew Wetzler, *Critical Habitat at the Crossroads: Responding to the G.W. Bush Administration's Attacks on Critical Habitat Designation Under the ESA*, 33 *GOLDEN GATE U. L. REV.* 447 (2003). In 2009, President Obama issued a memorandum on scientific integrity. *Memorandum on Scientific Integrity*, 2009 *DAILY COMP. PRES. DOC.* 1 (Mar. 9, 2009). The CH for the Western Snowy Plover is one exemplar. While the FWS originally listed the species in 1993, it took 6 years to designate about 19.5 thousand acres as CH. In 2005, the Bush administration then improperly reduced the acreage to approximately 12 thousand acres, prompting a lawsuit that then led to the protection of about 24.5 thousand acres—seven years later. This same scenario occurred elsewhere, such as with the Southwestern willow flycatcher. Cf. April Reese, *FWS Issues Final Critical Habitat Designation for Southwestern Songbird*, *E&E NEWS PM*, Jan. 2, 2013, available at <http://www.eenews.net/eenewspm/stories/1059974239/>. And similarly, in 2010, the FWS reduced the acres for the CH concerning the Salt Creek tiger beetle. *FWS May Slash Critical Habitat for Tiger Beetle*, *GREENWIRE*, June 18, 2013, available at <http://www.eenews.net/greenwire/stories/1059983031/>.

107. Brendon Bosworth, *Critical Habitat Under Scrutiny*, *HIGH COUNTRY NEWS*, July 13, 2012, <http://www.hcn.org/blogs/goat/critical-habitat-under-scrutiny> (citing the Greenwald's organization's claim that the Service ignored science when addressing the dunes sagebrush lizard).

Instead of focusing on science, the Services sometimes appear to design CH designation to avoid controversy. For example, the NMFS emphasized that the designation of habitat for the Puget Sound steelhead and lower Columbia River coho salmon¹⁰⁸ almost overlapped with existing salmonid CH designations.¹⁰⁹ In other instances, the Services carefully avoid designating habitat that might upset lands already subject to a conservation plan.¹¹⁰ The constant parade of litigation suggests that the Services do not base all of their decisions on the best science.

The controversy surrounding the marbled murrelet captures often involved CH designations. The FWS designated CH for the murrelet in 1996, four years after listing.¹¹¹ Following an early round of litigation, the FWS agreed to engage in a five-year status review of, *inter alia*, the CH designation, and completed the review in 2004. The 2004 status review questioned, but did not change, the listing status of the murrelet—a judgment that was held unreviewable.¹¹² The FWS then repeated its status review in 2008, this time affirming its original listing approach from 1992.¹¹³ But in 2006, the Service began soliciting comments on its original CH designation, proposing to reduce the designated CH almost entirely (from approximately 3.9 million acres to less than 300 thousand acres).¹¹⁴

108. Designation of Critical Habitat for Lower Columbia River Coho Salmon and Puget Sound Steelhead, 78 Fed. Reg. 2,726 (proposed Jan. 14, 2013) (to be codified at 50 C.F.R. pt. 226).

109. Alan Kovski, *Critical Habitat Designations Proposed for Two Populations of Salmon, Steelhead*, BNA DAILY ENV'T. REP., Jan. 14, 2013, at A-3, available at http://news.bna.com/erln/ERLNWB/split_display.adp?fedfid=46401390&vname=ernotallissues&fcn=56&wsn=493634000&fn=46401390&split=0.

110. See, e.g., Designation of Critical Habitat for the Oregon Spotted Frog, 78 Fed. Reg. 53,538 (proposed Aug. 29, 2013) (to be codified at 50 C.F.R. pt. 17) (“We are considering excluding [about 10,000 acres] based on the existence of partnerships as evidenced by conservation plans.”). See also Policy Regarding Implementation of Section 4(b)(2) of the Endangered Species Act, 79 Fed. Reg. 27,052, 27,054 (May 12, 2014) (draft policy announcement and public comment solicitation) (excluding lands from CH).

111. Final Designation of Critical Habitat for the Marbled Murrelet, 61 Fed. Reg. 26,256, 26,256 (May 24, 1996) (to be codified at 50 C.F.R. pt. 17); Proposed Designation of Critical Habitat for the Marbled Murrelet, 59 Fed. Reg. 3,811, 3,811 (proposed Jan. 27, 1994) (to be codified at 50 C.F.R. pt. 17).

112. *Am. Forest Res. Council v. Hall*, 533 F. Supp. 2d 84, 93–94 (D.D.C. 2008).

113. Revised Critical Habitat for the Marbled Murrelet, 73 Fed. Reg. 44,678, 44,678 (proposed July 31, 2008) (to be codified at 50 C.F.R. pt. 17). The 2004 status review was tainted by improper political influence, as part of the scandal surrounding former Deputy Assistant Secretary for Wildlife and Parks Julie MacDonald. *Am. Forest Res. Council v. Ashe*, 946 F. Supp. 2d 1, 16 n.6 (D.D.C. 2013).

114. Designation of Critical Habitat for the Marbled Murrelet, 71 Fed. Reg. 53,838, 53,838, 53,847 (proposed Sept. 12, 2006) (to be codified at 50 C.F.R. pt. 17).

In 2008, the Service initially decided against revising the designation,¹¹⁵ but it proposed and later finalized another rule to slightly reduce the size of the CH.¹¹⁶

The timber industry challenged the Service's decisions, including its array of CH designation actions. A principal issue was whether the designations complied with the holdings in *Arizona Cattle Growers v. Salazar*,¹¹⁷ *Home Builders Ass'n of N. Cal. v. U.S. Fish & Wildlife Serv.*,¹¹⁸ and *Cape Hatteras Access Preservation Alliance v. U.S. Department of the Interior*,¹¹⁹ for distinguishing between occupied and unoccupied areas, and when an area must contain features essential for conservation. The Service and the timber industry agreed to a settlement, whereby the FWS would vacate the approximately 3.7 million acres of CH and subsequently revise the designation. The Service argued that the temporary lack of designated habitat would not likely significantly impair species conservation.¹²⁰ The court closely examined and refused to accept the proposed consent decree.¹²¹ In doing so, the court expressed its belief that the CH rule may be deficient, but emphasized that the FWS did not specify how the existing designation, in fact, was deficient.¹²² The court subsequently remanded without vacating the prior designation.¹²³

Of course, this all leads to the inevitable question of whether the current CH program adequately accomplishes its goal of protecting habitat necessary to ensure a species' survival as well as a species' recov-

115. Designation of Critical Habitat for the Marbled Murrelet (*Brachyramphus marmoratus*), 73 Fed. Reg. 12,067, 12,067 (proposed Mar. 6, 2008) (to be codified at 50 C.F.R. pt. 17).

116. Revised Critical Habitat for the Marbled Murrelet, 73 Fed. Reg. 44,678, 44,678 (proposed July 31, 2008) (to be codified at 50 C.F.R. pt. 17) (proposing to remove roughly 250,000 acres from designated CH); Revised Critical Habitat for the Marbled Murrelet, 76 Fed. Reg. 61,599, 61,599 (Oct. 5, 2011) (to be codified at 50 C.F.R. pt. 17) (removing almost 190 thousand acres).

117. *Ariz. Cattle Growers' Ass'n v. Salazar*, 606 F.3d 1160 (9th Cir. 2010). Notably, the court here deferred to the Service's expertise on whether an area is "occupied," believing the term ambiguous. *Id.* at 1164–65.

118. *Home Builders Ass'n of N. Cal. v. U.S. Fish & Wildlife Serv.*, 616 F.3d 983 (9th Cir. 2010).

119. *Cape Hatteras Access Pres. Alliance v. U.S. Dep't of the Interior*, 344 F. Supp. 2d 108 (D.D.C. 2004).

120. See Laura Petersen, *Obama Admin to Vacate 3.7M Acres of Seabird's Critical Habitat*, E&E NEWS PM, Oct. 24, 2012, available at <http://www.eenews.net/eenewspm/stories/1059971706/>.

121. *Am. Forest Res. Council v. Ashe*, 946 F. Supp. 2d 1, 27–33 (D.D.C. 2013). The court believed that careful scrutiny of the settlement would ensure against unwisely circumventing otherwise applicable APA safeguards. *Id.* at 27.

122. *Id.* at 29.

123. *Id.* at 47.

ery. This array of issues surrounding CH also may explain why the Services are now currently proposing several changes to the program. But still other issues persist.

C. Should NEPA Apply to Critical Habitat Designations?

The third CH issue is whether the NEPA should apply to a Service's habitat designation. NEPA, after all, applies to major federal actions that significantly affect "the quality of the human environment . . ." ¹²⁴ The designation unquestionably is an "action" (a proposal by a federal agency),¹²⁴ but whether it is "significant" or "affects" the "quality of the human environment" is unclear. It is equally uncertain whether a designation merely maintains the status quo, obviating the need for any NEPA analysis, whether CH designation is discretionary, or whether the Service's entire consideration is functionally equivalent—that is, akin to a NEPA analysis. Other agency actions have escaped NEPA review under the rationale that the actions merely preserve the environmental status quo with actions such as land conservation efforts.¹²⁵ The Environmental Protection Agency (EPA), moreover, has avoided NEPA by arguing that its other statutory requirements serve as the functional equivalent of a NEPA analysis.¹²⁶ This in effect renders NEPA redundant and arguably unnecessary.¹²⁷ And the Services easily established that

124. 42 U.S.C. § 4332(C) (2012).

125. See *Tri-Valley CAREs v. U.S. Dep't of Energy*, 671 F.3d 1113, 1125 (9th Cir. 2012) ("If the proposed action does not significantly alter the *status quo*, it does not have a significant impact under NEPA."); *Fund for Animals, Inc. v. Thomas*, 127 F.3d 80, 84 (D.C. Cir. 1997) ("Because the new national policy maintained the substantive *status quo*, it cannot be characterized as a 'major federal action' under NEPA."); *Upper Snake River Chapter of Trout Unlimited v. Hodel*, 921 F.2d 232, 234–35 (9th Cir. 1990) (noting that the action that maintain status quo does not require preparation of an EIS); *Sierra Club v. Andrus*, 581 F.2d 895, 902 (D.C. Cir. 1978) ("In general, however, if there is no proposal to change the status quo, there is in our view no . . . 'other major Federal action' to trigger . . . NEPA . . ."), *judgment rev'd by* 442 U.S. 347 (1979).

126. Early on, EPA's actions under the Clean Air Act (CAA) received functional equivalency treatment, only to be further protected by an explicit amendment to the CAA. See *Am. Trucking Ass'n v. U.S. EPA*, 175 F.3d 1027, 1041 (D.C. Cir. 1999), *rev'd and aff'd in part by* *Whitman v. Am. Trucking Ass'ns*, 531 U.S. 457 (2001).

127. See, e.g., *Mun. of Anchorage v. United States*, 980 F.2d 1320, 1329 (9th Cir. 1992) (functional equivalent under 40f(b) of the Clean Water Act); *W. Neb. Res. Council v. U.S. EPA*, 943 F.2d 867, 871 (8th Cir. 1991) ("We agree with the many circuits that have held that EPA does not need to comply with the formal requirements of NEPA in performing its environmental protection functions under 'organic legislation [that] mandates specific procedures for considering the environment that are functional equivalents of the impact statement process."); see also *Merrell v. Thomas*, 807 F.2d 776, 781 (9th Cir. 1986) ("While we hesitate to adopt the 'functional equivalence' rationale, we are confident that Congress did not intend NEPA to apply to FIFRA registrations" as a consequence of the apparent redun-

NEPA does not apply to a listing decision, because Congress left the Services with little discretion and limited the factors the Services may consider when deciding on a listing.¹²⁸

These various rationales, at least to date, permit the Services to successfully avoid performing any NEPA analysis on their designation decisions. In 1977, the Director of the FWS commented that such designations were merely administrative actions providing biological information and, as such, did not warrant complying with NEPA even though the Service complied with NEPA as a matter of policy.¹²⁹ Neither that rationale nor the policy would suffice later on, when CH designations and their litigation corollary became more prominent.

In 1983, the FWS indicated that the Council on Environmental Quality endorsed the Service's opinion that NEPA did not apply to section 4 decisions.¹³⁰ The FWS justified its announcement in a short federal register notice that relied on an inapplicable case involving a listing decision and the mere fact that no prior EISs had been prepared for any section 4 actions.¹³¹ The Services' own practice and statements regarding their discretion when designating lands undermines reliance on the listing case.¹³² And yet, the short and arguably uninformative 1983 memorandum has become the "rationale" the Services reference when avoiding NEPA.¹³³

dancy). *But see* Fund for Animals v. Hall, 777 F. Supp. 2d 92, 96 (D.D.C. 2011) (noting functional equivalency argument, but adding that court had found not apply to an ESA section 7 consultation).

128. *See* Pac. Legal Found. v. Andrus, 657 F.2d 829, 836 (6th Cir. 1981); Trout Unlimited v. Lohn, No. CV05-1128-JCC, 2007 WL 1730090, at *12-14 (W.D. Wash. June 13, 2007) (reviewing exceptions to NEPA and rejecting NEPA application to hatchery listing policy under displacement rationale).

129. Memorandum from Dir., U.S. Fish and Wildlife Serv., on S. 363—To amend the Endangered Species Act of 1973 relating to the designation of certain areas critical habitats of endangered and threatened species, and for other purposes to Legislative Counsel 3 (May 31, 1977) (on file with author). The FWS similarly considers the Coastal Zone Management Act of 1972, 16 U.S.C. §§ 1451-1466 (2012), as inapplicable to a designation. *See* Designation of Critical Habitat for the Polar Bear (*Ursus maritimus*) in the United States, 75 Fed. Reg. 76,086, 76,103 (Dec. 7, 2010) (to be codified at 50 C.F.R. pt. 17).

130. *See* Preparation of Environmental Assessments for Listing Actions under the Endangered Species Act, 48 Fed. Reg. 49,244, 49,244 (Oct. 25, 1983) (rule-related notice).

131. *Id.*

132. *E.g.*, Designation of Critical Habitat for Lower Columbia River Coho Salmon and Puget Sound Steelhead, 78 Fed. Reg. 2,726, 2,727-28 (proposed Jan. 14, 2013) (to be codified at 50 C.F.R. pt. 226) (noting that service has discretion to exclude areas if the benefits of exclusion outweigh benefits).

133. "We published a notice outlining our reasons for this determination [that NEPA does not apply] in the Federal Register on October 25, 1983 (48 FR 49244)." Designation of Critical Habitat for the Southern Selkirk Mountains Population of Woodland Caribou, 77 Fed. Reg. 71,042, 71,080 (Nov. 28, 2012) (to be codified at 50 C.F.R. pt. 17).

When parties litigated this approach toward NEPA, the Department of the Interior searched for a rationale capable of garnering support. FWS sought to avoid NEPA as unnecessarily costly and time-consuming, and under the belief that it provided fodder for the myriad of disparate, interested parties seeking to challenge the Service's actions. Apparently, the Department of Justice may have been reluctant to support allowing any agency other than the EPA to employ the functional equivalency argument. But a status quo type argument would be equally problematic, because conserving identified lands might push development elsewhere or impact lands management. Without directly using the functional equivalency argument, therefore, the Department subtly used the EPA case law.

In one EPA case, the Ninth Circuit held that NEPA did not apply to the EPA's registration of pesticides under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).¹³⁴ The court reasoned that "[t]o apply NEPA to FIFRA's registration process would sabotage the delicate machinery that Congress designed to register new pesticides." The court determined that Congress implicitly excluded NEPA when it amended the statute in 1972, 1975, 1978, and 1984, because Congress was presumably aware of the agency's practice of not applying NEPA and in carefully crafting the FIFRA program it neither addressed nor contemplated how NEPA might apply when it amended FIFRA.¹³⁵ The court also indicated that, under the doctrine from *Flint Ridge Dev. Co. v. Scenic Rivers Ass'n*,¹³⁶

134. *Merrell v. Thomas*, 807 F.2d 776, 781 (9th Cir. 1986).

135. *Id.* at 779. This type of approach toward reading statutes is strained, at best. Invoking post enactment events to interpret the intent of another statute is "hazardous." *Pension Benefit Guar. Corp. v. LTV Corp.*, 496 U.S. 633, 650 (1990). This is particularly true for claims of legislative acquiescence, when subsequent Congresses do not act directly. *See Bob Jones Univ. v. United States*, 461 U.S. 574, 600 (1983) ("Non-action by Congress is not often a useful guide . . ."). It is reminiscent of the argument the ESA did not apply to Tellico dam because Congress subsequently appropriated money for the project. *See Tenn. Valley Auth. v. Hill*, 437 U.S. 153 (1978). Compounding the problem, the Ninth Circuit then examined pending legislation before Congress on FIFRA and "inferred" that the FIFRA process was sufficient to address environmental issues without employing NEPA. *Merrell*, 807 F.2d at 780-781. While the court never used functional equivalence in its analysis, and expressly declined to do so, it's opinion notes that other courts had used "functional equivalence." *Id.* at 781. The court effectively rendered a normative judgment about NEPA's applicability by reviewing FIFRA's procedures to examine the level of overlap, and it is a normative judgment that has since failed when EPA sought to avoid applying the ESA to pesticide registrations. *Cf. Dow AgroSciences LLC v. Nat'l Marine Fisheries Serv.*, 637 F.3d 259, 260 (4th Cir. 2011) (reviewing BO for EPA insecticide decision); *Wash. Toxics Coal. v. EPA*, 413 F.3d 1024, 1028 (9th Cir. 2005) (duty to consult on pesticide registrations). I am not here suggesting that NEPA ought to apply to registrations, only that the analysis lacks sufficient persuasiveness to justify extending it to another program.

136. *Flint Ridge Dev. Co. v. Scenic Rivers Ass'n of Okla.*, 426 U.S. 776 (1976).

where the Court held NEPA inapplicable because the statutory framework effectively prevented NEPA compliance, the FIFRA language requiring “expeditious” action is somehow incompatible with applying NEPA. Compounding the problem, the Ninth Circuit then examined pending legislation before Congress on FIFRA and “inferred” that the FIFRA process was sufficient to address environmental issues without employing NEPA.¹³⁷ While the court never used functional equivalence in its analysis, and expressly declined to do so, its opinion acknowledges that other courts had used “functional equivalence.”¹³⁸ While the court’s analysis is quite suspect, it provided enough support without using “functional equivalent” language to convince the court to extend the analysis to CH designations.¹³⁹

In *Douglas County v. Babbitt*,¹⁴⁰ the Ninth Circuit extended that precedent and held NEPA inapplicable to CH designations. Environmental interveners pressed the court to employ the status quo exception, asserting that the designation did not impact the physical environment.¹⁴¹ The government, however, presented a more nuanced argument, drawn from the earlier Ninth Circuit case. It argued that, like with FIFRA, the ESA displaced the need to prepare any document under NEPA.¹⁴² The U.S. invoked the FIFRA case as well as the case affirming NEPA’s inapplicability to listing decisions,¹⁴³ and then seemingly turned legislative history on its head by noting that the few references to NEPA during the debates, particularly in the 1978 and 1982 amendments, were insufficient to suggest that NEPA applies to a CH designation.¹⁴⁴

137. *Id.* at 780.

138. *Id.* at 781.

139. *Id.*

140. *Douglas Cnty. v. Babbitt*, 48 F.3d 1495 (9th Cir. 1995).

141. See Opening Brief of Intervenor-Appellants Headwaters and Umpqua Valley Audubon Society at 7, 12, *Douglas Cnty. v. Babbitt*, 48 F.3d 1495 (9th Cir. 1995) (Nos. 93-36013, 93-36016) 1994 WL 16014944, at *7, *10; Reply Brief of Intervenor-Appellants Headwaters and Umpqua Valley Audubon Society at 4, 6, *Douglas Cnty. v. Babbitt*, 48 F.3d 1495 (9th Cir. 1995) (Nos. 93-36013, 93-36016) 1994 WL 16014945, at *3, *6. They cited *Sabine River Auth. v. U.S. Dep’t of Interior*, 951 F.2d 669 (5th Cir. 1992); *Clinton Cmty. Hosp. Corp. v. S. Md. Med. Ctr.*, 510 F.2d 1037 (4th Cir. 1975); *Nat’l Ass’n of Prop. Owners v. United States*, 499 F. Supp. 1223 (D. Minn. 1980). The interveners further argued that the plaintiffs were pressing NEPA to delay the process, and that the ESA, as a conservation statute, makes NEPA unnecessary.

142. Brief of the Federal Appellants at 24, *Douglas Cnty. v. Babbitt*, 48 F.3d 1495 (9th Cir. 1995) (Nos. 93-36013, 93-36016) 1994 WL 16014941, at * 24; Brief of Federal Appellant at 10–11, *Douglas Cnty. v. Babbitt*, 48 F.3d 1495 (9th Cir. 1995) (Nos. 93-36013, 93-36016) 1994 WL 16014942, at *10–11.

143. *Id.*

144. See Brief of the Federal Appellants at 28, *Douglas Cnty. v. Babbitt*, 48 F.3d 1495 (9th Cir. 1995) (Nos. 93-36013, 93-36016) 1994 WL 16014941, at *28 (“[T]he congressional

The court accepted both advocates' arguments. It accepted a status quo argument, reasoning that "the NEPA procedures do not apply to federal actions that do nothing to alter the natural physical environment."¹⁴⁵ The court also concluded that the ESA, like FIFRA, displaces NEPA, noting that "[t]he legislative history . . . follows a similar pattern [as there] and convinces us that Congress intended that the ESA procedures for designating a critical habitat replace the NEPA requirements."¹⁴⁶ Then, relying on the listing case, the court held that "NEPA does not apply" "because the ESA furthers the goals of NEPA without demanding an EIS."¹⁴⁷

And finally, the court's citation to *Flint Ridge Dev. Co. v. Scenic Rivers Ass'n*,¹⁴⁸ is problematic. *Flint Ridge* is premised upon a judgment that Congress impliedly intended that NEPA would not apply to the program there, because NEPA would conflict with the short time requirements for the underlying program. That analysis is not transferable to the CH program. For starters, the agency has applied NEPA to some CH designations, including the recent and historically controversial designation involving the Northern Spotted Owl (NSO),¹⁴⁹ demonstrating no irreconcilable conflict. Also, the short time period for designations does not even approach the even shorter period for exploratory well permit approval under the offshore oil and gas leasing program, which led to the BP well blow-out and for which the Department now appropriately applies NEPA.¹⁵⁰

While most would agree that litigants should not wield NEPA as a sword to undermine the CH designation process, a result likely sought by *Douglas County*, the Ninth Circuit's analysis appears unsatisfying. First, the court should have easily dismissed the status quo argument. At the outset, *Douglas County's* reliance on interveners' status quo argument ignores that, pursuant to the APA, it is the agency's justification for its decision that a court reviews.¹⁵¹ The government neither presented the

failure to reverse or revise the Secretary's interpretation that NEPA does not apply to critical habitat decisions, is similarly persuasive evidence that the Secretary's interpretation of his NEPA obligations in designating critical habitat is the one intended by Congress.").

145. *Douglas Cnty.*, 48 F.3d at 1505–06.

146. *Id.* at 1503.

147. *Id.* at 1506.

148. *Flint Ridge Dev. Co. v. Scenic Rivers Ass'n of Okla.*, 426 U.S. 776 (1976).

149. See U.S. FISH & WILDLIFE SERV., FINAL ENVIRONMENTAL ASSESSMENT REVISION OF CRITICAL HABITAT FOR THE NORTHERN SPOTTED OWL 1 (2012) (on file with author).

150. See generally Sam Kalen, *The BP Macondo Well Exploration Plan: Wither the Coastal Zone Management Act?*, 40 ENVTL. L. REP. 11079 (2010).

151. See *Motor Vehicle Mfrs. Ass'n of the U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983) ("We may not supply a reasoned basis for the agency's action that the agency itself has not given.").

status quo issue in its brief nor is there a suggestion in the briefs that the agency invoked the status quo as its rationale.

But aside from this inherent flaw in the court's opinion, the status quo theory is analytically unsound. The argument assumes that an agency action does not affect the physical environment when the action does not immediately alter the environment.¹⁵² These words are not synonymous. Environmental scholars no longer accept the balance of nature paradigm, which assumes an equilibrium and static environment, and the notion that simply preserving the existing status somehow is always beneficial.¹⁵³ Also, when possibly precluding activities that physically affect the land because they might "adversely modify" or "destroy" the land, we necessarily are affecting what can occur in the designated area: CH might preclude future use of the land, which could have beneficial or possibly negative environmental consequences. The action, moreover, unquestioningly affects the physical environment,¹⁵⁴ and NEPA's consideration of the "human environment" casts a wider net to ensure that the agency appreciates the full array of possible effects. Those impacts, for instance, could include adverse effects on other nearby property by pushing development in that direction. This other property could include sensitive lands, such as wetlands, not just lands essential for the particular species. This, then, leaves the *Douglas County* analysis resting on a thin reed: whether the structure of the ESA CH program or its legislative history evinces a congressional intent to displace NEPA.¹⁵⁵

This reed appears unlikely to support the analysis much longer. Even non-textualists should question the court's use of legislative history. To begin with, the court never discusses *Chevron*¹⁵⁶ deference or asks whether the issue is one of statutory interpretation. Next, it fails to start from the undeniable premise that NEPA applies to all discretionary federal agency actions (assuming an impact on the physical environment) unless Congress evinces an unambiguous intent otherwise. Unlike listing decisions, the Services maintain that they exercise discretion when designating CH. And the court simply ignored these important issues.

152. See *Douglas Cnty. v. Babbitt*, 48 F.3d 1495, 1505.

153. See generally Jianguo Wu & Ori L. Loucks, *From Balance of Nature to Hierarchical Patch Dynamics: A Paradigm Shift in Ecology*, 70 Q. REV. BIOLOGY 439 (1995).

154. No one suggests that this is an instance where the direct action does not relate to the physical environment, such as in *Metro. Edison Co. v. People Against Nuclear Energy*, 460 U.S. 766 (1983). Compare *id.* at 774–75 with *Douglas Cnty.*, 48 F.3d at 1505–06.

155. "The 'displacement' argument asserts that Congress intended to displace one procedure with another. The 'functional equivalent' argument is that one process requires the same steps as another." *Douglas Cnty.*, 48 F.3d at 1504 n.10.

156. *Chevron, U.S.A., Inc. v. Natural Res. Def. Council*, 467 U.S. 837 (1984).

Not surprisingly, other jurisdictions also criticize the congressional intent analysis in *Douglas County*. The Tenth Circuit, for instance, found the Ninth Circuit's analysis unpersuasive.¹⁵⁷ A district court in Washington, D.C., similarly suggested that NEPA compliance is necessary when considering a CH designation.¹⁵⁸ It seems difficult to suggest that the structure of the section 4 CH process mirrors NEPA. NEPA's inquiry is decidedly more robust. It requires the agency to examine the human environment in its entirety, including the direct, indirect, and cumulative effects; it requires the agency to develop alternatives and appreciate the different effects flowing from the different options.¹⁵⁹ This is far from the process under section 4. The only similarity is that the ESA promotes one aspect of environmental protection and NEPA involves a broader interpretation of environmental protection. Congress' decision to pass another environmentally oriented statute does not imply legislative intent to displace NEPA. Any perceived congressional intent to avoid NEPA's application, therefore, appears solely dependent upon whether the legislative history evinces an unambiguous intent to displace an otherwise applicable statute—NEPA.¹⁶⁰ Here, however, only

157. *Catron Cnty. Bd. of Comm'rs, N.M. v. U.S. Fish and Wildlife Serv.*, 75 F.3d 1429, 1437 (10th Cir. 1996). The Tenth Circuit subsequently chided the FWS for its NEPA compliance, observing in the designation of habitat for the Silvery Minnow that "FWS' compliance with NEPA and the ESA has been marked by massive delays and inadequate decision-making," and that the "overwhelming evidence [suggests] that the designation will significantly affect the quality of the human environment . . ." *Middle Rio Grande Conservancy Dist. v. Norton*, 294 F.3d 1220, 1226–27 (10th Cir. 2002); *cf. Sw. Ctr. for Biological Diversity v. Rogers*, 950 F. Supp. 278, 280–81 (D. Ariz. 1996) (implicitly suggesting that NEPA compliance might assist in determining whether a critical habitat designation is adequate to provide for the recovery of the species and dismissing case as moot pending NEPA compliance).

158. *Cape Hatteras Access Pres. Alliance v. U.S. Dep't of the Interior*, 344 F. Supp. 2d 108, 135 (D.D.C. 2004); *Cape Hatteras Access Pres. Alliance v. U.S. Dep't. of the Interior*, 731 F. Supp. 2d 15, 35–36 (D.D.C. 2010) (avoiding whether NEPA applies, but noting that the FWS complied with the Act).

159. See generally DANIEL R. MANDELKER, *NEPA LAW AND LITIGATION* (2d ed. 2009).

160. The Court historically has been reluctant to employ congressional silence on a particular point, commonly referred to as congressional acquiescence, as evidence of congressional intent—at least absent sufficiently probative evidence. See *Rapanos v. United States*, 547 U.S. 715, 750 (2006) ("To be sure, we have sometimes relied on congressional acquiescence when there is evidence that Congress considered and rejected the 'precise issue' presented before the Court . . ."); see also *Solid Waste Agency of N. Cook Cnty. v. U.S. Army Corps of Eng'rs*, 531 U.S. 159, 169 (2001). This is different than "[w]hen Congress reenacts statutory language that has been given a consistent judicial construction, we often adhere to that construction in interpreting the reenacted statutory language." *Cent. Bank of Denver, N.A. v. First Interstate Bank of Denver, N.A.*, 511 U.S. 164, 185 (1994); see also *Lorillard v. Pons*, 434 U.S. 575, 580 (1978); *cf. Keene Corp. v. United States*, 508 U.S. 200, 213 (1993) (need for settled interpretation at time of congressional action); *Davis v. United*

marginally related evidence supports that Congress even considered NEPA during the ESA amendments' passage, and much of that evidence supports NEPA's application rather than acquiescence to a judicial or clear administrative interpretation.¹⁶¹

The FWS nevertheless follows *Douglas County* for designations except those within the jurisdiction of the Tenth Circuit.¹⁶² In the polar bear designation, for instance, the FWS observed, characteristic of language in other designations, that:

[O]utside the jurisdiction of the Circuit Court of the United States for the Tenth Circuit, we do not need to prepare environmental analyses as defined by NEPA (42 U.S.C. 4321 et seq.) in connection with designating critical habitat under the Act. We published a notice outlining our reasons for this determination in the Federal Register on October 25, 1983 (48 FR 49244). 'The opportunity for public comments, one of the goals of NEPA, is provided for through section 4 rulemaking procedures.'¹⁶³

Of course, even if not compelled, a Service might voluntarily prepare a NEPA document. For instance, although costly, the FWS prepared

States, 495 U.S. 472, 482 (1990) (similar); *FDIC v. Phila. Gear Corp.*, 476 U.S. 426, 437 (1986) (similar); *Commodity Futures Trading Comm'n v. Schor*, 478 U.S. 833, 846 (1986) (similar). A liberal use of history has permitted the Court also to assert that "once an agency's statutory construction has been 'fully brought to the attention of the public and the Congress,' and [Congress] has not sought to alter that interpretation although it has amended the statute in other respects, then presumably the legislative intent has been correctly discerned." *United States v. Rutherford*, 442 U.S. 544, 554 n.10 (1979) (quoting *Apex Hosiery Co. v. Leader*, 310 U.S. 469, 489 (1940)).

161. *Catron Cnty. Bd. of Comm'rs, N.M.*, 75 F.3d at 1439 (reviewing history).

162. See U.S. FISH & WILDLIFE SERV., DRAFT ENVIRONMENTAL ASSESSMENT: PROPOSED DESIGNATION OF CRITICAL HABITAT FOR GUNNISON SAGE-GROUSE (*Centrocercus minimus*) IN COLORADO AND UTAH 5 (2013), available at <http://www.fws.gov/mountain-prairie/species/birds/gunnisonsagegrouse/20130909DraftEnvironmentalAssessmentForCriticalHabitat.pdf>.

163. Designation of Critical Habitat for the Polar Bear (*Ursus maritimus*) in the United States, 75 Fed. Reg. 76,086, 76,102–03 (Dec. 7, 2010) (to be codified at 50 C.F.R. pt. 17); see also National Environmental Policy Act Revised Implementing Procedures, 62 Fed. Reg. 2,375, 2,379 (Jan. 16, 1997) (Final Revised Procedures Notice). The parties in the polar bear litigation avoided briefing the NEPA issue, quite possibly because the issue is settled in the Ninth Circuit. In *Home Builders Ass'n of N. Cal. v. U.S. Fish & Wildlife Serv.*, 616 F.3d 983, 992 (9th Cir. 2010), the court noted that NEPA's concepts—particularly cumulative effects—made little sense in the ESA realm. Some district courts within the Ninth Circuit, therefore, expressly decline the invitation to reconsider the NEPA issue because the unequivocal holding in *Douglas County*. See, e.g., *Bear Valley Mut. Water Co. v. Salazar*, No. SACV 11-01263-JVS, 2012 WL 5353353, at *37 (C.D. Cal. Oct. 17, 2012).

an EA for the NSO.¹⁶⁴ Interestingly, every CH could be challenged (albeit possibly subject to being transferred) in district court in Washington, D.C., potentially undermining the Services' decision to avoid NEPA in all circuits outside of the Tenth Circuit. The NSO designation, coupled with the possible challenge in the D.C. Circuit and assumption that the district court decision in the D.C. Circuit remains outstanding, all suggesting that the Services might apply NEPA more often in the future.

D. Considering Economic Impacts

Finally, the Act's requirement to analyze economic impacts associated with a designation is controversial and unnecessarily cumbersome. Agencies generally analyze a designation's economic consequences according to the Office of Management and Budget (OMB) guidelines.¹⁶⁵ These guidelines require that agencies assess the incremental cost of a proposed regulation against an existing baseline. In the context of CH designation, this translates into the Service analyzing the incremental economic impacts beyond those attributable to both the listing and the accompanying jeopardy standard. FWS typically explains its methodology for calculating economic costs in the following fashion:

Determining the economic impacts of a critical habitat designation involves evaluating the "without critical habitat" baseline versus the "with critical habitat" scenario, to identify those effects expected to occur solely due to the designation of critical habitat and not from the protections that are in place due to the species being listed under the Act. Effects of a designation equal the difference, or increment, between these two scenarios, and include the costs of both changes in management and increased administrative efforts that result from the designation. These changes are often thought of as "changes in behavior" or the "incremental effect" that would most likely result from the designation if finalized. "Specific measured differences between the baseline (without critical habitat) and the designated critical habitat (with critical habitat) may in-

164. U.S. FISH & WILDLIFE SERV., *supra* note 149, at 1. The FWS has produced other EAs, as well. *See, e.g.*, Endangered Status and Designations of Critical Habitat for Spikedace and Loach Minnow, 77 Fed. Reg. 10,810, 10,810 (Feb. 23, 2012) (to be codified at 50 C.F.R. pt. 17) (noting availability of EA).

165. *See* CIRCULAR A-4, AT 1-2 (2003), *available at* <http://www.whitehouse.gov/sites/default/files/omb/assets/omb/circulars/a004/a-4.pdf>. Concurrently, the Regulatory Flexibility Act independently requires that agencies describe the impact of a proposed rule on small businesses and small governments. Regulatory Flexibility Act, 5 U.S.C. §§ 601-604 (2012). The Services also rely upon the Notice of Interagency Cooperative Policy on Information Standards Under the Endangered Species Act, 59 Fed. Reg. 34,271 (July 1, 1994) (policy statement notice), and the Consolidated Appropriations Act, 2001, Pub. L. No. 106-554, 114 Stat. 2763.

clude (but are not limited to) the economic effects stemming from changes in land or resource use or extraction, environmental quality, or time and effort expended on administrative and other activities by Federal landowners, Federal action agencies, and in some instances, State and local governments or private third parties. These are the incremental effects that serve as the basis for the economic analysis.¹⁶⁶

Currently, Industrial Economics, Inc. appears to be developing most of the present economic analyses, generally guided by a Service prepared separate incremental effects memorandum for each species.¹⁶⁷ “One of the primary purposes” of the incremental effects “memorandum is to provide information on the likelihood that activities occurring within or affecting critical habitat will be subject to restrictions above and beyond those implemented by the baseline regulatory protections and conservation measures that are in place directly or indirectly due to the listing of the species.”¹⁶⁸

But a vocal minority opposes this methodology. Some members of Congress and the regulated community think the Act should require agencies to measure more than the incremental costs associated with a designation against a baseline that includes listing and jeopardy.¹⁶⁹ Several Republican senators, moreover, believe that the economic analysis ought to serve to justify excluding private and state lands when the costs outweigh the benefits.¹⁷⁰ To date, the majority of courts accept the base-

166. INDUS. ECON., INC., ECONOMIC ANALYSIS OF CRITICAL HABITAT DESIGNATION FOR THE NORTHERN SPOTTED OWL, at B-2 (2012) [hereinafter NORTHERN SPOTTED OWL], available at <http://www.fws.gov/oregonfwo/species/data/northernspottedowl/Documents/NSO-FinalEconAnalysis21Nov2012.pdf>.

167. See, e.g., INDUS. ECON., INC., ECONOMIC ANALYSIS OF CRITICAL HABITAT DESIGNATION FOR THE BULL TROUT, at E-2 (2010) [hereinafter *Bull Trout*], available at <http://www.fws.gov/pacific/bulltrout/pdf/EAFinal2010.pdf>; Southern Selkirk Mountains, *supra* note 86, at C-2.

168. NORTHERN SPOTTED OWL, *supra* note 166, at B-3.

169. See Alan Kovski, *White House Gets Final Rule on Analyses of Endangered Species Habitat Designations*, BNA DAILY ENVT. REP., June 17, 2013, at A-11, available at http://news.bna.com/erln/ERLNWB/split_display.adp?fedfid=46401390&vname=ernotallissues&fcn=56&wsn=493634000&fn=46401390&split=0 (noting that commercial interests opposed incremental impact analysis).

170. Alan Kovski, *Republican Senators Seek Full Accounting for Costs of Critical Habitat Designations*, BNA DAILY ENVT. REP., Feb. 4, 2013, at A-8, available at http://news.bna.com/erln/ERLNWB/split_display.adp?fedfid=29629364&vname=ernotallissues&wsn=491549500&searchid=23822537&doctypeid=1&type=date&mode=doc&split=0&scm=ERLNWB&pg=0; see Jeremy P. Jacobs, *GOP Senators Object to Changes in Economic Analyses of Listings*, E&E NEWS PM, Feb. 1, 2013, <http://www.eenews.net/pm>; see also Alan Kovski, *Proposed Revisions on Impact Calculations Disputed for Critical Habitat Designations*, BNA DAILY ENVT. REP., Feb. 12, 2013, at A-11, <http://www.bna.com/daily-environment-report-p4751/> (noting ob-

line approach,¹⁷¹ with the Tenth Circuit as the lone dissenter.¹⁷² That court accepted an argument that the Services should analyze the totality of the economic impacts associated with a designation regardless of whether the designation is the sole cause of those impacts. The Tenth Circuit, therefore, requires that agencies consider all economic impacts associated with any aspect of the ESA leading up to CH designation that are co-extensive with other precipitating causes, such as the jeopardy standard associated with the listing of the species itself.¹⁷³

The latest chapter in the designation of NSO habitat illustrates recent attempts to solidify the Services' approach to economic impacts. The listing of the NSO¹⁷⁴ triggered a national dialogue about the ESA, which is often depicted as pitting private property owners against citizens concerned with the fate of the NSO and its habitat. The principal conversation focused on the old growth forests in the Pacific Northwest and protecting that habitat from over harvesting timber.¹⁷⁵ When the FWS finally designated a revised NSO CH in 2008,¹⁷⁶ both industry and envi-

jections by “[o]il and gas companies, ranchers, timber companies, state officials, and others”).

171. *See, e.g.*, *Home Builders Ass’n of N. Cal. v. U.S. Fish & Wildlife Serv.*, 616 F.3d 983, 992 (9th Cir. 2010); *Ariz. Cattle Growers’ Ass’n v. Salazar*, 606 F.3d 1160, 1173 (9th Cir. 2010); *Ctr. for Biological Diversity v. Bureau of Land Mgmt.*, 422 F. Supp. 2d 1115, 1152 (N.D. Cal. 2006); *Cape Hatteras Access Pres. Alliance v. U.S. Dep’t of the Interior*, 344 F. Supp. 2d 108, 130 (D.D.C. 2004); *Cape Hatteras Access Pres. Alliance v. U.S. Dep’t of the Interior*, 731 F. Supp. 2d 15, 30 (D.D.C. 2010).

172. *See, e.g.*, *N.M. Cattle Growers Ass’n v. U.S. Fish & Wildlife Serv.*, 248 F.3d 1277, 1285 (10th Cir. 2001).

173. *Id.* at 1284–85.

174. The FWS listed the NSO as threatened in 1990. *Determination of Threatened Status for the Northern Spotted Owl*, 55 Fed. Reg. 26,114, 26,114 (June 26, 1990) (to be codified at 50 C.F.R. pt. 17).

175. *See* *Designation of Revised Critical Habitat for the Northern Spotted Owl*, 77 Fed. Reg. 71,876, 71,876 (Dec. 4, 2012) (to be codified at 50 C.F.R. pt. 17) (“We . . . listed the northern spotted owl . . . because of widespread loss of habitat”); *see also* *N. Spotted Owl v. Lujan*, 758 F. Supp. 621, 628 (W.D. Wash. 1991) (holding the Service abused its discretion in failing to designate critical habitat). *See generally* STEVEN LEWIS YAFFEE, *THE WISDOM OF THE SPOTTED OWL: POLICY LESSONS FOR A NEW CENTURY* (1994).

176. *Revised Designation of Critical Habitat for the Northern Spotted Owl*, 73 Fed. Reg. 47,326 (Aug. 13, 2008) (to be codified at 50 C.F.R. pt. 17). The Service previously announced the availability of a recovery plan. *Proposed Revised Designation of Critical Habitat for the Northern Spotted Owl (Strix occidentalis caurina)*, 73 Fed. Reg. 29,471, 29,472 (proposed May 21, 2008) (to be codified at 50 C.F.R. pt. 17). The original designation occurred in 1992, *Determination of Critical Habitat for the Northern Spotted Owl*, 57 Fed. Reg. 1,796 (Jan. 15, 1992) (to be codified at 50 C.F.R. pt. 17), and following a legal challenge and settlement, the FWS agreed to undertake a 5 year status review, culminating in the 2010 notice initiating that review and soliciting comments. *5 Year Status Reviews of 58 Species in Washington, Oregon, California, and Hawaii*, 75 Fed. Reg. 71,726 (Nov. 24, 2010) (initiation review notice and information request); *see also* *Reopening of Public Comment Period*, 76 Fed. Reg.

ronmentalists challenged the designation as well as the accompanying recovery plan.¹⁷⁷ Once it became apparent that the recovery plan and designation were tainted by improper political influence, the administration asked the court to vacate the designation and to have the rule voluntarily remanded back to the Service.¹⁷⁸ The court agreed to a voluntary remand, but left the 2008 designation in place until the Service issued a revised designation.¹⁷⁹ Then, in the context of revising the designation, on February 28, 2012, President Obama issued a memorandum directing that the Services release their economic analysis concurrently with the proposed designation.¹⁸⁰ The memorandum directed that the FWS consider excluding non-federal lands from the designation, and even suggested giving “careful consideration to providing the maximum exclusion . . . consistent with applicable law and science;” and it also encourages the Service to consider various management tools and to adopt the “least burdensome means” consistent with legal obligations.¹⁸¹ Following the President’s directive, the FWS released its proposed revised designation in February 2012¹⁸² and final new designation in

22,139, 22,140 (Apr. 20, 2011) (initiation review notice, information request, and comment period reopening).

177. *Carpenters Indus. Council v. Salazar*, 734 F. Supp. 2d 126, 126 (D.D.C. 2010).

178. *Id.* at 131.

179. *Id.* at 132, 138. The parties fought over whether to remand and vacatur. *See, e.g.*, Seattle Audubon’s Post-Argument Brief in Support of Motion for Voluntary Remand and Vacatur at 2, *Carpenters Indus. Council v. Salazar*, 734 F. Supp. 2d 126 (D.D.C. 2010) (No. 108CV01409), 2010 WL 943274; Plaintiffs’ Post-Argument Brief in Opposition to Defendant’s Motion for Voluntary Remand and Vacatur at 10, *Carpenters Indus. Council v. Salazar*, 734 F. Supp. 2d 126 (D.D.C. 2010) (No. 108CV01409), 2010 WL 943275.

180. Memorandum on Proposed Revised Habitat for the Spotted Owl: Minimizing Regulatory Burdens, 2012 DAILY COMP. PRES. DOC. 2 (Feb. 28, 2012) [hereinafter *Presidential Memorandum*]. Some earlier proposed designations were reopened, in part, to allow consideration of a draft economic analysis that might not have been available when the Service first proposed the designation. *See, e.g.*, Endangered Status for Four Central Texas Salamanders and Designation of Critical Habitat, 78 Fed. Reg. 5,385, 5,385 (proposed Jan. 25, 2013) (to be codified at 50 C.F.R. pt. 17).

181. Presidential Memorandum, *supra* note 180, at 2.

182. Revised Critical Habitat for the Northern Spotted Owl, 77 Fed. Reg. 14,062 (proposed Mar. 8, 2012) (to be codified at 50 C.F.R. pt. 17). The public comment on the proposed rule became extended to accommodate comments on the draft economic analysis and environmental assessment. Revised Critical Habitat for the Northern Spotted Owl, 77 Fed. Reg. 27,010, 27,010 (proposed May 8, 2012) (to be codified at 50 C.F.R. pt. 17) (public comment period extension and public meeting and public hearing announcement); *see* Revised Critical Habitat for the Northern Spotted Owl (*Strix occidentalis caurina*), 77 Fed. Reg. 32,483, 32,483 (proposed June 1, 2012) (to be codified at 50 C.F.R. pt. 17) (supplementary documents availability announcement).

December 2012.¹⁸³

During the summer of 2013, the Services also updated the CH economic analysis regulation.¹⁸⁴ The new regulation undoubtedly solves some issues, but unfortunately perpetuates the questionable endeavor of calculating costs. The new rule not only codifies the presidential directive to release a draft economic analysis at the time of a proposed designation,¹⁸⁵ but also reaffirms the Services' use of an incremental (baseline) impact analysis.¹⁸⁶ The timing for the release of economic reports had become problematic because the Service often released the reports after the comment period on a proposed designation ended. The FWS, for instance, released the polar bear economic analysis approximately six months after the proposed designation.¹⁸⁷ The regulation also codified the incremental effect methodology, which should then secure judicial deference to the Services' interpretation.¹⁸⁸ Because of this, the Tenth Circuit arguably would need to revisit its *NM Cattle Growers* decision.¹⁸⁹ When announcing the new rule, the Director of the FWS stated that

183. Designation of Revised Critical Habitat for the Northern Spotted Owl, 77 Fed. Reg. 71,876 (Dec. 4, 2012) (to be codified at 50 C.F.R. pt. 17). Presidential Memorandum, *supra* note 180.

184. See Revisions to the Regulations for Impact Analyses of Critical Habitat, 78 Fed. Reg. 53,058 (Aug. 28, 2013) (to be codified at 50 C.F.R. pt. 424); see also Revisions to the Regulations for Impact Analyses of Critical Habitat, 77 Fed. Reg. 51,503 (proposed Aug. 24, 2012) (to be codified at 50 C.F.R. pt. 424).

185. National Oceanic and Atmospheric Administration (NOAA) already releases its economic analysis simultaneously with a proposed listing. See Phil Taylor, *Obama Admin Proposes Rule To Speed Economic Studies of Critical Habitat*, E&E News PM, Aug. 23, 2012, <http://www.eenews.net/pm> (noting NOAA practice).

186. See Revisions to the Regulations for Impact Analyses of Critical Habitat, 78 Fed. Reg. at 53,062; Revisions to the Regulations for Impact Analyses of Critical Habitat, 77 Fed. Reg. 51,503, 51,506.

187. See Designation of Critical Habitat for the Polar Bear (*Ursus maritimus*) in the United States, 74 Fed. Reg. 56,058 (proposed Oct. 29, 2009) (to be codified at 50 C.F.R. pt. 17); Designation of Critical Habitat for the Polar Bear in the United States, 75 Fed. Reg. 24,545, 24,545 (proposed May 5, 2010) (to be codified at 50 C.F.R. pt. 17) (comment period reopening and public hearing announcement). The FWS, however, had re-opened the comment period for the proposed designation concurrently with its release of its economic analysis. *Id.* On Dec. 7, 2010, the Service issued the final designation rule and its Oct. 14, 2010 final economic analysis. Designation of Critical Habitat for the Polar Bear (*Ursus maritimus*) in the United States, 75 Fed. Reg. 76,086, 76,086 (Dec. 7, 2010) (to be codified at 50 C.F.R. pt. 18).

188. See *Chevron, U.S.A., Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837, 843–44 (1984).

189. See *Nat'l Cable & Telecommunications Ass'n v. Brand X Internet Serv.*, 545 U.S. 967 (2005). The FWS also asserts that the Tenth Circuit's rationale in *NM Cattle Growers*, which rejected the incremental effects methodology, has since been undermined, because that court relied upon old definitions of adverse modification and jeopardy. Those definitions have since changed. *Gunnison Sage-Grouse*, *supra* note 93, at C-2 n.1.

“[t]hese common-sense changes . . . will improve the process by making our economic analysis available to the public sooner, while continuing our commitment to provide the best protections for our nation’s” listed species.¹⁹⁰

Given this controversy, the requirement to analyze the economic effects of a designation quite expectedly has been challenging—if not utterly wasteful. When analyzing CH designations, Professor Amy Sinden aptly details the evolution of how the FWS addressed economic impacts.¹⁹¹ At first, the agency presented merely perfunctory analyses, with CH resulting in arguably *de minimis* impacts.¹⁹² Of course, that would be the case as long as adverse modification or destruction is synonymous with jeopardy.¹⁹³ Sinden then further chronicles what she suggests is a disturbing “trend toward increasing quantification” of costs, with a corresponding effort to quantify benefits.¹⁹⁴ She fears that this trend will continue and possibly lead to promoting a “formal economic cost-benefit analysis” for designations.¹⁹⁵ Yet few could legitimately advocate for a formal cost/benefit analysis, and the issue today has less to do with a formal economic analysis and more to do with how the Services can develop any meaningful economic analysis.

To begin with, any economic analysis of costs associated with a land “designation” is illusory without some reasonably foreseeable sense of how CH will be managed. But the FWS, for instance, assiduously avoids directing how it would like an agency to manage CH lands to promote species recovery. Unless future designations include land management prescriptions—an approach I suggest is necessary,¹⁹⁶ economic analysis will remain limited to artful manipulations of data about current and planned activities unassociated with the designation.

190. Phil Taylor, *Interior Issues Final Rule for Calculating Costs of Habitat Protections*, GREENWIRE, Aug. 26, 2013, available at <http://www.eenews.net/greenwire/stories/1059986446/> (quoting statement).

191. See Amy Sinden, *The Economics of Endangered Species: Why Less is More in the Economic Analysis of Critical Habitat Designations*, 28 HARV. ENVTL. L. REV. 129 (2004).

192. *Id.* at 159–60.

193. Sinden further questions the assumption that the economic impacts above the baseline are marginal (implicitly questioning the present view that those above the baseline costs are mostly administrative costs). *Id.* at 163–64 (for the pygmy-owl, “critical habitat designation seems to have made a significant difference . . .”).

194. *Id.* at 182.

195. *Id.* at 182–83. The FWS recently suggested that monetizing benefits is problematic. Puget Sound Draft 4(b)(2) Report, at 19–20 (on file with author). See Timm Kroeger & Frank Casey, *Economic Impacts of Designating Critical Habitat Under the U.S. Endangered Species Act: Case Study of the Canada Lynx (Lynx Canadensis)*, 11 HUMAN DIMENSIONS OF WILDLIFE 437, 438 (2006).

196. See *infra* notes 199–200 and accompanying text.

Next, any general economic assessment requires identifying what activities might be constrained in the future. Yet, predicting those activities that may be constrained by a designation necessarily requires a clear understanding of what types of activities would be prohibited because they would result in “adverse modification” or “destruction” of the habitat under the statute. While the Act requires that the Services preliminarily identify what activities might constitute adverse modification or destruction during the CH designation,¹⁹⁷ the Services only recently focused sufficient attention on these concepts. Originally, the FWS interpreted the Act to preclude actions in CH that would pose a threat to either the survival or recovery of the species, by resulting “in a decline in the numbers of the species.”¹⁹⁸ This standard arguably seems more exacting than the standard since adopted.¹⁹⁹ In 1978, the Services adopted a regulation that conflated the concept of adverse modification or destruction with the jeopardy standard, which effectively engulfed the protections afforded by CH.²⁰⁰ Then, in 1986, the FWS changed the definition of adverse modification to require an effect on both survival and recovery.²⁰¹ Even so, the FWS took a broader interpretation in the NSO designation and suggested that the standard applied when either survival or recovery would be affected.²⁰² Then, in 2004, the Ninth Circuit decided *Gifford Pinchot Task Force v. U.S. Fish & Wildlife Service*,²⁰³ which invalidated the 1986 regulation. The court held that CH is integral to recovery and, as such, that adverse modification includes impacts on either survival or recovery.²⁰⁴

197. 16 U.S.C. § 1533(b)(8) (2012). Of course, the utility of the analysis is marginal. *See, e.g.*, Designation of Critical Habitat for Lower Columbia River Coho Salmon and Puget Sound Steelhead, 78 Fed. Reg. 2,726, 2,747 (proposed Jan. 14, 2013) (to be codified at 50 C.F.R. pt. 226) (noting a significant number of possible activities to consider for this requirement).

198. BEAN, *supra* note 41, at 253.

199. *Id.*

200. *Id.* (“By strengthening the jeopardy standard, however, the 1978 regulations further blurred the distinction between that duty and the duty to avoid destruction or modification of critical habitat.”). *See also* Interagency Cooperation, 43 Fed. Reg. 870 (Jan. 4, 1978) (final rulemaking).

201. Final Rule, 51 Fed. Reg. 19,926, 19,933–34 (June 3, 1986) (to be codified at 50 C.F.R. pt. 402).

202. BEAN, *supra* note 41, at 260.

203. *Gifford Pinchot Task Force v. U.S. Fish & Wildlife Serv.*, 378 F.3d 1059 (9th Cir. 2004), *amended by* 387 F.3d 968 (9th Cir. 2004).

204. The Ninth Circuit also required that the jeopardy analysis consider the effect of the action on either the survival or recovery of the species. *Nat’l Wildlife Fed’n v. Nat’l Marine Fisheries Serv.*, 524 F.3d 917, 932 (9th Cir. 2008). Failure to consider separately the effect on recovery can justify invalidating a biological opinion. *See e.g.*, *Ctr. for Biological Diversity v. Provencio*, CV 10-330 TUC AWT, 2012 WL 966031, at *11–13 (D. Ariz. Jan. 23, 2012).

Since *Gifford Pinchot*, the Services have struggled to promulgate new rules defining adverse modification or destruction.²⁰⁵ The FWS starts with the premise that even if a proposed action triggers the section 7(a)(2) CH bar, the acting agency need not “restore or recover the species, but [only] implement reasonable and prudent alternatives to avoid destruction or adverse modification” of the habitat.²⁰⁶ And adverse modification or destruction occurs when the identified lands would no longer serve their “intended conservation function or purpose for the species.”²⁰⁷ According to the FWS, this occurs when an activity alters the physical or biological features to such an extent that the activity appreciably reduces the habitat’s conservation value.²⁰⁸ In *Butte Env’tl. Council v. U.S. Army Corps of Eng’rs*, the court upheld a FWS biological opinion that allowed the acting agency to destroy a small percentage of habitat because the impact did not rise to the level of adverse modification.²⁰⁹ Since then, the Services have been drafting new regulations defining when activities might result in adverse modification or destruction.²¹⁰ In May 2014, they released new proposed rules that, if adopted, would confirm that adverse modification or destruction includes activities that appreciably diminish the conservation value of lands and preclude or significantly delay species recovery.²¹¹ These proposed rules may, for the first

205. Phil Taylor, *Interior Sends Critical-Habitat Rules to White House*, GREENWIRE, May 2, 2013, <http://www.eenews.net/gw> [hereinafter *Critical-Habitat Rules*] (a proposed rule “has been in the works since at least two years ago and has been a source of legal conflict for more than a decade”); see Memorandum from the Acting Dir., Marshall Jones, on Application of the “Destruction or Adverse Modification” Standard Under Section 7(a)(2) of the Endangered Species Act to Regional Directors and Managers of the California-Nevada Operations Office 1, (Dec. 9, 2004), available at <http://www.endangeredspecieslawandpolicy.com/uploads/file/Adverse%20Modification%20Guidance.pdf>.

206. Designation of Critical Habitat for the Oregon Spotted Frog, 78 Fed. Reg. 53,538, 53,540 (proposed Aug. 29, 2013) (to be codified at 50 C.F.R. pt. 17). See also 76 Fed. Reg. 5,353 (proposed Jan. 25, 2013) (even when an action would adversely modify or destroy CH, “the obligation of the Federal action agency is not to restore or recover the species, but to implement reasonable and prudent alternatives to avoid destruction or adverse modification . . .”).

207. Designation of Revised Critical Habitat for the Northern Spotted Owl, 77 Fed. Reg. 71,876, 71,937 (Dec. 4, 2012) (to be codified at 50 C.F.R. pt. 17).

208. Within paragraphs of each other, the FWS variously announces this standard twice; at one point, it adds the requirement for being “essential” and at another point it does not. *Id.* at 71,938.

209. *Butte Env’tl. Council v. U.S. Army Corps of Eng’rs*, 620 F.3d 936, 944, 948 (9th Cir. 2010).

210. See generally *Critical-Habitat Rules*, *supra* note 205.

211. See Definition of Destruction or Adverse Modification of Critical Habitat, 79 Fed. Reg. 27,060, 27,061–64 (proposed May 12, 2014) (to be codified at 50 C.F.R. pt. 402). “‘Conservation value’ . . . is the contribution the critical habitat provides, or has the ability to provide, to the recovery of the species.” *Id.* at 27062. The Services will examine the present

time, furnish a more transparent mechanism for distinguishing between jeopardy and adverse modification or destruction.²¹² The proposed changes might suggest that, in the future, adverse modification or destruction could arise in more instances than jeopardy.

As it stands, however, several recent economic analyses illustrate why this now routine, time consuming, and costly exercise for assessing economic impacts warrants a complete restructuring. The FWS generally informs the public that the incremental costs of a designation “are solely administrative.”²¹³ To calculate the total administrative cost, the FWS’s consultant, Industrial Economics, Inc., extends annual administrative costs as far into the future as it can predict, and then gives a net present value for that cost over time. Applying this method, the administrative cost for certain Texas salamanders was \$28 million over 23 years.²¹⁴ The FWS’s economic analysis for the loggerhead turtle, for instance, suggests little difference between the jeopardy analysis and activities that might constitute adverse modification or destruction.²¹⁵ While the analysis gen-

features of the habitat for promoting the current and future life history needs of the species when assessing conservation value. *Id.* If possible the Services hope to identify the “conservation value” when designating habitat. *Id.*

212. See Definition of Destruction or Adverse Modification of Critical Habitat, 79 Fed. Reg. at 27,064. The Services suggest the following distinction:

[The two standards] tend to converge and diverge depending on whether the area designated as critical habitat currently encompasses the physical or biological features that a species would need to be “conserved,” and whether the species’ reproduction, numbers, or distribution will be affected. There is an inherent linkage, though, between a species and its habitat, and that linkage means those alterations to a species’ habitat will in many cases cause alterations in the numbers, reproduction, or distribution of the species.

Id. at 27,064.

213. INDUS. ECON., INC., ECONOMIC ANALYSIS OF CRITICAL HABITAT DESIGNATION FOR THE MISSISSIPPI GOPHER FROG, at 4–5 (2011), at *available at* <http://www.fws.gov/MississippiES/pdf/gopher%20frog%20EA.pdf>. When designating habitat for the bull trout, the FWS indicated that occupied critical habitat would not likely result in any additional measures to avoid jeopardy beyond those otherwise necessary to avoid destruction or adverse modification. Bull Trout, *supra* note 167, at 2–10, 4–7. The accompanying incremental effects memorandum indicated that the designation would increase administrative costs by approximately 33 percent. See *Id.* at 2. This is about \$2.11 million annually. *Id.* at ES-2. For unoccupied habitat, the analysis suggests additional incremental costs beyond merely administrative costs. See *Id.* at ES-2, 4-8 to -9 (between \$2.12 million and \$2.52 million primarily from hydroelectric project modifications).

214. See INDUS. ECON., INC., ECONOMIC ANALYSIS OF CRITICAL HABITAT FOR FOUR CENTRAL TEXAS SALAMANDERS, at ES-7 (2013) [hereinafter FOUR CENTRAL TEXAS SALAMANDERS], *available at* http://www.wilco.org/Portals/0/Departments/Conservation_Foundation/TX_salamanca_DEA.pdf.

215. See INDUS. ECON., INC., ECONOMIC ANALYSIS OF TERRESTRIAL CRITICAL HABITAT FOR THE LOGGERHEAD SEAT TURTLE, at ES-8 (2013) [hereinafter LOGGERHEAD SEAT TURTLE]. In

erally identifies types of activities that may impact habitat, Industrial Economics, Inc. simply adds those costs to the administrative costs associated with having to address CH during the section 7 consultation process.²¹⁶

The NMFS generally does the same thing. In its report for the aquatic habitat for the turtle, the NMFS noted that it did not anticipate developing any specific conservation recommendations to protect habitat apart from the duty to avoid jeopardy, and it only projected about an \$86,000 annualized cost from added consultation activities.²¹⁷ Incremental administrative costs may be more significant only when the designated habitat is unoccupied or the designation triggers reinitiating consultation.²¹⁸

A similar assessment occurred when the FWS designated almost 10 million acres of habitat for the NSO, although designating only government-owned lands.²¹⁹ The incremental effects memorandum concluded that most of the costs attributable to the designation would likely be from added administrative burdens during the consultation process, from reinitiating consultation, or possibly from producing more reports during the consultation process.²²⁰ The Service found that only for unoccupied designated lands might there be costs associated with project alterations (and post-fire salvage operations).²²¹ Even though the Industrial Economics, Inc. report suggested minimal economic impacts, the report itself with appendices is over 200 pages. All to reach the unexceptional conclusion that “only a fraction of the overall proposed revised designation will result in more than incremental, minor administrative costs.”²²²

familiar language, the FWS draft analysis for the Central Texas Salamanders similarly states that it anticipates little difference between the efforts to avoid adverse modification and jeopardy, and while additional conservation efforts might occur to avoid potential adverse modification “the Service is unable to predict the types of projects that may require different conservation efforts.” *FOUR CENTRAL TEXAS SALAMANDERS*, *supra* note 214, at ES-4.

216. *FOUR CENTRAL TEXAS SALAMANDERS*, *supra* note 214, at ES-2.

217. *INDUSTRIAL ECONOMICS, INC., DRAFT ECONOMIC ANALYSIS OF CRITICAL HABITAT DESIGNATION OF MARINE HABITAT FOR THE NORTHWEST ATLANTIC OCEAN DISTINCT POPULATION SEGMENT OF THE LOGGERHEAD SEA TURTLE*, at ES-2, ES-7 (2013).

218. *See Indus. Econ., Inc.*, *supra* note 86, at C-11 (noting increase in effort for reinitiated consultation).

219. *See* Designation of Revised Critical Habitat for the Northern Spotted Owl, 77 Fed. Reg. 71,876, 71,877 (Dec. 4, 2012) (to be codified at 50 C.F.R. pt. 17).

220. *See* *NORTHERN SPOTTED OWL*, *supra* note 166, at B-19.

221. *Id. But cf.* Designation of Revised Critical Habitat for the Northern Spotted Owl, 77 Fed. Reg. at 72,011 (noting that effects from ecological fire salvage activities not quantifiable).

222. *NORTHERN SPOTTED OWL*, *supra* note 166, at ES-9. *See also* Designation of Revised Critical Habitat for the Northern Spotted Owl, 77 Fed. Reg. at 71,946 (discussing the economic costs on an annualized basis).

Assuming, for a moment, the analysis examined more than incremental effects, the result likely would be no more informative. Even if a solidified standard for adverse modification or destruction could be applied with some level of predictability, identifying realistic costs is somewhat illusory. Predicting what reasonably likely activities might be hindered by designation requires an educated guess about future actions by future policy-makers, the market, and non-federal parties, all over a time horizon that is constantly changing.²²³ This analysis would challenge even the most astute economist. Consequently, nothing about the current approach for calculating economic costs deserves much respect or continued adherence.

III. LANDSCAPE LEVEL MANAGEMENT THROUGH AN INTEGRATED CRITICAL HABITAT RECOVERY PROGRAM

Each of these issues tests the underlying assumptions permeating the present CH designation process. To overcome the CH program's past perennial problems, the Services ought to determine how future CH designations can best address the goals of the ESA. Historically, discussions about the ESA generally focused on section 4 listing, section 7 consultation, sections 9 take, and section 10 habitat conservation planning. Not until the 1990s, for instance, did species recovery planning gain sufficient currency to warrant compliance.²²⁴ Yet agency compliance with critical habitat simultaneously lagged.²²⁵ But now that CH designations are proceeding apace on a timelier basis,²²⁶ and the Services have proposed several new initiatives targeting the CH process, this is an auspicious time to explore whether the issues described in this article warrant further attention and, if so, how best to address them.

223. See Sinden, *supra* note 191, at 175, 179 (demonstrating that the new approach for economic analyses "requires the agency to make innumerable guesses and simplifying assumptions . . .").

224. See generally ENDANGERED SPECIES RECOVERY: FINDING THE LESSONS, IMPROVING THE PROCESS (Tim W. Clark, Richard P. Reading & Alice L. Clarke eds., 1994); Cheever, *supra* note 31; Rohlf, *supra* note 2, at 550.

225. See *supra* note 46 and accompanying text.

226. Admittedly, many designations such as for the Oregon Spotted Frog are pursuant to settlements (or court orders). *E.g.*, Designation of Critical Habitat for the Oregon Spotted Frog, 78 Fed. Reg. 53,538, 53,538 (proposed Aug. 29, 2013) (to be codified at 50 C.F.R. pt. 17) (court approved settlement agreement). Only after a lawsuit did the Services in 2013 designate habitat for loggerhead sea turtles, initially listed in 1978. See Laura Petersen, *NMFS Proposes 'Critical Habitat' in Gulf, Atlantic for Loggerhead Turtles*, GREENWIRE, July 18, 2013, available at <http://www.eenews.net/greenwire/stories/1059984638/>.

A. Coordinating the ESA Programs: Role of Recovery?

The panoply of issues animating the current dialogue about CH designation flows from the more general disintegrated nature of the ESA provisions. Perhaps the best example is the statutorily mandated timing for a CH designation. If a Service determines that a designation is prudent, it must then assess whether the designation is determinable based on whether (1) the Service has sufficient information to perform the required analysis; and (2) the species' biological needs are sufficiently well known.²²⁷ If not, the Act provides the Service a mere year to overcome these information constraints, which is far less than the time necessary to develop a recovery plan.²²⁸ The drafters of the ESA, therefore, contemplated that a CH designation would occur before the Service could develop a species' recovery plan. But a recovery plan could contribute significantly to the designation process. Indeed, Professor Kaylani Robbins advocates for a robust CH program by emphasizing how the Act envisioned that CH designations would contribute toward the primary goal of recovery.²²⁹ When proposing to designate CH for the Lower Columbia River coho salmon and Puget Sound steelhead, for instance, the NMFS indicated that the "recovery planning process ha[d] progressed" sufficiently "to better inform the designation process."²³⁰ Even the regulated community suggests that a recovery plan might be a necessary predicate to CH designation. In a 60 day notice of intent to sue on the CH designation for the Dusky gopher frog, the landowner observed that "[w]ithout the foundational underpinning of a viable population [determination], no one, including the Service, can determine whether the areas designated as Critical Habitat are too much or too little."²³¹ And if adverse modification or destruction is tied to recovery in addition to sur-

227. 50 C.F.R. § 424.12(a)(2) (2013).

228. 16 U.S.C. § 1533(b)(6)(C)(ii) (2012).

229. See Kalyani Robbins, *Recovery of An Endangered Provision: Untangling and Reviving Critical Habitat Under the Endangered Species Act*, 58 *BUFF. L. REV.* 1095, 1096–99 (2010).

230. Designation of Critical Habitat for Lower Columbia River Coho Salmon and Puget Sound Steelhead, 78 *Fed. Reg.* 2,726, 2,726 (proposed Jan. 14, 2013) (to be codified at 50 C.F.R. pt. 226).

231. Letter from M. Reed Hopper & Damien M. Schiff, Attorneys for Markle Interests, to Kenneth L. Salazar, Secretary of the Interior & Daniel M. Ashe, Dir., U.S. Fish and Wildlife Serv., 60-Day Notice of Intent to Bring A Citizen Suit Under the Endangered Species Act to Challenge the Designation of Critical Habitat for the Dusky Gopher Frog (previously Mississippi Gopher Frog) 77 *Fed. Reg.* 351 (June 12, 2012) (50 C.F.R. pt. 17) (Sept. 27, 2012). *But see* Market Interests, LLC v. U.S. Fish & Wildlife Serv., No. 13-234, 2014 WL 4186777, at *13 (E.D. La. Aug. 22, 2014) (rejecting that FWS needs to have a viable population determination).

vival, then the designation itself necessarily encompasses and ought to further recovery planning.²³²

Arguably one of the most significant shifts in ESA implementation during the past few decades involves the related areas of recovery planning and habitat protection. Recovery planning lagged until roughly the 1990s,²³³ approximately the same time when Secretary Babbitt implemented new tools designed to facilitate greater habitat protection through section 10 of the Act.²³⁴ Recovery planning, as Professor Federico Cheever accurately noted in his seminal article on the section 4 program, “should be the lens through which we view all of the Act’s mandates.”²³⁵ Even so, the Services only recently began to rely on species recovery

232. See Alan Kovski, *Two Agencies Work Toward Clarification of Policies on Habitat Impact, Species Harm*, BNA DAILY ENV'T REP., Feb. 3, 2012, at B-1, available at http://news.bna.com/erln/ERLNWB/split_display.adp?fedfid=24623520&vname=ernotallissues&fnc=53&wsn=503624000&fn=24623520&split=0 (noting importance of recovery for adverse modification); see also Definition of Destruction or Adverse Modification of Critical Habitat, 79 Fed. Reg. 27,060, 27,062 (proposed May 12, 2014) (to be codified at 50 C.F.R. pt. 402); Implementing Changes to the Regulations for Designating Critical Habitat, 79 Fed. Reg. 27,066, 27,072 (proposed May 12, 2014) (to be codified at 50 C.F.R. pt. 424).

233. Oliver Houck poignantly observes that “[t]he history of recovery planning is an almost exact replay of the listing program, contrasting a congressional sense of urgency with a snail’s pace of implementation.” Houck, *supra* note 2, at 346–47. By the early 1990s, the Interior Department recognized the problem and developed an interagency cooperative policy on recovery planning. Cf. Notice of Interagency Cooperative Policy on Recovery Plan Participation and Implementation Under the Endangered Species Act, 59 Fed. Reg. 34,272 (Jul. 1, 1994) (policy statement notice). Secretary Babbitt’s 10 point plan noted that “[r]ecovery should be the central focus of efforts under the ESA. Plans for the recovery of listed species should be more than discretionary blueprints. They should be meaningful and provide for implementation agreements that are legally binding on all parties.” PROTECTING AMERICA’S LIVING HERITAGE: A FAIR, COOPERATIVE AND SCIENTIFICALLY SOUND APPROACH TO IMPROVING THE ENDANGERED SPECIES ACT 10 (1995), available at http://www.fws.gov/policy/npi96_06.pdf.

234. The 1990s litigation surrounding the requirement that federal land managing agencies consult on land management plans reflects the growing recognition that species conservation requires landscape level habitat planning. See, e.g., *Pac. Rivers Council v. Thomas*, 30 F.3d 1050, 1051 (9th Cir. 1994).

235. Cheever, *supra* note 31, at 7. Cheever further posits that “[r]ecovery planning could give the agencies charged with administering the [ESA] more flexible authority to take actions to enhance the prospects of protected species without dealing with the immediate, inflexible, and sometimes politically charged threat from a planned project or program that may violate section 7 or 9.” *Id.* at 25–26. See also Fischman, *supra* note 30, at 14–15. As part of its 1990’s recommendations, the Keystone Dialogue similarly urged the development of an “energized recovery planning process.” KEYSTONE CTR., KEYSTONE DIALOGUE ON INCENTIVES TO PROTECT ENDANGERED SPECIES ON PRIVATE LANDS: FINAL REPORT 16 (1996) (on file with author). See also KEYSTONE CTR., THE KEYSTONE WORKING GROUP ON ENDANGERED SPECIES ACT HABITAT ISSUES 17 (2006), available at <https://www.keystone.org/images/keystone-center/spp-documents/Environment/ESA-Report-FINAL-4-25-06.pdf>.

analysis for assessing either the likelihood of jeopardy or adverse habitat modification or destruction.²³⁶ And integrating recovery planning into landscape-level resource planning, such as what occurred in the historic Recovery Implementation Plan in the Upper Colorado River²³⁷ or the Platte River Habitat Recovery Program,²³⁸ seem only natural. Integration affords resource managers the opportunity to examine at a landscape level what is necessary to ensure species conservation.²³⁹

The ESA itself implicitly assumes that the Services will consider recovery planning when the Act directs the Services to examine whether: (1) a particular area is essential for the conservation of a species; and (2) the area requires special management considerations or protection. Assessing whether an area is essential for the conservation of a species presumes that a Service will consider how the area might contribute to species recovery.²⁴⁰ And that consideration necessarily prompts a review of the landscape for “physical or biological features,”²⁴¹ as well as whether and what management considerations might be essential to ensure the continued viability of those features.

Indeed, both the NSO and polar bear designations step slightly in the direction of an enhanced CH designation program. The NSO designation and the Presidential Memorandum both note the possible importance of defining management activities for designated lands.²⁴² The 2009 NSO litigation included a challenge to both the adequacy of the recovery plan and the CH. One party argued that the Final Recovery Plan had no

236. See *supra* note 204 and accompanying text. See also *Ctr. for Native Ecosystems v. Cables*, 509 F.3d 1310, 1322 n.1 (10th Cir. 2007) (noting problem with then existing definition).

237. See generally Peter Evans, *A “Recovery” Partnership for the Upper Colorado River to Meet ESA § 7 Needs*, 8 NAT. RESOURCES & ENV'T 24 (1993); James H. Bolin, Jr., *Of Razorbacks and Reservoirs: The Endangered Species Act's Protection of Endangered Colorado River Basin Fish*, 11 PACE ENVTL. L. REV. 35 (1993).

238. See generally DAVID M. FREEMAN, *IMPLEMENTING THE ENDANGERED SPECIES ACT ON THE PLATTE BASIN WATER COMMONS* (2010).

239. Other landscape (watershed) initiatives also illustrate how recovery planning can be integrated with broad-scale management planning. *E.g.*, Northwest Forest Plan, California Bay Delta. See Elizabeth Ann Rieke, *The Bay-Delta Accord: A Stride Toward Sustainability*, 67 U. COLO. L. REV. 341 (1996).

240. See, *e.g.*, Proposed Designation of Critical Habitat for the Zuni Bluehead Sucker, 78 Fed. Reg. 5,351, 5,357 (proposed Jan. 25, 2013) (to be codified at 50 C.F.R. pt. 17) (noting that unoccupied areas necessary for species recovery warrant including in designation).

241. See *supra* note 43 and accompanying text.

242. Presidential Memorandum, *supra* note 180, at 2 (explaining that the northern spotted owl rule “on the basis of extensive scientific analysis,” recommends “that areas identified as critical habitat should be subject to active management”).

“legal bearing on the critical habitat designation.”²⁴³ But the 2008 CH for the NSO, designating some 5 million acres, was based on networks of managed owl conservation areas identified in the then available draft recovery plan.²⁴⁴ The most recent designation undoubtedly is further influenced by the recovery plan. While the designation rule carefully avoids controversy by noting that it does not prescribe management activities, it offers guidance for appropriate use of active management and ecological forestry for land managers to consider.²⁴⁵

The polar bear CH rule designates the largest tract of land for any specific species, and includes all barrier islands from the United States-Canada border around the coast of Alaska to Hooper Bay.²⁴⁶ In a novel step, the FWS identified a no disturbance zone (NDZ) when designating polar bear CH. The Service’s designation includes approximately 10,576 km² (4,083 mi²) of barrier island habitat as CH.²⁴⁷ These areas include “the barrier islands themselves and associated spits, and the water, ice, and any other terrestrial habitat within 1.6 km (1 mi) of the islands.”²⁴⁸ Parturient females use these barrier islands for denning, “as a place to avoid human disturbance, and to move along the coast to access den sites or preferred feeding locations.”²⁴⁹ The Service identified some of the habitat as a NDZ to “adequately protect polar bears denning, resting, or moving along the coastal barrier islands from human disturbance.”²⁵⁰ The NDZ was not included in the barrier island PCE because of its inherent biological or physical features, but rather because of its proximity to and protective effect on the barrier islands.²⁵¹ By noting that “the func-

243. Plaintiffs’ Partial Opposition to Defendants’ Motion to Alter or Extend Initial Case Schedule at 5, (filed Feb.17, 2009).

244. Revised Designation of Critical Habitat for the Northern Spotted Owl, 73 Fed. Reg. 47,326, 47,328 (Aug. 13, 2008) (to be codified at 50 C.F.R. pt. 17).

245. *E.g.*, Designation of Revised Critical Habitat for the Northern Spotted Owl, 77 Fed. Reg. 71,876, 71,889, 71,909–10 (Dec. 4, 2012) (to be codified at 50 C.F.R. pt. 17). When addressing special management considerations, the FWS notes the importance of satisfying the recovery plan criteria, and that the identified lands might require both passive and active management. *Id.* at 71,908.

246. *See* Designation of Critical Habitat for the Polar Bear (*Ursus maritimus*) in the United States, 75 Fed. Reg. 76,086, 76,120–22 (Dec. 7, 2010) (to be codified at 50 C.F.R. pt. 17).

247. *Id.* at 76,122.

248. *Id.*

249. *Id.* at 76,115.

250. *Id.* at 76,093.

251. Although the coastal barrier islands and spits already “provide areas free from human disturbance,” *id.* at 76,114, the polar bear may not continue to use these habitats if there is any human disturbance, *see id.* at 76,096 (“[T]he functional usefulness of [Barrier Islands] requires an area that is free from human disturbance.”). NDZ, therefore, is necessary “to maintain the functional integrity of the suitable barrier island habitat for resting,

tional usefulness of this habitat requires an area that is free from human disturbance²⁵² the FWS effectively established a management prescription.

B. Embedding CH Into the ESA's Evolving Emphasis on Landscape Level Protection

If we accept that the CH designation process is flawed, can it be modified to work effectively with what has been learned over the last several decades regarding the evolution toward landscape level protection? A principal factor affecting species—and ultimately ecosystem—protection is preserving sufficient habitat for a species' survival and recovery. When the FWS recently proposed listing the Oregon spotted frog, it noted that the significant threat to the frog was its loss of habitat, and it proposed designating over 68,000 acres as CH.²⁵³ But accomplishing meaningful habitat protection requires more than a large area. It also requires broad-scale land use planning that integrates species conservation with planning decisions. Critical habitat designations can promote that purpose; they can mandate focusing on landscape-level conservation for listed species. The CH definition emphasizes the importance of “conservation,” which the statute correlates to recovery and defines as the “use of all methods and procedures . . . necessary to” obviate the need for any protection under the Act.²⁵⁴

Each phase in the Act's evolution since the 1980s reflects an increasing emphasis on developing tools to promote landscape-level conservation efforts. Although their existence emerged in the early 1980s, habitat conservation plans (HCPs) under section 10 of the Act only attracted sufficient interest once Secretary Babbitt initiated certain program reforms.²⁵⁵ Section 10, as amended, allows private parties to “take” listed

denning, and movements along the coast,” *id.*, and to shield denning, resting, or moving polar bears from human activity, *id.* at 76,093.

252. *Id.* at 76,096.

253. See Threatened Status for Oregon Spotted Frog, 78 Fed. Reg. 53,582, 53,582 (proposed Aug. 29, 2013) (to be codified at 50 C.F.R. pt. 17); Designation of Critical Habitat for the Oregon Spotted Frog, 78 Fed. Reg. 53,538, 53,538 (proposed Aug. 29, 2013) (to be codified at 50 C.F.R. pt. 17). The Oregon spotted frog had been on the FWS' candidate list for over 20 years, even though it received an emergency listing in Canada, and it took a lawsuit to prompt the FWS' listing and designation. *Saving the Oregon Spotted Frog*, CENTER FOR BIOLOGICAL DIVERSITY, http://www.biologicaldiversity.org/species/amphibians/Oregon_spotted_frog/index.html (last visited Sept. 7, 2013).

254. See Endangered Species Act of 1973, 16 U.S.C. § 1532(3) (2012); Robbins, *supra* note 229, at 1097 n.7.

255. See Debra Donahue, *The Endangered Species Act and Its Current Set of Incentive Tools for Species Protection*, in SPECIES AT RISK: USING ECONOMIC INCENTIVES TO SHELTER ENDAN-

species if they have received and complied with the terms and conditions of an incidental take permit.²⁵⁶ Pursuant to section 10(a)(1)(B) of the ESA, the Secretary “may permit, under such terms and conditions as he shall prescribe—any taking otherwise prohibited by [section 9(a)(1)(B)] of this title if such taking is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity.”²⁵⁷ Section 10(a)(2) of the Act makes a HCP, or some form of conservation plan, a required component of any application for an incidental take permit under section 10(a)(1)(B).²⁵⁸ The plan, in part, must identify and analyze alternatives to the incidental taking and discuss why they are not being utilized, as well as include any other measures the Service may require as “necessary or appropriate for purposes of the plan.”²⁵⁹

The HCP program admittedly has generated widely different reactions.²⁶⁰ But the original concept carries continued resonance: large-scale land use planning driven by private agreements that reflect recovery planning management policies. One of the Services’ early guiding principles for the development of HCPs was to encourage regional and

GERED SPECIES ON PRIVATE LANDS 25, 31–50 (Jason F. Shogren ed., 2005) (describing program and its evolution).

256. 16 U.S.C. § 1539(a) (2012). In 1982, Congress amended the ESA to authorize the issuance of a permit for the incidental takings of listed species. Endangered Species Act Amendments of 1982, Pub. L. No. 97-304, 96 Stat. 1411, 1422 (1982). This amendment responded to a prolonged dispute over development at the San Bruno Mountain in northern California, an area FWS intended to designate as critical habitat for the listed mission blue butterfly and another proposed species. The result was a multi-party negotiated habitat conservation plan, through which private funding would be available for habitat acquisition and management. The 1982 amendments sanctioned such a plan. No Surprises Policy, 62 Fed. Reg. 29,091, 29,092 (proposed May 29, 1997) (to be codified at 50 C.F.R. pt. 17, 222) (noting that section 10(a) followed the San Bruno Mountain HCP); Prohibitions and Permits, 50 Fed. Reg. 39,681, 39,682 (Sept. 30, 1985) (to be codified at 50 C.F.R. pts. 13, 17) (final regulations under section 10 modeled after the San Bruno Mountain HCP).

257. 16 U.S.C. § 1539(a)(1)(B).

258. *Id.* § 1539(a)(2)(A).

259. *Id.* § 1539(a)(2)(A)(iii), (iv).

260. See Alejandro E. Camacho, *Can Regulation Evolve? Lessons from A Study in Maladaptive Management*, 55 UCLA L. REV. 293, 283 (2007) (arguing that the program is failing); Daniel A. Hall, *Using Habitat Conservation Plans To Implement the Endangered Species Act in Pacific Coast Forests: Common Problems and Promising Precedents*, 27 ENVTL. L. 803, 803 (1997) (asserting that positive effect of HCP); see also Oliver A. Houck, *On the Law of Biodiversity and Ecosystem Management*, 81 MINN. L. REV. 869, 872 (1997) [hereinafter *Biodiversity*]; Oliver A. Houck, *The Endangered Species Act and Its Implementation by the U.S. Departments of Interior and Commerce*, 64 U. COLO. L. REV. 277, 355 (1993); Karin P. Sheldon, *Habitat Conservation Planning: Addressing the Achilles Heel of the Endangered Species Act*, 6 N.Y.U. ENVTL. L.J. 279, 283 (1998).

multi-species efforts.²⁶¹ Such HCPs, therefore, can embrace an entire region and possibly cover a variety of listed species, species that may become listed in the future, and other species of concern.²⁶² The State of Washington, for instance, entered into a multi-species, statewide HCP within the range of the NSO.²⁶³ Washington's plan covered approximately 1.6 million acres of land managed by the Department of Natural Resources for timber production.²⁶⁴ While observers assuredly can debate the efficacy or ultimate success of these and other HCPs, the underlying goal of large-scale habitat planning remains uncontested.²⁶⁵

The Services' principal initiatives during the past decade focus on expanding public and private partnerships to avoid habitat loss and list-

261. U.S. FISH & WILDLIFE SERV. ET. AL., HABITAT CONSERVATION PLANNING HANDBOOK AND INCIDENTAL TAKE PERMIT PROCESS 1-15 (1996) available at <http://www.fws.gov/ endangered/esa-library/pdf/HCPBK1.PDF>. In addition, "[t]he Service will encourage permit applicants to address any species in the plan area likely to be listed within the life of the permit." *Id.* at 1-16; See, e.g., Notice of Intent to Prepare an Environmental Impact Statement for Issuance of An Incidental Take Permit to the Louisiana-Pacific Corporation, 62 Fed. Reg. 45,676, 45,676 (Aug. 28, 1997) (HCP for approximately 300,000 acres and covering listed as well as some 50-60 unlisted species). In 1995, the National Resource Council committee "endorsed the regionally based, negotiated approaches to the development of habitat conservation plans . . ." U.S. FISH & WILDLIFE SERV. ET. AL., MAKING THE ESA WORK BETTER: IMPLEMENTATION OF THE TEN POINT PLAN AND BEYOND 5 (1997) (on file with author).

262. For instance, Secretary Babbitt used the celebratory occasion of the Balcones Canyonlands Conservation Plan (BCCP) to announce the "beginning [of a] brand-new chapter of American conservation history." John Anderson, *This Land Is My Land*, SMARTMONEY, Sept. 1996, at 108. Timothy Beatley suggests that BCCP "is impressive in its efforts to take a regional multi-species approach and may well represent the best model for habitat conservation in the future." Timothy Beatley et al., *The Balcones Canyonlands Conservation Plan: A Regional, Multispecies Approach*, in COLLABORATIVE PLANNING FOR WETLANDS AND WILDLIFE: ISSUES AND EXAMPLES 75 (Douglas R. Porter & David A. Salvesen eds., 1995). The BCCP was a voluntary plan taking over 6 years to develop and designed to assist landowners in Travis County, Texas, comply with the Act. City of Austin & Travis County, Texas, Habitat Conservation Plan and Final Environmental Impact Statement, March 1996, at Exh. A, Appendix A (on file with author). For background on the BCCP, see Melinda E. Taylor, *Promoting Recovery or Hedging A Bet Against Extinction: Austin, Texas's Risky Approach To Ensuring Endangered Species' Survival in the Texas Hill Country*, 24 ENVTL. L. 581 (1994).

263. Many plans and other conservation agreements are identified and excluded from the final NSO CH rule. See Designation of Revised Critical Habitat for the Northern Spotted Owl, 77 Fed. Reg. 71,876, 72,006 (Dec. 4, 2012) (to be codified at 50 C.F.R. pt. 17) (FWS noted that it examined each of the agreements).

264. See *Id.* at 72,028.

265. Secretary Babbitt also pursued management of private lands through a then innovative approach toward issuing section 4(d) rules. "[T]he Department . . . has published several special rules . . . called '4(d) rules' . . . [that] allow development of private lands to proceed while protecting threatened species." PROTECTING AMERICA'S LIVING HERITAGE: A FAIR, COOPERATIVE AND SCIENTIFICALLY SOUND APPROACH TO IMPROVING THE ENDANGERED SPECIES ACT 2 (1995), available at http://www.fws.gov/policy/np196_06.pdf.

ings. According to former Secretary Babbitt, a focus on private landscape level protection reflects a broader recognition of the role of large-scale habitat protection.²⁶⁶ Many of the Services' present efforts focus on pre-listing agreements,²⁶⁷ habitat conservation banks,²⁶⁸ and other large-scale land protection programs ostensibly designed to avoid the need to list species.²⁶⁹ The effort to protect the lesser prairie chicken illustrates the importance of landscape-level management, where the participants developed a five state range-wide management plan to address a listing and CH designation.²⁷⁰ Another notable, albeit controversial, program

266. See generally REMARKS BY BRUCE BABBITT, "ESA AT 40" CONFERENCE (2013), <https://law.ucdavis.edu/centers/environmental/conferences/files/Bruce-Babbitt-Keynote-Text.pdf>.

267. Listing agreements include Candidate Conservation Agreements when federal lands are involved and Candidate Conservation Agreements with Assurances when only private lands are involved. See Policy for Evaluation of Conservation Efforts When Making Listing Decisions, 68 Fed. Reg. 15,100, 15,100 (Mar. 28, 2003) (final policy announcement). See, e.g., Final Candidate Conservation Agreement with Assurances, Final Environmental Assessment, and Finding of No Significant Impact, 78 Fed. Reg. 43,912, 43,912 (July 22, 2013) (availability notice); Final Candidate Conservation Agreement with Assurances, Final Environmental Assessment, and Finding of No Significant Impact, 78 Fed. Reg. 14,111, 14,111 (Mar. 4, 2013) (availability notice).

268. See Guidance for the Establishment, Use, and Operation of Conservation Banks, 68 Fed. Reg. 24,753, 24,753 (May 8, 2003) (availability notice); Recovery Crediting Guidance, 73 Fed. Reg. 44,761, 44,762 (July 31, 2008) (availability notice).

269. See, e.g., Expanding Incentives for Voluntary Conservation Actions Under the Endangered Species Act, 77 Fed. Reg. 15,352, 15,352 (Mar. 15, 2012) (proposed rulemaking advance notice), comment period extended, Expanding Incentives for Voluntary Conservation Actions Under the Endangered Species Act, 77 Fed. Reg. 28,347 (May 14, 2012) (proposed rulemaking advance notice and comment period extension). During the summer of 2014, the Obama administration developed a draft policy that would allow landowners the ability to earn conservation credits before a listing; these credits could then be used to offset effects toward habitat if the species becomes listed. Policy Regarding Voluntary Pre-listing Conservation Actions, 79 Fed. Reg. 42,525, 42,525 (July 22, 2014) (draft policy announcement and public comment solicitation).

270. Scott Streater, *Governors Say State Conservation Efforts Can Save Lesser Prairie Chicken*, GREENWIRE, Aug. 7, 2013, available at <http://www.eenews.net/greenwire/stories/1059985736/>; *Range-Wide Conservation Plan for the Lesser Prairie-Chicken (LPC) Opportunities To Learn About and Review Initial Draft Conservation Plan*, WESTERN ASSOCIATION OF FISH & WILDLIFE AGENCIES, http://www.wafwa.org/html/rangewide_lpc_conservation_plan.shtml (last visited Feb. 15, 2013). In 2014, the FWS listed the LPC as threatened, and simultaneously issued a 4(d) rule incorporating the landmark conservation plan. Determination of Threatened Status for the Lesser Prairie-Chicken, 79 Fed. Reg. 19,974, 19,974 (Apr. 10, 2014) (to be codified at 50 C.F.R. pt. 17); Special Rule for the Lesser Prairie-Chicken, 79 Fed. Reg. 20,074, 20,074 (Apr. 10, 2014) (to be codified at 50 C.F.R. pt. 17). On a smaller scale, these types of pre-listing/designation efforts began occurring during the 1990s. U.S. DEPARTMENT OF INTERIOR AND NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, FACT SHEET, CONSERVING ENDANGERED SPECIES: SUMMARY OF ADMINISTRATIVE REFORMS (June 1997). Examples where listing was avoided include the 1995 agreement between the State

developed restrictions for large areas to protect the dunes sagebrush lizard and avoid that species' listing.²⁷¹ A large industry sponsored conservation plan similarly allows certain oil and gas activities to proceed within the range of the American burying beetle.²⁷² Also, throughout the Rocky Mountain region, states and state agencies are working assiduously with private parties to develop habitat programs designed to avoid the listing of the greater sage-grouse.²⁷³

Critical habitat offers yet another, possibly better suited, mechanism for addressing landscape-level protection for imperiled species. It can facilitate landscape-level protection and planning, informed by the recovery planning process and utilized to identify management prescriptions. The Services now suggest that CH "provides early conservation planning guidance to bridge the gap until the Services can complete more thorough recovery planning."²⁷⁴ But this misses the mark, and seemingly places the proverbial cart before the horse. It seems more logical to engage in recovery planning first, and through that process (1) identify what lands need to be protected and (2) develop management prescriptions for those lands to protect against threats to the survival or recovery of the species.

of Utah and the FWS for management actions to protect the virgin spinedace, the Arizona Willow Conservation Agreement and Strategy to protect the Arizona willow, and the management plans undertaken by the States of Indiana, Kentucky and Illinois to protect the southern range of the copperbelly water snake. U.S. FISH & WILDLIFE SERV. ET. AL, *supra* note 261, at 6–7. The Director of the FWS noted that, between July 1994 and July 1995, the FWS finalized at least 15 prelisting agreements. Jamie R. Clark, To Reauthorize the Endangered Species Act, March 12, 1998, Remarks at Endangered Species Act Conference (CLE), March 12, 1998, Washington, D.C., at 14 (on file with author).

271. *Dunes Sagebrush Lizard: Landmark Conservation Agreements Keep Dunes Sagebrush Lizard Off the Endangered Species List in NM, TX*, U.S. FISH & WILDLIFE SERVICE SOUTHWEST REGION (June 2012), <http://www.fws.gov/southwest/es/dsl.html>; see Phil Taylor, *Texas Has Mismanaged Habitat Plan for Imperiled Lizard* — Report, E&E NEWS PM, Aug. 19, 2013, available at <http://www.eenews.net/eenewspm/stories/1059986184/>.

272. See News Release, U.S. Fish and Wildlife Serv., Service Approves Industry Conservation Plan for the American Burying Beetle: Plan Provides Industry with Streamlined ESA Permitting Process for Oklahoma Projects (May 22, 2014), available at http://www.fws.gov/southwest/docs/ABB_ICP_Rev_Final_15May2014_NR_V2.pdf.

273. See U.S. FISH AND WILDLIFE SERV., GREATER SAGE-GROUSE (*CENTROCERCUS UROPHASIANUS*) CONSERVATION OBJECTIVES: FINAL REPORT 5 (2013), available at <http://www.fws.gov/mountain-prairie/species/birds/sagegrouse/COT/COT-Report-with-Dear-Interested-Reader-Letter.pdf>; Alan Kovski, *Protections Outlined for Greater Sage Grouse with Emphasis on Avoiding Priority Habitats*, BNA DAILY ENV'T. REP., Mar. 28, 2013, at A-5, available at http://news.bna.com/erln/ERLNBW/split_display.adp?fedfid=30242823&vname=ernotallissues&fcn=50&wsn=497337000&fn=30242823&split=0 (describing the Greater Sage-grouse Conservation Objectives: Final Report).

274. Revisions to the Regulations for Impact Analyses of Critical Habitat, 78 Fed. Reg. 53,058, 53,059 (Aug. 28, 2013) (to be codified at 50 C.F.R. pt. 424).

An integrated approach to CH and recovery planning, moreover, might resolve the program's perennial issues and other potentially intractable hurdles. An integrated approach requires: (1) delaying, to the extent permissible, the designation of CH until the Service develops a recovery plan; (2) including in the designation specific management objectives, plans, or policies based on the recovery plan; (3) possibly preparing a NEPA document that addresses the designation and management objectives for the CH; and (4) in lieu of considering the costs of the designation, examining the socio-economic effects of the designation in the context of a typical NEPA document (if such a document is prepared for a particular designation). An essential element is delaying the designation until the Service completes a recovery plan. The recovery plan ought to serve as the critical management document to focus on what a particular species needs to survive and recover, including what and how to manage lands necessary for the species' survival or recovery. To suggest that a designation can be revisited after a recovery plan is developed is simply unrealistic because it ignores the lengthy process to reevaluate CH.

The Services ought to systematically incorporate information from a recovery plan into CH designations. To do this, the Services must abandon their reticence to prescribe how CH lands ought to be managed. The Services undercut their own designations with their common refrain that management concepts are mere considerations. If the management concepts are in fact intended to prescribe how lands should be managed, then transparency would be better anyway. The FWS arguably came close to doing this when it included a "no disturbance zone" in the polar bear CH. Such a zone is a type of proscription because it identifies that the lands will lose their primary function if "disturbed." While the Services might need to alter how they view management prescriptions CH designations, they might still be able to maintain that those prescriptions are not binding.²⁷⁵

Conversely, the regulated community undoubtedly would need to abandon potentially troublesome efforts to cherry pick aspects from different ESA programs. In *Home Builders Ass'n of Northern Cal. v. U.S. Fish and Wildlife Serv.*,²⁷⁶ for instance, the Homebuilders argued for incorporating aspects of recovery planning into the CH, but they selectively opposed including management actions from the recovery planning program into the CH designation process. The court refused to entertain this

275. Cf. *Friends of Blackwater v. Salazar*, 691 F.3d 428, 433–34 (D.C. Cir. 2012) (affirming FWS interpretation that recovery plans are not binding).

276. *Home Builders Ass'n of N. Cal. v. U.S. Fish and Wildlife Serv.*, 616 F.3d 983 (9th Cir. 2010).

piecemeal approach. The court, unfortunately, added that Congress's requirement that recovery plans examine what is necessary to conserve the species but not include a similar requirement for "critical habitat designations is logical because there is no deadline for creating a recovery plan, but there is a one-year deadline for designating critical habitat."²⁷⁷

A land management oriented CH program also avoids the currently meaningless economic analyses and instead furthers landscape-level planning. If the Services began focusing on objectives for land management within a CH, a Service could meaningfully calculate some of the costs. An economic analysis could examine, for instance, the costs associated with particular conservation value oriented management prescriptions. This would make the economic analysis more useful. If management prescriptions became a robust component of the CH program, the Services could also tie land management prescriptions to federal land management programs for the Forest Service, Bureau of Land Management, and possibly even state resource lands. The Services and federal and state land managing agencies could jointly identify how management prescriptions across landscapes might ensure that sufficient acreage is available to promote the conservation of species.²⁷⁸

Finally, abandoning the existing rationale to avoid NEPA is long overdue. But simply applying NEPA need not become cumbersome.²⁷⁹ For instance, the Services might be able to justify developing a categorical exclusion, which would require a NEPA document only in instances where extraordinary circumstances might exist. The FWS is already developing a categorical exclusion for listing species as "injurious" under the Lacey Act.²⁸⁰ There, it offers three justifications for its proposal: (1) it

277. *Id.* at 990.

278. When describing how the ESA blends resource management and pollution control principles, Professor Robert Fischman advocates for enforceable proscriptions to promote species recovery; an ICHR that focuses on proscriptions for resource management for CH lands might do just that. Robert L. Fischman, *Predictions and Prescriptions for the Endangered Species Act*, 34 ENVTL. L. 451, 465 (2004).

279. The Fish and Wildlife Service, for instance, apparently applied NEPA to the section 4(d) rule for the Polar Bear, after the challenge to the rule, with little suggestion that doing so was overly cumbersome. See Special Rule for the Polar Bear Under Section 4(d) of the Endangered Species Act, 78 Fed. Reg. 11,766, 11,766 (Feb. 20, 2013) (to be codified at 50 C.F.R. pt. 17). Environmental groups claim that NEPA must apply as well to the section 4(d) rule for the Lesser prairie chicken. *Defenders of Wildlife v. Jewell*, No. 14-cv-01025 (D.D.C. filed June 17, 2014). Cf. Special Rule for the Lesser Prairie-Chicken, 79 Fed. Reg. 20,074, 20080 (Apr. 10, 2014) (to be codified at 50 C.F.R. pt. 17) (not applying NEPA).

280. Addition to Categorical Exclusions for U.S. Fish and Wildlife Service, 78 Fed. Reg. 39,307, 39,307 (July 1, 2013) (comment request notice); see also Addition to Categorical Exclusions for U.S. Fish and Wildlife Service, 78 Fed. Reg. 50,079, 50,079 (Aug. 16, 2013) (comment period reopening); cf. Emily Yehle, *In Role Reversal, Industry and GOP Lawmakers*

suggests that the status quo concept applies to a listing; (2) it proffers that it has performed many environmental assessments (EA) and each time concluded with a finding of no significant impact (FONSI); and (3) it asserts that such a categorical exclusion is consistent with other existing exclusions.²⁸¹ While I already have explained why NEPA should not be circumvented entirely by transporting rationale, like that in the first justification from listing to designation decisions, that does not preclude the other rationales for a CE. Perhaps the Services could first complete some EAs to justify a possible exclusion.²⁸² Indeed, similar to the NSO designation, the Services could perform EAs on large-scale designations and assess the utility of engaging in a more robust analysis, particularly as it uses the CH process to develop management prescriptions tied to a recovery plan.

IV. CONCLUSION

The final question, then, is whether the Services can administratively develop an integrated program or whether a legislative amendment is necessary. While I am leaving this issue for others, a few points are worth noting. Even after Secretary Babbitt and Republican Senator (later Interior Secretary) Kempthorne agreed to certain changes to the Act, including the CH program, that agreement could not garner sufficient votes. Since then, the political climate has become more divisive, making the likelihood of any legislative solution even more problematic. This may warrant creative administrative solutions. One possible solution might include a rulemaking, which might receive *Chevron* deference. Such a rulemaking could explain the history of problems with CH designations, why many designations have been delayed in the past, and why, despite the plain language in the Act, designations would not be prudent until a recovery plan can be developed. This, of course, would require considerable diligence in developing recovery plans.

Surely, as one commentator puts it, “the Endangered Species Act requires a fuss.”²⁸³ But the fuss should not be so overwhelming that meaningful progress is impeded at the altar of perfection. Since the Clin-

Support NEPA Reviews, E&E NEWS PM, Sept. 20, 2013, available at <http://www.eenews.net/eenewspm/stories/1059987636/>.

281. Addition to Categorical Exclusions for U.S. Fish and Wildlife Service, 78 Fed. Reg. at 39,308–09.

282. Some lawmakers are exploring whether to allow the use of an exclusion, presumably—just as in *Douglas County*—to delay agency action. See Emily Yehle, *Panel to Discuss Plan to Bypass NEPA Reviews When Banning Animal Imports*, E&E NEWS PM, Sept. 16, 2013, available at <http://www.eenews/eedaily/stories/1059987252/>.

283. James L. Huffman, *Do Species and Nature Have Rights?*, 13 PUB. LAND L. REV. 51, 51 (1992).

ton Administration implemented its array of reforms that promoted a “New” Endangered Species Act, few significant innovative programs have emerged. The long maligned CH program cries for such creativity, and the Services’ recent efforts to address the CH highlight the importance of an invigorated CH program. If we appreciate and respond meaningfully to the four perennial issues, perhaps the next chapter in ESA protection can surface—this time, with a CH program that achieves species recovery through active, well-analyzed management prescriptions at a landscape level. Former Secretary of the Interior Roger B. Morton, after all, reportedly said that “[I]and use, in fact, is the key to all the rest of our environmental problems.”²⁸⁴ Of course, the real challenge will be to convince the public that the protection of endangered species warrants such a new form of integrated habitat recovery planning.²⁸⁵ This will require recognition that protecting nature’s wonders is an aspect of social regulation that reflects who we are as a nation, our ideals, and our goals.²⁸⁶

284. DAILY, *supra* note 12, at 24.

285. Cf. Cheever, *supra* note 31, at 28; Biodiversity, *supra* note 260, at 923–925.

286. See MARK SAGOFF, THE ECONOMY OF THE EARTH 17, 224 (1988).