NOTES

COST CONSIDERATION AND THE ENDANGERED SPECIES ACT

SHEILA BAYNES*

Congress enacted the critical habitat provisions of the Endangered Species Act (ESA) to provide a powerful tool for promoting the recovery of endangered and threatened species of plants and animals. However, agency recalcitrance and constant litigation have mired its efficacy, resulting in a tangled mess that fails to effectuate the recovery goal of the ESA. This Note disentangles that mess through the lens of the ongoing circuit split over the proper methodology for consideration of costs during critical habitat designation. Concluding that the Services' favored method, the baseline method, is superior in its faithfulness to the statutory language and the intent of Congress, this Note warns that the baseline method's legality will continue to be undermined until the Services promulgate proper regulatory definitions to support its internal logic.

 J.D., 2014, New York University School of Law; M.A.T., 2006, University of Alaska Southeast; A.B., 2003, Harvard University. I am grateful to Professors Katrina Wyman and Barry Friedman for their encouragement and for providing invaluable feedback on this Note. Thanks also to the participants of the Furman Academic Scholars Program for their many helpful comments and to the late Jay Furman for his support of that program. Finally, I appreciate all of the hard work by members of the *New York University Law Review*, especially Ian Moore, Adrienne Benson, and Alex Lipton.

INTRODUCTION

The Canada lynx—a wild cat comparable in size to the bobcat but with longer legs and paws that allow it to hunt and travel efficiently over snow—once populated much of the northern Rocky Mountains and the Pacific Northwest, as well as the Northern Great Lakes and Maine.[1] Today the lynx has been extirpated from much of its historic range in the United States[2] and has been listed as a threatened species pursuant to the Endangered Species Act (ESA).[3] As part of statuto-

[1] *See* U.S. FISH & WILDLIFE SERV., CANADA LYNX (2013), *available at* http://www.fws.gov/mountain-prairie/species/mammals/lynx/CandaLynxFactSheet_091613.pdf.

[2] *Id.* It is debated how extensive or permanent the lynx's range was. Because of its specific habitat needs and reliance on the snowshoe hare for prey, its numbers have always been somewhat low or transient in parts of the contiguous United States, and certainly difficult to measure. Populations in Colorado—where lynx once existed but were extirpated—resulted from the introduction of lynx from Canada in the late 1990s and early 2000s. This population has expanded south into New Mexico. *Id.*; U.S. FISH & WILDLIFE SERVICE: COMMONLY ASKED QUESTIONS ABOUT THE CANADA LYNX 1–2 (2000), *available at* http://www.fws.gov/mountain-prairie/species/mammals/lynx/lynx_faq.pdf (last visited Nov. 14, 2014).

[3] 50 C.F.R. § 17.40(k) (2014). For the corresponding final rule promulgated by the agency, see Determination of Threatened Status for the Contiguous U.S. Distinct

rily mandated efforts to promote the survival and recovery of the lynx, the U.S. Fish and Wildlife Service (FWS) designated areas of "critical habitat"—areas deemed to contain elements critical to the lynx's recovery that may require special protections[4]—in a swath from Washington State to Wyoming.[5]

Concerned that limitations on land use resulting from the critical habitat designation would threaten their livelihood reliant upon the recreational snowmobile industry, several groups challenged the FWS's action in a federal district court in Wyoming.[6] The lawsuit prevailed, if only because the lynx happened to live in a region straddling the Ninth and Tenth Circuits of the United States Courts of Appeals, which apply different tests to evaluate critical habitat designations. In attempting to fulfill the methodological requirements of both circuits, the FWS ran afoul in the Tenth Circuit, where the lawsuit was filed. The lynx, ignorant of the boundaries of the federal court system, made the mistake of roaming across the invisible line between the two circuits in the Greater Yellowstone Region. Ironically, by inhabiting the prime habitat of Yellowstone National Park, our nation's oldest national park and arguably the poster child of the National Park Service system, the lynx threw a legal wrench into its habitat protections.

The Ninth Circuit's favored approach, the baseline method, has been on the ascendency for almost ten years and was recently codified into an official regulation by the FWS and the National Marine Fisheries Service (NMFS).[7] Critics, however, still debate its legality and appropriateness, particularly in property rights circles and in the western United States, where many people's lives are closely tied to

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Population Segment of the Canada Lynx and Related Rule, 65 Fed. Reg. 16,052 (Mar. 24, 2000).

[4] *See* Revised Designation of Critical Habitat for the Contiguous United States Distinct Population Segment of the Canada Lynx, 74 Fed. Reg. 8616, 8618 (Feb. 25, 2009) (identifying the definition of "critical habitat" under the Endangered Species Act).

[5] 50 C.F.R. § 17.40 (2014). For the corresponding final rule promulgated by the agency, see Revised Designation of Critical Habitat for the Contiguous United States Distinct Population Segment of the Canada Lynx, 74 Fed. Reg. at 8616. *See also Canada Lynx: Critical Habitat*, U.S. FISH & WILDLIFE SERV., http://www.fws.gov/mountain-prairie/species/mammals/lynx/criticalhabitat.htm (last visited Apr. 24, 2015) (providing a summary and listing relevant information resources).

[6] Wyo. State Snowmobile Ass'n v. U.S. Fish & Wildlife Serv., 741 F. Supp. 2d 1245 (D. Wyo. 2010).

[7] The ESA tasks the FWS, within the Department of the Interior, and the NMFS, within the Department of Commerce, with implementation. The FWS has jurisdiction over all terrestrial and freshwater species, while the NMFS has jurisdiction over marine and anadromous species. Anadromous fish are those that spend most of their lifespan at sea, but return to their natal freshwater stream, sometimes over 1000 miles from the coast, to spawn. Hereafter, the FWS and the NMFS will often be collectively referred to as "the Services."

public lands.[8] The regulated community and property rights advocates favor the co-extensive method, which includes a greater swath of effects in its consideration of economic impacts of designation and is still good law in the Tenth Circuit.[9] These proponents have decried the codification of the baseline method and called on the Supreme Court to address the circuit split.[10]

Private development frequently hinges on governmental permits; thus, critical habitat not only affects federally owned lands, but also may subject private landowners to heightened scrutiny and restrictions.[11] The methodology employed for cost consideration in designating critical habitat will play an increasingly important role as the Services attempt to fulfill court orders and avoid more litigation by designating habitat for already listed species.[12] While a number of

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[8] *See ESA Law Alert: Proposed Changes to Critical Habitat Designations Would Gut Purpose of Economic Analysis*, STOEL RIVES (Sept. 20, 2012), http://www.stoel.com/esa-law-alert-proposed-changes-to-critical-habitat (criticizing the baseline method as inadequately portraying economic impacts); Jessica Ferrell, *Proposed Rule Would Limit Extent of Economic Impacts Considered in ESA Critical Habitat Designations*, ENVTL. COUNSELOR (Thomson Reuters, New York, N.Y.), Dec. 2012, *available at* 292 ENVCOUN-NL 2 (Westlaw) (describing the alignment of support for the two approaches).

[9] Ferrell, *supra* note 8, at 1–2.

[10] *See, e.g.*, Letter from Bradford V. Frisby, Assoc. General Counsel, Nat'l Mining Ass'n, to Nicole Alt, U.S. Fish & Wildlife Service (Oct. 23, 2012), *available at* http://nesarc.org/file_download/74/National+Mining+Association+-+CH+Impact+Analysis.pdf (arguing that the FWS's characterization of the circuit law as predominantly favoring the baseline method is inaccurate because "in terms of circuit courts that have ruled on this issue, what you have is a circuit split between the Ninth and Tenth Circuits"); Robert Thornton, *Supreme Court Declines to Review Endangered Species Act Economic Impact Cases*, ENDANGERED SPECIES L. & POL'Y (Feb. 28, 2011), http://www.endangeredspeciesawandpolicy.com/2011/02/articles/court-decisions/supreme-court-declines-to-review-endangered-species-act-economic-impact-cases (describing unsuccessful attempts to reach the Supreme Court with the issue).

[11] The paradigmatic example of this is the federal Clean Water Act requirement that a landowner acquire a permit from the Army Corps of Engineers before filling a wetland on her property. 33 U.S.C. § 1344 (2012); s*ee also* Brian Maffly, *Are Endangered Species Endangering Property Rights?*, SALT LAKE TRIB. (Mar. 8, 2013, 2:36 PM), http://www.sltrib.com/sltrib/news/55874788-78/county-endangered-utah-species.html (describing concerns over purported negative impacts of critical habitat designations on property valuation).

[12] The FWS entered into a "mega-settlement"—covering eighty-five lawsuits and other legal actions—with plaintiff groups Wild Earth Guardians and the Center for Biological Diversity (CBD) in 2011 that requires the Agency to take action on pending listing petitions for 757 species by 2018. In return, the environmental groups agreed to limit future petitions and lawsuits. However, much to the Agency's chagrin, CBD filed a petition less than a year later urging the FWS to consider listing fifty-three additional species, largely reptiles and amphibians. *See* Crystal Feldman, *Center for Biological Diversity Disregards 2011 Settlement Agreement, Files Major Endangered Species Act Petition*, COMM. ON NAT'L RESOURCES BLOG (Aug. 8, 2012), http://naturalresources.house.gov/blog/?postid=306049 (quoting a top FWS official as "disappointed" in the action, and portraying the petition as violating the spirit if not the letter of the settlement agreement); *see also* Allison Winter,

commentators have opined on the appropriate role of cost consideration in the critical habitat process[13] and on the correct standards for evaluating the impacts of proposed federal actions on designated habitat in light of the broader policy goals of the ESA,[14] the fundamental legal connection between these two issues received little attention in response to the Services' recent codification of the baseline method. A close look at that connection—between cost consideration in Section 4 and the substantive standard for evaluating projects in Section 7—reveals that the Services' preferred methodology of cost consideration relies on the precise definition of the Section 7 adverse modification standard. Thus, the baseline method long remained vulnerable to legal challenge despite its codification because the Services failed to replace their invalidated definition of adverse modification for a decade.

Petitions for New Species Protection Wobble Balance in FWS Settlement, Agency Says, E&E PUBLISHING (Aug. 7, 2012), http://www.eenews.net/greenwire/2012/08/07/stories/1059968495 (describing agency officials as concerned that the petition "threaten[s] to derail the agreement's delicate balance" and a potential "distract[ion] from the important work [the Agency is] trying to accomplish under the terms of the agreement"). The FWS has accelerated its efforts to clear the backlog of petitions. *See* Michael Wines, *Long-Delayed Rulings on Endangered Species Are Coming*, N.Y. TIMES (Mar. 6, 2013), http://www.nytimes.com/2013/03/07/science/earth/long-delayed-rulings-on-endangered-species-are-coming.html (documenting an FWS pledge to decide the fate of ninety-seven species by September of 2013 and progress made through preliminary work on over 550 other proposed species, and characterizing it as "the most feverish activity on imperiled wildlife in two decades").

[13] *See, e.g.*, Matthew Groban, Case Note, Arizona Cattle Growers' Association v. Salazar*: Does the Endangered Species Act Really Give a Hoot About the Public Interest It "Claims" to Protect?*, 22 VILL. ENVTL. L.J. 259, 274–75, 277 (2011) (arguing that the baseline method violates the plain language of the ESA and elevates species protection above economic growth contrary to the statute's intent); Laura Hartt, New Mexico Cattle Growers Association v. United States Fish & Wildlife Service *and Other Efforts to Undermine Critical Habitat Designation Essential for Species Recovery*, 28 WM. & MARY ENVTL. L. & POL'Y REV. 799, 852 (2004) (endorsing the baseline method as consistent with congressional intent); Scotti Shingleton, Case Note, *Environmental Law—Putting a Price on Critical Habitat,* New Mexico Cattle Growers Association v. United States Fish and Wildlife Service*, 248 F.3d 1277 (10th Cir. 2001)*, 3 WYO. L. REV. 105, 107 (2003) (arguing that the titular case was wrongly decided and that while the Agency must provide a more thorough reckoning of the impacts of critical habitat designation, the baseline is the best method to do so); 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, 134 (2004) (arguing that the cost consideration is ill suited to quantification of impacts, and thus the Services should take a more qualitative and holistic approach).

[14] *See* Kalyani Robbins, *Recovery of an Endangered Provision: Untangling and Reviving Critical Habitat Under the Endangered Species Act*, 58 BUFF. L. REV. 1095, 1099 (2010) (arguing for a broader definition of adverse modification to reach the recovery goal of the ESA); Josh Thompson, Commentary, *Critical Habitat Under the Endangered Species Act: Designation, Re-Designation, and Regulatory Duplication*, 58 ALA. L. REV. 885, 887–88 (2007) (arguing that a definition of adverse modification that requires a threat to both the survival and recovery of a listed species is inconsistent with the ESA).

This Note fills this gap by pointing out the legal flaw in pursuing the baseline method without promulgating a new and improved regulatory definition to support it and suggests that despite one's desired policy outcome for more or less species conservation, the more stable protections afforded by a soundly supported methodology are normatively desirable. It also provides an analysis of the updated definition proposed by the Services in 2014, which, if finalized, would cure the legal defect identified here. This Note further adds to the existing literature by suggesting that the implications of these two changes—codification of the baseline method and the proposed broader definition of adverse modification—on both species conservation and the public choice story of the ESA may unfold in counterintuitive and unintended ways. If pursued without political finesse, these changes championed by environmentalists may backfire and result in less, not more, species conservation.

This Note will describe the evolution of the two prevailing approaches to the consideration of economic impacts of critical habitat designation and argue that the baseline method is superior to the co-extensive method but that its legality and efficacy was long undermined by the absence of clear regulatory definitions. Part I lays out the complex statutory and regulatory scheme for listing and critical habitat designation under the ESA. Part II then argues that the baseline method is the most logical way to comply with the ESA, as well as the most faithful to the purpose of Congress. It goes on to show, however, that the implementation of the baseline approach remains vulnerable throughout the Services' continued failure to promulgate a new regulatory definition for a key component of the critical habitat scheme: adverse modification. In Part III, this Note analyzes the Services' recently proposed revised definition of adverse modification and explores implications of these changes for the implementation of the letter and the spirit of the ESA as well as its fraught political position.

I
THE STATUTORY AND REGULATORY BACKDROP OF THE ESA

The ESA passed both houses of Congress in 1973 by an overwhelming margin, was signed into law by a Republican president, and enjoyed broad popular support.[15] Motivated by what lawmakers

[15] J. Michael Scott, Dale G. Goble & Frank N. Davis, *Introduction* to THE ENDANGERED SPECIES ACT AT THIRTY, VOL. I: RENEWING THE CONSERVATION PROMISE 7 (Dale D. Goble et al. eds., 2005) ("The enactment of the ESA reflected a broad

regarded as an alarming trend towards extinction of native plants and animals caused by human development,[16] the Act has been labeled "the pit bull of environmental law" for its unusually unyielding stance favoring ecosystem health over human development.[17] The efficacy of the ESA in achieving its goals is hotly contested, however,[18] and the Act encapsulates later Congresses' ambivalence about its biocentric nature in the form of an internally contradictory position on the role of cost consideration.[19]

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consensus that existing federal law was inadequate to preserve at-risk species."). The final version of the act overwhelmingly passed the House by a vote of 355 to 4 and by voice vote in the Senate. *Id.* ("The bill was among the least controversial bills passed by Congress in 1973 . . . ."); *see also* STANFORD ENVTL. LAW SOC'Y, THE ENDANGERED SPECIES ACT 21 (2001) ("Congress debated relatively little over [the ESA], and public support was widespread and enthusiastic.").

16 The opening of the ESA states that "various species of fish, wildlife, and plants in the United States have been rendered extinct as a consequence of economic growth and development untempered by adequate concern and conservation." The Endangered Species Act of 1973, Pub. L. No. 93-205, § 2(a)(1), 87 Stat. 884 (codified at 16 U.S.C. § 1531). One of the bill's more than seventy cosponsors in the House, Representative Dingell, asserted that "[f]urther action on the existing law is necessary if we are to conserve, protect, and propagate our threatened fish and wildlife resources which I feel are diminishing too rapidly." S. COMM. ON ENV'T & PUB. WORKS, 97TH CONG., A LEGISLATIVE HISTORY OF THE ENDANGERED SPECIES ACT OF 1973, AS AMENDED IN 1976, 1978, 1979, AND 1980, at 72 (Comm. Print 1981) (statement of Rep. Dingell on H.R. 37, Jan. 11, 1973). Even President Nixon vociferously supported the bill, stating in his environmental message of 1972 that federal law "simply does not provide the kind of management tools needed to act early enough to save vanishing species." Scott et al., *supra* note 15, at 7; *see also* Tenn. Valley Auth. v. Hill, 437 U.S. 153, 176–77 (1978) (highlighting the expansive nature of the ESA of 1973 and congressional concern with accelerating rates of extinction attributable to human activity).

17 The origins of this nickname are unclear, but it is oft-repeated. *See, e.g.*, Jonathan H. Adler, *Perverse Incentives and the Endangered Species Act*, RESOURCES FOR THE FUTURE (Aug. 4, 2008), http://www.rff.org/Publications/WPC/Pages/08_08_04_Adler_Endangered_Species.aspx ("The Endangered Species Act (ESA) is one of the nation's most powerful environmental laws, often characterized as a pit bull, because it is short, compact, has sharp teeth and a strong grip."); THOMAS R. LUNDQUIST ET AL., CROWELL MORING, THE ENDANGERED SPECIES ACT: AN OVERVIEW (2010), *available at* http://www.crowell.com/documents/The-Endangered-Species-Act-An-Overview-Crowell-Moring.pdf ("The ESA is sometimes called the 'pit bull of environmental law' due to its tenacious protection of listed species.").

18 *See, e.g.*, Roddy Scheer & Doug Moss, *Is the Endangered Species Act a Success or Failure?*, SCI. AM. (Aug. 9, 2012), http://www.scientificamerican.com/article/endangered-species-act-success-failure (describing some of the criticism of the ESA and the ongoing debate over its effectiveness but concluding that most environmental groups are, on balance, glad it exists). The effectiveness of the critical habitat provisions specifically has also been a subject of ongoing debate. *See, e.g.*, James Salzman, *Evolution and Application of Critical Habitat Under the Endangered Species Act*, 14 HARV. ENVTL. L. REV. 311, 330–31 (1990) ("The lack of promulgated habitats also may undermine the effectiveness of section 7 consultations.").

19 *See infra* Part I.A.

Two aspects of the ESA warrant introduction at this stage: cost consideration and the dual goals of survival and recovery. First, while consideration of economic impacts is expressly barred at the first stage of species protection, listing, it is expressly required at the accompanying stage, designation of critical habitat. This tension has played out in extensive litigation over the proper role for cost consideration in species protection under the ESA. Also relevant to this Note, commentators and courts have criticized agency policy for failing to give adequate attention to one of the goals expressed by the Act's purpose section: recovery of endangered species to the point where they no longer require the protections of the Act.[20] By focusing almost exclusively on the more immediate goal of the ESA—keeping a given species alive—the Services arguably ignore the long-range purpose of the statute.

The two central provisions of the ESA driving the debates over cost consideration and the Act's goals are Sections 4 and 7.[21] Section 4 dictates listing and critical habitat designation—the classification of species as threatened or endangered, and the designation of their critical habitat—while Section 7 places procedural and substantive barriers to any action taken, permitted, or funded by a federal agency that may negatively affect a listed species or its habitat. The procedural requirement of Section 7 takes the form of a formal "consultation" with the FWS or NMFS, while the two substantive standards forbid any action that will jeopardize the continued existence of the species or adversely modify its critical habitat. The following two Subparts provide background on this statutory scheme, starting with Section 4.

A. Section 4: Listing and Critical Habitat Designation

On March 24, 2000, the Fish and Wildlife Service announced the addition of the Canada lynx to the endangered species list as a threatened species—almost ten years after conservation groups first

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[20] *See* Federico Cheever, *The Road to Recovery: A New Way of Thinking About the Endangered Species Act*, 23 ECOLOGY L.Q. 1, 14–15 (1996) (criticizing the previous twenty years of ESA enforcement as focused singly on the survival goal at the expense of the conservation or recovery goal); Hartt, *supra* note 13, at 800 (describing species recovery as the "ultimate goal" of the ESA). The purposes section of the ESA states that the Act is meant to provide for the conservation of endangered and threatened species as well as the ecosystems upon which they depend. 16 U.S.C. § 1531(b). The next section defines "conservation" as "the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this chapter are no longer necessary." 16 U.S.C. § 1532(3).

[21] 16 U.S.C. §§ 1533, 1536.

petitioned the Agency to consider adding the wild cat to the list.[22] Despite the concise and seemingly clear statutory language of the chart below, both listing of the lynx and designation of its habitat have involved years of study, legal challenges, and revisions.[23]

[22] *See* Determination of Threatened Status for the Contiguous U.S. Distinct Population Segment of the Canada Lynx and Related Rule, 65 Fed. Reg. 16,052, 16,061 (Mar. 24, 2000) (to be codified at 50 C.F.R. pt. 17) (describing the nine-year back and forth of agency action and litigation forcing it to be revisited).

[23] *See id.* (describing that process); *see also* Revised Designation of Critical Habitat for the Contiguous U.S. Distinct Population Segment of the Canada Lynx and Revised Population Segment Boundary, 78 Fed. Reg. 59,430, 59,430 (proposed Sept. 26, 2013) (to be codified at 50 C.F.R. pt. 17) (explaining that critical habitat was first designated in 2006, revised in 2009, and found inadequate by two federal courts in 2010, requiring the current proposed revisions).

TABLE 1: RELEVANT STATUTORY SECTIONS OF THE ENDANGERED SPECIES ACT

Section 4(a)(1): Listing	Section 4(b)(1)(A): Basis for Listing Determination
"The Secretary shall by regulation . . . determine whether any species is an endangered species or a threatened species because of any of the following factors: (A) the present or threatened destruction, modification, or curtailment of its habitat or range; (B) overutilization for commercial, recreational, scientific, or educational purposes; (C) disease or predation; (D) the inadequacy of existing regulatory mechanisms; or (E) other natural or manmade factors affecting its continued existence."[24]	"The Secretary shall make [listing] determinations . . . solely on the basis of the best scientific and commercial data available to him . . . ."[25]
Section 4(a)(3)(A): Designation of Critical Habitat (CHD)	**Section 4(b)(2): Basis for CHD Determination**
"The Secretary . . . to the maximum extent prudent and determinable—shall, concurrently with making a determination . . . that a species is an endangered species or a threatened species, designate any habitat of such species which is then considered to be critical habitat."[26]	"The Secretary shall designate critical habitat . . . 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. The Secretary may exclude any area from critical habitat if he determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless he determines, based on the best scientific and commercial data available, that the failure to designate such area as critical habitat will result in the extinction of the species concerned."[27]

The ESA's hallmark function is the listing of species as endangered or threatened. This is the initial route by which any of the Act's protections are triggered. Section 4(a)(1) of the Act vests the duty to determine whether any species qualifies for such listing with

[24] 16 U.S.C. § 1533(a)(1).

[25] *Id.* § 1533(b)(1)(A).

[26] *Id.* § 1533(a)(3)(A).

[27] *Id.* § 1533(b)(2).

the Secretary of the relevant agency,[28] and requires that such determinations be made "solely on the basis of the best scientific and commercial data available to him."[29] The statute precludes the consideration of economic impacts at the listing phase.[30]

In addition to the substantive requirements explored in Part I.B and other protections, placement on the list of endangered or threatened species triggers the statutory requirement that the Services designate the species' critical habitat, also pursuant to Section 4(a).[31] While the initial 1973 Act did not define critical habitat or offer the Services guidance on its proper role and function,[32] the 1978 Amendments, enacted partly in response to the ongoing controversy over completion of the Tellico Dam at stake in *TVA v. Hill*, defined it in reference to "specific areas" that are "essential to the conservation of the species."[33] The current regulation stipulates that the Services define the "primary constituent elements," those specific criteria that make an area important to a species' conservation—nesting, spawning, or feeding sites, for example—and ascertain whether they may require "special management considerations or protection."[34]

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[28] *Id.* § 1533(a)(1) (assigning said duty to the Secretary); *Id.* § 1532(15) (defining "Secretary" as the Secretary of Interior or the Secretary of Commerce, depending on the species in play).

[29] *Id.* § 1533 (b)(1)(A).

[30] *See* Endangered Species Act, sec. 4, § 2(b), 96 Stat. 1411 (1982) (making explicit that determinations of the status of species as endangered or threatened must be made "solely on the basis" of biological and trade information, without consideration of possible economic or other effects); Holly Doremus, *Listing Decisions Under the Endangered Species Act: Why Better Science Isn't Always Better Policy*, 75 WASH. U. L. REV. 1029, 1051–56 (1997) (describing the history of the "best available science" standard of the ESA, including the rejection of attempts after *TVA v. Hill* to eliminate the science mandate); *see also* Am. Wildlands v. Kempthorne, 530 F.3d 991, 998 (D.C. Cir. 2008) (underscoring that listing decisions must be based "solely" on science); Trout Unlimited v. Lohn, 645 F. Supp. 2d 929, 933 (D. Or. 2007) (describing the science-based listing process).

[31] 16 U.S.C. § 4(a)(3)(A).

[32] Endangered Species Act of 1973, Pub. L. No. 93-205, 87 Stat. 884 (Dec. 28, 1973) (codified at 16 U.S.C. §§ 1531–1544). The original Act did not even mention critical habitat designation in Section 4, simply prohibiting federal agencies from taking actions that "result in the destruction or modification of habitat of [listed] species which is determined by the Secretary, after consultation as appropriate with the affected States, to be critical" in Section 7. *Id.* § 7.

[33] Endangered Species Act Amendments of 1978, Pub. L. No. 95-632, 92 Stat. 3751 (codified as amended at 16 U.S.C. § 1532(5)(a)); *see also* Tenn. Valley Auth. v. Hill, 437 U.S. 153, 194 (1978) (ordering that a massive public works project be halted on the brink of completion because "Congress has spoken in the plainest of words, making it abundantly clear that the balance has been struck in favor of affording endangered species the highest of priorities").

[34] 50 C.F.R. § 424.12 (2012).

Land is only eligible for designation as critical habitat if it meets both these criteria.[35]

By statute critical habitat designation is to occur "concurrently" with listing of a species[36] but rarely does so in practice. Despite long-term express agency policy of delaying or neglecting habitat designation for a large number of listed species in the past,[37] courts have repeatedly ruled that designation of critical habitat is a nondiscretionary duty imposed by Section 4 of the ESA that should occur concurrently with listing or quickly thereafter in the absence of narrowly specified exceptions or extraordinary circumstances.[38] These courts have not hesitated to order the Services to designate critical habitat with no further delays.[39]

In a critical departure from the statute's prohibition on consideration of costs during the listing process, the ESA requires that economic impacts be considered during the designation of critical habitat. Four years before reaffirming their commitment to the listing decision taking place without regard to economic impact in the 1982 Amendments by adding the word "solely" to Section 4(b)(1),[40]

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[35] *Id.*

[36] 16 U.S.C. § 1533(a)(3)(A)(i). There are several caveats to this requirement. *See infra* note 73.

[37] In 1992, a GAO study of over 650 listed species revealed that critical habitat had only been designated for sixteen percent. 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, 302 (1993). By the end of the decade, that number had dropped below ten percent. Thomas F. Darin, Comment, *Designating Critical Habitat Under the Endangered Species Act: Habitat Protection Versus Agency Discretion*, 24 HARV. ENVTL. L. REV. 209, 224 (2000) ("By 1999, only ten percent or 120 of our 1,181 listed species (703 plant and 478 animals) had critical habitat designations."); *see also infra* Part I.C (describing agency policy of forgoing the designation of critical habitat).

[38] *See, e.g.*, N. Spotted Owl v. Lujan, 758 F. Supp. 621, 626 (W.D. Wash. 1991) ("[The ESA's] legislative history leaves little room for doubt regarding the intent of Congress: The designation of critical habitat is to coincide with the final listing decision absent extraordinary circumstances."). The court elaborated that the FWS had a duty to make the "strongest attempt possible" to complete the designation of critical habitat within the timeframe set by the statute, including attempts to seek out and identify the necessary data for critical habitat designation before invoking the "not determinable" exception. *Id.* (quoting the legislative history of the 1982 Amendments at H.R. REP. NO. 97-567, at 19–20 (1982), *as reprinted in* 1982 U.S.C.C.A.N. 2807); *see also* Butte Envtl. Council v. White, 145 F. Supp. 2d 1180, 1185 (E.D. Cal. 2001) ("[D]iscretionary procedures performed by the Service cannot justify deviation from the statutory mandate for concurrent designation of critical habitat.").

[39] *See, e.g.*, *Butte Envtl. Council*, 145 F. Supp. 2d at 1185 (ordering that the FWS designate critical habitat for the endangered fairy shrimp within six months while noting that six years had elapsed since it was listed by the Service).

[40] 16 U.S.C. § 1533(a)(1). This change rebuked the Reagan policy of evaluating the costs and benefits of listing—a practice in line with that administration's general policy (expressed in Executive Order 12,291 and formal OIRA review) that costs and benefits of all major regulatory action be seriously considered and weighed. *See* Exec. Order No.

Congress introduced this "safety valve" to relieve situations such as the high-profile stalling of Tellico Dam.[41] However, while Congress communicated its intention that economic impacts play a role in the designation of critical habitat, it left the contours of that role far from clear.

Section 4(b)(2) requires that the Secretary make such designations "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."[42] While courts,[43] as well as most commentators,[44] agree that the consideration of economic impacts is nondiscretionary, the manner in which that consideration takes place continues to be a source of dispute.[45] These disputes are animated by the Secretary's authority to exclude specific areas from designation as critical habitat if two criteria are met: (1) the benefits of exclusion outweigh the benefits of designation, and (2) the exclusion would not result in the extinction of the species.[46] This is a wide grant of discretion; the Secretary could choose to make no exclusions,[47] to exclude every area that meets both criteria, or anything in between. Property owners wary of the potential burdens or stigma of having their property included as critical habitat thus hope to fulfill one of two ways out: either by showing that their property does not have the

12,291, 3 C.F.R., 1981 Comp. 127 (1982). The statute now leaves no doubt as to what the Secretary may consider in making listing determinations: These decisions must be made "solely on the basis of the best scientific . . . data available." 16 U.S.C. § 1531(b)(1)(A).

41 Houck, *supra* note 37, at 297 (characterizing the cost consideration requirement as a "safety valve" and "relief mechanism" enacted in response to the Tellico Dam controversy).

42 16 U.S.C. § 1533(b)(2).

43 *See supra* note 38; *see also, e.g.*, Alaska Oil & Gas Ass'n v. Salazar, 916 F. Supp. 2d 974, 992 (D. Alaska 2013) ("Although Congress has turned over the analysis of the impacts cutting in favor or against critical habitat designation to the discretion of the Service, the Service is still required to show that in arriving at its decision, it took into consideration the economic and other relevant impacts.").

44 *See, e.g.*, Robbins, *supra* note 14, at 1108 (stating that such consideration is expressly required).

45 *See infra* Part II.

46 16 U.S.C. § 1533(b)(2). In addition to cost consideration, Oliver Houck refers to the ability of the Secretary to make exceptions as a second "safety valve" built into critical habitat designation by the 1978 Amendments. Houck, *supra* note 37, at 297.

47 It appears that the Secretary is empowered to never make an exception if he or she so chooses. *See* 124 CONG. REC. 38,128 (1978) (statements of Reps. Bevill and Buchanan) (clarifying that the Amendments would not limit the Secretary's power to designate critical habitat). The use of "may" in Section 4(b)(2) strongly implies that exclusions are optional, but never mandatory. However, this could be vulnerable to legal challenge in an extremely imbalanced scenario reminiscent of Tellico Dam, in which a court might rule that it is unreasonable to decline to make an exclusion.

requisite features required to receive the classification in the first place,[48] or by convincing the Secretary that the costs of inclusion outweigh the benefits and getting an exclusion. The consideration of costs is crucial to the second strategy.

B. Section 7: Jeopardy and Adverse Modification

A proposed copper and silver mine in the Cabinet Mountains of northwest Montana faces a number of environmental hurdles, including concerns about its impact on endangered grizzly bears and bull trout.[49] Canada lynx caused the project minimal trouble, but as part of the Rock Creek Mine's permitting process, the FWS was asked to provide an opinion on whether the project would adversely affect the lynx and other endangered and threatened species. The FWS concluded that while the lynx requires large interconnected habitat

[48] To be considered critical habitat, an area must contain the "primary constituent elements" (PCEs) required by a species to survive and reproduce. These are physical and biological features that are identified for a given species by the Services and include such considerations as cover or shelter, food and water, sites for breeding and rearing offspring, and protection from disturbances. U.S. FISH & WILDLIFE SERV., CRITICAL HABITAT: WHAT IS IT? 2 (2000), *available at* http://nctc.fws.gov/resources/knowledge-resources/Pubs9/critical_habitat00.pdf. An area that contains the PCEs but is not currently occupied by the species may be included as critical habitat if it is deemed essential to the species's ultimate recovery. *Id.* at 1. Because this is one of the instances where critical habitat affords noticeably greater protections for species than listing alone—which can translate into greater restrictions on landowners—the Services proceed with caution in designating areas as critical habitat that are not currently occupied by the species. *See id.* (explaining that critical habitat is more likely to impose additional requirements to listing when it occurs for unoccupied areas); *see also* 16 U.S.C. § 1532(5) (areas not currently occupied by the species at the time of listing can only be designated critical habitat if they are deemed "essential" by the Secretary); Stephen Stich, *While Fishing for Ways to Interfere with Your Property, FWS Catches a Boot*, LIBERTY BLOG (Aug. 8, 2014), http://blog.pacificlegal.org/2014/fishing-ways-interfere-property-fws-catches-boot (presenting the views of the property rights community and decrying what they view as the "exorbitant costs" to both landowners and society of excessive designation of critical habitat outside occupied areas). Congress instructed such caution in a report accompanying the 1978 Amendments: "[T]he Secretary should be exceedingly circumspect in the designation of critical habitat outside of the presently occupied area of the species." H.R. REP. NO. 95-632, at 18 (1978). Ironically, under the functional equivalence of jeopardy and adverse modification discussed *infra* notes 77–80 and accompanying text, adverse modification is unlikely to occur in unoccupied areas, because while recovery may be affected, the necessary survival prong is unlikely to be reached. *See* Sinden, *supra* note 13, at 154 ("[D]estruction of currently unoccupied habitat might not actually reduce a species' likelihood of survival since it would not directly affect currently living individuals . . . . Under these circumstances, habitat destruction would not meet the definition of adverse modification since it would not threaten the actual survival of the species.").

[49] *See* Tristan Scott, *As Troy Mine Sees Best Year, Rock Creek Mine Tied Up by Environmental Concerns*, MISSOULIAN (June 10, 2012, 9:00 PM), http://missoulian.com/news/local/as-troy-mine-sees-best-year-rock-creek-mine-tied/article_eda8d2d0-b2bc-11e1-bd84-001a4bcf887a.html (describing impediments to the project).

ranges, the mine would only negligibly impact the lynx, effectively greenlighting the project on that front.[50]

Status as a listed species pursuant to Section 4 of the ESA triggers a number of protections,[51] including the Section 7 consultation requirements and concomitant prohibition on federal actions that are likely to jeopardize the continued existence of the species.[52] Under Section 7, all federal agencies must consult with the Services to ensure that any action "authorized, funded, or carried out" by that agency (the "agency action") does not so jeopardize an endangered or threatened species.[53] The jeopardy standard, in both the statutory text and the regulatory definition, reflects the survival goal of the ESA, notably through its focus on "continued existence" rather than conservation or recovery.[54]

The additional legal consequences of critical habitat designation are less significant than those of listing. While listing implicates Section 9's "take" prohibition in addition to Section 7's jeopardy consultations,[55] critical habitat designation only triggers Section 7's consultations, which must take place any time a federal agency undertakes an action "likely to . . . result in the destruction or adverse modification" of that habitat.[56] Thus, the adverse modification standard is critical habitat's analogue to the jeopardy standard, which arises in the context of listing. Until 2004, the Services defined adverse modification as:

> [A] direct or indirect alteration that appreciably diminishes the value of critical habitat for both the survival and recovery of a listed

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[50] *See* Press Release, U.S. Fish & Wildlife Serv., Non-Jeopardy Biological Opinion Issued by U.S. Fish and Wildlife Service for Proposed Rock Creek Mine (May 13, 2003), *available at* http://fws.gov/mountain-prairie/pressrel/03-43.htm (describing result of Biological Opinion (BiOp)).

[51] The most notable protection of the ESA outside Section 7 is the "take" prohibition of Section 9. "Take" is defined by the Act as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct." 16 U.S.C. § 1532(19). The general prohibition has been interpreted to include not only direct injury or death, but also indirect harm caused by impairing habitat or disrupting essential behavior such as breeding and feeding. Babbitt v. Sweet Home Chapter of Cmtys. for a Great Or., 515 U.S. 687, 697–99 (1995). This prohibition only applies in areas currently occupied by the species. *See id.* at 702 (explaining that the take prohibition is only enforceable when an actual animal has been harmed).

[52] 16 U.S.C. § 1536(a)(2).

[53] *Id.*

[54] *Id.*

[55] *See supra* note 51; *see also Sweet Home*, 515 U.S. at 714 ("The Court's holding that the hunting and killing prohibition incidentally preserves habitat on private lands imposes unfairness to the point of financial ruin—not just upon the rich, but upon the simplest farmer who finds his land conscripted to the national zoological use.") (Scalia, J., dissenting).

[56] 16 U.S.C. § 1536(a)(2).

> species. Such alterations include, but are not limited to, alterations adversely modifying any of those physical or biological features that were the basis for determining the habitat to be critical.[57]

Because, with the exception of unoccupied areas designated as critical habitat, the consultation requirement for critical habitat largely overlaps with the consultation requirement already in place by virtue of listing alone, critical habitat designation often functionally adds little additional burden on landowners and federal agencies (and perhaps, by implication, little additional protection for species).[58] This overlap at its most complete—labeled "functional equivalence"—has been frequently criticized.[59]

While jeopardy explicitly refers to the "continued existence" of the species, the adverse modification standard simply refers us to critical habitat. Because the definition of critical habitat appears to reflect not only the survival goal of the statute, but also the recovery goal, many have argued that the adverse modification standard should also reach beyond jeopardy's mere survival goal to the recovery of the species, where the protections of the Act are no longer necessary.[60]

The statute's procedural requirement of consultations under Section 7 might have little effect without the substantive jeopardy and adverse modification commands, which place a duty on all federal agencies to "insure that any action authorized, funded, or carried out" by that agency is not likely to result in jeopardy or adverse modification.[61] A consultation occurs at the request of an "action agency," which asks one of the "wildlife agencies" (the FWS or NMFS) to pro-

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[57] Endangered Species Act of 1973, 50 C.F.R. § 402.02, *invalidated by* Gifford Pinchot Task Force v. U.S. Fish & Wildlife Serv., 378 F.3d 1059 (9th Cir. 2004).

[58] The FWS has published numerous reassuring statements about the minimal impact of critical habitat on landowners. *See supra* note 48 (describing many of the guidelines around critical habitat classification). However, as explored later in this Note, this is partially a result of the Services' historically unlawful reading of the statute—and arguably their continued illegal implementation of it. For a recent example of designation of critical habitat making a legal difference in the context of the Canada lynx, see *Alliance for the Wild Rockies v. Krueger*, 950 F. Supp. 2d 1196 (D. Mont. 2013) (enjoining two projects for reinitiation of Section 7 consultation under the ESA because the original BiOp took place before critical habitat for the lynx was designated). Designation of critical habitat may also serve as a powerful signal to conservationists and regulated parties.

[59] *See infra* note 80 and accompanying text (describing the rejection of the "functional equivalence" policy in numerous cases).

[60] *See, e.g.*, Cheever, *supra* note 20, at 57 (pointing out that while adverse modification has been treated by the Services as more survival-oriented, like jeopardy, critical habitat—the thing it is meant to protect—"is defined with recovery in mind"); Robbins, *supra* note 14, at 887–88 (arguing for a broader definition of adverse modification to reach the recovery goal of the ESA); Sinden, *supra* note 13, at 155 (arguing that by requiring a threat to survival and not just recovery, the Services' regulatory "definition of adverse modification remains inconsistent with the statutory definition of critical habitat").

[61] 16 U.S.C. § 1536(a)(2).

vide it with a "Biological Opinion" (BiOp) as to the likely effects of the action agency's proposed action on listed species and/or their critical habitat.[62] While the ultimate decision of whether to proceed with the project rests with the action agency, not the wildlife agency,[63] the wildlife agency's opinion about whether the project will cause jeopardy or adverse modification is, in practice, "virtually determinative."[64] Unless the BiOp makes a finding of "no jeopardy," the action agency cannot proceed with the proposed action absent extraordinary circumstances.[65] Unlike the National Environmental Policy Act, which imposes a purely procedural requirement on federal agencies,[66] the ESA's command that all agencies "insure" that their activities do not cause jeopardy to or adverse modification of critical habitat of an endangered or threatened species imposes a substantive duty.[67] Unsurprisingly, BiOps are a frequent source of litigation.

Critical habitat designation has no legal consequences under the ESA apart from the consultation mandate of Section 7. However, it may trigger other legal consequences under other federal statutes or state law, such as California's requirement that any proposed projects in areas designated as critical habitat under the ESA conduct environmental impact statements under the jurisdiction of the California

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[62] *Id.*; Interagency Cooperation ESA, as Amended, 50 C.F.R. §§ 402.01–.02 (2001) (requiring and defining "biological opinion").

[63] Nat'l Wildlife Fed'n v. Coleman, 529 F.2d 359, 371 (5th Cir. 1976) ("[T]he final decision of whether or not to proceed with the action lies with the agency itself. Section 7 does not give the Department of Interior a veto over the actions of other federal agencies, provided that the required consultation has occurred.").

[64] *See* Bennett v. Spear, 520 U.S. 154, 170 (1997) (describing the dispositive impact of the FWS's biological opinions in the context of finding that discretionary adherence to the opinion is not grounds for refuting the traceability component of standing). An action agency would have to convince a court that its assessment is superior to that of the (expert) wildlife agency to show that it met the substantive command of Section 7 in addition to the procedural requirement.

[65] The 1978 Amendments created a route for projects to be exempted from Section 7 by an Endangered Species Committee that came to be nicknamed the "God Squad." *See* Richard C. Paddock, *"God Squad" Will Decide Forest Feud*, L.A. TIMES (Oct. 13, 1991), http://articles.latimes.com/1991-10-13/news/mn-1033_1_timber-sales-endangered-species-act-god-squad (explaining that the Endangered Species Committee was "[n]icknamed the 'God Squad' because of its power over endangered species"). In order to receive this exemption, the project at stake must be in the public interest and "of national or regional significance," the benefits of the action "clearly outweigh" those of more species-friendly alternatives, there are no "reasonable and prudent alternatives" to the project, and the requesting agency did not make any irretrievable or irreversible commitments of resources. 16 U.S.C. § 1536(e), (h). However, the impact of the "God Squad" provision has been minimal: not even the Tellico Dam project received an exemption. Sinden, *supra* note 13, at 147 n.85 and accompanying text.

[66] National Environmental Policy Act, 42 U.S.C. §§ 4321–4370 (requiring federal agencies to integrate environmental values into their decisionmaking processes).

[67] 16 U.S.C. § 1536(a)(2) (2012).

Department of Fish and Game.[68] Also, while it only directly affects actions undertaken by federal agencies, this includes approval and funding of projects, which often affects private actors and landowners.[69] In the western states, where much of the land is federally owned and managed, this has significant consequences for public works such as hydroelectric dams and for private users of public lands for grazing, water rights, recreation, timber harvesting, and mining.

TABLE 2: SUMMARY OF SECTION 4 AND SECTION 7 OF THE ESA

	GOAL OF THE ESA FURTHERED?	COST CONSIDERATION UNDER SECTION 4?	SUBSTANTIVE STANDARD UNDER SECTION 7?
LISTING	Survival	Disallowed	Jeopardy
CRITICAL HABITAT DESIGNATION	Conservation/ Recovery	Required	Adverse Modification

C. Agency Resistance to Critical Habitat

Despite the attention paid by Congress to the separate role and purpose of critical habitat under the ESA, the FWS, which is responsible for the majority of administration of the ESA,[70] effectively read the critical habitat provisions out of the statute for most of the 1980s and 1990s.[71] Aware of the intense political resistance to impeding

[68] *See* UNIV. OF CAL. AGRIC. ISSUE CTR., AGRICULTURE, ENDANGERED SPECIES AND HABITAT 2 (Nov. 2009), *available at* http://aic.ucdavis.edu/publications/whitepapers/Endangered%20Species%20and%20Habitat.pdf (explaining that the California Environmental Quality Act requires environmental impact assessments for proposed development projects in areas of critical habitat zones). Other potential collateral effects of critical habitat designation include federal prohibition of coal exploration activities that disturb critical habitat, 30 C.F.R. § 815.15 (2014), and Washington State's ban on siting of municipal solid waste disposal in FWS-designated critical habitat. WASH. ADMIN. CODE § 173-304-130(2)(j)(ii) (2014).

[69] For example, a private landowner desiring to build on wetlands—which are defined in a matter broader than many people would expect—must acquire a permit from the Army Corps of Engineers under Section 404 of the Clean Water Act. 33 U.S.C. § 1344. The Corps's granting of this permit is subject to the requirements of Section 7 of the Endangered Species Act.

[70] *See* Sinden, *supra* note 13, at 132 n.7 ("FWS has primary authority for administration of the ESA . . . .").

[71] *Id.* at 152 ("Rather than face head-on the thorny political problems that implementation of these provisions would pose, the agency effectively rewrote the statute through regulatory definitions to essentially eliminate any separate protection provided by critical habitat, over and above that already provided by the listing of a species."); *see also id.* at 158 ("By August 2001, FWS had only designated habitat for 138 of the 1244 species then listed as endangered or threatened." (citing Daniel J. Rohlf, *Jeopardy Under the Endangered Species Act: Playing a Game Protected Species Can't Win*, 41 WASHBURN L.J. 114, 117–18 n.10 (2001) and accompanying text)).

development projects in the name of noncharismatic species of invertebrates and small fish,[72] the FWS invoked—arguably, abused—the statute's exceptions to effectively avoid designating critical habitat altogether.[73] Further, the Agency did not hide its low opinion of the critical habitat provisions, stating in a 1997 designation compelled by a court order that they believe "that critical habitat is not an efficient or effective means of securing the conservation of species" and that they "seriously question its utility and the value it provides in comparison to the monetary, administrative, and other resources it absorbs."[74] Another court-ordered designation included commentary that critical habitat designation "is driven by litigation rather than biology . . . consumes enormous agency resources, and imposes huge social and economic costs."[75] Effectively the Agency declared that they only performed the designations because they were forced to, and saw little (or negative) value in the exercise. However, such court orders became increasingly common in the late 1990s as environmental groups successfully sued the FWS over their failure to comply with the ESA's critical habitat provisions.[76]

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[72] *See* Shannon Petersen, Comment, *Congress and Charismatic Megafauna: A Legislative History of the Endangered Species Act*, 29 ENVTL. L. 463, 486 (1999) (characterizing FWS's response to the controversies such as *TVA v. Hill* as cautious: "FWS began to exercise its discretion to avoid controversy, even if that meant circumventing Section 4").

[73] The statute dictates that critical habitat be designated concurrently with listing "to the maximum extent prudent and determinable," allowing for exceptions for lack of prudency and lack of determinability. 16 U.S.C. § 1533(a)(3). These exceptions were added by the 1978 Amendments. The determinability language was added so that listing would not be delayed by critical habitat designation. While the determinability exception only allows for a maximum one-year extension, the prudency exception has a longer time limit. § 1533(b)(6)(C)(i)–(ii). Legislative history indicated that the prudency exception was to be narrowly invoked, "only in rare circumstances." H.R. REP. NO. 95-1625, at 17 (1978), *as reprinted in* 1978 U.S.C.C.A.N. 9467. The Fifth Circuit quoted this language in *Sierra Club v. U.S. Fish & Wildlife Service* in criticizing the agency position. 245 F.3d at 434, 443 (5th Cir. 2001). However, the FWS relied heavily on the prudency exception (and to a lesser degree, the determinability exception) to designate habitat for only a small fraction of listed species. Rohlf, *supra* note 71, at 117–18 n.10.

[74] Final Determination of Critical Habitat for the Southwestern Willow Flycatcher, 62 Fed. Reg. 39,129, 39,131 (July 22, 1997). The Agency also specifically cited to the controversy surrounding critical habitat designation in explaining its reluctance to designate it. *Id.* at 39,132.

[75] Final Designation of Critical Habitat for Four Vernal Pool Crustaceans and Eleven Vernal Pool Plants in California and Southern Oregon, 68 Fed. Reg. 46,684, 46,684 (Aug. 6, 2003).

[76] *See, e.g.*, NRDC v. U.S. Dep't of the Interior, 113 F.3d 1121, 1127 (9th Cir. 1997) ("Neither the Act nor the implementing regulations sanctions nondesignation of habitat when designation would be merely less beneficial to the species than another type of protection."); Conservation Council for Haw. v. Babbitt, 2 F. Supp. 2d 1280, 1288 (D. Haw. 1998) (ruling that FWS's failure to designate critical habitat for a number of endangered

It is perhaps puzzling why an agency staffed largely by wildlife biologists would adopt such a hostile approach to the protection of habitat; it is, after all, a fundamental tenet of ecology that habitat destruction is a leading cause—often deemed the most dominant cause—of species extinction and extirpation. While some of the Agency's resistance to designating critical habitat may be chalked up to the politics of the administration, it also makes sense in light of the limited resources of the Services and the immense backlog of listing petitions. Any attention paid to designating critical habitat for listed species is attention not paid to getting more species on the list—a goal presumably dear to those bureaucrats who devote their careers to working at a fish and wildlife agency. Given the broader spectrum of protections afforded by listing, an agency motivated by maximizing species protection would prioritize listing over critical habitat designation. Especially if agency staff believe critical habitat does limited additional work in relation to listing, it makes sense that they would want their limited resources to be devoted to the listing process rather than designating and, so often, litigating critical habitat.

However, the FWS's fundamental approach toward critical habitat did not change in response to this "flood of litigation."[77] The idea that critical habitat was duplicative was reflected in the regulatory definitions of jeopardy and adverse modification, the standards by which Section 7 consultations are evaluated for listed species and their critical habitat, respectively.[78] These definitions overlapped so much that it would be a foregone conclusion in almost every instance that critical habitat does no more work than that already accomplished by listing. Thus, no economic impacts would exist to be taken into consideration and allow for potential exceptions from a designation of critical habitat. As the Services concluded in the situation of

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plant species in Hawaii was unlawful, and that the Agency's finding that designation would provide no additional benefits to listing was not a rational basis for nondesignation).

77 Press Release, U.S. Dep't of the Interior, Endangered Species Act "Broken"—Flood of Litigation over Critical Habitat Hinders Species Conservation (May 28, 2003), *available at* http://www.doi.gov/news/archive/03_News_Releases/030528a.htm ("[T]he flood of court orders requiring critical habitat designations is undermining endangered species conservation by compromising the Service's ability to protect new species and to work with states, tribes, landowners, and others to recover those already listed under the Act . . . ."). The Assistant Secretary at the helm of FWS said "[i]magine an emergency room where lawsuits force the doctors to treat sprained ankles while patients with heart attacks expire in the waiting room and you've got a good picture of our endangered species program right now." *Id.* The press release also paints critical habitat as redundant to other habitat-protecting measures in the Act, and less effective than cooperative and voluntary measures. It also points out that the previous Administration under President Clinton largely shared its policy towards critical habitat designation. *Id.*

78 *See supra* Part I.B.

the southwestern willow flycatcher, "virtually all section 7 consultations that result in adverse modification of critical habitat will also result in a jeopardy decision . . . designation [and] will, therefore, result in no additional protection for the flycatcher nor have any additional economic effects."[79] Thus, even when the FWS was compelled to designate critical habitat, it did so in a way that neutered its function as a conservation tool and rendered the mandatory economic analysis practically moot. As both courts and commenters have pointed out—especially the court in *Cape Hatteras Preservation Alliance v. U.S. Dep't of the Interior* which coined the term "functional equivalence"[80]—the treatment of the adverse modification standard as almost completely redundant to the jeopardy standard has significant legal implications for the cost consideration methodology employed by the Services.

II
The Circuit Split: Why the Baseline Approach Is Superior, But Remains Legally Troubled

Like many environmental statutes of its vintage,[81] the ESA leaves the question of what role economic considerations should play in agency decisionmaking largely unanswered. While the "consideration [of] economic impact[s]" during critical habitat designation is nondiscretionary, and there are limitations to the exceptions allowed,[82] the methodology to be employed by the Services is left unclear. Arguably, the statute grants vast discretion to the Secretaries of Interior and Commerce to determine how the economic analysis will be executed.[83] This Part describes the two predominant and competing

[79] Sinden, *supra* note 13, at 160.

[80] 344 F. Supp. 2d 108 (D.C. Cir. 2004) (rejecting functional equivalence); N.M. Cattle Growers Ass'n v. U.S. Fish & Wildlife Serv., 248 F.3d 1277 (10th Cir. 2001) (invalidating the use of the baseline method largely on the basis of the functional equivalence of jeopardy and adverse modification); Sierra Club v. U.S. Fish & Wildlife Serv., 245 F.3d 434 (5th Cir. 2001) (rejecting functional equivalence); *see also, e.g.*, Robbins, *supra* note 14, at 1106–12 (describing the functional equivalence policy of the Service and criticizing it as poor policy).

[81] *E.g.*, Clean Air Act, 42 U.S.C. §§ 7401–7671q (2012). In the CAA context, the Supreme Court has declined to find it reasonable for the Agency to consider costs when not expressly dictated to do so by the statutory text. *See* Whitman v. Am. Trucking Ass'n, 531 U.S. 457, 465, 467 (2001) (declining to find implicit authorization to consider costs in the CAA).

[82] 16 U.S.C. § 1533(b)(2).

[83] When consideration of economic and other nonbiological factors was added to § 4(b)(2) in the 1978 Amendments, including the Secretary's authority to make exclusions based on such considerations, the House Merchant Marine and Fisheries Committee report emphasized the Secretary's "increased flexibility" and expressed a clear intent that the Secretary be granted wide discretion. H.R. Rep. No. 95-1625, at 17 (1978), *as reprinted in*

methods for consideration of costs during critical habitat designation and argues that the baseline, or incremental, technique is the superior of the two. It then argues that the current ascendency of this method has been threatened by the Services' failure to replace the illegal definition of adverse modification discussed in Part I.B that dogged the baseline method's earlier reign.

A. The Evolution of Two Competing Frameworks for Economic Impact Analysis

While judicial review of discretionary action such as critical habitat designation under § 1533(b)(2) is narrow in that a court does not "substitute its judgment for that of the agency,"[84] an action may of course still be struck down if it is contrary to law or procedures required by law.[85] In the context of the ESA, courts have acknowledged that the Administrative Procedure Act's requirement that decisions be "informed" must be interpreted against the statutory backdrop of uncertain scientific information.[86] While courts consistently state that the Services have discretion to choose a method of economic analysis—in other words, that no particular method is required by the statute[87]—courts have continually grappled with challenges to the methodology favored by the Services since designation of critical habitat began to occur more frequently around the turn of the twenty-first century.

1. The Baseline or Incremental Approach Versus the Co-Extensive Approach: New Mexico Cattle Growers

The Services favor the method known as the incremental or baseline approach. This method is best understood as a "but for" model in

1978 U.S.C.C.A.N. 9453, 9467 ("The consideration and weight given to any particular impact is completely within the Secretary's discretion.").

[84] Citizens to Preserve Overton Park v. Volpe, 401 U.S. 402, 416 (1971).

[85] Administrative Procedure Act, 5 U.S.C. § 706(2)(A), (D).

[86] *See* 16 U.S.C. § 1533(b)(2) (stating that the basis for determinations of critical habitat starts with the "best scientific data available"); Arizona Cattle Growers' Ass'n v. Salazar, 606 F.3d 1160, 1164 (2010) ("Although the FWS cannot act on pure speculation or contrary to the evidence, the ESA accepts agency decisions in the face of uncertainty.").

[87] Arizona Cattle Growers' Ass'n v. Kempthorne, 534 F. Supp. 2d 1013, 1032 (D. Ariz. 2008) ("[T]he Service has wide discretion in determining whether to exclude particular areas . . . limited only to the extent that the Service may not exclude areas from a designation if it determines that 'failure to designate such area as critical habitat will result in the extinction of the species.'" (quoting 16 U.S.C. § 1533(b)(2))); Home Builders Ass'ns of N. Cal. v. U.S. Fish & Wildlife Serv., No. 5-05-0629, 2006 WL 3190518, at *21–22 (E.D. Cal. Nov. 2, 2006) (deferring to the agency's decision, which "clearly involved weighing the benefits and costs of exclusion," because "'[t]he consideration and weight given to any particular impact is completely within the Secretary's discretion'" (quoting H.R. REP. NO. 96-1625, at 16–17 (1978), *as reprinted in* 1978 U.S.C.C.A.N. 9467)).

that it asks what impacts would not result but for the designation of critical habitat.[88] In doing so, the method imagines two states of the world: one in which there is no critical habitat designation, and one in which there is. The difference between these states—between the habitat designation state and the baseline state—is the increment, or the impact. Because critical habitat designation triggers no definitive consequences under the ESA apart from consultations, which are likely already required because of the species' status as listed,[89] many of the protections afforded by critical habitat are already in place whether the designation occurs or not. These impacts are thus labeled "co-extensive" and moved below the "baseline" on top of which any "incremental" impacts are measured.

The Services' use of the baseline method predominated when critical habitat designations increased in the wake of judicial pressure on the Services, particularly on the FWS, to exercise this nondiscretionary duty.[90] However, the Tenth Circuit invalidated the use of the baseline method in 2001 in *New Mexico Cattle Growers Association v. U.S. Fish & Wildlife Service*.[91] Evaluating the methodology under the less deferential *Skidmore* standard because it was not a result of rulemaking,[92] the Court concluded that the Agency's decision to employ the baseline method did not pass muster on the requirement

[88] *See* Memorandum on The Secretary's Authority to Exclude Areas from a Critical Habitat Designation Under Section 4(b)(2) of the Endangered Species Act from David Longly Bernhardt, Solicitor, U.S. Dep't of the Interior, to the Deputy Secretary, U.S. Dep't of the Interior, and the Assistant Secretary and the Director of the U.S. Fish and Wildlife Serv. 20–21 (Oct. 3, 2008), *available at* http://www.doi.gov/solicitor/opinions/M-37016.pdf ("By definition, when impacts are completely 'co-extensive,' such that they will occur even if the area is not designated, any 'cost' imposed by the designation will not be avoided if the area at issue is excluded. Therefore, exclusion of the area based on such costs would serve no purpose.").

[89] The exception to this is for areas designated as critical habitat that are not currently occupied by the species but are necessary for its recovery. Because the species is not present in the area, a Section 7 consultation would not be required as a result of listing alone. However, these situations are not common.

[90] *See supra* Part I.C.

[91] 248 F.3d 1277 (10th Cir. 2001).

[92] *See id.* at 1281 (holding that the Agency's action does not receive *Chevron* deference because of its informality, and should be evaluated by its reasoning and "power to persuade"). The Tenth Circuit issued its opinion in *New Mexico Cattle Growers* just a month before the Supreme Court articulated the standard of review for informal agency action in *United States v. Mead Corp.*, 533 U.S. 218 (2001). In *Mead*, the Court identified the correct standard to be that of *Skidmore v. Swift & Co.*, 323 U.S. 134 (1944). *Mead*, 533 U.S. at 228 (citing *Skidmore*, 323 U.S. at 139–40) (noting that the fair measure of deference looks to the degree of the agency's care, its consistency, formality, and relative expertise). While the Tenth Circuit did not cite *Skidmore* in *New Mexico Cattle Growers*, they applied a substantially identical standard, citing to their own case law that quotes extensively from *Skidmore*. *See N.M. Cattle Growers*, 248 F.3d at 1281.

that it be "well reasoned" with the "power to persuade."[93] Pointing to the long-standing agency position that critical habitat is "unhelpful, duplicative, and unnecessary,"[94] the court critiqued the Agency's position as rendering the baseline method "virtually meaningless."[95]

The court largely based its analysis on FWS's treatment of the jeopardy and adverse modification standards as functionally equivalent. The regulatory definitions of those standards, promulgated in 1986, were deemed by the court to be so similar that either they were identical, or at the least the latter was subsumed by the former.[96] Under either interpretation, there would never be additional incremental impacts from critical habitat designation on top of those attributable to listing. Indeed, the FWS argued in *New Mexico Cattle Growers* that the impacts of listing the southwestern willow flycatcher and designating its critical habitat were 100% co-extensive.[97] Citing the need to give meaningful effect to the words of Congress, the court concluded that the baseline method is contrary to the language and intent of the ESA.[98]

In its place, the *New Mexico Cattle Growers* court endorsed the co-extensive method advocated by the appellants, an agricultural trade group. This technique considers economic impacts of critical habitat even if they are already caused by an existing protection, most predominantly listing. While the court acknowledged that the clear intent of Congress was for economic impacts to play no role in the listing decision,[99] the court was not concerned that consideration of

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[93] *Id*. (quoting Fristoe v. Thompson, 144 F.3d 627, 631 (10th Cir. 1998)).

[94] *Id*. at 1283.

[95] *Id.* at 1285.

[96] *Id.* at 1283. The only scenario in which there will be measurable impacts under the baseline would be if there is a finding of adverse modification without a finding of jeopardy resulting from a Section 7 consultation. However, if adverse modification is equal to or subsumed by the jeopardy standard, this will never happen.

[97] *See id.* at 1283 (arguing that the impacts of the listings are co-extensive). This is the same species whose critical habitat designation brought on the scorn of the FWS towards the entire process described in Part I.C.

[98] *Id*. at 1285 ("We are compelled by the canons of statutory interpretation to give some effect to the congressional directive that economic impacts be considered at the time of critical habitat designation." (citing Bridger Coal Co./Pac. Minerals, Inc. v. Dir., Office of Workers' Compensation Programs, 927 F.2d 1150, 1153 (10th Cir. 1991))). In an ironic twist, the rationale of *New Mexico Cattle Growers* accords with the argument that critical habitat is undervalued by the Services and meant to serve an important function in furthering the recovery prong of the ESA. This view credits critical habitat as a crucial complement to listing rather than a superfluity bringing a rain of endless (and pointless) litigation upon the Services. Thus, while environmentalists disliked the case's result, it reflects their view that the ESA has twin goals—survival and recovery—and that the Services' policy failed to adequately promote the latter.

[99] N.M. Cattle Growers Ass'n v. U.S. Fish & Wildlife Serv., 248 F.3d 1277, 1282 (10th Cir. 2001).

co-extensive impacts would "inject economic considerations into the listing process," concluding that the process "situates those considerations in precisely the spot intended by Congress."[100] If this results in less critical habitat being designated, the court points out that this does not affect the listing process—which presumably occurs independently of critical habitat designation—or the myriad protections afforded by listing.[101]

In response to the *New Mexico Cattle Growers* decision, the FWS adopted the co-extensive method as its official policy even outside the Tenth Circuit,[102] and entered into a number of consent decrees to vacate and remand completed critical habitat designations.[103] Implementation of the co-extensive method was largely incoherent: incomplete at best and disingenuous at worst. Amy Sinden described the aftermath of the *New Mexico Cattle Growers* decision as giving mostly lip service to the co-extensive method by discussing the impacts attributable co-extensively to listing in a preface, then going on to do the analysis under the original baseline method.[104] This "incorporat[ion] of two baselines"[105] generated two separate cost figures, which the agency treated as the upper and lower bounds of the actual cost. However, Sinden labeled this characterization "misleading" because the Agency usually bases its final designation on the lower bound (the original critical habitat baseline), disregarding the higher result yielded by incorporating co-extensive impacts as dictated by *New Mexico Cattle Growers*.[106] It is unclear exactly how the co-extensive method works in practice, and the brief experience of the Services in

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100 *Id*. at 1285.

101 *See id.* (explaining how the listing of species will remain in effect and congressional interest will not be undermined).

102 *See* Sinden, *supra* note 13, at 168–69 (arguing that the adoption of the co-extensive method is consistent with FWS's apparent distaste for critical habitat designation).

103 *See, e.g.*, Home Builders Ass'ns of N. Cal. v. U.S. Fish & Wildlife Serv., 268 F. Supp. 2d 1197, 1225–30 (E.D. Cal. 2003); Home Builders Ass'ns of N. Cal. v. Norton, 293 F. Supp. 2d 1, 5 (D.D.C. 2002) (dismissing a challenge to a consent decree, agreeing with *New Mexico Cattle Growers*); Bldg. Indus. Legal Def. Found. v. Norton, 231 F. Supp. 2d 100, 104 (D.D.C. 2002) (vacating and remanding final rules designating critical habitat for the fairy shrimp and arroyo toad in light of *New Mexico Cattle Growers* and *Sierra Club*). Some critical habitat designations were allowed to stand (i.e., were not vacated) while remanded. *E.g.*, NRDC v. U.S. Dep't of the Interior, 275 F. Supp. 2d 1136 (C.D. Cal. 2002) (rejecting the baseline approach).

104 Sinden, *supra* note 13, at 170 ("Rather than abandon the critical habitat baseline altogether . . . FWS 'addresses the Tenth Circuit's concern' by simply adding a second baseline to the analysis.").

105 *Id.*

106 *Id.* at 171.

(apparently half-heartedly) implementing it served only to highlight its difficulty.[107]

2. Gifford Pinchot, Cape Hatteras, *and the Revival of the Baseline Approach*

The ascendancy of the co-extensive method, however equivocal, was curtailed by decisions from three other circuits that undercut the Tenth Circuit's reasoning. The Fifth, Ninth, and D.C. Circuits all ruled within several years that the regulatory definition of adverse modification facially conflicts with the language of the ESA by imposing a higher threshold than was intended, in contravention of the conservation goal of the statute.[108] As others have pointed out, the independent litigation of Section 4 critical habitat designations and Section 7 findings of adverse modification and jeopardy has resulted in a tangle of case law: Rulings responding to one section of the ESA inevitably implicate the other, as the two sections are inextricably related.[109]

While the Fifth Circuit's invalidation of the adverse modification definition had little effect on agency practice,[110] in 2004, a similar ruling in the Ninth Circuit significantly impacted the landscape of economic impact analysis for critical habitat designations. The court in *Gifford Pinchot Task Force v. U.S. Fish & Wildlife Service* invalidated the regulatory definition of adverse modification at the first step of *Chevron* on the grounds that it "reads the 'recovery' goal out of the adverse modification inquiry . . . ."[111] In response to *Gifford Pinchot*,

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[107] For example, if the costs attributable co-extensively to listing are to be included in the analysis, does the same rule apply to benefits? Does one draw the line at including co-extensive costs or benefits imposed by the ESA, or extend this to other forms of habitat protection such as the Northwest Forest Plan? Implementation remains unclear.

[108] Curiously, one of those decisions was reached just a few months before *New Mexico Cattle Growers* in 2001, but the Agency appeared to take little notice. In *Sierra Club v. U.S. Fish & Wildlife Service*, the Fifth Circuit invalided the regulatory definition of adverse modification. 245 F.3d 434, 443 (5th Cir. 2001). The Services did not stop using those definitions, however, merely noting in announcements of critical habitat designations that it was "reviewing" the definition in response to the *Sierra Club* decision. *E.g.*, Final Designation of Critical Habitat for Four Vernal Pool Crustaceans and Eleven Vernal Pool Plants in California and Southern Oregon, 68 Fed. Reg. 46,684, 46,744 (Aug. 6, 2003). The court in *New Mexico Cattle Growers* only glancingly acknowledged the *Sierra Club* decision in a footnote. *See N.M. Cattle Growers*, 248 F.3d 1277, 1283 n.2 (10th Cir. 2001) (noting that "federal courts have begun to recognize that the results [that the functionally equivalent regulatory definitions] produce are inconsistent with the intent and language of the ESA" (citing *Sierra Club*, 245 F.3d at 444–45)).

[109] *E.g.*, Robbins, *supra* note 14, at 1112.

[110] *See supra* note 102 and accompanying text (noting that the FWS adopted the co-extensive method as its official policy).

[111] 378 F.3d 1059, 1069 (9th Cir. 2004). The case arose from the hotly contentious spotted owl drama in the Pacific Northwest, specifically the BiOps issued by the FWS allowing for timber harvests. The opinion cited both *Sierra Club* and *New Mexico Cattle*

the FWS instructed their employees to disregard the invalidated regulatory definitions and use the statutory language of the ESA itself for guidance until new, lawful definitions were promulgated.[112] Despite repeated calls from environmental groups and academics, the Services have still not promulgated—or even proposed—new regulatory definitions. After *Gifford Pinchot*, at least formally, the functional equivalence of jeopardy and adverse modification was eliminated.[113]

Several months later, a D.C. district court opinion took the next step from *Gifford Pinchot* in a case challenging the designation of critical habitat for the piping plover, a small shorebird, in its wintering grounds on the Atlantic coast.[114] After reiterating the syllogism that troubled the court in *New Mexico Cattle Growers*—functional equivalence of jeopardy and adverse modification plus the baseline approach must always equal zero incremental economic impact[115]—the court in *Cape Hatteras Access Preservation Alliance v. U.S. Department of the Interior* consolidated the opinions of the Fifth, Ninth, and Tenth Circuits to find the baseline approach reasonable and lawful in light of the invalidation of the functionally equivalent regulatory definition of adverse modification.[116] Despite their agreement with the *New Mexico Cattle Growers* court about the root of the problem underlying that case—the functional equivalence of the definitions—the district court declared that the Tenth Circuit was wrong in holding that the baseline approach violates the language of the statute itself, calling the case "an instance of a hard case making bad law."[117] The *Cape Hatteras* court found the baseline method to be reasonable in the absence of the faulty regulatory definition, and remanded to the Agency accordingly.[118]

Growers, and elaborated on the expressed intent of Congress in the ESA that survival and conservation be treated as "distinct, though complementary" goals. *Id.* at 1069–70.

112 Memorandum from Marshall Jones, Acting Dir., U.S. Fish & Wildlife Serv., to the Regional Directors, U.S. Fish & Wildlife Serv. 1–2 (Dec. 9, 2004), *available at* http://www.fws.gov/midwest/endangered/permits/hcp/pdf/adversemodguidance.pdf; *see also* Memorandum from William T. Hogarth to the Regional Administrators of the Nat'l Marine Fisheries Serv. (Nov. 7, 2005) (issuing the same instructions).

113 I say "formally" because without a new definition of adverse modification, the Services are vulnerable to the argument that they did not truly change how they handle the standards in practice. Dave Owen's empirical work supports such a claim. *See infra* Part II.C.

114 Cape Hatteras Access Pres. Alliance v. U.S. Dep't of the Interior, 344 F. Supp. 2d 108, 114 (D.D.C. 2004).

115 *Id.* at 128.

116 *Id.* at 130.

117 *Id*. at 129–30.

118 *Id*. at 130.

The *Cape Hatteras* approach has largely dominated the case law for the past nine years[119] and was validated by the Ninth Circuit in 2010 in *Arizona Cattle Growers' Association v. Salazar*.[120] While some favorable decisions may result from the Agency's preference for the baseline method receiving deference from the courts,[121] the *Arizona Cattle Growers'* opinion expressly endorsed the baseline method as "if anything, more logical than the co-extensive approach."[122] Cases in the Ninth Circuit since 2010 acknowledge that they are bound by precedent to approve of the baseline method,[123] but pro-baseline rulings have also occurred in other circuits.[124] However, the Tenth Circuit has not revisited the issue since *New Mexico Cattle Growers*. The lynx case highlighted in the Introduction[125] illustrates the continued challenges of this circuit split and the need for clarity on the issue.

3. *The Services' Proposed Codification of the Baseline Approach and the Continued Circuit Split*

As the regulated community and property rights advocates have continued to trumpet the circuit split over cost consideration and critical habitat, the Services recently issued a final rule codifying the baseline or incremental method as the official approach. On August 24, 2012, the Departments of Interior and Commerce proposed changes to 50 C.F.R. § 424, which deals with economic impact analysis for critical habitat designation by FWS and NMFS.[126] In addition to a non-

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[119] *See, e.g.*, Alaska Oil & Gas Ass'n v. Salazar, 916 F. Supp. 2d 974, 992–93 (D. Alaska 2013) (deeming the Service's use of the baseline method an adequate and reasonable fulfillment of the statutory mandate); Ctr. for Biological Diversity v. Bureau of Land Mgmt., 422 F. Supp. 2d 1115, 1152 (N.D. Cal. 2006) (rejecting *New Mexico Cattle Growers* in favor of the *Cape Hatteras* approach).

[120] 606 F.3d 1160, 1173 (9th Cir. 2010) ("We . . . reject the Tenth Circuit's approach in *New Mexico Cattle Growers Association* as relying on a faulty premise and hold that the FWS may employ the baseline approach in analyzing the critical habitat designation.").

[121] *See* Otay Mesa Prop. v. U.S. Dep't of the Interior, 714 F. Supp. 2d 73, 88 (D.D.C. 2010), *rev'd on other grounds*, 646 F.3d 914 (D.C. Cir. 2011) (granting *Chevron* deference to FWS's use of the baseline method despite the judge's stated preference for the co-extensive method).

[122] *Arizona Cattle Growers'*, 606 F.3d at 1173.

[123] *See Alaska Oil*, 916 F. Supp. 2d at 992 n.102 (recognizing that the parties in a polar bear critical habitat case acknowledged precedent, yet preserved the issue for appeal).

[124] *See, e.g.*, Fisher v. Salazar, 656 F. Supp. 2d 1357, 1371 (N.D. Fla. 2009) (agreeing with *Arizona Cattle Growers* and *Cape Hatteras* that the baseline method is reasonable and in accord with the language and purpose of the ESA).

[125] Wyo. State Snowmobile Ass'n v. U.S. Fish & Wildlife Serv., 741 F. Supp. 2d 1245 (D. Wyo. 2010).

[126] Revisions to the Regulations for Impact Analyses of Critical Habitat, 77 Fed. Reg. 51,503, 51,503–05 (proposed Aug. 24, 2012) (to be codified at 50 C.F.R. pt. 424). The proposed rule was prompted by a presidential memo from February 28, 2012, which directed the Department of Interior to modify regulations regarding the timing of the

controversial timing change requested by the President, the proposed rulemaking also addresses the circuit split regarding the proper method for economic impact analysis of critical habitat and concludes that not only is the baseline method both preferable[127] and dominant in the case law,[128] but also that the method should be codified in the updated version of 50 C.F.R. § 424.19.[129] Despite vociferous opposition from proponents of the co-extensive method, the Services issued a final rule on August 23, 2013, codifying the baseline method.[130]

B. The Baseline Approach Is More Logical and More Faithful to Congressional Intent

Supporters of the baseline approach point to its apparent fidelity to congressional intent and its inherent logic.[131] Because the ESA forbids consideration of economic impacts during the listing decision, yet requires this consideration during the critical habitat designation, it makes sense to keep those inquiries analytically separate. Even more convincingly, the baseline approach reflects the purpose of cost-benefit analysis: to weigh the predicted costs and benefits attributable to an action. If a cost or a benefit will occur regardless of that action, it makes no sense to consider it as part of the decision of whether to take the action.

The legislative history of the 1982 ESA Amendments also supports this argument. Congress made provisions for a one-year extension after listing during which critical habitat designation could take

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release of draft economic analyses in order to better foster public participation in the designation process and ensure that economic impacts are fully "consider[ed]" as required by the statute; the memo also emphasizes the directive of Executive Order 13,563 that agencies craft regulations to "impose *the least burden on society*." Proposed Revised Habitat for the Spotted Owl: Minimizing Regulatory Burdens, Memorandum for the Secretary of the Interior, 77 Fed. Reg. 12,985, 12,985 (Mar. 5, 2012) (internal quotation marks omitted).

127 Endangered and Threatened Wildlife and Plants, 77 Fed. Reg. at 51,506–07.

128 *See id.* at 51,507 ("[N]o court outside the Tenth Circuit has followed *New Mexico Cattle Growers* after the Ninth Circuit issued *Gifford Pinchot Task Force*.").

129 *Id.* at 51,510 (noting the proposed changes to 50 C.F.R. § 424.19).

130 Impact Analysis and Exclusions from Critical Habitat, 70 Fed. Reg. 53,058 (Aug. 28, 2013) (to be codified at 50 C.F.R. pt. 424), *available at* http://www.fws.gov/endangered/improving_ESA/20130820%20424_19_final%20e-version%20to%20OFR.pdf; *see also* Press Release, U.S. Fish & Wildlife Serv., Fish and Wildlife Services and NOAA Fisheries Issue Final Rule to Improve the Process for Critical Habitat Proposals Under the Endangered Species Act (Aug. 23, 2013), *available at* http://www.fws.gov/endangered/improving_ESA/42419%20news%20release%20Final.pdf (announcing the final rule was submitted for publication).

131 *See, e.g.*, Ferrell, *supra* note 8 at 3 (acknowledging that the baseline approach "may accord with Congressional purpose"); Robbins, *supra* note 14, at 1119 n.92 ("I am assuming the use of the baseline method as that is the most logical way to analyze the cost of an action . . . .").

place, despite the original statutory language requiring listing and designation to take place concurrently. This acknowledges both the logistical challenge of collecting enough information to make informed critical habitat designations and the tension between the two bases for determination of listing and critical habitat designation (one forbidding consideration of nonbiological factors and the other requiring it). The Senate Committee report explains the decision to codify this exception as a response to the results of the 1978 regulations, which had (among other effects[132]) "indirectly introduced economic considerations into the listing process" in contravention of the statute.[133] The report states that nonbiological considerations are not to affect listing decisions.[134] Use of the baseline method is consistent with this purpose. Critics might argue that consideration of impacts that are co-extensive is simply a backdoor route to importing the economic impacts of listing into another stage of the species protection regime established by the ESA and is improper in light of clear congressional intent to cordon off the listing decision from nonbiological considerations. According to this account, the regulated community and the property rights movement aim to reopen the listing battle they lost years ago through the proxy of critical habitat.

Proponents of the co-extensive approach have their own favored excerpts from legislative history, which can be somewhat persuasive when taken out of context. In underscoring the role of cost considerations in designating critical habitat, "the committee . . . recognized that the critical habitat designation, with its attendant economic analysis, offers some counterpoint to the listing of species without due consideration for the effects on land use and other development interests."[135] Pointing to this language again and again, groups such as the National Association of Home Builders assert that only by accounting for all the costs and benefits associated with designating critical habitat—even those that are also attributable to listing—can the Services achieve the counterpoint desired by Congress.

Furthermore, those favoring the co-extensive approach point out that if critical habitat were to be designated concurrently with listing—as the statute intends but has proved unworkable in prac-

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132 The report also criticized the delays caused by concurrent listing and critical habitat designation (the latter being partially a nonbiological decision). S. REP. NO. 97-418, at 11 (1982).

133 *Id.*

134 *Id*. ("The principal purpose of these amendments is to insure that decisions pertaining to the listing or delisting of species are based solely upon biological criteria and to prevent non-biological considerations from affecting such decisions.").

135 H.R. REP. NO. 97-567, at 12, *as reprinted in* 1982 U.S.C.C.A.N. 2807, 2811–12.

tice—then the "baseline" status quo from which incremental impacts are measured might arguably be the state of the world in which the species receives no protections from the ESA at all. In other words, this approach could require consideration of the impacts of both listing *and* critical habitat designation. However, this argument ignores the reality that the Services are equally competent to measure the incremental impacts of critical habitat designation alone both before and after listing is finalized.[136]

Despite later characterizations that the co-extensive method *only* invalidated the baseline approach as a result of the functional equivalence of jeopardy and adverse modification, the Tenth Circuit explicitly endorsed the co-extensive method in *New Mexico Cattle Growers* and "expressly rejected" the baseline method as "not in accord with the language or intent of the ESA."[137] In contrast, the court opined that the co-extensive method did fulfill Congress's mandate that the Services "conduct a full analysis of all the economic impacts of a critical habitat designation, regardless of whether those impacts are attributable co-extensively to other causes."[138] While critics of the co-extensive method have dismissed it as wishful thinking by sore losers,[139] they have not contended with the fact that the Tenth Circuit arguably did endorse it as correct while condemning the baseline method as unlawful and perhaps not merely on the basis of functional equivalence.[140]

However, the Tenth Circuit was not choosing between the two conceptual approaches—baseline and co-extensive—in a regulatory vacuum. Central (if not fundamental) to the court's reasoning is the functional equivalence of jeopardy and adverse modification

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[136] While the competence of the Services to measure this at all may be plausibly attacked, Congress intended that they at least consider impacts at the critical habitat designation stage. *See supra* notes 40–41 and accompanying text.

[137] N.M. Cattle Growers Ass'n v. U.S. Fish & Wildlife Serv., 248 F.3d 1277, 1285 (10th Cir. 2001).

[138] *Id.*

[139] *But see* Letter from Michael Mittelholzer, Assistant Vice President, Nat'l Ass'n of Home Builders, to Douglas Krofta, U.S. Fish & Wildlife Serv. 11 (Feb. 6, 2013), *available at* https://www.nahb.org/fileUpload_details.aspx?contentID=210556 (characterizing the co-extensive method as the status quo prior to the proposed rulemaking codifying baseline method and calling the codification of the Agency's current practice "a significant policy shift").

[140] *See* NORMAN D. JAMES & FENNEMORE CRAIG, AN OVERVIEW OF HOW CRITICAL HABITAT IS DESIGNATED AND ITS REGULATORY IMPACTS 23 (Apr. 10, 2009), *available at* http://www.fclaw.com/news/Materials/Critical_Habitat_-_An_Overview_of_How_Critical_Habitat_Is_Designated_And_Its_Regulatory_Impacts.pdf (arguing that functional equivalence is a separate issue from cost consideration, and that the *New Mexico Cattle Growers* court did not find the baseline method unlawful purely on the grounds of functional equivalence).

described above, which the court finds to "render[ ] any purported economic analysis done utilizing the baseline approach virtually meaningless."[141] While the circuit split is trumped up by proponents of the co-extensive method, it is not a dead issue, as the Tenth Circuit has not spoken on it in the dozen years since *New Mexico Cattle Growers*, which, as *Wyoming State Snowmobile Association* so poignantly revealed, is still good law in that circuit. Until the Tenth Circuit—or the Supreme Court—takes up the controversy, there is a live circuit split. While the Services' codification of the baseline method would likely bring it under *Chevron* deference in the future (rather than the less generous *Skidmore* standard applied by the Tenth Circuit in *New Mexico Cattle Growers*), it did not fully defuse the issue.[142]

C. The Lack of an Adequate Regulatory Definition of Adverse Modification Exposes the Baseline Method to Continued Attack

Until the Services promulgate a new regulatory definition of adverse modification, the baseline method is vulnerable to the same attack it succumbed to in *New Mexico Cattle Growers*: functional equivalence. The Secretary's instruction that staff rely instead on the statutory language provides too little guidance, especially in the face of decades of institutional memory and culture that grew up around the invalidated definition. A recent empirical study of thousands of biological opinions, which result from Section 7 consultations, revealed that the Services continued to treat jeopardy and adverse modification as virtually identical years after *Gifford Pinchot*.[143] Not only is critical habitat doing no additional work for species conservation than listing—contrary to courts' reading of the ESA, but consistent with the Services' long-standing hostility towards it—but it also does no additional work for the economic impact analysis. The baseline approach is a mere exercise, a zero-sum game. This is understandably frustrating to both development interests, who want the costs of critical habitat to be honestly and thoroughly accounted for, and biodiversity advocates, who hope to see critical habitat advance the recovery goal of the ESA.

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141 *N.M. Cattle Growers*, 248 F.3d at 1285 ("The root of the problem lies in the FWS's long held policy position that CHDs are unhelpful, duplicative, and unnecessary. Between April 1996 and July 1999, more than 250 species had been listed pursuant to the ESA, yet CHDs had been made for only two." (citing S. REP. NO. 106-126, at 2 (1999))).

142 *See infra* Part II.C (discussing that the baseline method is still vulnerable to attack).

143 *See* Dave Owen, *Critical Habitat and the Challenge of Regulating Small Harms*, 64 U. FLA. L. REV. 141, 165–66 (2012) ("[The] data set did not include a single opinion in which either NMFS or FWS found jeopardy without finding adverse modification. Instead, the agencies have treated the class of actions that adversely modifies habitat without also causing jeopardy as a null set.").

This empirical evidence also undermines the baseline method's recent run of success in the courts. Why would the Tenth Circuit reverse itself if the same fatal flaw it identified twelve years ago persists in practice, poisoning the baseline method and "render[ing] . . . it virtually meaningless"?[144] The optics of a potential case were damaging to the Services' credibility as well: Their regulatory definition was struck down almost ten years ago—arguably three years earlier than that—and yet they failed to replace the definition and appear to continue to conduct business as usual.

While the recent codification of the baseline method through § 553 rulemaking likely fortifies the regulation with *Chevron* deference,[145] the Tenth Circuit may remain unconvinced that the FWS's interpretation is permissibly reasonable given the failure to promulgate a new definition of adverse modification and evidence that the Services continue to treat jeopardy and adverse modification as functionally equivalent. This legal defect may soon be cured, however; the Services proposed a long-awaited new definition of adverse modification on May 9, 2014.[146]

III
Implications of a New Definition of Adverse Modification

A. The Services' Recently Proposed Revision

In order to address the vulnerability of the baseline method of cost consideration to the charge of continued functional equivalence described above, the Services should promulgate a new regulatory definition of adverse modification without further delay. In order to avoid functional equivalence, that definition must be broader than the definition of jeopardy, and must reach the recovery goal of the Endangered Species Act, not just the survival goal. The proposed definition succeeds in that regard, while presenting continued challenges in other areas.

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144 *N.M. Cattle Growers*, 248 F.3d at 1285.

145 *See* United States v. Mead Corp., 533 U.S. 218, 226–27 (2001) (explaining that *Chevron* deference is accorded to agency decisionmaking "when it appears that Congress delegated authority to the agency generally to make rules carrying the force of law, and that the agency interpretation claiming deference was promulgated in the exercise of that authority" and going on to identify notice-and-comment rulemaking as the prime example of such delegation).

146 Press Release, U.S. Fish & Wildlife Serv., Federal Agencies Propose Revised Rules to Improve Implementation of the Endangered Species Act, Address Processes for Designating and Implementing Critical Habitat (May 9, 2014), *available at* http://www.fws.gov/news/ShowNews.cfm?ID=E1D52343-D32C-9385-D56A972A7738C7EE.

1. Incorporation of the Recovery Goal: "Setting the Bar Lower"

The court in *Gifford Pinchot* criticized the old definition of adverse modification as "set[ting] the bar too high."[147] By requiring that an action must "appreciably diminish[ ] . . . *both* the survival *and* recovery of a . . . species,"[148] both the jeopardy and adverse modification thresholds would not be reached unless the species' survival chances were reduced. This is contrary to the plain language of the ESA, which states that critical habitat is intended to promote the conservation goals of the statute. Conservation is defined by the ESA in recovery terms, with the ultimate goal of being able to delist the species entirely. If both survival and recovery must be implicated to qualify as adverse modification as well as jeopardy, then recovery—which requires additional protection efforts above and beyond mere survival—will never trigger any extra protections, and the goal will only be paid lip service.

Congress would not have written critical habitat into the statute unless they intended for it to play a non-redundant role. It is imperative to lower the threshold for adverse modification. The Center for Biological Diversity, an environmental group that frequently litigates or intervenes in endangered species cases, proposed in a letter to the Secretary of the Interior signed by fifty other environmental groups that the Services accomplish that purpose by changing "and" to "or" in 2010.[149] This would expand the definition beyond the jeopardy definition by including actions that are likely to appreciably diminish the likelihood of recovery but not likely to diminish the chances of survival. The Services went further in their proposed definition by focusing exclusively on recovery:

> "*Destruction or adverse modification*" means a direct or indirect alteration that appreciably diminishes the conservation value of critical habitat for listed species. Such alterations may include, but are not limited to, effects that preclude or significantly delay the development of the physical or biological features that support the life-history needs of the species for recovery.[150]

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147 Gifford Pinchot Task Force v. U.S. Fish & Wildlife Serv., 378 F.3d 1059, 1069 (9th Cir. 2004).

148 50 C.F.R. § 402.02 (2009) (emphasis added).

149 Letter from Noah Greenwald & William J. Snape, III, Ctr. for Biological Diversity, to Ken Salazar, Sec'y of the Interior, & Gary Locke, Sec'y of Commerce (Mar. 10, 2010), *available at* http://www.biologicaldiversity.org/programs/biodiversity/endangered_species_act/protecting_critical_habitat/pdfs/Adverse_Mod_sign-on_letter.pdf.

150 Interagency Cooperation—Endangered Species Act of 1973, as Amended; 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).

The proposed definition leaves no doubt that recovery is the central concern of the adverse modification standard—as the ESA requires. After over ten years, the Services appear to have remedied the problem identified in *Sierra Club* and *Gifford Pinchot*. If finalized, this will immunize the baseline method, curing its fundamental legal defect.

2. *A Lost Opportunity or a Quagmire Avoided? De Minimis and Cumulative Harm Under the Proposed Revision*

Environmentalist and academic critics have argued that the Services could have and should have accomplished more in the long-awaited revision.[151] By not providing more guidance on the meaning of "appreciably diminish," the proposed definition offers inadequate guidance on the threshold at which the standard kicks in. As Dave Owen, the author of the empirical study that found that the Services have continued to treat jeopardy and adverse modification as functionally equivalent,[152] identified one of the difficulties in administering the old definition was the lack of "a coherent and principled basis for distinguishing harms that counted as adverse modification from those that were truly *de minimis*."[153] While he regards the proposed elimination of the requirement that an effect "considerably reduce" habitat value to be "a step forward," he expresses concern that the definition continues to offer little guidance for principled line drawing.[154]

The Center for Biological Diversity urged in their 2010 letter to the Secretary that the term "appreciably diminish" be specified with a low threshold to prevent the piecemeal destruction of habitat under the logic that destruction of a small area does not diminish the value of the habitat as a whole.[155] Much to the Center's dismay, that controversial language did not appear in the Services' proposal.[156] Because of the difficulty in precisely calibrating the sensitivity of the adverse

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[151] *See* Press Release, Ctr. for Biological Diversity, New Obama Administration Proposals Are Mixed Bag for Endangered Species (May 9, 2014), *available at* http://www.biologicaldiversity.org/news/press_releases/2014/endangered-species-05-09-2014.html ("[T]he proposals would continue to sanction ineffective conservation plans as an alternative to the proven benefits of designated critical habitat."); Dave Owen, *A First Take on the New Critical Habitat Proposed Rules*, ENVTL. LAW PROF BLOG (May 9, 2014), http://lawprofessors.typepad.com/environmental_law/2014/05/a-first-take-on-the-new-critical-habitat-proposed-rules.html (noting that the proposed rule only addresses part of the issue with critical habitat designation).

[152] Owen, *supra* note 143.

[153] *Id*.

[154] *Id*.

[155] Letter from Noah Greenwald & William J. Snape, III, *supra* note 149, at 2.

[156] Press Release, Ctr. for Biological Diversity, *supra* note 151.

modification threshold in different conservation contexts, the regulation of cumulative harms may be a task better achieved through regulatory efforts at the state and regional level or through other mechanisms of the ESA such as recovery plans. Rather than invite years of litigation over the meaning of a threshold that could only be generally defined in a one-size-fits-all federal regulation, greater conservation gains could potentially be made through regional and ecosystem-wide partnerships better suited to addressing biologically and locationally specific cumulative impacts on species.

3. Implications for Critical Habitat and Species Conservation

The proposed change could dramatically impact the outcome of future Section 7 consultations. A broader definition of adverse modification is likely to greatly increase the number of (now very infrequent) situations when a consultation results in a finding of adverse modification but no jeopardy. Because such a finding functionally halts the proposed action, developers and state and local governments will increasingly rely on mitigation measures to reduce or compensate for damage to habitat in order to receive approval. The revision could thus usher in heightened protections for critical habitat and, by extension, endangered and threatened species.

The proposed change also has important implications for the designation of critical habitat under Section 4. Because the proposed definition lowers the threshold for a finding of adverse modification, the predicted cost of designating parcels of land deemed likely to be the subject of consultation in the near future is likely to go up.[157] With higher cost estimates, the likelihood of costs outweighing benefits increases, qualifying land to be excluded altogether from designation at the Secretary's discretion.[158] This could reduce protections for habitat, but it is unclear whether that reduction would be smaller or larger than the increase created by the expanded definition in mitigation efforts required to avoid a finding of adverse modification. Because exceptions are purely discretionary, this could vary significantly by the policy goals of the governing administration.

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[157] However, inclusion of speculative costs of future consultations being included in the assessment of costs and benefits poses significant challenges. The Services have been reluctant to include anything but administrative costs and those of projects already proposed, leading critics of the ESA to claim that its analysis of economic impacts unfairly undervalues the cost to development and growth of critical habitat designation. *See, e.g.*, Groban, *supra* note 13, at 277–83 (criticizing the critical habitat process as overly hostile to development).

[158] *See* 16 U.S.C. § 1533(b)(2) (2012) ("The Secretary may exclude any area from critical habitat if he determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat . . . .").

Whether one prefers more or less protection of habitat, this broader definition of adverse modification is superior to the status quo in its fidelity to the language of the ESA, rectitude with case law arising from Sections 4 and 7, and heightened transparency and meaningful process afforded to affected landowners and interest groups. Furthermore, increased stability of critical habitat protections could result in greater net ecosystem protection even if the balance tips towards less protection in individual cases. Stability also provides the benefit of predictability and lowered uncertainty costs to the regulated community and landowners, who currently only have the vague assurance that the Services follow the statutory language in determining whether adverse modification will occur.

Whether the net protections for habitat will increase or decrease, positive results would flow from the proposed definitional change. The Services gain credibility for taking the plain language of the ESA more seriously and for rectifying language objected to by numerous courts. The change would give environmentalists an indication that the Services are devoting more attention to the recovery prong of the ESA, while offering reassurance to the regulated community that the costs of critical habitat have a fighting chance of rising above the baseline and making more areas eligible as exceptions. The change also has the inherent merit of lawfully complying with the directive of Congress and the courts while giving guidance to agency staff on how to implement that directive.

B. Public Choice Implications: Self-Interested Bureaucrats and Reelection-Maximizing Politicians

The use of the baseline method in combination with a broader definition of adverse modification may focus greater public attention on the critical habitat provisions of the ESA. This attention could spur attempts to reform the Act in ways that are counterproductive to the goals of the environmental community currently advocating for the broader definition. The ESA is a favorite target of Republican politicians and conservative commentators, who would welcome the opportunity to highlight regulatory costs and delays brought upon by more aggressive execution of the law. Species conservation trades in the political currency of charismatic megafauna[159] and feel-good anthropocentric savior narratives, not technical legal distinctions and nondiscretionary regulations that block development to protect invertebrates

[159] *See* Petersen, *supra* note 72 at 463, 479 (claiming that the ESA was "sold on the passionate images of large breathtaking wildlife" and that its application to less appealing and smaller species, including plants, was not foreseen by lawmakers at its passage).

and diminutive fish with names like the fairy shrimp and the delta smelt. While biodiversity may appeal to voters in the abstract, no one wants their local pet project to land on the chopping block. Critical habitat poses special problems in the public choice context because of the persistent misconception that designation of an area as critical habitat effectively proscribes all development.[160]

The controversial nature of critical habitat may invite more trouble for a strong policy promoting species conservation than the provisions actually do good for the animals and plants they are intended to help. The perception of this tradeoff as a net negative for species may help to explain the historic reluctance of the Services to designate critical habitat.[161] Perhaps, rather than a weak agency captured by moneyed interests, the FWS is instead a shrewd political actor. The fact that the biologists themselves have found critical habitat of such little utility bespeaks the low tally on the benefits side, and the costs of the provisions are evinced in the delays and resource drain caused by both designation and the frequent litigation that follows.[162] On top of these costs, the threat of legislative reforms to the ESA loom.[163] While some FWS staff may not mourn revisions to the critical habitat provisions of the Act,[164] a political climate favorable to any revisions to the ESA opens the door to other, potentially more detrimental changes. It may be that while the Services find the Act far from perfect, they would prefer it as is to the amended—arguably *gutted*—version they would be likely to receive from a modern Congress motivated by constituents unwilling to bear a disproportionate burden of species conservation, whether those burdens are perceived or real.

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160 *See, e.g.*, *Critical Habitat Reform Act Pits Greens Against Business*, FOX NEWS (May 17, 2004), http://www.foxnews.com/story/2004/05/17/critical-habitat-reform-act-pits-greens-against-business (portraying areas designated as critical habitat as "not allowed to be developed" and having been "set aside"). For an account of similar misperceptions from the 1980s, see Salzman, *supra* note 18, at 335–37 (describing local opposition to critical habitat and quoting a former FWS official saying "[a]s soon as you draw a line on the map [designating critical habitat], they see it as the first step towards the feds condemning the land").

161 *See supra* Part I.C (discussing agency resistance to critical habitat designation).

162 *See, e.g.*, Keith Rizzardi, *The Endangered Species Act: An Industry of Its Own?*, ESABLAWG (July 2, 2008), http://www.esablawg.com/esalaw/ESBlawg.nsf/d6plinks/KRII-7G73BG (identifying the ESA's incentives to sue as a flaw exploited by advocacy groups on both the left and the right that diverts substantial resources from the Services).

163 *See, e.g.*, Maffly, *supra* note 11 (listing two proposed resolutions related to specific species and a proposed bill that would allow counties to adjust property tax assessments in response to lost value resulting from critical habitat designation).

164 *See* Salzman, *supra* note 18, at 339 ("None of the wildlife experts interviewed for this Article were enthusiastic to retain critical habitat . . . if given the choice . . . .").

The potential of a legal—and thus broader—definition of adverse modification to become a lightning rod for critics of the ESA may explain the Services' continued foot-dragging since *Gifford Pinchot* in promulgating one.[165] An Agency dominated by scientists and committed to conservation of fish and wildlife, the FWS wants to do its work as far from the political arena as possible. However, the legal need for the new definition compels its creation. The FWS, while perhaps legitimately concerned about the ripples created by a broader definition of adverse modification, could promulgate—and, importantly, follow in practice—a definition that meets the legal requirements established by the language of the ESA and judicial interpretations—by replacing "and" with "or"—while avoiding the even more politically contentious proposals of environmental groups to use critical habitat as a stronger tool for recovery.

Conclusion

On September 25, 2013, the FWS proposed a revision to the critical habitat of the lynx,[166] in response to a pair of court orders including that issued by Judge Freudenthal in *Wyoming State Snowmobile Association*.[167] The lynx, ever elusive, continues to seek the snowshoe hare, the prey species it has specifically evolved to hunt in the deep fluffy snow of the northern boreal forests and the patchwork alpine forests of the Northern Rockies and Cascade Mountains, without regard for the invisible boundaries of the Ninth and Tenth Circuits at the forty-fifth parallel and the one hundred and eleventh meridian. Absent finalization of the recovery-based definition of adverse modification, any critical habitat designation for the lynx—or

165 The past several years have been marked by multiple false starts and missed deadlines on this front. FWS announced their intention to propose a new adverse modification rule multiple times, and while OMB received a proposed rule in the spring of 2013 for review, the FWS remains silent. *See* Joe Nelson, *"Adverse Modification" Rulemaking on the Horizon for the Endangered Species Act?*, Endangered Species Watch (May 3, 2013), http://esawatch.org/adverse-modification-rulemaking-on-the-horizon-for-the-endangered-species-act (noting that FWS stated its intention of promulgating a new definition of adverse modification in January 2013 and OIRA published receipt of a proposed rule in April of that year).

166 Endangered and Threatened Wildlife and Plants: Revised Designation of Critical Habitat for the Contiguous U.S. Distinct Population Segment of the Canada Lynx and Revised Distinct Population Segment Boundary, 78 Fed. Reg. 59,429, 59,430 (proposed Sept. 26, 2013) (to be codified at 50 C.F.R. pt. 17); *see also* Press Release, U.S. Fish & Wildlife Serv., Revised Critical Habitat Designation for Canada Lynx Proposed Under the Endangered Species Act (Sept. 25, 2013), *available at* http://www.fws.gov/mountain-prairie/pressrel/2013/09252013_revisedCriticalHabitatLynx.php (announcing proposed revision of the rule).

167 Wyo. State Snowmobile Ass'n v. U.S. Fish & Wildlife Serv., 741 F. Supp. 2d 1245 (D. Wyo. 2010).

any other species spanning this boundary in the Greater Yellowstone Area, one of the last bastions for territory-intensive species such as the grizzly bear, the grey wolf, and the wolverine—remains vulnerable to the legal challenge that it fails to adequately honor congressional intent that the Secretary consider the economic impacts of such a designation.