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Refortifying the Endangered Species Act: Its Degradation and How to Strengthen the Nation's Most Comprehensive Law for Protecting Endangered Species, 55 UIC L. Rev. 317 (2022)

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REFORTIFYING THE ENDANGERED SPECIES ACT: ITS DEGRADATION AND HOW TO STRENGTHEN THE NATION’S MOST COMPREHENSIVE LAW FOR PROTECTING ENDANGERED SPECIES

HALEY MOLINARO*

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I. INTRODUCTION

Extreme rollbacks of environmental protections were a cornerstone of the Trump Administration.¹ His Administration impacted virtually every facet of environmental regulation, attacks ranging from greenhouse gas emissions to drilling to water pollution.² Included in these rollbacks was the lessening of protections for endangered species and their habitats.³ Both plants and animals play an important role in maintaining a functioning ecosystem.⁴ Even so, the Trump Administration chipped away at

*Haley Molinaro, Juris Doctor Candidate, 2022, UIC School of Law. Thank you to everyone who has supported me throughout law school. A special thank you to my mom and Michael, who were always there when I needed an extra boost. Thank you to Professor Jennifer Burke, who advised me in my writing process and gave me invaluable guidance. Finally, thank you to my Uncle Mike, who instilled in me a passion for protecting the environment.

1. Nadja Popovich, Livia Albeck-Ripka, & Kendra Pierre-Louis, *The Trump Administration Is Reversing 100 Environmental Rules. Here’s the Full List.*, N.Y. TIMES (July 15, 2020), www.nytimes.com/interactive/2020/climate/trump-environment-rollbacks.html [perma.cc/5Z6Z-VDLA].

2. *Id.* The Trump Administration has:

[w]eakened Obama-era fuel economy and greenhouse gas standards for passenger cars and light trucks, . . . [c]anceled a requirement for oil and gas companies to report methane emissions, . . . [r]escinded water pollution regulations for fracking on federal and Indian lands, . . . [and] [r]evoked an Obama-era executive order designed to preserve ocean, coastal and Great Lakes waters in favor of a policy focused on energy production and economic growth.

Id.

3. *Id.*

4. *Plants and Animals*, NAT. RES. CONSERVATION SERV., U.S. DEP’T OF AGRICUL., www.nrcs.usda.gov/wps/portal/nrcs/main/national/plantsanimals/ [perma.cc/WR7P-2T2D] (last visited Feb. 7, 2022). Plants and animals both play key roles in maintaining a healthy ecosystem. *Id.* “Plants provide our food,

the protections these important species had previously enjoyed.⁵

Starting in 2018, the Trump Administration used administrative rulemaking to weaken the Endangered Species Act (“ESA”),⁶ even though protecting vulnerable species and habitats is critical for our ecosystem.⁷ The Earth is currently in the middle of its sixth mass extinction event, which is a direct result of human activity.⁸ Our planet is experiencing a severe loss of biological diversity at a rate much higher than the “normal” extinction rate.⁹ Scientists state the first thing that must be done in order to prevent this crisis from worsening is to control environmentally damaging human conduct such as “deforestation, injury to and loss of agricultural land, and the loss of terrestrial and marine plant and animal species.”¹⁰ Otherwise, the damage will be irreversible and could trigger potentially catastrophic events.¹¹

This Comment will discuss the impact of the changes made to the ESA rules in August 2019. Part II provides an overview of the ESA, including the policy behind its enactment. Part III offers an analysis of the rollbacks’ effects and possible future ramifications of

materials for shelter, fuel to warm us and replenish the air we breathe. Plants provide food for animals and habitat for wildlife.” *Id.* Animals play a similar role, in providing food. *Id.* Wild animals further help in pollination, which is “important to support the web of activity in a functioning ecosystem.” *Id.*

5. Daniela Arellano, *Trump Administration Proposes Expanding Extinction Plan: Regulations Will Weaken Endangered Species Act and Worsen Biodiversity Crisis*, NAT’L RES. DEF. COUNCIL (July 31, 2020), www.nrdc.org/media/2020/200731 [perma.cc/Y9C5-8Z5X].

6. Lisa Friedman, *U.S. Significantly Weakens Endangered Species Act*, N.Y. TIMES (Aug. 12, 2019), www.nytimes.com/2019/08/12/climate/endangered-species-act-changes.html [perma.cc/U7DK-KHUE].

7. *Importance Of The Endangered Species Act*, ENDANGERED SPECIES COALITION, www.endangered.org/importance-of-the-endangered-species-act/ [perma.cc/4GKZ-HSTH] (last visited Mar. 6, 2022).

8. William J. Ripple et. al., *World Scientists’ Warning to Humanity: A Second Notice*, 67 *BIOSCIENCE* 1026, 1026 (Dec. 2017).

9. Gerardo Ceballos, Paul R. Ehrlich, & Rodolfo Dirzo, *Biological annihilation via the ongoing sixth mass extinction signaled by vertebrate population losses and declines*, 114 *PROC. OF THE NAT’L ACAD. OF SCI.* 6089, 6089 (July 10, 2017), www.pnas.org/content/114/30/E6089 [perma.cc/64LV-9MAC]. The following is one example examining the severity of this loss of biological diversity:

[C]onservatively almost 200 species of vertebrates have gone extinct in the last [one hundred] y[ears]. These represent the loss of about [two] species per year. Few realize, however, that if subjected to the estimated “background” or “normal” extinction rate prevailing in the last [two] million years, the 200 vertebrate species losses would have taken not a century, but up to 10,000 y[ears] to disappear, depending on the animal group analyzed.

Id.

10. Ripple et al., *supra* note 8, at 1026-28.

11. *Id.*

these rule changes. Part IV proposes reversing the Trump-era policies. Further, Part IV asserts that the implementation of the ESA should be delegated to the Environmental Protection Agency (“EPA”) once political influence is mitigated.¹² Finally, this Comment will propose that the EPA should impose an Impact Fee on individuals, corporations, and other entities that want to develop on vulnerable land.¹³ Alternatively, Congress should pass an ESA amendment in order to assess the Impact Fee and the money collected through these fees should be funneled back into the EPA to fund and support species conservation.¹⁴

II. BACKGROUND

This section gives a brief overview of the major sections found in the ESA.¹⁵ The section first discusses the enactment of the ESA.¹⁶ Then, this section discusses how a species receives protections under the ESA and any exceptions that may apply to those protections.¹⁷ Finally, this section explains major changes made to the ESA under the Trump Administration.¹⁸

A. Overview of the Endangered Species Act

The ESA was signed into law by President Richard Nixon in December 1973.¹⁹ The ESA is meant to “provide a framework to conserve and protect endangered and threatened species and their habitats.”²⁰ Congress declared that protecting vulnerable species

12. See discussion *infra* Part IV (explaining the overwhelming presence of politics in the EPA and how to combat it).

13. See discussion *infra* Part IV (explaining that assessing individuals a fee may deter them from developing on already vulnerable land and may aid in conservation).

14. See discussion *infra* Part IV (proposing an amendment to the ESA in lieu of Congressional delegation).

15. See discussion *infra* Section II.A (detailing major sections of the ESA).

16. See discussion *infra* Section II.A (discussing how the ESA was passed and how it is implemented).

17. See discussion *infra* Sections II.A.1, II.A.3 (discussing Section 4 listing under the ESA and Sections 7, 8, and 10 exceptions to the listing process).

18. See discussion *infra* Section II.B (discussing the changes made to the ESA with regard to economic impact analysis, the “foreseeable future” definition, threatened species protections, and critical habitat).

19. *Endangered Species Act – A History of the Endangered Species Act of 1973 – The Endangered Species Act at 35*, U.S. FISH & WILDLIFE SERV. (last updated Jan. 30, 2020), www.fws.gov/endangered/laws-policies/history-interview.html [perma.cc/W8TX-9LKQ].

20. *Endangered Species Act*, U.S. FISH & WILDLIFE SERV., www.fws.gov/international/laws-treaties-agreements/us-conservation-laws/endangered-species-act.html [perma.cc/7XNP-U4LU] (last visited Feb. 7, 2022).

such as “fish, wildlife, and plants are of esthetic, ecological, educational, historical, recreational, and scientific value to the Nation and its people.”²¹ In *Tennessee Valley Authority v. Hill*, the Supreme Court stated that, after examination of the ESA’s language and legislative history, “Congress intended endangered species to be afforded the highest of priorities.”²²

A “species” under the ESA includes “any subspecies of fish or wildlife or plants, and any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature.”²³ The ESA works in conjunction with the Convention on International Trade in Endangered Species of Wild Flora and Fauna (“CITES”) as well as other international agreements to provide protections for both domestic and international species.²⁴ With such expansive reach, the ESA is the “nation’s most effective law to protect at-risk species from extinction.”²⁵

The Secretary of the Interior and the Secretary of Commerce are the designated individuals charged with listing species for protection under the ESA.²⁶ The Secretary of the Interior has delegated its authority to implement the ESA to the U.S. Fish and Wildlife Service (“USFWS”).²⁷ The USFWS is primarily responsible for listing terrestrial and freshwater species.²⁸ The Secretary of

21. 16 U.S.C. § 1531(a)(3) (2022).

22. *Tennessee Valley Auth. v. Hill*, 437 U.S. 153, 174 (1978).

23. 16 U.S.C. § 1532(16) (2022).

24. Hannah Dale, *ESA and CITES: Avenues for the Future of Species Conservation and Legislation*, ENV’T L. INST. (Oct. 24, 2018), www.eli.org/vibrant-environment-blog/esa-and-cites-avenues-future-species-conservation-and-legislation [perma.cc/6F4P-63BY]. CITES is an international agreement that works to “ensure that international trade in specimens of wild animals and plants do[] not threaten the survival of the species.” *What is CITES?*, CONVENTION ON INT’L TRADE IN ENDANGERED SPECIES OF WILD FAUNA & FLORA, www.cites.org/eng/disc/what.php [perma.cc/Z3L7-86EK] (last visited Mar. 6, 2022). In addition to CITES, the ESA works in conjunction with:

migratory bird treaties with Canada and Mexico; the Migratory and Endangered Bird Treaty with Japan; the Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere; the International Convention for the Northwest Atlantic Fisheries; the International Convention for the High Seas Fisheries of the North Pacific Ocean. . .

16 U.S.C. § 1531 (2022).

25. *The US Endangered Species Act*, WORLD WILDLIFE FOUND., www.worldwildlife.org/pages/the-us-endangered-species-act [perma.cc/438A-UZJE] (last visited Feb. 7, 2022).

26. 16 U.S.C. § 1532(15) (2022).

27. *Interagency Policy Regarding the Role of State Agencies in ESA Activities*, U.S. FISH & WILDLIFE SERV. (last updated Feb. 18, 2016), www.fws.gov/endangered/laws-policies/policy-state-agencies.html [perma.cc/RJW7-Q2HV] [hereinafter *Interagency Policy*].

28. *Endangered Species Act – Overview*, U.S. FISH & WILDLIFE SERV. (last updated Jan. 30, 2020), www.fws.gov/endangered/laws-policies/

Commerce has similarly delegated its authority to implement the ESA to the National Marine Fisheries Service (“NMFS”).²⁹ The NMFS is primarily responsible for listing marine wildlife.³⁰

Under the ESA, a species can be classified as either “endangered” or “threatened.”³¹ According to the statute:

The term “endangered species” means any species which is in danger of extinction throughout all or a significant portion of its range other than a species of the Class Insecta determined by the Secretary to constitute a pest whose protection under the provisions of this chapter would present an overwhelming and overriding risk to man.

The term “threatened species” means any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.³²

If a species is determined to be either endangered or threatened, it is placed on the federal lists of endangered and threatened wildlife and plants and granted federal protection.³³ Some of the protections granted under the ESA to vulnerable species include: “protection from being jeopardized by federal activities; protection of critical habitat being destroyed or adversely modified . . . [and] a requirement that the [USFWS and NMFS] develop and implement recovery plans for listed species under U.S. jurisdiction. . . .”³⁴

1. Section 4 – The Listing Process under the ESA

Under Section 4 of the ESA, there are two ways for a species to become listed as either “endangered” or “threatened” and receive protections under the ESA.³⁵ First, the public can petition to have a species listed.³⁶ Within ninety days of receiving a petition, the USFWS or the NMFS (together, “the Services”) must “make a

[perma.cc/Q3BG-ZW5P].

29. *Interagency Policy*, *supra* note 27.

30. *Endangered Species Act – Overview*, *supra* note 28.

31. 16 U.S.C. § 1532 (2022).

32. *Id.*

33. *Listing and Critical Habitat – Overview*, U.S. FISH & WILDLIFE SERV. (last updated Nov. 3, 2021), www.fws.gov/endangered/what-we-do/listing-overview.html [perma.cc/UJ8N-75Z9] [hereinafter *Listing Critical Habitat*]. For example, there are several species in Illinois listed as “endangered” under the List of Endangered and Threatened Wildlife (50 C.F.R. 17.11 (2022)), including the Gray bat, Eastern Massasauga (also known as a rattlesnake), and the Hine’s emerald dragonfly. 50 C.F.R. 17.11 (2022).

34. *Listing and Critical Habitat*, *supra* note 33.

35. *Listing Species Under the Endangered Species Act*, NOAA FISHERIES (last updated Oct. 27, 2021), www.fisheries.noaa.gov/national/endangered-species-conservation/listing-species-under-endangered-species-act [perma.cc/4V3T-LM6A] [hereinafter *Listing Species*].

36. *Id.*

finding as to whether the petition presents substantial scientific or commercial information indicating that the petitioned action may be warranted.”³⁷ If the Services determine that the petition presents “substantial scientific or commercial information” such that a listing may be necessary, the governing agency must promptly commence a status review.³⁸ The Services must make certain findings within twelve months of receiving a petition, namely, whether the proposed species should be listed for protections under the ESA.³⁹

If the Services determine such a listing is warranted, they will publish their findings or a proposed rule in the Federal Register.⁴⁰ The ESA requires that the Services “provide public notice and an opportunity for public review and comment” on the publication.⁴¹ The Services must consider all information received during the public review period before making a final decision on the petition.⁴² After the review period, the Services announce a decision to either not list the species for protection or publish a Final Rule in the Federal Register, listing the species as endangered or threatened within thirty days of the announcement.⁴³

The second way a species can become listed under the ESA for protection is if the Services initiate the listing process themselves.⁴⁴ The self-initiated process follows the same steps as the public petition, but the Services are not bound by the statutory timelines of the public process.⁴⁵

When determining whether a species warrants listing under the ESA, the Services consider five factors.⁴⁶

The Services consider:

- (A) the present or threatened destruction, modification, or curtailment of its habitat or range;
- (B) overutilization for commercial, recreational, scientific, or educational purposes;

37. 16 U.S.C. § 1533(b)(3)(A) (2022).

38. *Id.* A status review is “an assessment of [the proposed species] plight, population trend, and threats.” *Listing Species Under the Endangered Species Act*, CTR. FOR BIOLOGICAL DIVERSITY, www.biologicaldiversity.org/programs/biodiversity/endangered_species_act/listing_species_under_the_endangered_species_act/index.html [perma.cc/4532-5PVS] (last visited Feb. 7, 2022).

39. 16 U.S.C. § 1533(b)(3)(B) (2022).

40. *Listing Species*, *supra* note 35.

41. 16 U.S.C. § 1533(f)(4) (2022).

42. 16 U.S.C. § 1533(f)(5) (2022).

43. *Listing and Critical Habitat – Petition Process*, U.S. FISH & WILDLIFE SERV. (last updated Feb. 3, 2021), www.fws.gov/endangered/what-we-do/listing-petition-process.html [perma.cc/6Y3A-K4RW].

44. *Listing Species*, *supra* note 35.

45. *Id.*

46. 16 U.S.C. § 1533(a)(1) (2022).

- (C) disease or predation;
- (D) the inadequacy of existing regulatory mechanisms; or
- (E) other natural or manmade factors affecting its continued existence.⁴⁷

The ESA requires that the Services make their determination “solely on the basis of the best scientific and commercial data available.”⁴⁸ In *Southwest Center for Biological Diversity v. Norton*, the United States District Court for the District of Columbia stated that this language in the ESA “prevents [the Services] from manipulating its analysis by unreasonably relying on certain sources to the exclusion of others.”⁴⁹ This interpretation further supports the statement in *Tennessee Valley Authority*, where the Supreme Court stated, “Congress viewed the value of endangered species as ‘incalculable.’”⁵⁰

2. Designating Critical Habitat

Under the ESA, critical habitat is defined as “[s]pecific areas within the geographical area occupied by the species at the time of listing that contain physical or biological features essential to conservation of the species and that may require special management considerations or protection.”⁵¹ Additionally, an area may be designated as a critical habitat if it is determined by the Services to be essential for conservation.⁵² When a species is listed for protections under the ESA, the Services are mandated to determine whether there are areas that satisfy the definition of critical habitat.⁵³

3. Endangered Species Act Protection and Permitting

At the time the ESA was passed in 1973, it was considered the “most comprehensive legislation for the preservation of endangered species ever enacted by any nation,” although the statute has built-in exceptions.⁵⁴ First, the statute allows federal agencies to apply for an exemption from ESA requirements.⁵⁵ Second, the statute also

47. *Id.*

48. 16 U.S.C. § 1533 (b)(1)(A) (2022).

49. *S.W. Ctr. For Biological Diversity v. Norton*, Civil Action No. 98-934, 2002 WL 1733618 (D.D.C. July 29, 2002).

50. *Tenn. Valley Auth.*, 437 U.S. at 188.

51. *Critical Habitat*, NOAA FISHERIES (last updated Mar. 1, 2021), www.fisheries.noaa.gov/national/endangered-species-conservation/critical-habitat [perma.cc/Y9A3-SHKG].

52. *Id.*; *Listing and Critical Habitat*, *supra* note 33.

53. *Tenn. Valley Auth.*, 437 U.S. at 180.

54. *Id.*

55. 16 U.S.C. § 1539 (2022).

allows for other individuals to apply for permits to allow “incidental takes.”⁵⁶

a. Section 7 of the ESA – “No Jeopardy” and Interagency Cooperation

Section 7 of the ESA dictates what federal agencies, other than the Services administering them, must do in order to comply with the ESA and further its initiatives.⁵⁷ Under the ESA, federal agencies are subject to the “No Jeopardy Provision,” where such agencies have a duty to ensure any actions they take are “not likely to jeopardize the continued existence of any endangered species or threatened species or . . . result in the destruction or adverse modification of habitat of such species.”⁵⁸ Federal agencies must consult with the Services if they have “reason to believe that an endangered species or a threatened species may be present in the area affected by [their] project and that implementation of such action will likely affect such species. . . .”⁵⁹ Federal agencies must also consult with the Services if the agency action “is likely to jeopardize the continued existence of any species proposed to be listed [under the ESA]. . . or result in the destruction or adverse modification of critical habitat proposed to be designated for such species.”⁶⁰

If a federal agency is advised by the Services that there may be endangered or threatened species in its proposed project area, that federal agency must prepare a biological assessment to identify endangered or threatened species in the proposed project area.⁶¹ However, a federal agency can forgo this entire process by applying for an exemption.⁶² The Endangered Species Committee is

56. 16 U.S.C. § 1539 (2022).

57. 16 U.S.C. § 1536 (2022).

58. *Id.*

59. *Id.*

60. *Id.* “Jeopardy” and “adverse modification” are not defined under the ESA but are defined in the Code of Federal Regulations. *Id.* Jeopardy is defined as:

to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species.

50 C.F.R. § 402.02 (2022).

Adverse modification is defined as:

a direct or indirect alteration that appreciably diminishes the value of critical habitat for both the survival and recovery of a listed species.

Id.

61. 16 U.S.C. § 1536(c) (2022).

62. *Id.*

comprised of seven members and makes the determination on whether a federal agency is exempt from complying with ESA guidelines.⁶³ An agency may be exempted from complying with the ESA if the Endangered Species Committee makes certain findings.⁶⁴ The process of applying for an exemption under the ESA is arduous and rarely occurs; however, an exception to protecting vulnerable species is still codified and an option federal agencies can pursue.⁶⁵

b. Sections 9 and 10 of the ESA – “Incidental Take” and Permits

Section 7 of the ESA applies to federal agencies, whereas Section 9 of the ESA applies to all other individuals.⁶⁶ Section 9 of the ESA makes it unlawful to, among other things, “take any such species within the United States or the territorial sea of the United States . . . [or] take any such species upon the high seas.”⁶⁷ The ESA defines “take” to mean “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.”⁶⁸

Section 10 provides an exception to the prohibitions detailed in Section 9.⁶⁹ The Services can issue an Incidental Take Permit to private parties who are “undertaking otherwise lawful projects that might result in the [incidental] take of an endangered or threatened species.”⁷⁰ The permits issued under Section 10 are subject to certain requirements, including minimizing and mitigating the effects of the incidental taking and submitting a proposed

63. *Id.*

64. 16 U.S.C. § 1536(h) (2022). The Services need to make the following findings:

- (i) there are no reasonable and prudent alternatives to the agency action;
- (ii) the benefits of such action clearly outweigh the benefits of alternative courses of action consistent with conserving the species or its critical habitat, and such action is in the public interest;
- (iii) the action is of regional or national significance; and
- (iv) neither the Federal agency concerned nor the exemption applicant made any irreversible or irretrievable commitment of resources.

Id.

65. Jared des Rosiers, *Exemption Process Under the Endangered Species Act: How the God Squad Works and Why*, 66 NOTRE DAME L. REV. 825, 855 (1991).

66. 16 U.S.C. § 1538 (2022).

67. *Id.*

68. 16 U.S.C. § 1532 (2022).

69. 16 U.S.C. § 1539 (2022).

70. *Endangered Species Program*, U.S. FISH & WILDLIFE SERVS. (Dec. 18, 2019), www.fws.gov/midwest/endangered/glossary/index.html [perma.cc/7H4Y-EKSA].

conservation plan with the permit application.⁷¹

B. Changes to Endangered Species Act Protections Under the Trump Administration

Several of the changes made to the ESA by the Trump Administration in 2019 seem to directly respond to indications by the Services that court precedent has extended the ESA beyond its scope.⁷² First, the phrase “without economic impact” was removed.⁷³ Second, the term “foreseeable future” was redefined.⁷⁴ Third, blanket protection for threatened species was removed.⁷⁵ Finally, the definition of “critical habitat” was changed.⁷⁶

1. Economic Impact Analysis

The previous ESA rules stated that the Services must decide whether to list a species “without reference to possible economic or other impacts of such determination.”⁷⁷ This language was consistent with the original intent of Congress, which was “to halt and reverse the trend toward species extinction, whatever the cost.”⁷⁸ The Supreme Court in *Tennessee Valley Authority* emphasized that this is not only explicitly stated in the policy section of ESA, but is further cemented throughout every section of the statute.⁷⁹

In August 2019, the Services issued a final rule to remove the phrase “without reference to possible economic or other impacts of such determination” from the ESA rules via its administrative rulemaking authority.⁸⁰ According to Wilbur Ross, the Secretary of Commerce under the Trump Administration, this change fell “squarely within the president's mandate of easing the regulatory

71. 16 U.S.C. § 1539 (2022).

72. Angela Levin et. al., *Trump Administration Finalizes Broad Changes to Endangered Species Act Regulations*, ENV'T L. & POLY MONITOR (Aug. 13, 2019), www.environmentallawandpolicy.com/2019/08/trump-administration-finalizes-broad-changes-to-endangered-species-act-regulations/ [perma.cc/YC5G-RCQD].

73. See discussion *infra* Section II.B.1 (detailing the removal of the phrase “without economic impact”).

74. See discussion *infra* Section II.B.2 (detailing the change in the “foreseeable future” definition).

75. See discussion *infra* Section II.B.3 (noting the removal of the 4(d) rule protections).

76. See discussion *infra* Section II.B.4 (describing the change to the “critical habitat” definition).

77. *Endangered and Threatened Wildlife*, *infra* note 175.

78. *Tenn. Valley Auth.*, 437 U.S. at 184.

79. *Id.*

80. *Endangered and Threatened Wildlife*, *infra* note 175.

burden on the American public.”⁸¹

2. Defining “Foreseeable Future”

The August 2019 rule changes created a framework for how the Services “will evaluate the foreseeable future when making listing decisions on threatened species under [the] ESA.”⁸² Prior to the 2019 rule changes, “foreseeable future” was undefined under the ESA and the Services made species listing decisions on a case-by-case basis.⁸³ Species are still evaluated on a case-by-case basis, but “foreseeable future” is now defined.⁸⁴ “Foreseeable future” now means “as extending in time only as far as the Services can reasonably determine that future threats and the species’ responses to those threats are ‘likely’ interpreted by the Services to mean more likely than not.”⁸⁵

3. Threatened Species Protections

Under the ESA, the USFWS had previously used the “blanket 4(d) rule” to give species designated as threatened the same protections as endangered species.⁸⁶ The 2019 changes repealed this

81. Nathan Rott, *Trump Administration Makes Major Changes To Protections For Endangered Species*, NPR (Aug. 12, 2019), www.npr.org/2019/08/12/750479370/ [perma.cc/78XW-HHZD].

82. Pervaze A. Sheikh, Erin H. Ward, & R. Eliot Crafton, *Final Rules Changing Endangered Species Act Regulations*, CONG. RSCH. SERV. (last updated Sept. 25, 2019), www.fas.org/sgp/crs/misc/IF10944.pdf [perma.cc/U8L6-META] (emphasis omitted).

83. *Safari Club Int’l v. Salazar* (In re Polar Bear Endangered Species Act Listing and Sec. 4(d) R. Litig. - MDL No. 1993), 709 F.3d 1, 15 (D.C. Cir. 2013). *See, e.g., Alaska Oil and Gas Assn. v. Pritzker*, 840 F.3d 671, 681-82 (9th Cir. 2016) (holding that the NMFS diverting from a practice of setting “2050 as the outer boundary of its ‘foreseeable future’ analysis” to a more “dynamic, species-specific and evidence-based definition” was not arbitrary and consistent with the purposes of the ESA.); *see W. Watersheds Project v. Foss*, 2005 WL 2002473, at *16 (D. Idaho Aug. 19, 2005) (where the court refused to draw a bright-line rule for the term “foreseeable future” because, for example, it could be defined differently for a sequoia tree than for the slickspot peppergrass).

84. Sheikh, Ward, & Crafton, *supra* note 82.

85. *Id.*

86. Madilyn Jarman, *Potential ESA changes could affect threatened species*, WILDLIFE SOC’Y (Apr. 18, 2019), www.wildlife.org/potential-esa-changes-could-affect-threatened-species/ [perma.cc/Z3B2-MCD2]. The blanket protections are further indication of Congress’ original intent when implementing the ESA:

The provision extends most protections offered to endangered species to threatened species, essentially treating both groups of species the same.

The U.S. Fish and Wildlife Service crafted the blanket rule in 1978 to extend to threatened species a range of protections, including prohibitions on sale and transport of listed species along with a ban on

blanket protection; it stated, “the blanket 4(d) rule will no longer apply to species listed as threatened after the rule takes effect.”⁸⁷ Based on this change, the USFWS will now create species-specific rules for threatened species listed under 4(d).⁸⁸

4. Critical Habitat

The term “critical habitat” under the ESA “includes not only geographic areas occupied by the species at the time of listing but also areas outside that geographic area if the [Services] determine[] that such additional areas are essential for the conservation of the species.”⁸⁹ The August 2019 rules state that in order for an unoccupied area to be considered essential for species conservation, the Services “must determine that there is a *reasonable certainty* [] that the area will contribute to the conservation of the species,”⁹⁰ as opposed to a *reasonable likelihood*.⁹¹ Moreover, a habitat will not obtain the “critical habitat” designation “unless habitat destruction [is] the primary threat” to the species.⁹² The changes “prohibit designation of critical habitat for species threatened by climate change” and “preclude designation of critical habitat for areas where species need to move to avoid climate impacts.”⁹³ Finally, the term “destruction or adverse modification” has been redefined to mean:

Destruction or adverse modification means a direct or indirect alteration that appreciably diminishes the value of critical habitat *as a whole* for the conservation of a listed species.⁹⁴

take of these species.

Id. The NMFS did not implement a “blanket 4(d) rule” and “and has implemented species-specific 4(d) rules for species listed as threatened.” Sheikh, Ward, & Crafton, *supra* note 82.

87. Sheikh, Ward, & Crafton, *supra* note 82.

88. *Id.*

89. *Id.*

90. 50 C.F.R. § 424 (2022) (emphasis added).

91. *Endangered and Threatened Wildlife*, *infra* note 175 at 45045.

92. Noah Greenwald, *Trump Administration Further Weakens Habitat Protection for Endangered Species*, CTR. FOR BIOLOGICAL DIVERSITY (Sept. 4, 2020), www.biologicaldiversity.org/w/news/press-releases/trump-administration-further-weakens-habitat-protection-endangered-species-2020-09-04 [perma.cc/N3VJ-T7BN].

93. Brett Hartl, *Trump Finalizes Disastrous Weakening of Endangered Species Act*, CTR. FOR BIOLOGICAL DIVERSITY (Aug. 12, 2019), www.biologicaldiversity.org/w/news/press-releases/trump-finalizes-disastrous-weakening-endangered-species-act-2019-08-12/ [perma.cc/69BW-M9RG].

94. Zack Strong, *Critical Habitat: The Next Endangered Species?*, NAT'L RES. DEF. COUNCIL (Sept. 25, 2019), www.nrdc.org/experts/zack-strong/critical-habitat-next-endangered-species [perma.cc/5YHF-T6FZ] (emphasis added).

The phrase “as a whole” was added to the definition.⁹⁵

III. ANALYSIS

Former Secretary of the Interior David L. Bernhardt and Former Secretary of Commerce Wilbur Ross under the Trump Administration stated the changes to the ESA would “improve the consultation process by clarifying the standards used to evaluate actions that may affect species.”⁹⁶ However, environmentalists assert that the revisions weakened protections for vulnerable species.⁹⁷

The rule changes significantly weakened the ESA.⁹⁸ First, the change made to the “economic impact” analysis does not comport with Congress’s legislative intent.⁹⁹ Next, the changes made to the “foreseeable future” definition may result in species receiving lesser protections.¹⁰⁰ The repeal of the blanket 4(d) rule may result in a slower listing for threatened species, which can have catastrophic consequences on those species’ surrounding ecosystem.¹⁰¹ Finally, the change to critical habitat designations may exacerbate extinction rates for susceptible species.¹⁰²

A. *Economic Impact Analysis and Tennessee Valley Authority*

1. *Costs of the Endangered Species Act*

Admittedly, there are substantial costs associated with

95. *Id.*

96. David L. Bernhardt & Wilbur Ross, *Why we’re changing the rules on endangered species*, CNN (Aug. 17, 2019), www.cnn.com/2019/08/16/opinions/endangered-species-act-opinion-bernhardt-ross/index.html [perma.cc/JHN6-CVMJ].

97. Jonathan Lambert, *Trump Administration Weakens Endangered Species Act*, NATURE (Aug. 12, 2019), www.nature.com/articles/d41586-019-02439-1 [perma.cc/BF8K-4R8K].

98. Friedman, *supra* note 6.

99. See discussion *infra* Section III.A (discussing the reason the change to the economic impact analysis was made and how such a change is inconsistent with Supreme Court precedent and legislative intent).

100. See discussion *infra* Section III.B (discussing the new definition of “foreseeable future” and how it may negatively impact threatened and endangered species).

101. See discussion *infra* Section III.C (explaining the new rules that apply to threatened species and the adverse environmental effects that may occur as a result of the new rules).

102. See discussion *infra* Section III.D (describing the changes to critical habitat designation and potential consequences).

administering the ESA.¹⁰³ There are bureaucratic processing costs, annual expenditures, and recovery costs, to name a few.¹⁰⁴ For example, in 2016, the Services reported the total cost of implementing the ESA that year was \$467 million.¹⁰⁵ Moreover, implementation of the ESA can impact certain industries more severely than others.¹⁰⁶ The ESA is alleged to have complicated the efforts of the oil and gas industries from developing land for fossil fuels and the logging industry has named the ESA as an hindrance to industry growth.¹⁰⁷ Finally, the ESA has also prevented some farmers from developing their own land.¹⁰⁸

2. *Benefits of the Endangered Species Act*

Aside from the obvious protection and conservation of various fish, wildlife, and plants, a principal benefit that the ESA provides is maintaining healthy ecosystems for humans to live.¹⁰⁹ For instance, restored forests help with the absorption of greenhouse gases.¹¹⁰ Regrowing forests could reduce carbon dioxide emissions by twenty-four to thirty percent.¹¹¹ These forests provide ample habitat for important pollinators which support the world's food supply.¹¹² Preserving habitats, and in turn the wildlife living within

103. Robert Gordon, "Whatever the Cost" of the Endangered Species Act, *It's Huge*, COMPETITIVE ENTER. INST. (Aug. 20, 2018), www.cei.org/content/whatever-cost-endangered-species-act-its-huge [perma.cc/UU65-QCRZ].

104. *Id.*

105. *Id.* In 2016, with twenty-two additional agencies reporting expenditures, the total spending of the ESA increased to about \$1.5 billion. *Id.* This includes several states reporting no expenditures for the year, which seems quite implausible. *Id.* More specifically, in 2014 for example, the USFWS reported the "median cost for preparing and publishing a ninety-day finding is \$39,276; for a twelve-month finding, \$100,690; for a proposed rule with critical habitat, \$345,000; and for a final listing rule with critical habitat, \$305,000." *Id.*

106. Justin Worland, *The Endangered Species Act Is Criticized for Its Costs. But It Generates More than \$1 Trillion a Year*, TIME (July 25, 2018), www.time.com/5347260/endangered-species-act-reform [perma.cc/52LH-4PEQ].

107. *Id.*

108. *Id.*

109. *Id.*

110. Jonah Busch & Jens Engelmann, *Tropical Forests Offer up to 24-30 Percent of Potential Climate Mitigation*, CTR. FOR GLOBAL DEV. (Nov. 4, 2014), www.cgdev.org/blog/tropical-forests-offer-24%E2%80%9330-percent-potential-climate-mitigation [perma.cc/A2GA-Q9TX]. The mitigation total is determined by "the amount of carbon dioxide emissions that would be avoided by halting tropical deforestation, plus the carbon dioxide that would be removed from the atmosphere by continuing to regrow tropical forests at the current pace." *Id.*

111. *Id.*

112. See SMITHA KRISHNAN, ET AL., THE POLLINATION SERVICES OF FORESTS: A REVIEW OF FOREST AND LANDSCAPE INTERVENTIONS TO ENHANCE THEIR

them, also supports local tourism and creates jobs.¹¹³

The ESA is also extremely effective.¹¹⁴ Since its enactment, the ESA has prevented the extinction of ninety-nine percent of the species listed for protections under the Act.¹¹⁵ A study conducted by the Center for Biological Diversity found that 110 species have recovered under the ESA.¹¹⁶

3. Why the “Economic Impact” Change Was Made

In 2018, the Services proposed that the phrase “without reference to possible economic or other impacts of such determination” be removed from the ESA rules.¹¹⁷ The Services asserted that determinations about whether to list a species for protections under the ESA would still be made solely based on biological considerations.¹¹⁸ The proposal was also made in an effort to be informative to the public.¹¹⁹ The Services stated that

CROSS-SECTORAL BENEFITS 20-21 (2020) (noting that maintenance of sufficient forest areas is necessary for pollinators to continue providing pollination services.); Worland, *supra* note 106.

113. Worland, *supra* note 106. “The National Fish and Wildlife Foundation study found that land under the purview of the Army Corps of Engineers generated \$34 billion in sales and supported hundreds of thousands of jobs.” *Id.* Moreover, there are additional benefits as a result of the ESA referred to as “ecosystem services.” *Id.* These ecosystem services are extremely valuable. *Id.* For example, “bees . . . pollinate more than 90 commercial crops in the U.S. like fruits, nuts and vegetables [and there are] birds that eat mosquitoes that would otherwise spread disease to humans.” *Id.* These are benefits that add value to the U.S. economy that go practically unnoticed. *Id.*

114. *The Endangered Species Act: A Wild Success*, CTR. FOR BIOLOGICAL DIVERSITY, www.biologicaldiversity.org/campaigns/esa_wild_success [perma.cc/XMY2-NSAD] (last visited Feb. 8, 2022).

115. *Id.*

116. *Id.* The Aleutian Canada Goose is one example of species recovering under the ESA. *Id.* The goose was listed early as endangered, in December 1973. *110 Success Stories for Endangered Species Day 2012*, ESA SUCCESS, www.esasuccess.org/report_2012.html [perma.cc/H6NV-W2LE] (last visited Feb. 8, 2022). This species of goose almost went extinct when foxes were introduced into its nesting islands. *Id.* Nearly five million acres of land was designated in order to protect the goose’s nesting habitat. *Id.* As a result, the population of the Aleutian Canada Goose “grew from 790 birds in 1975 to more than 60,000 in 2005.” *Id.* The Aleutian Canada Goose was downlisted from endangered to threatened in 1990 and was officially removed from the federal list in 2001. *Id.* Another example is the American Crocodile. *Id.* In Southern Florida, the crocodile population had dropped to below 200 as a result of hunting and overcollection of zoos and museums. *Id.* The crocodile was listed as endangered in 1975. *Id.* After receiving protections under the ESA, within eight years of its listing, the population grew to almost 1000. *Id.* As of 2005, the population had reached 2085. *Id.* In 2007, the American Crocodile was downlisted from endangered to threatened. *Id.*

117. *Endangered and Threatened Wildlife*, *infra* note 175.

118. *Id.*

119. *Id.*

regulatory impact analyses, such as the analysis in determining whether to list a species under the ESA, were “designed to inform the public and state, local, and tribal governments about the potential costs and benefits of implementation.”¹²⁰

Throughout the public comment phase, many commenters disagreed with the removal of this language.¹²¹ The Services responded to these comments by mentioning that the ESA “does not prohibit the Services from compiling economic information or presenting that information to the public, as long as such information does not influence the listing determination.”¹²² Further, the Services pointed out that Congress did not intend to “prohibit the Services from compiling information about economic impacts.”¹²³ Other commenters stated that making this economic information available to the public could aid in the planning process and did not necessarily mean the information would be used when making listing decisions.¹²⁴

4. *The “Economic Impact” Change Does Not Comport with Tennessee Valley Authority or the Legislative Intent Behind the ESA*

The change regarding the “economic impact” language contradicts Chief Justice Burger’s opinion in *Tennessee Valley Authority* and departed from Congress’s original intent in passing the ESA.¹²⁵ The *Tennessee Valley Authority v. Hill* decision was the Supreme Court’s first interpretation of the ESA.¹²⁶ On the Little Tennessee River, the Tennessee Valley Authority (“TVA”) began

120. *Id.*

121. *Endangered and Threatened Wildlife*, *infra* note 175 at 45024.

Many stated that this change violates the intent of the Act and cited the Act and its legislative history in support of their statements. Furthermore, a commenter also stated that the Services are prohibited by the Act from compiling and presenting economic data on the listing of a species as a threatened or an endangered species, citing the conference report language from the 1982 amendments to the Act: “economic considerations have no relevance to determinations regarding the status of species and the economic analysis requirements of Executive Order 12291, and such statutes as the Regulatory Flexibility Act and the Paperwork Reduction Act, will not apply to any phase of the listing process.”

Id.

122. *Endangered and Threatened Wildlife*, *infra* note 175 at 45024.

123. *Id.*

124. *Id.*

125. *Tenn. Valley Auth.*, 437 U.S. at 184. “The plain intent of Congress in enacting [the Endangered Species Act] was to halt and reverse the trend toward species extinction, *whatever the cost.*” *Id.* (emphasis added).

126. *Tenn. Valley Auth.*, 437 U.S. at 153.

constructing the Tellico Dam.¹²⁷ Local citizens and conservation groups claimed TVA violated the National Environmental Policy Act of 1969¹²⁸ and sought an injunction, which was granted.¹²⁹ The injunction remained in effect from 1967 to 1973.¹³⁰ However, a few months prior to dissolving the injunction, a previously unknown species of fish, the snail darter, was discovered in the Little Tennessee River.¹³¹ In October 1975, the snail darter was listed as an endangered species.¹³² It was also determined that the snail darter only lived in the Little Tennessee River, meaning that completing and operating the dam would “result in total destruction of the snail darter's habitat.”¹³³ As such, this area of the Little Tennessee River was declared a critical habitat under the ESA.¹³⁴

The Secretary of the Interior also issued a regulation, declaring that “all Federal agencies must take such action as is necessary to insure that actions authorized, funded, or carried out by them do not result in the *destruction or modification of this critical habitat area* [for the snail darter].”¹³⁵ TVA, of course, wanted to complete the dam, which was seventy to eighty percent completed at the time the snail darter was discovered.¹³⁶ TVA asserted that the newly enacted ESA did not apply to the dam and the District Court ruled for TVA, stating that scrapping an eighty percent completed dam project would lead to an absurd result that Congress had not intended.¹³⁷

The Sixth Circuit reversed the District Court's decision, holding that the lower court had abused its discretion in not granting an injunction “in the face of ‘a blatant statutory violation.’”¹³⁸ The Sixth Circuit rejected TVA's argument that the word “actions” in the ESA “was not intended by Congress to encompass the terminal phases of ongoing projects.”¹³⁹ They stated that there was no evidence in the legislative history and that such an interpretation would be counterintuitive to the objectives of the ESA.¹⁴⁰ TVA petitioned for certiorari, which the Supreme Court

127. *Id.* at 157.

128. 42 U.S.C. § 4321 (2022). Colloquially referred to as NEPA, this Act codified the creation of the EPA and broadly promotes efforts to prevent damage to the environment. *Id.*

129. *Id.* at 158.

130. *Id.*

131. *Id.*

132. *Id.* at 161.

133. *Id.* at 162.

134. *Id.*

135. *Id.* (emphasis added).

136. *Id.* at 165.

137. *Id.* at 166.

138. *Id.* at 168.

139. *Id.*

140. *Id.*

granted.¹⁴¹

The Supreme Court ultimately upheld the Sixth Circuit's reversal, halting the completion of the Tellico Dam.¹⁴² Chief Justice Burger wrote the *Tennessee Valley* opinion, noting that it seemed "curious" that the survival of the snail darter would require the Tellico Dam to cease construction after Congress had spent more than one hundred million dollars on it.¹⁴³ However, Chief Justice Burger stated, "the explicit provisions of the Endangered Species Act require precisely that result."¹⁴⁴ Chief Justice Burger noted that the language of the ESA was very clear and plain.¹⁴⁵ Further, he stated, "examination of the [statutory] language, history, and structure of the legislation under review here *indicates beyond doubt that Congress intended endangered species to be afforded the highest of priorities.*"¹⁴⁶

In reviewing the legislative history of the ESA, the Court recognized that Congress had passed previous legislation that attempted to conserve endangered species prior to the passing of the ESA.¹⁴⁷ However, as the Court noted, Congress was persuaded that even broader and more sweeping regulations were needed to truly preserve endangered species.¹⁴⁸ During the 1973 Congressional Hearings, Congress was informed that the rate at which species were disappearing was accelerating still, and it was not due to natural causes.¹⁴⁹ Congress further learned that humans were the cause of this acceleration.¹⁵⁰ Humans were continuing at an "ever-increasing rate to disrupt the natural ecosystem[s]."¹⁵¹ Congress took these comments seriously; one commentator noted Congress knew there was an "overriding need to devote whatever effort and resources were necessary to avoid further diminution of

141. *Id.* at 171.

142. *Id.* at 172.

143. *Id.*

144. *Id.* at 173.

145. *Id.* Chief Justice Burger stated, "One would be hard pressed to find a statutory provision whose terms were any plainer than those in [section] 7 of the Endangered Species Act." (referring to the language which affirmatively commands federal agencies "to *insure* that actions *authorized, funded, or carried out* by them do not *jeopardize* the continued existence" of an endangered species or "result in the destruction or modification of habitat of such species."). *Id.* (emphasis added).

146. *Id.* at 174 (emphasis added).

147. *Id.* at 174-75. Congress passed the Endangered Species Act of 1966. *Id.* at 175. The legislation was "was not a sweeping prohibition on the taking of endangered species, however, except on federal lands." *Id.* Congress then passed the Endangered Species Conservation Act in 1969 which broadened federal involvement in preserving endangered species. *Id.*

148. *Id.* at 176.

149. *Id.*

150. *Id.*

151. *Id.*

national and worldwide wildlife resources.”¹⁵² Chief Justice Burger further indicated that the 1973 Congressional Hearings were “replete with expressions of concern over the risk that might lie in the loss of any endangered species.”¹⁵³

Chief Justice Burger famously concluded: “The plain intent of Congress in enacting [the Endangered Species Act] was to halt and reverse the trend toward species extinction, *whatever the cost*.”¹⁵⁴ As such, the August 2019 changes to the ESA clearly violate the intent of Congress and directly contradict Chief Justice Burger’s conclusion in *Tennessee Valley Authority*. In the public comment period leading up to the August 2019 changes, the Services acknowledged that “the statute and its legislative history are clear that listing determinations must be made solely on the basis of the best scientific and commercial data available” but decided to amend the language, nonetheless.¹⁵⁵

The Services justified the changes based on the notion that the ESA does not *prohibit* compiling economic data and presenting it to the public and therefore, they had the authority to make the changes.¹⁵⁶ The Services further stated that the legislative history focused on ensuring economic information would not *affect* a listing.¹⁵⁷ The question must be posed, then, what do the Services plan on doing with this economic data? The Services assert that the removal of the language “without reference to possible economic or other impacts of such determination” was a response to a “strong and growing interest by some members of Congress and the public for increased transparency regarding the economic impacts of regulations.”¹⁵⁸ The Services can certainly *say* that was the intent behind the amendment, but during an era of extreme environmental rollbacks in the name of money, environmentalists were understandably concerned.¹⁵⁹

Dan Ashe, the Director of the USFWS under President Obama, said that one of the bedrock principles of the ESA is that the listing decisions are governed by science.¹⁶⁰ Ashe opined that it would be naïve to think the economic information would not be considered when making listing decisions after the changes to the ESA.¹⁶¹ He

152. *Id.* at 177.

153. *Id.*

154. *Id.* at 184. (emphasis added).

155. *Endangered and Threatened Wildlife, infra* note 175, at 45024.

156. *Id.*

157. *Id.*

158. *Id.*

159. Andy McGlashen, *Science Loses Ground to Economics With New Endangered Species Act Rules*, AUDUBON (Aug. 12, 2019), www.audubon.org/news/science-loses-ground-economics-new-endangered-species-act-rules [perma.cc/6MQ3-Q5C8].

160. *Id.*

161. *Id.*

said it would be “too cute . . . to pretend that the Fish and Wildlife Service should spend hundreds of thousands or millions of dollars on studies that you [are] not going to consider,” worried that the economic information would be used in response to “pro-development pressure.”¹⁶²

Moreover, not only does the *Tennessee Valley Authority* opinion confirm that implementation of the ESA is not to be disrupted in the face of financial loss, it also indicates that endangered species are to be protected *regardless* of financial loss.¹⁶³ Congress invested over one hundred million dollars in the development of the Tellico Dam and the Supreme Court still held that the protection of the snail darter’s habitat would prevail over the completion of the dam.¹⁶⁴ If a situation similar to the Tellico Dam were to happen in present day, it cannot be said for certain that the result would be the same. The practical outcome of publicizing the economic data related to species conservation will inevitably lead to pushback about the cost and could lead to fewer species gaining protections they desperately need.¹⁶⁵

B. The New “Foreseeable Future” Definition and How it Can Impact Species Protections

In 2019, the Services stated that defining the term “foreseeable future” gave “the public more transparency, provide[d] the Services with a shared regulatory meaning for this important term, and [made] it clear that both agencies w[ould] adhere to the same framework.”¹⁶⁶ The Services further asserted that the new definition would allow them to consider “all that is known about the threats acting on the species.”¹⁶⁷

Critics remain concerned with this “looser” definition of foreseeable future.¹⁶⁸ Environmentalists assert that the Services

162. *Id.*

163. See discussion *supra* Section III.A.4 (discussing how the change to “economic impact” does not comport with the legislative intent behind the ESA or Supreme Court precedent).

164. *Tenn. Valley Auth.*, 437 U.S. at 172.

165. Haley Davie & J. Baxter Oliphant, *More Republicans say stricter environmental regulations are ‘worth the cost’*, PEW RSCH. CTR. (Feb. 7, 2019), www.pewresearch.org/fact-tank/2019/02/07/more-republicans-say-stricter-environmental-regulations-are-worth-the-cost/ [perma.cc/YD6Y-CVGR]. Generally, a majority of republicans think that strict environmental regulation is not worth the cost. *Id.* Sixty percent of Republicans say strict laws have too much of a negative impact on the economy. *Id.* As such, the publication of the cost of protecting endangered species may end up doing more harm than good.

166. 50 C.F.R. § 424 (2022).

167. *Id.*

168. Jasmine Aguilera, *The Trump Administration’s Changes to the Endangered Species Act Risks Pushing More Species to Extinction*, TIME (Aug. 14, 2019), www.time.com/5651168/trump-endangered-species-act/

now have “leeway to determine the time period meant by the foreseeable future.”¹⁶⁹ Because the definition is open to more interpretation by the Services, they could very well ignore threats that will not be felt until the future.¹⁷⁰

One example is climate change.¹⁷¹ Climate change is a long, slow process and the effects are felt in the same manner; however, under the looser definition, environmentalists are concerned that regulators could ignore these slow and less immediate threats.¹⁷²

C. Potential Consequences from the Change to Threatened Species Protections

The blanket 4(d) rule that threatened species used to enjoy was repealed to better align with the NMFS approach,¹⁷³ which does not have a blanket rule.¹⁷⁴ The USFWS states there are benefits to a species-specific approach, “including removing redundant permitting requirements, facilitating implementation of beneficial conservation actions, and making better use of [the USFWS’s] limited personnel and fiscal resources by focusing prohibitions on the stressors contributing to the threatened status of the species.”¹⁷⁵ Moreover, the USFWS says new regulatory changes will allow it to capitalize on the aforementioned benefits “in tailoring the regulations to the conservation needs of the species.”¹⁷⁶

The new process will result in slower listing methods for species seeking protection.¹⁷⁷ These slower listing processes will likely make it more difficult and more expensive to prevent species

[perma.cc/6SXE-58SV] (Leah Gerber, Professor of Conservation Science and Founding Director of the Center for Biodiversity Outcomes at Arizona State University, and Thomas Lovejoy, Senior Fellow of Biodiversity and Environmental Science at the United Nations Foundation, are among those concerned with the changes.).

169. Lambert, *supra* note 97.

170. *Id.*

171. *Id.*

172. *Id.*

173. Ankur K. Tohan & Christina A. Elles, *Trump Administration Finalizes New Endangered Species Act Regulations*, K&L GATES (Oct. 10, 2019), www.klgates.com/Trump-Administration-Finalizes-New-Endangered-Species-Act-Regulations-10-10-2019 [perma.cc/6ATF-4ZLZ].

174. Sheikh, Ward, & Crafton, *supra* note 82.

175. *Endangered and Threatened Wildlife and Plants; Regulations for Listing Species and Designating Critical Habitat*, 84 Fed. Reg. 45020, 45023-24 (Aug. 27, 2019) (codified at 50 C.F.R. § 424 (2022)) [hereinafter *Endangered and Threatened Wildlife*].

176. *Id.*

177. *USFWS and NMFS Approve Changes to Implementation of Endangered Species Act*, CIVIL & ENV’T CONSULTANTS, INC. (Oct. 16, 2019), www.cecinc.com/blog/2019/10/16/usfws-and-nmfs-approve-changes-to-implementation-of-endangered-species-act/ [perma.cc/49LQ-EHAE].

population decline.¹⁷⁸ Moreover, it is unlikely that the repeal of the blanket 4(d) rule will result in substantially different protections than what the threatened species would have been receiving prior to the repeal.¹⁷⁹

Ecosystems are extremely fragile and losing just one species could create an extinction domino effect.¹⁸⁰ Each species has a role in maintaining a functioning ecosystem, and species extinction “can prompt cascading effects through the food chain (a ‘trophic cascade’), impacting other species and the ecosystem itself.”¹⁸¹

A well-known example of trophic cascading is the wolf population in Yellowstone National Park.¹⁸² In 1930, wolves in the park were hunted nearly to the point of extinction.¹⁸³ Throughout the next few decades, a park employee noticed an increase of deer in the park, which resulted in the deer eating all the foliage.¹⁸⁴ As such, the thriving deer destroyed the habitat birds used to live in.¹⁸⁵ Mosquitos then began multiplying, and the riverbanks that were once ripe with plant life had become susceptible to erosion.¹⁸⁶ When the wolves of Yellowstone were reintroduced in 1995, the ecosystem

178. “*I am shocked by the proposed removal of the blanket section 4(d) rule*”, ENV’T DEF. FUND (April 6, 2018), edf.org/media/i-am-shocked-proposed-removal-blanket-section-4d-rule [perma.cc/E3R6-URMJ].

179. *Id.* The statement, released by Eric Holst, Associate Vice President of Working Lands at Environmental Defense Fund, further stated:

The blanket 4(d) rule offers an efficient means of providing safeguards to species that are in need of support, with built-in flexibility to create special rules exempting certain activities from restrictions when appropriate

[Repealing the blanket 4(d) rule] would also stifle collaborative conservation efforts that have successfully kept many species off the endangered species list.

Id.

180. Renee Cho, *Why Endangered Species Matter*, STATE OF THE PLANET (Mar. 26, 2019), www.blogs.ei.columbia.edu/2019/03/26/endangered-species-matter/ [perma.cc/XKR5-DDXC].

181. *Id.* For example, humans “eliminating” apex predators can have dire consequences on the food chain. *Id.* One study showed that “[u]nanticipated changes in the distribution and abundance of key species [resulted in] ecological surprises . . . [including] pandemics, population collapses of species we value and eruptions of those we do not, major shifts in ecosystem states, and losses of diverse ecosystem services.” James A. Estes, et. al., *Trophic Downgrading of Planet Earth*, 333 *SCIENCE* 301, 306 (July 15, 2011). Trophic cascading has moreover become more widespread and have “been documented in all of the world’s major biomes,” indicating the problem is becoming more severe. *Id.*

182. *Id.*

183. *Id.*

184. *Trophic Cascade*, MISSION: WOLF, www.missionwolf.org/trophic-cascade/ [perma.cc/X3RX-WHWN] (last visited Feb. 8, 2022).

185. Cho, *supra* note 180.

186. *Id.*

started to correct its course.¹⁸⁷ The removal of one species can trigger a proliferation of negative consequences on its surrounding ecosystem. It is vitally important that every vulnerable species receives as much protection as practicable in order to maintain a functioning ecosystem.¹⁸⁸

D. Why the Changes to Critical Habitat Were Made and the Environmental Concerns Resulting from Those Changes

Similar to the threatened species protection change, the Services assert the changes made to the critical habitat designation were “clearer, more transparent, and more straightforward.”¹⁸⁹ Conservationists voiced major concern as a result of the Trump Administration’s changes to the ESA rules. Rebecca Riley, Legal Director for the Nature Program at the Natural Resources Defense Council (“NRDC”) stated “[t]his weakening of the ESA will have dire consequences for wildlife already struggling to survive.”¹⁹⁰ The rules make it harder to protect habitats necessary for species recovery.¹⁹¹

Habitat destruction can be defined as “the elimination or alteration of the conditions necessary for animals and plants to survive.”¹⁹² Damage to a habitat, in addition to harming the species that depend on it for survival, has farther reaching consequences.¹⁹³

Habitat loss is cited as the likely greatest extinction threat species face today.¹⁹⁴ When a species’ home is destroyed, that population starts to decline rapidly and the primary effect of such a loss is a move toward extinction.¹⁹⁵ For example, palm oil plantations in countries like Africa and Asia have destroyed a large portion of habitat for animals like orangutans, tigers, and

187. *Id.*

188. *Plants and Animals, supra* note 4.

189. *Endangered and Threatened Wildlife, supra* note 175, at 45040.

190. Arellano, *supra* note 5.

191. *Id.*

192. *The Global Impacts of Habitat Destruction*, NAT’L GEOGRAPHIC (Sept. 25, 2019), blog.nationalgeographic.org/2019/09/25/the-global-impacts-of-habitat-destruction/ [perma.cc/R6JR-88JU].

193. *Id.*

194. See Adam J. Eichenwald, Michael J. Evans, & Jacob W. Malcom, *US imperiled species are most vulnerable to habitat loss on private lands*, 18 FRONTIERS IN ECOLOGY & THE ENV’T 439, 439 (Mar. 2, 2020) (noting that habitat loss is “the primary driver of global biodiversity loss” and preventing this loss is “particularly important for the conservation of imperiled species”).

195. *Losing their homes because of the growing needs of humans*, WORLD WILDLIFE FOUND., www.worldwildlife.org/discover/our_focus/wildlife_practice/problems/habitat_loss_degradation/ [perma.cc/RV72-A7P5] (last visited Feb. 8, 2022).

elephants.¹⁹⁶ Consequently, these species have experienced a rapid decrease in sources of food and shelter.¹⁹⁷ Species populations have quickly declined as a result of these plantations and other deforestation activities.¹⁹⁸ Habitat loss stemming from palm oil production is just one example of human activity that negatively impacts on biodiversity.

Approximately eighty percent of known terrestrial plant and animal species live in forests.¹⁹⁹ It is estimated that fifteen billion trees are cut down every year.²⁰⁰ Not only does deforestation harm wildlife, it “reduces the ability of forests to provide the critical benefit of absorbing carbon, which helps to mitigate the effects of climate change.”²⁰¹ Habitat loss, similar to trophic cascading, can have a domino effect. Coastal lands, which provide an area for marine species to breed, are being dredged and filled, which leads to “species [being] . . . less able to birth and support their young.”²⁰²

The change to the ESA rule in defining “destruction or adverse modification” has dangerous implications.²⁰³ Hypothetically, the Services could allow for activities that may incrementally damage a habitat, so long as the activities do not damage the habitat “as a whole.”²⁰⁴ Environmentalists assert that this change “disregards the cumulative ‘death-by-a-thousand-cuts’ process that is the most common way wildlife declines toward extinction.”²⁰⁵

There are clear consequences to biodiversity and in turn to humans, if critical habitats are not afforded the most complete protections.²⁰⁶ The ESA was described by Chief Justice Warren

196. *Id.*

197. *Id.*

198. See Nick Kilvert, *Sumatran tiger extinction risk worse than thought as palm oil deforestation marches on*, ABC NEWS (Dec. 12, 2017), www.abc.net.au/news/science/2017-12-06/sumatran-tiger-numbers-worse-as-palm-oil-deforestation-continues/9042752 [perma.cc/PH7T-LU32] (stating that the “risk of extinction of the Sumatran tiger. . . is greater than ever” as a result of forests being cleared for palm oil companies); see also Reuters Staff, *Orangutan numbers drop as much as 30% in Malaysian palm oil estate forests – WWF*, REUTERS (July 17, 2019), www.reuters.com/article/us-malaysia-wildlife-orangutan/orangutan-numbers-drop-as-much-as-30-in-malaysian-palm-oil-estate-forests-wwf-idUSKCN1UC2BF [perma.cc/PZ4N-H7N9] (noting that the orangutan populations in Malaysia fell within oil palm landscapes, while other orangutan populations stabilized in other forests).

199. *Forest Habitat*, WORLD WILDLIFE FUND, www.worldwildlife.org/habitats/forest-habitat/ [perma.cc/KK4A-DS6P] (last visited Feb. 8, 2022).

200. T. W. Crowther et. al., *Mapping tree density at a global scale*, 525 NATURE 201, 203 (Sept. 2, 2015).

201. *The Global Impacts of Habitat Destruction*, *supra* note 192.

202. *Id.*

203. Strong, *supra* note 94.

204. *Id.*

205. Hartl, *supra* note 93.

206. Andrew Krososky, *Why Endangered Species Are Important*,

Burger as “the most comprehensive legislation for the preservation of endangered species ever enacted by any nation,” a label that the Trump Administration seemed adamant on eradicating.²⁰⁷

IV. PROPOSAL

The first step toward maintaining a healthy ecosystem is to reverse the Trump-era changes made regarding environmental regulation. The regulations enacted by the Trump Administration actively harm the environment and need to change urgently.²⁰⁸ Next, the Secretary of the Interior and the Secretary of Commerce should delegate the implementation of the ESA to an independent agency like the EPA.²⁰⁹ The EPA would need to be insulated as much as possible from political influence before this implementation is delegated.²¹⁰ Finally, in order to deter people from developing on lands that could cause harm to the environment, the EPA, or alternatively Congress by way of amendment, should impose an “Impact Fee” on individuals, corporations, and other entities that want to build on vulnerable land or land that houses vulnerable species.²¹¹

A. Reverse Trump-Era Policies

The first, most obvious thing that can be done to prevent any potential damage to vulnerable species is to reverse virtually every Trump-era change made to the ESA rules. Consequences flowing from the changes are already becoming apparent.²¹² For example,

GREENMATTERS, www.greenmatters.com/p/why-endangered-species-matter [perma.cc/67GG-Z7C6] (last updated Nov. 3, 2020). Ecosystems are extremely delicate and can be negatively impacted by things as simple as pollution or something like habitat destruction. *Id.* Animal habitats are disappearing because of things like “logging, farming, and human population growth.” *Id.* Animals becoming extinct will have an entire effect on the food chain will put “the entire ecosystem is in jeopardy.” *Id.* See also discussion *infra* Section III.A.3 (discussing trophic cascading and further effects if vulnerable species and lands are not protected).

207. *Tenn. Valley Auth.*, 437 U.S. at 180.

208. See discussion *infra* Section IV.A (discussing how and why the Trump-era policies need to be reversed).

209. See discussion *infra* Section IV.B.2 (discussing how to delegate ESA implementation to the EPA).

210. See discussion *infra* Section IV.B.1 (explaining a possible way to mitigate political influence in the ESA).

211. See discussion *infra* Section IV.C (proposing a possible Development Tax after Congress delegates some of its taxing power to the ESA and discussing potential problems with such delegation).

212. Dana Nuccitelli, *Most Trump environmental rollbacks will take years to be reversed*, YALE CLIMATE CONNECTIONS (June 3, 2020), www.yaleclimateconnections.org/2020/06/most-trump-environmental-

Bernhardt, former Secretary of the Interior as well as former oil and gas industry lobbyist, announced in October 2020 that the gray wolf would no longer be listed for ESA protections after being protected for more than forty-five years.²¹³ Environmentalists asserted that this move “suggest[ed] a shift away from biologically informed policy” and shows that the ESA has been applied inconsistently in recent years, undermining the purpose Congress intended for the ESA.²¹⁴ Bernhardt and the Trump Administration asserted that the removal of species and downlisting was a “win,” and a sign of conservation progress.²¹⁵ Scientific peer reviewers, however, found “significant shortcomings in the 2019 [gray wolf] delisting proposal.”²¹⁶ They asserted the minimalist interpretation advanced in the gray wolf delisting “represent[s] a significant scaling back of recovery efforts for widely distributed species that would increase both short-term vulnerability and long-term loss of adaptive potential.”²¹⁷ In an effort to remedy this decision, in February 2022, Judge Jeffrey White of the U.S. District Court for the Northern District of California ordered the USFWS “to resume recovery efforts for gray wolves and restored their designation as a species threatened with extinction under the [ESA].”²¹⁸ The judge determined that the USFWS “had not adequately considered

rollbacks-will-take-years-to-be-reversed/ [perma.cc/TL54-7GM6]. For example, the United States already “has among the weakest vehicle fuel efficiency standards in the world.” *Id.* The U.S. Corporate Average Fuel Efficiency (“CAFE”) was passed in 1975 in order to reduce the U.S.’s reliance on foreign oil sources. *Id.* The Trump administration froze CAFE standards and ignored the EPA’s warnings. *Id.* Another example is the Trump administration replacing the Clean Power Plan with the Affordable Clean Energy rule (“ACE”). *Id.* By replacing the Clean Power Plan with the ACE, “tackling power sector emissions is expected to be a lengthy and more difficult process for a new Democratic administration than transportation emissions.” *Id.*

213. Sophie Lewis, *Trump administration ends endangered species protections for wolves as conservationists threaten lawsuits*, CBS NEWS (Oct. 30, 2020), www.cbsnews.com/news/gray-wolf-removed-endangered-species-act [perma.cc/MM6W-7TA9].

214. Carlos Carroll et. al., *Wolf Delisting Challenges Demonstrate Need for an Improved Framework for Conserving Intraspecific Variation under the Endangered Species Act*, BIOSCIENCE (Oct. 29, 2020) www.academic.oup.com/bioscience/article/71/1/73/5941853 [perma.cc/UX2C-WNLD].

215. Lewis, *supra* note 213.

216. Carroll, *supra* note 214.

217. Carroll, *supra* note 214. “Adaptive potential is defined as the genetic variance needed to respond to selection and can be assessed either on adaptive traits or fitness.” Pierrede Villemereuil et. al., *Little Adaptive Potential in a Threatened Passerine Bird*, 29 CURRENT BIOLOGY 889, 889 (Mar. 4, 2019).

218. Ann McCreary, *Gray wolves back on federal endangered species list*, METHOW VALLEY NEWS (Feb. 16, 2022) methowvalleynews.com/2022/02/16/gray-wolves-back-on-federal-endangered-species-list/ [perma.cc/3S8E-B66R].

threats to the survival of the gray wolf species”²¹⁹ and ultimately reinstated federal protections for wolves in forty-four states.²²⁰

While the relisting of the gray wolves is a step in the right direction, all of the August 2019 rule changes implemented by the Services need to be reversed. Endangered and threatened species should not be stripped of protections by the entity that is supposed to protect them.²²¹ The Biden Administration should move quickly to repeal and replace these changes.²²² While lawsuits have been filed, it is unlikely they will get far.²²³ Sweeping changes are needed now.

B. Depoliticize the EPA and Delegate ESA Implementation to the EPA

1. Mitigate Political Influence Interfering with the EPA

The Union of Concerned Scientists (“UCS”) is a nonprofit organization founded in 1969 by the Massachusetts Institute of Technology and works to expose political interference and advocates

219. *Id.*

220. *Gray Wolves Regain Federal Endangered Species Act Protections*, EARTHJUSTICE (Feb. 10, 2022) www.earthjustice.org/news/press/2022/gray-wolves-regain-federal-endangered-species-act-protections [perma.cc/NZ8H-KSNS].

221. Friedman, *supra* note 6.

222. Shannon Osaka & Nathanael Johnson, *Trump gutted environmental protections. How quickly can Biden restore them?*, GRIST (Nov. 17, 2020), www.grist.org/politics/trump-gutted-environmental-protections-in-rollback-how-quickly-can-biden-restore-them/ [perma.cc/F6Q6-6RS3]. In order to effectively repeal the rules, they need to be replaced with different rules. *Id.* The next administration has the legal burden of providing justification why the rules under the Trump administration need to be replaced, so the process becomes more challenging than simply replacing all the Trump-era rules with revised rules. *Id.*

223. *Lawsuit to Protect the Endangered Species Act*, ANIMAL LEGAL DEF. FUND (last updated Oct. 21, 2010), www.aldf.org/case/lawsuit-to-protect-the-endangered-species-act [perma.cc/VHW6-Z6HN]. The reason these lawsuits are unlikely to effect change is because the Supreme Court has allotted agencies like the Department of the Interior and the Department of Commerce extraordinary deference in interpreting their own statutes. See *Chevron, U.S.A., Inc. v. Nat. Resources Def. Council, Inc.*, 467 U.S. 837, 844 (1984) (where the Court stated, “that considerable weight should be accorded to an executive department’s construction of a statutory scheme it is entrusted to administer.”). The Department of the Interior and the Department of Commerce, and the Services by delegation, have been entrusted by Congress with administering the ESA. 16 U.S.C. § 1531 (2022). As such, courts must defer, under *Chevron*, to an administering agency’s interpretation of a statutory ambiguity that deals with the scope of an agency’s statutory authority. *City of Arlington, Tex. v. F.C.C.*, 569 U.S. 290, 296-97 (2013). Any lawsuit lodged against these agencies will likely fail under the *Chevron* test. *Chevron, U.S.A., Inc.*, 467 U.S. at 837.

for evidence-based policies.²²⁴ In 2008, UCS released a report titled *Interference at the EPA: Science and Politics at the U.S. Environmental Protection Agency* which detailed various instances of political interference at the EPA.²²⁵ Over five thousand EPA scientists were sent a questionnaire that asked them about political interference in their work.²²⁶ According to the report, sixty percent of respondents said they “personally experienced at least one incident of political interference during the past five years.”²²⁷ The scientists further indicated that “political interference arose from both internal and external sources.”²²⁸

The EPA, just like any other federal agency, is a victim of political influence. The EPA was created in December 1970 by President Nixon to establish and enforce “environmental protection standards consistent with national environmental goal[s].”²²⁹ In proposing the creation of the EPA, Nixon stated that there are compelling arguments in creating the EPA as an independent agency, one argument being that “arresting environmental deterioration is of great importance to the quality of life in our country and the world.”²³⁰

a. The Head of the EPA Should be Selected by a Board of Individuals

The EPA is run by an administrator, who is appointed by the president and approved by the Senate, much like cabinet positions.²³¹ Compare the EPA to another agency like the United

224. *History*, UNION OF CONCERNED SCIENTISTS, www.ucsusa.org/about/history (last visited Nov. 20, 2020); *Keeping Public Science Strong*, UNION OF CONCERNED SCIENTISTS, www.ucsusa.org/science-democracy/independent-science (last visited Nov. 20, 2020).

225. *Interference at the EPA: Science and Politics at the U.S. Environmental Protection Agency*, UNION OF CONCERNED SCIENTISTS (Apr. 24, 2008), www.ucsusa.org/sites/default/files/2019-09/interference-at-the-epa.pdf [perma.cc/T5NT-9CE7].

226. *Id.*

227. *Id.* The UCS worked in conjunction with the Center for Survey Statistics and Methodology at Iowa State University in distributing the forty-four-question survey. *Id.* According to the UCS, “percentages reflect the share of respondents who answered a specific question.” *Id.*

228. *Id.*

229. *Special Message to the Congress About Reorganization Plans To Establish the Environmental Protection Agency and the National Oceanic and Atmospheric Administration*, 1 PUB. PAPERS 578, 582 (July 9, 1970) [hereinafter *Plans To Establish the EPA*].

230. *Id.* Independent agencies are oft cited as agencies that are insulated from political interference. *Independent federal agency*, BALLOTPEDIA, www.ballotpedia.org/Independent_federal_agency [perma.cc/6G9V-LNHR] (last visited Mar. 6, 2022).

231. *Leadership*, U.S. POSTAL SERV., www.about.usps.com/who/leadership/board-governors/ [perma.cc/GM2C-RA6V]

States Postal Service (“USPS”), which is structured differently. The USPS is run by the Postmaster General, who is appointed by a Board of Governors.²³² The Board of Governors, comparable to a typical board of directors, is usually made up of nine governors, where no more than “five of the nine may belong to the same political party.”²³³ The governors are appointed by the president with the consent of the Senate and are supposed to “represent the public interest generally and cannot be representatives of special interests.”²³⁴ This Board of Governors selects the Postmaster General.²³⁵

A similar board could be employed within the EPA. The USPS attempts to insulate itself from political influence by only allowing five of the given nine members to be affiliated with the same political party.²³⁶ This works to ensure that no one party exerts power over the other. The board could be comprised of scientists and scholars, appointed by the president with the consent of the Senate. The scientists may be chosen from a list of reputable organizations and meet certain criteria to be considered for a board position, such as years of experience in a given field or number of publications.

While it is virtually impossible to insulate a federal agency completely from political influence, there are certainly ways in which that influence can be mitigated. One way, exemplified by the USPS structure, is to have multiple individuals making the decision about who runs an agency, as opposed to the way in which the EPA operates, where one individual, the president, decides who is in charge.²³⁷

The USPS has built a different model of independence that has endured and, while not perfect, has generally not been a point of political contention.²³⁸ The first step in advancing Chief Justice Burger’s opinion in *Tennessee Valley Authority*²³⁹ and the overall purpose of the ESA, is removing politics from the EPA. The EPA

(last visited Feb. 8, 2022).

232. *Id.*

233. *Id.*

234. *Id.*

235. *Id.*

236. *Id.*

237. *Id.*; *Plans To Establish the EPA*, *supra* note 229.

238. *Maloney Introduces Bill to Counter President’s Politicization of the Postal Service*, HOUSE COMM. ON OVERSIGHT & REFORM (Aug. 25, 2020), oversight.house.gov/news/press-releases/maloney-introduces-bill-to-counter-president-s-politicization-of-the-postal [perma.cc/WN6T-3UPR]. In 1970, President Richard Nixon signed the Postal Reorganization Act “to reform the Postal Service and ensure that it is ‘an independent establishment of the executive branch of the Government of the United States.’” U.S. Representative Carolyn Maloney said that “President Trump has turned that law on its head” and that Trump is “fundamentally degrading the longstanding independence of our core constitutional functions [such as the United States Postal Service].” *Id.*

239. *Tenn. Valley Auth.*, 437 U.S. at 156.

would benefit from employing a board similar to that of the USPS. Since 2009, there have been six different administrators heading the EPA.²⁴⁰ It seems the original mission of efficiency has taken a backseat to the game of politics, and allowing a board made up of scientists with little to gain in such a game may allow the EPA to function more efficiently and effectively.²⁴¹

b. The Science Advisory Board Should be Used More Effectively in Order to Correspond With the EPA's Purpose

The Science Advisory Board (“SAB”) is an already-existing federal advisory committee that consists of non-EPA scientists who: “review the quality and relevance of the scientific and technical information being used by the EPA or proposed as the basis for Agency regulations; review EPA research programs and plans; provide science advice as requested by the EPA Administrator, and advise the agency on broad scientific matters.”²⁴² The EPA Administrator, selected by the president, appoints the members of the SAB.²⁴³ The SAB merely acts as a consultation group that

240. Ledyard King, *Andrew Wheeler, who's been leading Trump deregulatory charge, confirmed by Senate as EPA chief*, USA TODAY (Feb. 28, 2019), www.usatoday.com/story/news/politics/2019/02/28/trumps-new-epa-chief-andrew-wheeler-who-replaced-scott-pruitt/3014406002/ [perma.cc/X379-XCMC]; Coral Davenport, *Senate Confirms Scott Pruitt as E.P.A. Head*, N.Y. TIMES (Feb. 17, 2017), www.nytimes.com/2017/02/17/us/politics/scott-pruitt-environmental-protection-agency.html [perma.cc/34FE-QG93]; *EPA's Acting Administrator*, U.S. ENV'T PROT. AGENCY, 19january2017snapshot.epa.gov/aboutepa/epas-acting-administrator_.html [perma.cc/GN4T-R9CW] (last visited Nov. 20, 2020); *Administrator Gina McCarthy, 2013-2017*, U.S. ENV'T PROT. AGENCY, archive.epa.gov/epa/history/administrator-gina-mccarthy-2013-2017.html [perma.cc/6H2P-HMRC] (last visited Feb. 8, 2022); *EPA Acting Administrator Bob Perciasepe to visit Atlanta, Discuss Administration's Commitment to STEM Education and Green Jobs*, U.S. ENV'T PROT. AGENCY (Feb. 22, 2013), archive.epa.gov/epapages/newsroom_archive/newsreleases/b6923a4b2820950185257b1a0054e10b.html [perma.cc/WF92-MR9]; *Biography of Lisa P. Jackson*, U.S. ENV'T PROT. AGENCY (last updated Sept. 12, 2016), archive.epa.gov/epa/aboutepa/biography-lisa-p-jackson.html [perma.cc/GFX9-UE2K].

241. Joel Mintz, *Is It Time To Depoliticize EPA's Regional Administrators?*, CTR. FOR PROGRESSIVE REFORM (Nov. 20, 2009), www.progressivereform.org/cpr-blog/is-it-time-to-depoliticize-epa-s-regional-administrators/ [perma.cc/294E-HU2V]. “Depoliticizing EPA's regional administrators will certainly not solve all of EPA's internal woes . . . [but] it seems an approach well worth trying.” *Id.*

242. *About the Science Advisory Board*, U.S. ENV'T PROT. AGENCY, sab.epa.gov/ords/sab/f?p=114:2:20342310976291 [perma.cc/P5EY-HD6W] (last visited Feb. 17, 2022).

243. *Membership and Nomination Process*, U.S. ENV'T PROT. AGENCY, sab.epa.gov/ords/sab/f?p=114:7:20342310976291 [perma.cc/H4GD-R3CX] (last

provides “expert advice” to the EPA.²⁴⁴ The EPA does not have to follow the advice of the SAB.²⁴⁵ As such, there is only so much that can be done when the EPA is not bound by the findings of its own scientific advisers. In order for the EPA to make decisions based on science, the SAB should hold more authority when it comes to EPA rules and decisions. As of now, the EPA opposing SAB advice can merely serve as the basis for undermining that decision in court.²⁴⁶

Additionally, instead of having the SAB comprised solely of scientists selected by the EPA administrator, the SAB should be a combination of independent, nonprofit scientists. The SAB should be more than just individuals indirectly selected by the administration in power.²⁴⁷ The UCS is one organization that could have a presence on the board, as well as agencies like the American Association for the Advancement of Science (“AAAS”)²⁴⁸ and the Science History Institute (“SHI”).²⁴⁹ The AAAS is a nonprofit organization that aims to “advance science, engineering, and innovation throughout the world for the benefit of all people.”²⁵⁰ The AAAS further promotes “the integrity of science” and “the responsible use of science in public policy.”²⁵¹ The SHI is another nonprofit organization that aims to promote and preserve “scientific and technological culture” and the “vital role[] that science and technology have played in shaping our world.”²⁵²

visited Feb. 17, 2022).

244. *Advisory Activities*, U.S. ENV’T PROT. AGENCY, www.yosemite.epa.gov/sab/sabproduct.nsf/WebBOARD/advisoryprojects?OpenDocument (last updated Sept. 15, 2015).

245. Sean Reilly, et. al., *EPA science advisers slammed the agency for ignoring science. Here is what they said*, SCI. (Jan. 2, 2020), www.sciencemag.org/news/2020/01/epa-science-advisers-slammed-agency-ignoring-science-here-what-they-said [perma.cc/3MD3-HZB9]. The SAB “found major shortcomings” regarding some of the EPA’s implemented rollbacks under the direction of Trump. *Id.*

246. Coral Davenport & Lisa Friedman, *Science Panel Staffed With Trump Appointees Says E.P.A. Rollbacks Lack Scientific Rigor*, N.Y. TIMES, www.nytimes.com/2019/12/31/climate/epa-science-panel-trump.html [perma.cc/DWC3-EURG] (last updated Oct. 7, 2020).

247. *EPA’s Administrator*, U.S. ENV’T PROT. AGENCY, www.epa.gov/50/epas-administrators [perma.cc/5YUH-RF9G] (last visited Feb. 8, 2022). The EPA Administrator is a cabinet position, meaning they are selected by the president and confirmed by the Senate. *Id.* The EPA Administrator is responsible for carrying out the goals of the administration that selected them. Sarah Dowdey, *How the EPA Works*, HOWSTUFFWORKS, www.people.howstuffworks.com/epa.htm [perma.cc/H7XQ-QJNY] (last visited Feb. 8, 2022).

248. *Mission and History*, *infra* note 250.

249. *About Us*, *infra* note 252.

250. *Mission and History*, AM. ASS’N FOR THE ADVANCEMENT OF SCI., www.aaas.org/mission [perma.cc/C8ZQ-JFKH] (last visited Feb. 8, 2022).

251. *Id.*

252. *About Us*, SCI. HISTORY INST., www.sciencehistory.org/about-us [perma.cc/B455-95FR] (last visited Feb. 8, 2022).

The EPA is supposed to promote and protect public health and preserve the environment.²⁵³ President Nixon said the EPA was meant to ensure that “the nation's environmental and resource protection activities are so organized as to maximize both the effective coordination of all and the effective functioning of each.”²⁵⁴ Varying the members of the SAB and giving the SAB a greater role in EPA administration will allow the EPA to function as it was originally intended.

2. *The Secretary of the Interior and the Secretary of Commerce Should Delegate Their Power to Implement the ESA to the EPA*

The Secretary of the Interior and the Secretary of Commerce designated their ESA implementation responsibility to the Services.²⁵⁵ The Secretary of the Interior and the Secretary of Commerce are both cabinet positions appointed by the president.²⁵⁶ Both of the Services operate under the Department of the Interior and the Department of Commerce, respectively, and both departments are inherently political.²⁵⁷ As a result, the rulemaking process these agencies rely on naturally changes based on who occupies the White House.²⁵⁸ However, ideally, the implementation of the ESA should not change drastically from administration to administration, because the overall purpose of the ESA remains stagnant.²⁵⁹ Chief Justice Burger said the purpose of the ESA was “to halt and reverse the trend toward species extinction, whatever the cost.”²⁶⁰ That begs the question, then, why does a statute like the ESA, with the sole purpose to provide for the “conservation of such endangered species and threatened species” need to change every time there is a new president?²⁶¹ The language of the ESA, as Chief Justice Burger noted, is clear and unequivocal, “Congress intended endangered species to be afforded the highest of priorities.”²⁶² The ESA, if implemented by the EPA as structured above, could follow science, as opposed to constantly changing on

253. *Our Mission and What We Do*, U.S. ENV'T PROT. AGENCY, www.epa.gov/aboutepa/our-mission-and-what-we-do [perma.cc/MQP7-3JZ6] (last visited Feb. 8, 2022).

254. *Plans To Establish the EPA*, *supra* note 229.

255. 16 U.S.C. § 1532(15) (2022); *Interagency Policy*, *supra* note 27.

256. *The Executive Branch*, WHITE HOUSE, www.whitehouse.gov/about-the-white-house/the-executive-branch/ [perma.cc/TWL5-36U5] (last visited Feb. 8, 2022).

257. 16 U.S.C. § 1532(15) (2022); *Interagency Policy*, *supra* note 27.

258. 5 U.S.C. § 553 (2021).

259. *Tenn. Valley Auth.*, 437 U.S. at 172.

260. *Id.* at 154.

261. 16 U.S.C. § 1531 (2022).

262. *Tenn. Valley Auth.*, 437 U.S. at 171.

political whims. As such, the EPA should oversee implementing the ESA, as the EPA's sole purpose is to protect human health and the environment, which falls directly in line with the purpose of the ESA.²⁶³

Delegating implementation of the ESA to the EPA may not require a statutory change. Instead, the Secretary of the Interior and the Secretary of Commerce would merely need to redirect their delegation to the EPA. The EPA, Secretary of the Interior, and Secretary of Commerce would need to agree upon an interagency transfer of adjudication of authority. For example, the Department of Treasury delegated its authority to “adjudicate the legality of pharmaceutical imports and exports” to the U.S. Customs and Border Patrol (“CBP”), which is an agency within the Department of Homeland Security.²⁶⁴ The Department of Treasury “delegated both its adjudicative and enforcement authority” merely by interagency agreement.²⁶⁵ The CBP, in turn, delegated this authority from the Department of Treasury to the U.S. Food and Drug Administration (“FDA”).²⁶⁶ The FDA is currently in charge of adjudicating claims that involve the admission of illegally imported or exported drugs, although the Department of Treasury was initially given this statutory authority.²⁶⁷

This transfer was made with the idea that the FDA has some expertise and should have some responsibility in “the protection of the U.S. public regarding foods, drugs, devices, electronic products, cosmetics, and tobacco products.”²⁶⁸ This logic can be applied to the EPA and the ESA. The EPA was specifically formed to deal with environmental issues and to implement environmental laws.²⁶⁹ The EPA is undoubtedly qualified to administer the ESA, as it has expansive expertise in the administration of environmental protection laws.²⁷⁰ Further, the EPA has a responsibility to protect endangered species, as they are critical to a healthy environment.²⁷¹ The EPA could implement the ESA in a way that more closely comports with Congress's original intent and provides endangered species the most necessary protections.

263. 16 U.S.C. § 1532 (2022).

264. Bijal Shah, *Interagency Transfers of Adjudication Authority*, 34 YALE J. ON REG. 279, 293 (2017).

265. *Id.*

266. *Id.*

267. *Id.*

268. *Id.*

269. *Our Mission and What We Do*, U.S. ENV'T PROT. AGENCY, www.epa.gov/aboutepa/our-mission-and-what-we-do [perma.cc/4P8T-M4VZ] (last visited Feb. 8, 2022).

270. *Id.*

271. *Plants and Animals*, *supra* note 4.

C. Impose an “Impact Fee” on Individuals and Companies That Want to Build on Land That Would Harm Endangered Species, Threatened Species or Critical Habitats

1. Delegate Taxing Power to the EPA and Impose the “Impact Fee”

Once the ESA is implemented by the EPA, Congress should delegate some taxing power that it possesses to the EPA.²⁷² The *A.L.A. Schechter Poultry Corp. v. U.S.* decision is the last time the Supreme Court has held that Congress cannot delegate its powers to other administrative agencies, which created the Nondelegation Doctrine.²⁷³ Ever since this 1935 decision, the Supreme Court “has uniformly rejected nondelegation arguments and has upheld provisions that authorized agencies to adopt important rules pursuant to extraordinarily capacious standard.”²⁷⁴ Thus, Congress should be able to delegate some taxing power to the EPA. The EPA could then impose a fee on individuals, corporations, and other entities that want to develop land that is home to endangered or threatened species or is designated under the ESA as critical habitat. This Impact Fee would apply to all development, including development that qualifies for a permit under the ESA.²⁷⁵ Any money collected from the Impact Fee could go toward creating and implementing a conservation plan as required under Section 10 of the ESA.²⁷⁶

The current makeup of the Supreme Court may present some problems in the context of the Nondelegation Doctrine. Current conservative justices Chief Justice Roberts, Justices Gorsuch and Thomas, dissented in the *Gundy* decision, arguing that the delegation of powers from Congress to other agencies runs afoul of the separation of powers and that delegations have become excessive.²⁷⁷

272. U.S. CONST. art. I, § 8, cl. 1.

273. *A.L.A. Schechter Poultry Corp. v. U.S.*, 295 U.S. 495, 537-38 (1935).

274. *Gundy v. United States*, 139 S. Ct. 2116, 2130-31 (2019) (Alito, J., concurring).

275. See discussion *supra* Section II.A.2 (discussing the exceptions and exemptions that exist in the ESA).

276. 16 U.S.C. § 1539 (2022).

277. *Gundy*, 139 S. Ct. 2116, 2144 (Gorsuch, J., dissenting) (“If the separation of powers means anything, it must mean that Congress cannot give the executive branch a blank check to write a code of conduct governing private conduct for a half-million people.”). Justice Gorsuch went on to further state that “[e]ven Justice Douglas, one of the fathers of the administrative state, came to criticize excessive congressional delegations in the period when the intelligible principle ‘test’ began to take hold.” *Id.* at 2140. Justice Kavanaugh did not participate in the *Gundy* decision but has signaled that he would consider a revival of the Nondelegation Doctrine. Jace Lington, *Justice*

The Nondelegation Doctrine may very well be curtailed given the current makeup of the Court, so the Impact Fee may end up being a moot point. This, of course, will change over time depending on who is presiding over the Supreme Court. Even so, Congress could implement the Impact Fee, but it would have to be framed in a way that would appeal to both sides of the congressional aisle.

2. *Alternatively, Congress Could Pass an ESA Amendment and the IRS Could Funnel the Collected Fees to the EPA*

Instead of running into potential delegation issues, Congress already has the authority to pass an ESA amendment in order to implement the Impact Fee.²⁷⁸ Several amendments to the ESA have already passed, including the 1978 Amendment which included the Section 7 provision that allows Federal agencies to pursue an action even if it would jeopardize threatened or endangered species, if the action is exempted by the Endangered Species Committee.²⁷⁹

Take the Hazardous Substance Superfund, for example. Under the Comprehensive Environmental Response, Compensation, and Liability Act (“CERCLA”), the EPA is tasked with investigating and cleaning up sites that are contaminated with hazardous substances.²⁸⁰ The Hazardous Substance Superfund was established²⁸¹ to impose a tax on crude oil and petroleum products.²⁸² In 1986, the Superfund Amendments and Reauthorization Act was passed, which amended CERCLA²⁸³ and authorized the EPA to use the money the Internal Revenue Service (“IRS”) collected from the oil and petroleum taxes to fund environmental cleanups.²⁸⁴ The Internal Revenue Code (“IRC”) details what the EPA can use the collected tax for, including paying for the removal of hazardous substances from a contaminated area.²⁸⁵

A similar model can be followed with respect to the ESA. Congress can amend the ESA and implement a fee on individuals,

Kavanaugh open to reviving the nondelegation doctrine, Ballotpedia News (Dec. 2, 2019), news.ballotpedia.org/2019/12/02/justice-kavanaugh-open-to-reviving-the-nondelegation-doctrine/ [perma.cc/4YVS-HKXU].

278. U.S. CONST. art. I, §§ 1, 8.

279. 16 U.S.C. §§ 1536(a)-(h) (2022).

280. *Superfund: CERCLA Overview*, U.S. ENV'T PROT. AGENCY, www.epa.gov/superfund/superfund-cercla-overview [perma.cc/K8PD-6QK6] (last updated Jan. 4, 2021).

281. 26 U.S.C. § 9507 (2022).

282. 26 U.S.C. § 4611 (2022).

283. *The Superfund Amendments and Reauthorization Act (SARA)*, U.S. ENV'T PROT. AGENCY, www.epa.gov/superfund/superfund-amendments-and-reauthorization-act-sara [perma.cc/AV8Z-JJUS] (last updated Mar. 15, 2021).

284. 26 U.S.C. § 4611 (2022); 42 U.S.C. § 9611 (2022).

285. 26 U.S.C. § 4611 (2022); 42 U.S.C. § 9611 (2022); 33 U.S.C. § 1321 (2022).

companies, or other entities wanting to build on land that would harm endangered species, threatened species, or critical habitats. After the IRS collects this fee, that money can be funneled to the EPA. As the IRC details what the EPA can use its Hazardous Substance Superfund money for, it can detail what the newly enacted ESA amendment tax can be used for.²⁸⁶ The money could be used for general ESA implementation costs, recovery and conservation efforts, and listing activities, as examples.²⁸⁷

The Impact Fee would not apply to any development that would lead to extinction; it would only apply to development that would result in an incidental take.²⁸⁸ It would contradict the purpose of the ESA to allow for development that would result in the extinction of threatened or endangered species.²⁸⁹

3. Potential Model for “Impact Fee” Valuation

There are a few ways the EPA could determine the scale of an Impact Fee. Again, under CERCLA, the EPA has a Natural Resources Damages Assessment process in place, in order to “calculate the monetary cost of restoring injuries to natural resources that result from releases of hazardous substances or discharges of oil.”²⁹⁰ The assessments are conducted by “identifying

286. 42 U.S.C. § 9611 (2022).

287. Gordon, *supra* note 103. Under Section 10 of the ESA (the section that grants permits), the entity applying for the permit must submit a Habitat Conservation Plan to the relevant Service. 16 U.S.C. § 1539 (2022). The Habitat Conservation Plan (“HCP”) must include what the anticipated effects of the entity’s development project are on the endangered/threatened species or the land. *Habitat Conservation Plans Under the Endangered Species Act*, U.S. FISH & WILDLIFE SERV. (Apr. 2011), www.fws.gov/endangered/esa-library/pdf/hcp.pdf [perma.cc/ZQW6-9LZV]. Part of the plan requires the permittee to detail how the HCP will be sufficiently funded in order to be enacted properly. *Id.* The Impact Fee would not be used to fund this type of conservation. The Impact Fee is mainly meant to deter developers from pursuing development on vulnerable lands or where vulnerable species are present. See discussion *infra* Section IV.C.3 (explaining the Impact Fee is meant to deter development impacting threatened or endangered species). Funneling the money back into the development project that is going to actively harm species or land would be counterintuitive and likely incentivize development, as the Impact Fees would likely be funded by the same sources funding the development in the first place.

288. *Endangered Species Program*, *supra* note 70.

289. 16 U.S.C. § 1531(b) (2022).

The purposes of this chapter are to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, to provide a program for the conservation of such endangered species and threatened species, and to take such steps as may be appropriate to achieve the purposes . . .

Id.

290. *Natural Resource Damages: ERAs and NRDAs*, U.S. ENV’T PROT.

the functions or ‘services’ provided by the resources, determining the baseline level of the services provided by the injured resource(s), and quantifying the reduction in service levels as a result of the contamination.”²⁹¹ Valuing the Impact Fee under the ESA could follow a very similar approach. There are considerable monetary benefits associated with the ESA.²⁹² The cost of the Impact Fee could simply be the value of the potential monetary benefits society would have received from the threatened/endangered species or critical habitat were it not for the harmful development. The EPA already has a method of calculating the costs of lost natural resources,²⁹³ so it would be a matter of determining how much of an “ecosystem service” society would have received if the species or lands were not altered.²⁹⁴ It will surely be difficult and abstract to calculate such a number. It is easier to value the loss of water than it is to value the decline in a certain bee population, for example. However, with a calculation model already in place, the EPA is not starting from square one, which makes the endeavor feasible.

The Impact Fee would ideally act as a deterrent for those who want to develop on vulnerable lands or lands where vulnerable species exist. If there is a practical way to apply it, the Impact Fee could also act as a “service fee” on any monthly payments made in developing the land to aid in conservation. It is impractical to remove the permits from the ESA altogether, as our current society is driven by money and development.²⁹⁵ A proposed removal of the ESA permits would likely never make it through Congress.²⁹⁶ The Impact Fee, on the other hand, implemented by the EPA, is a compromise.

V. CONCLUSION

The four-year run of the Trump Administration resulted in the dismantling of many environmental regulations.²⁹⁷ Scientists warn the culmination of rollbacks “could significantly increase

AGENCY, www.epa.gov/superfund/natural-resource-damages-eras-and-nrdas [perma.cc/4P8K-TWMC] (last updated Mar. 12, 2021).

291. *Id.*

292. Worland, *supra* note 106.

293. *Natural Resource Damages: ERAs and NRDA*s, *supra* note 290.

294. *Id.*

295. *The Obsession with Money and Greed in American Society*, STUDYBOSS (May 2019), www.studyboss.com/essays/the-obsession-with-money-and-greed-in-american-society.htm [perma.cc/3M8D-C8TP]. Since the Industrial Revolution, America has been obsessed with money, leading to a rise in consumerism and materialism. *Id.*

296. See discussion *supra* Section IV.C (explaining the difficulties in amending the ESA).

297. Popovich, *supra* note 1.

greenhouse gas emissions over the next decade.”²⁹⁸ The ESA in particular faced an all-out attack that struck at the core of the Act’s purpose.²⁹⁹ Endangered and threatened species should be receiving more protections from the federal government, not less. The Trump Administration changes should be reversed as soon as possible. But this solution alone will not protect endangered and threatened species indefinitely.

The ESA needs to be administered by an agency that is made up of scientists who understand the problems our ecosystem is facing.³⁰⁰ The ESA cannot continue to function effectively if it is constantly being manipulated to fit political agendas. As a means of deterring development on vulnerable lands or lands that are home to vulnerable species, an Impact Fee could act as such a deterrent.³⁰¹ The Impact Fee may disincentivize individuals or corporations from pursuing their development on lands that need protection.³⁰²

Endangered species, threatened species, and critical habitats, must be conserved. For the sake of a healthy environment and in turn, a healthy population, the alterations of the ESA must be undone. The Services, under the control of the Trump Administration, have turned a blind eye to the ESA’s purpose and the entirety of Chief Justice Burger’s *Tennessee Valley Authority* opinion.³⁰³ Experts urge the environmental crisis is one of the most pressing of our time and the time to act is now.³⁰⁴ Protecting our species may be expensive, but they *must* be protected, “whatever the cost.”³⁰⁵ The cost of *not* protecting them is much greater and much more dire.

298. *Id.*

299. Friedman, *supra* note 6.

300. See discussion *supra* Section IV.B.1 (discussing the politics present in the EPA and how to combat politics from being the deciding factor in environmental regulation).

301. See discussion *supra* Section IV.C (explaining that taxing individuals and corporations may protect vulnerable lands and species).

302. *Id.*

303. *Tenn. Valley Auth.*, 437 U.S. at 156.

304. *This is why fighting climate change is so urgent*, ENV’T DEF. FUND, www.edf.org/climate/why-fighting-climate-change-so-urgent [perma.cc/DQ4L-23E3] (last visited Feb. 8, 2022).

305. *Tenn. Valley Auth.*, 437 U.S. at 184.

