

C O M M E N T

AN UNLIKELY CLIMATE HERO? EXPERIMENTAL POPULATIONS OUTSIDE THEIR HISTORICAL RANGE

by Kelly Davis

Kelly Davis is a 2023 graduate of The George Washington University Law School, and has accepted a position as a Judicial Law Clerk with the Montgomery County [MD] Circuit Court.

Climate change is ravaging the flora and fauna of the United States and contributes to ecosystem damage, including the conversion of Alaskan forests to savannah grasslands, rising sea levels that have destroyed the Key deer's habitat, and warming regional temperatures that have stifled the growth of crops in the Northeast.¹ What if there were a way for species to thrive away from the sinking coasts and changing landscapes that they have historically inhabited? One possibility is §10(j) of the Endangered Species Act (ESA)² and its associated regulations,³ which permit the Secretary of the Interior to advance a listed species' conservation by designating experimental populations.⁴

An experimental population is a population of a species separated geographically from the species' "nonexperimental population" and introduced to an area outside the species' current range.⁵ Under current rules, the experimental population's area must be within the species' historical range, unless there is "[an] extreme case that the primary habitat of the species has been unsuitably and irreversibly altered or destroyed."⁶ "Historical range" is the area where a species once lived but does not occupy or use in the present day.⁷

Author's Note: Thank you to Prof. Robert Glicksman for his encouragement, guidance, and feedback in my research and writing efforts. I also want to thank Profs. Joshua Champagne and Michael Sinclair for their edits and recommendations in the writing of this Comment. I am grateful to my family and friends for their unwavering support.

1. See U.S. Fish and Wildlife Service (FWS), *Impacts*, <https://www.fws.gov/initiative/impacts> (last visited Apr. 26, 2023).
2. 16 U.S.C. §1539(j), ELR STAT. ESA §10(j).
3. See 50 C.F.R. §§17.80-.86.
4. See 16 U.S.C. §1539(j)(1), (2)(A).
5. See *id.* §1539(j)(1).
6. 50 C.F.R. §17.81(a).
7. See Final Policy on Interpretation of the Phrase "Significant Portion of Its Range" in the Endangered Species Act's Definitions of "Endangered Species" and "Threatened Species," 79 Fed. Reg. 37577, 37583 (July 1, 2014)

The U.S. Fish and Wildlife Service (FWS), operating under the purview of the Secretary, proposed a rule (the Proposed Rule) on June 7, 2022, to remove any reference to "historical range" from the experimental population regulations, in an attempt to fight climate change that could affect a listed species' historical range area.⁸ Removing the "historical range" requirement would allow the Secretary to introduce experimental populations into areas where the species could thrive. These introductions would not be limited by a geographic, historical range that becomes negatively affected by climate change, especially considering that historical ranges "[are] often misunderstood and fundamentally dynamic, [so] creating a single definitive map for each species may remain elusive."⁹ Challenges to FWS' authority to issue the Proposed Rule, however, threaten the Service's ability to use experimental populations as a tool to prevent a species' extinction from habitat destruction caused by climate change.

This Comment addresses the major legal criticism against the Proposed Rule by arguing that it falls within the ESA's purpose and within FWS' authority. Part I provides factual and legal background, outlining rulemaking under the Administrative Procedure Act (APA) and the ESA, experimental populations, and environmental statutes that directly or indirectly discuss climate change.

Part II provides analysis, focusing on the existing framework within the ESA and other environmental and land use statutes that contemplate climate change. It argues,

(interpreting "range" to mean where a species is currently found and to not encapsulate "historical range" because "historical range [is where the species] has been extirpated.")

8. See Endangered and Threatened Wildlife and Plants; Designation of Experimental Populations, 87 Fed. Reg. 34625, 34626 (proposed June 7, 2022) (to be codified at 50 C.F.R. pt. 17).
9. Emma Marris, *A Basic Premise of Animal Conservation Looks Shakier Than Ever*, ATLANTIC (Feb. 22, 2023), <https://www.theatlantic.com/science/archive/2023/02/wild-animal-species-conservation-native-range-habitats/673153/> ("Brian Silliman, an ecologist at Duke University, . . . thinks our assumed native ranges for many species are just a quarter of the total historical range. And in many cases, the 'native range' that animals occupy now might be places where they can barely survive. . . .").

in short, that FWS' Proposed Rule is a proper exercise of the Service's ability to combat climate change because (1) it adheres to the ESA, which already considers climate change in listing and critical habitat designation decisions; (2) it is a proper legislative rule warranting deference by courts; and (3) it follows the trend of environmental and land use statutes' "best available science" mandate, like in the National Environmental Policy Act (NEPA),¹⁰ the National Forest Management Act (NFMA),¹¹ and the National Park Service Organic Act,¹² to consider climate change's effect on the environment in decisionmaking and planning. Part III concludes.

I. Background

A. Factual Background

On June 6, 2022, FWS announced that it would be promulgating an interpretive rule of ESA §10(j)'s regulations "to better facilitate [species] recovery by allowing for the introduction of listed species to suitable habitats outside of their historical ranges."¹³ The following day, the Service published in the *Federal Register* its Proposed Rule to remove any reference of the term "historical range" from 50 C.F.R. Part 17, Subpart H.¹⁴

The Proposed Rule's purpose is to "more clearly establish" the Secretary's authority to introduce experimental populations outside of their historical range.¹⁵ The Secretary, under the Proposed Rule, could release experimental populations outside of their historical range under appropriate circumstances, as provided for by the regulations.¹⁶ Major environmental groups, such as the Defenders of Wildlife¹⁷ and National Audubon Society,¹⁸ and local newspapers¹⁹ support the Proposed Rule. Prominent critics of the Proposed Rule include Montana Gov. Greg Gianforte.²⁰

10. See generally 42 U.S.C. §§4321-4370h, ELR STAT. NEPA §§2-209.

11. See generally 16 U.S.C. §§1600-1687, ELR STAT. NFMA §§2-16.

12. See generally 54 U.S.C. §§100101 et seq.

13. Press Release, FWS, Department of the Interior Proposes Expanding Conservation Technique as Climate Change Threatens Greater Species Extinction (June 6, 2022), <https://www.fws.gov/press-release/2022-06/department-interior-proposes-expanding-conservation-technique-climate-change>.

14. See Endangered and Threatened Wildlife and Plants; Designation of Experimental Populations, 87 Fed. Reg. 34625, 34626 (proposed June 7, 2022).

15. See *id.* at 34625.

16. *Id.*

17. See Press Release, Defenders of Wildlife, Defenders of Wildlife Encouraged by Proposed Rule to Strengthen Protections for Imperiled Species Affected by Climate Change (June 6, 2022), <https://defenders.org/newsroom/defenders-of-wildlife-encouraged-proposed-rule-strengthen-protections-imperiled-species>.

18. See Jenny McKee, *Wildlife Officials Want to Make It Easier to Relocate Climate-Imperiled Species*, NAT'L AUDUBON SOC'Y (June 24, 2022), <https://www.audubon.org/news/wildlife-officials-want-make-it-easier-relocate-climate-imperiled-species>.

19. See *Protecting Endangered Species by Relocating Them?*, THIS IS RENO (Aug. 20, 2022), <https://thisisreno.com/2022/08/protecting-endangered-species-by-relocating-them/>.

20. See Press Release, State of Montana Governor's Office, Governor Gianforte Blasts Federal Overreach From Biden FWS (Sept. 1, 2022), https://news.mt.gov/Governors-Office/Governor_Gianforte_Blasts_Federal_Overreach_From_Biden_FWS.

B. Legal Background

1. The ESA

The ESA's purpose is to create a federal program to protect endangered and threatened species.²¹ The U.S. Congress previously passed two other pieces of legislation to protect endangered species.²² The first was the Endangered Species Preservation Act of October 15, 1966.²³ This Act gave power to the Secretary to formulate and implement a conservation program for selected threatened species of wildlife.²⁴ It further advocated for conservation, restoration, and strengthening of species' populations.²⁵

The Endangered Species Conservation Act of 1969 followed suit.²⁶ This Act prohibited the importation of foreign animals (with two exceptions), outlawed the sale or purchase of animals that were obtained in violation of domestic or international law, and increased funding to obtain land to protect domestically endangered species.²⁷

The ESA was the logical extension of these two previous acts. The ESA's legislative history indicates that Congress' intent was to provide further protection to endangered and threatened species by providing an adequate conservation program.²⁸ The Act's conservation program requires the Secretary²⁹ to determine that a species is "threatened"³⁰ or "endangered"³¹ by applying any of five listed factors.³² All five factors assess the risk to the species' continued existence.³³ The Secretary makes a "threatened" or "endan-

21. See 16 U.S.C. §1531(b).

22. S. CONF. REP. NO. 93-307, at 2290 (1973).

23. See generally Pub. L. No. 89-669, 80 Stat. 926 (1966).

24. See *id.* at 926, 928.

25. See *id.*; S. CONF. REP. NO. 93-307, at 2990.

26. See generally Pub. L. No. 91-135, 83 Stat. 275 (1969).

27. *Id.* at 275-76, 278.

28. S. CONF. REP. NO. 93-307, at 2991-92;

While the Acts of 1966 and 1969 laid the framework for an increasingly effective endangered species conservation program, the Department of the Interior has indicated some difficulties in expanding the practical effect of the program to the spirit of the original legislation. As the President stated in his Environmental Message of February 8, 1972, the existing law 'simply does not provide the kind of management tools needed to act early enough to save a vanishing species.' From testimony offered at hearings on the bill, it is apparent that the following four requirements must be satisfied if the bill is to be effective.

29. The Secretary referred to in this Comment will be the Secretary of the Interior, as FWS falls under its purview because the Proposed Rule only mentions the Service. See FWS, *About Us*, <https://www.fws.gov/about> (last visited Apr. 26, 2023); see also Endangered and Threatened Wildlife and Plants; Designation of Experimental Populations, 87 Fed. Reg. 34625, 34625 (proposed June 7, 2022). The Secretaries of the Interior, Commerce, and Agriculture do have delegated responsibilities under the ESA for certain types of species. 16 U.S.C. §1532(15).

30. 16 U.S.C. §1532(20) ("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").

31. *Id.* §1532(6) ("endangered species" means any species which is in danger of extinction throughout all or a significant portion of its range").

32. These five factors are "the present or threatened destruction, modification, or curtailment of its habitat or range; overutilization for commercial, recreational, scientific, or educational purposes; disease or predation; the inadequacy of existing regulatory mechanisms; or other natural or manmade factors affecting its continued existence." *Id.* §1533(a)(1)(A)-(E).

33. See *id.* §1533.

gered” determination by using “the best scientific and commercial data available” at the time of review.³⁴

Climate change data, in the forms of attribution research and climate prediction models, must be considered as part of the “best available science,”³⁵ and there must be a connection between the Agency’s listing decision and the scientific data upon which it relied in making the listing.³⁶ Climate data that is limited or imperfect can be used for listing purposes as long as the Agency discloses these limitations and the limitations do “not undercut the challenged rule.”³⁷ Once a species is listed, the ESA requires the concurrent designation of critical habitat for the species.³⁸

Critical habitat is defined as:

(i) the specific areas within the geographical area occupied by the species, at the time it is listed . . . , on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection; and

(ii) specific areas outside the geographical area occupied by the species at the time it is listed . . . , upon a determination by the Secretary that such areas are essential for the conservation of the species.³⁹

Critical habitat designation also requires the Secretary to use the best scientific data available, but the designation also considers “economic impact, the impact on national security, and any other relevant impact, of specifying any particular area as critical habitat.”⁴⁰ Critical habitat can include unoccupied lands to account for a species’ shifting range because of climate change,⁴¹ but the land must be a “habitat” to qualify as “critical habitat.”⁴²

□ *Sections 9 and 10 of the ESA.* Section 9 prohibits any import, export, “tak[ing],” transportation, sale, or possession of a listed *endangered* species.⁴³ A “taking” is further defined as any action to “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect” the listed species, and can include “significant habitat modification or degradation.”⁴⁴ Anyone in violation of the ESA is subject to civil penalties, criminal fines, imprisonment for not more than six months, or a combination of these consequences.⁴⁵

Section 10 provides exceptions to §9’s prohibition on “taking” endangered species.⁴⁶ One of these exceptions describes experimental populations.⁴⁷ Section 9’s default “take” prohibition does not apply to experimental populations,⁴⁸ because §10 treats experimental populations as if they were a listed “threatened” species for the purposes of the ESA.⁴⁹

□ *Subpart H of 50 C.F.R. Part 17, and the plight of the Guam rail.* Experimental populations are populations of listed species that are “wholly separate geographically” from the nonexperimental population of the same species,⁵⁰ introduced into an area to further the conservation of the species.⁵¹ Experimental populations are divided into two categories: essential and nonessential.⁵² An essential experimental population “means an experimental population whose loss would be likely to appreciably reduce the likelihood of the survival of the species in the wild.”⁵³ A nonessential experimental population is a population that does not warrant an “essential” classification.⁵⁴

The Secretary can designate critical habitat for essential experimental populations,⁵⁵ but may not designate critical habitat for nonessential experimental populations.⁵⁶ FWS has never classified a population as an essential experimental population.⁵⁷ The Service has, however, classified 65 nonessential experimental populations.⁵⁸

34. *Id.* §1533(b)(1)(A).

35. See *In re Polar Bear Endangered Species Act Listing & 4(d) Rule Litig.*, 794 F. Supp. 2d 65, 95-96, 106, 41 ELR 20220 (D.D.C. 2011), *aff’d*, *In re Polar Bear Endangered Species Act Listing & Section 4(d) Rule Litig.*—MDL No. 1993, 709 F.3d 1, 43 ELR 20050 (D.C. Cir. 2013); see also *Greater Yellowstone Coal., Inc. v. Servheen*, 665 F.3d 1015, 1028, 41 ELR 20347 (9th Cir. 2011).

36. See *Alaska Oil & Gas Ass’n v. Pritzker*, 840 F.3d 671, 679, 46 ELR 20169 (9th Cir. 2016).

37. *Polar Bear Endangered Species Act Listing & Section 4(d) Rule Litig.*—MDL No. 1993, 709 F.3d at 13.

38. See 16 U.S.C. §1533(a)(3)(A)(i).

39. *Id.* §1532(5)(A).

40. *Id.* §1533(b)(2).

41. See *Center for Biological Diversity v. U.S. Fish & Wildlife Serv.*, 441 F. Supp. 3d 843, 873-74, 50 ELR 20036 (D. Ariz. 2020) (holding that FWS properly designated unoccupied connection as jaguar critical habitat because those areas are “essential to the recovery of the jaguar species” to support periphery populations and genetic diversity, and reasoning that “[i]t is essential that species are protected in all their ecological settings because this provides protection from climate change and more adaptability”).

42. The U.S. Supreme Court did not determine what level of land modification could transform land into a “habitat” and remanded the question to the U.S. Court of Appeals for the Fifth Circuit. *Weyerhaeuser Co. v. U.S. Fish & Wildlife Serv.*, 139 S. Ct. 361, 369, 48 ELR 20196 (2018). This question went unanswered on remand. *Markle Ints., L.L.C. v. U.S. Fish & Wildlife Serv.*, 919 F.3d 963, 964 (5th Cir. 2019). FWS then defined “habitat” as “the abiotic and biotic setting that currently or periodically contains the resources and conditions necessary to support one or more life processes of a species” after the *Weyerhaeuser* decision, implementing a restrictive definition based on the case. *Endangered and Threatened Wildlife and Plants; Regulations for Listing Endangered and Threatened Species and*

Designating Critical Habitat, 85 Fed. Reg. 81411, 81412 (Dec. 16, 2020). FWS removed this definition, reinstating the Service’s flexible “habitat” determinations. *Endangered and Threatened Wildlife and Plants; Regulations for Listing Endangered and Threatened Species and Designating Critical Habitat*, 87 Fed. Reg. 37757, 37759 (June 24, 2022).

43. See 16 U.S.C. §1538(a)(1)(A)–(G).

44. *Id.* §1532(19); *Babbitt v. Sweet Home Chapter of Cmty. for a Great Or.*, 515 U.S. 687, 708, 25 ELR 21194 (1995).

45. See 16 U.S.C. §1540(a)(1), (b)(1).

46. See generally *id.* §1539.

47. See *id.* §1539(j).

48. Essentially, these populations, although identical to their nonexperimental counterparts, could be killed, harassed, harmed, and so on, simply because of the determination to introduce this group of species elsewhere away from the typical population. Compare 16 U.S.C. §1539(j), with 16 U.S.C. §1538.

49. See *id.* §1539(j)(2)(C).

50. See *id.* §1539(j)(1); see also 50 C.F.R. §17.80(a).

51. See 16 U.S.C. §1539(j)(2)(A).

52. See 50 C.F.R. §17.80(b).

53. *Id.*

54. *Id.*

55. See *id.* §17.81(f).

56. See *id.*

57. See SAM KALEN & MURRAY FELDMAN, *ESA: ENDANGERED SPECIES ACT 152* (2d ed. 2012).

58. FWS, *Environmental Conservation Online System, Species With 10j Experimental Population Rules*, <https://ecos.fws.gov/ecp/report/species-tenj> (last visited Apr. 26, 2023).

Throughout the existence of experimental populations, FWS has authorized the introduction of two⁵⁹ listed species into an area outside of its probable historical range⁶⁰: the Guam rail⁶¹ and the Guam kingfisher.⁶² The introduction of species into non-native areas to combat habitat loss caused by climate change, as evaluated by assisted migration⁶³ proponents,⁶⁴ may conflict with the goals of other federal laws because of the emphasis of existing statutory mandates to maintain the natural ecosystem of the public lands.⁶⁵

There is a plethora of legal discussion, however, encouraging the introduction of experimental populations beyond their historical range as a tool to support the assisted migration movement,⁶⁶ especially considering the inconsistency of where species' historical ranges are located because of climate change, human agriculture and development, and scarce food resources altering the historical range over time.⁶⁷ The Service's previous position expressed in a rulemaking comment, however, is that "the reloca-

tion or transplantation of native listed species outside their historic range will not be authorized as a conservation measure,"⁶⁸ and presidential Executive Orders similarly direct avoidance and prevention of introducing non-native species into ecosystems.⁶⁹

The Guam rail is a flightless bird native to the island of Guam.⁷⁰ These birds flourished throughout Guam, but their population plummeted to about 2,000 only in northern Guam, mainly caused by "predation on eggs and young by the non-native brown tree snake."⁷¹ The snakes were introduced to Guam likely from stowing away on cargo ships,⁷² and there is currently no strategy to remove them all.⁷³ FWS determined that the Guam rail's habitat was "unsuitably and irreversibly altered or destroyed" because of the brown tree snake.⁷⁴

Because of the unsuitability of the Guam rail habitat, FWS concluded that Rota, an island about 30 miles northeast of Guam,⁷⁵ was the best alternative habitat. The Service chose Rota, even though the island is outside the Guam rail's historical range, because "[Rota] has suitable habitat identical to that formerly occupied by the rail. Most important[ly], the brown tree snake is not known to occur on Rota."⁷⁶ FWS addressed a commenter concerned about the Guam rail's impact on the reptile, arthropod, and snail

59. A population of red wolves was temporarily moved to a national wildlife refuge in the islands of Florida, North Carolina, and South Carolina, including St. Vincent National Wildlife Refuge. Alejandro E. Camacho, *Assisted Migration: Redefining Nature and Natural Resource Law Under Climate Change*, 27 YALE J. ON REGUL. 171, 203 (2010); Julie Lurman Joly & Nell Fuller, *Advising Noah: A Legal Analysis of Assisted Migration*, 39 ELR 10413, 10416-17 (May 2009). No wolves were ever recorded in the refuge, but the wolves' historical range extends throughout the southeastern United States where these islands are located. Camacho, *supra* at 203. Although these wolves were introduced into an area potentially outside its historical range, FWS did so on a temporary basis to accustom the wolves to living in isolated conditions. *Id.* The wolves were returned to their historical range in eastern North Carolina to bolster the species' recovery in its historical range. Joly & Fuller, *supra* at 10417.

60. FWS proposed translocating a population of the California condor to northern Arizona, and public comments on this matter argued that the translocation was not within the condors' probable historical range. Endangered Wildlife and Plants: Establishment of a Nonessential Experimental Population of California Condors in Northern Arizona, Final Rule, 61 Fed. Reg. 54044, 54053 (Oct. 16, 1996). FWS countered these arguments by citing historical sightings of condors from the mid- to late-1800s and historical authors' contention that "the California condor moved back into Arizona as early as the 1700s in response to the introduction of large herds of cattle, horses, and sheep." *Id.*

61. Camacho, *supra* note 59, at 203.

62. See Endangered and Threatened Wildlife and Plants; Establishment of a Nonessential Experimental Population of the Guam Kingfisher, or Sihek, on Palmyra Atoll, USA, 88 Fed. Reg. 19880 (Apr. 4, 2023).

63. Assisted migration is "the action of picking up and moving certain individuals or populations of species that either cannot or will not be able to migrate on their own in response to the rapidly changing climatic conditions expected over the next several decades." Joly & Fuller, *supra* note 59, at 10413-14. There is a debate over whether transporting species outside of their historical range should be considered a conservation tool or be completely disregarded. *Id.*

64. *Id.* at 10414 ("It is likely that in the future, assisted migration proponents could make the argument that global climate change has irrevocably altered or destroyed the primary habitat of the species with which they are working.")

65. See Camacho, *supra* note 59, at 204-05 ("For federal agencies, even when non-native translocation is allowed, land management regulations make it essential to maintain native ecosystem integrity and to minimize the influence of the introduction.")

66. See generally *id.*; Jaclyn Lopez, *Biodiversity on the Brink: The Role of "Assisted Migration" in Managing Endangered Species Threatened With Rising Seas*, 39 HARV. ENV'T L. REV. 157, 178 (2015).

67. See Marris, *supra* note 9 (noting that species' native ranges may be incorrect, evidenced by a new study's findings that sperm whales lived close to coastal waters until whaling activities forced the whales to move to open ocean waters, which is the currently thought native range for sperm whales).

68. Endangered and Threatened Wildlife and Plants; Experimental Populations, 49 Fed. Reg. 33885, 33890 (Aug. 27, 1984) (codified at 50 C.F.R. pt. 17). The relevant comment quotation is as follows:

Long-standing Service policy provides that the relocation or transplantation of native listed species outside their historic range will not be authorized as a conservation measure. For conservation measures involving the transplantation of listed species, it is Service policy to restrict introductions of listed species to historic range, absent a finding by the Director in the extreme case that the primary habitat of the species has been unsuitable and irreversibly altered or destroyed. The Service believes this is the most biologically acceptable approach to utilize in species introductions. . . . Transplantation of listed species beyond historic range would subject the population to doubtful survival chances and might result in the alteration of the species' gene pool—results that are clearly contrary to the goals of the Act.

Id.

69. See Exec. Order No. 11987, 3 C.F.R. §116 (1978); see also Exec. Order No. 13112, 64 Fed. Reg. 6183 (Feb. 8, 1999) (revoking Exec. Order No. 11987 and therefore reserving 3 C.F.R. §116 for other purposes); see also Exec. Order No. 13751, 81 Fed. Reg. 88609 (Dec. 8, 2016) (mandating federal agencies to "consider the impacts of climate change when working on issues relevant to the prevention, eradication, and control of invasive species").

70. See Endangered and Threatened Wildlife and Plants; Determination of Experimental Population Status for an Introduced Population of Guam Rails on Rota in the Commonwealth of the Northern Mariana Islands, 54 Fed. Reg. 43966, 43967 (Oct. 30, 1989).

71. *Id.*

72. See U.S. Geological Survey, *What Is the Brown Treesnake?*, <https://www.usgs.gov/faqs/what-brown-treesnake> (last visited Apr. 26, 2023).

73. See *id.*; see also Endangered and Threatened Wildlife and Plants; Determination of Experimental Population Status for an Introduced Population of Guam Rails on Rota in the Commonwealth of the Northern Mariana Islands, 54 Fed. Reg. at 43967 ("There is hope that it will eventually be possible to control or eradicate the brown tree snake on Guam, but there is no assurance that this will be possible in the foreseeable future.")

74. Endangered and Threatened Wildlife and Plants; Determination of Experimental Population Status for an Introduced Population of Guam Rails on Rota in the Commonwealth of the Northern Mariana Islands, 54 Fed. Reg. at 43967.

75. See Britannica, *Rota*, <https://www.britannica.com/place/Rota-island-Northern-Mariana-Islands> (last visited Apr. 26, 2023).

76. Endangered and Threatened Wildlife and Plants; Determination of Experimental Population Status for an Introduced Population of Guam Rails on

populations of Rota as a non-native species, and the Service quelled these concerns by acknowledging the potential threats to the native species by the Guam rail, but nonetheless concluded that “the potential negative consequences in this instance [were] minimal and greatly outweighed by the probable benefits to conservation of the rail.”⁷⁷

The Guam rail was only to be introduced to Rota on a temporary basis, with the final goal of reintroducing the population to Guam.⁷⁸ The Guam rail has thrived on Rota for more than 30 years, however, and is a testament to the success of the experimental population introduction.⁷⁹

The Guam kingfisher, also known as the “sihek,” has a history similar to the Guam rail. The sihek is a nonmigratory bird native to Guam whose population also began to decline upon the accidental introduction of non-native brown tree snakes in the mid-20th century.⁸⁰ By 1988, the sihek was extinct in the wild.⁸¹

FWS determined that the sihek’s extinction was primarily caused by “predation by the introduced brown treesnake,”⁸² and that the sihek’s “primary habitat within its native range on Guam has been indefinitely altered.”⁸³ The Service, to ensure the sihek’s viability as a species,⁸⁴ determined that Palmyra Atoll, located 3,647 miles east of Guam and outside the sihek’s historical range,⁸⁵ is an ecologically suitable location for the sihek because of Palmyra Atoll’s habitat conditions, available food resources, and absence of predators to the sihek.⁸⁶ FWS has acknowledged the inherent risks associated with introducing the sihek as a non-native species outside its historical range to Palmyra Atoll’s species and ecosystems,⁸⁷ and will have a monitoring system to evaluate the sihek’s impact.⁸⁸

Like the Guam rail, the sihek is being introduced to Palmyra Atoll only on a temporary basis, “intended to facilitate the gathering of information and analysis to optimize efforts for reestablishment of the species on Guam once brown treesnakes can be sufficiently controlled at a landscape scale.”⁸⁹ The Service’s final rule designating the sihek experimental population went into effect on May 4, 2023.

2. The APA and Notice-and-Comment Rulemaking

The APA sets the procedures that agencies must use to promulgate their regulations.⁹⁰ Agencies perform rulemaking⁹¹ and adjudication.⁹² Rulemaking is the “agency process for formulating, amending, or repealing a rule.”⁹³ A “rule” is any “agency statement of general or particular applicability and future effect designed to implement, interpret, or prescribe law or policy or describing the organization, procedure, or practice requirements of an agency.”⁹⁴

Rulemaking can be further categorized into formal and informal rulemaking (also known as notice-and-comment rulemaking).⁹⁵ Informal rules are legislative rules⁹⁶ that are promulgated by an agency based on their congressionally delegated authority.⁹⁷ If an agency publishes a rule that seemingly changes its previous interpretation into a new one, it may do so “as long as they provide a reasoned explanation for the change.”⁹⁸

The APA exempts policy statements, interpretive rules, and rules of agency procedure from notice-and-comment rulemaking requirements.⁹⁹ Interpretive rules are “issued by an agency to advise the public of the agency’s construction of the statutes and rules which it administers,” and policy statements are “issued by an agency to advise the public prospectively of the manner in which the agency proposes to exercise a discretionary power.”¹⁰⁰ These rules are known as non-legislative rules that do not carry the force and effect of law,¹⁰¹ and are used when an agency does not intend “to bind itself to a particular legal position.”¹⁰² An agency can change its position expressed in non-legislative rules without undergoing notice-and-comment rulemaking or providing justification in doing so.¹⁰³

An agency may refer to a rule as “legislative” or “non-legislative,” but a court determines the rule’s status by examining the language of the rule.¹⁰⁴ Also, simply because

Rota in the Commonwealth of the Northern Mariana Islands, 54 Fed. Reg. at 43967.

77. *Id.* at 43968.

78. *See id.* at 43966.

79. *See* Erica Royer, *Conserving the Last of Guam’s Avifauna: The Recovery of the Guam Rail*, SMITHSONIAN’S NAT’L ZOO & CONSERVATION BIOLOGY INST. (Jan. 13, 2020), <https://nationalzoo.si.edu/center-for-species-survival/news/conserving-last-guams-avifauna-recovery-guam-rail>.

80. *See* Endangered and Threatened Wildlife and Plants; Establishment of a Nonessential Experimental Population of the Guam Kingfisher, or Sihek, on Palmyra Atoll, USA, 88 Fed. Reg. at 19882.

81. *See id.*

82. *Id.*

83. *Id.* at 19880.

84. *See id.* at 19884.

85. *Id.* at 19880, 19884.

86. *See id.* at 19884-85.

87. *See id.* at 19889.

88. *See id.* at 19887-89 (“If any undesirable impacts are causally linked to the introduction of sihek, we will weigh the benefits and risks in consultation with the recovery team and The Nature Conservancy to determine whether to continue ongoing management, adopt risk mitigation strategies, or terminate the program.”).

89. *Id.* at 19880.

90. *See generally* 5 U.S.C. §§551-559.

91. *See id.* §553.

92. *See id.* §554.

93. *Id.* §551(5).

94. *Id.* §551(4).

95. *See* United States v. Adair, 38 F.4th 341, 347 n.1 (3d Cir. 2022); *see also* TODD GARVEY, CONGRESSIONAL RESEARCH SERVICE, R41546, A BRIEF OVERVIEW OF RULEMAKING AND JUDICIAL REVIEW 1 (2017).

96. *See* Appalachian Power Co. v. Environmental Prot. Agency, 208 F.3d 1015, 1020, 30 ELR 20560 (D.C. Cir. 2000) (“Only ‘legislative rules’ have the force and effect of law. . . . A ‘legislative rule’ is one the agency has duly promulgated in compliance with the procedures laid down in the statute or in the Administrative Procedure Act.”).

97. *See* GARVEY, *supra* note 95, at 2.

98. Encino Motorcars, LLC v. Navarro, 579 U.S. 211, 221 (2016).

99. *See* 5 U.S.C. §553(b)(A)-(B).

100. CONGRESSIONAL RESEARCH SERVICE, R44468, GENERAL POLICY STATEMENTS: LEGAL OVERVIEW 3 (2016) (quoting TOM C. CLARK, U.S. DEPARTMENT OF JUSTICE, ATTORNEY GENERAL’S MANUAL ON THE ADMINISTRATIVE PROCEDURE ACT 30 n.3 (1947)).

101. *See* William Funk, *A Primer on Nonlegislative Rules*, 53 ADMIN. L. REV. 1321, 1322 (2001).

102. Syncor Int’l Corp. v. Shalala, 127 F.3d 90, 94 (D.C. Cir. 1997).

103. *See* Perez v. Mortgage Bankers Ass’n, 575 U.S. 92, 102-03, 45 ELR 20050 (2015) (“In the end, Congress decided to adopt standards that permit agencies to promulgate freely such [interpretive] rules—whether or not they are consistent with earlier interpretations.”).

104. *See* Brock v. Cathedral Bluffs Shale Oil Co., 796 F.2d 533, 537-38 (D.C. Cir. 1986).

a rule went through notice-and-comment rulemaking does not convert a non-legislative rule into a legislative one.¹⁰⁵ A rule has legal effect, and is therefore legislative, if (1) the absence of the rule would jeopardize the basis for enforcement action “or other agency action to confer benefits or ensure the performance of duties”; (2) the rule is published in the *Code of Federal Regulations*¹⁰⁶; (3) the agency explicitly invokes its “general legislative authority”¹⁰⁷; or (4) “the rule effectively amends a prior legislative rule.”¹⁰⁸

Courts will generally¹⁰⁹ not insert their own judgment on an agency’s interpretation of rules promulgated under notice-and-comment rulemaking because of *Chevron* deference.¹¹⁰ *Chevron* deference allows for an agency to clarify ambiguous terms in the statute Congress tasks it to administer because of the general authority delegated by Congress for the agency to act within their sphere of administration.¹¹¹

Determining *Chevron* deference requires courts to apply a two-part test.¹¹² First, the court determines whether Congress “directly addressed the precise question at issue,” finding that the statutory term is unambiguous and clear as to its meaning.¹¹³ If the term is clear and unambiguous, then there is only one correct interpretation for the agency to promulgate, and the agency’s interpretation must fall under the one interpretation, thus ending the *Chevron* inquiry.¹¹⁴ Second, if Congress did not speak to the meaning of the term and the term is unclear and ambiguous, the court determines whether the agency’s interpretation is reasonable.¹¹⁵ A court grants deference to the agency’s interpretation as long as the interpretation is reasonable.¹¹⁶

Chevron deference does not apply to non-legislative rules because these rules do not carry the force of law.¹¹⁷ Non-legislative rules, however, are eligible for *Skidmore* deference by courts.¹¹⁸ Under *Skidmore* deference, courts determine how

much weight should be allocated to these rules by examining the “thoroughness evident in [the rule’s] consideration, the validity of its reasoning, its consistency with earlier and later pronouncements, and all those factors which give it power to persuade, if lacking power to control.”¹¹⁹

Additionally, when an agency promulgates rules, legislative or non-legislative,¹²⁰ interpreting its own regulations listed in the *Code of Federal Regulations*, the courts may grant *Auer* deference (also known as *Seminole Rock* deference) to the agency’s interpretation.¹²¹ Agencies receive *Auer* deference because of the presumption that Congress “would generally want the agency to play the primary role in resolving regulatory ambiguities.”¹²² To apply *Auer* deference, the regulatory provisions must be “genuinely ambiguous” after exhausting all “traditional tools” of interpretation,¹²³ the agency’s interpretation of the ambiguous regulatory provision is reasonable,¹²⁴ and the interpretation has “controlling weight.”¹²⁵

The U.S. Supreme Court purposively did not detail a definitive test for determining whether the interpretation carries “controlling weight” to warrant *Auer* deference,¹²⁶ but “important markers” to consider in this inquiry are that the interpretation must be the agency’s “authoritative” or “official position,”¹²⁷ it must implicate the agency’s “substantive expertise,”¹²⁸ and it must reflect “fair and considered judgment.”¹²⁹ An agency exercises “fair and considered judgment” by not developing its interpretation to excuse previous action and by not “unfair[ly] surpris[ing]” the regulated community with its interpretation.¹³⁰

3. Procedural Requirement for Agencies to Consider Climate Change: NEPA

NEPA¹³¹ requires all federal agencies to create a “detailed statement” for any major federal action that would “signif-

105. See *Sierra Club v. Environmental Prot. Agency*, 873 F.3d 946, 952, 47 ELR 20091 (D.C. Cir. 2017).

106. See *Health Ins. Ass’n of Am., Inc. v. Shalala*, 23 F.3d 412, 423 (D.C. Cir. 1994) (“[T]he court [has not] taken publication in the Code of Federal Regulations, or its absence, as anything more than a snippet of evidence of agency intent.”).

107. See *Sweet v. Sheahan*, 235 F.3d 80, 92 (2d Cir. 2000).

108. See *American Mining Cong. v. Mine Safety & Health Admin.*, 995 F.2d 1106, 1112 (D.C. Cir. 1993).

109. This Comment acknowledges the Supreme Court’s neglect to apply *Chevron* deference in three-quarters of the cases where *Chevron* would typically apply. William N. Eskridge Jr. & Lauren E. Baer, *The Continuum of Deference: Supreme Court Treatment of Agency Statutory Interpretations From Chevron to Hamdan*, 96 GEO. L.J. 1083, 1124-25 (2008).

110. See generally *Chevron, U.S.A., Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837, 14 ELR 20507 (1984) (holding that the U.S. Environmental Protection Agency’s interpretation of “stationary source” in the Clean Air Act to be a plantwide emission rather than individual emitting devices was permissible, creating and applying *Chevron* deference).

111. See DANIEL T. SHEDD & TODD GARVEY, CONGRESSIONAL RESEARCH SERVICE, R43203, *CHEVRON DEFERENCE: COURT TREATMENT OF AGENCY INTERPRETATIONS OF AMBIGUOUS STATUTES 1* (2013).

112. See *Chevron*, 467 U.S. at 842-43.

113. See *id.*

114. See *id.*

115. See *id.*

116. See *id.*

117. See *Christensen v. Harris County*, 529 U.S. 576, 587 (2000).

118. See *Federal Express Corp. v. Holowecki*, 552 U.S. 389, 399 (2008); see also *United States v. Mead Corp.*, 533 U.S. 218, 228 (2001) (adding to *Skid-*

more deference factors the agency’s expertise and formality in acting).

119. *Skidmore v. Swift & Co.*, 323 U.S. 134, 140 (1944).

120. See *Kisor v. Wilkie*, 139 S. Ct. 2400, 2420, 49 ELR 20113 (2019).

121. *Id.* at 2408 (“This Court has often deferred to agencies’ reasonable readings of genuinely ambiguous regulations. We call that practice *Auer* deference, or sometimes *Seminole Rock* deference . . .”); see generally *Auer v. Robbins*, 519 U.S. 452 (1997); see generally *Bowles v. Seminole Rock & Sand Co.*, 325 U.S. 410 (1945).

122. *Kisor*, 139 S. Ct. at 2412.

123. *Id.* at 2415.

124. See *id.* at 2415-16.

125. *Id.* at 2416.

126. See *id.*

127. *Id.*

128. *Id.* at 2417.

129. *Id.* at 2417-18.

130. *Id.*

131. This Comment will use both the former and current NEPA regulations and cite them as such. In 2020, the Council on Environmental Quality (CEQ), the entity responsible for implementing NEPA, overhauled the NEPA regulations for the first time to substantially alter them. The Joseph Biden Administration, at the beginning of its term, announced a comprehensive review and amendment plan to restore the NEPA regulations to their previous form. NEPA.Gov, *CEQ NEPA Regulations*, <https://ceq.doe.gov/laws-regulations/regulations.html> (last visited Apr. 26, 2023). Some courts have additionally stayed the implementation of the 2020 regulations, while others have dismissed challenges to the regulations. See, e.g., *Environmental Justice Health All. v. Council on Env’t Quality*, No. 3:20-cv-06143-CM

icantly affect[] the quality of the human environment.”¹³² This statement is known as an environmental impact statement (EIS).¹³³ The EIS must address several factors, which are:

- The proposed action’s environmental impact,
- Any unavoidable adverse environmental effects,
- Alternatives to the proposed action,
- “[T]he relationship between local short-term uses of man’s environment and the maintenance and enhancement of long-term productivity,” and
- “[A]ny irreversible and irretrievable commitments of resources that would be involved in the proposed action.”¹³⁴

Agencies can prepare an environmental assessment (EA) in lieu of an EIS.¹³⁵ An EA determines whether an EIS is necessary or if an agency should instead produce a finding of no significant impact (FONSI).¹³⁶ If the EA concludes the proposed action will not have significant effects, the agency proposing the action prepares a FONSI,¹³⁷ and an EIS is unnecessary.¹³⁸ In writing these documents, the agency must use the “high quality” information and “[a]ccurate scientific analysis”¹³⁹ (or “best available science”)¹⁴⁰ in drafting, especially involving climate change.¹⁴¹ Courts review this information under a “hard look” test.¹⁴²

The effects or impacts referenced in the EIS¹⁴³ or EA¹⁴⁴ are reasonably foreseeable¹⁴⁵ direct,¹⁴⁶ indirect,¹⁴⁷ and cumulative¹⁴⁸ effects, and the effects are not only limited to ecological ones.¹⁴⁹ Federal agencies must consider the contribution their proposed actions have on climate change¹⁵⁰ within a global context as one of these effects.¹⁵¹ NEPA is, however, only a procedural requirement.¹⁵² It is not a mandate for the agency to follow its EIS findings.¹⁵³ The agency proposing the action must properly consider environmental impacts, and it must consider relevant factors and present a rational connection with the choice made and the facts presented to ensure the decision made was not arbitrary and capricious.¹⁵⁴

4. Direct Congressional Mandate to Consider Climate Change: The NFMA

The U.S. Forest Service has the “most extensive climate-related planning” of the U.S. land management agencies because of the flexibility of its statutory scheme.¹⁵⁵ The NFMA established a Renewable Resource Program for federal forests and grasslands, based on “[an] analysis of

143. See 40 C.F.R. §1502.1 (2020).

144. See *id.* §1508.9(b) (1978).

145. See *id.* §1508.1(g) (2022).

146. *Id.* §1508.1(g)(1).

147. *Id.* §1508.1(g)(2).

148. *Id.* §1508.1(g)(3):

Cumulative effects, which are effects on the environment that result from the incremental effects of the action when added to the effects of other past, present, and reasonably foreseeable actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time.

149. Other effects include aesthetic, historic, cultural, economic, social, and health effects. *Id.* §1508.1(g)(4).

150. See Memorandum from CEQ on Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews (Aug. 1, 2016) (on file with author) [hereinafter Memo From CEQ].

151. See 350 Mont. v. Haaland, 50 F.4th 1254, 1265-66, 1268, 52 ELR 20042 (9th Cir. 2022) (finding that the U.S. Department of the Interior (DOI) did not meet its burden of justifying its determination that a mine expansion’s greenhouse gas emissions would be “minor” by not citing any scientific evidence, and noting that DOI’s conclusion is “deeply troubling”); see also Barnes v. U.S. Dep’t of Transp., 655 F.3d 1124, 1140, 41 ELR 20279 (9th Cir. 2011) (holding that an airport runway construction project’s effects on climate change are not highly uncertain as to not be included in the EA because “there is ample evidence that there is a causal connection between man-made greenhouse gas emissions and global warming” and “existing and future aviation activity at HIO [Hillsboro Airport] are expected to represent less than 0.03 percent of U.S.-based greenhouse gases”); see also California v. Bernhardt, 472 F. Supp. 573, 627, 50 ELR 20174 (N.D. Cal. 2020) (“the appropriate context for a nationwide rulemaking that contributes to a global problem is the world as a whole”).

152. See Vermont Yankee Nuclear Power Corp. v. Natural Res. Def. Council, 435 U.S. 519, 548, 558, 8 ELR 20288 (1978).

153. See Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 352-53, 19 ELR 20743 (1989).

154. See Baltimore Gas & Elec. Co. v. Natural Res. Def. Council, 462 U.S. 87, 106, 13 ELR 20544 (1983) (“It is not our task to determine what decision we, as Commissioners, would have reached. Our only task is to determine whether the Commission has considered the relevant factors and articulated a rational connection between the facts found and the choice made.”).

155. Alejandro E. Camacho & Robert L. Glicksman, *Legal Adaptive Capacity: How Program Goals and Processes Shape Federal Land Adaptation to Climate Change*, 87 U. COLO. L. REV. 711, 753 (2016).

(S.D.N.Y. Feb. 16, 2021); *but see also* Wild Va. v. Council on Env’t Quality, 544 F. Supp. 3d 620, 635-36, 51 ELR 20117 (W.D. Va. 2021).

132. 42 U.S.C. §4332(2)(C).

133. See 40 C.F.R. §1508.1(j) (2022); 42 U.S.C. §4332(2)(C).

134. 42 U.S.C. §4332(2)(C)(i)-(v).

135. See 40 C.F.R. §1508.1(h) (2022).

136. See *id.*

137. See *id.* §1501.6(a) (2020).

138. See *id.* §1508.1(l) (2022).

139. *Id.* §1500.1(b) (1978). Although the regulations removed “high quality” information and “[a]ccurate scientific analysis” language, the U.S. Court of Appeals for the Ninth Circuit states that 40 C.F.R. §1500.1 requires “environmental information” produced by agencies be of “high quality” and “[a]ccurate scientific analysis.” See 40 C.F.R. §1500.1 (2020); *but see* 350 Mont. v. Haaland, 50 F.4th 1254, 1270, 52 ELR 20042 (9th Cir. 2022).

140. See Custer Cnty. Action Ass’n v. Garvey, 256 F.3d 1024, 1034, 31 ELR 20804 (10th Cir. 2001) (“[A]gencies must take a hard look at the environmental consequences of proposed actions utilizing public comment and the best available scientific information.”); *but see* 350 Mont., 50 F.4th at 1271 (quoting previous case law to find NEPA does not require an EA to use the best scientific methodology available, but, rather, high-quality information and accurate scientific analysis).

141. See WildEarth Guardians v. Jewell, 738 F.3d 298, 308-09, 44 ELR 20001 (D.C. Cir. 2013); see also High Country Conservation Advocs. v. U.S. Forest Serv., 52 F. Supp. 3d 1174, 1193, 44 ELR 20144 (D. Colo. 2014).

142. WildEarth Guardians v. U.S. Bureau of Land Mgmt., 870 F.3d 1222, 1233, 47 ELR 20115 (10th Cir. 2017); Western Watersheds Project v. Abbey, 719 F.3d 1035, 1047 (9th Cir. 2013) (agencies must “take a ‘hard look’ at how the choices before them affect the environment, and then . . . place their data and conclusions before the public”); Amigos Bravos v. U.S. Bureau of Land Mgmt., No. 6:09-CV-00037-RB-LFG, 2011 WL 7701433, at *10, 41 ELR 20260 (D.N.M. Aug. 3, 2011).

environmental and economic impacts, coordination of multiple use and sustained yield opportunities¹⁵⁶ as provided in the Multiple-Use Sustained-Yield Act of 1960, and public participation in the development of the program.”¹⁵⁶ This Act provides for the resource management system to be flexible to change over time,¹⁵⁷ as seen through the continuing inventory of National Forest System lands to identify “new values” and changing conditions in the process,¹⁵⁸ requirements for periodic resource assessments to analyze “the potential effects of global climate change on the condition of renewable resources on the forests and rangelands of the United States,”¹⁵⁹ and for the periodic submission of a Renewable Resource Program to the president to “account for the effects of global climate change on forest and rangeland conditions, including potential effects on the geographic ranges of species, and on forest and rangeland products.”¹⁶⁰

The NFMA also requires the Forest Service to develop and adopt a management plan for each unit of the National Forest System under a multiple use and sustained yield standard.¹⁶¹ The implementing regulations of the Forest Service require the appropriate Forest Service official to use the “best available scientific information” in National Forest System land management planning,¹⁶² which can include an evaluation of climate change’s effects.¹⁶³

The Forest Service has expressed its intent to integrate climate change considerations into its policymaking and guidance. In 2008, the Forest Service created a Strategic Framework with seven goals to address climate change, including integrating climate change into policies, reducing the “environmental footprint” of Forest Service activities, and “[p]romot[ing] the management of forests and grasslands to reduce the buildup of greenhouse gases, while sustaining the multiple benefits and services of these ecosystems.”¹⁶⁴ In 2011, the Forest Service developed the National Roadmap for Responding to Climate Change, creating a threefold response through adaptation, mitigation, and sustainable consumption.¹⁶⁵ The Forest Service also considered climate change’s impacts on the habitats that the Service manages.¹⁶⁶

156. 16 U.S.C. §1600(3).

157. *See id.* §1600(1).

158. *See id.* §1603.

159. *Id.* §1601(a)(5); National Forest System Land Management Planning, 77 Fed. Reg. 21162, 21167, 21177 (Apr. 9, 2012) (codified at 36 C.F.R. pt. 219).

160. 16 U.S.C. §1602(5)(F).

161. *See id.* §1604(e)(1)-(2); *see also* 36 C.F.R. §219.1(a).

162. *See* 36 C.F.R. §219.3.

163. *See* O’Neil v. Steele, No. CV 19-140-M-DLC-KLD, 2021 WL 5773900 (D. Mont. June 8, 2021) (holding that the Forest Service’s “best available scientific information” mandate does not conflict with Executive Order No. 14008, which states the Biden Administration’s policy to combat climate change governmentwide).

164. FOREST SERVICE, U.S. DEPARTMENT OF AGRICULTURE, FOREST SERVICE STRATEGIC FRAMEWORK FOR RESPONDING TO CLIMATE CHANGE 7 (2008), <https://www.fs.usda.gov/sites/default/files/strategic-framework-climate-change.pdf>.

165. *See* FOREST SERVICE, U.S. DEPARTMENT OF AGRICULTURE, NATIONAL ROADMAP FOR RESPONDING TO CLIMATE CHANGE 18 (2011), <https://www.fs.usda.gov/sites/default/files/roadmap-ccresponse.pdf>.

166. *See id.* at 24 (“To protect all these species and more, the Forest Service will need to make habitats more resilient to climate change and increase con-

nectivity among them.”).
 167. *See* Camacho & Glicksman, *supra* note 155, at 758-66.
 168. *See* FOREST SERVICE, U.S. DEPARTMENT OF AGRICULTURE, CLIMATE ADAPTATION PLAN (2022), https://www.usda.gov/sites/default/files/documents/4_NRE_FS_ClimateAdaptationPlan_2022.pdf.
 169. *See id.* at 6-7, 14 (“1. Shifting wildfire regimes[,] 2. Extreme events and disturbances[,] 3. Chronic stressors to watersheds and ecosystems[,] 4. Disruption in provisioning of forest products and services[,] 5. Environmental injustice and social vulnerability[,] 6. Threats to agency workforce and operations.”).
 170. *See id.* (“1. Adapt to changing fire regimes. 2. Prepare ecosystems and watersheds for extreme events and intensifying disturbances. 3. Sustain and improve ecosystem and watershed function in the face of chronic stressors. 4. Support the delivery of ecosystem products and services in a changing climate. 5. Deliver environmental justice through adaptation actions. 6. Increase agency capacity to respond to climate change.”).
 171. *See* Cover Letter from Joel D. Holtrop, Deputy Chief, National Forest System, to Regional Foresters et al., U.S. Forest Service (Mar. 2, 2010) (on file with author).
 172. National Park Service Organic Act of 1916 §1, 39 Stat. 535; *see* Bluewater Network v. Salazar, 721 F. Supp. 2d 7, 20-21 (D.D.C. 2010) (“[T]he overriding aim of the Organic Act, as well as the purpose of NPS’ oversight and management of the park system, is to conserve the natural wonders of our nation’s parks for future generations.”).
 173. NPS, MANAGEMENT POLICIES 2006, at 37 (2006), <https://www.nps.gov/orgs/1548/upload/ManagementPolicies2006.pdf>.
 174. *Id.* at 47.
 175. National Park Service Organic Act §3.
 176. 54 U.S.C. §100702; NPS, *Climate Change: Law and Policy*, <https://www.nps.gov/subjects/climatechange/law-policy.htm> (last updated Oct. 8, 2021).

5. Indirect Congressional Mandate to Consider Climate Change: The National Park Service Organic Act

The National Park Service Organic Act, passed in 1916, created the National Park Service (NPS) and directed it to “conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.”¹⁷² From this directive, the NPS will only interfere with the environment “to restore natural ecosystems functioning that has been disrupted by past or ongoing human activities.”¹⁷³ The NPS will generally, therefore, not allow non-native species to be introduced into the natural environment, except if there are “specific, identified management needs.”¹⁷⁴

The Organic Act further provides the discretion for “necessary or proper” rules and regulations for the management of those lands under the NPS’ jurisdiction.¹⁷⁵ The Service must manage each national park by using the “highest quality science” to combat climate change.¹⁷⁶ The Service has used these sections as the authority to “incorporate cli-

mate change considerations and responses in all levels of NPS planning.”¹⁷⁷

Like the Forest Service, the NPS has developed policymaking and guidance to combat climate change. In 2010, the Service established its Climate Change Response Strategy with 14 goals to “address the impacts of climate change” through science, adaptation, mitigation, and communication.¹⁷⁸ The 2012 Climate Change Action Plan summarized previous planning and guidance documents on climate change,¹⁷⁹ identified priorities for where to incorporate climate change considerations,¹⁸⁰ and clarified the agency’s next steps in continuing research and developments for climate change.¹⁸¹

The NPS did publish additional planning documents,¹⁸² and climate change scenario planning is encouraged by the Service at the unit level.¹⁸³ One of the most recent plans by the NPS is Planning for a Changing Climate: Climate-Smart Planning and Management in the National Park Service, which states that as scientific knowledge evolves, so too does NPS management policies and practices “to meet the overarching goal of the agency under the NPS Organic Act.”¹⁸⁴

II. Analysis

FWS’ Proposed Rule on June 7, 2022, to remove any reference to “historical range” from the experimental population regulations¹⁸⁵ is a properly promulgated, legislative rule that advances the very purpose of the ESA to protect listed species and habitat from climate change. Additionally, the Proposed Rule adheres to the trend of federal environmental and land management agencies to consider climate change as part of its statutory, congressional mandate, whether directly or indirectly.

177. NPS, PLANNING FOR A CHANGING CLIMATE: CLIMATE-SMART PLANNING AND MANAGEMENT IN THE NATIONAL PARK SERVICE 3 (2021), <https://irma.nps.gov/DataStore/DownloadFile/662814> [hereinafter PLANNING FOR A CHANGING CLIMATE] (“As scientific knowledge grew over its first 100 years, enormous evolution occurred in NPS management policies and practices to meet the overarching goal of the agency under the NPS Organic Act.”).

178. NPS, CLIMATE CHANGE RESPONSE STRATEGY 3, 12-15 (2010), https://www.nps.gov/subjects/climatechange/upload/Climate-Change-Response-Strategy_508.pdf [hereinafter CLIMATE CHANGE RESPONSE STRATEGY].

179. See NPS, CLIMATE CHANGE ACTION PLAN 2012-2014, at 7 (2012), <https://www.nps.gov/subjects/climatechange/upload/CCActionPlan-508compliant.pdf> [hereinafter CLIMATE CHANGE ACTION PLAN 2012-2014].

180. See *id.*

181. See *id.* at 29-33.

182. See Camacho & Glicksman, *supra* note 155, at 793-800; see also NPS, RESPONDING TO THE CHALLENGE OF CLIMATE CHANGE 1 (2016), <http://npshistory.com/publications/climate-change/briefs/01-CCRP-Program-Brief-FEB-2016.pdf>.

183. See NPS, USING SCENARIOS TO EXPLORE CLIMATE CHANGE: A HANDBOOK FOR PRACTITIONERS 4, 33, 35 (2013), https://www.nps.gov/parkhistory/online_books/climate/CCScenariosHandbookJuly2013.pdf [hereinafter USING SCENARIOS TO EXPLORE CLIMATE CHANGE]; see, e.g., NPS, CLIMATE FRIENDLY PARKS: YOSEMITE NATIONAL PARK ACTION PLAN (2006), https://www.nps.gov/subjects/climatechange/upload/YOSE_CFP_Action_Plan_508Compliant.pdf [hereinafter YOSEMITE NATIONAL PARK ACTION PLAN].

184. PLANNING FOR A CHANGING CLIMATE, *supra* note 177, at 3.

185. See Endangered and Threatened Wildlife and Plants; Designation of Experimental Populations, 87 Fed. Reg. 34625, 34626 (proposed June 7, 2022).

A. Argument

1. The Proposed Rule Adheres to the ESA, Which Already Considers Climate Change in Listing and Critical Habitat Designation

The Proposed Rule follows the ESA’s broad purpose, which already considers climate change’s impacts in listing and critical habitat designation decisions, and the Service already has flexibility in interpreting what “habitat” is to further protect species and their habitats.

□ *Species listings and critical habitat designations.* FWS must use the “best scientific and commercial data available”¹⁸⁶ in determining whether to list a species under the ESA, which includes the latest climate change models and scenarios available at the time.¹⁸⁷ The Service must also use the best available scientific data to make critical habitat designations, while additionally considering the “economic impact, the impact on national security, and any other relevant impact, of specifying any particular area as critical habitat.”¹⁸⁸ By promulgating the Proposed Rule, FWS is indicating that a species’ historical range should not play a factor in experimental population introduction. Removing “historical range” from experimental population introductions aligns the ESA’s listing decisions and critical habitat designations altogether, because these determinations will use the best scientific and commercial data available to better combat species’ changing landscape because of climate change without the limitation of geography.

As a result, FWS’ decision to introduce a population will continue to be based on the best available data concerning (1) adverse effects on the species by removing a set amount of the species for introduction, (2) the likelihood of the experimental populations’ survival, (3) the experimental populations’ recovery effects, and (4) “[t]he extent to which the introduced population may be affected by existing or anticipated Federal or State actions or private activities within or adjacent to the experimental population area.”¹⁸⁹ This Comment additionally proposes that FWS should add a fifth factor: to consider the experimental population’s impact on the destined ecosystem to assist in introducing species to a suitable location outside of their historical range.¹⁹⁰

□ *The flexible definition of “habitat.”* The Proposed Rule aligns with the flexibility on what constitutes a “habitat”

186. 16 U.S.C. §1533(b)(1)(A).

187. See *In re Polar Bear Endangered Species Act Listing & 4(d) Rule Litig.*, 794 F. Supp. 2d 65, 110 (D.D.C. 2011); see also *Greater Yellowstone Coal., Inc. v. Servheen*, 665 F.3d 1015, 1028, 41 ELR 20347 (9th Cir. 2011).

188. 16 U.S.C. §1532(b)(2).

189. 50 C.F.R. §17.81(b)(1)-(4).

190. See generally Marris, *supra* note 9:

Ditch the idea of a single native range altogether. Instead of asking “Where does this species belong?” some conservationists are beginning to ask something more like “Where can this species thrive without causing unwanted effects?” They are looking at areas where the species can do well today—and in a warmer tomorrow.

for a species, as expressed by FWS in its decision to leave the definition of “habitat” in the term “critical habitat” undefined.¹⁹¹ Under the Donald Trump Administration, the Service defined the term “habitat” in “critical habitat” designations as “the abiotic and biotic setting that currently or periodically contains the resources and conditions necessary to support one or more life processes of a species.”¹⁹²

Under the Joseph Biden Administration, the Service rescinded this definition of “habitat” from the regulations but did not provide a replacement.¹⁹³ This rescission stated that a more “consistent,” “appropriate,” and “transparent” decision is to eliminate the definition of “habitat,” and instead allow FWS to assess “habitat” areas “on a case-by-case basis using the best scientific data available for the particular species.”¹⁹⁴ The rescission also noted that by defining “habitat,” the Service constrained its ability to perpetuate the ESA’s purpose and mandate to designate critical habitats by limiting the Service to designate only when certain conditions are met.¹⁹⁵

Like the rescission of the “habitat” definition because of the limitation on the ESA, the term “historical range” is removed as it limits FWS’ ability to use experimental populations as a conservation tool for the species. A recent study found that 16,919 mammal, bird, and amphibian species “have lost an average of 18% of their natural range sizes [up to 2016], a figure that may drop to 13% or increase to 23% by the end of the century,” because of climate change and land use. “Isolating the impact of climate change shows that higher levels of global warming increase both the number of species experiencing substantial range contractions and range expansions.”¹⁹⁶ This study shows how species increasingly are unable to thrive in their historical range because of climate change, and measures must be allowed for these species to move to new ranges or to face the threat of extinction in their range.

By limiting a species to its historical range, even if the species would be able to thrive outside the range and meet the four factors that must be considered to release an experimental population,¹⁹⁷ FWS would still be unable

to introduce the population except in “the extreme case that the primary habitat of the species has been unsuitably and irreversibly altered or destroyed.”¹⁹⁸ Removing this geographical barrier would further the conservation purposes of the ESA and experimental populations because “historical range” is an arbitrary limitation that is otherwise already compensated for by the four factors¹⁹⁹ the Service considers when releasing the experimental population that must occur regardless.

2. The Proposed Rule Is a Proper Legislative Rule That Will Likely Warrant Deference From Courts

FWS properly promulgated its Proposed Rule as a legislative rule, and therefore, if challenged, the courts should grant deference to the Service’s interpretation of 50 C.F.R. Part 17 so as to remove “historical range.” Currently, the Service refers to the Proposed Rule as an interpretive rule,²⁰⁰ and the rule itself states that it “will more clearly establish the authority of the Service to introduce experimental populations into areas of habitat outside of the historical range of the affected listed species.”²⁰¹ Although an agency may refer to a rule as “legislative” or not, the weight in determining the rule’s status is within the language of the rule,²⁰² and simply because a rule went through notice-and-comment rulemaking does not convert a non-legislative rule into a legislative one.²⁰³ FWS should refer to the Proposed Rule as a legislative rule to avoid confusing the public and regulated community and to receive warranted deference.²⁰⁴

To determine whether a rule is legislative or interpretive, the inquiry is rooted in determining whether the alleged “interpretive rule” has “legal effect.”²⁰⁵ A court determines “legal effect” by asking

- (1) whether in the absence of the rule there would not be an adequate legislative basis for enforcement action or other agency action to confer benefits or ensure the performance of duties, (2) whether the agency has published the rule in the Code of Federal Regulations, (3) whether the

191. Endangered and Threatened Wildlife and Plants; Regulations for Listing Endangered and Threatened Species and Designating Critical Habitat, 87 Fed. Reg. 37757, 37757-58 (June 24, 2022).

192. Endangered and Threatened Wildlife and Plants; Regulations for Listing Endangered and Threatened Species and Designating Critical Habitat, 85 Fed. Reg. 81411, 81411-12 (Dec. 16, 2020).

193. See Endangered and Threatened Wildlife and Plants; Regulations for Listing Endangered and Threatened Species and Designating Critical Habitat, 87 Fed. Reg. at 37759.

194. *Id.* at 37758.

195. See *id.*:

In order to fulfill the intended objective of critical habitat, the Services should be able to designate unoccupied areas as critical habitat if those areas fit within any reasonable biological understanding of “habitat” as established by the best available scientific data for a particular species, and if such areas are essential for the recovery of the species.

196. Robert M. Beyer & Andrea Manica, *Historical and Projected Future Range Sizes of the World’s Mammals, Birds, and Amphibians*, NATURE COMM’NS, Nov. 6, 2010, at 2 (using the estimated historical habitat ranges for 16,919 mammal, bird, and amphibian species and 16 land use and climate trajectories to find the worst-case scenario of a 23% average habitat loss by 2100).

197. See 50 C.F.R. §17.81(b)(1)-(4).

198. *Id.* §17.81(a).

199. See *id.* §17.81(b)(1)-(4).

200. See Press Release, FWS, *supra* note 13.

201. Endangered and Threatened Wildlife and Plants; Designation of Experimental Populations, 87 Fed. Reg. 34625, 34625 (proposed June 7, 2022).

202. See Brock v. Cathedral Bluffs Shale Oil Co., 796 F.2d 533, 537-38 (D.C. Cir. 1986).

203. See Sierra Club v. Environmental Prot. Agency, 873 F.3d 946, 952, 47 ELR 20091 (D.C. Cir. 2017).

204. An anticipated challenge to FWS’ claim of deference is that Congress never intended to give the Service the authority to combat climate change, invoking an argument akin to that in *West Virginia v. Environmental Protection Agency*, 142 S. Ct. 2587, 52 ELR 20077 (2022). These arguments, however, are likely to fail because experimental population introductions should not fall under the “major questions doctrine,” which is the principle that Congress would not leave a significant economic or political issue to one agency’s discretion. See *Food & Drug Admin. v. Brown & Williamson Tobacco Corp.*, 529 U.S. 120, 160 (2000). Comparing the “substantial[] restructuring[ing of] the American energy market” from *West Virginia* to allowing experimental populations to be released outside their historical range for conservation purposes seemingly does not entail comparable economic or political concerns. See *West Virginia*, 142 S. Ct. at 2610.

205. See *American Mining Cong. v. Mine Safety & Health Admin.*, 995 F.2d 1106, 1112 (D.C. Cir. 1993).

agency has explicitly invoked its general legislative authority, or (4) whether the rule effectively amends a prior legislative rule.²⁰⁶

If the answer to any of these questions is in the affirmative, then the rule is a legislative one with legal effect.²⁰⁷ Here, the Proposed Rule is legislative because FWS will publish the Proposed Rule in the *Code of Federal Regulations*, the Service explicitly invoked its general legislative authority under the ESA, and the Proposed Rule effectively amends a prior legislative rule.

Publication of the alleged rule in the *Code of Federal Regulations* is only a “snippet” of evidence of the agency’s intent for whether the rule is interpretive.²⁰⁸ The Service states, however, that the Proposed Rule “amend[s] subpart H, of part 17, title 50 of the Code of Federal Regulations,” and, thus, the agency is clearly planning on publishing these revisions into the *Code of Federal Regulations* upon finalization.²⁰⁹ For the general legislative authority of the agency, regulations promulgated pursuant to “explicit statutory authority” resolve the prong in the affirmative as a legislative rule,²¹⁰ and the Proposed Rule satisfies the prong because the Proposed Rule was issued under the authority of the ESA.²¹¹

Concerning effective amendment of a previous legislative rule, an amendment to Part 17 of Title 50 of the *Code of Federal Regulations* from 1984 (the 1984 Rule) stated in a comment:

Long-standing Service policy provides that the relocation or transplantation of native listed species outside their historic range will not be authorized as a conservation measure. For conservation measures involving the transplantation of listed species, it is Service policy to restrict introductions of listed species to historic range, absent a finding by the Director in the extreme case that the primary habitat of the species has been unsuitable and irreversibl[y] altered or destroyed. The Service believes this is the most biologically acceptable approach to utilize in species introductions.²¹²

The shift from the 1984 Rule’s disregard of using experimental populations outside their historical range as a conservation tool to the Proposed Rule’s goal to allow the transplant of listed species outside of their historical range is effectively an amendment to the prior legislative rule, because “if a second rule repudiates or is irreconcilable with a prior legislative rule, the second rule must be an

amendment of the first; and, of course, an amendment to a legislative rule must itself be legislative.”²¹³ The Proposed Rule clashes with the 1984 Rule’s stated policy and implementation, and because it clashes, the Proposed Rule is in effect amending the 1984 Rule and is thus a legislative rule.

FWS may argue the Proposed Rule has no legislative effect because it simply “more clearly establish[es]”²¹⁴ the authority of the Service to introduce experimental populations into areas of habitat outside of the historical range of the affected species,²¹⁵ so as to not alter the binding legal landscape for the Service.²¹⁶ Even if that is so, however, the Proposed Rule still qualifies as a legislative rule because it satisfies three of the four prongs in the *American Mining Congress* test to be called a legislative rule.²¹⁷

Because the Proposed Rule is a legislative rule, the benefit of such classification is that the rule can receive either *Chevron* and/or *Auer* deference based upon the agency’s clear expertise on the matter at hand if the resulting regulation is deemed to be ambiguous. The Proposed Rule may warrant *Chevron* deference as a reasonable interpretation of the ESA’s experimental population statutory provision,²¹⁸ which FWS is tasked to administer,²¹⁹ and/or it may warrant *Auer* deference as an interpretation of the Service’s own regulations in 50 C.F.R. Part 17.²²⁰ Therefore, FWS is promulgating a legislative rule that warrants deference by courts, and the Service should be clear in its classification of the Proposed Rule to give the public and regulated community proper notice of the rule’s effects and the type of deference it deserves.

3. The Proposed Rule Follows the Trend of Statutes’ “Best Available Science” Mandate to Consider Climate Change Effects

FWS is but one of the four major federal land management agencies.²²¹ It is also a prominent environmental agency.²²² Thus, considering how other agencies in the same area of practice consider climate change through their own statutory authority proves instructive because these agencies and their statutory authority all share one aspect in common: the command for the respective agencies to use the

206. *Id.*

207. *Id.*

208. *See* Health Ins. Ass’n of Am., Inc. v. Shalala, 23 F.3d 412, 423 (D.C. Cir. 1994).

209. Endangered and Threatened Wildlife and Plants; Designation of Experimental Populations, 87 Fed. Reg. 34625, 34628 (proposed June 7, 2022).

210. *See* Sweet v. Sheahan, 235 F.3d 80, 92 (2d Cir. 2000).

211. Endangered and Threatened Wildlife and Plants; Designation of Experimental Populations, 87 Fed. Reg. at 34628.

212. Endangered and Threatened Wildlife and Plants; Experimental Populations, 49 Fed. Reg. 33885, 33890 (Aug. 27, 1984) (codified at 50 C.F.R. pt. 17).

213. *American Mining Cong. v. Mine Safety & Health Admin.*, 995 F.2d 1106, 1109 (D.C. Cir. 1993).

214. *See* Funk, *supra* note 101, at 1322.

215. Endangered and Threatened Wildlife and Plants; Designation of Experimental Populations, 87 Fed. Reg. 34625, 34626 (proposed June 7, 2022).

216. *Syncor Int’l Corp. v. Shalala*, 127 F.3d 90, 94 (D.C. Cir. 1997).

217. *See American Mining Cong.*, 995 F.2d at 1112.

218. *See* SHEDD & GARVEY, *supra* note 111, at 1.

219. *See* 16 U.S.C. §1539(j)(3).

220. *See* *Kisor v. Wilkie*, 139 S. Ct. 2400, 2412, 49 ELR 20113 (2019) (“[Congress] would generally want the agency to play the primary role in resolving regulatory ambiguities.”).

221. *See* U.S. Government Accountability Office, *Managing Federal Lands and Waters*, <https://www.gao.gov/managing-federal-lands-and-waters> (last visited Apr. 26, 2023).

222. *See* Patricia Beaumont, *An Overview of Federal Environmental Agencies in America*, U. ROCHESTER: GREEN DANDELION (Feb. 1, 2017), <https://blogs.rochester.edu/thegreendandelion/2017/02/an-overview-of-federal-environmental-agencies-in-america/>.

best available science (or similar variation) in carrying out their congressional mandates. This subsection will examine the trend of how agencies have combatted climate change using the best available science in their decisionmaking by comparing the ESA to each examined statute.

First, this section will discuss NEPA's requirement of considering environmental impacts, including climate change, under a "high quality" information and "[a]ccurate scientific analysis"²²³ (or "best available science")²²⁴ standard that courts in turn review under a "hard look."²²⁵ Second, it will examine the Forest Service's explicit statutory mandate to consider climate²²⁶ and using the "best available science" in its forest planning.²²⁷ Finally, it will address the National Park Service Organic Act, where the NPS has taken the initiative to combat climate change without an explicit delegation to do so under its "highest quality science and information" mandate.²²⁸

□ *NEPA*. NEPA requires all federal agencies to create a "detailed statement" for any major federal action that would "significantly affect[] the quality of the human environment."²²⁹ One effect that federal agencies must consider under NEPA is the contribution their proposed actions have on climate change²³⁰ within a global context.²³¹ Although the NEPA process is simply a procedural requirement²³² and does not mandate an agency to follow its written alternatives or a specific outcome,²³³ agencies are required to "take a 'hard look' at how the choices before them affect the environment, and then to place their data and conclusions before the public."²³⁴

This "hard look" includes an agency's consideration of how its action could impact the environment based on the "best available scientific information,"²³⁵ especially involving climate change,²³⁶ just like the ESA's and 50 C.F.R. Part 17's consideration of climate change under the "best available science" mandate in its delegated decisionmaking. Therefore, because NEPA and 50 C.F.R. Part 17 share similar scientific standards, FWS can justify its decision to remove "historical range" as rooted in the best available scientific information in 50 C.F.R. Part 17, because it is a response to the severity of climate change that may yield a species' historical range uninhabitable based on the best available scientific information.

□ *The NFMA*. The NFMA established a Renewable Resource Program for federal forests and grasslands based on "[an] analysis of environmental and economic impacts, coordination of multiple use and sustained yield opportunities as provided in the Multiple-Use Sustained-Yield Act of 1960, and public participation in the development of the program."²³⁷ Periodic resource assessments for the National Forest System under the NFMA require analysis of "the potential effects of global climate change on the condition of renewable resources on the forests and rangelands of the United States,"²³⁸ and for the periodic submission of a Renewable Resource Program to the president to "account for the effects of global climate change on forest and rangeland conditions, including potential effects on the geographic ranges of species, and on forest and rangeland products."²³⁹ Additionally, the implementing regulations of the Forest Service require the appropriate Forest Service official to use the "best available scientific information" in National Forest System land management planning,²⁴⁰ which can include an evaluation of climate change's effects.²⁴¹

The NFMA differs from the ESA and 50 C.F.R. Part 17 in that the NFMA explicitly requires the Forest Service to consider climate change as a statutory mandate in its decisionmaking and planning²⁴²; under the ESA and 50 C.F.R. Part 17, the Service must consider climate change under

223. 40 C.F.R. §1500.1(b) (1978).

224. *See* Custer Cnty. Action Ass'n v. Garvey, 256 F.3d 1024, 1034, 31 ELR 20804 (10th Cir. 2001); *but see* 350 Mont. v. Haaland, 50 F.4th 1254, 1271, 52 ELR 20042 (9th Cir. 2022).

225. *WildEarth Guardians v. U.S. Bureau of Land Mgmt.*, 870 F.3d 1222, 1233, 47 ELR 20115 (10th Cir. 2017); *Amigos Bravos v. U.S. Bureau of Land Mgmt.*, No. 6:09-CV-00037-RB-LFG, 2011 WL 7701433, at *10, 41 ELR 20260 (D.N.M. Aug. 3, 2011).

226. 16 U.S.C. §§1601(a)(5), 1602(5)(F); National Forest System Land Management Planning, 77 Fed. Reg. 21162, 21167, 21177 (Apr. 9, 2012) (codified at 36 C.F.R. pt. 219).

227. 36 C.F.R. §219.3; *see also* O'Neil v. Steele, No. CV 19-140-M-DLC-KLD, 2021 WL 5773900, at *4 (D. Mont. June 8, 2021).

228. 54 U.S.C. §100702.

229. 42 U.S.C. §4332(2)(C).

230. Memo from CEQ, *supra* note 150.

231. *See* 350 Mont. v. Haaland, 50 F.4th 1254, 1265-66, 1268, 52 ELR 20042 (9th Cir. 2022) (finding that DOI did not meet its burden of justifying its determination that a mine expansion's greenhouse gas emissions would be "minor" by not citing any scientific evidence, and noting that DOI's conclusion is "deeply troubling"); *see also* Barnes v. U.S. Dep't of Transp., 655 F.3d 1124, 1140, 41 ELR 20279 (9th Cir. 2011) (holding that an airport runway construction project's effects on climate change are not highly uncertain as to not be included in the EA because "there is ample evidence that there is a causal connection between man-made greenhouse gas emissions and global warming" and "existing and future aviation activity at HIO are expected to represent less than 0.03 percent of U.S.-based greenhouse gases"); *see also* California v. Bernhardt, 472 F. Supp. 573, 627, 50 ELR 20174 (N.D. Cal. 2020) ("the appropriate context for a nationwide rulemaking that contributes to a global problem is the world as a whole").

232. *See* Vermont Yankee Nuclear Power Corp. v. Natural Res. Def. Council, 435 U.S. 519, 548, 558, 8 ELR 20288 (1978).

233. *See* Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 352-53, 19 ELR 20743 (1989).

234. *Western Watersheds Project v. Abbey*, 719 F.3d 1035, 1047 (9th Cir. 2013).

235. *See* Custer Cnty. Action Ass'n v. Garvey, 256 F.3d 1024, 1034, 31 ELR 20804 (10th Cir. 2001) ("[A]gencies must take a hard look at the environmental consequences of proposed actions utilizing public comment and the best available scientific information."); *but see* 350 Mont., 50 F.4th at 1271 (quoting previous case law to find NEPA does not require an EA to use the best scientific methodology available, but rather, high-quality information and accurate scientific analysis).

236. *See* *WildEarth Guardians v. Jewell*, 738 F.3d 298, 308-09, 44 ELR 20001 (D.C. Cir. 2013); *see also* High Country Conservation Advoc. v. U.S. Forest Serv., 52 F. Supp. 3d 1174, 1193, 44 ELR 20144 (D. Colo. 2014).

237. 16 U.S.C. §1600(3).

238. *Id.* §1601(a)(5); National Forest System Land Management Planning, 77 Fed. Reg. 21162, 21167, 21177 (Apr. 9, 2012) (codified at 36 C.F.R. pt. 219).

239. 16 U.S.C. §1602(5)(F).

240. *See* 36 C.F.R. §219.3.

241. *See* O'Neil v. Steele, No. CV 19-140-M-DLC-KLD, 2021 WL 5773900, at *4 (D. Mont. June 8, 2021) (holding that the Forest Service's "best available scientific information" mandate does not conflict with Executive Order No. 14008, which states the Biden Administration's policy to combat climate change governmentwide).

242. *Id.*

the “best available science” as a mandate placed upon it by the courts for its critical habitat and listing decisions.²⁴³

□ *The National Park Service Organic Act.* The National Park Service Organic Act’s purpose is “to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.”²⁴⁴ Like the ESA and experimental population release decisions, the Organic Act does not contain any directive to consider climate change in these agencies’ decisionmaking.²⁴⁵ Additionally, both statutes command for the respective agencies to use the best available science in carrying out their congressional mandates.²⁴⁶

The U.S. Department of the Interior and NPS use the “highest quality science” command to issue policies on how to combat climate change to further the NPS’ mission.²⁴⁷ Even though there is not a direct statutory mandate to consider climate change, the NPS still considers climate change in its planning at the national²⁴⁸ and unit levels.²⁴⁹ Although the courts have only spoken to the NPS’ conservation goal,²⁵⁰ the Service considers climate change in its guidance, policymaking, and decisionmaking without

an outright mandate.²⁵¹ Here, FWS can consider climate change in its decision to remove “historical range” from its regulations to further the conservation purpose of the regulations, even without the outright mandate.

III. Conclusion

There is potential for FWS to use experimental populations as both a valid conservation tool²⁵² and as a climate change mitigation strategy to minimize its impact on a species’ survival. The Service’s Proposed Rule to remove the term “historical range” from the experimental population regulations acts as a new and necessary conservation tool for the Service in these efforts. The Proposed Rule is a proper exercise of FWS’ authority to combat climate change because it (1) falls under the ESA’s flexibility to consider climate change in listing and critical habitat designation decisions, (2) is a proper legislative rule implemented by an agency with expertise in this area, and (3) follows and implements the trend of environmental and land use statutes’ use of the best available scientific information the same way as in NEPA, the NFMA, and the National Park Service Organic Act to consider climate change’s effect on the environment in decisionmaking and planning.

243. See *In re Polar Bear Endangered Species Act Listing & 4(d) Rule Litig.*, 794 F. Supp. 2d 65, 95-96, 106 (D.D.C. 2011); see also *Greater Yellowstone Coal., Inc. v. Servheen*, 665 F.3d 1015, 1028, 41 ELR 20347 (9th Cir. 2011).

244. National Park Service Organic Act of 1916 §1, 39 Stat. 535.

245. See generally 16 U.S.C. §§1531 et seq.; see generally 54 U.S.C. §§100101 et seq.

246. Compare 16 U.S.C. §1533(b)(1)(A)-(3)(A), with 54 U.S.C. §100702, and 50 C.F.R. §17.81(b).

247. See NPS, *supra* note 176.

248. See, e.g., PLANNING FOR A CHANGING CLIMATE, *supra* note 177, at 3; CLIMATE CHANGE RESPONSE STRATEGY, *supra* note 178, at 3, 12-15; CLIMATE CHANGE ACTION PLAN 2012-2014, *supra* note 179, at 7.

249. See, e.g., USING SCENARIOS TO EXPLORE CLIMATE CHANGE, *supra* note 183, at 4, 33, 35; see also YOSEMITE NATIONAL PARK ACTION PLAN, *supra* note 183, at 1.

250. *Bluewater Network v. Salazar*, 721 F. Supp. 2d 7, 20-21 (D.D.C. 2010) (“[T]he overriding aim of the Organic Act, as well as the purpose of NPS’ oversight and management of the park system, is to conserve the natural wonders of our nation’s parks for future generations.”).

251. While there is currently no case law on the use of the “highest quality science” to combat climate change, at least one journal notes the commitment to science as a way for the NPS to confront climate change. Robert B. Keiter, *The National Park System: Visions for Tomorrow*, 50 NAT. RES. J. 71, 108, 109-10 (2010) (“Better informed by science about ecological imperatives, climate change, and species-conservation needs, we have the opportunity to reassess the purpose of the national parks and to continue redesigning the system to meet these challenges.”).

252. See 50 C.F.R. §17.81(b).