EARTHJUSTICE
BECAUSE THE EARTH NEEDS A GOOD LAWYER

NORTHWEST REGIONAL OFFICE
810 3RD AVENUE, SUITE 610
SEATTLE, WA 98104-1711
T: 206.343.7340

May 19, 2025

Federal eRulemaking Portal
www.regulations.gov
Docket:
FWS-HQ-ES-2025-0034

Re: Comments Regarding Rescinding the Definition of "Harm" Under the Endangered Species Act: 90 Fed. Reg. 16102 (April 17, 2025)

Dear Secretary Burgum and Secretary Lutnick:

These comments are filed by Earthjustice on behalf of the sixty-six undersigned organizations. The undersigned organizations and their members work to protect and preserve the environment, with particular attention to the preservation of threatened and endangered species and the habitat they need to survive and recover. We submit these comments to oppose the proposal by the U.S. Fish and Wildlife Service ("FWS") and the National Marine Fisheries Service ("NMFS") (collectively "the Services") to rescind the long-standing regulatory interpretation of the term "harm" in the Endangered Species Act's ("ESA" or "the Act") definition of prohibited take (the "Proposed Rule").[1]

SUMMARY OF CONCERNS

The ESA represents our nation's commitment to preventing the extinction of threatened and endangered species and protecting the ecosystems they need to survive and recover. A core protection in the ESA is the prohibition on the "take" of endangered species, which the Act defines to include "harm."[2] For fifty years, federal regulations have recognized that "harm" in this context must include a prohibition on killing or injuring endangered species through significant habitat modification or degradation, such as by destroying the resources that members of endangered species need for feeding, breeding, or sheltering.[3] This definition appropriately reflects that habitat protection was a paramount concern when Congress enacted the ESA, as demonstrated in both the legislative history and the text of the statute itself.

The Services' Proposed Rule to rescind the regulatory definition of "harm" lacks any basis in science or law. As the biodiversity crisis continues to accelerate, human-caused habitat destruction drives species toward extinction more than any other single factor and threatens to undermine the goals embodied in the ESA. The statute prohibits takings caused by habitat

[1] *See* Endangered and Threatened Wildlife and Plants; Rescinding the Definition of "Harm" Under the Endangered Species Act, 90 Fed. Reg. 16102 (April 17, 2025).

[2] 16 U.S.C. § 1532(19).

[3] FWS's definition of "harm" is found at 50 C.F.R. § 17.3; NMFS's is found at 50 C.F.R. § 222.102.

destruction that kills or injures wildlife, and any contrary approach would shred the safety net that the ESA guarantees for vulnerable species. While the Services cannot administratively repeal elements of the statute, the Proposed Rule signals that the Services will not lawfully implement the ESA and invites confusion and noncompliance by the regulated community.

In these comments, we first summarize the extensive science linking habitat destruction to the injury or death of members of protected species. This recent research only deepens the concerns that motivated Congress to enact the ESA; it also reinforces the need for the Services' long-standing definition of "harm." We then describe in more detail just a few of the Services' many scientific determinations that habitat modification or degradation imperils threatened and endangered species. In short, there is no scientific justification for rescinding the "harm" definition; years of scientific evidence proves that significant habitat modification or degradation actually kills or injures fish and wildlife.

Turning to the scant justifications given for the Proposed Rule, we explain why eliminating the "harm" definition would contravene the ESA by conflicting with the plain text of the statute, its legislative history, and a landmark U.S. Supreme Court opinion that resoundingly upheld the current definition of "harm." The Proposed Rule would also upend thirty years' worth of judicial precedent consistent with that ruling. Nothing in the Supreme Court's recent opinion in *Loper Bright Enterprises v. Raimondo,* 603 U.S. 369 (2024), compels or supports the Services' proposed action here.

Finally, if the Services go ahead with this proposal, they must analyze the likely impacts of the Proposed Rule under the National Environmental Policy Act and engage in consultation under the ESA. All of the scientific and legal evidence in this letter and the attachments is centrally relevant to the proposed rescission and must be thoroughly accounted for by the Services.

For the reasons outlined in this letter, and for the species that the ESA protects from extinction, we urge you to withdraw the Proposed Rule rescinding the long-standing regulatory definition of "harm."

DETAILED COMMENTS

I. HABITAT LOSS IS THE SINGLE GREATEST THREAT TO BIODIVERSITY WORLDWIDE.

Since the passage of the ESA in 1973, the ongoing extinction crisis has grown only more dire. According to a 2019 assessment by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services ("IPBES"), of an estimated 8 million animal and plant species on Earth, approximately 1 million species are now threatened with extinction.[4] Some classes of wildlife are more threatened than others: approximately 40 percent of amphibians and

[4] IPBES, *The Global Assessment Report on Biodiversity and Ecosystem Services* XXVIII (Eduardo S. Brondízio et al. eds., 2019) ("*Global Assessment*").

about a third of reef-forming corals, sharks, and marine mammals now face extinction.[5] Insect populations, which constitute 75 percent of all species on Earth,[6] are also in decline, though an estimated 80 percent of insect species remain unidentified—a "taxonomic gap" that means species will likely go extinct before we can even name them.[7]

Although the ESA has forestalled countless extinctions since its passage, the extinction crisis is nevertheless accelerating. The IPBES 2019 assessment states: "The rate of global change in nature during the past 50 years is unprecedented in human history."[8] Indeed, the human imprint on our natural environment is so distinct that for many researchers it warrants its own geological epochal label: the Anthropocene.[9] The Anthropocene features extinction rates at least tens to hundreds of times higher than the background rate of extinction over the last ten million years[10]—and by some estimates may increase to tens of thousands of times higher than the background extinction rate in the future.[11]

A. Habitat Loss Drives Extinctions.

Habitat loss is the most significant driving force behind species extinctions.[12] In a recent analysis of 20,784 species on the International Union for Conservation of Nature's ("IUCN")

[5] *Id.* at XXVIII.

[6] *Id.* at XXVIII.

[7] *See* Michael S. Engel et al., *The Taxonomic Impediment: A Shortage of Taxonomists, Not the Lack of Technical Approaches*, 193(2) Zool. J. Linn. Soc. 381, 384 (2021); Nigel E. Stork, *How Many Species of Insects and Other Terrestrial Arthropods Are There on Earth*?, 63 Ann. Rev. Entomol. 31, 31 (2018); Pedro Cardoso et al., *Scientists' Warning to Humanity on Insect Extinctions*, 242 Biol. Conserv. 1, 2 (2020).

[8] *Global Assessment* at XVI.

[9] *See, e.g.*, Telmo Pievani, *The Sixth Mass Extinction: Anthropocene and the Human Impact on Biodiversity*, 25 Rend. Fis. Acc. Lincei 85, 85 (2014); Sarah P. Otto, *Adaptation, Speciation and Extinction in the Anthropocene*, 285 Proc. R. Soc. B 1, 1 (2018); Christopher Spalding & Pincelli M. Hull, *Towards Quantifying the Mass Extinction Debt of the Anthropocene*, 288 Proc. R. Soc. B 1, 1 (2021); Collin N. Waters et al., *The Anthropocene is Functionally and Stratigraphically Distinct from the Holocene*, 351(6269) Sci. 137, 137 (2016).

[10] *Global Assessment* at XXVIII.

[11] *See* Jurriaan M. De Vos et al., *Estimating the Normal Background Rate of Species Extinction*, 29(2) Conserv. Biol. 452, 452 (2015); Stuart L. Pimm et al., *The Biodiversity of Species and their Rates of Extinction, Distribution, and Protection*, 344(6187) Science 1246752-1, 1246752-1 (2014); Millennium Ecosystem Assessment, *Ecosystems and Human Well-Being: Biodiversity Synthesis* 3 (2005).

[12] *See, e.g.*, Stuart L. Pimm & Peter Raven, *Extinction by Numbers*, 403 Nature 843, 843 (2000); Stuart L. Pimm, *The Biodiversity of Species and their Rates of Extinction, Distribution, and Protection*, 334(6187) Science 1246752-1, 1246752-5 (2014); Tim Newbold et al., *Global Effects of Land Use on Local Terrestrial Biodiversity*, 520 Nature 45, 45 (2015); Gabriela Franzoi Dri et al., *Estimating the Impacts of Habitat Loss Induced by Urbanization on Bird Local Extinctions*, 256 Biol. Conserv. 1, 1 (2021); Samuel M. Jantz et al., *Future Habitat Loss and Extinctions Driven by Land-Use Change in Biodiversity Hotspots Under Four Scenarios of Climate-Change Mitigation*, 29(4) Conserv. Biol. 1122, 1122 (2015);

"Red" List of most imperiled global species, scientists found that nearly nine out of every ten such species were affected by habitat destruction.[13] For more than 70 percent of those species, habitat destruction was the primary factor threatening their continued existence.[14] The Living Planet Index, which synthesizes trends in vertebrate populations, identified habitat loss driven by agriculture alone as a threat to over 80 percent of all threatened terrestrial bird and mammal species.[15]

Human behavior is, in turn, the most significant driving force behind habitat loss.[16] Researchers estimate that about three-quarters of the Earth's land surface has been altered by humans in the last millennium.[17] The last 200 years in particular have seen significant land use intensification due to the Industrial Revolution and global population growth.[18] Changes in land use cover are most frequently caused by deforestation, agriculture, urbanization, and infrastructure.[19] Globally, about half of all endemic species of plants and just over a third of all endemic terrestrial vertebrates are restricted to fewer than three dozen biodiversity hotspots covering only 2.3 percent of the Earth's surface,[20] and agroeconomic pressure is expected to

---

Candelaria Estavillo et al., *Forest Loss and the Biodiversity Threshold: An Evaluation Considering Species Habitat Requirements and the Use of Matrix Habitats*, 8(12) PLoS One 1, 1 (2013); Jan Schipper et al., *The Status of the World's Land and Marine Mammals: Diversity, Threat, and Knowledge*, 322 Science 225, 228 (2008); Andrew Sih et al., *Habitat Loss: Ecological, Evolutionary and Genetic Consequences*, 15(4) TREE 132, 132 (2000); Osvaldo E. Sala et al., *Global Biodiversity Scenarios for the Year 2100*, 287(5459) Science 1770, 1771 (2000).

[13] Aaron S. Hogue & Kathryn Breon, *The Greatest Threats to Species*, 4(5) Conserv. Sci. Pract. 1, 4 (2022).

[14] *Id.* at 5.

[15] WWF, *2024 Living Planet Report: A System in Peril* 64 (2024).

[16] *See, e.g.*, David Tilman et al., *Future Threats to Biodiversity and Pathways to their* Prevention, 546 Nature 73, 73–74 (2017); Sandra Díaz et al., *Pervasive Human-Driven Decline of Life on Earth Points to the Need for Transformative Change*, 366 Science 1, 3 (2019); Kevin J. Gaston et al., *Habitat Conversion and Global Avian Biodiversity Loss*, 270 Proc. R. Soc. Lond. B 1293, 1293 (2003).

[17] Karina Winkler et al*., Global Land Use Changes are Four Times Greater than Previously Estimated*, 12 Nat. Commun. 1, 2 (2021).

[18] Erle C. Ellis, *Land Use and Ecological Change: A 12,000-Year History*, 46 Annu. Rev. Environ. Resour. 1, 5, 20 (2021); Waters et al. (2016) at 137.

[19] Sebastiaan Luyssaert et al., *Land Management and Land-Cover Change Have Impacts of Similar Magnitude on Surface Temperature*, 4 Nat. Clim. Chang. 389, 389 (2014); Luke Gibson et al., *Primary Forests are Irreplaceable for Sustaining Tropical Biodiversity*, 478 Nature 378, 378 (2011); Jeremy T. Kerr & Isabelle Deguise, *Habitat Loss and the Limits to Endangered Species Recovery*, 7 Ecol. Lett. 1163, 1163, 1167 (2004); Gary W. Luck et al., *Alleviating Spatial Conflict Between People and Biodiversity*, 101 Proc. Natl. Acad. Sci. U.S.A. 182, 182 (2004).

[20] Russell A. Mittermeier et al., *Hotspots Revisited: Earth's Biologically Richest and Most Endangered Terrestrial Ecoregions* 29–30, 68 (2004); *see also* Daniel Gonçalves-Souza et al., *Habitat Loss, Extinction Predictability and Conservation Efforts in the Terrestrial Ecoregions*, 246 Biol. Conserv. 1, 1 (2020); Xingli Giam et al., *Future Habitat Loss and the Conservation of Plant Biodiversity*, 143 Biol.

further restrict natural intact vegetation by 50 percent in a third of those hotspots.[21] Humans have also caused the loss and degradation of marine and freshwater habitats around the globe. Seagrass meadows decreased in extent by over 10 percent per decade between 1970 and 2000, and live coral cover on reefs has nearly halved in the last 150 years.[22] Dams and agricultural activities have destroyed and degraded riverine habitats, ponds, and wetlands.[23]

Within the United States, certain habitat types have undergone dramatic declines in recent years. An estimated 54.7 million acres of grassland were converted to cropland in the northern Great Plains region alone between 2009 and 2017.[24] This represents significant loss of habitat for many Great Plains species, including the endangered Lesser prairie-chicken (*Tympanuchus pallidicinctus*) and the endangered Black-footed ferret (*Mustela nigripes*).[25] And according to FWS's most recent report outlining the status and trends of wetlands in the conterminous United States, roughly 670,000 acres of vegetated wetlands disappeared between 2009 and 2019.[26] The main driver of this wetlands loss was understood to be the conversion of wetlands to upland through drainage and fill.[27] By FWS's own acknowledgement, wetlands are home to about half of all ESA-listed threatened and endangered species, and up to half of all North American bird species depend on wetlands.[28]

Conserv. 1594, 1594 (2010); Corey JA Bradshaw et al., *Tropical Turmoil: A Biodiversity Tragedy in Progress*, 7(2) Ecol. Environ. 79, 79–80 (2009); Thomas M. Brooks et al., *Habitat Loss and Extinction in the Hotspots of Biodiversity*, 16(4) Conserv. Biol. 909, 909 (2002).

[21] Jan C. Habel et al., *Final Countdown for Biodiversity Hotspots*, 12(6) Conserv. Lett. 1, 1 (2019).

[22] *Global Assessment* at XXVIII.

[23] *See, e.g.*, David Dudgeon, *Prospects for Sustaining Freshwater Biodiversity in the 21st Century: Linking Ecosystem Structure and Function*, 2 Curr. Opin. Environ. Sustain. 422, 424 (2010); Brian D. Richter et al., *Threats to Imperiled Freshwater Fauna*, 11(5) Conserv. Biol. 1081, 1082 (1997); David Dudgeon et al., *Freshwater Biodiversity: Importance, Threats, Status and Conservation Challenges*, 81(2) Biol. Rev. 163, 166, 169 (2006); Brian D. Richter et al., *Water Scarcity and Fish Imperilment Driven by Beef Production*, 3 Nat. Sustain. 319, 319 (2020); P. J. Wood et al., *Pond Biodiversity and Habitat Loss in the UK*, 35(2) Area 206, 206 (2003); Gastón Ballut-Dajud et al., *Factors Affecting Wetland Loss: A Review*, 11(3) Land 1, 1 (2022).

[24] David Augustine et al., *Thinking Like a Grassland: Challenges and Opportunities for Biodiversity Conservation in the Great Plains of North America*, 78 Rangel. Ecol. & Manag. 281, 283 (2021).

[25] *Id.* at 282–83; *see also* Abbey F. Wick et al., *Grassland Degradation*, *in* BIOLOGICAL AND ENVIRONMENTAL HAZARDS, RISKS, AND DISASTERS 257, 261–65 (1st ed. 2016).

[26] U.S. Fish & Wildlife Serv., *Status and Trends of Wetlands in the Conterminous United States 2009 to 2019: Report to Congress* 6 (2024) ("FWS 2024 Wetlands Report").

[27] FWS 2024 Wetlands Report at 24.

[28] *Id.* at 10.

B. Habitat Loss, Fragmentation, Isolation, and Degradation Disrupts Species' Breeding, Feeding, and Sheltering.

Habitat modification and degradation—including the related concepts of habitat loss, fragmentation, and isolation—impact members of threatened and endangered species in profound ways, both direct and indirect. Because "habitat" refers to the arrangement of resources that meet the needs of individual species, the impacts of habitat loss and degradation are highly species-specific.[29] Broadly speaking, however, habitat loss may disrupt essential ecological functions such as breeding, feeding, and sheltering. Members of species experiencing habitat loss, fragmentation, and degradation may be disturbed in their day-to-day movements, such as nesting and foraging for resources.[30] Adults may have lowered success finding reproductive partners, experience shorter breeding seasons, and ultimately produce and rear fewer offspring.[31] Juveniles may be less successful in dispersal from their natal territories,[32] and adults may be less successful dispersing across the landscape to find new breeding sites.[33] In some instances, due to a mismatch between environmental cues and actual habitat quality, individual members of listed species choose degraded habitat that cannot sustain the population even when higher-quality habitat is available—a phenomenon researchers call the "ecological trap."[34] Many other behavioral and biological changes have been observed among species in altered landscapes, such

[29] *See* Fred Van Dyke & Rachel L. Lamb, *The Conservation of Terrestrial Habitat and Landscape*, *in* CONSERVATION BIOLOGY 261, 261 (3d ed. 2020); Thorsten Wiegand et al., *Effects of Habitat Loss and Fragmentation on Population Dynamics*, 19 Conserv. Biol. 108, 118 (2005).

[30] *See* D. A. Saunders, *Food and Movements of the Short-Billed Form of the White-Tailed Black Cockatoo*. 7(2) Wildl. Res. 257, 257, 262–63 (1980); Gary W. Luck & Gretchen C. Daily, *Tropical Countryside Bird Assemblages: Richness, Composition, and Foraging Differ by Landscape Context*, 13(1) Ecol. Appl. 235, 235, 241–43 (2003).

[31] *See* Shelley A. Hinsley et al., *Influence of Woodland Area on Breeding Success in Great Tits* Parus major *and Blue Tits* Parus caeruleus, 30 J. Avian Biol. 271, 271, 278–79 (1999); Liana Zanette et al., *Food Shortage in Small Fragments: Evidence from an Area-Sensitive Passerine*. 81(6) Ecology 1654, 1654 (2000); Sami Kurki et al., *Landscape Fragmentation and Forest Composition Effects on Grouse Breeding Success in Boreal Forests*, 81 Ecology 1985, 1985 (2000).

[32] *See* Caren B. Cooper & Jeffrey R. Walters, *Experimental Evidence of Disrupted Dispersal Causing Decline of an Australian Passerine in Fragmented Habitat*, 16(2) Conserv. Biol. 471, 475–76 (2002).

[33] *See* Marc Bélisle et al., *Influence of Forest Cover on the Movements of Forest Birds: A Homing Experiment*, 82 *Ecology* 1893, 1893 (2001); Jason Pither & Philip D. Taylor, *An Experimental Assessment of Landscape Connectivity*, 83 Oikos 166, 172 (1998); Kimberly A. With & Thomas O. Crist, *Critical Thresholds in Species' Responses to Landscape Structure*, 76 Ecology 2446, 2446, 2456–57 (1995); Kimberly A. With & Anthony W. King, *Dispersal Success on Fractal Landscapes: A Consequence of Lacunarity Thresholds*, 14 Landsc. Ecol. 73, 73 (1999).

[34] *See* James Battin, *When Good Animals Love Bad Habitats: Ecological Traps and the Conservation of Animal Populations*, 18(6) Conserv. Biol. 1482, 1482–83 (2004).

as changed movement patterns over greater distances,[35] higher incidences of fluctuating body asymmetry,[36] changed vocalization patterns,[37] and disrupted group behaviors.[38]

The isolation of populations that can follow habitat fragmentation portends other adverse outcomes as well.[39] Connectivity between habitat patches is essential so that individuals can access resources in different parts of a landscape, especially as habitat patches degrade and must be escaped.[40] When connectivity between patches is reduced and a given species is limited in its ability to disperse between patches, individuals have fewer potential mates, with lowered potential for genetic mixing.[41] Members of populations that are limited in their ability to disperse between patches may face greater potential for inbreeding depression.[42] Inbreeding depression can lead to the accumulation of deleterious alleles, particularly in small populations, and can ultimately result in species extirpation from a geographic area or even extinction.[43]

When human activities cause the loss, degradation, fragmentation, and isolation of habitats, adverse changes can result, disrupting behaviors and species interactions related to

---

[35] *See* H. F. Recher et al., *Retaining Remnant Mature Forest for Nature Conservation at Eden, New South Wales: A Review of Theory and Practice*, *in* NATURE CONSERVATION: THE ROLE OF REMNANTS OF VEGETATION 177, 190–91 (D. A. Saunders et al. eds., 1987); D. Ryan Norris & Bridget J. M. Stutchbury, *Extraterritorial Movements of a Forest Songbird in a Fragmented Landscape*. 15(3) Conserv. Biol. 729, 729 (2001).

[36] *See* Stephen Sarre, *Habitat Fragmentation Promotes Fluctuating Asymmetry but not Morphological Divergence in Two Geckos*, 38(1) Res. Popul. Ecol. 57, 57 (1996).

[37] *See* Hans Slabbekoorn & Margriet Peet, *Birds Sing at a Higher Pitch in Urban Noise*, 424 Nature 267, 267 (2003); D. B. Lindenmayer et al., *Sound Recording of Bird Vocalisations in Forests. II. Longitudinal Profiles in Vocal Activity*, 31(2) Wildl. Res. 209, 209, 216 (2004).

[38] *See* Janet L. Gardner, *Winter Flocking Behaviour of Speckled Warblers and the Allee Effect*, 118(2) Biol. Conserv. 195, 195, 201 (2004).

[39] *See* Joern Fischer & David B. Lindenmayer, *Landscape Modification and Habitat Fragmentation: A Synthesis*, 16 Global Ecol. Biogeogr. 265, 268 (2007).

[40] *See* Kimberly A. With & Anthony W. King, *Dispersal Success on Fractal Landscapes: A Consequence of Lacunarity Thresholds*, 14 Landsc. Ecol. 73, 73 (1999); Philip D. Taylor et al., *Connectivity is a Vital Element of Landscape Structure*. 68 Oikos 571, 572 (1993); Zsófia Horváth et al., *Habitat Loss Over Six Decades Accelerates Regional and Local Biodiversity Loss Via Changing Landscape Connectance*, 22 Ecol. Lett. 1019, 1024–25 (2019).

[41] *See* Allan H. Edelsparre et al., *Habitat Connectivity is Determined by the Scale of Habitat Loss and Dispersal Strategy*, 8 Ecol. Evol. 5508, 5508, 5511–12 (2018); James P. Gibbs, *Demography Versus Habitat Fragmentation as Determinants of Genetic Variation in Wild Populations*, 100 Biol. Conserv. 15, 15 (2001).

[42] *See* Allan H. Edelsparre et al. (2018) at 5509; Stuart Pimm et al., *The Genetic Rescue of the Florida Panther*, 9(2) Anim. Conserv. 115, 116 (2006).

[43] *See* Fred Van Dyke & Rachel L. Lamb, *Conservation Genetics*, *in* CONSERVATION BIOLOGY 171, 182–188 (3d ed. 2020); Camilo Mora et al., *Experimental Simulations About the Effects of Overexploitation and Habitat Fragmentation on Populations Facing Environmental Warming*, 274 Proc. R. Soc. B 1023, 1026–27 (2007).

competition, predation, parasitism, and mutualisms.[44] Examples abound. The endangered Morro Bay kangaroo rat (*Dipodomys heermanni morroensis*) faces increased competition from other burrowing rodents as fire suppression causes loss of the species' early successional habitat, and ground squirrels and pocket gophers move into the later-successional vegetation.[45] Competition from introduced species, in particular, can compound the problem of habitat loss. For example, native snail populations of Hawai'i have been decimated by competition from exotic snails, in part because the native snails have small geographic ranges which are further reduced by agricultural expansion—leaving the native snails nowhere to go.[46] Researchers have also frequently observed increased predation and parasitism in modified landscapes, especially for birds.[47] This implicates the concept of negative "edge" effects: more fragmented landscapes contain proportionally more habitat "edge," which can increase species' time in non-habitat and expose them to more predators.[48] Habitat loss can also mean reduced availability and quality of refuges and shelter for prey species.[49]

Mutually beneficial interactions between pairs of species, known as mutualisms,[50] can also be threatened by landscape modification. Again, examples are plentiful. Researchers found that, within a fragmented rainforest in Tanzania, fruit-eating birds that disperse the seeds of an endemic tree species—reliant on those birds for seed dispersal—were significantly less likely to

[44] *See* Andrew Dobson et al., *Habitat Loss, Trophic Collapse, and the Decline of Ecosystem Services*, 87(8) Ecology 1915, 1922 (2006); Joern Fischer & David B. Lindenmayer, *Landscape Modification and Habitat Fragmentation: A Synthesis*, 16 Global Ecol. Biogeogr. 265, 269 (2007); Lenore Fahrig, *Effects of Habitat Fragmentation on Biodiversity*, 34 Annu. Rev. Ecol. Evol. Syst. 487, 499–50, 505 (2003); *see also* Jonathan M. Chase et al., *Ecosystem Decay Exacerbates Biodiversity Loss with Habitat Loss*, 584 Nature 238, 238 (2020).

[45] *See* Christopher P. Kofron & Francis X. Villablanca, *Decline of the Endangered Morro Bay Kangaroo Rat in California*, 7(1) J. Fish Wildl. Manag. 237, 244, 246 (2016); *see also, e.g.*, Merilyn J. Grey et al., *Initial Changes in the Avian Communities of Remnant Eucalypt Woodlands Following a Reduction in the Abundance of Noisy Miners,* Manorina melanocephala, 24 Wildl. Res. 631, 642 (1997).

[46] *See* Michael G. Hadfield et al., *The Decimation of Endemic Hawai'ian Tree Snails by Alien Predators*, 33(6) Am. Zool. 610, 610 (1993).

[47] Scott K. Robinson et al., *Regional Forest Fragmentation and the Nesting Success of Migratory Birds*, 267(5206) Science 1987, 1987 (1995); D.C. Lahti, *The 'Edge Effect on Nest Predation' Hypothesis After Twenty Years*. 99 Biol. Conserv. 365, 365–66 (2001); Liana Zanette et al., *Brown-Headed Cowbirds Skew Host Offspring Sex Ratios*, 86(4) Ecology 815, 815 (2005).

[48] *See* Lenore Fahrig, *Effects of Habitat Fragmentation on Biodiversity*, 34 Annu. Rev. Ecol. Evol. Syst. 487, 505 (2003); Anna D. Chalfoun et al., *Nest Predators and Fragmentation: A Review and Meta-Analysis*, 16(2) Conserv. Biol. 306, 314 (2002); Mitschka J. Hartley & Malcolm L. Hunter, Jr., *A Meta-Analysis of Forest Cover, Edge Effects, and Artificial Nest Predation Rates*, 12(2) Conserv. Biol. 465, 467 (1998); Laurie Kremsater & Fred L. Bunnell, *Edge Effects: Theory, Evidence and Implications to Management of Western North American Forests*, *in* FOREST FRAGMENTATION: WILDLIFE AND MANAGEMENT IMPLICATIONS 117, 134–137 (James A. Rochelle et al. eds., 1999).

[49] *See* Lisa Teckentrup et al., *The Risk of Ignoring Fear: Underestimating the Effects of Habitat Loss and Fragmentation on Biodiversity*, 34 Landsc. Ecol. 2851, 2852, 2863–64 (2019).

[50] Judith L. Bronstein, *The Evolution of Facilitation and Mutualism*, 97 J. Ecol. 1160, 1160 (2009).

inhabit smaller habitat patches as compared to birds in continuous forest.[51] Populations of ant-plant mutualists have been found to be "extremely low" in forest fragments in the Amazonian rainforest.[52]

But perhaps the most studied mutualisms disrupted by habitat loss involve pollinators.[53] Animal pollinators are the foundation of terrestrial food webs around the world: almost 90 percent of the world's flowering wild plants depend to some degree on animal pollination for sexual reproduction, and these plants provide food and shelter for many other species.[54] An ever-growing body of research documents disruption of plant-pollinator mutualisms in fragmented landscapes. The causes of such disruption include key insect pollinators lacking nesting sites due to habitat loss, animal pollinators visiting a plant community less frequently when the plant population size has been reduced by habitat fragmentation, and more.[55] Importantly, plants have been found to reduce seed production when they do not receive enough pollen—the growing global problem of "pollen limitation"[56] that negatively affects seedling recruitment, potentially pushing plant populations into a spiral toward extinction.[57] This, in turn, can represent a resource limitation for those animal pollinator species that are highly dependent on plant-specific nectar, pollen, larval host plants, or nesting or oviposition sites.[58]

The foregoing consequences of habitat loss implicate the broader issue of extinction "cascades." Where habitat loss creates local extinctions, it can potentially "orphan" species that depend on interacting partners, increasing the extinction risk for orphaned species.[59] For example, animal species that rely on pollen, nectar, or fruit may experience increased mortality when those resources from partner species are lost.[60] Orphaned species may become functionally extinct, meaning they can no longer contribute significantly to ecosystem function and face

[51] Norbert J. Cordeiro & Henry F. Howe, *Forest Fragmentation Severs Mutualism Between Seed Dispersers and an Endemic African Tree*, 100(24) Proc. Natl. Acad. Sci. U.S.A. 14052, 14052 (2003).

[52] Emilio M. Bruna et al., *The Effect of Habitat Fragmentation on Communities of Mutualists: Amazonian Ants and their Host Plants*, 124 Biol. Conserv. 209, 209 (2005).

[53] *See, e.g.*, L. Fabienne Harris & Steven D. Johnson, *The Consequences of Habitat Fragmentation for Plant–Pollinator Mutualisms*, 24(1) Int. J. Trop. Insect Sci. 29, 29 (2004); Carol A. Kearns et al., *Endangered Mutualisms: The Conservation of Plant-Pollinator Interactions*, 39 Annu. Rev. Ecol. Syst. 83, 83, 86 (1998).

[54] *See* IPBES, *The Assessment Report on Pollinators, Pollination and Food Production* XXVIII (Simon G. Potts et al. eds., 2017).

[55] Harris & Johnson (2004) at 30–31.

[56] *See* Daniel Mutavi Katumo et al., *Pollinator Diversity Benefits Natural and Agricultural Ecosystems, Environmental Health, and Human Welfare*, 44 Plant Divers. 429, 430 (2022); J.M. Bennett et al., *GloPL, a Global Data Base on Pollen Limitation of Plant Reproduction*, 5 Sci. Data 1, 2 (2019).

[57] Harris & Johnson (2004) at 29.

[58] *Id.* at 35.

[59] Manette E. Sandor et al., *Extinction of Biotic Interactions Due to Habitat Loss Could Accelerate the Current Biodiversity Crisis*, 32(6) Ecol. Appl. 1, 1 (2022).

[60] Sandor et al. (2022) at 2.

inevitable extinction.[61] Using real and synthetic network simulations, researchers have estimated that even small amounts of habitat loss can cause up to 10 percent of species to be orphaned.[62] Relatedly, landscape modification can cause cascading ecosystem changes and extinctions, with the extinction of one species triggering the loss of one or more other species, which in turn leads to further extinctions.[63]

C. Habitat Destruction Can Signify "Time-Delayed" Extinction.

Chillingly, individuals currently experiencing impaired breeding, feeding, or sheltering due to habitat loss may, in the aggregate, represent future species extinctions. Referred to as "the "extinction debt," or "time-delayed" extinctions,[64] this phenomenon reflects that habitat loss does not necessarily cause extinctions instantaneously; rather, habitat loss tends to cause gradual species declines that may lead to extinctions at some unknown future time.[65] Put differently, roughly 9 percent of the world's terrestrial species have insufficient habitat for long-term survival—meaning individuals of these species already face resource limitations that impair their breeding, feeding, and sheltering. These species are already committed to extinction unless their habitat is restored.[66] For many species, therefore, simply maintaining the habitat *status quo* will not be enough to avert future extinctions.[67] If decision makers fail to consider the extinction debt, they are prone to underestimate the threat habitat loss poses to biodiversity.[68] Protecting members of listed species from harms caused by habitat modification and degradation helps to safeguard the species' long-term survival.

As grave as the issue of habitat loss is on its own, its consequences are exacerbated still further by concurrent threats to species, particularly climate change. In a meta-analysis of habitat loss and biodiversity, researchers found that negative impacts of habitat loss and fragmentation have been disproportionately severe in areas experiencing high temperatures and declining

[61] *Id.* at 2.

[62] *Id.* at 1.

[63] *See, e.g.*, John Terborgh et al., *Ecological Meltdown in Predator-Free Forest Fragments*, 294 Science 1923, 1924 (2001); Rachel Kehoe et al., *Cascading Extinctions as a Hidden Driver of Insect Decline*, 46 Ecol. Entomol. 743, 743 (2021).

[64] *See* Mikko Kuussaari et al., *Extinction Debt: A Challenge for Biodiversity Conservation*, 24(10) Trends Ecol. Evol. 564, 564 (2009); David Tilman et al., *Habitat Destruction and the Extinction Debt*. 371 Nature 65, 65–66 (1994); Blai Vidiella et al., *Habitat Loss Causes Long Extinction Transients in Small Trophic Chains*, 14 Theor. Ecol. 641, 641 (2021); Ilkka Hanski & Otso Ovaskainen, *Extinction Debt at Extinction Threshold*, 16(3) Conserv. Biol. 666, 666 (2002); Guy Cowlishaw, *Predicting the Pattern of Decline of African Primate Diversity: An Extinction Debt from Historical Deforestation*, 13 Conserv. Biol. 1183, 1183 (1999).

[65] *See* Ilkka Hanski, *Habitat Loss, the Dynamics of Biodiversity, and a Perspective on Conservation*, 40 Ambio 248, 248 (2011).

[66] *Global Assessment* at XXVIII.

[67] Jochen Krauss et al., *Habitat Fragmentation Causes Immediate and Time-Delayed Biodiversity Loss at Different Trophic Levels*, 13 Ecol. Lett. 597, 597 (2010).

[68] Ilkka Hanski (2011) at 248.

rainfall, and that habitat loss and fragmentation effects were greatest in areas with high maximum temperatures.[69] A subsequent global assessment found that recent climate change is likely to have exacerbated the impacts of habitat loss and fragmentation in almost one-fifth of the world's ecoregions.[70] The impacted ecoregions were disproportionately biodiverse, containing over half of all known terrestrial amphibian, bird, mammal, and reptile species.[71] Many more adverse synergies between climate change and habitat loss have been documented, including species' reduced capacity to withstand climate change impacts due to habitat fragmentation-induced inbreeding depression,[72] species' limited ability to colonize and disperse across fragmented habitat when climate change renders current habitat unsuitable,[73] and species' limited ability to withstand the combined impacts of climate change and habitat fragmentation when they have high area requirements.[74]

II. THE SERVICES HAVE LONG UNDERSTOOD AND ACKNOWLEDGED THAT HABITAT MODIFICATION AND DEGRADATION HARM MEMBERS OF LISTED SPECIES.

The Services' Proposed Rule is completely devoid of scientific information explaining the decision to rescind the definition of "harm." Yet in numerous listing decisions—designations of critical habitat, biological opinions, habitat conservation plans, and recovery plans—the Services have made it abundantly clear that harm to the habitat of a threatened or endangered species biologically equals harm to the species, at both the individual and the population level.[75]

---

[69] Chrystal S. Mantyka-Pringle, *Interactions Between Climate and Habitat Loss Effects on Biodiversity: A Systematic Review and Meta-Analysis*, 18(4) Glob. Chang. Biol. 1239, 1239 (2012).

[70] Daniel B. Segan et al., *A Global Assessment of Current and Future Biodiversity Vulnerability to Habitat Loss-Climate Change Interactions*, 5 Glob. Ecol. Conserv. 12, 12 (2016).

[71] *Id*.

[72] *See* Roosa Leimu et al., *Habitat Fragmentation, Climate Change, and Inbreeding in Plants*, 1195 Ann. N.Y. Acad. Sci. 84, 92–93 (2010); D. Joubert & R. Bijlsma, *Interplay Between Habitat Fragmentation and Climate Change: Inbreeding Affects the Response to Thermal Stress in* Drosophila melanogaster, 43 Clim. Res. 57, 57 (2010).

[73] *See* André Nemésio et al., *Effects of Climate Change and Habitat Loss on a Forest-Dependent Bee Species in a Tropical Fragmented Landscape*, 9 Insect Conserv. Divers. 149, 155–56 (2016); J. M. J. Travis, *Climate Change and Habitat Destruction: A Deadly Anthropogenic Cocktail*, 270 Proc. R. Soc. Lond. 467, 467 (2003).

[74] *See* Rocio Ponce-Reyes et al., *Extinction Risk in Cloud Forest Fragments Under Climate Change and Habitat Loss*, 19 Diversity Distrib. 518, 518 (2013).

[75] Among many examples—in addition to those discussed in this letter—see, e.g., harm to threatened Delta smelt (*Hypomesus transpacificus*), endangered Longfin smelt (*Spirinchus thaleichthys*), and threatened Giant garter snakes (*Thamnophis gigas*) from altered river hydrology and cropland idling, U.S. Fish & Wildlife Serv., *2024 Biological Opinion: Reinitiation of Consultation on the Coordinated Long-Term Operation of the Central Valley Project and State Water Project* 361, 366, 368–69 (2024); harm to threatened Oregon Coast coho salmon (*Oncorhynchus kisutch*) from stream habitat modifications due to, among other things, timber harvest and road construction, Oregon Dep't of State Lands, *Elliott State Research Forest Final Habitat Conservation Plan* 4-36–38 (2024); harm to endangered Colorado

The Services' expert scientific determinations over the last fifty years irrefutably link habitat harm to species harm.

To further illustrate the unbreakable connection between harm to habitat and harm to species, it is useful to highlight a few examples, where different types of habitat degradation and modification adversely impact essential behaviors (feeding, breeding, sheltering), causing harm to members of protected species.

A. Florida Manatee

In the last five years, Florida manatees (*Trichechus manatus latirostris*) have experienced a massive reduction in population size due to severe habitat degradation. First listed as threatened in 1967, the West Indian manatee—of which the Florida manatee is a subspecies—relies on seagrass as its primary source of forage.[76] Excessive nutrient pollution from Florida's fertilizer runoff, untreated septic waste, and other sources have created harmful algal blooms on the state's Atlantic Coast, blocking sunlight from reaching seagrass and causing it to die.[77] Without sufficient seagrass in their diet, Florida manatees have starved en masse. This culminated in an unprecedented 1,255 deaths over a seventeen-month period, which FWS declared to be an "Unusual Mortality Event" under the Marine Mammal Protection Act.[78] A federal judge further held that the Florida Department of Environmental Protection's failure to effectively regulate wastewater discharge into Florida's Indian River Lagoon, the site of a large proportion of manatee deaths, constituted "take" of manatees under the ESA.[79] Although the

---

pikeminnow (*Ptychocheilus lucius*), endangered Razorback suckers (*Xyrauchen texanus*), threatened Humpback chubs (*Gila cypha*), and endangered Bonytail (*Gila elegans*) from, among other things, stream flow regulation and reservoir inundation, U.S. Fish & Wildlife Serv., *Final Biological Opinion on the Operation of Flaming Gorge Dam* 22, 33, 42, 47, 72 (2005); harm to listed Pacific salmonids from increased sediment into waterways and increased water temperatures due to, among other things, timber harvest and road construction, Green Diamond Res. Co., *Aquatic Habitat Conservation Plan and Candidate Conservation Agreement with Assurances* S-5, S-7–9 (2006) and Port Blakely, *Habitat Conservation Plan for the John Franklin Eddy Forestlands* 229–45 (2023); harm to threatened Oregon spotted frogs (*Rana pretiosa*) from irrigation withdrawals and groundwater pumping, Arnold Irrigation Dist. et al., *Final Deschutes Basin Habitat Conservation Plan, Volume I: Chapters 1-12* at 1-19–21 (2020); harm to endangered Pallid sturgeon (*Scaphirhynchus albus*) from dams and river channel regulation, U.S. Fish & Wildlife Serv., *Final Biological Opinion for the Upper Mississippi River-Illinois Waterway System Navigation Feasibility Study* 105–07 (2004); harm to endangered Indiana bats (*Myotis sodalis*) from timber harvest and road construction, U.S. Fish & Wildlife Serv., *Programmatic Biological Opinion for the Monongahela National Forest 2006 Forest Plan Revision* 51–56 (2006).

[76] *See* Order (ECF No. 172) at 15–16, *Bear Warriors United v. Lambert*, No. 6:22-cv-2048-CEM-LHP (M.D. Fla. April 11, 2025).

[77] *See id.*

[78] *See* Fla. Fish & Wildlife Conservation Comm'n, *Closed Manatee Mortality Event Along The East Coast*, https://myfwc.com/research/manatee/rescue-mortality-response/ume/ (last visited May 14, 2025); 16 U.S.C. § 1421h(9).

[79] *See* Order (ECF No. 172) at 20, *Bear Warriors United v. Lambert*, No. 6:22-cv-2048-CEM-LHP (M.D. Fla. April 11, 2025).

manatee mortality rate has slowed since its peak in 2021, experts anticipate that it will take over a decade for the population to fully recover.[80]

B. Grizzly Bear

One of the primary threats to the grizzly bear (*Ursus arctos horribilis*) is habitat degradation from roads and human development.[81] FWS listed the grizzly bear as a threatened species in the Lower-48 states in 1975 partly based on threats of habitat destruction from "the building of numerous access roads and trails into areas which were formerly inaccessible,"[82] and grizzly bear populations have increased over the intervening decades due to concerted habitat-management and road-removal efforts.[83] Habitat degradation from roads and human development displaces grizzly bears and lowers their survival rates, especially injuring female grizzly bears.[84] In particular, habitat degradation impairs female grizzly bears' inherent reproductive potential because displacement and disturbance impacts mean females may fail to breed at their expected frequency or fail to complete gestation due to decreased fitness.[85] According to well-established science, "if unroaded habitats are reduced in quantity or size, the number of adult females will eventually decline," harming the grizzly bear population as a whole.[86] Indeed, for these reasons, the adequacy of grizzly bear habitat is so closely tied to road density that FWS often uses road density as a surrogate for measuring impacts constituting "take" of this species.[87]

[80] *See id.* at 16, 18.

[81] U.S. Fish & Wildlife Serv., *Species Status Assessment for the Grizzly Bear (*Ursus arctos horribilis*) in the Lower-48 States* 41 (2024).

[82] Endangered and Threatened Wildlife; Amendment Listing the Grizzly Bear of the 48 Conterminous States as a Threatened Species, 40 Fed. Reg. 31734 (July 28, 1975).

[83] *See* U.S. Fish & Wildlife Serv., *Species Status Assessment for the Grizzly Bear (*Ursus arctos horribilis*) in the Lower-48 States*, at 41 ("Regulating … displacement through habitat management can effectively minimize th[is] stressor[], as evidenced by increasing grizzly bear populations in the lower-48 States where motorized access standards exist and have been met.").

[84] Bruce N. McLellan & D.M. Shackleton, *Grizzly Bears and Resource-Extraction Industries: Habitat Displacement in Response to Seismic Exploration, Timber Harvesting and Road Maintenance*, 26 J. Appl. Ecol. 371, 377–79 (1989); Richard D. Mace et al., *Relationships Among Grizzly Bears, Roads and Habitat in the Swan Mountains, Montana*, 33 J. Appl. Ecol. 1395, 1395, 1403 (1996); John S. Waller & Richard D. Mace, *Grizzly Bear Habitat Selection in the Swan Mountains, Montana*, 61 J. of Wildlife Mgmt. 1032 (1997).

[85] David J. Mattson et al., *The Effects of Developments and Primary Roads on Grizzly Bear Habitat Use in Yellowstone National Park, Wyoming*, 7 Int'l Conference Bear Res. & Mgmt. 259, 259 (1987).

[86] Richard D. Mace & Timothy L. Manley, *South Fork Flathead River Grizzly Bear Project: Progress Report for 1992*, at 26 (1993).

[87] *See*, *e.g.*, U.S. Fish and Wildlife Serv., *Revised Biological Opinion on the Revised Forest Plan for the Flathead National Forest*, at III-97 (2022).

C. Marbled Murrelet

The unique nesting requirements of the Marbled murrelet (*Brachyramphus marmoratus*) make the direct linkage between habitat harm and species harm inseparable. Threatened Marbled murrelets are shy, robin-sized seabirds that feed and forage in coastal marine waters but nest exclusively in large old-growth (200+ years old) Douglas-fir, Sitka spruce, and coastal redwood trees. Murrelets do not build nests, instead laying one egg on a platform of moss and lichen on a large branch. Murrelet nest trees have been found as far as 80 km inland; murrelet parents fly from ocean feeding areas to the nest one or two times a day, usually at dawn or dusk. The decline of the murrelet corresponds to the increase in logging of its nest trees, and FWS found the murrelet "threatened by the loss and modification of nesting habitat (older forests) primarily due to commercial timber harvesting" in Washington, Oregon, and California in 1992.[88] Logging that destroys or degrades murrelet nesting habitat harms individual murrelets.[89] Indeed, "nesting habitat appears to be the most important factor affecting marbled murrelet distribution and numbers. Marine survey data confirmed conclusions made in the supplemental proposed critical habitat rule[90] that marine observations of marbled murrelets during the nesting season generally correspond to the largest remaining blocks of suitable forest nesting habitat."[91]

D. Hawaiian Monk Seal

The Hawaiian monk seal (*Monachus schauinslandi*) faces food limitation due to competition for food resources with lobster and bottomfish fisheries. The species, listed as endangered in 1976, spends two-thirds of its time in the ocean, utilizing its aquatic habitat for foraging, socializing, mating, resting, and traveling.[92] Hawaiian monk seals are commonly found in the Northwestern Hawaiian Islands, searching for food, lobster, and bottomfish, in a broad depth range up to 500 meters in coral reef habitat and substrate composed of talus and sand on marine terraces.[93] Lobster and bottomfish fisheries are known to remove the prey items of monk

[88] Endangered and Threatened Wildlife and Plants; Determination of Threatened Status for the Washington, Oregon, and California Population of the Marbled Murrelet, 57 Fed. Reg. 45328, 45328 (Oct. 1, 1992).

[89] *See Cascadia Wildlands v. Scott Timber Co.*, 105 F.4th 1144, 1158 (9th Cir. 2024) ("Scott Timber's timber harvest would directly remove and fragment occupied murrelet habitat used for breeding. The district court thus applied the correct injury standard and committed no factual error in holding that the timber harvest would cause actual injury and therefore 'harm' under the ESA.").

[90] *See* Endangered and Threatened Wildlife and Plants; Proposed Designation of Critical Habitat for the Marbled Murrelet, 60 Fed. Reg. 40892, 40899 (Aug. 10, 1995).

[91] *See* Endangered and Threatened Wildlife and Plants; Determination of Critical Habitat for the Marbled Murrelet, 81 Fed. Reg. 51348, 51352 (Aug. 4, 2016).

[92] Nat'l Marine Fisheries Serv., *Recovery Plan for the Hawaiian Monk Seal Revision* 44–45 (2007) ("Hawaiian Monk Seal 2007 Recovery Plan"); Endangered and Threatened Wildlife and Plants: Proposed Rulemaking to Revise Critical Habitat for Hawaiian Monk Seals, 76 Fed. Reg. 32026, 32027 (June 2, 2011) (codified at 50 C.F.R. pt. 226).

[93] Hawaiian Monk Seal 2007 Recovery Plan at 44–45; Endangered and Threatened Wildlife and Plants: Proposed Rulemaking to Revise Critical Habitat for Hawaiian Monk Seals, 76 Fed. Reg. at 32027.

seals.[94] If NMFS implemented the "take" definition to include only acts directed immediately and intentionally against a particular animal, the Hawaiian monk seal's only food source could be subject to unmanaged, and potentially unlimited, harvest by lobster and bottomfish fisheries. NMFS's 2007 Recovery Plan for the Hawaiian Monk Seal recognized food limitation as a crucial threat to Hawaiian monk seals, with declining juvenile survival rates and decreasing seal pup size.[95] Unconstrained removal of Hawaiian monk seals' food resources by commercial fishing would be likely to drive the species towards extinction, as further dwindling food resources will decrease juvenile survival and prevent adult females from supporting their pups.[96] NMFS has recognized that, to prevent harm to individual Hawaiian monk seals and protect the species from extinction, its habitat must be protected.[97]

E. Golden-Cheeked Warbler

Since the golden-cheeked warbler (*Setophaga chrysoparia*) was first listed as endangered in 1990, FWS has made repeated findings that the most significant threat to this species is habitat destruction.[98] A migratory songbird with bright yellow cheeks, the warbler is the only bird whose breeding range lies exclusively within the State of Texas.[99] Habitat loss represents direct impairment of a golden-cheeked warbler's ability to engage in essential behaviors such as breeding, as the warbler requires bark from Ashe juniper trees at least twenty years of age to build its nests.[100] The prohibition against unpermitted destruction of warbler habitat has

[94] Hawaiian Monk Seal 2007 Recovery Plan at 53.

[95] *Id.* at 52–53.

[96] Food limitation has a domino effect on Hawaiian monk seals. Food limitation is associated with smaller pup sizes and reduced pup production. The size of a pup provides a measure of maternal energy investment in offspring during lactation; offspring size decline suggests that females may have had less energy to invest in feeding pups, a likely result of reduced foraging success prior to a pup's birth. *See* Hawaiian Monk Seal 2007 Recovery Plan at 52–53.

[97] *See* Nat'l Oceanic and Atmospheric Admin. (NOAA), *Conserving Hawaiian Monk Seals Through Protections and Vaccination*, NOAA Fisheries (Aug. 30, 2022), https://www.fisheries.noaa.gov/feature-story/conserving-hawaiian-monk-seals-through-protections-and-vaccinations; NOAA, *What's the Latest on Hawaiian Monk Seals?*, NOAA Fisheries (Mar. 7, 2018) https://www.fisheries.noaa.gov/feature-story/whats-latest-hawaiian-monk-seals.

[98] *See, e.g.*, U.S. Fish & Wildlife Serv., *Golden-Cheeked Warbler (*Setophaga chrysoparia*) 5-Year Status Review: Summary and Evaluation* 62–63 (2025); U.S. Fish & Wildlife Serv., *Golden-Cheeked Warbler (*Setophaga chrysoparia*) 5-Year Status Review: Summary and Evaluation* 8–10 (2014); U.S. Fish & Wildlife Serv., *Golden-Cheeked Warbler Recovery Plan* 21–24 (1992); Endangered and Threatened Wildlife and Plants; Final Rule to List the Golden-cheeked Warbler as Endangered, 55 Fed. Reg. 53153, 53156–58 (1990).

[99] Endangered and Threatened Wildlife and Plants; Final Rule to List the Golden-cheeked Warbler as Endangered, 55 Fed. Reg. at 53154.

[100] *See id.*

forestalled the species' extinction,[101] though urban sprawl from nearby Austin and San Antonio remains a serious threat; a recent study found the warbler has lost 42 percent of its habitat in the last forty years.[102] Climate change further compounds the problem of warbler habitat destruction due to the species' inability to shift its range in response to rising temperatures and increased incidence of catastrophic wildfire and drought.[103] Habitat fragmentation has also contributed to the population's high inbreeding levels, which can reduce the warbler's capacity to adapt to new environmental conditions and recover from severe weather events.[104]

F. Pacific Coast Salmon and Steelhead

The survival of aquatic species is deeply dependent on in-river habitat protections. Many populations of native salmon and steelhead have been added to the threatened and endangered species list in the Pacific Northwest; in 1999, NMFS listed Chinook salmon in Puget Sound as threatened. Salmon and steelhead are anadromous, meaning the fish spawn and hatch in freshwater, but migrate downriver to the ocean, where they spend several years before returning to the same freshwater river or stream to spawn and die. The time spent in freshwater and marine waters depends on the species. These fish are harmed by alterations to their freshwater habitat, including reduction of stream flows for irrigation, power generation, or other purposes. Reduced flows dewater habitat and increase water temperature. Threatened and endangered salmon are also harmed by changes to rivers, including by building dams, which block habitat needed for reproduction. NMFS has stated that "any habitat modification that significantly impairs spawning, rearing, or migrating" is a harm.[105] As a district court recently summarized about the effects of an impassable dam on salmon, "[b]y impeding safe passage, the structure disrupts their normal behavior patterns."[106]

[101] *See* U.S. Fish & Wildlife Serv., *Environmental Conservation Online System: Golden-cheeked warbler* (Setophaga chrysoparia), https://ecos.fws.gov/ecp/species/33 (last visited May 14, 2025) (collecting 177 golden-cheeked warbler habitat conservation plans and associated incidental take permits).

[102] *See* Lindsay Dreiss et al., *Spatiotemporal Patterns in Golden-cheeked Warbler Breeding Habitat Quantity and Suitability*, 17(2) Avian Conservation & Ecology 1 (2022).

[103] *See* Hector Galbraith & Jeff Price, U.S. Env't. Prot. Agency, *A Framework for Categorizing the Relative Vulnerability of Threatened and Endangered Species to Climate Change* 44–46 (2009).

[104] *See* Giridhar Athrey et al., *Golden-cheeked Warbler Population Genomics: A Report on the Current Population Genetic Status of Golden-cheeked Warblers* 9 (2023); Giridhar Athrey et al., *Crumbling Diversity: Comparison of Historical Archived and Contemporary Natural Populations Indicate Reduced Genetic Diversity and Increasing Genetic Differentiation in the Golden-cheeked Warbler*, 12 Conservation Genetics 1345, 1350 (2011).

[105] Endangered and Threatened Wildlife and Plants; Definition of "Harm," 64 Fed. Reg. 60727, 60728 (Nov. 8, 1999); *see also* 50 C.F.R. § 222.102.

[106] *Puyallup Tribe of Indians v. Electron Hydro, LLC*, 2024 WL 664407, at *5 (W.D. Wash. 2024) (citations omitted).

G. Canada Lynx

The Canada lynx (*Lynx canadensis*), listed as threatened in 2000, relies "heavily on snowshoe hare to support survival, reproduction, recruitment, and therefore, population persistence."[107] FWS recently reaffirmed that "[a]ll aspects of lynx life history are inextricably tied to the snowshoe hare, which comprises most of the lynx diet throughout its range."[108] Habitat-modifying activities (such as commercial, recreational, and energy/mineral development and road construction and maintenance) that remove or reduce boreal forests in a manner that reduces snowshoe hare densities can deprive Canada lynx in the area of a vital food source.[109] When snowshoe hare habitat is degraded, FWS has concluded that female lynx "may fail to complete a pregnancy or would be less successful in finding adequate food resources needed to ensure maximum survival potential for kittens," resulting in "reproductive impairment" of individual lynx and lower kitten survival.[110] The large, snowshoe-like feet and long limbs of the lynx enable it to outcompete other predators in pursuit of snowshoe hares in snowy conditions, but, as roads increasingly bisect the lynx's habitat, the species loses its competitive advantage over predators like bobcats and coyotes, making it more difficult for individual lynx to get food.[111] To make matters worse, FWS considers lynx populations to be vulnerable to the projected impacts of climate change, necessitating recovery strategies that improve the resiliency of populations and maintain the representation of the lynx distinct population segment.[112] It is thus vital to protect lynx habitat that supports snowshoe hare density to prevent harm to individual Canada lynx and to promote the species' resiliency.

---

[107] Endangered and Threatened Wildlife and Plants; Revised Designation of Critical Habitat for the Contiguous U.S. Distinct Population Segment of the Canada Lynx, 89 Fed. Reg. 94656, 94660 (Nov. 29, 2024); *see* Endangered and Threatened Wildlife and Plants; Revised Designation of Critical Habitat for the Contiguous U.S. Distinct Population Segment of the Canada Lynx and Revised Distinct Population Segment Boundary, 79 Fed. Reg. 35303, 35307 (June 20, 2014); U.S. Fish & Wildlife Serv., *Recovery Plan for the Contiguous United States Distinct Population Segment of Canada Lynx* (Lynx canadensis) 26 (2024) (stating that, when areas impacted by fires regenerate into good snowshoe hare habitat, it suggests a rebound in lynx numbers).

[108] Revised Designation of Critical Habitat for the Contiguous U.S. Distinct Population Segment of the Canada Lynx, 89 Fed. Reg. at 94660.

[109] *Id.* at 94665; *see also* U.S. Fish & Wildlife Serv., *Biological Opinions on the Effects of the Custer Gallatin Forest Plan on Threatened and Endangered Species*, at II-73 (2022) (finding that the temporary degradation of natural forest successional phases would cause "incidental take in the form of harm via the modification of snowshoe hare habitat (lynx foraging habitat) that may temporarily result in a decreased production and density of snowshoe hares, the primary prey of lynx").

[110] U.S. Fish & Wildlife Serv., *Biological Opinions on the Effects of the Custer Gallatin Forest Plan on Threatened and Endangered Species*, at II-73, II-76.

[111] *See* U.S. Fish & Wildlife Serv., *Species Status Assessment for the Canada Lynx* (Lynx canadensis): *Contiguous United States Distinct Population Segment* 102 (2017), *citing* Erin M. Bayne et al., *Ecological Factors Influencing the Spatial Pattern of Canada lynx Relative to its Southern Range Edge in Alberta, Canada*, 86 Can. J. Zool. 1189 (2008).

[112] U.S. Fish & Wildlife Serv., *Recovery Plan for the Contiguous United States Distinct Population Segment of Canada Lynx* (Lynx canadensis), at 12–13, 19.

H. Northern Spotted Owl

Northern spotted owls (*Strix occidentalis caurina*) depend on protection of mature and old-growth forests in the Pacific Northwest to survive. In 1990, FWS listed the northern spotted owl as "threatened" under the ESA due to "loss and adverse modification of suitable habitat as the result of timber harvesting."[113] The northern spotted owl requires specific forest habitat to support its essential behaviors of nesting, roosting, foraging, and dispersing;[114] habitat destruction and degradation from logging and road-building impairs the ability of individual northern spotted owls to nest, roost, forage, and disperse.[115] In 2011, FWS finalized its Recovery Plan for the owls, which repeatedly emphasized the need to conserve habitat on both private and public lands.[116] In 2020, FWS determined that the northern spotted owl warranted reclassification as an "endangered" species, but was precluded by other priorities.[117] Yet FWS continues to authorize timber sales that will take individual northern spotted owls. For example, in a recent biological opinion, FWS found that a multi-year timber project would take twelve northern spotted owls, due to the destruction and degradation of over 1,000 acres of owl nesting/roosting habitat and over 3,000 acres of owl foraging habitat. "The degradation, removal, and modification of habitat and continuous spatial extent of the effects of the proposed action is expected to significantly impair the breeding, feeding, and sheltering behavior of the adult owls and their young."[118]

I. Red Knot

Rufa red knots (*Calidris canutus rufa*), listed as threatened under the ESA, are harmed when habitat containing a critical food resource is degraded or made inaccessible. Each year, red knots complete one of the most epic migrations in the animal kingdom. Starting as far south as Tierra del Fuego at the southern tip of South America, they fly 9,000 miles to their breeding grounds in the Arctic Circle. For most red knots, the final staging area before the Arctic Circle is the U.S. Atlantic Coast—especially Delaware Bay and South Carolina—where their stopover coincides with another ecological marvel: the spawning of millions of horseshoe crabs that emerge from the water and lay clusters of approximately 4,000 eggs, with the potential for an

[113] Endangered and Threatened Wildlife and Plants; Determination of Threatened Status for the Northern Spotted Owl, 55 Fed. Reg. 26114 (June 26, 1990).

[114] Endangered and Threatened Wildlife and Plants; Designation of Revised Critical Habitat for the Northern Spotted Owl, 77 Fed. Reg. 71876, 71906–07 (Dec. 4, 2012).

[115] Raymond J. Davis et al., *Northwest Forest Plan—The First 25 Years (1994–2018): Status and Trends of Northern Spotted Owl Habitats* 1 (2022).

[116] U.S. Fish & Wildlife Serv., *Revised Recovery Plan for the Northern Spotted Owl (*Strix occidentalis caurina*)* (2011).

[117] Endangered and Threatened Wildlife and Plants; 12-Month Finding for the Northern Spotted Owl, 85 Fed. Reg. 81144, 81146 (Dec. 15, 2020).

[118] U.S. Fish & Wildlife Serv., *Biological Opinion: South Fork Sacramento Public Safety and Forest Restoration Project* at Incidental Take Statement 1 (2023).

individual to lay more than 100,000 eggs over the course of several nights.[119] For red knots that have already flown thousands of miles at enormous physiological expense, the eggs provide essential replenishment, enabling a doubling of body mass in fewer than fourteen days.[120] This unique resource fuels the duration of their journey and enhances breeding success in the Arctic.[121] Impeding red knots' access to horseshoe crab eggs has been recognized as harming the species. For example, a federal court found that removing horseshoe crabs from the beach for commercial use could constitute taking red knots.[122] And FWS determined that aquaculture gear interfering with red knots' feeding qualified as incidental take—including through functional habitat loss and habitat degradation—and provided quantified estimates of the number of red knots that would be taken.[123]

J. Insect Pollinators

Habitat loss and destruction significantly harm listed terrestrial insects, especially pollinating species. Pollinators have unique relationships with wild plants, destruction of which has contributed to significant pollinator population declines in recent decades. Plants provide floral resources for adult pollinators and forage for larvae, meaning they are essential for pollinator survival. For example, endangered Karner blue butterfly caterpillars (*Lycaeides melissa samuelis*) eat only the leaves of wild lupine (*Lupinus perennis*).[124] Larvae of Monarch butterflies (*Danaus plexippus*), proposed to be listed as threatened, eat only the leaves of milkweed (*Asclepias* spp.), and adults are highly dependent on milkweed as a nectar source.[125] Endangered Fender's blue butterfly larvae (*Icaricia icarioides fender*) rely primarily on Kincaid's lupine (*Lupinus sulphureus ssp. kincaidii*) but may also eat other lupines.[126] The endangered rusty patched bumble bee (*Bombus affinis*) "requires a constant and diverse supply

[119] NOAA Fisheries, *Horseshoe Crabs: Managing a Resource for Birds, Bait, and Blood* (July 31, 2018), https://www.fisheries.noaa.gov/feature-story/horseshoe-crabs-managing-resource-birds-bait-and-blood.

[120] Lawrence J. Niles et al., *Effects of Horseshoe Crab Harvest in Delaware Bay on Red Knots: Are Harvest Restrictions Working?*, 59 BioScience 153, 154 (2009); N.J. Dep't of Env't Prot., *Wildlife Populations: Red Knot* 1–2 (2020), https://dep.nj.gov/wp-content/uploads/dsr/trends-red-knot.pdf.

[121] Sjoerd Duijns et al., *Body Condition Explains Migratory Performance of a Long-Distance Migrant*, 284 Proceedings of the Royal Society of London B 20171374, at 4–6 (2017).

[122] *See Defenders of Wildlife v. Boyles*, 608 F. Supp. 3d 336, 345–46 (D.S.C. 2022).

[123] *See* U.S. Fish & Wildlife Serv., *Biological Opinion on the Effects of Existing and Expanded Structural Aquaculture of Native Bivalves in Delaware Bay, Middle and Lower Townships, Cape May County, New Jersey, on the Federally Listed Red Knot* (Calidris canutus rufa) 93–115 (2016).

[124] U.S. Fish & Wildlife Serv., *Karner Blue Butterfly Recovery Plan* (Lycaeides melissa samuelis) 1 (2003); Wis. Dep't of Nat. Res., *Draft Wisconsin Statewide Karner Blue Butterfly Habitat Conservation Plan* app. A, at 45 (Apr. 2019) ("Wisconsin HCP").

[125] Endangered and Threatened Wildlife and Plants; Threatened Species Status With Section 4(d) Rule for Monarch Butterfly and Designation of Critical Habitat, 89 Fed. Reg. 100662, 100666 (Dec. 12, 2024).

[126] Benton County, *Benton County Prairie Species Habitat Conservation Plan* 22 (2010) ("Benton County HCP").

of flowers that bloom throughout the colony's flight period from spring through the fall."[127] Destruction of these plants through mowing, herbicide use, and habitat conversion results in significant harm to the imperiled pollinators that rely on them. While these activities can sometimes result in direct take of pollinators that are present, they also are likely to cause the death of pollinators by destroying food sources necessary for their survival.[128] For example, the Habitat Conservation Plan for prairie species in Benton County, Oregon, states that "[n]ectar species . . . and Kincaid's lupine . . . are critical for the [Fender's blue] butterfly, and any impact to these species in this zone is considered take and requires avoidance, minimization or mitigation."[129]

III. PROTECTION OF HABITAT IS CENTRAL TO THE PURPOSE AND GOALS OF THE ESA.

Congress enacted the ESA "to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved."[130] In passing the Act, Congress responded directly to the toll that habitat modification had inflicted upon the nation's biodiversity. As the House Report on the bill stated, "Man can threaten the existence of species of plants and animals in any of a number of ways. . . . The most significant of those has proven also to be the most difficult to control: the destruction of critical habitat."[131]

An "examination of the language, history, and structure [of the ESA] indicates beyond doubt that Congress intended endangered species to be afforded the highest of priorities."[132] The ESA's ultimate goal is recovery of listed species to the point where they no longer need ESA protection.[133] After the Secretaries of the Interior (for most terrestrial and freshwater species) and Commerce (for most marine species) list species under the Act, Section 9 of the ESA prohibits actions that purposefully or incidentally "take" endangered species.[134] "Take" is broadly defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct."[135]

Since the years immediately following the ESA's enactment, the Services have correctly recognized that "taking" a member of a protected species includes killing or injuring it through habitat modification. The Services first promulgated a definition of "harm" that encompassed habitat modification in 1975. The current definition of harm, in place since 1981, "include[s]

---

[127] Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Rusty Patched Bumble Bee, 89 Fed. Reg. 93245, 93249 (Nov. 26, 2024).

[128] *See, e.g.*, Wisconsin HCP; Wisc. Dep't of Nat. Res., *Mowing and Brushing Protocol* (Sept. 6, 2007).

[129] Benton County HCP at 60.

[130] 16 U.S.C. § 1531(b).

[131] H.R. Rep. No. 93–412, at 5 (1973).

[132] *Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 174 (1978).

[133] *See* 16 U.S.C. §§ 1531(b)–(c); 1532(3).

[134] *Id.* § 1538.

[135] *Id.* § 1532(19).

significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering."[136] This definition reflects a basic principle: just as Congress forbade injuring a member of a listed species with a bullet, it forbade injuring members of listed species through displacement or starvation as a result of degrading their habitats.

As we explain below, the Services have not offered any defensible rationale for altering that long-held understanding. The ESA does not contain a loophole that permits taking species as long as habitat destruction is the cause, and the Services cannot justify rescinding the definition of "harm."

A. The Supreme Court Upheld the Current Definition of "Harm" and Rejected the Definition in the Proposed Rule.

The Services assert that rescinding the definition of "harm" would "be fully consistent with" the Supreme Court's opinion in *Babbitt v. Sweet Home* upholding the current regulatory definition of "harm."[137] It would not. There is no evidence that the Services have rationally evaluated the *Sweet Home* opinion; aside from an offhand acknowledgment that "the Supreme Court upheld FWS' regulation under *Chevron* deference,"[138] the Proposed Rule does not even cite to the *Sweet Home* majority opinion, while citing the dissent repeatedly, with extensive quotations. The Services fail to demonstrate that the Proposed Rule is consistent with the majority opinion in *Sweet Home*.

To the contrary, the Services' new position is completely irreconcilable with the Supreme Court's reasoning. The *Sweet Home* Court detailed extensive evidence in support of the current definition of "harm." The Court found that "an ordinary understanding of the word 'harm' supports it," "the broad purpose of the ESA supports" it, and the availability of incidental take permits "strongly suggests that Congress understood [the Act] to prohibit indirect as well as deliberate takings."[139] The Court also found that the definition "gains further support from the legislative history of the statute," as Committee Reports "make clear that Congress intended 'take' to apply broadly to cover indirect as well as purposeful actions."[140]

The Services' implausible assumption that, in the absence of *Chevron*, the *Sweet Home* dissent should now be viewed as the definitive interpretation of the statute defies the text of the *Sweet Home* opinion. The Services wrongly assume that, but for *Chevron* deference, the dissent's interpretation would have prevailed in *Sweet Home.* But the majority in *Sweet Home* fundamentally disagreed with the dissent on the best reading of the statute and certainly did not indicate that it would have agreed with the dissent absent *Chevron*.

[136] 50 C.F.R. § 17.3.

[137] 90 Fed. Reg. at 16103 (citing *Babbitt v. Sweet Home Chapter of Cmtys. for a Great Or.*, 515 U.S. 687 (1995).

[138] *Id.* (referencing *Chevron v. Nat. Res. Def. Council*, 467 U.S. 837 (1984)).

[139] *Sweet Home*, 515 U.S. at 697–700.

[140] *Id.* at 704.

B. The Services Cannot Justify the Proposed Rule on the Basis of *Loper Bright*.

The Services' cursory discussion of *Loper Bright Enterprises v. Raimondo*[141] comes nowhere close to supporting the promulgation of a new statutory interpretation, much less the reversal of a long-held one. Their argument boils down to: (1) the Supreme Court upheld the current definition of "harm" under *Chevron*, and (2) now that *Loper Bright* overruled *Chevron*, the Services adopt the dissent from *Sweet Home*. This illogical reasoning cannot justify their new position.

The Services' stated reasoning flouts *Loper Bright* itself. In *Loper Bright*, the Supreme Court stated:

> [W]e do not call into question prior cases that relied on the *Chevron* framework. The holdings of those cases that specific agency actions are lawful . . . are still subject to statutory *stare decisis* despite our change in interpretive methodology. Mere reliance on *Chevron* cannot constitute a special justification for overruling such a holding, because to say a precedent relied on *Chevron* is, at best, just an argument that the precedent was wrongly decided.[142]

In their proposal, the Services pay lip service to the Court's direction, only to openly defy it.[143] The Services suggest that *stare decisis* does not apply because, "under the then-prevailing *Chevron* framework, *Sweet Home* held only that the existing regulation is a permissible reading of the ESA, not the only possible such reading."[144] But determining whether a regulation was a permissible reading of a statute is precisely how courts decided cases under *Chevron*.

Chevron held that, when a statute is ambiguous, a reviewing court should defer to an agency's statutory interpretation so long as that interpretation is reasonable or permissible.[145] As explained in *Chevron*, "The court need not conclude that the agency construction was the only one it permissibly could have adopted to uphold the construction."[146] A court that delves further into the appropriateness of an agency's interpretation "misconceive[s] the nature of its role."[147]

The *Sweet Home* Court held that the Services' definition of harm was permissible or reasonable, rather than the *only* permissible reading, because, as the Services acknowledge, the Court followed the "then-prevailing *Chevron* framework." *Sweet Home* expressly incorporated *Chevron*'s restrained view of the Court's role, stating, "We need not decide whether the statutory definition of 'take' compels the Secretary's interpretation of 'harm,' because our conclusions that

[141] 603 U.S. 369 (2024).

[142] *Id*. at 412 (cleaned up).

[143] 90 Fed. Reg. at 16103.

[144] *Id*.

[145] *Chevron*, 467 U.S. at 842–43.

[146] *Id*. at 843 n.11.

[147] *Id*. at 845.

Congress did not unambiguously manifest its intent to adopt respondents' view and that the Secretary's interpretation is reasonable suffice to decide this case."[148]

In the Proposed Rule, the Services imply that any interpretation of an ambiguous statute upheld under *Chevron* merits *stare decisis* only if a court also issued a gratuitous proclamation about the best reading of the statute. But that is akin to rejecting cases decided under *Chevron* on the grounds that they utilized the *Chevron* framework. This is patently irrational and inconsistent with *Loper Bright*'s affirmation of statutory *stare decisis*. Simply stated, *stare decisis* applies to the existing definition of "harm" as much as it could apply to any statutory interpretation upheld under *Chevron*.

C. The Services Cannot Justify Rescinding the Definition of "Harm" on the Basis of the *Sweet Home* Dissent.

It bears repeating that the majority opinion represents the legal holding of *Sweet Home*. The Services' disregard for the majority opinion and extensive reliance on the dissent reveals the Proposed Rule's feeble foundation. Nonetheless, because the Services cite to some of the rationales in the dissent, we explain below why the Services should not adopt these rationales, just as the Supreme Court refused to adopt them in *Sweet Home*.

1. The historical understanding of "take" and habitat degradation

Chief among the dissent's rationales is the notion that "harm," which appears in the statutory definition of "take," must be limited to the historical understanding of the word it defines. The dissent posits that the term "take" "is as old as the law itself," [149] and the Services now assert that the current definition of "harm" does "not properly account for over a thousand years of history."[150]

Neither the dissent nor the Services have offered any historical legal evidence that "take" must be so narrowly conceived. The dissent provided a few historical examples of pre-ESA uses of "take" that appear to reference killing or capturing animals, and no one disputes that the definition of "take" encompasses those actions. But in the ESA, Congress defined "take" as committing (or attempting) any of ten activities.[151] It would thwart congressional intent to curtail that definition based on scattered historical uses of "take" that are not referenced in the congressional record and that apparently encompass some, but maybe not all, of the activities that Congress enumerated.

The scant historical context referenced in the *Sweet Home* dissent could hardly bear less resemblance to the ESA, as the historical examples deal with hunting and game laws. Indeed, the

[148] *Sweet Home*, 515 U.S. at 703.

[149] *Id.* at 717 (Scalia, J., dissenting).

[150] 90 Fed. Reg. at 16103.

[151] 16 U.S.C. § 1532(19) ("The term 'take' means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.").

sole Supreme Court precedent cited by the dissent for the definition of "take" analyzed a nineteenth-century Connecticut statute about "kill[ing] any woodcock, ruffled grouse, or quail."[152] But the ESA is not merely the latest iteration of centuries-old game laws; rather, it "represented the most comprehensive legislation for the preservation of endangered species ever enacted by any nation."[153] The Act contained a new definition of "take" that differed from how the term may have been used to regulate hunting in nineteenth-century Connecticut, medieval England, or Justinian's Roman Empire.[154] Defining "take" to fit the new statutory context and purpose was fully within Congress's purview.

More probative examples of "take" appear in congressional action that shortly predated the ESA. The Endangered Species Preservation Act of 1966 contained a more limited definition of "take": "to pursue, hunt, shoot, capture, collect, kill," or to attempt any such conduct.[155] That statute's take prohibition applied only within the National Wildlife Refuge System, and it separately provided that "[n]o person shall knowingly disturb, injure, cut, burn, remove, destroy, or possess any real or personal property of the United States, including natural growth, in any area of the System."[156] The 1966 definition of "take" was readily available when Congress drafted the ESA, and Congress decided to add the word "harm," along with "harass," "wound," and "trap," to the earlier Act's list of definitions. In so doing, Congress emphatically did *not* silently incorporate a prior understanding of "take" but instead went out of its way to draft an expanded definition to meet the innovative purpose of the new statute.

Indeed, when the interpretative question is properly focused on the historical treatment of habitat degradation, as it should be when examining whether that concept fits within a traditional understanding of "harm," the argument for the *Sweet Home* majority's interpretation becomes even stronger. This is because the same line of inquiry that the *Sweet Home* dissent utilized for its "take" argument reveals a lengthy historical record of habitat regulations to protect both human uses of species and the species themselves. So, for example, under the King's "Forest Jurisdiction" established by British wildlife law before the American Revolution, a private landowner "might develop his property, but he was required to retain adequate vegetation for wildlife forage and cover."[157] As one scholar wrote just two years after the ESA's enactment, "From the vantage point of early British law, with its willingness to protect wildlife habitat at the expense of power production, lumbering, and food resources, recent restrictions can be viewed not as novel incursions into the 'rights' of property owners, but rather as the continuing manifestations of regulations long a part of Anglo-American jurisprudence."[158] The

[152] *Geer v. Connecticut*, 161 U.S. 519 (Syllabus) (cited at *Sweet Home*, 515 U.S. at 717 (Scalia, J., dissenting)).

[153] *Tenn. Valley Auth.*, 437 U.S. at 180.

[154] *See Sweet Home*, 515 U.S. at 717–18.

[155] Pub. L. 89-669 § 5(b), 80 Stat. 926, 929 (1966).

[156] *Id.* § 4(c), 80 Stat. at 928.

[157] Thomas A. Lund, *British Wildlife Law Before the American Revolution: Lessons from the Past*, 74 Mich. L. Rev. 49, 67 (1975).

[158] *Id.* at 69 (citations omitted).

understanding that "harm" to wildlife extends to habitat destruction is well-grounded in relevant legal history.

2. Noscitur a sociis

The Services also invoke the *Sweet Home* dissent's reliance on the *noscitur a sociis* canon of statutory construction to argue that "harm" must be read "like the other nine verbs in the definition" of take and limited to "affirmative acts . . . directed immediately and intentionally against a particular animal."[159] Again, it bears mention that the Supreme Court majority specifically rejected this argument in *Sweet Home* without regard to *Chevron* deference, and the Services cannot anoint it controlling law.[160] In addition, there are at least two fatal problems with this argument.

First, the *Sweet Home* dissent argued that the FWS Solicitor had made essentially the same point in a 1981 memorandum,[161] but the Services already addressed that argument. The memorandum was part of what motivated the Services to revise the definition of "harm" in 1981. And the Solicitor, apparently satisfied, never raised any concern with the revised definition at issue in *Sweet Home.* In other words, the memorandum does not undermine the current definition—to the contrary, the current definition fully addressed the concerns that the memorandum raised while applying *noscitur a sociis*. As FWS explained at the time:

> The notice proposed the redefinition on the grounds that the existing language could be construed as prohibiting the modification of habitat even where there was no injury to the listed endangered or threatened wildlife. The Office of the Solicitor, in a memorandum to the Director of the Fish and Wildlife Service, concluded that such application of Section 9 would go beyond the intent of Congress in the Act. Accordingly, the Associate Solicitor recommended that the definition be changed to obviate any such erroneous application. . . . In proposing a redefinition, however, the Service did not intend to imply that significant habitat destruction which could be shown to injure protected wildlife through the impairment of its essential behavioral patterns was not subject to the Act. This misperception has been eliminated in the final rule.[162]

Assuming for the sake of argument that the *noscitur a sociis* canon applies, it does not mandate the narrow understanding of "harm" that the Services propose. The current definition of harm *already* reflects FWS's response to *noscitur a sociis*.

In addition to conflicting with FWS's prior position, using *noscitur a sociis* to drastically curtail the scope of "harm" misapplies the canon. As the Supreme Court warned more than a

[159] 90 Fed. Reg. at 16103 (citing *Sweet Home*, 515 U.S. at 719–20).

[160] *See Sweet Home*, 515 U.S. at 702.

[161] *Id*. at 720–21 (Scalia, J., dissenting).

[162] Endangered and Threatened Wildlife and Plants; Final Redefinition of "Harm," 46 Fed. Reg. 54748, 54748 (Nov. 4, 1981).

century ago and reiterated in *Sweet Home*, "That a word may be known by the company it keeps is . . . not an invariable rule, for the word may have a character of its own not to be submerged by its association."[163] More recently, the Supreme Court rejected an argument that

> seem[ed] to assume that pairing a broad statutory term with a narrow one shrinks the broad one, but there is no such general usage; giving one example does not convert express inclusion into restrictive equation, and *noscitur a sociis* is no help absent some sort of gathering with a common feature to extrapolate.[164]

The question, then, is what "common feature," if any, should be extrapolated from the verbs in the ESA's definition of "take." The *Sweet Home* dissent circularly concluded that the common feature is an association with hunting. It arrived at this conclusion by presupposing that "take" relates to hunting, reading the nine verbs other than "harm" through that lens, and then absorbing "harm" into the same frame. But starting from a more objective slate, it is apparent that a different common feature of the words surrounding "harm" is that they all address actions that inflict adverse impacts upon members of listed species. In fact, that is the more natural reading, and it more comfortably accounts for words like "harass," which the *Sweet Home* dissent shoehorned into a purported centuries-old definition of "take" that contemplates only hunting.[165]

Moreover, the *Sweet Home* majority offered a canon of its own, the rule against surplusage, which counsels that one should endeavor to give meaning to each word in a statute. The Court observed, "[U]nless the statutory term 'harm' encompasses indirect as well as direct injuries, the word has no meaning that does not duplicate the meaning of other words that [the ESA] uses to define 'take.'"[166] As a matter of statutory construction, this canon—not a misguided application of *noscitur a sociis*—properly informs the meaning of "harm."

3. Structure of the ESA

The Services' cryptic reference to the *Sweet Home* dissent for the claim that the current definition of "harm" is "inconsistent with the structure of the ESA" contains no further elaboration and, as such, is entirely unsupported. Because there is no specific argument to respond to, the Services have not given commenters a meaningful opportunity to address this point. In that absence of information, we simply note that including habitat destruction in the definition of "harm" is fully consistent with—and integral to—the structure of the ESA. The real inconsistency would result from an interpretation that prohibits, for example, shooting a single

[163] *Russell Motor Car v. United States*, 261 U.S. 514, 519 (1923).

[164] *S.D. Warren Co. v. Me. Bd. of Env't Prot.*, 547 U.S. 370, 379–80 (2006).

[165] *See Sweet Home*, 515 U.S. at 697 n.10 ("Congress' definition of 'take' includes several words—most obviously 'harass,' 'pursue,' and 'wound,' in addition to 'harm' itself—that fit respondents' and the dissent's definition of 'take' no better than does 'significant habitat modification or degradation.'").

[166] *Id*. at 697–98.

individual of an endangered bird species while countenancing the destruction of the last patch of the species' habitat such that the same individual bird perished.[167]

D. The Services Have Not Explained Their Change in Position.

The Services have not met their burden to explain their change in position as to the facts and circumstances underlying their prior policy. Instead, the Services seem to imply that, because the "harm" definition was upheld under *Chevron*, all the underlying reasons for that definition are invalid. That position lacks any logical foundation.

When the Services issued the definition of harm, they did so based on what they considered the best reading of the statute, without relying on any deference they may have been accorded under *Chevron*. FWS first issued a definition of "harm" that encompassed habitat destruction in 1975—nine years before *Chevron* was decided. At the time, FWS explained that it was issuing regulations that it considered "necessary for proper implementation of the Act."[168] FWS issued the current definition in 1981, still three years before *Chevron*, and therefore again without relying on *Chevron* or any presumption of *Chevron* deference. Because *Chevron* did not—and could not have—played any role in justifying the current definition of "harm," *Chevron*'s demise did not—and could not—invalidate the definition's justifications.

When FWS finalized the current definition of "harm" in 1981, it expressly and repeatedly affirmed its view that the definition accorded with congressional intent, discussing congressional intent seven times in a three-page Federal Register notice. FWS determined that "Congress made its intent to protect species and their habitat very clear" and "Congress intended to create a definition of take which included all of the various ways of killing or injuring protected wildlife."[169] FWS's adherence to congressional intent led to a definition that included habitat modification. As noted above, when finalizing the definition in 1981, FWS explicitly corrected the "misperception" that "harm" would not include habitat destruction. FWS further explained:

> Some of the comments in favor of the redefinition . . . viewed the action as limiting "harm" to direct physical injury to an individual member of the wildlife species. This was not the intent of the Service and the final redefinition addresses that perception. The purpose of the redefinition was to preclude claims of a Section 9 taking for habitat modification alone without any attendant death or injury of the protected wildlife. Death or injury, however, may be caused by impairment of essential behavioral patterns which can have significant and permanent effects on a listed species.[170]

[167] *See Id*. at 701 n.15 ("Under the dissent's interpretation of the Act, a developer could drain a pond, knowing that the act would extinguish an endangered species of turtles . . . unless the developer was motivated by a desire 'to get at a turtle,' no statutory taking could occur. . . . We cannot accept that limitation." (cleaned up)).

[168] Endangered and Threatened Wildlife and Plants; Reclassification of the American Alligator and Other Amendments, 40 Fed. Reg. 44412, 44413 (Sept. 26, 1975).

[169] Endangered and Threatened Wildlife and Plants; Final Redefinition of "Harm," 46 Fed. Reg. at 54749.

[170] *Id.* at 54748.

The current definition of "harm" was based on FWS's careful consideration of statutory requirements. While FWS recognized certain limits to the scope of "harm," it was aware that it could also violate the statute by excessively limiting the protection that Congress intended. FWS stood behind its 1981 legal interpretation for more than four decades, including when it prevailed in Supreme Court litigation. In the Proposed Rule, FWS has not attempted to explain how its 1981 analysis was defective and has not even scratched the surface of reasoned decision-making.

E. Legislative History Supports the Current Definition of "Harm."

The legislative history of the ESA confirms that Congress clearly intended and understood that "harm," as used in the definition of "take," included habitat destruction. The majority opinion in *Sweet Home* devoted four pages to describing the legislative history supporting that understanding of "harm." The Preamble to the Proposed Rule makes no mention of legislative history, but it should be considered when determining what Congress intended "harm" to mean.

In addition to the presentation of legislative history in *Sweet Home* (discussed below), a passage from the Senate Report on the 1982 ESA Amendments explains unequivocally how the "harm" provision should operate. The Report addressed a new provision restricting the removal or possession of endangered plants on federal land and drew a specific contrast with the prohibition on taking fish and wildlife:

> Unlike the section 9 provision that prohibits the taking of any endangered fish or wildlife, including *harm which may occur as a result of habitat modification*, such harm to species of plants would not be within the scope of the prohibition added by this amendment. Similarly, removals from areas other than those within Federal lands would not be prohibited.[171]

This passage clearly articulates the Senate's expectation for how "harm" should function in the definition of "take" and leaves no doubt about three important principles. First, habitat modification can constitute "take" under Section 9 of the ESA. Second, within the definition of "take," habitat modification fits comfortably within the term "harm." And third, the Act's concern with habitat conservation is not limited to federal activity or federal lands.

Additional legislative history, much of it discussed in *Sweet Home*, further supports this conclusion. For example, the House Report on the 1973 Act stated that the bill "includes, in the broadest possible terms, restrictions on taking."[172] The same report explained:

> Any program for the protection of endangered species must necessarily concern itself with more than a simple "hands-off" attitude toward the animals and plants themselves. Such an attitude lies at the heart of the legislation here presented to the House. The *basic purpose* of the Act is clearly stated in the legislation; to

[171] S. Rep. No. 97–418, at 26 (1982) (emphasis added).

[172] H.R. Rep. No. 93–412, at 15 (1973).

> provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, protected or restored.[173]

Much like the House Report, the Senate Report explained that "'[t]ake' is defined . . . in the broadest possible manner to include every conceivable way in which a person can 'take' or attempt to 'take' any fish or wildlife."[174] Considering that the law's "basic purpose" is to protect the ecosystems of endangered and threatened species, and "take" was supposed to apply "in the broadest possible terms" and "in the broadest possible manner," it is implausible that Congress intended to allow species to be exterminated through habitat destruction.

The legislative history of the 1982 amendments, which, among other things, introduced "incidental take" permits, buttressed the understanding that habitat modification could constitute a taking. The House Report on the bill explained:

> By use of the word "incidental" the Committee intends to cover situations in which it is known that a taking will occur if the other activity is engaged in but such taking is incidental to, and not the purpose of, the activity . . . To issue the permit, the Secretary would also have to find that the taking would be incidental to another activity and that the applicant would minimize the taking to the maximum extent practicable."[175]

By repeatedly using the word "taking" to describe incidental impacts, the Report confirmed that the activities covered by the permits—like habitat destruction—would otherwise constitute a "taking." Therefore, activities like habitat destruction necessarily meet the Act's definition of "take." (The language of the statute also confirms that incidental take permits are for "any *taking* otherwise prohibited" by the "take" provision in Section 9.[176]) Moreover, to illustrate how the permits should work, the House and Senate Reports both discussed an example that addressed a taking caused by habitat destruction—specifically, a land development project that would implement measures to minimize and mitigate the incidental taking of endangered butterflies. The House Report stated that the incidental take permitting provision "is modeled after [the] habitat conservation plan" for this project and described the plan in detail because it "is the model for this long term permit and because the adequacy of similar conservation plans should be measured against" it.[177] The Senate Report stated that this project's plan was an "example" in the way it approached developing a site that was "habitat to three endangered butterflies." The only logical interpretation of these Reports is that Congress understood that habitat modification could constitute a taking.

---

[173] *Id.* at 6 (emphasis added). *See also* 16 U.S.C. § 1531(b).

[174] S. Rep. No. 93–307, at 7 (1973).

[175] H.R. Rep. No. 97–567, at 31 (1982).

[176] 16 U.S.C. § 1539(a)(1)(B) (emphasis added).

[177] H.R. Rep. No. 97–835, at 30–31 (1982) (Conf. Rep.).

The *Sweet Home* dissent was unable to convincingly counter this evidence in its "selective foray into legislative history."[178] It principally relied on statements by two members of Congress (in contrast to the committee reports cited by the majority) indicating that ESA Sections 5 and 7 would address habitat conservation, while Section 9 would address predation and killing animals for profit.[179] To be sure, Sections 5 and 7 are broader than Section 9 in creating a means to affirmatively designate land for the purpose of habitat conservation. And it is equally certain that Section 9 prohibits intentional predation. But the cited statements by congressmembers in no way condone habitat destruction that actually kills members of listed species. There is no indication that Congress intended to prohibit seeking profit through hunting even one member of an endangered species but to allow seeking profit through habitat destruction that wipes out the species altogether.

F. The Services' "Take Care" Clause Reasoning Is Specious.

The Services are wrong in asserting that the Proposed Rule would "effectuate the Executive Branch's obligation to 'take Care that the Laws be faithfully executed'" because they would—in their view—rescind the "definition on the ground that it does not reflect the best reading of the statutory text."[180] It is unclear precisely what support the Services believe the Constitution's "take Care" clause lends to the Proposed Rule, but the Executive Branch does not faithfully execute laws when, as here, it misconstrues what the law is or misrepresents Supreme Court analysis of the law. The Services cannot baselessly decree that laws have new meanings and that the Executive Branch is constitutionally bound to implement them, especially when there is contradictory Supreme Court precedent.[181]

Elsewhere, the Services invoke the "take Care" clause to diminish the significance of reliance interests in the current definition. In so doing, they again misrepresent Supreme Court precedent. The Services cite *Department of Homeland Security v. Regents of the University of California* for the proposition that, "because it is the President's duty to see that the laws are faithfully executed, in all but the most unusual cases, we believe that reliance interests likely will be outweighed by the constitutional interest in repealing regulations that do not reflect the best reading of the statute."[182]

But *Regents* struck down the Executive Branch's rescission of an allegedly unlawful federal policy when the agency failed to consider reliance interests. The Proposed Rule's Preamble contains a heading, "No Reliance in Unlawful Regulations," that deviates sharply from the holding in *Regents*. The current definition of "harm" is lawful, but the *Regents* Court notably found that parties can and do have reliance interests even in potentially *unlawful* federal policies.

---

[178] *Sweet Home*, 515 U.S. at 705.

[179] *Id*. at 727–28 (Scalia, J., dissenting) (citing 119 Cong. Rec. 25669, 30162 (1973)).

[180] 90 Fed. Reg. at 16103 (quoting U.S. Const. art. II, § 3).

[181] *Cf.* Mass. Const. pt. 1, art. 30 ("[T]he executive shall never exercise the legislative and judicial powers, or either of them . . . to the end it may be a government of laws and not of men.").

[182] 90 Fed. Reg. at 16104 (citing *Dep't of Homeland Sec. v. Regents of the Univ. of Cal.,* 591 U.S. 1, 30–32 (2020)).

The Court noted that an agency's view of the law may be a factor in how reliance interests are weighed but explicitly left room for reliance interests to influence how an agency rectifies a perceived legal infirmity.[183] Similarly, the Services' reinterpretation of "harm" does not necessarily compel the rescission of the definition. The agency must consider not only what reliance interests are at stake but also what options are available to accommodate those interests.

IV. THE SERVICES MUST COMPLY WITH NEPA.

The Proposed Rule qualifies as a "major federal action" under NEPA and, as such, the Services are required to prepare an environmental impact statement, including a robust consideration of alternatives, to evaluate its significant environmental impacts.[184] None of the Services' claims regarding their asserted non-duty to analyze the Proposed Rule under NEPA are legally valid. The Services previously understood their obligation to comply with NEPA, preparing Environmental Assessments for the regulations defining harm in 1981 and 1999.[185]

A. The Proposed Rule Is Not a Nondiscretionary Action.

The Services are incorrect in their assertion that the Proposed Rule is a "nondiscretionary action" that can evade NEPA review.[186] This erroneous conclusion flows from the Services' similarly erroneous premise that the Proposed Rule is "compelled by the best reading of the statutory text."[187] Not so, as discussed above. The best reading of the statutory text is that "harm" means, among other things, "significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering."[188] Indeed, the Supreme Court upheld this definition in *Sweet Home*, and the *Loper Bright* Court made clear that it and other cases decided under *Chevron* were subject to statutory *stare decisis*.[189] Far from qualifying as a "nondiscretionary action" under NEPA, the Proposed Rule, if finalized in substantially similar form, would be both discretionary and dismissive of the Supreme Court's directive.

[183] *Regents*, 591 U.S. at 32.

[184] *See* 42 U.S.C. § 4332(C); 43 C.F.R. §§ 46.400–450.

[185] *See* Endangered and Threatened Wildlife and Plants; Final Redefinition of "Harm," 46 Fed. Reg. 54748, 54750 (Nov. 4, 1981); Endangered and Threatened Species; Notice of Availability of a Draft Environmental Assessment for Review and Comment, 63 Fed. Reg. 31962, 31962–63 (June 11, 1998).

[186] *See* 90 Fed. Reg. at 16104 (citing 42 U.S.C. § 4336(a)(4)).

[187] 90 Fed. Reg. at 16104.

[188] 50 C.F.R. § 17.3 (FWS); *see also id.* § 222.102 (NMFS). *See generally supra* section III.

[189] *See supra* section III.B.

B. The Proposed Rule Does Not Qualify for a Categorical Exclusion under NEPA.

The Services' alternative claim, that the Proposed Rule is exempt from NEPA review because it qualifies for a categorical exclusion, also fails.[190] The Proposed Rule is ineligible for a categorical exclusion in part because it presents "extraordinary circumstances"[191]: the confusion engendered by the Proposed Rule will have significant adverse environmental impacts, in that would-be incidental take permit holders will foreseeably cause "significant habitat modification or degradation" based on their mistaken belief that the ESA no longer prohibits it.[192] So, too, will the Services' proffered flawed interpretation of the ESA—in which "take" does not extend to any prohibitions against habitat destruction—also cause significant adverse environmental impacts. This erroneous interpretation will presumably inform—and corrupt—the Services' own administration of the ESA in a variety of contexts, with environmentally harmful consequences that preclude invocation of a categorical exclusion for this action.[193] The Services must analyze these and all other environmental impacts of the Proposed Rule in an environmental impact statement.[194]

C. The Services Must Analyze Cumulative Impacts of the Rule Alongside Their Forthcoming Changes to ESA Implementing Regulations.

NEPA also requires the Services to analyze the cumulative impacts of the Proposed Rule and additional revisions to the ESA implementing regulations, which they are already drafting and intend to publish for public comment later this year.[195] The significant environmental impacts of the Proposed Rule will be compounded by the impacts of the Services' impending revisions to the ESA implementing regulations, including to provisions implementing ESA

[190] Specifically, the Services invoke the categorical exclusion for "'Policies, directives, regulations, and guidelines: that are of an administrative, financial, legal, technical, or procedural nature; or whose environmental effects are too broad, speculative, or conjectural to lend themselves to meaningful analysis and will later be subject to the NEPA process, either collectively or case-by-case," 43 C.F.R. § 46.210(i); *see also* NOAA, *Policy and Procedures for Compliance with the National Environmental Policy Act and Related Authorities* E-14 (2017), https://www.noaa.gov/sites/default/files/2021-10/NOAA-NAO-216-6A-Companion-Manual-03012018%20%281%29.pdf ("NOAA Analogue").

[191] *See* 43 C.F.R. § 46.210; *id.* § 46.215.

[192] *See* 50 C.F.R. § 17.3; *id.* § 222.102.

[193] *See Cal. ex rel. Lockyer v. U.S. Dept. of Agric.*, 575 F.3d 999, 1012–18 (9th Cir. 2009) (rejecting agency invocation of CE in replacing substantive protections for national forest roadless lands with procedural petitioning process); *Citizens for Better Forestry v. U.S. Dept. of Agric.*, 341 F.3d 961, 975 (9th Cir. 2003) (recognizing, in the Article III standing context, "that lower environmental safeguards at the national programmatic level will result in lower environmental standards at the site-specific level").

[194] It is striking that the Services admit that the Proposed Rule is "significant" within the meaning of Executive Order 12866, 90 Fed. Reg. at 16104, yet undeserving of NEPA review.

[195] *See* Declaration of Gina G. Shultz (ECF No. 19-2) ¶¶ 4, 7, 8–10, *Nat'l Hydropower Ass'n v. U.S. Fish & Wildlife Serv.*, No. 1:24-cv-02285-SLS (D.D.C. Apr. 14, 2025); Declaration of Kimberly Damon-Randall (ECF No. 19-1), ¶¶ 4, 7, 8–10, *Nat'l Hydropower Ass'n v. U.S. Fish & Wildlife Serv.*, No. 1:24-cv-02285-SLS (D.D.C. Apr. 14, 2025).

Sections 4 and 7.[196] The Services must analyze these cumulative impacts in an environmental impact statement for the Proposed Rule and cannot use multiple rulemakings to segment the impacts.[197]

V. THE SERVICES MUST COMPLY WITH ESA SECTION 7(a)(2).

For the reasons discussed above, rescission of the long-standing definition of harm is an action that "may affect" threatened and endangered species, requiring consultation under ESA Section 7(a)(2),[198] and a prohibition on the "irretrievable commitment of resources" under ESA Section 7(d) pending completion of consultation.[199]

A. Legal Framework

Under ESA Section 7(a)(2), "[e]ach federal agency shall . . . insure that any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of [critical] habitat of such species."[200] The plain language of this provision requires the Services to "assure" or "guarantee" against a likelihood of jeopardy or adverse modification. The actions subject to the ESA's requirements are "all activities or programs of any kind authorized, funded, or carried out, in whole or in part, by Federal agencies in the United States," including "actions *directly or indirectly* causing modifications to the land, water, or air."[201]

Section 7 establishes an interagency consultation process to assist federal agencies in complying with their duty to ensure against jeopardy to listed species or destruction or adverse modification of critical habitat. An agency must initiate consultation with NMFS or FWS under

[196] *See* Declaration of Gina G. Shultz (ECF No. 19-2) ¶¶ 2, 4, 7, *Nat'l Hydropower Ass'n v. U.S. Fish & Wildlife Serv.*, No. 1:24-cv-02285-SLS (D.D.C. Apr. 14, 2025); Declaration of Kimberly Damon-Randall (ECF No. 19-1), ¶¶ 2, 4, 7, *Nat'l Hydropower Ass'n v. U.S. Fish & Wildlife Serv.*, No. 1:24-cv-02285-SLS (D.D.C. Apr. 14, 2025).

[197] *See* 43 C.F.R. § 46.30 ("Reasonably foreseeable future actions include those federal and non-federal activities not yet undertaken, but sufficiently likely to occur, that a Responsible Official of ordinary prudence would take such activities into account in reaching a decision. These federal and non-federal activities that must be taken into account in the analysis of cumulative impact include, but are not limited to, activities for which there are existing decisions, funding, or proposals identified by the bureau."); NOAA Analogue at 10 ("Cumulative impacts are the impacts on the environment which result from the incremental impact of the action when added to other past, present, and *reasonably foreseeable* future actions regardless of what agency or person undertakes those actions. Reasonably foreseeable future actions cannot be limited only to those that have been approved or funded.").

[198] 16 U.S.C. § 1536(a)(2).

[199] *Id.* § 1536(d).

[200] *Id.* § 1536(a)(2).

[201] 50 C.F.R. § 402.02 (emphasis added).

Section 7 whenever it takes an action that "may affect" a listed species.[202] Agency actions subject to consultation include actions taken by the Services themselves.[203] Different offices within the Services have consulted with the Endangered Species office of FWS or the NMFS Office of Protected Resources when the Services' own actions "may affect" a listed species or critical habitat.

Regulations implementing Section 7 broadly define the scope of agency actions subject to consultation. "Examples include, but are not limited to: . . . (b) promulgation of regulations."[204] By the same logic, rescission of regulations equally constitutes "agency action" under Section 7.

As a result of Section 7 consultation, the federal agency will obtain either a written concurrence letter from NMFS or FWS that the proposed action is "not likely to adversely affect" listed species or their habitat,[205] or a biological opinion evaluating the effects of the federal action on listed species and their critical habitat.[206] If NMFS or FWS concludes that a proposed action is likely to jeopardize a listed species or result in adverse modification of its critical habitat, NMFS or FWS must propose reasonable and prudent alternatives to the proposed action to avoid jeopardy and/or adverse modification of critical habitat.[207]

Section 7(a)(2) also requires agencies to use the best available science in discharging their Section 7 duties: "In fulfilling the requirements of this paragraph each agency shall use the best scientific and commercial data available."[208]

B. The Services' Failure to Consult on the Harm Rule Rescission, Which "May Affect" Threatened and Endangered Species and Adversely Modify Their Designated Critical Habitat, Violates Section 7(a)(2).

The Proposed Rule satisfies the low threshold for ESA Section 7 consultation,[209] in that it unquestionably "may affect" threatened and endangered species and their designated critical habitat.[210] The Services are proposing to advise the regulated community and the Services' own

---

[202] *See id.* § 402.14(a).

[203] *See* U.S. Fish & Wildlife Serv. & Nat'l Marine Fisheries Serv., *Endangered Species Act Consultation Handbook* 1-5–6, App. E (1998), https://www.fws.gov/media/endangered-species-consultation-handbook (describing Intra-Service Section 7 Consultation requirements).

[204] *See* 50 C.F.R. § 402.02 (definition of "action").

[205] *Id.* §§ 402.13(c), 402.14(b)(1).

[206] *Id.* § 402.14(a); *see generally Thomas v. Peterson*, 753 F.2d 754, 763 (9th Cir. 1985).

[207] 16 U.S.C. § 1536(b)(3).

[208] *Id.* § 1536(a)(2).

[209] *See* 51 Fed. Reg. 19926, 19949 (June 3, 1986) ("Any possible effect, whether beneficial, benign, adverse, or of an undetermined character, triggers the formal consultation requirement.").

[210] *See National Wildlife Fed'n v. Fed. Emergency Mgmt. Agency*, 345 F. Supp.2d 1151, 1176 (W.D. Wash. 2004) (responding to FEMA argument that the flood insurance program itself did not affect salmon

staff that "harm" under the ESA take prohibition no longer encompasses habitat modification or degradation that kills or injures fish and wildlife.[211] The readily foreseeable consequence of that agency pronouncement is that forthcoming biological opinions, incidental take determinations, and habitat conservation plans will omit such harms from the Section 9 regulatory process, tilting agency decisions away from mandating habitat protections to minimize and mitigate incidental take, or simply giving actors an agency-sanctioned excuse to disregard ESA compliance altogether.

Although the signatories to this letter dispute the Services' interpretation of the ESA and believe that the statute itself prohibits take through habitat destruction, the fact remains that the Services' issuance of contrary direction to agency staff and the regulated community will represent a sea change in ESA administration and enforcement that, as a practical matter, will have far-reaching, adverse consequences for imperiled wildlife species. Those consequences must be evaluated under ESA Section 7.

The Services have stated that they are engaged in a "legal exercise" only, and that their elimination of the harm rule is not an action subject to the ESA.[212] This position is incompatible with the ESA's statutory commands and past agency practice and guidance.[213] This failure to consult on an action that "may affect" listed species violates Section 7 of the ESA.

* * * *

For the reasons stated above, the Services should withdraw the Proposed Rule.

We are concurrently submitting 297 documents that we referenced in these comments. If you have any questions about these comments, please do not hesitate to contact us.

Submitted by:

/s/ Kristen L. Boyles
kboyles@earthjustice.org

Harley Broyles
David Henkin
Ben Levitan
Sharmeen Morrison
Timothy J. Preso
EARTHJUSTICE

by noting "[t]he regulations implementing Section 7(a)(2) of the ESA require an action agency to consider 'the effects of the action as a whole'" (quoting 50 C.F.R. § 402.14(c)).

[211] 90 Fed. Reg. at 16103.

[212] *Id*. at 16105.

[213] *See* U.S. Fish & Wildlife Serv. & Nat'l Marine Fisheries Serv., *Endangered Species Act Consultation Handbook* 1-5–6, App. E (1998) (describing Intra-Service Section 7 Consultation requirements).

Together with and on behalf of:

The Albany County Conservancy
American Cetacean Society, Puget Sound Chapter
American Cetacean Society, National
California Coastkeeper Alliance
CalWild
Cascadia Wildlands
Center for Biological Diversity
Coalition to Protect America's National Parks
Coast Range Association
Coastal Band of the Chumash Nation
Columbia Riverkeeper
Conservation Law Foundation
Conservation Northwest
Defenders of Wildlife
Earth Law Center
Earth Ministry/Washington Interfaith Power & Light
East Lee Wildlife Stewardship Group
EcoFlight
Ecological Rights Foundation
Environmental Defense Center
Environmental Protection Information Center
Florida Springs Council
Friends of Blackwater, Inc.
Friends of Grays Harbor
Friends of the Earth
Friends of the San Juans
Friends of the Wild Swan
Grays Harbor Audubon Society
Hoosier Environmental Council
Inland Empire Waterkeeper
Inner Loop Working Group, Inc.
International Marine Mammal Project of Earth Island Institute
Kentucky Resources Council, Inc.
Klamath Siskiyou Wildlands Center
Los Padres ForestWatch
National Parks Conservation Association
Native Fish Society
Natural Resources Defense Council
Northwest Guides and Anglers Association
Ocean Conservancy
Orange County Coastkeeper
Orca Conservancy
Oregon Wild
Responsible Growth Management Coalition, Inc.
Save Our Springs Alliance
Save Our Wild Salmon Coalition
Save the Sound
Se'Si'Le
Sierra Club
Silvix Resources
Soda Mountain Wilderness Council
Sound Action
South Florida Wildlands Association
Standing Trees
Swan View Coalition
Twin Harbors Waterkeeper
Ventura Coastkeeper
Washington Wild
Waterkeeper Alliance
West Virginia Highlands Conservancy
Western Watersheds Project
Wild Hope
WildEarth Guardians
Wishtoyo Foundation
The Xerces Society
Yaak Valley Forest Council