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Public Comments Processing
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Re: Rescinding the Definition of "Harm" Under the Endangered Species Act; FWS–HQ–ES–2025–0034

On behalf of our over 2 million members and supporters dedicated to conserving wildlife and its habitat, Defenders of Wildlife ("Defenders") submits the following comments regarding the proposal by the U.S. Fish and Wildlife Service and National Marine Fisheries Service ("FWS" and "NMFS," and collectively the "Services") to rescind the definition of "harm" under the Endangered Species Act (the "Act" or "ESA"). *See* Proposed Rule, Rescinding the Definition of "Harm" Under the Endangered Species Act, 90 Fed. Reg. 16,102 (Apr. 17, 2025) ("Proposed Rule").

Defenders strongly opposes the proposed rescission of the Services' decades-old regulatory definition of "harm," which is one of the enumerated forms of "take" under Section 9 of the ESA. While the Services cannot change the statute through a regulatory rescission, the Proposed Rule signals the agencies' intent to unlawfully implement the statute by excluding habitat modification or degradation as a form of prohibited take. This unlawful implementation would accelerate the rate of extinction for the very species the ESA is intended to protect. It is also contrary to reams of scientific evidence, inconsistent with the text of the ESA, and unsupported by a reasoned analysis. Defenders urges the Services to retain the regulatory definition of "harm" and implement the ESA in accordance with the statute and its longstanding interpretation.

I. Introduction

Biodiversity is the foundation of all life on Earth and is key to human well-being. Healthy, diverse wildlife and habitats pollinate crops, keep our waterways clean, and buffer humans

from diseases like Lyme and malaria. These critical services have wide-reaching impacts on our economies, food security, health and more.

Yet biodiversity is in crisis. Today, approximately one million species are at risk of extinction globally. The majority of Earth's lands and seas have been significantly modified by human activity. Populations of wild species continue to decline, putting ecosystems in danger of collapse. In the United States, over one-third of plant and animal species are at risk of extinction.

Habitat loss is a leading cause of species extinction worldwide and in the U.S. We cannot stem or reverse the decline of wild species without protecting their habitat. Congress recognized this fundamental principle when it enacted the ESA, one of the world's most powerful conservation statutes. Through the ESA, Congress sought to prevent extinction, recover imperiled species, and protect the ecosystems in which they live.

More than 50 years later, the ESA has a strong track record: More than 95% of U.S. species listed under the Act are still with us, and hundreds of those species are on the road to recovery. Moreover, the ESA's protections appear to slow loss of habitat for imperiled species on federal lands.

Yet, in order for the ESA to do the work it was intended to do, it has to be implemented properly. Section 9 of the statute provides one of the most important protections of the Act: it prohibits unpermitted "take" of endangered and some threatened species, which is defined by the Act to include "harm." For nearly five decades, the Services have explicitly defined "harm" to include "significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering." 50 C.F.R. § 17.3. This interpretation is consistent with the plain language of the statute and Congress' intent and has been an essential component of the ESA's successful track record.

Now, however, the agencies are suddenly and inexplicably reversing course. The Proposed Rule signals the Services' intent to exclude habitat modification or degradation that actually kills or injures wildlife as a prohibited form of "take." The Act is plainly to the contrary. Indeed, the Supreme Court recognized more than 30 years ago that the inclusion of habitat modification or degradation as part of the "take" definition is consistent with the statute in *Babbit v. Sweet Home Chapter of Communities for a Great Oregon*, 515 U.S. 687, 696–704 (1995).

The Services fail to acknowledge or explain either the gravity of this change or their rationale. Rather, they claim that they are proposing to rescind the regulation because the recent Supreme Court case of *Loper Bright Enterprises v. Raimondo*, 603 U.S. 369 (2024),

requires it. *See* 90 Fed. Reg. at 16,103. Yet nothing in *Loper Bright* requires, let alone supports, this action, and it cannot be used to support the Services' proposal. The Services' proposal also violates the National Environmental Policy Act, the ESA, and the Administrative Procedure Act.

II. Habitat Destruction Is Driving the Biodiversity Crisis

A. Habitat Loss and Extinction Risk Are Inextricably Linked

Biological diversity—biodiversity for short—refers to the variety of life at all levels: genes, species, and ecosystems. It includes every lifeform from threatened vernal pool fairy shrimp to endangered blue whales. Biodiversity underpins the ecosystem services to which our economy, food systems, water sources, and well-being are inextricably linked. As such, there is no common interest more widely shared and inclusive than healthy natural systems founded on thriving, native biodiversity.

The science on the status and trends of biodiversity around the world has underscored the crisis that nature and humanity face. Approximately one million species are at risk of extinction globally, the majority of land and seas have been significantly modified by human activity, populations of wild species continue to decline, and ecosystem services—from disease buffering to pollination—are at risk of loss.[1] Threats to the diversity of life on earth have been accelerating since the onset of the industrial revolution, with significant implications for society through a degradation of nature's benefits to people.[2] We are witnessing extinction rates unprecedented in human history.[3]

The past few years have seen a stream of reports, research, and data demonstrating the challenges and opportunities in biodiversity conservation. Many of these focus on the worsening trends at global and continental scales. However, the United States is included in the global trend of decline: 34% of our nation's plants and 40% of our animals are at risk of extinction.[4] All ecosystems are impacted by the major threats of ongoing habitat loss, overexploitation, climate change, pollution, and invasive species. As noted, the global trends are equally concerning. The Living Planet Index, which tracks the abundance of over

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[1] INTERGOVERNMENTAL SCI.-POL'Y PLATFORM ON BIODIVERSITY & ECOSYSTEM SERVS., GLOBAL ASSESSMENT REPORT OF THE INTERGOVERNMENTAL SCIENCE-POLICY PLATFORM ON BIODIVERSITY AND ECOSYSTEM SERVICES (2019); WORLD WILDLIFE FUND, LIVING PLANET REPORT 2020 – BENDING THE CURVE OF BIODIVERSITY LOSS (2020).

[2] Sandra Díaz et al, *Set Ambitious Goals for Biodiversity and Sustainability*, 370 SCIENCE, Oct. 23, 2020, at 411; E. Dinerstein et al., *A Global Deal for Nature: Guiding Principles, Milestones, and Targets*. SCI. ADVANCES, Apr. 19, 2019.

[3] Anthony D. Barnosky et al., *Has the Earth's Sixth Mass Extinction Already Arrived?*, 471 NATURE 51 (2011); Gerardo Ceballos et al., *Vertebrates on the Brink as Indicators of Biological Annihilation and the Sixth Mass Extinction*,117 PNAS 13,596 (2020); Jurriaan M. De Vos et al., *Estimating the Normal Background Rate of Species Extinction*, 29 CONSERVATION BIOLOGY 452 (2014).

[4] NATURESERVE, BIODIVERSITY IN FOCUS: UNITED STATES EDITION 8 (2023).

34,000 vertebrate populations around the world, indicates that populations are declining by 73% on average.[5] As a cumulative result, the World Economic Forum listed biodiversity loss as one of the most significant global risks for the next decade: second to the inextricably linked climate crisis.[6]

Overwhelming evidence also demonstrates that biodiversity loss is a result of human actions. Accordingly, addressing these human-caused threats is critical to stemming the biodiversity crisis.[7] The world's 7.6 billion people represent just 0.01% of all living creatures, but humanity has already instigated the loss of 83% of all wild mammals and half of plants.[8]

Habitat destruction or alteration from human activity is the most significant cause of these catastrophic declines. The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) Global Assessment Report reviewed about 15,000 scientific and government sources from the past five decades to identify the five main ways in which human activity continues to threaten biodiversity: land- and sea-use changes, climate change, pollution, invasive species, and overexploitation. Research points to habitat loss as the most prevalent cause of species endangerment in the U.S.[9] Conversion of natural habitat to human-dominated land uses such as residential or agricultural areas can fragment habitats, isolate species, reduce the number of species, and more.[10]

In the U.S., habitat loss is a driver of biodiversity loss for 90% of species listed as threatened or endangered under the ESA—over 1,400 listed species.[11] From 2001 to 2017, the U.S. lost more than two football fields of natural area to development every minute, with rates and underlying causes varying across the country.[12] Changes may be more prevalent in certain natural land covers than others. For example, between the time of

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[5] WORLD WILDLIFE FUND, 2024 LIVING PLANET REPORT – A SYSTEM IN PERIL 24 (2024).
[6] WORLD ECON. F., THE GLOBAL RISKS REPORT 2025, at 8 (2025).
[7] Michael Cepic et al., *Modelling Human Influences on Biodiversity at a Global Scale–A Human Ecology Perspective*, 465 ECOLOGICAL MODELLING 109,854 (2022).
[8] Damian Carrington, *Humans Just 0.01% of All Life but Have Destroyed 83% of Wild Mammals – Study*, THE GUARDIAN (May 21, 2018); Yinon Bar-On et al., *The Biomass Distribution on Earth*, 115 PNAS 6,506 (2018).
[9] Brian Czech et al., *Economic Associations Among Causes of Species Endangerment in the United States*, 50 BIOSCIENCE 593 (2000); David S. Wilcove et al., *Quantifying Threats to Imperiled Species in the United States*, 49 BIOSCIENCE607 (1998); Aaron M. Haines et al, *Benchmark for the ESA: Having a Backbone Is Good for Recovery*, 2 FRONTIER CONSERVATION SCI. (2021); Matthias Leu et al., *Temporal Analysis of Threats Causing Species Endangerment in the United States*, CONSERVATION SCI. PRAC., Apr. 10, 2019.
[10] Maxwell C. Wilson et al., *Habitat Fragmentation and Biodiversity Conservation: Key Findings and Future Challenges*, 31 LANDSCAPE ECOLOGY 219 (2016).
[11] Talia E. Niederman et al., *US Imperiled Species and the Five Drivers of Biodiversity Loss*, BIOSCIENCE, Apr. 24, 2025.
[12] CONSERVATION SCI. PARTNERS, METHODS AND APPROACH USED TO ESTIMATE THE LOSS AND FRAGMENTATION OF NATURAL LANDS IN THE CONTERMINOUS U.S. FROM 2001 TO 2017, at 6 (2019).

European settlement and the 1970s, the contiguous U.S. lost over half of its original wetlands.[13]

Not surprisingly, there is a large body of scientific literature linking habitat losses to extinction risk.[14] The conversion of natural ecosystems to anthropogenic uses is consistently the most significant predictor of change in extinction risk; the more habitat converted, the higher the risk of going extinct. Habitat fragmentation and condition are also strong predictors of extinction risk.

Through the ESA, the U.S. employs one of the world's most powerful laws for biodiversity conservation. The ESA aspires to support biodiversity by preventing extinction, recovering imperiled species, and protecting the ecosystems in which they live. Despite its chronic underfunding, the ESA has been instrumental in facilitating habitat protection and in pulling species back from the brink of extinction. For example, one study analyzed rates of habitat loss for several ESA-listed species before and after listing, finding that ESA protections were accompanied by considerable reductions in habitat loss, especially for species such as the Florida scrub-jay, marbled murrelet, northern spotted owl, and Canada lynx.[15]

Habitat protection not only prevents species extinction but also is imperative to recovery – another goal of the ESA. Habitat protection is positively associated with increasing population trends for ESA-listed species.[16] Species benefiting from the ESA's habitat protection are among the Act's greatest success stories. It is thanks to the ESA and its key protections for both species and habitats that over 95% of the species that have been listed are still with us today.[17]

Every species needs habitat that can provide them with life-supporting essentials. To destroy habitat or alter it to the point where it no longer functions healthily is to remove

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[13] RALPH W. TINER, JR., U.S. FISH & WILDLIFE SERV., WETLANDS OF THE UNITED STATES: CURRENT STATUS AND RECENT TRENDS 36 (1984).

[14] Julie A. Heinrichs et al., *Habitat Degradation and Loss as Key Drivers of Regional Population Extinction*, 355 ECOLOGICAL MODELLING 64 (2016); Kevin R. Crooks et al., *Quantification of Habitat Fragmentation Reveals Extinction Risk in Terrestrial Mammals*,114 PNAS 7,635 (2017); Moreno Di Marco et al., *Changes in Human Footprint Drive Changes in Species Extinction Risk*, 9 NATURE COMMC'NS (2018); Moreno Di Marco et al., *Wilderness Areas Halve the Extinction Risk of Terrestrial Biodiversity*, 573 NATURE 582 (2019); Juan Pablo Ramírez-Delgado et al., *Matrix Condition Mediates the Effects of Habitat Fragmentation on Species Extinction Risk*, 13 NATURE COMMC'NS (2022).

[15] Adam J. Eichenwald et al., *US Imperiled Species Are Most Vulnerable to Habitat Loss on Private Lands*, 18 FRONTIERS ECOLOGY &ENV'T 439 (2020).

[16] *See, e.g.,* David Luther et al., *Conservation Action Implementation, Funding, and Population Trends of Birds Listed on the Endangered Species Act*, 197 BIOLOGICAL CONSERVATION 229 (2016).

[17] Noah Greenwald et al., *Extinction and the U.S. Endangered Species Act*, PEERJ, Apr. 22, 2019, at 3.

the ability of resident species to thrive. This is the very essence of "harming" species in a way the ESA was intended to prevent.

B. For Species with Very Particular Habitat Needs, the Link Between Habitat Destruction and Injury and Death Is Even More Profound

All species rely on habitat for survival, but for those species that have very specific needs for shelter, food, or reproduction, the link between habitat destruction and injury or death is even stronger. For these species, such as red-cockaded woodpecker, Florida manatee, and steelhead trout, to name but three, the Services' illegal narrowing of the way they implement the ESA is especially concerning.

1. Shelter Habitat: Red-Cockaded Woodpecker

The red-cockaded woodpecker is the only woodpecker that makes its home in living trees. Not just any tree will do; rather, red-cockaded woodpeckers "select and require old pines for cavity excavation."[18] The species prefers older trees because they have large enough sections of inactive heartwood—where tree sap does not flow—to support a nest cavity that will not fill with sap that could endanger the birds, as well as a higher rate of heartwood decay that makes the trees easier to excavate.[19] Once one of these old growth pines is cut, a new tree planted in its place will not be suitable roosting habitat for at least 60 to 80 years.[20] The red-cockaded woodpeckers' dependence on living old growth pines makes them susceptible to "take" due to habitat destruction caused by forest clearing for development, silviculture, and Department of Defense installations.[21] These activities not only rob woodpeckers of suitable shelter habitat but also fragment the shelter habitat that remains. Such fragmentation can isolate small groups of woodpeckers, resulting in inbreeding which "reduces the survival and productivity of individuals" through reduced hatching rates of eggs and one-year survival rates of fledglings.[22]

Indeed, all of the "primary remaining threats to the red-cockaded woodpecker's viability have the same fundamental cause: lack of suitable habitat."[23] In addition to the aforementioned stressors from habitat fragmentation and the insufficient numbers of suitable, abundant old pines for natural cavity excavation, red-cockaded woodpecker

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[18] U.S. FISH & WILDLIFE SERV., SPECIES STATUS ASSESSMENT REPORT FOR THE RED-COCKADED WOODPECKER (*PICOIDES BOREALIS*), VERSION 1.4, at 35 (2022) [hereinafter RCW SSA].
[19] *Id.* at 32, 35–37.
[20] *Id.* at 35.
[21] *Id.* at 129–31.
[22] *Id.* at 69–70.
[23] Reclassification of the Red-Cockaded Woodpecker From Endangered to Threatened With a Section 4(d) Rule, 89 Fed. Reg. 85,294, 85,317 (Oct. 25, 2024).

populations are also threatened by a lack of suitable foraging habitat for population growth and expansion.[24]

The red-cockaded woodpecker was originally protected under a precursor statute to the ESA and listed as endangered on the original List of Endangered and Threatened Wildlife ("Endangered Species List") when the ESA was enacted in 1973.[25] In 2024, the FWS downlisted the red-cockaded woodpecker from endangered to threatened, based on its analysis that the bird was not currently in danger of extinction, but was "still likely to become [so] in the foreseeable future," as a result of, among other things, "[l]ack of suitable roosting, nesting, and foraging habitat resulting from the legacy effects from historical logging, incompatible forest management, and conversion of forests to urban and agricultural uses," and "[f]ragmentation of habitat, with resulting effects on genetic variation, dispersal, and connectivity to support demographic populations."[26]

2. Forage (Food) Habitat: Florida Manatee

The Florida manatee was also protected under the ESA's precursor statute, and the listing was later expanded to cover both the Florida manatee and the Antillean manatee, with both subspecies listed together as the West Indian manatee.[27] The West Indian manatee was listed as endangered on the original Endangered Species List, and downlisted to threatened in 2017.[28] In January of this year, the FWS proposed to split the listing, classifying the Florida manatee as threatened, and the Antillean manatee as endangered.[29]

Because of the way their digestive system works, manatees need a plentiful supply of high-fiber, slow-digesting foods, such as seagrass—averaging up to 9% of their body weight each day.[30] But seagrass resources have declined along Florida's Atlantic coast over the past 15 years due to human activities such as dredging, filling, boating, eutrophication, and coastal development.[31]

Eutrophication—the pollution of the waters where seagrasses grow with excess phosphorous and nitrogen from "septic systems, stormwater runoff or outfalls, or industrial

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[24] *Id.* at 85,325.
[25] RCW SSA at 16.
[26] 89 Fed. Reg. at 85,294.
[27] Critical Habitat Designation for the Florida Manatee and Antillean Manatee, 89 Fed. Reg. 78,134, 78,136 (Sept. 24, 2024) (describing previous federal actions).
[28] Proposed Rule, Threatened Status for the Florida Manatee and Endangered Status for the Antillean Manatee, 90 Fed. Reg. 3,131, 31,33–34 (Jan. 14, 2025).
[29] *Id.* at 3,131.
[30] U.S. FISH & WILDLIFE SERV., SPECIES STATUS ASSESSMENT REPORT FOR THE FLORIDA MANATEE (*TRICHECHUS MANATUS LATIROSTRIS*) VERSION 1.1, at 28 (2024).
[31] 90 Fed. Reg. at 3,138.

and agricultural runoff"—is of significant concern.[32] Eutrophication has resulted in algal blooms that block out light needed for the seagrass to photosynthesize. Just a few years ago, poor water quality led to repeated algal blooms that decimated seagrass beds in the Indian River Lagoon, an important feeding ground for manatees.[33] Without sufficient access to their primary food source, Florida manatees starved to death at an alarming rate, resulting in the declaration of an unusual mortality event.[34] Record numbers of manatees were killed, with a total of 1,100 Florida manatees dying in 2021 alone and another 800 perishing in 2022—a cumulative loss of nearly 20% of the subspecies' population.[35] The threat has not passed: there is still a need for "concerted efforts to restore seagrass meadows and limit existing sources of nutrients . . . entering Florida's waterways."[36]

3. Breeding (Spawning) Habitat: Steelhead Trout

Fish that migrate to spawn are particularly susceptible to habitat modification that prevents them from reaching one or more of the habitats they depend upon at different stages of their lives. Anadromous fish are born in freshwater streams, migrate to saltwater marine environments where they live for several years, and then migrate back to the stream where they were born to reproduce.[37] Successful spawning of anadromous salmonids requires suitable gravel size and water temperature, depth, and velocity.[38]

Since 1997, multiple Evolutionarily Significant Units ("ESUs") and Distinct Population Segments ("DPSs") of steelhead trout, an anadromous salmonid, have been listed as threatened or endangered under the ESA in Washington, Oregon, Idaho, and California.[39] In the 1997 listing, NMFS found that forestry, agriculture, mining, and urbanization had

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[32] *Id*.
[33] *See id*. (noting that seagrass resources have declined along Florida's Atlantic coast since 2011, most notably in the Indian River Lagoon, "which is considered an important area for manatees in Florida," and that the loss of seagrass is expected to have contributed to the unusual mortality event in the winter of 2020-2021); *Closed Manatee Mortality Event Along The East Coast*, FLA. FISH & WILDLIFE CONSERVATION COMM'N, https://myfwc.com/research/manatee/rescue-mortality-response/ume/ (last visited May 16, 2025) ("USFWS and FWC formed an investigative team to analyze the cause of the UME and determined that starvation due to lack of forage in the Indian River Lagoon (IRL) caused this high mortality."); Rachel A. Brewton & Brian E. Lapointe, *The Green Macroalga* Caulerpa Prolifera *Replaces Seagrass in a Nitrogen Enriched, Phosphorus Limited, Urbanized Estuary*, 156 ECOLOGICAL INDICATORS 111,035 (2023) (discussing nutrient pollution, algal blooms, and seagrass losses in the IRL).
[34] *Florida Manatee*, MARINE MAMMAL COMM'N, mmc.gov/priority-topics/species-of-concern/florida-manatee/ (last visited May 15, 2025).
[35] *Id*.
[36] Aarin Conrad Allen et al., *Conservation Challenges and Emerging Threats to the West Indian Manatee (*Trichechus Manatus*) in Florida and Puerto Rico*, 19 LATIN AM. J. AQUATIC MAMMALS 32, 35 (2024).
[37] Listing of Several Evolutionary Significant Units (ESUs) of West Coast Steelhead, 62 Fed. Reg. 43,937, 43,938 (Aug. 18, 1997).
[38] D.W. REISER & T.C. BJORNN, U.S. FOREST SERV., HABITAT REQUIREMENTS OF ANADROMOUS SALMONIDS, at 6–14 (1979).
[39] *See generally* 62 Fed. Reg. 43,938–39.

degraded, simplified, and fragmented steelhead habitat, with water diversions for agriculture, flood control, domestic, and hydropower purposes greatly reducing or eliminating historically accessible habitat.[40] Major habitat concerns still remain for steelhead, particularly with regard to fish passage impediments in the mainstems of the major rivers and their tributaries and the alteration of the natural flow regime as a result of dams, diversions, and groundwater extraction.[41]

Dams pose a particular risk to the spawning of steelhead and other anadromous fish. In some areas, dams and other barriers that restrict habitat access confine steelhead to downstream reaches of a river that are "typically most at risk of rising temperatures"[42] and thus lower quality spawning habitat. In other instances, dams can directly injure or kill migrating steelhead looking to spawn upstream. A court considering this very issue recognized that a dam spillway created fast-moving water that attracted spawning fish towards the spillway and away from fish-ladders that had been designed to help them migrate upstream.[43] This brought the fish into contact with "components not designed for fish passage," killing some, and "for those who survive the ordeal, the process unnecessarily tires them in reaching upstream spawning habitat, thereby reducing their ability to successfully reproduce."[44]

III. Statutory and Regulatory Background

In the face of these threats, the ESA is "the most comprehensive legislation for the preservation of endangered species ever enacted by any nation." *Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 180 (1978). "The plain intent of Congress" in enacting the ESA was "to halt and reverse the trend toward species extinction, whatever the cost." *Id.* at 184.

To accomplish that goal, the ESA "provide[s] a program for the conservation of . . . endangered species and threatened species" and "provide[s] a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved." 16 U.S.C. § 1531(b). Congress defined "conservation" as "the use of all

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[40] *Id.* at 43,942.
[41] *See, e.g.*, NAT'L MARINE FISHERIES SERV., 2023 5-YEAR REVIEW OF SOUTHERN CALIFORNIA STEELHEAD, at 90–91 (2023); NAT'L MARINE FISHERIES SERV., 2024 5-YEAR SUMMARY & EVALUATION OF CENTRAL CALIFORNIA COAST STEELHEAD, at 30–31 (2024).
[42] NAT'L MARINE FISHERIES SERV., 2024 5-YEAR REVIEW: SUMMARY & EVALUATION OF NORTHERN CALIFORNIA STEELHEAD, at 50–51 (2024) (discussing the vulnerability of the Northern California DPS to climate change); *see also* NAT'L MARINE FISHERIES SERV., 2022 5-YEAR REVIEW: SUMMARY & EVALUATION OF SNAKE RIVER BASIN STEELHEAD, at 61–62 (2022) (noting that the Sanke River Basin DPS faces climatic vulnerabilities in access to historic habitat both through blockage by dams and reduced access to floodplains).
[43] *Puyallup Tribe of Indians v. Electron Hydro, LLC*, No. C20-1864-JCC, 2024 WL 664407, at *3 (W.D. Wash. Feb. 16, 2024), *aff'd,* No. 24-954, 2024 WL 3842099 (9th Cir. Aug. 16, 2024).
[44] *Id.*

methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to [the ESA] are no longer necessary,"—that is, until the point of full recovery. *Id.* § 1532(3). In other words, the purposes of the ESA are not only to prevent extinction—although this is essential—but also to conserve imperiled species *and their habitat* so that listed species ultimately recover. Habitat protection is a vital component of this goal. Indeed, in passing the ESA Congress recognized that "destruction of natural habitat" is a major cause of extinction. S. REP. NO. 93-307, 1973 U.S.C.C.A.N. 2989, 2990 (1973).

The ESA repeatedly recognizes the need to preserve habitat to ensure species survival and recovery. First, under Section 4 of the ESA, the Services must designate critical habitat for species "to the maximum extent prudent and determinable" at the time of listing. 16 U.S.C. § 1533(a)(3)(A). Then, under Section 7 of the statute, federal agencies must ensure that they do not take actions that are likely to destroy or adversely modify that critical habitat. *Id*. § 1536(a)(2).

At the heart of the ESA, Section 9 prevents the "take" of any threatened or endangered species without a permit. *Id.* § 1538(a)(1)(B)–(C). The ESA defines "take" broadly to mean "to harass, *harm*, pursue, hunt, shoot, wound, kill, trap, capture, or collect" a species or to attempt to do so. *Id*. § 1532(19) (emphasis added). While "harm" and the rest of these terms are not further defined in the statue, Congress clearly instructed that they be construed broadly. According to the Senate Report accompanying the ESA: "[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." S. REP. NO. 93-307, 1973 U.S.C.C.A.N. at 2995 (emphasis added). The House similarly explained it had used "the broadest possible terms" to define what it means to "take." *Sweet Home*, 515 U.S. at 704 (quoting H.R. REP. NO. 93-412, 15 (1973)).

Meanwhile, Section 7 places additional obligations upon federal agencies. Pursuant to Section 7, federal agencies that plan to authorize, fund, or carry out an action—action agencies—must consult with the relevant Service(s)—expert agencies—to ensure that any proposed action is not likely to "jeopardize the continued existence" of any endangered or threatened species, or destroy or adversely modify their critical habitat. 16 U.S.C. § 1536(a)(2). As part of this Section 7 consultation, the expert agency prepares a Biological Opinion (BiOp) and if the proposed agency action will result in take that is incidental to that action, the BiOp must include "a written statement that . . . specifies the impact of such incidental taking on the species" and "specifies those reasonable and prudent measures that [are] necessary or appropriate to minimize such impact." *Id.* § 1536(b)(4)(C).

When Congress amended the ESA in 1982, it added Section 10, which authorizes the Services to grant permits allowing some activity that would otherwise constitute "take." The activities that can be permitted under Section 10 include reintroduction programs—under which species are intentionally captured and relocated to repopulate areas where they have disappeared, *id.* § 1539(a)(1)(A)—and incidental take, which is "incidental to, and not the purpose of, the carrying out of an otherwise lawful activity," *id.* § 1539(a)(1)(B). To secure an incidental take permit ("ITP") for such activity—and therefore avoid Section 9 liability—an applicant must submit a conservation plan to the relevant Service for approval, which must specify the likely impact of the incidental take and include steps "to minimize and mitigate" the impact. 16 U.S.C. § 1539(a)(2)(A). Conservation plans under Section 10(a)(1)(B) are referred to as "habitat conservation plans" ("HCPs").[45]

Consistent with the statute, ESA regulations have recognized for decades that the destruction of species habitat is one form of "incidental" take. The destruction of habitat plainly constitutes species "harm"—one of the forms of "take" enumerated in the statute. 16 U.S.C. § 1532(19). Consequently, the current definition of "harm," which has been in place since 1981, "include[s] significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering." 50 C.F.R. § 17.3.

This definition of harm is in accord with the ESA, which sets out to protect the ecosystems that species depend on. It is also in harmony with the robust body of science showing that habitat destruction is causing species loss (*see supra* section II.A). Finally, the current harm definition aligns with basic common sense: destroying the places where species live, breed, and feed causes them harm.

IV. Courts Have Upheld, Endorsed, and Enforced the Regulatory Definition of "Harm"

A. Supreme Court Precedent Supports an Interpretation of "Harm" That Includes Killing or Injury Due to Significant Habitat Modification or Degradation

Over 30 years ago, the Supreme Court upheld the very FWS regulation that the Services now seek to rescind. *Sweet Home*, 515 U.S. at 708.[46] In rejecting a challenge to the inclusion of injury or death due to habitat modification or degradation in the regulation's definition of "harm," the Court conducted a thorough and independent analysis of the text,

[45] U.S. FISH & WILDLIFE SERV. & NAT'L MARINE FISHERIES SERV., HABITAT CONSERVATION PLANNING AND INCIDENTAL TAKE PERMIT PROCESSING HANDBOOK, at 1-2 (2016).

[46] The NMFS regulation was not at issue in *Sweet Home*, but as the Services note, it is "materially identical" to the FWS regulation. 90 Fed. Reg. at 16,103.

structure, and legislative history of the ESA. While the *Sweet Home* Court was not tasked with deciding whether the regulation reflected the "best meaning" of the statute, in essence, this is exactly what it did.

The Court began by assuming that the otherwise legal activities of petitioner loggers and families dependent on the forest product industries would "have the effect, even though unintended, of detrimentally changing the natural habitat of [spotted owls and red-cockaded woodpeckers] and that, as a consequence, members of those species will be killed or injured." *Id*. at 696. The Court framed the debate as between whether "the Secretary's only means of forestalling that grave result—even when the actor knows it is certain to occur—is to use [the ESA's] §5 authority to purchase the lands on which the survival of the species depends." *Id*. at 696–97. Or, alternatively, whether "the §9 prohibition on takings, which Congress defined to include 'harm,' places on respondents a duty to avoid harm that habitat alteration will cause the birds unless respondents first obtain a permit pursuant to §10." *Id*. at 697.

The Court found three reasons to support Section 9's inclusion of habitat destruction in its consideration of "take." First, the Court looked to the "ordinary understanding" of the term "harm," noting that the dictionary definition "'to cause hurt or damage to: injure,'" which "[i]n the context of the ESA . . . naturally encompasses habitat modification that results in actual injury or death to members of an endangered or threatened species." *Id*. The Court rejected an invitation to construe the term "harm" more narrowly—to include *only* direct and intentional actions—as then "harm" would have no independent meaning from the other terms in Section 9 —harass, pursue, hunt, shoot, wound, kill, trap, capture, or collect—which courts are reluctant to do. *Id*. at 697–98.

Second, the Court explained that "the broad purpose of the ESA supports the Secretary's decision to extend protection against activities that cause the precise harms Congress enacted the statute to avoid." *Id*. at 698. There the Court discussed the findings of *TVA v. Hill*, 437 U.S. at 184, that the ESA was "the most sweeping legislation for the preservation of endangered species ever enacted by any nation," that "among its central purposes is 'to provide means whereby the ecosystems upon which endangered species and threatened species depend may be conserved.'" *Id*. (citing 16 U.S.C. § 1531(b)).

Third, the Court pointed to what Congress did—and didn't do—when it amended the ESA in 1982 as further support for a reading of "harm" that includes injury and death due to habitat modification or degradation. Just a year prior to the 1982 amendments, a judicial decision applied the FWS harm regulation to find habitat modification or degradation to be a "take" prohibited by the Act. *Id*. at 693 (citing *Palila v. Haw. Dep't of Land & Nat. Res.*, 639 F.2d 495 (9th Cir. 1981)). If Congress did not agree with that decision—or the regulation—it

could have amended the definition of "take" to exclude injury due to habitat modification or degradation or added a definition of "harm" that reflected this exclusion. It did not do so. *Id.*

In contrast, the 1982 amendments did add Section 10's ITP provisions to the ESA, further evidence to the Court that a narrow view of "harm" was not what Congress intended. *Id.* at 700. As mentioned above, ITPs were designed to allow "take" when "such taking *is incidental to*, and *not the purpose of*, the carrying out of an otherwise lawful activity." 16 U.S.C. § 1539(a)(1)(B) (emphasis added). The Court found that if take only includes direct and intentional activities, the circumstances under which an *incidental* take would necessitate an ITP would be so limited that the ITP provisions would be "absurd." *Sweet Home,* 515 U.S. at 700–01.

To avoid this absurdity, the Court found that "take" must include harm due to indirect and unintentional activities, such as habitat modification. And in fact, Congress "had habitat modification directly in mind" when it added the ITP provisions to the ESA. *Id.* at 707. The example both the Senate and House Conference reports used to explain the model for the ITP process was "a development project [that] threatened incidental harm to a species of endangered butterfly by modification of its habitat." *Sweet Home,* 515 U.S. at 707 (citing H.R. REP NO. 97-835 (Conf. Rep.); S. REP. NO. 97-418, 10 (1982)).

In making these findings, the Court rejected the reasoning of the Court of Appeals, finding that several words which accompany "harm" in the definition of "take" "do not require direct applications of force," that the Act explicitly only requires a "knowing" action such that "a requirement of intent or purpose" is inappropriate, and that *noscitur a sociis* would give "harm" the same meaning as other words in the statutory definition, denying "harm" its own independent meaning. *Sweet Home,* 515 U.S. at 701–02.

B. The Current Definition of "Harm" Has Been Implemented Broadly and Consistently by Courts of All Levels Since *Sweet Home*

In the 30 years since *Sweet Home*, lower courts across the country have consistently found that "harm" due to modification or degradation of shelter, forage, or breeding habitat that causes the death or injury of individual members of the species constitutes a "take" in violation of Section 9 of the ESA.

The most straightforward forms of habitat destruction-based "take" have occurred when habitat is actively destroyed—and nothing is left in its place. As noted above, clear cutting forests in Texas, "caused and accelerated the decline in the [red-cockaded woodpecker] species" not only by removing stands of trees used for foraging and nesting, but also by fragmenting remaining habitat such that finding mates became more difficult. *Sierra Club v.*

Yeutter, 926 F.2d 429, 438 (5th Cir. 1991). Logging in the Pacific Northwest has likewise directly removed forests that provide breeding and nesting habitat for marbled murrelets, at times "preventing them from returning to [those areas] to nest and engage in other breeding activities for the next century." *Cascadia Wildlands v. Scott Timber Co.*, 105 F.4th 1144, 1156–57 (9th Cir. 2024); *see also Marbled Murrelet v. Babbitt*, 83 F.3d 1060, 1064 (9th Cir. 1996).

"Take" may also occur when human intervention renders habitat unsuitable for protected species. For aquatic species, this may include decreases in water quantity or quality, such that individuals of a species cannot effectively breed, shelter safely, or find food to eat. This is exactly what happened with the Florida manatee when nutrient overloading from wastewater discharges led to algal blooms that wiped out seagrass beds Florida manatees relied on for food during the winter. *See Bear Warriors United, Inc. v. Lambert*, __ F. Supp. 3d __, No. 6:22-CV-2048-CEM-LHP, 2025 WL 1122327, at *5 (M.D. Fla. Apr. 11, 2025); *see also Klamath Tribes v. U.S. Bureau of Reclamation*, No. 1:22-CV-00680-CL, 2024 WL 472047, at *5 (D. Or. Feb. 7, 2024) (lowering the water level of a lake in Oregon shortened spawning periods and increased the risk of predation for two species of protected fish).

And on land, habitat can be rendered unsuitable by a wide array of activities, from logging that would have decreased forest canopy cover below optimal levels for foraging and roosting for Indiana bats in Kentucky, *House v. U.S. Forest Serv.*, 974 F. Supp. 1022, 1029–32 (E.D. Ky. 1997), to off-road vehicle use on a Massachusetts beach that crushed and buried wrack, a key food source for piping plovers, *United States v. Town of Plymouth*, 6 F. Supp. 2d 81, 83–84, 91 (D. Mass. 1998), to snowmobiling that would significantly impair the late winter feeding and breeding habitat of woodland caribou in Washington State, *Defenders of Wildlife v. Martin*, No. CV-05-248-RHW, 2007 WL 641439, at *8 (E.D. Wash. Feb. 26, 2007), to nighttime driving on Florida beaches that hinders hatchling Loggerhead and Green sea turtles from reaching the ocean by disorienting and misorienting them with headlights and adding an exhausting obstacle—tire ruts—to their journey, *Loggerhead Turtle v. Cnty. Council of Volusia Cnty.*, 896 F. Supp. 1170, 1175, 1181–82 (M.D. Fla. 1995).

Even where high-quality habitat still exists, "take" may also result from the construction of artificial barriers that render those important habitats inaccessible to protected species—like a sea wall off the coast of South Carolina that interfered with sea turtle nesting by physically blocking turtles from crawling onto beaches, *Sierra Club v. Von Kolnitz*, No. 2:16-CV-03815-DCN, 2017 WL 3480777, at *6 (D.S.C. Aug. 14, 2017), a dam in California that divided a creek, confining steelhead trout to areas with "degraded habitat conditions" and blocking them from migrating to high-quality historical spawning and rearing habitat upstream, *San Luis Obispo Coastkeeper v. Cnty. of San Luis Obispo*, 758 F. Supp. 3d 1153,

1166 (C.D. Cal. 2024), or a dam in Washington State that attracted fish away from a fish ladder designed to assist in the migration of Chinook salmon, steelhead trout, and bull trout to spawning habitat. *Puyallup Tribe*, 2024 WL 664407, at *4–5.

These cases clearly illustrate how habitat destruction results in the injury and death of individual members of a protected species, causing "take." They also illustrate how Section 9 cases can bring immediate relief to species in danger of this type of "take." In *Town of Plymouth*, for instance, the FWS secured a preliminary injunction that prohibited off-road vehicle use in key piping plover nesting and feeding areas on the Massachusetts beach during the upcoming breeding season. 6 F. Supp. 2d at 91–92. In *Defenders of Wildlife v. Martin*, Defenders secured an injunction against snowmobiling in caribou feeding and breeding habitat until "consultation to prevent future violations of § 9" could be completed. 2007 WL 641439, at *8. And in *Puyallup Tribe of Indians*, the Tribe secured an order to remove the dam—on a court-ordered timeline—that had caused take by preventing fish migration. 2024 WL 664407, at *6.

But under the Services' new—and illegal—interpretation of "take," the essential and immediate relief that these Section 9 cases provided would not be available to prevent or mitigate the injury to or death of animals resulting from habitat modification or destruction. This result would be contrary to the ESA and significantly weaken the statute's ability to stop extinctions, promote recovery, and restore ecosystems.

V. Interpreting Harm to Exclude Killing or Injury Due to Significant Habitat Modification or Degradation Upends Decades of ESA Implementation and Prevents the Achievement of the ESA's Purpose

Implementing ESA Sections 7, 9, and 10 in accordance with the current regulatory definition of harm and in light of *Sweet Home* applies these provisions as Congress intended: to ensure that individual members of protected species are not harmed by habitat destruction. Due to the distinct and unmistakable link between habitat destruction and injury or death of members of a protected species, the Services' abandonment of this longstanding implementation is detrimental and illegal.

A. The Current Definition of "Harm" Has Improved Conservation for Federally Authorized Actions that Would Otherwise Destroy or Modify Habitat Pursuant to ESA Section 7

As discussed above, ESA Section 7 requires consultation with the Services on activities authorized, funded, or permitted by the Federal government, to ensure they are not "likely to jeopardize the continued existed of any endangered or threatened species or result in the destruction or adverse modification" of critical habitat. 16 U.S.C. § 1536(a)(2).

A fundamental part of the jeopardy analysis is an assessment of the impact of the agency action on listed species, including any "taking" that is expected to occur. *Id.* § 1536(b)(4). If the jeopardy analysis ignores incidental takings caused by significant habitat modification or degradation—as it will under the Services' new interpretation of "harm"—it will be incomplete, and will call into question the validity of no-jeopardy findings. This "no jeopardy" requirement is ongoing, moreover, meaning that it applies not only at the start of the project, but throughout the duration of the project and incorporating any changed circumstances. *See* 50 C.F.R. § 402.16 (mandating the reinitiation of Section 7 consultation where "new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered" and where "the identified action is modified such that it affects the listed species or critical habitat in a manner was not considered in the biological opinion or written concurrence"). *See also Cottonwood Env't L. Ctr. v. U.S. Forest Serv.*, 789 F.3d 1075, 1087 (9th Cir. 2015) (even after agency action is complete, Section 7 obligations continue so long as the agency has regulatory authority over the action).

Further, if the relevant Service makes a no-jeopardy finding, and if other applicable standards are met (id.), the relevant Service must produce a Biological Opinion (BiOp) detailing the impact of the Federal agency action on species or critical habitat, *id.* at § 1536(b)(3)(A), and include an incidental take statement (ITS) that "specifies the impact of such incidental taking of the species." *Id.* § 1536(b)(4)(C)(i).[47] The ITS also must include "reasonable and prudent measures . . . necessary or appropriate to minimize the impact" of the incidental take, *id.* § 1536(b)(4)(C)(ii), as well as "terms and conditions" to implement those measures, *id.* § 1536(b)(4)(C)(vi). Thus, a no-jeopardy BiOp "effectively green-lights the proposed action under the ESA, subject to the Incidental Take Statement's terms and conditions.'" *Or. Nat. Res. Council v. Allen*, 476 F.3d 1031, 1034 (9th Cir. 2007) (citing *Bennett v. Spear*, 520 U.S. 154, 169–71 (1997)).

If, in carrying out the activity, the anticipated take set forth in the ITS is exceeded or the terms and conditions are violated, consultation must be reinitiated, along with a review of the reasonable and prudent measures. 40 C.F.R. § 402.14(i)(5).[48] In this way, ITSs "set forth a 'trigger' that, when reached, results in an unacceptable level of incidental take, invalidating the safe harbor provision of the ESA, and requiring the parties to re-initiate consultation." *Allen*, 476 F.3d at 1038 (citations omitted); *see also Sierra Club v. U.S. Dep't of the Interior*, 899 F.3d 260, 295 (4th Cir. 2018) (vacating permits issued by the National

[47] *See also* U.S. FISH & WILDLIFE SERV. & NAT'L MARINE FISHERIES SERV., ENDANGERED SPECIES CONSULTATION HANDBOOK, 4-50 (1998) [hereinafter "CONSULTATION HANDBOOK"].
[48] CONSULTATION HANDBOOK at 4-54.

Park Service to authorize construction and operation of a pipeline when underlying ITS failed to include a numerical, enforceable limit on incidental take); *Miccosukee Tribe of Indians of Fla. v. United States*, 566 F.3d 1257, 1275 (11th Cir. 2009) (invalidating ITS that did not include adequate trigger for reinitiating consultation when flooding would impact the habitat of the Everglades Snail Kite). *See also*, *Nat. Res. Def. Council, Inc. v. Evans*, 279 F. Supp. 2d 1129, 1182 (N.D. Cal. 2003) ("If the amount or extent of taking specified in the ITS is exceeded, reinitiation of formal consultation is required.").

Courts have expressly found this trigger to be activated when incidental take limits were exceeded because of habitat modification or destruction. *See, e.g.*, *Or. Nat. Desert Ass'n v. Tidwell*, 716 F. Supp. 2d 982, 1006 (D. Or. 2010) (requiring reinitiation of Section 7 consultation where the U.S. Forest Service violated bank alteration standards, resulting in significant habitat modification for steelhead trout); *Pacificans for a Scenic Coast v. Cal. Dep't of Transp.*, 204 F. Supp. 3d 1075, 1092 (N.D. Cal. 2016) (same, where new information showed that a parcel of land whose preservation the agency relied upon "to compensate for other adverse effects to listed species and their habitat" was already required to be preserved).

In this way, the "ITS serves as a check on the agency's original decision that the incidental take of listed species resulting from the proposed action will not [jeopardize the continued existence of the species]." *Ctr. for Biological Diversity v. Salazar*, 695 F.3d 893, 911 (9th Cir. 2012) (quoting *Nat. Res. Def. Council, Inc. v. Evans*, 279 F. Supp. 2d at 1182). This check is essential to ensure that agency actions are modified to ensure that species are not likely to be jeopardized if habitat modification or degradation is more significant than originally assumed.

A 2021 BiOp and ITS issued by FWS to the U.S. Forest Service assessing the impact of grazing permits in the Lincoln National Forest on the New Mexico meadow jumping mouse and Mexican spotted owl illustrates these ITS requirements in action.[49] The ITS concluded that the grazing activity allowed by the permits was not likely to jeopardize the existence of either species, but would result in incidental take of the New Mexico meadow jumping mouse due to harassment and harm caused by habitat loss,[50] and incidental take of the Mexican spotted owl "through the alteration of habitat that affects behavior (e.g., breeding

[49] U.S. FISH & WILDLIFE SERV., BIOLOGICAL OPINION FOR THE REINITIATION OF CONSULTATION FOR ONGOING LIVESTOCK MANAGEMENT ON THE SACRAMENTO AND DRY CANYON ALLOTMENTS, SACRAMENTO RANGER DISTRICT, LINCOLN NATIONAL FOREST, NEW MEXICO (APR. 20, 2021)..
[50] *Id.* at 104.

or foraging) of birds . . . to such a degree that the birds are considered lost as viable members of the population[.]"[51]

To minimize the impact of this take, the BiOp's ITS included reasonable and prudent measures including: maintaining a minimum stubble height in grazing areas, employing a wildlife biologist to conduct monthly habitat assessments, conducting construction and maintenance activities outside of Mexican spotted owl breeding season, and employing adaptive management practices during grazing season.[52] As required, the BiOp's ITS provided that if the amount of or extent of anticipated incidental take is exceeded, consultation must be reinitiated, and "any operations causing such take must cease pending reinitiation."[53]

Similarly, a 2024 BiOp recognized that the issuance of an incidental take permit (ITP) under ESA Section 10 to the Sacramento Municipal Utility District would not jeopardize the threatened vernal pool fairy shrimp, vernal pool tadpole shrimp, a distinct population of the California tiger salamander, elderberry longhorn beetle, or the giant garter snake but would result in incidental take of these species due to injury and death caused by temporary and permanent habitat disturbances associated with construction, operation, and maintenance of oil and gas pipelines.[54] Accordingly, the BiOp on the ITP included an ITS that established specific limits on the take of each species, and as required, a statement that consultation would be reinitiated if these limits were exceeded. [55]

The BiOp further incorporated the HCP associated with the ITP as the reasonable and prudent measures for minimizing the impact of this take.[56] In this way, Sections 7, 9, and 10 all worked together to preserve habitat and minimize "take."

These BiOps illustrate the critical role that "take" plays in the jeopardy analysis, as well as the importance of limitations on incidental take caused by significant habitat modification in the survival and recovery of listed species. But the Services' new and illegal interpretation of harm undermines their ability to ensure that agency actions are not likely to cause jeopardy to listed species through significant habitat modification or degradation. This is true both at the outset of a project, as well as if new information arises showing that the impact of the action is different than originally anticipated.

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[51] *Id.* at 109.
[52] *Id.* at 106–12.
[53] *Id.* at 116.
[54] U.S. FISH & WILDLIFE SERV., INTRA-SERVICE BIOLOGICAL OPINION ON THE ISSUANCE OF A SECTION 10(A)(1)(B) INCIDENTAL TAKE PERMIT FOR THE SACRAMENTO MUNICIPAL UTILITY DISTRICT OPERATIONS, MAINTENANCE, AND NEW CONSTRUCTION HABITAT CONSERVATION PLAN, 3, 74 (Nov. 19, 2024).
[55] *Id.* at 74–77.
[56] *Id.* at 76.

B. The Current Definition of "Harm" Has Supported Habitat Conservation as Part of ESA Section 10 Incidental Take Permits

Similarly, Section 10 of the ESA allows private actors to avoid Section 9 liability for incidental take, so long as they meet statutorily-required conditions, including applying for and receiving an ITP and preparing a HCP that minimizes and mitigates the impact of the take. 16 U.S.C. § 1539(a). HCPs are essential for conserving and protecting species, as two-thirds of listed species rely upon private lands for survival.[57]

HCPs employ mechanisms to mitigate or minimize the impact of take, preventing injury and death by: limiting the timing and location of harmful activities; protecting existing habitat through conservation easements, management practices and other measures; restoring damaged former habitat; and acquiring or creating new habitat.[58]

To date, the FWS has approved HCPs for more than 1,300 ITPs.[59] But the Services' illegal harm interpretation would likely undermine these existing commitments as well as any future ones. Landowners and other private actors will have much less incentive to apply for ITPs and prepare HCPs if the Services do not consider significant habitat modification or degradation to violate Section 9. The result would be more habitat destruction *without* minimization or mitigation measures.

Species with an HCP are "less likely to be classified as Extinct or Declining and more likely to be classified as Stable or Improving" than species without an HCP.[60] And several species with HCPs have recovered to the point where they have been delisted, including the Delmarva fox squirrel and Kirtland's warbler, native to Michigan. But many currently-listed species may not have the chance for full recovery if landowners and other private entities no longer feel they need to apply for ITPs and abide by HCPs.

When the FWS listed the California gnatcatcher as threatened in 1993, the FWS noted that the gnatcatcher's coastal sage scrub habitat was "one of the most depleted habitat types in the United States."[61] But by 2010, during a review of the species' status, the FWS noted that much of the birds' existing habitat was covered, or expected to be covered, by large, regional HCPs, which "have made substantive contributions to the species'

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[57] H. Harl et al., *Habitat Conservation Plans Under the Endangered Species Act: A Comprehensive Three-Decade Analysis*, CONSERVATION SCI. & PRACTICE, Apr. 16, 2025, at 2.
[58] C. Langpap & J. Kerkvliet, *Endangered Species Conservation on Private Land: Assessing the Effectiveness of Habitat Conservation Plans*, 64 J. ENV'T ECON. MGMT. 1, 2 (2012).
[59] Harl et al., *supra* note 57, at 2.
[60] Langpap & Kerkvliet, *supra* note 58, at 9.
[61] Final Rule, Determination of Threatened Status for the Coastal California Gnatcatcher, 58 Fed. Reg. 16,742, 16,751 (Mar. 30, 1993).

conservation."[62] Although the plans "allow for incidental take of the gnatcatcher through destruction and curtailment of habitat, these plans also regulate and mitigate such actions" through "methodologies . . . tailored to meet the needs of each permittee," and include regulation of habitat destruction and directing impacts away from certain areas.[63] Accordingly, while the threat of habitat destruction remained, "the magnitude of this threat has been reduced since listing because of implementation of regulatory mechanisms, particularly the NCCP [Natural Community Conservation Planning]/HCP process."[64]

By 2024, these measures created "a network of core-and-linkage habitat areas," in the southern portion of the gnatcatcher's habitat, but habitat fragmentation was still problematic in the northern portion, "where largescale conservation is not occurring."[65] Thus, while progress has been made, the Services' illegal interpretation of harm could threaten that progress and prevent full recovery.

As another example, for the dunes sagebrush lizard, listed as endangered in June 2024, recovery may not even have a chance to start. This species relies on one specific habitat: the shinnery oak dune ecosystem in New Mexico and Texas. The FWS explained its listing decision was based on "[h]abitat loss, fragmentation, and degradation from development by the oil and gas and the frac sand . . . and mining industries," as well as climate change impacts.[66]

In particular, a pre-listing conservation plan, developed in 2012, noted the potential for incidental take of the dunes sagebrush lizard due to "grazing or brush management practices that modify [lizard] Habitat to an extent that impairs or eliminates successful reproductive and recruitment activities . . . or is a source of [lizard] mortality."[67] Oil and gas development was identified as another potential cause of incidental take,[68] including "habitat fragmentation associated with roads, flowlines, [and] pipelines," destabilization of dunes due to use of heavy equipment to bury pipelines, and seismic exploration activity "associated with pulsating equipment traveling through dune complexes."[69] There is

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[62] U.S. FISH & WILDLIFE SERV., COASTAL CALIFORNIA GNATCATCHER (*POLIOPTILA CALIFORNICA CALIFORNICA*) 5-YEAR REVIEW: SUMMARY AND EVALUATION 2 (2010).
[63] *Id.* at 14.
[64] *Id.*
[65] U.S. FISH & WILDLIFE SERV., COASTAL CALIFORNIA GNATCATCHER 5-YEAR REVIEW (*POLIOPTILA CALIFORNICA CALIFORNICA*) 5-YEAR REVIEW: SUMMARY AND EVALUATION 4–5 (2024).
[66] Final Rule, Endangered Species Status for the Dunes Sagebrush Lizard, 89 Fed. Reg, 43,748, 43,748 (May 20, 2024).
[67] U.S. FISH & WILDLIFE SERV. ET AL., TEXAS CONSERVATION PLAN FOR THE DUNES SAGEBRUSH LIZARD (*SCELOPORUS ARENICOLUS*) 58 (2012).
[68] *Id.*
[69] *Id.* at 20.

currently no way to restore shinnery oak ecosystem, so "loss of habitat within duneland complexes must be viewed as a potential permanent impact to the species."[70]

The Services' illegal reversal of its long-standing interpretation of "take" would allow large scale "take" that significantly destroys or modifies this habitat without requiring any mitigation whatsoever. And once this habitat is gone, it's gone.

VI. The Services' Proposal Is Illegal

A. No Reading of *Loper Bright* Supports the Replacement of the *Sweet Home* Majority's Opinion with the Position of the Dissent

The Services' rationale for excluding habitat modification or destruction that injures or kills wildlife from the definition of "harm" rests entirely on a misrepresentation of the Supreme Court's recent decision in *Loper Bright*. They claim that, "[b]ecause our regulations do not accord with the single, best meaning of the statutory text, we propose to rescind the regulatory definition of 'harm' and rest on the statutory definition of 'take,'" 90 Fed. Reg. at 16,103. As detailed above, this is patently untrue—the regulations *are* the best reading of the statutory text.

Prior to *Loper Bright*, courts decided cases of statutory interpretation under the *Chevron* deference standard: if a court found ambiguity in statutory text, the court deferred to the interpretation of the agency administering the statute, as long as that interpretation was reasonable. *See generally Chevron U.S.A. Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837 (1984). *Sweet Home* was decided under this standard. In 2024, the Supreme Court overruled *Chevron*, holding that "courts must exercise their independent judgment" in matters of statutory interpretation. *Loper Bright*, 603 U.S. at 412. Doing so enables them to find the "best reading" of the statute: "'the reading the court would have reached' if no agency were involved." *Id*. at 400 (quoting *Chevron*, 467 U.S. at 843 n.11).

But rather than allowing a court to undertake the inquiry that *Loper Bright* requires, the Services seek to turn *Loper Bright*'s holding on its head, claiming that they have a better reading of the ESA than the Supreme Court majority did in *Sweet Home*. Indeed, the Services seek to elevate and replace the *Sweet Home* majority decision with the dissent from Justice Scalia based on nothing more than their assertion that it is better. This result is not required simply because *Sweet Home* was decided under *Chevron*, as the Services appear to contend, *see* 90 Fed. Reg at 16,103. Even *Loper Bright* would not allow this result.

[70] 89 Fed. Reg at 43,753.

First, in overruling *Chevron*, the Court in *Loper Bright* made clear that "we do not call into question prior cases that relied on the *Chevron* framework. The holdings of such cases . . . are still subject to statutory *stare decisis*." *Loper Bright*, 603 U.S. at 412. The Services acknowledge but disregard this directive to recognize the binding precedent of cases decided under *Chevron*, deciding instead that *in their judgment*, the *Sweet Home* dissent is the better reading of the statute than the majority. 90 Fed. Reg. at 16,103. Substituting the Services' judgment for the *Sweet Home* majority's not only ignores this very clear directive, it ignores a central tenet of the *Loper Bright* decision: that statutory interpretation is the province of the courts.

Further, although *Sweet Home* was decided under *Chevron*, the *Sweet Home* majority did not "mechanically afford *binding* deference," *Loper Bright*, 603 U.S. at 399 (emphasis in original), to the FWS interpretation of "harm," a criticism raised by the *Loper Bright* Court about the application deference courts sometimes applied under *Chevron*. On the contrary, the *Sweet Home* Court, "appl[ied] all relevant interpretive tools," and utilized "independent judgment," *id.* at 400, 412, in interpreting "harm" to include injury and death caused by habitat modification or degradation. As discussed in Section IV.A., above, the *Sweet Home* Court examined the ordinary meaning, purpose, and structure of the ESA, as well as legislative history and canons of statutory construction. This is exactly what the *Loper Bright* Court explained courts should do. *Id.*

Finally, the Services argue that because the *Sweet Home* Court did not hold that the FWS regulation was the "only possible" reading of the statute, rescinding the regulation would be "fully consistent" with *Sweet Home*. 90 Fed. Reg. at 16,103. This argument disingenuously ignores the entirety of *Sweet Home* majority opinion. Yes, under *Chevron*, the *Sweet Home* Court was not tasked with deciding whether the FWS regulation was the only possible reading of harm, but it does not follow that the *Sweet Home* Court would endorse the reading of "harm"—espoused by Justice Scalia in dissent—that the Services now adopt: that "harm" and therefore "take" *only* encompass injury and killing "directed immediately and intentionally against a particular animal." 90 Fed. Reg. 16,103.

On the contrary, *Sweet Home* majority opinion rejected this reading time and again. When it examined the ordinary understanding of harm. *Sweet Home*, 515 U.S. at 697 ("In the context of the ESA, that definition naturally encompasses habitat modification that results in actual injury or death members of and endangered or threatened species."). When it considered legislative history. *Id.* at 704 ("[The Committee Reports] make clear that Congress intended 'take' to apply broadly to cover indirect as well as purposeful actions."). When it applied canons of construction. *Id.* at 697–98 ("[U]nless the statutory term 'harm'

encompasses indirect injuries, the word has no meaning that does not duplicate the meaning of the other words . . . use[d] to define 'take.'").

The Service's exclusion of habitat modification or degradation that injures or kills wildlife from the definition of "harm," and therefore the definition of "take," is contrary to law. It is contrary to the text of the ESA, and the broad, plain meanings of "harm" and "take." It is contrary to the binding precedent of *Sweet Home*. And, in relying on the Services' judgment to supplant the *Sweet Home* majority opinion with Justice Scalia's position in dissent, is even contrary to *Loper Bright*. *See* 603 U.S. at 371 ("[C]ourts decide legal questions by applying their own judgment.").

B. The Services Have Not Provided a "Satisfactory Explanation" for Their New Position

When an agency changes its mind and reverses its position, *at a minimum*: the agency must announce the change, the new policy must be "permissible under the statute," there must be "good reasons" for it, and the agency must believe it to be better. *F.C.C. v. Fox Television Stations, Inc.*, 556 U.S. 502, 515 (2009). The agency also must "examine the relevant data and articulate a satisfactory explanation for its action." *Id*. at 514 (quoting *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Automobile Ins. Co.*, 463 U.S. 28, 43 (1983)). If an agency cannot meet this standard, the Administrative Procedure Act ("APA") directs courts reviewing courts to "hold unlawful or set aside" the action as arbitrary and capricious. 5 U.S.C. § 706(2); *Fox TV*, 556 U.S. at 515. The Services have not come close to meeting this standard.

As a threshold matter, the Services have not truly announced their change in position. What they describe as a regulatory rescission is in fact much more. It is a change in the way the Services have implemented the ESA for over 40 years. It is a change that disregards "take" due to habitat modification or degradation as a violation of Section 9. It is a change that forgoes Section 7 ITSs and reasonable and prudent mitigation measures for "take" due to habitat modification or degradation. It is a change that disincentivizes Section 10 ITPs, HCPs, and mitigation measures for "take" due to habitat modification or degradation. The Services do not begin to explain how the change will impact protected species. They do not explain how they will fulfil their mandate under the ESA—to conserve the ecosystems upon which endangered and threatened species depend—in light of this narrowing of Sections 7, 9, and 10. The Services' failure to acknowledge the breadth of their change in position robs the public of a meaningful opportunity to assess and comment on the Services' proposal.

Next, the Services' position is not permissible under the statute. As set forth throughout this comment, the Services' position—that take" *only* encompass injury and killing "directed immediately and intentionally against a particular animal," 90 Fed. Reg. 16,103—

is contrary to the text, purpose, and structure of the ESA, as well as Congress's intent in enacting it.

Additionally, the Services' position is not based on an examination of the relevant data or other "good reasons." The Services consider *no data*: no data on habitat loss in the United States; no data on species' reliance on habitat for shelter, feeding, and breeding; no data on the number of ITPs or ITSs that have found incidental take due to injury or killing caused by habitat modification or destruction; no data on the impact of the incidental take minimization and mitigation measures triggered by those findings.

The Services' position is based on only one reason, and not a good one: that *Loper Bright* compels them to abandon their longstanding definition of harm, based on their belief that the dissent, not the majority, had the better reading of the statute when the Court interpreted it over thirty years ago. As discussed in section VI.A., above, *Loper Bright* does not require the Services to ignore the binding precedent of *Sweet Home*, nor does it condone this exercise of agency statutory interpretation.

What's more, where, as here, an agency's reversal "rests upon factual findings that contradict those which underlay its prior policy; or when its prior policy has engendered serious reliance interest that must be taken into account," further justification is required. *Fox TV*, 556 U.S. at 515. In these instances, a "reasoned explanation is needed for disregarding facts and circumstances that underlay or were engendered by the prior policy." The Services have not provided either. The Services have not begun to engage with the facts and circumstances that underlay their original regulatory definition of harm. And the Proposed Rule does not analyze or explain reliance interests, it merely requests that commenters indicate if there are any. 90 Fed. Reg. at 16,103.

These deficiencies are severe. The Services have not fully acknowledged nor provided a satisfactory explanation for their change in position. Their action is arbitrary and capricious.

C. The Proposed Rule Does Not Address Reliance Interests

Agency action that upsets longstanding polices must also be set aside as arbitrary and capricious if it fails to account for serious reliance interests. *Dep't of Homeland Sec. v. Regents of the Univ. of Cal.*, 591 U.S. 1, 30 (2020). The Proposed Rule at least acknowledges that there may be reliance interests to consider. But the Services take no steps to assess those reliance interests, determine whether they are significant, and if they are, weigh them against competing policy considerations. *See id.* at 33 ("[B]ecause DHS was 'not writing on a blank slate,' it was required to assess whether there were reliance interests, determine whether they were significant, and weigh any such interests against

competing policy concerns." (internal citation omitted)). Instead, the Proposed Rule notes the Services are "considering whether there are legitimate reliance interests on the regulations under examination" and "solicit[s] public comment on reliance interests." 90 Fed. Reg. at 16,103–04. The Services do not say when and how they will assess reliance interests, and whether there will be a meaningful opportunity to comment on that assessment.

Defenders does not read the Services' explicit solicitation of public comment on reliance interests to mean that they are not accepting public comment on other aspects of the Proposed Rule. Such a restriction on the scope of public comment would add further deficiency. *S.C. Coastal Conservation League v. Pruitt*, 318 F. Supp. 3d 959, 966–67 (2018) (failure to receive or consider comments on the substance of a proposed rulemaking rendered the rulemaking deficient because it did not provide a meaningful opportunity for comment).

D. The Services Must Comply with NEPA

The National Environmental Policy Act ("NEPA") requires that agencies taking major federal actions significantly affecting the quality of the human environment assess those impacts and provide an opportunity for meaningful public engagement. 42 U.S.C. § 4332(C). It is unclear whether, when, or how the Services plan to meet these statutory requirements for the fundamental change to its implementation of the ESA outlined in the Proposed Rule. As discussed throughout this letter, it is clear this proposal is a major federal action significantly affecting the quality of the human environment, and the Services must therefore analyze its impacts in order to educate the public and decisionmakers.

The Services claim that they are "analyzing this proposed rule in accordance with [NEPA]" but simultaneously state that no assessment is allowed because the Proposed Rule is nondiscretionary, and in the alternative, no assessment is necessary because the Proposed Rule falls under a categorical exclusion. 90 Fed. Reg. at 16,104–05. Neither explanation passes muster—and both would eliminate the opportunity for public engagement with this significant about face in the way the Services implement the ESA.

The proposal is not nondiscretionary. As discussed above, an argument that *Loper Bright* compels it is completely wrong.

Nor does the proposal fall into NEPA's categorical exclusion for actions that "have no significant individual or cumulative effect on the quality of the human environment," such as regulations that are "administrative, financial, legal, technical, or procedural" or for which the environmental effects are "too broad, speculative, or conjectural." 90 Fed. Reg. at 16,104 (citing 43 C.F.R. § 46.210(i)).

The Proposed Rule signals a change in interpretation that significantly impacts the way the Services discharge their duties under the ESA: they no longer consider significant habitat modification or degradation to be a "take" that violates Section 9, or that triggers habitat conservation measures under Section 7 or Section 10. This change is not merely administrative or procedural, it "tak[es] substantive environmental protections off the books." *Cal. ex rel. Lockyer v. U.S. Dep't of Agric.*, 575 F.3d 999, 1015–18 (9th Cir. 2009) (finding U.S. Forest Service repeal of Roadless Rule could not be promulgated under a categorical exemption). In addition, categorical exemptions are not available when "extraordinary circumstances," such as "potentially significant environmental effects," apply. 43 C.F.R. §§ 46.210, 46.215. Given the scope of the biodiversity crisis and species' dependence on habitat, the abandonment of key ESA provisions that have been used for over 40 years to protect individual members of a species by protecting their habitat has potentially significant environmental effects.

The Services must conduct a NEPA analysis on their proposal and provide the public with an opportunity to comment on the analysis.

E. The Services Have Not Complied with ESA Section 7

Section 7 of the ESA requires consultation when an agency action may affect threatened and endangered species, to ensure that the action "is not likely to jeopardize the continued existence" of any protected species "or result in the destruction or adverse modification" of their critical habitat. 16 U.S.C. § 1536(a)(2); *see also* 50 C.F.R. § 402.14. The Services do not intend to meet this requirement, noting that they "have a historical practice of issuing their general implementing regulations under the ESA without undertaking section 7 consultation." 90 Fed. Reg. at 16,105.

Such a historical practice does not obviate the statute's requirements. There is no exception in the definition of agency action—"any action authorized, funded, or carried out" by a federal agency—for actions taken by the Services. 16 U.S.C. § 1536(a)(2). The Services' Endangered Species Consultation Handbook specifically lists "the promulgation of regulations" as an agency action, again with no exception for regulations promulgated by the Services.[71]

For the same reasons the Services' proposal may have "potentially significant environmental effects" in the NEPA context, 43 C.F.R. § 46.215, it clearly "may affect" threatened and endangered species, 50 C.F.R. § 402.14. The Services must consult under Section 7 to ensure that their proposal does not jeopardize protected species continued existence or destroy or adversely modify their critical habitat.

[71] CONSULTATION HANDBOOK at E-6.

VII. Conclusion

For the reasons discussed in these comments, the Services should not finalize the Proposed Rule. They should continue to implement the ESA in accordance with the statute and its longstanding interpretation: that "harm" includes habitat modification or degradation that injures or kills wildlife. Failing to do so is contrary to law, arbitrary and capricious, and detrimental to the ecosystems upon which endangered and threatened species depend.

Sincerely,

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