

UNITED STATES DISTRICT COURT
FOR THE MIDDLE DISTRICT OF FLORIDA
JACKSONVILLE DIVISION

**CENTER FOR BIOLOGICAL
DIVERSITY and NOKUSE
EDUCATION, INC.,**

Plaintiffs,

v.

**U.S. FISH AND WILDLIFE
SERVICE; MARTHA WILLIAMS,**
in her official capacity as Director of
the U.S. Fish and Wildlife Service; and
DEB HAALAND, in her official
capacity as Secretary of the U.S.
Department of the Interior,

Defendants.

Case No.: 23-cv-936

**COMPLAINT
DECLARATORY AND
INJUNCTIVE RELIEF
REQUESTED**

INTRODUCTION

1. Plaintiffs Center for Biological Diversity and Nokuse Education, Inc. challenge the U.S. Fish and Wildlife Service's unlawful decision to deny Endangered Species Act protection to the gopher tortoise (*Gopherus polyphemus*), which is at increasing risk of extinction driven by the widespread destruction and degradation of its upland forest, savanna, grassland, and coastal dune habitat across the southeastern United States.

2. The gopher tortoise is a terrestrial turtle found across the southeast from the eastern tip of Louisiana to the southern tip of South Carolina and south through much of Florida. Though humble and docile, the tortoise plays a powerful role in maintaining the health of upland ecosystems by digging deep

burrows that more than 360 other species use for shelter, feeding, and essential behaviors. This role has earned the tortoise the superlative of “keystone species.” Like a keystone that stabilizes the stones in an archway, the gopher tortoise stabilizes entire communities of species they live with.

3. Unfortunately, a mere three percent of the gopher tortoise’s historical longleaf pine ecosystems currently remain, and all upland habitats frequented by the tortoise are steadily being degraded and destroyed by encroaching development, poor habitat management, and climate change. These threats, combined with threats from road mortality, disease, human persecution, predation, and invasive plants and animals, are expected to continue unabated into the future, driving ongoing gopher tortoise declines. Indeed, the Service projects that 68–70% of gopher tortoise populations are likely to be lost by 2100. The gopher tortoise’s future—without help—is a grim one.

4. Nevertheless, the U.S. Fish and Wildlife Service concluded that listing the Tortoise as endangered or threatened under the Endangered Species Act was not warranted. As detailed in this complaint, the Service’s decision is arbitrary and unlawful for several reasons, including that it: (1) disregards the best available science regarding the status of, and imminent threats to, the species; (2) fails to lawfully determine the gopher tortoise’s status in a significant portion of its range; (3) fails to rationally explain its choice to limit the foreseeable future analysis to only 80 years; (4) fails to consider the adequacy of existing regulatory mechanisms; and (5) irrationally concludes that the eastern

population of gopher tortoises is not a threatened or endangered distinct population segment.

5. Consequently, Plaintiffs bring this action against the U.S. Fish and Wildlife Service (Service); Martha Williams, in her official capacity as director of the U.S. Fish and Wildlife Service; and Deb Haaland, in her official capacity as Secretary of the U.S. Department of the Interior, to remedy the Service's violations of the Endangered Species Act (ESA), 16 U.S.C. §§ 1531–1544, and the Administrative Procedure Act (APA), 5 U.S.C. § 706(2). Specifically, Plaintiffs challenge the Service's determination that listing the gopher tortoise as endangered or threatened under the ESA is not warranted. *See* Endangered and Threatened Wildlife and Plants; Finding for the Gopher Tortoise Eastern and Western Distinct Population Segments, 87 Fed. Reg. 61,834 (Oct. 12, 2022).

6. Plaintiffs request that this Court declare the Service has violated the ESA and the APA. Plaintiffs also seek an order vacating and remanding the Service's Not-Warranted Finding and providing a timeline for a new determination for the gopher tortoise that applies the requisite legal and scientific standards. Such relief is necessary to afford the tortoise the full protections of the law, which it is entitled to and needs to survive and recover from looming extinction.

JURISDICTION AND VENUE

7. Plaintiffs bring this action under the ESA, 16 U.S.C. §§ 1533, 1540(g), and the Administrative Procedure Act (APA), 5 U.S.C. § 706.

8. This Court has jurisdiction over this action under 16 U.S.C. § 1540(c) and (g) (action arising under citizen suit provision of the ESA), 5 U.S.C. § 702 (APA), and 28 U.S.C. § 1331 (federal question).

9. The Court may grant the relief requested under the ESA, 16 U.S.C. § 1540(g), the APA, 5 U.S.C. §§ 702–706, and 28 U.S.C. §§ 2201, 2202 (declaratory relief and injunctive relief).

10. Plaintiffs provided sixty (60) days' notice of their intent to file this suit in compliance with the citizen suit provision of the ESA, 16 U.S.C. § 1540(g)(2)(C), by letter to Defendants dated March 22, 2023. Defendants have not taken action to remedy their continuing ESA violations as of the date of this Complaint's filing. Therefore, an actual controversy exists between the parties under 28 U.S.C. § 2201.

11. Venue in this Court is proper according to 16 U.S.C. § 1540(g)(3)(A) and 28 U.S.C. § 1391(e) because Defendants are officers and employees of the United States acting in their official capacity and a substantial part of the violations giving rise to the claim occurred in this judicial district. Venue is proper in this Division according to Local Rule 1.04 (a) and (b) because the Jacksonville Division is most directly connected to the action and is the division in which the action is most conveniently advanced. The Service's Florida Ecological Services Office, located in the city of Jacksonville in Duval County at the time the Service made the decision at issue in this matter, had a primary role in preparing the Not-Warranted finding for the gopher tortoise.

PARTIES

12. Plaintiff Center for Biological Diversity (Center) is a national, nonprofit conservation organization that works through science, law, and policy to protect endangered species and their habitats. The Center is incorporated in California and headquartered in Tucson, Arizona, with offices throughout the United States, including in Florida. The Center has more than 78,000 active members across the country.

13. Plaintiff Nokuse Education, Inc. (Nokuse) is a nonprofit education and conservation organization and operates the E.O. Wilson Biophilia Center, an environmental education center in Walton County, Florida. Nokuse's core mission is to educate students and visitors on the importance of biodiversity, to promote sustainability, and to encourage conservation, preservation, and restoration of ecosystems. Nokuse is actively involved in gopher tortoise conservation efforts through habitat acquisition, restoration, and management.

14. Plaintiffs bring this action on behalf of their organizations and their staff and members who derive ecological, recreational, aesthetic, educational, scientific, professional, and other benefits from the gopher tortoise and the diminishing upland ecosystems that gopher tortoises support and depend on for their continued existence. Plaintiffs' members and staff live near or regularly visit

areas where gopher tortoises are known to exist to observe, study, and enjoy these beloved and beleaguered reptiles.

15. For example, one Center member is a professional field biologist and environmental educator with a specialty in Florida reptiles who has been studying the gopher tortoise for more than 35 years. He twice served as co-chair of the Gopher Tortoise Council, a group of southeastern biologists and citizens concerned with the decline of the gopher tortoise. This member regularly conducts wildlife surveys and research, presents natural history programming, and offers nature-based tours about the gopher tortoise. He also enjoys observing the tortoise in its habitat. He lives near and frequently visits a preserve with a gopher tortoise population that he works to conserve, and he has specific and ongoing plans to study, observe, and enjoy the gopher tortoise and its habitat in the future.

16. A member of Nokuse holds a M.S. in Zoology and a Ph.D. in Biological Sciences and has been studying and working to conserve gopher tortoises since 1996. Since 2006, he has directed land acquisition, land restoration, land management, and wildlife management as part of a gopher tortoise restoration program in north Florida. He works with gopher tortoises on a near-daily basis and plans to continue this work in the coming years. He finds gopher tortoises intriguing and enjoys regularly visiting and observing them in their habitat.

17. Plaintiffs' members have been, are being, and will continue to be injured by the Service's unlawful determination that listing the gopher tortoise as a threatened or endangered species is not warranted under the ESA and the agency's ensuing failure to afford the species ESA protections. The injuries described are actual, concrete injuries presently suffered by Plaintiffs and their members, and they will continue to occur unless this Court grants relief. The relief sought herein—including an order vacating the Not-Warranted finding and remanding to the Service to issue a new finding based on the best available scientific data—would redress those harms. Plaintiffs and their members have no other adequate remedy at law.

18. Defendant U.S. Fish and Wildlife Service is a federal agency within the Department of the Interior. The Secretary of the Interior has delegated her authority to administer the ESA to the Service for non-marine wildlife. 50 C.F.R. § 402.01(b). This authority encompasses listing decisions for the tortoise.

19. Defendant Martha Williams is the Director of the U.S. Fish and Wildlife Service and is charged with ensuring agency decisions comply with the law. Plaintiffs sue Defendant Williams in her official capacity.

20. Defendant Deb Haaland is the Secretary of the Interior. As Secretary of the Interior, she has the ultimate responsibility to administer and implement the provisions of the ESA regarding the gopher tortoise, and to comply with all other federal laws applicable to the U.S. Department of the Interior. Plaintiffs sue Defendant Haaland in her official capacity.

STATUTORY AND REGULATORY BACKGROUND

Endangered Species Act

21. The ESA “represent[s] 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). Its purpose is to “provide a program for the conservation of . . . endangered species and threatened species” and “to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved.” 16 U.S.C. § 1531(b). The ESA requires that “all Federal departments and agencies . . . seek to conserve endangered species and threatened species and . . . utilize their authorities in furtherance of the purposes” of the ESA. *Id.* § 1531(c)(1); *see also id.* § 1536(a)(1) (“The Secretary shall review other programs administered by him and utilize such programs in furtherance of the purposes of this Act.”).

22. Congress entrusts special duties to the Secretary of the Department of the Interior to administer the ESA, *id.* § 1532(15), and the Secretary has delegated its ESA duties to the Service, 50 C.F.R. § 402.01(b).

Listing and Protections

23. The ESA directs the Service to add species that it determines are endangered or threatened to a list of federally endangered and threatened species, a process known as “listing.” 16 U.S.C. § 1533(a).

24. A species is “endangered” if it “is in danger of extinction throughout all or a significant portion of its range.” *Id.* § 1532(6). A species is “threatened” if

it is “likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.” *Id.* § 1532(20). The definition of “species” includes “distinct population segments of any species of vertebrate fish or wildlife which interbreeds when mature.” *Id.* § 1532(16).

25. The ESA does not define “foreseeable future.” The Service has promulgated regulations that require it to “describe the foreseeable future on a case-by-case basis, using the best available data and taking into account considerations such as the species’ life-history characteristics, threat-projection timeframes, and environmental variability.” 50 C.F.R. § 424.11(d).

26. Section 4 of the ESA establishes a detailed notice-and-comment rulemaking procedure that the Service must follow when adding, removing, or reclassifying species on the threatened or endangered lists. 16 U.S.C. § 1533.

27. In making listing determinations, the Service must assess five categories of threats, also known as “listing factors”: “(A) the present or threatened destruction, modification or curtailment of [a species’] habitat or range; (B) overutilization for commercial, recreational, scientific, or educational purposes; (C) disease or predation; (D) the inadequacy of existing regulatory mechanisms; [and] (E) other manmade or natural factors affecting the species’ continued existence.” *Id.* § 1533(a)(1).

28. If a species meets the definition of “endangered” or “threatened” because of “any one or a combination of” these five listing factors, the Service must list the species. 50 C.F.R. § 424.11(c); 16 U.S.C. § 1533(a)(1).

29. The ESA mandates that the Service make listing determinations “solely on the basis of the best scientific and commercial data available,” 16 U.S.C. § 1533(b)(1)(A), which “may include, but are not limited to scientific or commercial publications, administrative reports, maps or other graphic materials, information received from experts on the subject, and comments from interested parties,” 50 C.F.R. § 424.13.

30. Once the Service lists a species under the ESA, the species receives an array of procedural and substantive protections that are proven to slow and reverse the trend toward extinction and set the species on the road to recovery. For example, ESA Section 4 requires the Service to designate “critical habitat,” defined as areas “essential to the conservation of the species,” and to engage in recovery planning. 16 U.S.C. §§ 1533(a)(3), (f); 1532(5). Section 7(a)(2) requires all federal agencies to consult with the Service to ensure their actions are not “likely to jeopardize the continued existence” of any listed species or “result in the destruction or adverse modification” of a listed species’ critical habitat. *Id.* § 1536(a)(2). Section 9(a)(1)(B) makes it unlawful to “take” endangered species, which means no person can harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect these species without first receiving authorization from the Service. *Id.* § 1538.

31. These comprehensive protections constitute the effective “program for the conservation of . . . endangered species and threatened species” that Congress contemplated, *id.* § 1531(b), and are essential to the overall survival and

recovery—*i.e.*, conservation—of endangered and threatened species. *See* 50 C.F.R. § 424.02 (explaining that conservation “methods and procedures include, but are not limited to . . . research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, and transplantation”).

32. A species does not receive the ESA’s substantive protections unless the Service lists it as endangered or threatened. Thus, listing is the crucial first step in the ESA’s system of species protections.

Listing Petitions

33. Any interested person can initiate the listing process by filing a petition with the Service to list a species as endangered or threatened. 16 U.S.C. § 1533(b)(3)(A).

34. Upon receiving a petition to list a species, the Service has 90 days to determine whether the petition “presents substantial scientific or commercial information indicating that the potential action may be warranted.” *Id.* § 1533(b)(3)(A); 50 C.F.R. § 424.14(h)(1). This determination is known as a “90-day finding.”

35. If the Service makes a positive 90-day finding in response to a petition, it must conduct a “status review” of the species. 16 U.S.C. § 1533(b)(1)(A); 50 C.F.R. § 424.14(h)(2). During the status review, the Service publishes a notice and invites comment on a species’ status, which provides the basis for a listing determination. The Service may look beyond information

presented in the listing petition and its own files during the status review. 50 C.F.R. § 424.13.

36. Based on the results of the status review, the Service must make one of three findings within 12 months of receiving the petition, known as a “12-month finding.” The Service must find that either: (1) the petitioned action is “warranted”; (2) the petitioned action is “not warranted”; or (3) the petitioned action is warranted, but the Service’s issuance of a proposed rule is “precluded because of other pending proposals to list, delist, or change the listed status of species” and the agency is making “[e]xpeditious progress” to list, delist, or change the listed status of qualified species (known as a “warranted but precluded” finding). 16 U.S.C. § 1533(h)(2)(i)–(iii).

37. If the Service issues a 12-month finding that listing the species is “warranted,” it must publish a proposed rule to list the species as endangered or threatened in the Federal Register. *Id.* § 1533(b)(3)(B)(ii), (5). Within one year of publishing the proposed rule, the Service must issue a final rule listing the species and designating critical habitat for it. *Id.* § 1533(a)(3), (b)(6)(A), (C).

38. If the Service issues a “warranted but precluded” finding, it must publish the finding along with a “description and evaluation of the reasons and data on which the finding is based,” treat the petition as though resubmitted on the date of the finding, monitor the species’ status, and make a subsequent finding within 12 months. *Id.* § 1533(b)(3)(B), (C).

39. If the Service issues a finding that listing the species is “not warranted,” that finding is a final agency action subject to judicial review. *Id.* § 1533(b)(3)(C)(ii).

Administrative Procedure Act

40. Under the APA, a reviewing court “shall hold unlawful and set aside agency action, findings, and conclusions found to be . . . arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.” 5 U.S.C. § 706(2)(A).

41. While the ESA provides for judicial review of a “not warranted” finding, 16 U.S.C. § 1540(g), the APA governs the standard and scope of judicial review, 5 U.S.C. §§ 701–706.

FACTUAL BACKGROUND

The Gopher Tortoise and Threats to its Continued Existence

42. The gopher tortoise (*Gopherus polyphemus*) is a large, dark-brown to grayish-black, terrestrial turtle with a domed shell, elephantine hind feet, and shovel-like forelimbs evolved for digging burrows. It is the only native tortoise east of the Mississippi River.

43. The tortoise’s scientific name *Gopherus* refers to its affinity for digging like a gopher, while *polyphemus* refers to the mythical giant Polyphemus who lived in a cave, a nod to the tortoise’s relatively large body size and cavernous underground burrows.



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Photo credit: George L. Heinrich

44. The gopher tortoise’s burrows, which can extend more than 30 feet and descend more than 10 feet underground, support the species’ key feeding, breeding, and sheltering behaviors.

45. Tortoises and their burrows are critical features in upland habitats across the southeastern United States, supporting more than 360 other species. Animals like the threatened eastern indigo snake, Florida mouse, and gopher frog use tortoise burrows for shelter, while birds like the wild turkey and vesper sparrow use the sandy “apron” at the burrow entrance for foraging and dust bathing. The larvae of one peculiar insect, the gopher tortoise shell moth, feast exclusively upon the shells of deceased tortoises. Gopher tortoises even influence

the vegetation within their sphere of influence, consuming seeds and fruits and dispersing them into new areas.

46. Gopher tortoises can live 50–80 years or more. Because of their long lifespans, late age of reproductive maturity, and low reproductive output, along with a high hatchling and juvenile mortality rate, gopher tortoises are highly vulnerable to threats. And because adults often survive threats better than hatchlings, the enduring presence of adults can mask declines and imminent population extirpations related to poor or no reproduction.

47. Gopher tortoises are adapted for fire-maintained pine ecosystems with well-drained sandy soil for digging burrows, open tree canopy to allow sunlight to reach the ground, and herbaceous plants, fruits, and seeds for foraging. The tortoises spend most of their time in their burrows, emerging during the day to feed, bask in the sun, and reproduce.

48. Natural, lightning-generated fire maintains the systems gopher tortoises need to survive, keeping the tree canopy open so it does not shade out plants for foraging or cover the sandy soils with leaf litter and debris, which hinders the tortoise's ability to dig burrows.

49. Gopher tortoises were historically common across the southeast in eastern Louisiana, Mississippi, Alabama, Florida, Georgia, and South Carolina, inhabiting the historical longleaf pine forests that covered an estimated 92 million acres.

50. Today, a mere 3% of longleaf pine communities remain, with the majority lost to forest clearing and conversion for agriculture, silviculture, and development, as well as fire suppression. This destruction of longleaf pine systems mirrors the gopher tortoise's decline, which has been ongoing for decades. The species' ability to survive into the future has decreased significantly.

51. The gopher tortoise's decline is driven primarily by habitat destruction, degradation, and fragmentation, which leaves the species fewer places to live. These threats are ongoing and likely to continue into the future, meaning the tortoise's outlook is likely to worsen.

52. Urban development of tortoise habitat is particularly harmful because it drives and increases many other threats to the species. In addition to directly destroying habitat, development can kill or injure individual tortoises; disrupt habitat connectivity (habitat fragmentation), which reduces immigration between populations and can negatively affect population genetics; and impede habitat management activities like prescribed fire. Development also leads to increased human-driven threats like road deaths, nonnative species invasions, and persecution by people, pets, and other predators.

53. Humans have suppressed natural fire across the gopher tortoise's range, which has degraded the tortoise's habitat and significantly impacted its survival. These degraded habitats require active habitat management like "prescribed fire," which is currently a relatively infrequent and limited practice.

54. Climate change and associated sea level rise also threaten the gopher tortoise. Climate change is likely to limit the number of days suitable for prescribed burns because of changes in temperature, precipitation, and increased flooding. Sea level rise driven by climate change will directly destroy (inundate with water) and degrade coastal gopher tortoise habitat while forcing human migration to inland and upland areas where gopher tortoises live, displacing the tortoises from their already diminishing habitat.

55. Gopher tortoises are also vulnerable to cars that run over and kill them (road mortality); humans who maim, kill, or collect them; disease; predation by animals like raccoons; and various harms driven by invasive plants and animals including habitat degradation, damage to burrows, and predation.

56. All of these threats are expected to persist into the future.

57. ESA protections would help the Tortoise survive each of these threats—and their combined impacts—through habitat protections and focused recovery planning.

The Gopher Tortoise’s Listing History

58. In 1987, the Service listed the gopher tortoise as threatened under the ESA in the western portion of its range (west of the Mobile and Tombigbee Rivers in Alabama, Louisiana, and Mississippi) while leaving unprotected the eastern portion of the tortoise’s range (east of the Mobile and Tombigbee Rivers in Alabama, Florida, Georgia, and South Carolina), declaring that eastern tortoises were “still under review.” 52 Fed. Reg. 25,376, 25,377 (July 7, 1987).

59. Nearly 20 years later, the Service had still not made a protection decision for eastern gopher tortoises, prompting a 2006 petition to list the eastern portion as threatened.

60. More than three years later in 2009, the Service published a 90-day finding that the petition contained substantial information indicating listing the eastern population of gopher tortoises may be warranted, specifically citing the threat from “habitat destruction (especially from urbanization and the conversion of natural pine habitat to pine plantations),” which is “accentuated by the length of time required for gopher tortoises to reach sexual maturity and their low reproductive rate.” 74 Fed. Reg. 46,401, 46,406 (Sept. 9, 2009).

61. In July 2011, the Service made a 12-month finding that listing the gopher tortoise as threatened in the eastern portion of its range was “warranted . . . but precluded by higher priority actions.” 76 Fed. Reg. 45,130 (July 27, 2011).

62. At that time, the Service observed that “gopher tortoise habitat is diminishing and that populations are declining.” *Id.* at 45,154. The agency also recognized that the “primary threat to the gopher tortoise [was] from habitat destruction and modification,” along with ongoing overutilization, predation, disease, inadequacy of existing regulatory measures, herbicide use, climate change, and road mortality. *Id.*

63. Yet the Service placed eastern gopher tortoises on the candidate list to wait without federal protections for more than a decade.

64. In 2022, following litigation filed by the Center, the Service agreed to submit a warranted or not-warranted finding for the eastern population of gopher tortoise to the Federal Register by September 30, 2022. *Center for Biological Diversity v. Haaland et al.*, Case no. 21-cv-00884-EGS (D.D.C.).

**The Service’s Unlawful Decision to Deny ESA Protection
to the Gopher Tortoise**

65. On October 12, 2022, despite continued gopher tortoise declines, the Service reversed course from its 2011 “warranted but precluded” finding, instead concluding that listing the gopher tortoise as endangered or threatened rangewide or in the eastern portion of its range is not warranted (Not-Warranted Finding). 87 Fed. Reg. 61,834 (Oct. 12, 2022). The Not-Warranted Finding explained that the Service developed “supporting information” in a species status assessment report (SSA Report), peer review, and future condition modeling.

66. According to the Service, the SSA Report is a purely scientific document that compiles the best available data regarding the species and its threats. While the Service intends for this information to inform its listing decision, the Service does not intend that the SSA Report itself will document the rationale for the decision. In contrast, the published Not-Warranted Finding should provide the Service’s explanation for its decision regarding the tortoise.

67. In the SSA Report, the Service found that the gopher tortoise’s viability has “likely decreased significantly” relative to the species’ historical condition. SSA Report at 141. The Service also found that the longleaf pine ecosystems where the gopher tortoise historically lived have “declined

significantly due to forest clearing and conversion for agriculture and development,” now only covering 3% of their historical extent. SSA Report at 140, 47–48.

68. To estimate the tortoise’s current viability, the Service identified 656 remaining populations. Of those populations, the Service determined that only a quarter (127 populations, 19%) are healthy enough that they are “likely to persist” into the future. In contrast, more than half of the populations (360 populations, 55%) have “low resiliency” and are “highly vulnerable” to threats, and more than a quarter (69 populations, 26%) have only “moderate resiliency” and are “more vulnerable.” SSA Report at 110, 118.

69. When considering the tortoise’s future, the Service used a population viability analysis (PVA model) to model the persistence of 626 tortoise populations facing future threats. Using the PVA model, the SSA Report predicted “exacerbated” declines for the gopher tortoise by 2080 and 2100, with the number of individual tortoises declining 30–34% by 2100, and the number of populations precipitously declining 60–61% by 2080 and 68–70% by 2100. SSA Report at 159–160. The Service noted a clear downward trend in individual tortoises and populations, with the effects from stressors becoming “more magnified in each successive timestep.” SSA Report at 160. By 2100, the Service described the majority of populations as “unlikely extant,” meaning they are unlikely to exist in the future. SSA Report at 164.

70. The SSA Report also delineated the gopher tortoise populations into five units with unique genetic and habitat diversity, which it described as “genetic analysis units”: Western (Unit 1), Central (Unit 2), West Georgia (Unit 3), East Georgia (Unit 4), and Florida (Unit 5). The Service found that these “five genetic groups . . . provide adaptive capacity” needed to bolster the species against extinction. 87 Fed. Reg. at 61,859; SSA Report at 111. The Service further found that “the variety of environmental conditions” across each of the units in the tortoise’s range, such as soil characteristics and associated life history characteristics, are important for “allowing the species to withstand changing conditions.” *Id.* at 61,859.

71. In every genetic analysis unit, the SSA Report found that a significant proportion of gopher tortoise populations currently have low resiliency, and for the majority of units, the percentage of low resiliency populations far outstripped the percentage of highly resilient populations. For example, in the Western Unit (Unit 1), the Service found that 89% of populations have low resiliency (94 of 106), and only 2% have high resiliency (2 of 106). In the Central Unit (Unit 2), 67% of populations have low resiliency (71 of 106), and only 8% have high resiliency (8 of 106). And in the Florida Unit (Unit 5), 56% of populations have low resiliency (118 of 211), and only 20% have high resiliency (43 of 211).

72. The SSA Report also predicted significant declines in several of the genetic analysis units, with the number of individual tortoises in the Western

(Unit 1), West Georgia (Unit 3) and Florida (Unit 5) units expected to decline 27–40%, 51–53%, and 42–48%, respectively by 2100. The Service projected substantial declines in the number of tortoise populations among all units, with the greatest declines in the Western (Unit 1), Central (Unit 2), and Florida (Unit 5) units.

73. Based on its analysis of each genetic analysis unit, the Service concluded that the Western Unit (Unit 1) is at risk of extinction. 87 Fed. Reg. at 61,865. The Service found that the Central Unit (Unit 2) is similarly situated, concluding that “[p]opulations in Units 1 (Western) and 2 (Central) experience . . . lower resiliency for a higher proportion of populations,” and accordingly “are projected to have 15 and 14 local populations respectively, on the landscape in 2100.” *Id.* at 61,860. Based on the low resiliency and severe projected declines, the Service found that both “Units 1 (Western) and 2 (Central) . . . ha[ve] a different status” and are more at risk than other units. *Id.* at 61,860, 61,867–68.

74. The Service acknowledged that threats from habitat destruction, climate change, sea-level rise, and poor habitat management are likely to persist into the future and “have significant current and future effects on gopher tortoise populations.” SSA Report at 170, 51. No projected threat scenario in the PVA model, whether low or high, “was sufficient to prevent population declines.” *Id.*

75. In particular, the SSA Report concluded that “[i]ncreased urbanization will decrease immigration and habitat management” needed to support gopher tortoise populations, having “a significant negative effect on

persistence of local populations.” SSA Report at 172. The Service further predicted “particularly strong negative effects of both sea-level rise and elevation on persistence probability,” finding that “[g]opher tortoise populations in low-elevation, coastal areas at risk of sea-level rise might be doomed” and also noting “decreased persistence [of tortoise populations] at higher elevations[,]likely due to increased urbanization pressure in high-elevation areas.” *Id.*

76. Nevertheless, the Service inexplicably concluded that “the risk factors acting on the gopher tortoise and its habitat, either singly or in combination, are not of sufficient imminence, scope, or magnitude” to warrant listing the gopher tortoise as threatened or endangered throughout all or a significant portion of its range. 87 Fed. Reg. at 61,859, 61,861.

77. After conducting a distinct population segment (DPS) analysis for the “western population segment” and the “eastern population segment” of the gopher tortoise’s range, the Service further concluded that while the western population (Western DPS) warranted continued listing as threatened, the eastern population segment (Eastern DPS) did not warrant protection. *Id.* at 61,861–68.

78. The Service reached these arbitrary conclusions through a series of errors that caused its decision to depart from the best available science and rational decisionmaking.

79. For instance, when determining whether the gopher tortoise is endangered or threatened, the Service relied heavily on a flawed PVA model that failed to use the best available science and ultimately underestimated the

significant impacts of habitat destruction and other threats on the tortoise's ability to survive into the future.

80. For example, although the PVA model purported to model "urbanization," it failed to use the best available science regarding all the threats caused by urbanization. Specifically, the Service only modeled the effects of urbanization on two aspects of the gopher tortoise's status: how urbanization affects gopher tortoise immigration between populations and how it affects the ability to manage habitat with prescribed fire. Consequently, the Service failed to account for the best available science regarding myriad effects from urbanization that the agency itself found will negatively impact the gopher tortoise's viability, including direct destruction of habitat, direct killing and harming of tortoises, and increased urban threats like road mortality, spread of nonnative invasive species, and persecution by people, pets, and other predators.

81. In basing the Not-Warranted finding on a model that failed to account for the full range of harms from urbanization, and failing to otherwise explain how it accounted for the best available science and its own findings regarding those harms, the Service relied on an arbitrary underestimate of urbanization's effect on the gopher tortoise's ability to survive into the future.

82. The PVA model further obscured the threat from urbanization by limiting modeling to gopher tortoise populations on conservation lands, which are not threatened by impacts from urbanization. The Service acknowledged that the majority of gopher tortoise habitat (80% or more) is on private lands that are

at risk of destruction or degradation from urbanization, that populations on conservation lands have “greater . . . persistence probabilities” than the majority of “populations that we were unable to model in our framework,” and that the viability of populations excluded from the PVA model is “likely reduced relative to populations on conservation lands.” SSA Report at 173. Yet without rational explanation, the Service relied exclusively on the PVA model—without otherwise accounting for the more vulnerable populations on private lands—to conclude that “the extinction risk for the gopher tortoise is low in the future.” 87 Fed. Reg. at 61,859.

83. The Service’s reliance on the PVA model in its Not-Warranted Finding also departed from the best available science regarding the gopher tortoise’s life history, failing to accurately model the transition of juvenile gopher tortoises into reproductive adults. According to the best available science, the gopher tortoise spends a long time in the juvenile stage and has low juvenile survival, which means that many tortoises die before reaching adulthood. Rather than modeling this reality of gopher tortoise life history by explicitly modeling each age class until it reached the age of maturity, the PVA model promoted juveniles to adulthood prematurely. This departure from the best available science arbitrarily inflated the number of populations projected to survive into the future, meaning the species’ fate is actually worse than what the Service projected in the SSA Report. The Service did not explain or otherwise account for

this departure from the best available science in the SSA Report or its Not-Warranted Finding.

84. While models can be helpful tools to project a species' status in the future, they must be based on the best available science and the requisite listing factors. The Service cannot, without rational explanation or further analysis, rely on a deficient model when making the Not-Warranted Finding.

85. The Service also made additional arbitrary findings that contradict or lack a rational connection to the best available science before the agency.

86. For example, even though the Service acknowledged that the gopher tortoise has already lost all but 3% of its historical longleaf pine habitat and stands to lose even more in the future, the agency concluded without rational explanation, that "sufficient quality and quantity of habitat remains to provide adequate resiliency to contribute to the viability of the species." 87 Fed. Reg. at 61,859. In addition to contradicting its own scientific findings, the Service failed to explain how it determined remaining habitat is either "sufficient" or "adequate" when it failed to first describe how much and what quality of habitat the tortoise needs to survive. Furthermore, the Service's habitat projections for the future rely on a habitat suitability model that peer reviewers described as a poor indicator of suitable habitat on the private lands where most gopher tortoises exist.

87. The Service also misconstrued the best available science regarding gopher tortoise viability when characterizing how many resilient populations

remain. For example, the Service explained in the SSA Report that it defined gopher tortoise populations into “high,” “moderate,” and “low” resiliency categories using “minimum viable population” parameters established by experts. However, the Service failed to explain how it could rationally rely on those parameters where their accuracy depends on the presence of “superb,” “high-quality, managed habitat,” SSA Report at 116, and the Service entirely failed to consider habitat quality in its analysis, 87 Fed. Reg. at 61,853; SSA Report at 124, 127.

88. The Service also arbitrarily based its Not-Warranted Finding on the fact that the gopher tortoise still “occurs in the six states comprising the historical and current range of the species,” 87 Fed. Reg. at 61,859, without acknowledging or otherwise accounting for its own findings in the SSA Report that tortoises in at least two states are highly vulnerable to extirpation, with only *seven* populations in Louisiana and *six* populations in South Carolina, and only one of those populations (in Louisiana) projected to still exist in the foreseeable future.

89. Likewise, the Service inexplicably concluded that “*relatively* large numbers of individuals and populations” exist, 87 Fed. Reg. at 61,858–59, without explaining what these numbers are relative to. The Service’s vague conclusion directly contradicts evidence that the number of individual tortoises and populations are—and will continue to be—*relatively small* compared to historical numbers prior to the species’ significant declines.

90. The Service’s Not-Warranted Finding also denied the gopher tortoise protection based on its status throughout a significant portion of its range by disregarding the best available science and applying an unlawful interpretation of “significant portion of its range.”

91. First, the Service arbitrarily disguised the gopher tortoise’s risk of extinction in a significant portion of its range by defining the Western Unit (Unit 1) and Central Unit (Unit 2) as one “portion” (the Western Portion), thereby obscuring the independent significance and status of each of the units. In particular, the Service failed to explain its decision to merge the units when it found in the SSA Report that each of the genetic lineages in the genetic analysis units are individually necessary for the species’ viability.

92. Even when viewing the Western and Central units together, the Service’s analysis departs from the best available science. For example, the Service determined that the Western and Central units were not significant because they “do not constitute a large geographic area relative to the remaining portions of the range of the species,” 87 Fed. Reg. at 61,860, which is belied by the Service’s own finding that they contain “approximately 20 percent of the suitable habitat currently occupied by the species,” *id.* at 61,861, such that they “contribute to the rangewide representation and redundancy of the gopher tortoise,” *id.* at 61,861.

93. The Service’s determination that the Western and Central units were not significant because they do “not contribute high-quality habitat or constitute

high value habitat for [the] gopher tortoise,” *id.* at 61,860, is equally flawed and contrary to the agency’s own findings in the SSA Report that *each* unit contributes to “the breadth of . . . *environmental diversity* . . . [that] influences the ability of [the] species to adapt to changing environmental conditions over time,” and is necessary to bolster the tortoise against extinction. SSA Report at 111 (emphasis added).

94. The Service also denied ESA protection to the gopher tortoise based on an unlawfully narrow interpretation of what makes a portion of a species’ range “significant” when it considered whether the Western Portion “is significant based on its biological importance to the *overall viability of the gopher tortoise.*” 87 Fed. Reg. at 61,860 (emphasis added). Despite the Service’s findings that the Western Portion (comprised of the Western and Central genetic analysis units) are at high risk of extirpation in the foreseeable future, *id.*, and that each of the genetic analysis units is necessary to bolster the species against extinction, SSA Report at 140, 4; the Service nevertheless concluded that the loss of *two* of these five remaining genetic lineages was acceptable because they are not “significant based on [their] biological importance to the overall viability of the gopher tortoise.” 87 Fed. Reg. 61,860–61. This analysis is functionally no different than an analysis of the species’ status across its entire range, and thus it is arbitrary. Moreover, the Service’s conclusion is contrary to the best available science and the agency’s own findings that the genetic analysis units within the Western Portion *are* important to the gopher tortoise’s overall viability.

95. The arbitrary nature of the Service’s “significant portion of its range” analysis is further illustrated by its decision to continue listing the Western Unit (Unit 1) as a DPS. 87 Fed. Reg. at 61,861–68. There, the Service found the DPS to be “*significant* based, in part, upon evidence that [its] loss . . . would result in a significant gap in the range of the taxon,” and “would result in a substantial change in the overall range and distribution of the gopher tortoise.” *Id.* at 61,863 (emphasis added).

96. The Service also did not explain why it failed to consider each state as a “portion” of the tortoise’s range, which obscured the highly vulnerable populations in Louisiana and South Carolina, all but one of which the Service predicts will be extirpated by the year 2100. This decision is particularly arbitrary where the Service based its Not-Warranted Finding in part on the fact that the gopher tortoise still “occurs in the six states comprising the historical and current range of the species.” 87 Fed. Reg. at 61,859.

97. When considering whether the gopher tortoise warrants protection as a threatened species, the Not-Warranted Finding arbitrarily defined “foreseeable future” as only 80 years. Although the Service claimed that this decision was based on the tortoise’s “life-history characteristics, including lifespan and reproduction and recruitment,” the Service failed to rationally explain how limiting its foreseeable-future analysis to 80 years is rational when it barely encapsulates one lifespan of a gopher tortoise, which can live 50 to 80 years or more. Because adult gopher tortoises live long lives and have a higher

rate of survival than young tortoises, restricting the foreseeable future analysis to only 80 years arbitrarily fails to consider tortoise declines and extirpations related to poor or no reproduction while simultaneously overestimating the species' viability in the future.

98. The Service also based its Not-Warranted Finding in part on the conclusion that “existing regulatory mechanisms . . . influence gopher tortoise viability through conservation and restoration,” highlighting measures implemented since the Service’s warranted-but-precluded finding. 87 Fed. Reg. at 61,858. Yet the Service never explained whether the mere existence of these mechanisms means they are *adequate* to stem threats to the tortoise.

99. In fact, by the Service’s own admission, these mechanisms have not proven to be adequate. For example, the Not-Warranted Finding listed “translocation of individuals,” a strategy heavily employed in Florida, as a regulatory measure intended to conserve the tortoise. 87 Fed. Reg. at 61,867. Yet the Service acknowledged in the SSA Report that “there are still uncertainties about [translocation’s] efficacy, and because “[g]opher tortoises are long-lived, slow-growing, and are slow to reach maturity . . . it [is] difficult to determine if translocations result in viable gopher tortoise populations.” SSA Report at 174. Furthermore, the Service found that translocation does not address the primary threat of habitat loss and indeed “could result in overall net loss of habitat if not implemented in conjunction with acquisition and additional protection of habitat when needed,” SSA Report at 85, 174; 87 Fed. Reg. at 61,846.

100. Indeed, the gopher tortoise’s projected, continued downward trend, and the Service’s own finding that the primary threats “are expected to persist in the foreseeable future and the effects of these threats . . . will continue,” indicates that existing regulatory mechanisms are not adequate. 87 Fed. Reg. at 61,858–59; SSA Report at 56.

101. The Service’s Not-Warranted Finding also arbitrarily denied protection to the eastern distinct population segment of gopher tortoises (Eastern DPS) based on the same flaws that render the Service’s determination for the tortoise’s entire range arbitrary.

102. The Service also reached additional conclusions regarding the Eastern DPS that are contrary to the best available science and the agency’s own findings. For example, the Service based its decision to deny protections in part on its conclusion that conservation measures “have contributed to the improved condition of the species”; however, the Service contradicted its own conclusion a mere page before when it conceded that more than half of the populations exhibit low resiliency, and that the number of populations are “projected to decrease” in the future. The Service failed to rationally explain how the tortoise can have simultaneously both an “improved” outlook and continued projected declines.

103. The Service’s analysis of whether the Eastern DPS is endangered or threatened in a significant portion of its range was likewise arbitrary and flawed. For example, when the Service determined that tortoises in the Florida Unit (Unit 5) do not have a different status than the rest of the Eastern DPS, the Service

arbitrarily considered only the impacts from sea level rise and did not consider other stressors like urban development, which are likely to have a more pronounced effect in Unit 5.

104. And although the Service found that the Central Unit (Unit 2) was more at risk of extinction, the agency unlawfully concluded that Unit 2 was not significant “based on its biological importance to the overall viability of the Eastern DPS,” unlawfully conflating the “entire range” and “significant portion of its range” standards. In downplaying the Central Unit’s significance, the Service also ignored its own findings that the Central Unit contributes environmental and genetic diversity that bolsters the tortoise against extinction.

PLAINTIFFS’ CLAIMS FOR RELIEF

First Claim for Relief

Violations of the ESA in Determining That Listing the Gopher Tortoise Is Not Warranted for the Entire Species or the Eastern DPS

105. Plaintiffs re-allege and incorporate by reference all the allegations set forth in this Complaint as though fully set forth below.

106. Defendants’ Not-Warranted Finding denying endangered or threatened listing to the gopher tortoise and the Eastern DPS is unlawful because it disregards the best available scientific data regarding the status of, and imminent threats to, the species; fails to lawfully determine the gopher tortoise’s status in a significant portion of its range; fails to rationally explain its choice to limit the foreseeable future analysis to 80 years; fails to consider the adequacy of

regulatory mechanisms; and arbitrarily disregards the best available scientific data regarding the status of, and imminent threats to, the Eastern DPS.

107. For these and additional reasons, the Service's Not-Warranted Finding is contrary to the best available science, dismisses threats that warrant protection, violates the ESA, and is arbitrary and capricious, an abuse of discretion, and otherwise not in accordance with law. 16 U.S.C. § 1533.

Second Claim for Relief

(In the Alternative to Plaintiffs' First Claim for Relief) Violations of the APA in Determining That Listing the Gopher Tortoise Is Not Warranted for the Entire Species or the Eastern DPS

108. Plaintiffs re-allege and incorporate by reference all the allegations set forth in this Complaint as though fully set forth below.

109. When making a not-warranted finding, the Service must articulate a satisfactory explanation for its action, providing a rational connection between the facts found and the decision made.

110. The Service cannot rely on factors Congress did not intend the agency to consider, ignore an important aspect of the problem, offer an explanation that runs counter to the evidence before the agency, or issue a finding so implausible that it cannot be ascribed to a difference in view or the product of agency expertise.

111. The Service's Not-Warranted Finding for the gopher tortoise fails to articulate a rational connection between the threats facing the tortoise and the finding that neither the entire species nor the Eastern DPS warrant endangered

or threatened species protections because it disregards the best available scientific data regarding the status of, and imminent threats to, the species; fails to rationally explain its internally inconsistent conclusion that the gopher tortoise does not warrant protection throughout all or a significant portion of its range; fails to rationally explain its choice to limit the foreseeable future analysis to 80 years; fails to consider the adequacy of regulatory mechanisms; and arbitrarily disregards the best available scientific data regarding the status of, and imminent threats to, the Eastern DPS.

112. For these and additional reasons, the Service's Not-Warranted Finding is arbitrary, capricious, an abuse of discretion, and not in accordance with law, in violation of the APA, 5 U.S.C. § 706(2)(A).

REQUEST FOR RELIEF

Therefore Plaintiffs respectfully request that this Court:

- (1) Declare that the Service's October 12, 2022 Not-Warranted Finding for the gopher tortoise is unlawful;
- (2) Vacate and remand the Not-Warranted Finding to Defendants with a timeline to conduct a new finding for the gopher tortoise consistent with the law;
- (3) Award Plaintiffs their reasonable attorneys' fees and costs associated with this action; and
- (4) Grant Plaintiffs such other relief as the Court deems just and proper.

DATED: August 9, 2023

Respectfully submitted,

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