



March 22, 2023

Via Electronic and Certified Mail

The Honorable Debra Haaland
Secretary of the Interior
U.S. Department of the Interior
1849 C Street NW
Washington, DC 20240
exsec@ios.doi.gov

Martha Williams
Director
U.S. Fish and Wildlife Service
1849 C Street NW
Washington, DC 20240
Martha_Williams@fws.gov

RE: Notice of Intent to Sue for Violations of the Endangered Species Act Concerning the Denial of Protection for the Gopher Tortoise (*Gopherus polyphemus*) Rangewide and in the Eastern Population

Dear Secretary Haaland and Director Williams,

The Center for Biological Diversity (Center) and Nokuse Education, Inc. (Nokuse) hereby notify you of their intent to sue the U.S. Fish and Wildlife Service (Service) for violations of the Endangered Species Act (ESA)¹ in connection with the Service's finding that the gopher tortoise (*Gopherus polyphemus*) does not warrant listing as a threatened or endangered species across its entire range or in the eastern distinct population segment of its range (not-warranted finding).² The Service's arbitrary and unlawful decision deprives this imperiled tortoise of the protection it needs to survive against widespread, ongoing habitat destruction, along with other major threats.

The gopher tortoise is the only tortoise east of the Mississippi River and a keystone species that supports more than 360 other southeastern species with the large, deep burrows that it digs. Despite its critical ecological importance, the tortoise is struggling to survive as urban sprawl decimates its remaining upland forests, savannas, grasslands, and coastal dunes. The best available scientific data and the Service's own findings in a Species Status Assessment Report (SSA)³ demonstrate that the gopher tortoise has suffered and continues to suffer significant

¹ 16 U.S.C. § 1531, *et seq.*; 50 C.F.R. § 402, *et seq.*

² 87 Fed. Reg. 61,834 (Oct. 12, 2022).

³ U.S. Fish and Wildlife Service. 2021. Species Status Assessment Report for the Gopher Tortoise (*Gopherus polyphemus*), Version 0.4. August 2021, Atlanta, GA [hereinafter SSA].

declines across its range. While there are no estimates of historical gopher tortoise population numbers, the Service estimates that 97% of the tortoise's historical longleaf pine ecosystems have been lost to urbanization and other habitat conversion. Currently more than half (55%) of all remaining gopher tortoise populations have low resiliency and are highly vulnerable to extirpation. The Service projects that by 2100, nearly three-quarters of remaining gopher tortoise populations (68–70%) will be lost. The main drivers of the species' declines—primarily habitat destruction, degradation, and fragmentation—are ongoing and likely to continue into the foreseeable future, meaning the tortoise's outlook is likely to worsen.

Despite previously finding the gopher tortoise warranted protections in 2011, and again finding that the tortoise has suffered—and will continue to suffer—significant declines driven by unabated threats, the Service inexplicably reversed course in 2022 and issued a finding concluding that the tortoise is not endangered or threatened in all or a significant portion of its range, or in the eastern distinct population segment. As detailed in this notice, the Service's decision is unlawful and failed to rely on the best scientific and commercial data available in several respects, including by: (1) arbitrarily obscuring, disregarding, and downplaying the threat from habitat destruction; (2) concluding that the gopher tortoise is not threatened or endangered throughout a significant portion of its range contrary to the best available science and law; (3) reaching foundational conclusions that do not rationally draw from the best available science and the agency's own findings; (4) arbitrarily limiting its analysis of gopher tortoise's status in the foreseeable future to just 80 years (a single lifespan of a tortoise); (5) failing to consider the adequacy of existing regulatory mechanisms; and (6) arbitrarily concluding the eastern distinct population segment does not warrant protection. The Service's clear disregard for the legal requirements of the ESA and the best available science about the species and its threats led to an arbitrary and unlawful decision. If the Service does not remedy the violations of law outlined in this letter within 60 days, the Center and Nokuse will file suit in federal court to resolve the matter.⁴

BACKGROUND

The Gopher Tortoise

The gopher tortoise is a large dark-brown to grayish-black terrestrial turtle with elephantine hind feet and shovel-like forelimbs evolved for digging. Prolific diggers, gopher tortoises are known for their burrows, which can extend more than 30 feet underground. These burrows support the gopher tortoise's key feeding, breeding, and sheltering behaviors.⁵ They also support more than 360 species across the Southeast.⁶ Thus, the gopher tortoise has earned the distinction of being a “keystone species,” meaning the wellbeing of entire southeastern upland ecosystems is intimately connected to the wellbeing of the tortoise.

⁴ This notice is being provided in accordance with Section 11(g) of the Endangered Species Act, 16 U.S.C. § 1540(g).

⁵ SSA at 42.

⁶ SSA at 42.

Gopher tortoises mature at a late age, have low reproductive output, and live long lives, which makes them particularly vulnerable to threats.⁷ It can take 9–20 years for a gopher tortoise to reach reproductive age.⁸ The lifespan of a gopher tortoise is estimated to be 50–80 years.⁹

Gopher tortoises were historically associated with longleaf pine ecosystems, which once spanned 92 million acres across the Southeast but have since been reduced to only 3% of their historical range by forest clearing and conversion for agriculture and development.¹⁰ Consistent with the loss of its historical habitat, the gopher tortoise has been in ongoing decline, and its ability to survive has “decreased significantly.”¹¹ Urban growth and development is one of the primary threats to gopher tortoises and is ongoing, particularly in the heart of the species’ range in Florida and Georgia.¹² Gopher tortoises are also threatened by climate change, sea level rise, poor habitat management, road mortality, disease, human persecution, predation, and invasive plants and animals.¹³ These threats “are expected to persist in the foreseeable future.”¹⁴

Statutory Framework

The Endangered Species Act is “the most comprehensive legislation for the preservation of endangered species ever enacted by any nation.”¹⁵ Congress intended the ESA to protect and recover species that the Service determines to be “threatened” or “endangered.”¹⁶ “Endangered” means the species “is in danger of extinction throughout all or a significant portion of its range.”¹⁷ “Threatened” means the species is “likely to become an endangered species within the foreseeable future.”¹⁸ The definition of “species” includes “subspecies” and “distinct population segments of any species of vertebrate fish or wildlife which interbreeds when mature.”¹⁹

Section 4 of the ESA permits private parties to petition the Service to add species to the Service’s formal list of threatened and endangered species.²⁰ The ESA requires the Service to make a preliminary finding within 90 days of receiving the petition.²¹ Assuming the Service finds “substantial information indicating that the petitioned action may be warranted,” the agency must publish that finding and proceed to conduct a full scientific review of the species’ status.²² Based on that review, the Service has 12 months to issue a finding that: (1) adding the species to the list of threatened or endangered species is warranted; (2) listing the species is

⁷ 87 Fed. Reg. at 61,835.

⁸ *Id.*

⁹ SSA at 27.

¹⁰ SSA at 47–48.

¹¹ SSA at 140.

¹² SSA at 49–50.

¹³ SSA at 46–69.

¹⁴ 87 Fed. Reg. at 61,859.

¹⁵ *Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 180 (1978).

¹⁶ 16 U.S.C. § 1533(a).

¹⁷ *Id.* § 1532(6).

¹⁸ *Id.* § 1532(20).

¹⁹ *Id.* § 1532(16).

²⁰ *Id.* § 1533(b)(3)(A).

²¹ *Id.*

²² *Id.*

“warranted but precluded” by other pending agency proposals; or (3) listing the species is not warranted (i.e., rejecting the petition).²³ If the Service proposes to list the species, it then has 12 more months to make a final decision.²⁴

When making listing determinations, the ESA requires the Service to determine “whether any species is an endangered species or a threatened species because of five enumerated 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) predation or disease;
- (D) the inadequacy of existing regulatory mechanisms; and
- (E) other manmade or natural factors affecting the species’ continued existence.”²⁵

If a species meets the definition of “endangered” or “threatened” because of *any one or a combination* of these five factors, the Service must list the species.²⁶ In evaluating these factors, the Service must make listing determinations “solely on the basis of the best scientific and commercial data available.”²⁷

In 2003, the Service announced its Policy for Evaluation of Conservation Efforts When Making Listing Determinations (“PECE”).²⁸ Recognizing that conservation efforts may vary in effectiveness, the PECE directs that “conservation efforts that are not sufficiently certain to be implemented and effective cannot contribute to a determination that listing is unnecessary or a determination to list as threatened rather than endangered.”²⁹ Stated another way, “the point of the [PECE] was to establish criteria for determining when the Service could deem otherwise incomplete and unproven conservation efforts sufficiently certain to be implemented and effective to be relied on in evaluating ESA’s listing factors.”³⁰

The lawfulness of the Service’s listing decisions is governed by Administrative Procedure Act (APA) standards of review.³¹ The APA directs that courts “shall” set aside agency actions, findings, or conclusions that are determined to be “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.”³² In reviewing whether an agency decision is arbitrary and capricious, courts must “ensure that the agency considered the relevant factors and

²³ *Id.* § 1533(b)(3)(B).

²⁴ *Id.* § 1533(b)(6)(A).

²⁵ *Id.* § 1533(a)(1).

²⁶ *Id.*; 50 C.F.R. § 424.11(c); *see also Fed’n of Fly Fishers v. Daley*, 131 F. Supp. 2d 1158, at 1164 (N.D. Cal. 2000) (“These factors are listed in the disjunctive; any one or a combination can be sufficient for a finding that a particular species is endangered or threatened.”).

²⁷ 16 U.S.C. § 1533(b)(1)(A).

²⁸ Policy for Evaluation of Conservation Efforts When Making Listing Decisions (“PECE”), 68 Fed. Reg. 15,100 (March 28, 2003).

²⁹ PECE, 68 Fed. Reg. at 15,115.

³⁰ *Defenders of Wildlife v. Jewell*, 815 F.3d 1, 8 (D.C. Cir. 2016).

³¹ 5 U.S.C. §§ 701-706.

³² *Id.* § 706(2)(A).

articulated a rational connection between the facts found and choices made.”³³ An “agency rule would be arbitrary and capricious if the agency relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.”³⁴

Furthermore, where an agency changes its position on whether a species warrants protection under the ESA, it must “(1) display awareness that it is changing position, (2) show the new policy is permissible under the statute, (3) believe the new policy is better, and (4) provide good reasons for the new policy.”³⁵ Moreover, if a “new policy rests upon factual findings that contradict those which underlay its prior policy,” the agency must provide “a reasoned explanation . . . for disregarding facts and circumstances that underlay or were engendered by the prior policy.”³⁶

The Service’s Decision to Protect Only Western Gopher Tortoises

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), leaving unprotected the eastern portion of its range (east of the Mobile and Tombigbee Rivers in Alabama, Florida, Georgia, and South Carolina).³⁷

The Petition to List Eastern Gopher Tortoises

On January 18, 2006, the Service was petitioned to list the gopher tortoise as a threatened species in the eastern portion of its range and to designate critical habitat. 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 the gopher tortoise 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.”³⁸

The Service’s Warranted-But-Precluded Finding for Eastern Gopher Tortoises

Following a status review, 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.”³⁹ At that time, the Service observed that “gopher tortoise habitat is

³³ *Greater Yellowstone Coal., Inc. v. Servheen*, 665 F.3d 1015, 1023 (9th Cir. 2011).

³⁴ *Motor Vehicle Mfrs. Ass’n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983).

³⁵ *Ctr. for Biological Diversity v. Haaland*, 998 F.3d 1061, 1067 (9th Cir. 2021) (quoting *Org. Vill. of Kake v. U.S. Dep’t of Agric.*, 795 F.3d 956, 966 (9th Cir. 2015) and *FCC v. Fox Television Stations, Inc.*, 556 U.S. 502, 515–16 (2009)) (cleaned up).

³⁶ *Fox*, 556 U.S. at 515–16.

³⁷ 52 Fed. Reg. 25,376 (July 7, 1987).

³⁸ 74 Fed. Reg. 46,401, 46,406 (Sept. 9, 2009).

³⁹ 76 Fed. Reg. 45,130 (July 27, 2011).

diminishing and that populations are declining.”⁴⁰ The agency also recognized that the “primary threat to the gopher tortoise [was] from habitat destruction and modification,” along with ongoing overutilization at rattlesnake roundup events, predation, disease, inadequacy of existing regulatory measures, herbicide use, climate change, and road mortality.⁴¹ Yet the Service placed eastern gopher tortoises on the candidate list to wait without federal protections for more than a decade.

The Center’s Litigation to Compel a Listing Decision for Eastern Gopher Tortoises

On April 1, 2021, the Center sued the Service for failing to make expeditious progress toward listing the eastern population of gopher tortoise under the ESA.⁴² On April 26, 2022, the Center and the Service entered a court-approved settlement agreement that the Service would submit a warranted or not-warranted finding for the eastern population of gopher tortoise to the Federal Register by September 30, 2022.⁴³

The Gopher Tortoise Species Status Assessment Report

In August 2021, the Service completed a Final Species Status Assessment Report for the Gopher Tortoise (*Gopherus polyphemus*) (SSA) to inform the 12-month finding. An SSA is typically “conducted at or prior to the candidate assessment or 12-month finding stage,” and is intended to “characterize[] a species’ ability to sustain populations in the wild over time based on the best scientific understanding or current and future abundance and distribution within the species’ ecological setting.”⁴⁴

The SSA describes a grim outlook for the gopher tortoise. In the SSA, the Service concluded that the gopher tortoise has already declined significantly from historical conditions.⁴⁵ This is because the gopher tortoise’s historic longleaf pine ecosystems, which once covered 92 million acres of the Southeast, have “declined significantly due to forest clearing and conversion for agriculture and development,” now covering only 3% of their historic extent.⁴⁶ The Service projected “exacerbated” declines by 2080 and 2100.⁴⁷ The Service concluded that the “primary stressors affecting the gopher tortoise’s biological status include habitat loss, degradation, and fragmentation due to land use changes from urbanization (Factor A), climate change (Factor E), and insufficient and/or incompatible habitat management (Factor E).”⁴⁸ Other threats include road mortality, disease, harvest and rattlesnake roundups, predation, and nonnative invasive species.⁴⁹

⁴⁰ *Id.* at 45,154.

⁴¹ *Id.*

⁴² *Center for Biological Diversity v. Haaland et al.*, Case no. 21-cv-00884-EGS (D.D.C.).

⁴³ *Id.*, Docket no. 39.

⁴⁴ U.S. Fish and Wildlife Service Species Status Assessment Framework version 3.4, at 4 (August 2016) (“SSA Framework”)

⁴⁵ SSA at 4, 141.

⁴⁶ SSA at 48, 140.

⁴⁷ SSA at 160.

⁴⁸ 87 Fed. Reg. at 61,858.

⁴⁹ *Id.* at 61,840, 61,844–45, 61,858.

To determine the gopher tortoise's current viability, the Service considered the species' resiliency, representation, and redundancy (known as the "3 Rs").⁵⁰ The Service defined resiliency to mean that gopher tortoise populations "have an adequate number of individuals (population size), [are] above a particular density (population density), and have sufficient genetic exchange between local populations to maintain genetic diversity."⁵¹ Resilient populations must also have sufficient properly managed habitat to support the tortoise's population and individual needs.⁵² To analyze gopher tortoise population resiliency, the Service defined 656 "local populations," which it characterized as geographic aggregations of tortoises that interact significantly in social context, and 253 "landscape populations," which it characterized as a series of local populations connected by some form of movement.⁵³

The Service used abundance of adult tortoises to measure categorical levels of resiliency: high (250 or more adult tortoises); moderate (51–249 adult tortoises); and low (less than 50 adult tortoises).⁵⁴ The Service defined high resiliency as "highly likely to persist through a biologically appropriate time frame," moderate resiliency as "likely to persist for a long period of time under high-quality habitat conditions, although more vulnerable to stochastic disturbances compared to highly resilient populations," and low resiliency as "may persist for a long period of time under high quality habitat conditions and high levels of management, but highly vulnerable to stochastic disturbances."⁵⁵ Using these definitions, the Service found that of the 656 local populations, 360 had low resiliency, 169 had moderate resiliency, and 127 have high resiliency. In other words, the Service found that currently, more than half (55%) of all remaining gopher tortoise populations have low resiliency and are highly vulnerable to extirpation, while only 19% of existing gopher tortoise populations are currently considered highly resilient.

To assist with its assessment, the Service also delineated five genetic analysis units based on a recent genetic study, Gaillard et al. (2017): Western (Unit 1), Central (Unit 2), West Georgia (Unit 3), East Georgia (Unit 4), and Florida (Unit 5).⁵⁶ The Service then reviewed the tortoise's resiliency by analysis unit. In every analysis unit, the Service found a significant proportion of gopher tortoise populations with 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).⁵⁷ In the Central Unit (Unit 2), the Service found that 67% of populations have low resiliency (71 of 106), and only 8% have high resiliency (8 of 106).⁵⁸ And in the Florida Unit (Unit 5), the Service found that 56% of populations have low resiliency (118 of 211), and only 20% have high resiliency (43 of 211).⁵⁹

⁵⁰ SSA at 103.

⁵¹ SSA at 115.

⁵² *Id.*

⁵³ SSA at 110.

⁵⁴ *Id.*

⁵⁵ SSA at 118.

⁵⁶ SSA at 112–13.

⁵⁷ SSA at 119–20.

⁵⁸ SSA at 120.

⁵⁹ *Id.*

Table 4.1-Site specific data population factors and current resiliency for spatially delineated local populations of gopher tortoise.

Analysis unit	# of burrows	# of landscape pops	# of local pops	Abundance	Current Resiliency
1	8,815	13	106	3,100	Low (94)
					Moderate (10)
					High (2)
2	5,809	30	106	8,642	Low (71)
					Moderate (27)
					High (8)
3	17,867	55	109	38,947	Low (42)
					Moderate (24)
					High (43)
4	20,216	46	124	28,408	Low (35)
					Moderate (58)
					High (31)
5	24,783	109	211	70,055	Low (118)
					Moderate (50)
					High (43)
Rangewide	77,490	253	656	149,152	Low (360)
					Moderate (169)
					High (127)

Although the Service explicitly did not use habitat estimates in its resiliency analysis,⁶⁰ it used a Habitat Suitability Index (HSI) model to estimate occupied habitat (844,912 acres), potential habitat (16,338,932 acres), and total habitat (17,183,844 acres) rangewide.⁶¹ Of the estimated occupied and unoccupied habitat, the Service found that in 2019, only 2%, 3%, 6%, 6%, and 10% was managed using necessary prescribed burns in the Western, Central, West Georgia, East Georgia, and Florida units, respectively.⁶²

The Service analyzed representation and redundancy contemporaneously, concluding that “gopher tortoise representation and redundancy have likely decreased significantly from historical levels,” with resiliency varying by unit.⁶³ For instance, the Service found that portions of the Western Unit are “potentially vulnerable to catastrophic events” because only 10% of the populations studied had moderate or high resiliency.⁶⁴ The Service also reviewed the percentages

⁶⁰ SSA at 124.

⁶¹ SSA at 125–26.

⁶² SSA at 126 Table 4.3, 133, 134, 136, 137, 139. Percentages were determined by dividing estimated acres of habitat managed with prescribed burns by estimated acres of occupied and unoccupied habitat for each unit.

⁶³ SSA at 141.

⁶⁴ SSA at 141.

of moderate or high resiliency populations in the Central, West Georgia, East Georgia, and Florida units, finding they were only 32%, 57%, 68%, and 50%, respectively.⁶⁵

To assess the gopher tortoise's future condition, the Service "project[ed] populations that occur on protected conservation lands" using a population viability analysis (PVA) framework.⁶⁶ The female-only model used a dataset of 626 local populations and 244 landscape populations, mostly "local populations on lands managed for the conservation of biodiversity or natural resources," which comprised only a portion of gopher tortoise populations rangewide.⁶⁷ The Service explained that to predict gopher tortoise population growth and persistence over the next 40, 60 and 80 years, it used a model to project the effects of four human-caused factors that threaten the gopher tortoise, (climate warming, sea-level rise, urbanization, and shifts in habitat management) under "six future scenarios varying in threat magnitude and presence."⁶⁸ The Service then created a set of six scenarios with varying levels of threat magnitude and combination.⁶⁹

Using the PVA framework, the Service then assessed future redundancy, resiliency, and representation.⁷⁰ Population projections under all six scenarios of future change during 40-, 60-, and 80-year projection intervals predicted declines in the number of gopher tortoise individuals, local populations, and landscape populations.⁷¹ Compared to current population size, the Service projected total population size will decline 33–35% by 2060, 30–34% by 2080, and 28–33% declines by 2100.⁷² The number of local populations were also projected to decline 47–48% by 2060, 60–61% by 2080, and 68–70% by 2100.⁷³ Landscape populations were likewise projected to decline 25–27% by 2060, 41–43% by 2080, and 53–57% by 2100.⁷⁴ The Service noted that "scenario effects became more magnified in each successive timestep," and population declines "were exacerbated" by the year 2080.⁷⁵

The Service further noted that the number of individuals, local populations, and landscape populations varied by analysis unit.⁷⁶ By 2100, Units 1, 3, and 5 were predicted to decline overall (27–40%, 51–53%, and 42–48%, respectively).⁷⁷ Scenarios projected substantial declines in number of local populations among all units, with the greatest declines in Units 1, 2, and 5.⁷⁸

⁶⁵ SSA at 141.

⁶⁶ SSA at 143.

⁶⁷ SSA at 148, 152 (acknowledging "the local gopher tortoise populations we modeled are largely on conservation lands intended for wildlife conservation"), 159, 224–25.

⁶⁸ SSA at 143.

⁶⁹ SSA at 156. The first three scenarios modeled low stressors, medium stressors, and high stressors with consistent "status quo" habitat management, and three other scenarios consistently used the medium stressor values while modeling varied habitat management treatments including "more management," "less management," and "much less management." *Id.*

⁷⁰ SSA at 157.

⁷¹ SSA at 159.

⁷² SSA at 159–60.

⁷³ SSA at 160.

⁷⁴ *Id.*

⁷⁵ *Id.*

⁷⁶ SSA at 164.

⁷⁷ *Id.*

⁷⁸ SSA at 164.

Likewise, the number of landscape populations was projected to decline among all scenarios in each analysis unit.⁷⁹

The Center’s Letters Updating Best Available Science

Following the publication date indicated on the SSA but long before the Service published its not-warranted decision for the eastern population of gopher tortoises, the Center submitted several letters documenting the continued decline of the gopher tortoise and its habitat, as well as the inadequacy of existing regulatory measures to address threats to the species. The first of the letters explained how an existing Candidate Conservation Agreement (CCA) for eastern gopher tortoises, and associated conservation activities outlined in the CCA, are not certain to be implemented and not certain to be effective under the Service’s Policy for Evaluation of Conservation Efforts When Making Listing Determinations.⁸⁰ The other letters specifically described a critical failure in the State of Florida’s gopher tortoise management, including a detailed explanation of how the state’s relocation program perpetuates the greatest threat to the species—habitat destruction and degradation caused by development.⁸¹ The letters also described how, under pressure from development interests, Florida’s wildlife agency and legislature weakened protections for gopher tortoises to facilitate continued permitting of rapid, ongoing development.⁸²

The Service’s Not-warranted Finding for Eastern Gopher Tortoises

On October 12, 2022, the Service inexplicably reversed course from its 2011 “warranted but precluded” finding, instead finding that listing the gopher tortoise as endangered or threatened rangewide or in the eastern portion of its range is not warranted.⁸³ After summarizing the disturbing projections from the SSA, the Service 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.⁸⁴

⁷⁹ *Id.*

⁸⁰ See Letter to Lourdes Mena, U.S. Fish and Wildlife Service, from Elise Pautler Bennett, Center for Biological Diversity, providing updated information regarding the eastern population of gopher tortoise and candidate conservation agreement (Sept. 3, 2021) (Attachment 1).

⁸¹ Letter to Leopoldo Miranda-Castro, U.S. Fish and Wildlife Service, from Elise Pautler Bennett, Center for Biological Diversity, providing updated information regarding the eastern population of gopher tortoise and Florida’s regulatory mechanisms (Nov. 30, 2021) (Attachment 2); Letter to Leopoldo Miranda-Castro & Lourdes Mena, U.S. Fish and Wildlife Service, from Elise Pautler Bennett, Center for Biological Diversity, providing additional information regarding the eastern population of gopher tortoise and Florida’s regulatory mechanisms (Jan. 28, 2022) (Attachment 3); Letter to Leopoldo Miranda-Castro & Lourdes Mena, U.S. Fish and Wildlife Service, from Elise Pautler Bennett, Center for Biological Diversity, providing additional information regarding the eastern population of gopher tortoise and Florida’s regulatory mechanisms (Sept. 16, 2022) (Attachment 4).

⁸² *Id.*

⁸³ Finding for the Gopher Tortoise Eastern and Western Distinct Population Segments, 87 Fed. Reg. 61,834 (Oct. 12, 2022).

⁸⁴ 87 Fed. Reg. at 61,859, 61,861.

The Service also conducted a distinct population segment (DPS) analysis for the “western population segment” (the Western and Central units) and the “eastern population segment” (the West Georgia, East Georgia, and Florida units) of the gopher tortoise’s range.⁸⁵ The Service concluded that the western and eastern population segments met the “discrete” and “significant” prongs of the DPS analysis, but that only the western population segment continues to warrant listing as threatened.⁸⁶

VIOLATIONS OF THE ENDANGERED SPECIES ACT

The Service’s not-warranted finding arbitrarily disregards and downplays the effect of habitat destruction.

The best available scientific and commercial data show that habitat loss, degradation, and fragmentation from urbanization are among “the most significant factors influencing gopher tortoise viability” and are expected to persist in the foreseeable future.⁸⁷ Urbanization and other habitat conversion have already destroyed the vast majority (approximately 97%) of the gopher tortoise’s historic longleaf pine habitat,⁸⁸ and urbanization continues to be the primary driver of tortoise declines, particularly in the heart of the species’ range in Florida and Georgia.⁸⁹ The threat from urbanization is expected to continue into the future as human populations grow⁹⁰ and migrate inland into suitable gopher tortoise habitat in response to sea level rise along the coasts.⁹¹

The best available science also shows that urbanization has myriad effects on gopher tortoises. Primarily, urbanization threatens the species by directly destroying habitat and harming individual tortoises.⁹² It also disrupts habitat connectivity (habitat fragmentation), which reduces immigration between populations and can negatively affect population genetics,⁹³ and impedes habitat management activities like prescribed fire.⁹⁴ Furthermore, urbanization causes increased human-driven threats like road mortality, spread of nonnative invasive species, and persecution by people, pets, and other predators.⁹⁵

Despite ample scientific evidence, the Service’s not-warranted finding failed to consider and accurately characterize the true effects of development when determining whether to protect the

⁸⁵ 87 Fed. Reg. at 61,861–68.

⁸⁶ *Id.*

⁸⁷ SSA at 102; *see also* 87 Fed. Reg. at 61,859.

⁸⁸ SSA at 47–48.

⁸⁹ SSA at 49–50, 60.

⁹⁰ SSA at 51.

⁹¹ SSA at 60.

⁹² SSA at 50–51, 102.

⁹³ SSA at 49, 108.

⁹⁴ SSA at 49, 102, 122.

⁹⁵ SSA at 54, 56, 102; *see also* 87 Fed. Reg. at 61,858 (Summarizing SSA).

gopher tortoise, resulting in an arbitrary underestimate of one of the greatest threats to the species.

For example, when considering the gopher tortoise's future condition, the Service relied solely on the PVA modeling from the SSA to project the threat from development.⁹⁶ Although the Service claimed that the PVA model considered the effects of "urbanization,"⁹⁷ in reality it only modeled the effects of projected urbanization on two aspects of gopher tortoise conservation: ability to manage habitat with prescribed fire and gopher tortoise immigration across landscape populations.⁹⁸ Critically, the PVA model did not include other significant effects of urbanization that affect the survival, recruitment, and health of the majority of tortoises rangewide, including direct habitat destruction, direct mortality caused by development, increased road mortality, introduction of nonnative invasive plant and animal species, introduction of predators, and increased human persecution.⁹⁹ Given that the PVA model did not consider the full impact of urbanization, the Service's failure to acknowledge the deficiency and otherwise account for the full effect in its not-warranted finding is arbitrary and contrary to the best available science.

The Service's analysis further obscured the threat from urbanization by limiting its modeling to populations existing on conservation lands that are not threatened or constrained by impacts from development. In the SSA, the Service explained that it only projected the future of a subset of the species' populations "on lands managed for the conservation of biodiversity or natural resources" and thus not directly threatened by habitat destruction.¹⁰⁰ Yet, the majority of the tortoise's habitat (80% or more) occurs on private lands that are at risk of destruction and degradation.¹⁰¹ In failing to model the condition of the vast majority of gopher tortoise populations, which are directly threatened by development and poor habitat management, the Service painted an arbitrarily optimistic picture of the tortoise's future. As the Service itself observed, "populations on managed, conservation lands [are expected] to be characterized by greater demographic rates and persistence probabilities" when compared to "populations that we were unable to model in our framework."¹⁰² Whereas, those populations excluded from the model, found on "lands lacking long-term protection from development," have "demographic rates [that] are likely reduced relative to populations on conservation lands."¹⁰³ Despite the model's clear deficiency, the Service relied on the model's projections in its not-warranted finding to conclude that "the extinction risk for the gopher tortoise is low in the future,"¹⁰⁴ without providing a rational explanation or otherwise accounting for the fact that the populations the Service failed to model have even lower viability.

⁹⁶ 87 Fed. Reg. at 61,859.

⁹⁷ *Id.*

⁹⁸ SSA at 152.

⁹⁹ SSA at 49–51, 54–56, 102, 122.

¹⁰⁰ SSA at 148, 152 (acknowledging "the local gopher tortoise populations we modeled are largely on conservation lands intended for wildlife conservation"); 173 (stating that the "analysis simulated the fate of known populations largely on protected conservation lands that should be managed or natural resource conservation in the future").

¹⁰¹ SSA at 95.

¹⁰² SSA at 173.

¹⁰³ *Id.*

¹⁰⁴ 87 Fed. Reg. at 61,859.

Finally, the Service further arbitrarily disregarded the threat from habitat destruction by concluding, without rational explanation, in the not-warranted finding, that “[d]espite the historical and current loss of habitat with the open pine conditions required by the gopher tortoise, sufficient quality and quantity of habitat remains to provide adequate resiliency to contribute to the viability of the species.”¹⁰⁵ As a preliminary matter, the Service never explained how it arrived at the conclusion that existing habitat is “sufficient” or “adequate” when it had not first determined how much and what quality habitat the species needs to survive. Moreover, the Service’s habitat projections are based on a habitat suitability index model from Crawford et al. (2020), which expert peer reviewers described as a poor model of habitat suitability on private land and urged that the Service not include it in the SSA because of its unreliability.¹⁰⁶ The Service not only included the habitat suitability index model in the SSA but also failed to describe its limitations on private land.¹⁰⁷ The Service went on to rely on the deficient model in the not-warranted finding to conclude that “sufficient quality and quantity of habitat remains.”¹⁰⁸ Because the vast majority of the gopher tortoise’s habitat is on private land,¹⁰⁹ the Service’s reliance on Crawford et al. (2020) is arbitrary and contrary to the ESA’s mandate to use the best available science.

The Service arbitrarily concluded that the gopher tortoise is not threatened or endangered throughout a significant portion of its range.

The Service also arbitrarily concluded that the gopher tortoise is not threatened or endangered because of its status throughout a significant portion of its range. Specifically, the Service ignored its own scientific findings demonstrating the gopher tortoise *is* at risk of extinction in a significant portion of its range and applied a vacated policy that conflated the agency’s analysis of the species in a significant portion of its range with its analysis of the species across its entire range.

First, in the not-warranted finding, the Service arbitrarily defined Western and Central Units (Units 1 and 2) as one “portion,” which obscured the significance and status of each of the units individually. The Service failed to provide a rational explanation for considering these two units together when it concluded that each of the genetic lineages in the units—individually—is

¹⁰⁵ 87 Fed. Reg. at 61,859.

¹⁰⁶ *See, e.g.*, peer review comment from Angela Larsen-Grey (explaining that the Crawford et al. model “is known to perform poorly on private lands . . . and should not be included in the SSA. If the Service decides to keep the citation, all limitations of the model presented in this citation need to be explicitly stated.”); Peer review comment from Darren Miller (advising the Service to eliminate reference to Crawford et al. (2019) or explicitly listing concerns with the model because “there was a great amount of concern expressed about the conclusions from the Crawford et al. (2019) model . . . from multiple organizations” where “the model did a very poor job of predicting [gopher tortoises]occurring on private land” and therefore “inclusion of the model in the SSA may indicate greater reliability of these data than warranted given the known limitations”).

¹⁰⁷ SSA at 124–26.

¹⁰⁸ 87 Fed. Reg. at 61,835, 61,859.

¹⁰⁹ SSA at 95 (concluding that “[p]rivately owned lands account for approximately 80 percent of potential gopher tortoise habitat”).

necessary for the species' viability.¹¹⁰ The Service also failed to explain why it failed to consider each state as a portion, thus obscuring the highly vulnerable populations in Louisiana and South Carolina, which are shockingly low, with only 7 local populations and 6 local populations, respectively,¹¹¹ and projected to be almost entirely extirpated in the future.¹¹²

Furthermore, the Service's analyses of the combined status and significance of the Western and Central units arbitrarily contradict the best available science. With regard to the portion's status, in the not-warranted finding, the Service observed that the Western and Central units both have "lower resiliency," with 89% of the populations in the Western Unit and 67% in the Central Unit exhibiting low resiliency.¹¹³ The Service also projected that future declines would make the Western and Central Units more vulnerable to extirpation from a catastrophic or stochastic event, with only "a projected 15 and 14 populations" existing by 2100, respectively.¹¹⁴ Therefore, the Service found that the Western and Central units have a different status than the remainder of their range.¹¹⁵

Despite this finding, the Service arbitrarily 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" and do "not contribute high-quality habitat or constitute high value habitat for [the] gopher tortoise."¹¹⁶ First, the determination that the Western and Central units do not constitute a large geographic area is belied by the Service's own finding that they contain "approximately 20 percent of the suitable habitat currently occupied by the species,"¹¹⁷ and that it "contribute[s] to the rangewide representation and redundancy of the gopher tortoise."¹¹⁸ Furthermore, dismissing the populations' significance solely based on the small size of those populations is arbitrary.¹¹⁹

The Service's explanation that the Western and Central units are not significant because they do not contribute "high quality" or "high value" habitat is equally flawed. The Service itself determined that *each* of the Western and Central Units contribute to "the breadth of . . . *environmental diversity* . . . [that] influences the ability of [the] species to adapt to changing environmental conditions over time."¹²⁰ The Service's determination also wholly ignores its own

¹¹⁰ 87 Fed. Reg. at 61,859; SSA at 111–14 (explaining that the Service "delineated five representative units" based on "five genetic regions," which reflect "the breadth of genetic and environmental diversity within and among populations, which influences the ability of a species to adapt to changing environmental conditions over time").

¹¹¹ SSA at 10.

¹¹² SSA at 274 (projecting that all populations in South Carolina and all but one in Louisiana are "unlikely [to be] extant" (i.e., extirpated) in the foreseeable future); SSA at 283–85.

¹¹³ 87 Fed. Reg. at 61,860.

¹¹⁴ *Id.*

¹¹⁵ *Id.*

¹¹⁶ *Id.*

¹¹⁷ 87 Fed. Reg. at 61,861.

¹¹⁸ 87 Fed. Reg. at 61,860.

¹¹⁹ *Ctr. for Biological Diversity v. Zinke*, 868 F.3d 1054, 1062 (9th Cir. 2017) (rejecting conclusion that desert eagle population segment not significant based on reasoning that it "represents much less than one half of a percent of the number of breeding pairs throughout the range of the species").

¹²⁰ SSA at 111 (emphasis added).

foundational finding that each of the five genetic units—including the Western and Central Units—are necessary to bolster the tortoise against extinction.¹²¹

Finally, the Service essentially applied its vacated policy for determining whether a species warrants listing because of its status in a significant portion of its range. The addition of the “significant portion of its range” (SPR) language to the ESA “represented a significant shift in the definition in existing law which consider[ed] a species to be endangered only when it is threatened with worldwide extinction.”¹²² The Service, however, crafted SPR Policy that “give[s] as little substantive effect as possible to the SPR language of the ESA in order to avoid providing range-wide protection to a species based on threats in a portion of the species’ range.”¹²³ By “pursuing this goal, the Service chose a definition of significance that renders the SPR phrase superfluous by limiting it to situations in which it is unnecessary.”¹²⁴ The SPR policy has thus been struck down as unlawful and vacated.¹²⁵

The Service claims that it did not implement the vacated SPR policy or otherwise equate threatened or endangered in a significant portion of range with threatened or endangered in all of its range,¹²⁶ but instead considered “whether this portion of the species’ range is significant based on its biological importance to the overall viability of the gopher tortoise.”¹²⁷

Despite this statement, the Service did in fact conflate the “entire range” and “significant portion of its range” standards in its SPR analysis by requiring circumstances where the species is endangered or threatened across its entire range to establish significance. This arbitrary and unlawful analysis is laid bare in the Service’s consideration of the Western and Central units, which the agency found will be at high risk of extirpation in the foreseeable future.¹²⁸ Despite its own scientific findings in the SSA that the species’ representation is “primarily based on genetic variation across the range of the species (5 analysis units),”¹²⁹ the Service concluded that the loss

¹²¹ 87 Fed. Reg. at 61,859 (finding that “[t]he five genetic groups delineated across the species’ range provide adaptive capacity and sufficient species-level representation for the gopher tortoise” and thus “the species is not in danger of extinction throughout all of its range”); *see also id.* (“The spatial distribution of populations predicted to remain extant in the future is distributed among genetic analysis units, which suggests sufficient genetic representation in the future as well.”); *id.* at 61,855 (explaining that tortoises “are distributed within and among analysis units across the species’ range, contributing to potential adaptive capacity and current representation”); *id.* (explaining that the five analysis units “are based primarily on genetic variation in gopher tortoise across the range of the species,” which is “generally indicative of the inherent adaptive capacity of the gopher tortoise as a species”); *id.* (concluding that “the variety of environmental conditions across the species’ range, particularly soil characteristics and associated life history characteristics differences between the western and eastern portions of the range, may be used as an indication of adaptive capacity for the gopher tortoise, allowing the species to withstand changing conditions”); SSA at 111. *Compare with Desert Survivors v. United States DOI*, No. 20-cv-6787, 2022 U.S. Dist. LEXIS 87794, 2022 WL 1539530, at * 31-34 (N.D. Cal. May 16, 2022).

¹²² *Defenders of Wildlife*, 258 F.3d 1136, 1141 (9th Cir. 2001).

¹²³ *Ctr. for Biological Diversity v. Jewell*, 248 F. Supp. 3d 946, 958 (D. Ariz. 2017).

¹²⁴ *Id.*

¹²⁵ *Id.* at 959; *Desert Survivors*, 336 F. Supp. 3d at 1136.

¹²⁶ 87 Fed. Reg. at 61,861.

¹²⁷ *Id.* at 61,860.

¹²⁸ *Id.*

¹²⁹ SSA at 140; *see also* SSA at 4 (“We evaluated current representation by examining the number of populations and their associated resiliency within the five population analysis units across the species’ range.”).

of two of the five remaining genetic lineages is acceptable because the “portion does not constitute an area of habitat that is essential to a specific life history function for the species that is not found in the remainder of the range” and thus is not “significant based on its biological importance to the overall viability of the gopher tortoise.”¹³⁰ This analysis is functionally no different from an analysis of the species’ status across its entire range because it effectively requires that a portion of the species range be “so vital that its loss would render the entire species endangered or threatened.”¹³¹ Accordingly, the not-warranted finding is arbitrary.¹³²

The Service’s significant portion of range finding for the gopher tortoise is also directly contradicted by its finding for the continued listing of the Western Unit as a threatened DPS. There, the Service inexplicably considered the Western Unit alone, finding it was a “significant” DPS because its loss “would result in a substantial change in the overall range and distribution of the gopher tortoise” and “loss of the western population segment would result in a substantial reduction in the presence of [unique] genetic characteristics in the species,” which “would likely impact the species’ adaptive capacity.”¹³³

While designating and protecting a DPS can be an essential tool for protecting discrete and significant populations in the absence of rangewide protections, the Service appears to be unlawfully abusing its DPS Policy in this case to avoid protecting the entire species as required by the ESA. The Service’s DPS Policy and vacated SPR Policy both “require significance findings, and although the definitions of significance differ in the two policies, there is overlap.”¹³⁴ As recently summarized by one court, “by further limiting the already exceedingly rare if not entirely illusory potential circumstances in which application of the final SPR Policy could result in the listing of a species based on the species’ status in a significant portion of its range,” the Service’s implementation of the DPS Policy supports the conclusion that the SPR Policy “interprets the statutory phrase ‘significant portion of its range’ so narrowly as to render the phrase entirely superfluous in all but the most unusual circumstances.”¹³⁵

The Service’s not-warranted finding is otherwise arbitrary and contrary to the best available science.

The Service’s not-warranted finding is also based on conclusions that do not draw rationally from the information before the agency. For example, the Service’s consideration of the gopher tortoise’s resiliency is arbitrary and contrary to the best available science. In the SSA, the Service stated that it defined gopher tortoise populations into high, moderate, and low resiliency categories using a minimum viable population parameter established by experts in the Gopher Tortoise Council;¹³⁶ however, the Service ignored that the Gopher Tortoise minimum viable

¹³⁰ 87 Fed. Reg. 61,860–61.

¹³¹ See *Desert Survivors*, 321 F. Supp. 3d at 1073.

¹³² *Id.* at 1072–74.

¹³³ 87 Fed. Reg. at 61,863–64.

¹³⁴ *Ctr. for Biological Diversity v. Jewell*, No. CV-14-2506, 2017 U.S. Dist. LEXIS 231372, *7 (D. Ariz. Oct. 25, 2017).

¹³⁵ *Id.*, at *7–8 (internal citation omitted).

¹³⁶ SSA at 116 (citing Gopher Tortoise Council. 2014. Gopher tortoise minimum viable population and minimum reserve size working group report II. Unpublished Report. 7 pp). The Service defined the following categorical

population parameter assumes the presence of high-quality habitat, a factor the agency entirely failed to consider for the populations assessed. The Gopher Tortoise Council defines a minimum viable population of gopher tortoises as 250 or more adult tortoises living on *at least 247 acres of high quality, managed habitat* in a density of no less than 0.16 tortoises per acre.¹³⁷ Thus, the viability of a gopher tortoise population is *dependent* on the existence of “superb habitat.”¹³⁸ The Service acknowledged in the SSA that the availability of well-managed habitat is a critical component of tortoise resiliency¹³⁹ and yet in the not-warranted finding the Service conceded, without rational explanation, that it entirely omitted habitat quality from its resiliency analysis and only “relied on gopher tortoise abundance to assess resiliency.”¹⁴⁰ This conclusion is not only contrary to the best available science, but also to the Service’s *own* definition of resiliency as being “associated with population size, growth rate, *and* habitat quality.”¹⁴¹ Absent a rational explanation, the Service’s assessment of gopher tortoise resiliency is arbitrary, departs from the best available science, and likely erroneously overestimates gopher tortoise resiliency by tacitly assuming habitat is of high quality.

The Service also arbitrarily based its not-warranted finding on its conclusion that despite “threats [that] have . . . reduce[d] available habitat and species abundance, the gopher tortoise occurs in the six States comprising the historical and current range of the species.”¹⁴² And yet the Service’s own analysis in the SSA shows that populations in at least two states are highly vulnerable to extirpation. For example, the number of tortoise populations in Louisiana and South Carolina are shockingly low, with only 7 local populations and 6 local populations, respectively.¹⁴³ All of the populations in South Carolina and all but one in Louisiana are “unlikely [to be] extant” (i.e., extirpated) in the foreseeable future.¹⁴⁴ The Service does not rationally explain its finding that the species’ occurrence across six states provides resiliency when the number of populations in two states are severely depleted and at high risk of extirpation in the foreseeable future. Because the Service’s not-warranted decision rests in part on this finding, it is likewise arbitrary and contrary to the best available science.

levels of resiliency: high (250 or more adult tortoises); moderate (51–249 adult tortoises); and low (less than 50 adult tortoises). SSA at 117–18; 87 Fed. Reg. at 61,858.

¹³⁷ SSA at 116 (citing Gopher Tortoise Council. 2014. Gopher Tortoise Minimum Viable Population and Minimum Reserve Size Working Group Report II, available at https://gophertortoiseCouncil.org/pdf/MVPII_2014_GTC_report_group_final.pdf). Populations of less than 250 adults are more vulnerable to extirpation but considered “support populations” that can persist for a long time in high-quality habitat conditions. *Id.* at 117. Support populations are split into two categories: primary (50–249 adult tortoises) and secondary (less than 50 adult tortoises). *Id.*

¹³⁸ The Gopher Tortoise Council. 2014. Gopher Tortoise Minimum Viable Population and Minimum Reserve Size Working Group Report II, available at https://gophertortoiseCouncil.org/pdf/MVPII_2014_GTC_report_group_final.pdf.

¹³⁹ SSA at 40.

¹⁴⁰ 87 Fed. Reg. at 61,853; *see also* SSA at 127 (explaining that “[o]nly [tortoise] abundance was used to assess population resiliency” and the Service did not use “any [habitat] management metrics in [the] resiliency assessment”); SSA at 124 (stating that “estimates of habitat were not used to assess resiliency of gopher tortoise populations; only abundance was used to assess resiliency”).

¹⁴¹ SSA at 114 (emphasis added).

¹⁴² 87 Fed. Reg. at 61,859.

¹⁴³ SSA at 10.

¹⁴⁴ SSA at 274.

Furthermore, in the not-warranted finding, the Service concluded that “rangewide, the future condition of the species with *relatively* large numbers of individuals and populations suggest resiliency to withstand stochastic environmental and demographic change, and redundancy to buffer from future catastrophic events.”¹⁴⁵ Yet the Service never explained what these numbers are relative to. Indeed, when compared relative to the species’ historical numbers and resilience, the numbers are exceptionally low, indicating the Service’s conclusion is arbitrary and contrary to the best available science.¹⁴⁶ FWS does not—and cannot—provide a rational explanation for basing its not-warranted finding on the conclusion that a “relatively large number of individuals and populations” exist where it also found that the tortoise has already historically suffered a 97% reduction in suitable habitat, the tortoise’s total population size will decline up to 34% in the foreseeable future, and the number of tortoise populations will decline up to 70% in the foreseeable future.¹⁴⁷

Likewise, the Service concluded in the not-warranted finding that despite projected declines, “extinction risk for the gopher tortoise is *relatively low* in the future.”¹⁴⁸ The agency provided no rational explanation for this conclusion, only repeating the unsubstantiated claim that there are “*relatively large numbers*” of gopher tortoises, which contribute to the species’ resilience.¹⁴⁹ Further, the Service wholly failed to explain what this extinction risk is relative to. This failure is particularly arbitrary where the Service admits that data regarding the viability of gopher tortoises on private lands, where the majority of suitable gopher tortoise habitat is located, are “lacking.”¹⁵⁰

Additionally, in the not-warranted finding, the Service used the “medium stressors” scenario without rational explanation,¹⁵¹ and contrary to scientific information in the SSA indicating that stressors from sea-level rise, urbanization, and inadequate habitat management will continue and accelerate.¹⁵²

The Service arbitrarily limited its analysis of the gopher tortoise’s status in the foreseeable future to just 80 years.

The ESA requires the Service to list a species as “threatened” if it “is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.”¹⁵³ The not-warranted finding considered the gopher tortoise’s status 40, 60, and 80 years in the future when determining whether the species is likely to become endangered in the foreseeable future.¹⁵⁴ The Service stated that “[t]hese timesteps allowed us to project relevant threats to the species in view of its life-history characteristics, including lifespan and

¹⁴⁵ 87 Fed. Reg. at 61,858–59 (emphasis added).

¹⁴⁶ SSA at 4, 141 (citing significant declines from historical conditions).

¹⁴⁷ SSA at 47–48, 159–60; 87 Fed. Reg. at 61,857.

¹⁴⁸ 87 Fed. Reg. at 61,858, 61,857 (emphasis added).

¹⁴⁹ 87 Fed. Reg. at 61,858 (emphasis added).

¹⁵⁰ SSA at 95.

¹⁵¹ 87 Fed. Reg. at 61,857, 61,860, 61,865.

¹⁵² SSA at 49–52, 59–60, 71–73.

¹⁵³ *Id.* § 1532(20).

¹⁵⁴ 87 Fed. Reg. at 61,859.

reproduction and recruitment.”¹⁵⁵ The Service further concluded that, “[w]ithin this timeframe, these projections are sufficiently reliable to provide a reasonable degree of confidence in the predictions.”¹⁵⁶

Under a 2009 policy, the Service has “broad discretion with respect to what constitutes the foreseeable future,” but only “as long as the rationale is articulated.”¹⁵⁷ In the not-warranted finding, however, the Service provides little rationale for its selection of an 80-year time period beyond what is quoted in the preceding paragraph. This conclusory statement fails to articulate a satisfactory explanation that makes a rational connection between the information before the Service and the decision it made, contrary to the APA and the Service’s 2009 policy, which directs the Service to provide “more than just a conclusion as to what is foreseeable given the data available—it should also explain how the Secretary reached that conclusion.”¹⁵⁸

The Service’s conclusory statement is not only insufficient, it is also contrary to the best available science regarding the gopher tortoise’s life history, further demonstrating the arbitrary nature of the Service’s decision to limit the foreseeable future to 80 years. Gopher tortoises live 50 to 80 years.¹⁵⁹ Thus, the Service’s selection of 80 years barely encapsulates one generation of gopher tortoises. Furthermore, the Service acknowledges that the tortoise’s life history traits, including late age of reproductive maturity, low reproductive output, and long lifespan, present “challenges for the conservation of the species.”¹⁶⁰ Because adults have a higher rate of survival than young, looking at only 80 years risks missing gopher tortoise declines due to poor or no reproduction and overestimating the species’ future viability. Indeed, in the Service’s 2011 warranted-but-precluded finding for the eastern population of gopher tortoises, the Service acknowledged that “[i]ndividuals of the species could linger for decades in areas where reproduction is no longer successful, thus lending a false picture of security to the public and regulators,” and therefore “the risk of failing to act in a timely manner could have far-reaching and perhaps irreversible consequences for the species.”¹⁶¹ Service policy also expressly recognizes the need to consider multiple generations to assess some threats, stating: “[i]n some cases, foreseeable threats will manifest themselves immediately; in others, it may be multiple generations before the foreseeable manifestation of the threats occurs.”¹⁶² Here, because gopher tortoises are long-lived and take many years to become reproductively mature, it can take many generations for threats to manifest in a discernable way.

The Service also failed to define foreseeable future for threats consistent with its own 2009 policy direction to make predictions “according to the threat at issue.”¹⁶³ For example, the Service observes in the SSA that the effects of climate change on gopher tortoise’s range,

¹⁵⁵ *Id.*

¹⁵⁶ *Id.*

¹⁵⁷ Solicitor’s Memorandum Opinion M-37021, The Meaning of “Foreseeable Future” in Section 3(20) of the Endangered Species Act (Jan. 16, 2009).

¹⁵⁸ M-37021, at 14; *Motor Vehicle Mfrs. Ass’n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29 (1983).

¹⁵⁹ SSA at 27.

¹⁶⁰ SSA at 27.

¹⁶¹ 76 Fed. Reg. at 45,154.

¹⁶² M-37021, at 10.

¹⁶³ M-37021 at 9.

including “any significant expansion or contraction of the gopher tortoise range[,] is likely to occur beyond our projection timeframe of 80 years.”¹⁶⁴ Moreover, projections of the impacts of some stressors (e.g., sea level rise) extend well beyond 80 years.¹⁶⁵ This truncated foreseeable future analysis arbitrarily precludes the Service’s analysis of available information for these or other threats to the gopher tortoise.

Because the Service failed to rationally explain its reliance on 80 years to assess foreseeable future for the gopher tortoise and made a decision counter to the best available science about the species’ life history and the agency’s own policy, its decision was arbitrary and unlawful.

The Service’s not-warranted finding arbitrarily fails to consider the adequacy of existing regulatory mechanisms.

Section 4(a)(1)(D) of the ESA requires the agency to consider the adequacy of existing regulatory mechanisms.¹⁶⁶ In the not-warranted finding, the Service concluded that “a variety of conservation efforts” and “existing regulatory mechanisms . . . influence gopher tortoise viability through the conservation and restoration of gopher tortoise habitat and prevention of habitat loss, particularly efforts implemented since [the] July 27, 2011 12-month finding on the petition to list the eastern portion of the gopher tortoise range as threatened.”¹⁶⁷ However, the Service never analyzed whether these efforts are *successful* and *adequate* to address threats to the tortoise.

Indeed, the best available science and the Service’s conclusions show that regulatory mechanisms *are not adequate* to stem or reverse threats to the species. For example, in the not-warranted finding, the Service found that threats have “acted on the species to reduce available habitat and species abundance,” and the primary threats, “habitat loss and fragmentation due to urbanization, climate change, sea level rise, and [poor] habitat management are expected to persist in the foreseeable future and the effects of these threats . . . will continue.”¹⁶⁸ Yet the Service inconsistently and arbitrarily concluded without explanation or evidence that the gopher tortoise does not require protections because “threats have been reduced and will continue to be reduced through implemented and ongoing conservation actions and regulatory mechanisms.”¹⁶⁹ Given projected ongoing threats and population declines, the Service failed to rationally explain how regulatory mechanisms reduce threats to the extent that protecting the gopher tortoise under the ESA is not warranted.

Furthermore, by the Service’s own admission, the current and potential future efficacy of the mechanisms are unproven. For instance, while in some states, translocation efforts are used to move tortoises off habitat slated for development to prevent them from being directly killed by

¹⁶⁴ SSA at 150

¹⁶⁵ See, e.g., SSA at 154–55 (describing U.S. Geological Survey data that provides “estimates of sea-level rise for stations at decadal time steps in the future to year 2100”).

¹⁶⁶ 16 U.S.C. § 1533(a)(1)(D); *Defs. of Wildlife v. U.S. Fish & Wildlife Serv.*, 584 F. Supp. 3d 812, 831 (N.D. Cal. 2022) (quoting *Crow Indian Tribe v. United States*, 965 F.3d 662, 680 (9th Cir. 2020)) (Courts must review the mechanisms’ purported adequacy to see “if they work.”).

¹⁶⁷ 87 Fed. Reg. at 61,858.

¹⁶⁸ 87 Fed. Reg. at 61,858–59; SSA at 56.

¹⁶⁹ 87 Fed. Reg. at 61,859.

construction activities, the Service conceded that it is “difficult to determine if translocations result in sufficiently viable tortoise populations.”¹⁷⁰ The Service also conceded that translocation does not address the greatest threat to the tortoise—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.”¹⁷¹ Indeed in Florida, the net loss of habitat associated with the state’s translocation program has led to a shortage of translocation sites for gopher tortoises living on private lands slated for development.¹⁷²

The Service’s reliance on unproven translocation efforts that, even if successful, will in any event do nothing to address the many stressors driving tortoise declines renders the not-warranted finding arbitrary because the agency’s explanation for the decision runs counter to the evidence before it and the best available scientific data.

The arbitrary nature of the not-warranted finding is compounded and further highlighted by the Service’s failure to apply the PECE policy, which is directly applicable to conservation efforts which have not been implemented or shown to be effective—such as the tortoise translocation programs.¹⁷³ The PECE prohibits such reliance unless the measures are “sufficiently certain to be effective.”¹⁷⁴ Despite the direct applicability of the PECE policy, the not-warranted finding contains no analysis or discussion of it. Had the Service correctly implemented this policy, its own repeated record statements that translocation is unproven—and, in any event, would not address stressors driving habitat destruction and degradation—show that the reliance on translocation efforts was arbitrary.

Finally, the arbitrariness of the Service’s consideration of regulatory measures is underscored by the fact that the agency simply lists conservation actions and regulatory measures without assessing whether they *adequately* address threats, as required by the ESA. For example, although the Service concluded in the not-warranted finding that conservation through land

¹⁷⁰ SSA at 83, 84, 174; 87 Fed. Reg. at 61,846.

¹⁷¹ SSA at 85, 174; 87 Fed. Reg. at 61,846; *compare with* 76 Fed. Reg. at 45,151, 45,154 (explaining in the 2011 warranted-but-precluded finding for the eastern population of gopher tortoises that “[e]xisting regulations . . . do protect individual tortoises, but do not adequately protect habitat on private lands where the majority of the remaining potential tortoise habitat occurs” and “[a]bsent a cohesive effort to protect and maintain sufficient habitats to ensure long-term persistence of the species, gopher tortoises will likely succumb to continued loss of habitat and degradation of habitat”).

¹⁷² *See* Letters to the U.S. Fish and Wildlife Service from Center for Biological Diversity, *supra* n. 78–79, (attachments 1–4).

¹⁷³ The Service’s failure to address the PECE policy is particularly egregious given that the policy’s intent is to provide the Service with flexibility to consider unproven conservation efforts in a manner that is not expressly allowed the ESA’s listing factors. As stated by one court, “to the extent that the PECE’s allowance of reliance on unrealized future efforts comes into tension with listing factor D’s emphasis on ‘existing regulatory mechanisms,’ this tension is found within the ESA itself, which also requires that listing decisions be based on assessments of ‘any’ state conservation efforts . . . [I]t suffices to observe that the ESA’s listing factor D and section 4(b)(1)(A) impose ‘separate but similar’ obligations, which give rise to distinct inquiries.” *Defenders of Wildlife v. Jewell*, 70 F. Supp. 3d 183, 198 n.24 (D.D.C. 2014) (internal citations omitted).

¹⁷⁴ PECE, 68 Fed. Reg. at 15115; *see also Desert Survivors v. United States*, 321 F. Supp. 3d 1011, 1058 (N.D. Cal. 2018) (“The Court concludes that while PECE does not allow the Service to rely on *speculative* future efforts, it does not preclude the Service from considering future efforts that are sufficiently certain to be implemented and effective.”) (emphasis in original).

acquisition and conservation “reduces the severity” of some threats by “protecti[ng] . . . habitat across the landscape, maintaining connectivity between habitat patches, and increasing the opportunity for beneficial habitat management actions now and into the future,”¹⁷⁵ it utterly failed to provide any analysis to show whether the amount of habitat being protected outweighs the amount of habitat being lost to urbanization, climate change, and other threats.

The Service’s not-warranted finding for the eastern distinct population segment of gopher tortoises is arbitrary and contrary to the best available science.

The Service’s determination that the eastern distinct population segment (Eastern DPS) of gopher tortoises does not warrant ESA protection is arbitrary and contrary to the best available science for the same reasons explained above for the Service’s “entire range” determination.¹⁷⁶

The Service’s determination for the Eastern DPS also reached additional arbitrary conclusions that contradict the best available science and the agency’s own findings. For example, the Service concluded that conservation measures “have contributed to the improved condition of the species,”¹⁷⁷ yet a mere page before that conclusion, FWS conceded that not even half of the populations in the Eastern DPS exhibit resiliency¹⁷⁸ and that the Eastern DPS “is projected to decrease in number of local and landscape populations in the future.”¹⁷⁹ The Eastern DPS of gopher tortoise cannot rationally have both an “improved” outlook and continued projected declines. This internal inconsistency is just one example of the agency’s failure to rationally explain its conclusions, which are contrary to the best available science regarding the species’ status and threats.

The Service’s SPR analysis for the Eastern DPS is likewise arbitrary and contrary to the best available science. For example, when assessing whether Unit 5 (Florida) was a significant portion of the tortoise’s range, the Service indicated that it first considered whether the impact of threats “may have a more pronounced effect that [the portion] may have a different status than the remainder of the DPS.”¹⁸⁰ Yet the Service only considered the impact of sea level rise and did not consider other effects that are likely to have a more pronounced effect in Unit 5—including ongoing and future urban development.¹⁸¹

With regard to Unit 2, although the Service found the unit had a different status than other units in the Eastern DPS, when the agency considered whether Unit 2 was significant, it “considered

¹⁷⁵ 87 Fed. Reg. at 61,849.

¹⁷⁶ See also 87 Fed. Reg. at 61,866 (“Currently, the Eastern DPS comprises the majority of gopher tortoise populations (approximately 84 percent) and habitat with known gopher tortoise occurrences (approximately 88 percent) of the gopher tortoise range, and, as such, the discussion of threats and the species’ response to those threats in *Status Throughout All of Its Range* may be applied to the Eastern DPS as well.”); *id* at 61,867 (“The Eastern DPS comprises the majority of gopher tortoise populations and habitat across the range of the species, and, therefore, threats that affect the species rangewide also affect the gopher tortoise in the Eastern DPS.”).

¹⁷⁷ *Id.* at 61,867.

¹⁷⁸ *Id.* at 61,866 (explaining that “127 populations (19 percent) exhibit[] high current resiliency and 169 populations (21 percent) exhibit[] moderate resiliency”).

¹⁷⁹ *Id.*

¹⁸⁰ *Id.* at 61,867.

¹⁸¹ *Id.*

whether the Unit . . . is significant based on its biological importance to the overall viability of the Eastern DPS.”¹⁸² As explained above, this analysis unlawfully conflates the “entire range” and “significant portion of its range” standards in its SPR analysis for the Eastern DPS.¹⁸³

Additionally, when the Service considered the “biological significance” of Unit 2 to the Eastern DPS, it entirely failed to consider and arbitrarily ignored its own findings that Unit 2 contributes to “the breadth of . . . *environmental diversity* . . . [that] influences the ability of [the] species to adapt to changing environmental conditions over time,”¹⁸⁴ and that it is one of five genetic units that are necessary to bolster the tortoise against extinction.¹⁸⁵ Furthermore, dismissing the populations’ significance solely based on the lower quality or “value” of the habitat is arbitrary. Given the ESA’s clear mission to prevent extinction, evidence that a species’ habitat has been degraded as the result of one or more threats should militate in favor of protections, not against them. Likewise, dismissing the significance of Unit 2 based on its small size is also arbitrary.¹⁸⁶

CONCLUSION

For the foregoing reasons, the Service’s not-warranted determinations for gopher tortoises rangewide and for the eastern population are arbitrary, capricious, and violate the ESA. If the Service does not cure these violations within 60 days, the Center and Nokuse intend to pursue litigation in federal court to resolve the matter.

Sincerely,



Elise Pautler Bennett
Florida Director & Senior Attorney
Center for Biological Diversity
P.O. Box 2155
St. Petersburg, Florida 33731
(727) 755-6950
ebennett@biologicaldiversity.org

¹⁸² *Id.* at 61,868.

¹⁸³ *See Desert Survivors*, 321 F. Supp. 3d at 1073.

¹⁸⁴ SSA at 111 (emphasis added).

¹⁸⁵ *See, e.g.*, 87 Fed. Reg. at 61,859 (finding that “[t]he five genetic groups delineated across the species’ range provide adaptive capacity and sufficient species-level representation for the gopher tortoise” and thus “the species is not in danger of extinction throughout all of its range”); SSA at 111. *Compare with Desert Survivors*, 2022 U.S. Dist. LEXIS 87794, at * 31–34.

¹⁸⁶ *Ctr. for Biological Diversity v. Zinke*, 868 F.3d 1054, 1062 (9th Cir. 2017) (rejecting conclusion that desert eagle population segment not significant based on reasoning that it “represents much less than one half of a percent of the number of breeding pairs throughout the range of the species”).

CC:

Larry Williams
State Supervisor
Florida Ecological Services Office
U.S. Fish and Wildlife Service
1339 20th Street
Vero Beach, FL 32960
Larry_Williams@fws.gov

Lourdes Mena
Division Manager, Classification and Recovery
Florida Ecological Services Field Office
U.S. Fish and Wildlife Service
7915 Baymeadows Way, Ste. 200
Jacksonville, FL 32256-7517
Lourdes_Mena@fws.gov