

Matthew K. Bishop, *applicant for pro hac vice*  
Montana Bar No. 9968  
Western Environmental Law Center  
103 Reeder's Alley  
Helena, Montana 59601  
Tel: 406-324-8011  
[bishop@westernlaw.org](mailto:bishop@westernlaw.org)

Kelly E. Nokes, *applicant for pro hac vice*  
Montana Bar No. 39465862  
Western Environmental Law Center  
208 Paseo del Pueblo Sur, No. 602  
Taos, New Mexico 87571  
Tel: 575-613-8051  
[nokes@westernlaw.org](mailto:nokes@westernlaw.org)

IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF ARIZONA

WildEarth Guardians, a non-profit  
organization; Western Watersheds  
Project, a non-profit organization,

Plaintiffs,  
vs.

David Bernhardt, as Secretary of the  
Department of the Interior; the United  
States Department of the Interior, a  
federal department; Maragret Everson,  
as exercising the authority of the  
Director of the U.S. Fish and Wildlife  
Service; and the U.S. Fish and Wildlife  
Service, a federal agency,

Federal-Defendants.

No.

COMPLAINT

## INTRODUCTION

1  
2 1. WildEarth Guardians and the Western Watersheds Project  
3 (collectively “Plaintiffs”), bring this civil action against the above named  
4 Federal-Defendants (the “U.S. Fish and Wildlife Service” or “the Service”) under the citizen suit provision of the Endangered Species Act (“ESA”), 16  
5 U.S.C. § 1540(g), and the Administrative Procedure Act (“APA”), 5 U.S.C. §  
6 706, for violations of the ESA.  
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10 2. This case challenges the Service’s October, 2015 decision that the  
11 Sonoran desert tortoise is “not warranted” for listing under the ESA. The  
12 Service made this finding after previously determining in 2010, 2011, 2012,  
13 2013, and 2014 that the species was “warranted” and qualified for listing  
14 under the ESA.  
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## JURISDICTION AND VENUE

17  
18 3. This Court has jurisdiction over this action under 28 U.S.C. § 1331,  
19 16 U.S.C. § 1540(c).  
20

21 4. This Court has the authority to review the Service’s action(s)  
22 complained of herein and grant the relief requested, under the ESA’s citizen  
23 suit provision, 16 U.S.C. § 1540(g), and the APA, 5 U.S.C. § 706.  
24

25 5. All requirements for judicial review required by the ESA are  
26 satisfied. Plaintiffs e-mailed and mailed a sixty-day notice of intent to sue  
27 letter to the Service on April 15, 2019. This letter notified the Service of  
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1 Plaintiffs' intent to file a civil action to rectify the legal violations described in  
2 the letter. More than sixty days have elapsed since the Service received  
3 Plaintiffs' notice of intent to sue letter for violating the ESA.  
4

5 6. The relief sought is authorized by 28 U.S.C. § 2201, 28 U.S.C. § 2202,  
6 16 U.S.C. § 1540, and 5 U.S.C. § 706.

7 7. Venue is proper in this Court under 16 U.S.C. § 1540(g)(3)(A) and 28  
8 U.S.C. § 1391(e).  
9

10 8. Plaintiffs satisfy the minimum requirements for Article III standing.  
11 Plaintiffs – including their members, supporters, and staff – have suffered  
12 and continue to suffer injuries to their interests in conserving Sonoran desert  
13 tortoises from the Service's decision not to protect the species under the ESA.  
14 This Court can redress these injuries. There is a present and actual  
15 controversy between the Parties.  
16

### 17 **PARTIES**

18 9. Plaintiff, WILDEARTH GUARDIANS, is a non-profit conservation  
19 organization dedicated to protecting and restoring the wildlife, wild places,  
20 wild rivers, and the health of the American West. WildEarth Guardians is  
21 specifically committed to ensuring the survival and recovery of native species,  
22 including the Sonoran desert tortoise in the United States and Mexico.  
23 WildEarth Guardians has approximately 238,000 active members and  
24 supporters across the American West, including many who reside in Arizona.  
25 Many of WildEarth Guardians' members and supporters also reside and  
26 routinely recreate in areas occupied by the Sonoran desert tortoise in Arizona  
27 and Mexico. WildEarth Guardians has a long history of working to protect  
28

1 and restore native species, including the Sonoran desert tortoise. WildEarth  
2 Guardians brings this action on behalf of itself, its members, and its  
3 supporters.

4 10. Plaintiff, the WESTERN WATERSHEDS PROJECT (“WWP”), is a  
5 non-profit membership organization with offices throughout the American  
6 West, including in Arizona. WWP has over 9,500 members and supporters  
7 including many who reside and routinely recreate in Arizona and areas  
8 occupied by Sonoran desert tortoises. WWP, its staff, members, and  
9 supporters are dedicated to protecting and conserving the public lands,  
10 wildlife and natural resources of watersheds in the American West. WWP, its  
11 staff, members, and supporters are dedicated to ensuring the long-term  
12 survival and recovery of Sonoran desert tortoises. WWP brings this action on  
13 behalf of itself, its members, and its supporters.  
14

15 11. WildEarth Guardians’ and WWP’s (collectively “Plaintiffs”)  
16 members, supporters, and staff are dedicated to ensuring the long-term  
17 survival and recovery of the Sonoran desert tortoise and ensuring the Service  
18 complies with the ESA and bases all listing decisions on the best scientific  
19 and commercial data available (“best available science”).  
20

21 12. Plaintiffs’ members, supporters, and staff live in or near and/or  
22 routinely recreate in or near areas occupied by the Sonoran desert tortoise.  
23 Plaintiffs’ members, supporters, and staff enjoy observing – or attempting to  
24 observe – and studying Sonoran desert tortoises, including signs of the desert  
25 tortoise’s presence and observing, studying, and/or photographing Sonoran  
26 desert tortoises in areas where they are known to exist and travel. The  
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1 opportunity to view Sonoran desert tortoises or signs of tortoises in the wild  
2 is—by itself—of significant interest and value to Plaintiffs’ members,  
3 supporters, and staff and increases their use and enjoyment of the area.

4       13. The Service’s October, 2015 decision not to provide endangered or  
5 threatened status to the Sonoran desert tortoise challenged in this lawsuit  
6 harms Plaintiffs’ interests in the species and its conservation. Plaintiffs’  
7 members, supporters, and staff derive aesthetic, recreational, scientific,  
8 inspirational, educational, spiritual, and other benefits from Sonoran desert  
9 tortoises, recreating in areas occupied by and used by Sonoran desert  
10 tortoises, and in working to protect Sonoran desert tortoises from human-  
11 caused mortality and disturbance and in working to restore and recover  
12 Sonoran desert tortoises in the United States and Mexico. In furtherance of  
13 these interests, Plaintiffs’ members, supporters, and staff have worked and  
14 continue to work to conserve Sonoran desert tortoises. Plaintiffs’ 2008  
15 petition to list the species is part of the effort.

16       14. Plaintiffs’ interests have been, are being, and unless the requested  
17 relief is granted, will continue to be harmed by the Service’s October, 2015  
18 decision not to list the species under the ESA. If this Court issues the relief  
19 requested the harm to Plaintiffs’ interests will be alleviated and/or lessened.

20       15. Defendant DAVID BERNHARDT is sued in his official capacity as  
21 Secretary of the United States Department of the Interior. As Secretary, Mr.  
22 Bernhardt is the federal official with responsibility for all Service officials’  
23 inactions and/or actions challenged in this complaint.

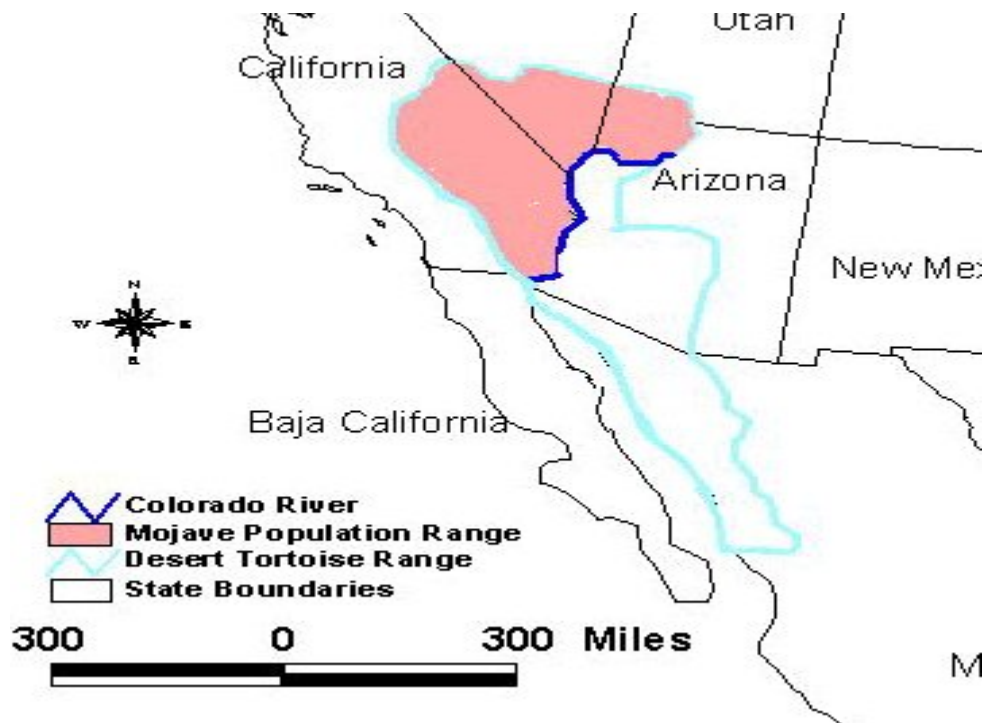


1           20. The desert tortoise is a long-lived species with a relatively slow  
2 rate of reproduction.

3           21. The lifespan of a desert tortoise varies from 30 to over 100 years.  
4  
5 On average, the oldest ages attained for desert tortoises is roughly 60 years  
6 but some reach 80 to 100 years in the wild.

7           22. Sexual maturity and first reproduction in female desert tortoises  
8 occurs between 12 to 22 years of age. Female desert tortoises may store  
9 sperm for up to two years, meaning that one season's mating produces the  
10 following season's clutch of eggs. Female desert tortoises may lay one clutch  
11 of 1-12 eggs per year, generally around the onset of the summer rainy season.  
12  
13 The eggs hatch in September and October.

14           23. The desert tortoise (*Gopherus agassizii*) originally included two  
15  
16 distinct populations, the Mojave population (occurring north and west of the  
17 Colorado River) and Sonoran population (occurring south and east of the  
18 Colorado River). The Colorado River has been an effective geographic barrier  
19 separating the two populations of desert tortoises for millions of years.  
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24. Differences between the Mojave and Sonoran populations of desert tortoises include size and shell shape (the Mojave desert tortoise has a wider shell), egg production, and habitat preferences. The Mojave population is found predominantly in valleys and alluvial fans. The Sonoran population is found predominantly in rocky hillsides and slopes.

25. The Sonoran desert tortoise occurs most commonly on rocky (predominantly granite rock) steep slopes and bajadas (lower mountain slopes formed by the coalescing of several alluvial fans) and in paloverde-mixed cacti associations. Sonoran desert tortoises also use inter-mountain valleys as part of their home ranges and for dispersal at all age classes.

26. One of the most important habitat features for the Sonoran population of desert tortoises (unlike the Mojave population) is the presence

1 of shelter sites which often take the form of constructed burrows under rocks  
2 and boulders and beneath vegetation on slopes.

3         27. The Sonoran population of desert tortoises (occurring south and  
4 east of the Colorado River) is most closely associated with the Arizona  
5 Upland and Lower Colorado River subdivisions of Sonoran desert scrub and  
6 Mojave desert scrub vegetation types.  
7

8         28. Sonoran desert tortoises in Arizona generally occur within  
9 elevations from 510 to 5,300 feet. Sonoran desert tortoises in Mexico are  
10 generally found at lower elevations, ranging from roughly 1,000 to 1,640 feet.  
11

12         29. The Sonoran desert tortoise is an herbivore and has been  
13 documented to eat roughly 200 different plant species, including herbs,  
14 grasses, succulents, and woody plants. Native forbs are a critically important  
15 food source for Sonoran desert tortoises and provide more nitrogen and water  
16 than nonnative forbs.  
17

18         30. The bladder of the Sonoran desert tortoise is unique and serves an  
19 important function in its survival. Sonoran desert tortoises are capable of  
20 drinking large amounts of water when it is available (and may even construct  
21 water catchments by digging earthen depressions). The bladder of the  
22 Sonoran desert tortoise is large and divided into two lobes which gives the  
23 species the ability to store water, dilute excess dietary salts and metabolic  
24 wastes, and reabsorb water into the bloodstream.  
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1           31. The Sonoran population of desert tortoises are known to make long-  
2 distance movements between populations in adjacent mountain ranges.  
3 These movements may be tied to nest site selection, seasonable migration,  
4 departure from unfavorable habitat conditions, or males in search of females.  
5 Long distance movements by the Sonoran population of desert tortoises  
6 suggest that potential for meta-population relationships (interrelated  
7 population dynamics between smaller subpopulations) between local  
8 populations inhabiting regional areas and hillsides.

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11 ***The Service lists the Mojave desert tortoise DPS***

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13           32. In 1990, the Service issued a final rule designating the Mojave  
14 population of desert tortoises (occurring north and west of the Colorado river)  
15 as a threatened species under the ESA. 55 Fed. Reg. 12,178 (April 2, 1990).  
16 This Mojave population of desert tortoises was designated as a distinct  
17 population segment (“DPS”) under the ESA.  
18  
19

20           33. As part of the Mojave desert tortoise DPS listing, the Service also  
21 protected any desert tortoise from other populations, including the Sonoran  
22 population, as a threatened species when observed outside its known range,  
23 due to similarity of appearance under section 4(e) of the ESA, 16 U.S.C. §  
24 1533(e). The Sonoran population of desert tortoises that remained within  
25 their known range (south and east of the Colorado River) were not provided  
26 protective ESA status by the Service.  
27  
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1 ***Plaintiffs' petition to list a Sonoran desert tortoise DPS***

2 34. In October, 2008, Plaintiffs submitted a formal petition to the  
3 Service to list the Sonoran population desert tortoise as a DPS under the  
4 ESA.  
5

6 35. Plaintiffs' 2008 petition requested the Service provide protective  
7 ESA status to all desert tortoises within the Sonoran population (east and  
8 south of the Colorado River), including desert tortoises in the Black  
9 Mountains north of Kingman, Arizona and desert tortoises in Mexico.  
10

11 36. In August, 2009, the Service issued a positive 90-day finding on  
12 Plaintiffs' 2008 petition. 74 Fed. Reg. 44,335 (August 28, 2009). The Service  
13 determined that the petition to list a Sonoran desert tortoise DPS under the  
14 ESA included substantial information indicating that the population meets  
15 the definition of a DPS and that listing "may be warranted."  
16

17 37. Following the positive 90-day finding, the Service initiated a status  
18 review of the Sonoran desert tortoise DPS to determine if listing the  
19 population is warranted.  
20

21 ***The Service's December, 2010 finding that the Sonoran desert tortoise***  
22 ***DPS is warranted for listing***  
23

24 38. In December, 2010, the Service issued a 12-month finding that  
25 listing the Sonoran desert tortoise DPS was warranted. 75 Fed. Reg. 78,094  
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1 (December 14, 2010). The Service determined, however, that listing the  
2 Sonoran desert tortoise DPS was precluded by higher priority actions.

3  
4 39. The Service added the Sonoran desert tortoise DPS to its candidate  
5 species list and committed itself to developing a proposed rule to list the  
6 Sonoran population of desert tortoises as its priorities allow.

7  
8 40. The Service's December, 2010 warranted finding for the Sonoran  
9 desert tortoise DPS was based on its review of the best available science and  
10 section 4(a)(1) of the ESA's five threat factors (Factors A-E), 16 U.S.C. §  
11 1533(a)(1).  
12

13 41. The Service's 2010 warranted finding determined that the Sonoran  
14 desert tortoise DPS was threatened by loss of habitat and range habitat and  
15 range (Factor A). This included: (1) the documented invasion and cultivation  
16 of non-native plant species which significantly increases the risk of wildfire  
17 (in an ecosystem that evolved without fire); (2) loss of habitat and increased  
18 habitat fragmentation (making dispersal and genetic exchange more difficult)  
19 from human population growth and urban development; and (3) loss of  
20 habitat from ironwood and mesquite harvesting and livestock grazing  
21 (particularly in Mexico). The Service concluded that loss of the Sonoran  
22 desert tortoise DPS's habitat and range "is an immediate threat of high  
23 magnitude . . . both now and in the foreseeable future."  
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1           42. The Service's 2010 warranted finding determined that the Sonoran  
2 desert tortoise DPS was threatened by overutilization (Factor B) in the form  
3 of illegal collection of desert tortoises in the wild. The Service relied on a  
4 study finding that one in 12 tortoises detected in the wild is illegally  
5 collected. The Service expects this incidence of collection to increase as  
6 human populations expand and grow in occupied habitat.  
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9           43. The Service's 2010 warranted finding determined that the Sonoran  
10 desert tortoise DPS was, in combination with other threats, moderately  
11 threatened by predation, mainly from feral domestic dogs and humans  
12 (Factor C). In 2010, the Service found that disease does not pose a threat to  
13 the Sonoran desert tortoise DPS.  
14  
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16           44. The Service's 2010 warranted finding determined that the Sonoran  
17 desert tortoise DPS was threatened, in combination with other threats, by  
18 the inadequacy of existing regulatory mechanisms (Factor D). The Service  
19 found that while federal and state land management agencies consider desert  
20 tortoises in their planning documents, there are serious deficiencies in them  
21 with respect to the conservation of desert tortoises. The Service found a lack  
22 of regulatory mechanisms needed to protect the species from various threats,  
23 including off-highway vehicle use, predation, climate change, and invasive  
24 plant species. The Service also found that although the species in considered  
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1 “threatened” in Mexico, there are no conservation planning or enforcement  
2 regulations in place to protect the species in that country.

3  
4 45. The Service’s 2010 warranted finding determined that the Sonoran  
5 desert tortoise DPS was, in combination with other threats, likely threatened  
6 by other natural or manmade factors in the foreseeable future (Factor E). The  
7 Service identified localized threats to local sub-populations from ingestion of  
8 trash and vehicle strikes. The Service recognized that while the effects (direct  
9 and indirect) from climate change “remain uncertain” in 2010, impacts from  
10 climate change in the future “will likely exacerbate the current and ongoing  
11 threat of habitat loss caused by other factors.”  
12  
13

14 46. In the 2010 warranted finding, the Service noted that many of the  
15 threats facing the Sonoran desert tortoise DPS “act in synergistic  
16 combination in their effects to the tortoise” and that such threats “are  
17 predicted to increase in the foreseeable future.” The Service said that  
18 collectively, these threats will result in the loss of a significant amount of  
19 habitat for the Sonoran population of desert tortoises and fragment  
20 remaining populations, “threatening the long-term genetic fitness of the  
21 tortoise and precluding their recolonization ability in the event of population  
22 extirpations.”  
23  
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25 47. In the 2010 warranted finding, the Service projected that roughly  
26  
27 98 percent of the Sonoran desert tortoise DPS’s habitat in Mexico and 47  
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1 percent of the species' habitat in Arizona "will be lost or adversely modified in  
2 the foreseeable future."

3  
4 48. Based on its review of the five threat factors and best available  
5 science, the Service concluded that the Sonoran population of desert tortoises  
6 qualified as a DPS (for listing purposes) and was "in danger of extinction in  
7 the foreseeable future throughout all or a significant portion of its range."

8  
9 49. Following the Service's 2010 warranted finding for the Sonoran  
10 population of desert tortoise DPS, the Service repeatedly reaffirmed this  
11 finding in its subsequent candidate notices of reviews.  
12

13 ***The Service reaffirms its finding that the Sonoran desert tortoise DPS***  
14 ***is warranted for listing in 2011***

15 50. In October, 2011, the Service published a candidate notice of review  
16 reaffirming its 2010 finding that the Sonoran desert tortoise DPS remained  
17 warranted for protective ESA status. 76 Fed. Reg. 66,370 (October 26, 2011).  
18

19 51. The Service said in its October, 2011 candidate notice of review that  
20 a recently published paper on the genetics of desert tortoise (Murphy (2011))  
21 indicates that the Sonoran desert tortoise DPS should be treated as a  
22 separate species (rather than a DPS of the same species). The Service said it  
23 would analyze this new information and make any necessary changes to the  
24 nomenclature in the next, 2012 candidate notice.  
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1           52. In the 2011 candidate notice, the Service said that threats to the  
2 Sonoran desert tortoise DPS includes “nonnative plant species invasions and  
3 altered fire regimes; urban and agricultural development, and human  
4 population growth; barriers to dispersal and genetic exchange; off-highway  
5 vehicles; roads and highways; historical ironwood and mesquite tree harvest  
6 in Mexico; improper livestock grazing (predominantly in Mexico);  
7 undocumented human immigration and interdiction activities; illegal  
8 collection; predation from feral dogs; human depredation and vandalism;  
9 drought; and climate change.” 76 Fed. Reg. 66,370-01.

13           53. In the 2011 candidate notice, the Service said threats to the  
14 Sonoran desert tortoise DPS differ geographically and are highly synergistic  
15 in their effects on the population. The Service said the threats to the Sonoran  
16 desert tortoise DPS were “currently or in the foreseeable future” of “high  
17 magnitude but, overall, [were] non-imminent.”

20           ***The Service reaffirms its warranted finding in 2012 and recognizes***  
21           ***the Sonoran desert tortoise as a separate species.***

22           54. In 2012, the Service issued a candidate notice of review and once  
23 again determined the Sonoran desert tortoise DPS to be warranted for ESA  
24 listing. 77 Fed. Reg. 69,997 (November 21, 2012).

26           55. The Service reiterated the threats to the Sonoran desert tortoise  
27 DPS from the 2010 and 2011 warranted findings and recognized that, “in  
28

1 their totality, these threats are high in magnitude because of the large  
2 amount of habitat that is likely to be affected and the irreversible nature of  
3 the effect of these threats in sensitive habitats that are slow to rebound.” 77  
4 Fed. Reg. at 69,997. The Service stated that the most significant of these  
5 threats are likely to occur in the foreseeable future (and thus remain non-  
6 imminent).  
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9       56. In the 2012 candidate notice, the Service stated that “[r]ecent  
10 phylogenetic research confirmed . . . that the Sonoran desert tortoise is a  
11 distinct species.” 77 Fed. Reg. at 69,997. The Service relied on Murphy (2011)  
12 for this finding. Murphy (2011) found genetic differentiation between the  
13 Mojave desert tortoise and the Sonoran desert tortoise. The boundaries and  
14 genetic basis for the species delineation proposed by Murphy (2011) and the  
15 DPS designations recognized by the Service under the ESA are analogous  
16 with both divided along the Colorado River. Murphy (2011) also recognized  
17 the existence of a small population of desert tortoises in the Black Mountains  
18 (just north and west of Kingman, Arizona) where the two forms of tortoises  
19 (Mojave and Sonoran) hybridize.  
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24       57. In response to Murphy (2011), the Service elevated the Sonoran  
25 population of desert tortoises (all desert tortoises occurring south and east of  
26 the Colorado River, including the Black Mountain population) to a full  
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species (*Gopherus morafkai*). This change from DPS to full species status prompted the Service to move up the species' listing priority number.



***The Service reaffirms its finding that the newly recognized species – the Sonoran desert tortoise – is warranted for listing in 2013***

58. In 2013, the Service issued a candidate notice of review reaffirming its determination that the Sonoran desert tortoise remains warranted for ESA listing. 78 Fed. Reg. 70,123 (November 22, 2013).

59. The Service said the “major threats to the Sonoran desert tortoise include non-native plant species invasions and altered fire regimes, urban and agricultural development, and factors associated with human population

1 growth which collectively and cumulatively affect core tortoise population  
2 areas and create barriers to dispersal and genetic exchange.” 78 Fed. Reg. at  
3 70,123. The Service said the threats “to the Sonoran desert tortoise differ  
4 geographically in type and scope, and are highly synergistic in their effects.”  
5 *Id.* The Service said “in their totality, these threats are high in magnitude  
6 because of the large amount of habitat that is likely to be affected and the  
7 irreversible nature of the effect of these threats in sensitive habitats that are  
8 slow to rebound.” *Id.* The Service said the more “significant” threats to the  
9 Sonoran desert tortoise are not on-going but likely to occur in the foreseeable  
10 future. *Id.*

14 ***The Service prepares a species status assessment for the Sonoran***  
15 ***desert tortoise***

16 60. In 2013, the Service prepared and published a comprehensive  
17 “species assessment” for the newly recognized Sonoran desert tortoise  
18 (*Gopherus morafkai*). The species assessment incorporated all available  
19 scientific literature produced on the species as of March, 2013, including all  
20 available literature on threats facing the species. In the species assessment,  
21 the Service reaffirmed that the Sonoran desert tortoise was warranted for  
22 listing under the ESA.  
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1           61. In the species assessment, the Service included a detailed  
2 discussion of the best available science, ESA's five threat factors, and their  
3 application to the Sonoran desert tortoise.  
4

5           62. In the species assessment, the Service identified an array of threats  
6 to the Sonoran desert tortoises' habitat (Factor A). This includes: (a) the  
7 documented invasion and purposeful cultivation of non-native plant species  
8 in the tortoises' habitat (in Arizona and Mexico) which significantly increases  
9 the threat of wildfire in an ecosystem that adapted without it; (b) projections  
10 for human population growth and urban development and the problems it  
11 poses in terms of loss of habitat and increased fragmentation (limiting  
12 genetic exchange) and increased human interaction with tortoises; and (c)  
13 livestock grazing in occupied Sonoran desert tortoise habitat in Mexico. The  
14 Service concluded that cumulatively, the loss of habitat and increased habitat  
15 fragmentation is "an immediate threat of high magnitude to the Sonoran  
16 desert tortoise, both now and in the foreseeable future."  
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21           63. In the species assessment, the Service also identified other threats  
22 to the Sonoran desert tortoise. These other threats identified in the species  
23 assessment include overutilization from illegal collection and field research  
24 (Factor B), predation from feral dogs and humans (Factor C), the lack of  
25 effective regulatory mechanisms in Arizona and Mexico (Factor D), and  
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1 threats from other natural and manmade factors, including environmental  
2 contamination and climate change (Factor E).

3  
4 64. On June 6, 2014, the species assessment for the Sonoran desert  
5 tortoise was signed and approved by the Regional Director for the Service.

6 ***The Service reaffirms its finding that the Sonoran desert tortoise is***  
7 ***warranted for listing in December, 2014***

8  
9 65. On December 5, 2014, and following its species assessment, the  
10 Service issued yet another candidate notice of review reaffirming its  
11 warranted finding and announcing the Service's plans to start work on a  
12 proposed listing rule for the tortoise. 79 Fed. Reg. 72,466 (December 5, 2014).  
13

14 66. In the December, 2014 candidate notice, the Service said that in the  
15 course of "preparing the proposed listing rule" for the Sonoran desert tortoise,  
16 it was "continuing to monitor new information about the species' status so  
17 that [it could] make prompt use of [its] authority under section 4(b)(7) in the  
18 case of an emergency posing a significant risk to the species." 79 Fed. Reg. at  
19 72,466.  
20

21  
22 ***The Service's May, 2015 candidate conservation agreement with***  
23 ***Arizona***

24 67. On May 27, 2015, the Service published a candidate conservation  
25 agreement with various cooperating state and federal agencies for the  
26 Sonoran desert tortoise.  
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1           68. The May, 2015 conservation agreement discusses the threats  
2 (Factors A-E) discussed in the Service’s earlier findings.

3           69. The May, 2015 conservation agreement recognizes the Sonoran  
4 desert tortoises’s current status as a species “warranted” for listing under the  
5 ESA.  
6

7           70. The “overarching goal” of the May, 2015 conservation agreement is  
8 to “achieve conservation that is necessary to preclude” the ESA listing of the  
9 Sonoran desert tortoise in Arizona, “through reduction or amelioration of  
10 threats in Arizona.”  
11

12           71. The May, 2015 conservation agreement says the parties involved  
13 will implement action to reduce or eliminate threats to the Sonoran desert  
14 tortoise in Arizona.  
15

16           72. The May, 2015 conservation agreement includes no binding  
17 commitments from the parties involved to take affirmative steps to conserve  
18 the Sonoran desert tortoise. The conservation agreement includes no  
19 regulatory requirements to conserve the Sonoran desert tortoise.  
20

21 ***The Service prepares a second species status assessment for the***  
22 ***Sonoran desert tortoise***  
23

24           73. In September, 2015, the Service published a second species  
25 assessment for the Sonoran desert tortoise. The Service said it prepared a  
26 second species assessment to “inform the listing decision.”  
27  
28

1           74. The 2015 species assessment does not evaluate and apply section  
2 4(a)(1) of the ESA's five threat factors (Factors A-E), 16 U.S.C. § 1533(a)(1).

3           75. The 2015 species assessment includes a new population viability  
4 analysis and habitat model to estimate total population numbers, densities,  
5 and trends.  
6

7           76. The 2015 species assessment excludes the Black Mountains region  
8 of Arizona (north and west of Kingman, Arizona) and the area south of the  
9 Rio Sonora in Mexico from the Sonoran desert tortoises' range.  
10

11           77. The 2015 species assessment assumes a single population of  
12 Sonoran desert tortoises exists in Arizona. The 2015 species assessment  
13 assumes a single population of Sonoran desert tortoises exists in Mexico.  
14

15           78. The 2015 species assessment uses a "predicted potential habitat"  
16 model to measure Sonoran desert tortoise representation (the breadth of the  
17 genetic makeup of the species) and redundancy (the number of populations).  
18 The 2015 species assessment does not discuss, reference, or utilize any data  
19 or evidence on actual Sonoran desert tortoise numbers or density in specific  
20 areas or any studies on numbers and density. The Service's estimate of  
21 representation and redundancy of Sonoran desert tortoises in Arizona and  
22 Mexico are based solely on habitat and the habitat model.  
23

24           79. The 2015 species assessment's viability findings were premised on a  
25 habitat model. The Service used three criteria for the habitat model:  
26  
27  
28

1 elevation, vegetation type, and slope. The Service described this habitat  
2 model as “a very coarse habitat model” that does not include many other  
3 physical factors that are important for defining habitat for Sonoran desert  
4 tortoises (e.g., shelter sites).

6 80. The 2015 species assessment’s habitat model estimated that  
7 roughly 38,000 square miles of potential habitat for the Sonoran desert  
8 tortoise exists in Arizona and Mexico. According to the model, 64 percent of  
9 this potential habitat exists in Arizona and 36 percent in Mexico.

11 81. In the 2015 species assessment, the Service classified all potential  
12 Sonoran desert tortoise habitat as either of “high” potential habitat value,  
13 “medium” potential habitat value, or “low” potential habitat value across the  
14 species’ range. The Service used three parameters to classify potential  
15 habitat value: elevation, slope, and vegetation type.

17 82. The 2015 species assessment assumed that “high” potential habitat  
18 (as defined by the model and its three parameters) includes roughly 43.3  
19 adult Sonoran desert tortoises per square mile. The 2015 species assessment  
20 assumed that “medium” potential habitat includes roughly 24.3 adult  
21 Sonoran desert tortoises per square mile. The 2015 species assessment  
22 assumed that “low” potential habitat for the Sonoran desert tortoise includes  
23 roughly 5.2 adult Sonoran desert tortoises per square mile. The Service used  
24 the same density estimates for Arizona and Mexico. Occurrence records for  
25  
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1 Sonoran desert tortoises reveals that vast majority of tortoises only occur in  
2 potential habitat deemed of “high” quality.

3  
4 83. Based on the assumptions in the habitat model, the 2015 species  
5 assessment estimated the adult population of Sonoran desert tortoises in  
6 Arizona and Mexico to be in the range of 470,000 to 970,000. The Service  
7 rounded its abundance estimates of tortoises to the nearest 10,000.  
8

9 84. The 2015 species assessment includes no information or data on  
10 Sonoran desert tortoise recruitment or juvenile survival.  
11

12 85. The 2015 species assessment reviewed “a number of potential  
13 factors” that could affect the Sonoran desert tortoise population. The 2015  
14 species assessment determined that none of these factors would have a  
15 population-level impact on the species, given its “relatively large current  
16 estimated population size.”  
17

18 86. The 2015 species assessment estimated the probability of quasi-  
19 extinction for the Arizona and Mexico populations of Sonoran desert tortoises  
20 over a 200 year period. The risk of quasi-extinction for the Sonoran desert  
21 tortoise ranges from 11 to 32 percent over a 200 year period.  
22

23  
24 ***The Service’s 2015 not warranted finding***

25 87. On October 6, 2015, the Service reversed its previous findings and  
26 issued a “not warranted” determination on Plaintiffs’ petition to list the  
27 Sonoran desert tortoise.  
28

1           88. The Service's October, 2015 not warranted finding is based on the  
2 2015 species assessment.

3           89. The Service's October, 2015 not warranted finding is based on the  
4 habitat model and population simulation model included in the 2015 species  
5 assessment.  
6

7           90. The Service's October, 2015 not warranted finding includes a  
8 discussion of six stressors: (1) altered plant communities; (2) altered fire  
9 regimes; (3) habitat conversion of native vegetation to developed landscapes;  
10 (4) habitat fragmentation; (5) human-tortoise interactions; and (6) climate  
11 change and drought. The Service determined that none of these stressors is  
12 likely to have "population-level" effects on the species. The Service said some  
13 of the stressors might have "population-level effects" but because of the  
14 Sonoran desert tortoises' long lifespan, relatively high abundance, and wide  
15 range . . . these effects would likely take many decades or longer to have  
16 measurable impacts on the species if they occur." The Service concluded that  
17 many of the stressors facing the Sonoran desert tortoise are ameliorated by  
18 the 2015 conservation agreement and ongoing conservation efforts  
19 undertaken by state and federal agencies.  
20

21           91. The Service concluded that the Sonoran desert tortoise does not  
22 qualify as either a threatened or endangered species under the ESA. The  
23 Service inexplicably used a timeframe of 50 to 75 years as the "foreseeable  
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1 future” for its finding. A timeframe of 50-75 years is 2-3 generations of  
2 Sonoran desert tortoises. The Service concluded that “the Sonoran desert  
3 tortoise is not likely to be in danger of extinction in the foreseeable future  
4 (50-75 years) and, therefore does not meet the definition of a threatened  
5 species throughout its range.” 80 Fed. Reg. at 60,333.  
6

7  
8 **FIRST CAUSE OF ACTION**  
9 **(Violation of the ESA – five threat factors)**

10 92. Plaintiffs hereby incorporate all preceding paragraphs.

11 93. Pursuant to section 4(a)(1) of the ESA, the Service is required to  
12 determine whether a species is threatened or endangered because of any of  
13 the following factors: (A) the present or threatened destruction, modification,  
14 or curtailment of the species’ range; (B) overutilization for commercial,  
15 recreational, scientific, or educational purposes; (C) disease or predation; (D)  
16 the inadequacy of existing regulatory mechanisms; and (E) other man-made  
17 factors affecting the species’ continued existence. 16 U.S.C. § 1533(a)(1); 50  
18 C.F.R. § 424.11(c). These factors are listed in the disjunctive so any one or  
19 combination of them can be sufficient for a finding that a species qualifies as  
20 threatened or endangered.  
21

22 94. In making its “not warranted” finding and deciding not to list the  
23 Sonoran desert tortoise, the Service failed to carefully consider and  
24 adequately apply Section 4(a)(1)’s listing factors in accordance with the ESA  
25 and the implementing regulations.  
26  
27  
28

1           95. The Service failed to consider and analyze how climate change is  
2 already impacting and will continue to directly, indirectly, and cumulatively  
3 impact the Sonoran desert tortoise and its habitat now and into the  
4 foreseeable future.

5           96. The Service erroneously discounted and did not adequately analyze  
6 the impacts that the ongoing invasion of non-native plants species (including  
7 buffelgrass, a weed that drastically increases fire risk), increased  
8 urbanization and population growth in habitat, energy development,  
9 fragmentation of sub-populations that limit genetic exchange, increased OHV  
10 use (and other human activities, including target shooting, collection, and  
11 vehicle mortalities), mesquite and ironwood tree harvest in Mexico, the  
12 building of a border wall between the United States and Mexico, livestock  
13 grazing, illegal collection, human depredation, lack of adequate protections in  
14 land management plans, drought and increased fires and/or other threats  
15 (individually and in the aggregate) may individually and collectively have on  
16 the Sonoran desert tortoise now and into the foreseeable future.

17           97. The Service erroneously discounted and did not adequately consider  
18 how the lack of existing regulatory mechanisms for the Sonoran desert  
19 tortoise, specifically the lack of guidance in state wildlife and resource  
20 management plans, National Forest Plans, National Park Service  
21 management plans, BLM resource management plans, and the lack of rules,  
22 plans, and binding conservation measures in Mexico may impact the Sonoran  
23 desert tortoise and its habitat now and into the foreseeable future.  
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1           98. The Service failed to analyze and consider threats to the Sonoran  
2 desert tortoise that were previously identified and discussed by the Service in  
3 its earlier 2014 warranted finding. These include (but are not limited to): (1)  
4 disease and predation; (2) fragmentation of habitat and increased isolation  
5 and less connectivity between subpopulations; (3) inadequate regulatory  
6 mechanisms in both the United States and Mexico; (4) over-utilization; (5)  
7 livestock grazing; (6) cumulative threats; (7) OHV use; (8) renewable energy  
8 development; and (9) activities occurring in Mexico, including desert plant  
9 and tree harvest.  
10

11           99. The Service's failure to analyze the five threat factors when  
12 deciding not to list the Sonoran desert tortoise violates the ESA and is  
13 "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance  
14 with law" and/or constitutes "agency action unlawfully withheld or  
15 unreasonably delayed." 5 U.S.C. §§ 706 (2)(A), 706 (1).  
16

17                           **SECOND CAUSE OF ACTION**  
18                           **(Violation of ESA – best available science)**

19           100. Plaintiffs hereby incorporate all preceding paragraphs.  
20

21           101. Pursuant to section 4(b)(1)(A) of the ESA, 16 U. S.C. § 1533  
22 (b)(1)(A), the Service must make all listing determinations solely on the basis  
23 of the best available science. Under the ESA, the Service cannot infer from a  
24 lack of data or uncertainty that the population of Sonoran desert tortoises  
25 remains viable and not threatened or endangered.

26           102. The Service's not warranted finding for the Sonoran desert tortoise  
27 ignores and/or misinterprets and misconstrues the best available science on  
28

1 the existing Sonoran desert tortoise population in the wild (both in numbers  
2 and trends) and needs of and threats facing the Sonoran desert tortoise in  
3 Arizona and Mexico.

4 103. The Service's not warranted finding was premised on a 2015  
5 species assessment that that includes a population viability analysis and  
6 habitat proxy model to estimate population numbers and trend (and measure  
7 the "redundancy and representation" of the species).  
8

9 104. The Service's 2015 species assessment uses a viability analysis  
10 and habitat proxy model that does not mirror reality, excludes critical data,  
11 excludes information on the demography of the Sonoran desert tortoise,  
12 includes faulty assumptions, is based on pure speculation, and conflicts with  
13 the best available science.  
14

15 105. The Service's not warranted finding for the Sonoran desert tortoise  
16 arbitrarily dismissed the best available science on climate change impacts.  
17 Climate change models predict that drought severity is likely to increase  
18 throughout the Sonoran desert tortoises' range and this will likely have  
19 negative effects on tortoise survival.  
20

21 106. The Service's failure to utilize the best available science when  
22 deciding not to list the Sonoran desert tortoise violates the ESA and is  
23 "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance  
24 with law" and/or constitutes "agency action unlawfully withheld or  
25 unreasonably delayed." 5 U.S.C. §§ 706 (2)(A), 706 (1).  
26  
27  
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**THIRD CAUSE OF ACTION**  
**(Violation of ESA – foreseeable future)**

107. Plaintiffs hereby incorporate all preceding paragraphs.

108. Pursuant to the ESA, 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.” 16 U.S.C. § 1532(20).

109. The term foreseeable future is not defined in the ESA. Prior to the adoption of new rules in August, 2019, the Service relied on a Solicitor’s Memorandum Opinion (M-Opinion) to interpret “foreseeable future.”

110. The M-Opinion states that the Service’s “analysis of what constitutes the foreseeable future for a particular listing determination must be rooted in the best available data that allow predictions into the future, and the foreseeable future extends only so far as those predictions are reliable. ‘Reliable’ does not mean ‘certain’; it means sufficient to provide a reasonable degree of confidence in the prediction, in light of the conservation purposes of the Act.” M-Opinion 37021 at 13. The Service may not dismiss a risk of extinction that may be reasonably forecasted into the foreseeable future by the best available science.

111. In determining the Sonoran desert tortoise is not warranted for listing under the ESA, the Service failed to properly apply the ESA’s standards for “threatened” species, including failing to properly define and analyze whether the Sonoran desert tortoise is likely to become endangered in the “foreseeable future.” The 2015 species assessment used a 200-year timeframe but the Service arbitrarily limited its foreseeable future

1 assessment and finding for Sonoran desert tortoises to only three generations  
2 of tortoises (75 years).

3 112. The Service's failure to properly apply the ESA's standards for  
4 "threatened" species, including "foreseeable future" when deciding not to list  
5 the Sonoran desert tortoise violates the ESA and is "arbitrary, capricious, an  
6 abuse of discretion, or otherwise not in accordance with law" and/or  
7 constitutes "agency action unlawfully withheld or unreasonably delayed." 5  
8 U.S.C. §§ 706 (2)(A), 706 (1).  
9

10 **FOURTH CAUSE OF ACTION**  
11 **(Violation of ESA – significant portion of its range)**

12 113. Plaintiffs hereby incorporate all preceding paragraphs.

13 114. Under the ESA, a species may warrant listing if it is in danger of  
14 extinction or likely to become so throughout all or "a significant portion of its  
15 range."  
16

17 115. The evaluation of whether *a portion* of the species range is  
18 "significant" under the ESA involves a number of variables and factors,  
19 including (but not limited to) the size of the area, the percentage of the  
20 species' range, its biological and/or ecological importance to the species,  
21 unique factors and habitat conditions, its importance for maintaining  
22 connectivity amongst subpopulations and facilitating genetic exchange, and  
23 whether its loss would result in the loss of a unique or critical function of the  
24 species. The focus of the "significant" analysis must be on the portion itself.  
25  
26  
27  
28

1           116. In 2014, the Service published a final rule interpreting the phrase  
2 “significant portion of its range.” 79 Fed. Reg. 37,578 (July 1, 2014).

3           117. The Service’s 2014 policy demands a high threshold for identifying  
4 whether a portion of a species’ range is “significant.” Under the policy, a  
5 portion of a species’ range will only be deemed “significant” if its  
6 “contribution to the viability of the species is so important that, without the  
7 members in that portion, the species would be in danger of extinction, or  
8 likely to become so in the foreseeable future, throughout all of its range.” 79  
9 Fed. Reg. at 37,609. Under the policy, a portion of a species’ range will only  
10 be deemed “significant” if the loss of members in that portion threaten the  
11 entire listed entity.  
12

13           118. In determining that the Sonoran desert tortoise is not warranted  
14 for listing, the Service applied the 2014 policy’s definition of “significant  
15 portion” and determined the Sonoran desert tortoise is not in danger of  
16 extinction in a “significant portion of its range.” The Service insisted, in  
17 accordance with its 2014 policy (which has since been vacated by at least two  
18 district courts), that a portion of the Sonoran desert tortoises’ range would  
19 only be “significant” if the loss of members in the portion threaten the entire  
20 species.  
21

22           119. In determining that the Sonoran desert tortoise is not in danger of  
23 extinction in a “significant portion of its range” the Service only considered  
24  
25  
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28

1 whether there are “geographic concentrations” of potential threats from  
2 urban development in a portion of the species’ range and never considered  
3 and evaluated other “significance” variables or factors or threats (like climate  
4 change) which may not have geographic concentrations.  
5

6 120. The Service’s determination that the Sonoran desert tortoise is not  
7 in danger of extinction in a “significant portion of its range” was made in the  
8 absence of any occurrence and/or population data (actual or trend) necessary  
9 to make a “significance” finding.  
10

11 121. The Service’s determination that the Sonoran desert tortoise is not  
12 in danger of extinction in a “significant portion of its range” was made in the  
13 absence of any consideration of whether other, non-urban portions of the  
14 tortoises range may be significant.  
15

16 122. In determining that the Sonoran desert tortoise is not warranted  
17 for listing, the Service never evaluated whether portions of the tortoises’  
18 Arizona and/or Mexico range is a “significant portion.” The Service never  
19 evaluated whether certain mountain ranges and subpopulations within the  
20 Sonoran desert tortoises’ range qualify as “significant.” This includes but is  
21 not limited to areas facing more severe threats from non-native grass  
22 (including the invasion of buffelgrass) and climate change.  
23

24 123. The Service’s reliance on its 2014 policy and determination that  
25 the Sonoran desert tortoise is not in danger of extinction in a “significant  
26  
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28

1 portion of its range” violates the ESA and is “arbitrary, capricious, an abuse  
 2 of discretion, or otherwise not in accordance with law” and/or constitutes  
 3 “agency action unlawfully withheld or unreasonably delayed.” 5 U.S.C. §§ 706  
 4 (2)(A), 706 (1).

5  
 6 **FIFTH CAUSE OF ACTION**  
 7 **(Violation of ESA – non-binding efforts)**

8 124. Plaintiffs hereby incorporate all preceding paragraphs.

9 125. Pursuant to section 4(b)(1)(A) of the ESA, 16 U. S.C. § 1533  
 10 (b)(1)(A), and the Service’s implementing regulations, the Service must make  
 11 listing determinations after “conducting a review of the status of the species  
 12 and after taking into account those efforts, if any, being made by any State”  
 13 to protect such species. The Service can rely on conservation efforts, including  
 14 state-initiated efforts, so long as they are binding and current, not voluntary  
 15 or future, and have a proven track record of success. Any conservation effort  
 16 relied upon by the Service must also have been submitted for public notice  
 17 and comment.  
 18  
 19  
 20

21 126. In determining the Sonoran desert tortoise is not warranted for  
 22 listing under the ESA, the Service relied on non-binding efforts in the May,  
 23 2015 candidate conservation agreement. In determining the Sonoran desert  
 24 tortoise is not warranted for listing under the ESA, the Service relied on a  
 25 purported “protected areas” in Mexico (where there is a lack of necessary  
 26  
 27  
 28

1 data, public lands, enforcement capacity, or any binding accountability to the  
2 species' conservation).

3  
4 127. The Service's reliance on non-binding efforts in Arizona and  
5 Mexico when deciding not to list the Sonoran desert tortoise violates the ESA  
6 and is "arbitrary, capricious, an abuse of discretion, or otherwise not in  
7 accordance with law" and/or constitutes "agency action unlawfully withheld  
8 or unreasonably delayed." 5 U.S.C. §§ 706 (2)(A), 706 (1).

9  
10 **SIXTH CAUSE OF ACTION**  
**(Violation of ESA – Black Mountain population)**

11 128. Plaintiffs hereby incorporate all preceding paragraphs.

12  
13 129. Plaintiffs' listing petition for the Sonoran desert tortoise included  
14 tortoises in the Black Mountains area of western Mohave County, Arizona.

15 130. The Service's 2010 warranted finding and subsequent warranted  
16 findings in the candidate notices of review – as well as the Service's 2014  
17 status assessment – included tortoises in the Black Mountains in its analysis  
18 and findings.

19 131. The best available science reveals the isolated population of desert  
20 tortoises in the Black Mountains is at risk of extinction, due to its relatively  
21 small size, isolation, and increasing development in the region.

22 132. The Service's 2015 not warranted finding does not mention or  
23 discuss the Black Mountains population of desert tortoises.

24  
25 133. The Service's 2015 species assessment explains why tortoises in  
26 the Black Mountains were excluded from its not warranted finding (the  
27 Service said the tortoises in this area "have been determined to be Mojave  
28

1 desert tortoises”) but no details, guidance, or information is provided on the  
2 current legal status of this population in light of this new finding.

3 134. The Service’s 2015 not warranted finding did not propose to amend  
4 the Mojave desert tortoises’ listing status to include the Black Mountain  
5 population. The Service chose not to protect (nor even analyze or consider)  
6 the Black Mountain population when declining the list the Sonoran desert  
7 tortoise population. The Service never considered or addressed the impacts  
8 (both biological and legal) of its decision to the Black Mountain population of  
9 desert tortoises.  
10

11 135. The Service’s decision to exclude and not consider or address the  
12 biological or legal status of the Black Mountain population of desert tortoises  
13 violates the ESA and is “arbitrary, capricious, an abuse of discretion, or  
14 otherwise not in accordance with law” and/or constitutes “agency action  
15 unlawfully withheld or unreasonably delayed.” 5 U.S.C. §§ 706 (2)(A), 706 (1).  
16

### 17 **REQUEST FOR RELIEF**

18 Plaintiffs respectfully request this Court:

19 A. Declare the Service has violated and continues to violate the law as  
20 alleged above;  
21

22 B. Set aside and vacate the Service’s October, 2015 decision that the  
23 Sonoran desert tortoise is not warranted for ESA listing;

24 C. Remand this matter back to the Service with instruction to comply  
25 with the ESA and APA, as alleged herein;

26 D. Issue other relief that Plaintiffs may subsequently request;  
27  
28

1 E. Award Plaintiffs their reasonable attorneys' fees, costs and expenses  
2 of litigation;

3 F. Issue any other relief this Court deems necessary, just, or proper.

4 Respectfully submitted this 5th day of September, 2019.

5  
6 /s/ Matthew K. Bishop

7 Matthew K. Bishop

8 *Counsel for Plaintiffs*  
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