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7 *Pro Hac Vice Application Pending*

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9 **IN THE UNITED STATES DISTRICT COURT**
10 **FOR THE DISTRICT OF ARIZONA**
11 **TUCSON DIVISION**

12 Center for Biological Diversity, a non-
13 profit organization; Maricopa
14 Audubon Society, a non-profit
15 organization,

16 Plaintiffs,

17 v.

18 David Bernhardt, in his official
19 capacity as Secretary of the Interior;
20 U.S. Fish and Wildlife Service,

21 Defendants.

Case No.: _____

**COMPLAINT FOR DECLARATORY
AND INJUNCTIVE RELIEF**

INTRODUCTION

22 1. Plaintiffs Center for Biological Diversity (“Center”) and Maricopa
23 Audubon Society challenge, pursuant to the Endangered Species Act (“ESA”) and the
24 Administrative Procedure Act (“APA”), the U.S. Fish and Wildlife Service’s (“FWS”)
25 failure to make a required “90-day finding” on their December 14, 2017 Petition to
26 revise existing critical habitat for the endangered Mount Graham red squirrel
27 (*Tamiasciurus hudsonicus grahamensis*).
28

1 2. Mount Graham red squirrels are a native species found only in the
2 Pinaleno Mountains of southeast Arizona. They are a sub-species of the North
3 American red squirrel, distinguished by a smaller body and narrower head, but sharing
4 the same brownish-red sides and white belly. Believed to be extinct in the 1960s, the
5 Mount Graham red squirrel was “rediscovered” in the 1970s and listed as endangered in
6 1987.

7 3. Critical habitat was designated for the Mount Graham red squirrel pursuant
8 to the Endangered Species Act on January 5, 1990. This designation is currently limited
9 to high elevation spruce-fir forests in the Pinaleno Mountains within the Coronado
10 National Forest (centered around Hawk Peak-Mount Graham, Heliograph Peak, and
11 Webb Peak). However, since that time a large majority of the spruce-fir habitat—
12 approximately 800 acres—has been degraded or destroyed by telescope construction,
13 wildfire (and related intentional “back burning” to protect the telescopes), drought,
14 insect outbreaks, and other ecological changes influenced by climate change.
15 Consequently, the Mount Graham red squirrel population has plummeted to only an
16 estimated 75 animals in the most recent 2018 annual survey.

17 4. Lower elevation mixed-conifer forests—which have long been recognized
18 as important to the species—are now serving as refugia from the destruction of spruce-
19 fir habitat and, for the foreseeable future, are essential to the species’ continued survival.
20 Today, surviving squirrels are found primarily in four areas (Grant Hill, Riggs Lake,
21 Turkey Flat, and Columbine), all outside of the upper elevation spruce-fir forests
22 currently designated as critical habitat.

23 5. In order to address these changing circumstances and the dire status of the
24 Mount Graham red squirrel, on December 14, 2017, Plaintiffs petitioned for revision of
25 the existing critical habitat to include these lower elevation mixed-conifer forests and
26 other essential areas. FWS has acknowledged receipt of the petition but has not yet
27 issued its first required response, the 90-day finding. This finding was due in March of
28 2018.

1 California, the District of Columbia, Florida, Hawaii, Minnesota, New Mexico, North
2 Carolina, Oregon, and Washington. The Center has more than 68,000 members and
3 more than one million supporters. The Center and its members are concerned with the
4 conservation of imperiled species, including the Mount Graham red squirrel, and with
5 the full and effective implementation of the Endangered Species Act. The continuing
6 decline and near extinction of the Mount Graham red squirrel has prompted the Center to
7 take action for the species by, among other actions, submitting the Petition to revise
8 critical habitat.

9 12. Plaintiff MARICOPA AUDUBON SOCIETY, a chapter of the National
10 Audubon Society located in the Phoenix metropolitan area, is a non-profit environmental
11 organization of volunteers dedicated to the enjoyment of birds and other wildlife with a
12 primary focus on the protection and restoration of the habitat of the Southwest through
13 fellowship, education, and community involvement. Maricopa Audubon has over 2,300
14 members, primarily in central Arizona. Maricopa Audubon has been actively involved
15 in efforts to protect the Mount Graham red squirrel and its habitat since 1988.

16 13. Plaintiffs' members include individuals who regularly visit areas within
17 the Pinaleño Mountains which are occupied or formerly occupied by the Mount Graham
18 red squirrel, and seek to observe or study the squirrel in its natural habitat. Plaintiffs'
19 members and staff derive recreational, spiritual, professional, scientific, educational, and
20 aesthetic benefit from these activities, and intend to continue to use and enjoy these
21 areas in the future.

22 14. The above-described aesthetic, recreational, professional, and other
23 interests of Plaintiffs and their members, have been, are being, and will continue to be
24 adversely harmed by FWS's failure to timely issue the required 90-day finding on the
25 Petition to revise critical habitat. The injuries described are actual, concrete injuries
26 presently suffered by Plaintiffs and their members, and they will continue to occur
27 unless this Court grants relief. The relief sought herein—an Order compelling a 90-day
28 finding on the Petition to revise critical habitat—would redress these injuries. Plaintiffs

1 and their members have no other adequate remedy at law.

2 15. Defendant DAVID BERNHARDT is the Secretary of the United States
3 Department of the Interior and is the federal official in whom the ESA vests final
4 responsibility for making decisions and promulgating regulations required by and in
5 accordance with the ESA, including responses to petitions to revise critical habitat.
6 Secretary Bernhardt is sued in his official capacity.

7 16. Defendant UNITED STATES FISH AND WILDLIFE SERVICE is the
8 agency within the Department of the Interior that is charged with implementing the ESA
9 for the Mount Graham red squirrel.

10 LEGAL BACKGROUND

11 17. The Endangered Species Act, 16 U.S.C. §§ 1531–1544, is “the most
12 comprehensive legislation for the preservation of endangered species ever enacted by
13 any nation.” *TVA v. Hill*, 437 U.S. 153, 180 (1978). Its fundamental purposes are “to
14 provide a means whereby the ecosystems upon which endangered species and threatened
15 species depend may be conserved [and] to provide a program for the conservation of
16 such endangered species and threatened species” 16 U.S.C. § 1531(b).

17 18. ESA section 4 requires that the Secretary protect imperiled species by
18 listing them as either “endangered” or “threatened.” *Id.* § 1533(a)(1). A “species”
19 “includes any subspecies of fish or wildlife or plants, and any distinct population
20 segment of any species of vertebrate fish or wildlife which interbreeds when mature.”
21 *Id.* § 1532(16).

22 19. FWS is required to designate “critical habitat” concurrently with listing a
23 species as threatened or endangered with limited exceptions. *Id.* § 1533(a)(3)(A).

24 20. Critical habitat includes the specific areas occupied by the species with
25 “physical or biological features (I) essential to the conservation of the species and (II)
26 which may require special management considerations or protection.” *Id.* § 1532(5)(A).
27 It also includes specific areas unoccupied by the species at the time of listing “upon a
28 determination by the Secretary that such areas are essential for the conservation of the

1 species.” *Id.* In turn, “conservation” means “the use of all methods and procedures
2 which are necessary to bring endangered species or threatened species to the point at
3 which the measures provided pursuant to [the ESA] are no longer necessary.” *Id.* §
4 1532(3).

5 21. Protecting a species’ critical habitat is crucial for the protection and
6 recovery of many listed species, particularly those that have become endangered or
7 threatened due to historic and ongoing habitat loss and/or degradation. When critical
8 habitat is designated, federal agencies must ensure that their actions do not “result in the
9 destruction or adverse modification” of a species’ critical habitat. *Id.* § 1536(a)(2)

10 22. FWS maintains ongoing duties with respect to critical habitat. The ESA
11 provides for critical habitat revision, subject to the same “best available scientific data”
12 standard as an initial designation. *Id.* § 1533(b)(2).

13 23. The Endangered Species Act provides the right to petition for critical
14 habitat revision, in accordance with the APA. 16 U.S.C. § 1533(b)(3)(D)(i)-(ii); 5
15 U.S.C. § 553(e). The evaluation of such petitions is governed by ESA implementing
16 regulations. 50 C.F.R. § 424.14(c), (e).

17 24. The ESA requires FWS, within 90 days of receiving the critical habitat
18 revision petition, to “make a finding as to whether the petition presents substantial
19 scientific information indicating that the revision may be warranted.” 16 U.S.C. §
20 1533(b)(3)(D)(i).

21 25. If FWS makes a positive 90-day finding, it must then make a subsequent
22 determination within 12 months as to how “to proceed with the requested revision” and
23 publish that determination in the Federal Register. *Id.* § 1533(b)(3)(D)(ii).

24 **FACTUAL BACKGROUND**

25 **I. The Mount Graham Red Squirrel**

26 26. The Mount Graham red squirrel is found nowhere else in the world besides
27 the Pinaleno Mountains in southeast Arizona. Named after the highest peak in the range,
28

1 the squirrel has been isolated from other squirrel subspecies since the last ice age,
2 approximately 10,000 years ago.

3 27. Renowned for its ferocious protection of its home territories, the Mount
4 Graham red squirrel is smaller than most other red squirrel subspecies, weighing in at
5 only 8 ounces and measuring about 8 inches in length. The squirrel's diet consists
6 primarily of conifer seeds, and during the winter it relies upon seed-bearing cones that
7 have been stored at sites known as middens. These caches are the focal point of the
8 individual squirrel's territory, and are typically located in logs, snags, stumps, or a large
9 live tree. The condition of these midden sites must remain cool and moist in order to
10 preserve the cached cones.

11 28. The Mount Graham red squirrel was first described in 1884, and was
12 reportedly common around the turn of the 20th century. The species was, however,
13 declining by the 1920s and rare by the 1950s, likely due to destruction of forested habitat
14 from logging and competition with an introduced population of Abert's squirrels.

15 29. Small scale logging activity began in the Pinaleño Mountains in the 1880s
16 and accelerated in the 1930s. In the early 1960s, road construction had reached Mount
17 Graham (High Peak) and by 1973, the majority of accessible ancient forests had been
18 logged, greatly reducing the age structure, density, and quality of the squirrel's habitat.

19 30. From 1963 to 1967, researchers were unable to locate any remaining Mt.
20 Graham red squirrels.

21 31. In a 1984-85 status survey funded by FWS, researchers located the Mount
22 Graham red squirrel or its sign at 16 locations in the Pinaleño Mountains and estimated
23 its population to be 300-500 animals. These estimates were later revised downward, to
24 approximately 280 squirrels.

1 **II. Listing and Designation of Critical Habitat Under the Endangered Species**
2 **Act**

3 32. FWS proposed listing the Mount Graham red squirrel as an endangered
4 species and designating critical habitat on May 21, 1986, 51 Fed. Reg. 18,630, and
5 issued a final listing rule on June 3, 1987. 52 Fed. Reg. 20,994.

6 33. Like all subspecies of red squirrels, the Mount Graham red squirrel is an
7 arboreal species. At the southern extremity of the red squirrel range, the Mount Graham
8 red squirrel is restricted to canopied montane forests.

9 34. At the time of its listing, the squirrel was found at highest densities in
10 Engelmann spruce and corkbark fir forests, comprising 86 percent of all middens
11 surveyed, with 48 percent of the species' active middens located above 10,200 feet in
12 elevation. In total, FWS estimated there to be 680 acres of contiguous spruce-fir forest
13 in the Pinaleno Mountains, with an estimated density of one red squirrel per 8 acres.

14 35. The squirrel was also found below 9,200 feet in elevation at the time of
15 listing, with an estimated density of one red squirrel per 124 acres.

16 36. In the final listing rule, FWS recognized the proposed construction of a
17 major astrophysical facility on Mount Graham by the University of Arizona as a primary
18 threat to the squirrel. 52 Fed. Reg. at 20,997. FWS identified numerous potential
19 negative effects of telescope construction, including removal of vegetation resulting in
20 decreased food sources; increased blow-down of trees caused by the opening of forested
21 areas; changes in the microclimatic conditions necessary for middens; increased
22 vulnerability to predation; decreased reproductive interaction due to increased habitat
23 fragmentation and population isolation; and increases in tourism, recreational use, and
24 traffic. *Id.*

25 37. The final listing rule noted that due to its isolation and restricted
26 population size and distribution, "the Mount Graham red squirrel is particularly
27 vulnerable to any disturbance that might bring about further declines in its already
28 precariously low numbers and weakening of genetic viability." *Id.* at 20,998.

1 38. FWS designated critical habitat for the Mount Graham red squirrel on
2 January 5, 1990. 55 Fed. Reg. 425. The designation totals approximately 2,000 acres in
3 three areas entirely located in high elevation, spruce-fir forest—Hawk Peak/Mount
4 Graham, Heliograph Peak, and Webb Peak. These areas contained about 70 percent of
5 all known squirrel middens.

6 39. In comments on the draft listing and critical habitat rule, FWS was asked
7 to enlarge the critical habitat to include additional occupied and unoccupied areas,
8 including the lower elevation mixed-conifer forests “where red squirrels have been
9 previously observed and where they appear to have survived their most vulnerable
10 period in history.” *Id.* In declining the recommendation, FWS reasoned that the “higher
11 elevations appear[] to be the most important to this squirrel and contains the highest
12 density of squirrel middens.” *Id.*

13 40. In addition, the University of Arizona objected to the inclusion of the 150-
14 acre Mt. Graham International Observatory Site. FWS refused to exclude this area,
15 noting that it was “composed largely of excellent habitat,” and that “[e]xcellent habitat is
16 in short supply for this species, totaling only four percent of the total habitat.” *Id.*

17 **III. Post-Listing Habitat Destruction and Population Decline**

18 41. In 1988, Congress passed the Arizona-Idaho Conservation Act. Pub. L.
19 No. 100-696, 102 Stat. 4571. In response to lobbying by the University of Arizona, the
20 Act included a provision exempting telescope construction from compliance with section
21 7 consultation requirements under the ESA. *Id.*, Title VI, Mount Graham International
22 Observatory. Subsequently, two telescopes and associated roads and infrastructure have
23 been constructed on Emerald Peak—the UA Large Binocular Telescope and the Vatican
24 Advanced Technology Telescope.

25 42. As the Ninth Circuit Court of Appeals held in its decision reluctantly
26 finding that the Act exempted telescope construction from ESA requirements:

27 The possible extinction of an endangered species is not a threat that
28 we take lightly. If the Mount Graham Red Squirrel becomes extinct
 as a result of the astrophysical research project, then the new

1 telescopes will not represent an unqualified step forward in our quest
2 for greater knowledge. As we expand our horizons by building
3 bigger and better telescopes, we would do well to remember that we
4 also have much to learn from the plant and animal life in the world
5 around us. By contributing to the extinction of an endangered
6 species, we limit our horizons at least as seriously as we do by
7 delaying or even disallowing the construction of new telescopes . . .
8 We can only hope that Congress’s decision will prove to be a wise
9 one.

10 *Mount Graham Red Squirrel v. Madigan*, 954 F.2d 1441, 1463 (9th Cir. 1992).

11 43. In addition to the direct and indirect destruction of habitat essential to the
12 Mount Graham red squirrel resulting from telescope construction, the high elevation
13 spruce-fir forests of the Pinaleño Mountains have experienced significant ecological
14 changes, including large, high-severity fires in 1996, 2004, and 2017, extended drought,
15 and outbreaks of forest insects.

16 44. Firefighting efforts to protect the telescopes have further compounded the
17 loss of Mount Graham red squirrel habitat. As observed by the Forest Service in 2010,
18 the telescopes “have precipitated aggressive firefighting techniques, and inhibited the
19 restoration of natural ecosystem processes.” Final Environmental Impact Statement for
20 the Pinaleño Ecosystem Restoration Project, U.S. Forest Service Southwestern Region
21 (February 2010).

22 45. In 1988, approximately 615 suitable acres of the estimated 700 historical
23 acres of pure spruce-fir forest remained. Today, very little of that high elevation,
24 essential spruce-fir habitat survives. Consequently, the Mount Graham red squirrel
25 population has declined to critically low numbers.

26 **IV. The Petition to Revise Critical Habitat**

27 46. On December 14, 2017, Plaintiffs petitioned for revision of the existing
28 critical habitat.

 47. Even prior to the widespread loss and destruction of the high elevation
spruce-fir forests, the lower elevation, mixed-conifer forests have long been recognized
as important to the continued survival and recovery of the Mount Graham red squirrel.

1 As stated in a 1988 Biological Assessment prepared pursuant to section 7 of the
2 Endangered Species Act, 16 U.S.C. § 1536(a)(2):

3 In endangered species the key to persistence may be ‘hot spots’ of
4 the habitat. These hot spots are places where the mean growth
5 rates at low density are consistently positive. Thus, the hot spot
6 may serve as refugia where the assurance for persistence in the
7 entire range arises ... In the Pinaleños, there are four locations that
8 could serve as hot spots with the Mt. Graham area being the largest
9 and most spruce-fir based. The other possible locations are
10 Columbine/Ash Creek, Heliograph Peak, and perhaps Webb Peak.

11 Mount Graham Red Squirrel, An Expanded Biological Assessment of Impacts,
12 Coronado National Forest Land Management Plan and University of Arizona Proposal
13 for Mount Graham Astrophysical Development (Feb. 10, 1988). No areas outside of the
14 high elevation, spruce-fir forests were designated as critical habitat, however.

15 48. The remaining Mount Graham red squirrels are now located in four areas:
16 the Grant Hill area, the Riggs Lake area, Turkey Flat, and Columbine. All of these areas
17 are outside spruce-fir forests, and are instead located in lower elevation, mixed-conifer
18 forests which have not been designated as critical habitat.

19 49. The Petition specifically requests revision of critical habitat as follows:

20 In general, we recommend designation of critical habitat in mixed-
21 conifer and spruce-fir forest above 7,400 feet . . . [as recommended
22 by the 2011 draft Recovery Plan]. What is not general, and most
23 important here, is the inclusion of areas currently occupied by the
24 Mount Graham red squirrel. These areas are the Grant Hill area, the
25 Riggs Lake area, Turkey Flat, and Columbine.

26 50. Defendants have acknowledged receipt of Plaintiffs’ Petition but have not
27 taken action to remedy their legal violation through issuance of the required 90-day
28 finding on the Petition.

CLAIM FOR RELIEF

Failure to Issue 90-Day Finding on Petition to Revise Critical Habitat in Violation of the ESA and APA

51. Plaintiffs incorporate all preceding paragraphs by reference.

Attorney for Plaintiffs

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