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

13 Center for Biological Diversity, a non-
14 profit organization; and Maricopa Bird
Alliance, a non-profit organization,

15 Plaintiffs,

16 v.

17 U.S. Bureau of Land Management; and
18 U.S. Fish and Wildlife Service,

19 Defendants.

Case No. _____

**COMPLAINT FOR
DECLARATORY AND
INJUNCTIVE RELIEF**

INTRODUCTION

1. Plaintiffs, Center for Biological Diversity (“the Center”) and Maricopa Bird Alliance (formerly, Maricopa Audubon Society) (“Maricopa Alliance”), bring this action against the U.S. Bureau of Land Management (“the BLM”) and U.S. Fish and Wildlife Service (“the Service”) for their ongoing failure to adequately protect and conserve numerous threatened and endangered species and their habitat in violation of the Endangered Species Act (“ESA”), 16 U.S.C. §§ 1531–1544. The species at issue—including the acuña cactus (*Echinomastus erectocentrus* var. *acunensis*), Chiricahua leopard frog (*Lithobates chiricahuensis*), narrow-headed gartersnake (*Thamnophis rufipunctatus*), northern Mexican gartersnake (*Thamnophis eques megalops*), Gila chub (*Gila intermedia*), Gila topminnow (*Poeciliopsis occidentalis occidentalis*), southwestern willow flycatcher (*Empidonax traillii extimus*), western yellow-billed cuckoo (*Coccyzus americanus*), razorback sucker (*Xyrauchen texanus*), spokedace (*Meda fulgida*), and loach minnow (*Tiaroga cobitis*)—are being harmed by BLM-authorized livestock grazing within the BLM’s Gila District in Arizona.

2. Specifically, Plaintiffs challenge the Service’s January 31, 2024 Biological Opinion (“2024 Biological Opinion”) and the BLM’s reliance on that Biological Opinion in authorizing livestock grazing in various allotments within the Gila District. The 2024 Biological Opinion and the BLM’s reliance on it violate Section 7(a)(2) of the ESA, which requires that all federal agencies, in consultation with the Service, “insure” that their actions will not jeopardize the continued existence of endangered or threatened species or adversely modify their critical habitat. 16 U.S.C. § 1536(a)(2).

3. Although livestock grazing is adversely affecting numerous imperiled species and their habitat, the BLM’s grazing authorizations relying on the Service’s Biological Opinion allow the permittees to continue business as usual in the Gila District to the severe detriment of these species.

4. Plaintiffs also challenge the BLM’s and the Services’ ongoing failure to reinitiate and complete ESA Section 7 consultation on the ongoing impacts of livestock

1 grazing on threatened and endangered species and their critical habitat along the Gila River
2 and its tributaries. Specifically, Plaintiffs challenge the agencies' failure to address
3 unlawful grazing on the Bonita Creek, Johnny Creek, Zorilla, Gila, Morenci, Twin C, and
4 Bull Gap Community allotments within the Gila Box Riparian National Conservation Area
5 ("Gila Box RNCA"); the A-Diamond, Teacup, LEN, Cochran, Horsetrack, Myers,
6 Whitlow (together, the "Middle Gila" allotments); and the Mescal Mountain, Christmas,
7 and Hidalgo allotments. As detailed below, new information reveals effects of the action
8 that are affecting the southwestern willow flycatcher, yellow-billed cuckoo, Gila chub, Gila
9 topminnow, razorback sucker, spinedace, loach minnow, narrow-headed gartersnake, and
10 northern Mexican gartersnake in a manner or to an extent not previously considered and
11 authorized by the existing 2012 or 2024 Biological Opinions on the Gila District Livestock
12 Grazing Program. Additionally, the amount or extent of take specified in the Incidental
13 Take Statements ("ITS") for the grazing program has been greatly exceeded.

14 5. For these reasons, Defendants are violating the ESA and its implementing
15 regulations. Additionally, the agencies have acted in a manner that is "arbitrary and
16 capricious, an abuse of discretion," "otherwise not in accordance with law," and "without
17 observance of procedure required by law" within the meaning of the Administrative
18 Procedure Act ("APA"), 5 U.S.C. § 706(2)(A), (D). Accordingly, livestock grazing should
19 be immediately enjoined, the agencies' grazing authorizations and 2024 Biological
20 Opinion should be vacated and remanded, and the agencies should be ordered to
21 immediately re-engage in consultation under ESA Section 7, such that no irreversible or
22 irretrievable commitment of resources with respect to the action is made which may
23 foreclose the formulation or implementation of any reasonable and prudent alternative
24 measures. *See* 16 U.S.C. § 1536(d).

25 JURISDICTION AND VENUE

26 6. This Court has jurisdiction over this action pursuant to 16 U.S.C. § 1540(c),
27 (g) (action arising under ESA citizen suit provision); 5 U.S.C. §§ 701–706 (APA review
28 of agency action and failure to act); and 28 U.S.C. § 1331 (federal question jurisdiction).

7. The requested declaratory and injunctive relief is proper under the ESA, 16 U.S.C. § 1540(g); the Administrative Procedure Act (APA), 5 U.S.C. § 706(2); and 28 U.S.C. §§ 2201–2202 (declaratory and injunctive relief).

8. Venue is proper in the United States District Court for the District of Arizona because a substantial part of the events or omissions giving rise to Plaintiffs' claims occurred in this District. 16 U.S.C. § 1540(g)(3)(A); 28 U.S.C. § 1391(e). Venue is proper in the Tucson Division because the BLM Gila District Office is in Tucson (Pima County), the Gila Box RNCA is located in Graham and Greenlee counties, and Plaintiff Center resides in Tucson. LRCiv 77.1(a).

PARTIES

9. Plaintiff Center for Biological Diversity is a non-profit environmental organization dedicated to the protection of endangered species and wild places through science, policy, and environmental law. The Center is headquartered in Tucson, Arizona, with offices throughout the United States and in Mexico. The Center has more than 101,600 members who are dedicated to the protection of endangered species and wild places. More than 4,600 Center members reside in Arizona.

10. The Center for Biological Diversity brings this action on behalf of its members who derive aesthetic, recreational, inspirational, spiritual, scientific, and educational benefits from the public lands and waters of the lands within the Gila District, including the Gila Box RNCA and other areas and habitat where threatened and endangered species and their critical habitat may be found. The Center's members who have used and enjoyed, and intend to continue using and enjoying the BLM lands within the Gila District include, but are not limited to, Chris Bugbee, Dr. Robin Silver, and Dr. Nicolaus Hawbaker.

11. The Center's members, including but not limited to Mr. Bugbee, Dr. Silver, and Dr. Hawbaker, use and enjoy the BLM lands within the Gila District including the allotments at issue for a variety of purposes including hiking, biking, camping, boating, photographing scenery and wildlife, viewing wildflowers and other flora, observing wildlife and signs of wildlife, and engaging in other scientific and recreational activities.

1 The areas of the Gila District that the Center's members use and enjoy include specific
2 areas where critical habitat for the species at issue in this complaint have been designated,
3 and where these threatened and endangered species may be found or have been found in
4 the past. The Center's members' use and enjoyment of these areas is significantly enhanced
5 knowing that these threatened and endangered species may still be present in these areas.

6 12. The Center's members, including, for example, Mr. Bugbee, Dr. Silver, and
7 Dr. Hawbaker, intend to continue to use and enjoy the BLM lands within the Gila District
8 frequently and on an ongoing basis in the future. The areas of the BLM lands within the
9 Gila District, including the Gila Box RNCA, that the Center's members intend to continue
10 to use and enjoy include specific areas where threatened and endangered species are likely
11 to be found.

12 13. For example, Mr. Chris Bugbee uses and enjoys areas within the BLM's Gila
13 District on a daily basis. Mr. Bugbee resides adjacent to the San Pedro Riparian National
14 Conservation Area and hikes regularly along the San Pedro River to observe wildlife and
15 view archeological treasures such as rock art and pre-Puebloan structures. On a monthly
16 basis, he visits Las Cienegas National Conservation Area ("Las Cienegas NCA") for a
17 variety of purposes including hiking, photographing scenery and wildlife, and viewing
18 wildlife and wildlife sign. He also hikes, camps and engages in other educational, scientific
19 and recreational activities in the Gila Box RNCA. The majority of the areas Mr. Bugbee
20 visits within these Conservation Areas in the Gila District are designated as critical habitat
21 for ESA-listed species and all areas contain either active grazing allotments or have
22 continued, documented issues with unauthorized livestock. Mr. Bugbee's use and
23 enjoyment of these areas hinges upon and is significantly enhanced by his knowledge that
24 threatened and endangered species may be present in these areas.

25 14. Mr. Bugbee most recently visited the Las Cienegas NCA in June 2026, when
26 he hiked, searched for wildlife and wildlife sign, and took pictures and videos of riparian-
27 obligate wildlife species. Mr. Bugbee searched for northern Mexican gartersnakes and
28 documented longfin dace, Gila chub, lowland leopard frogs, a large group of coatis, and

1 bear and mountain lion tracks. During his visit, he also encountered numerous cattle within
2 off-limits grazing exclosures and causing damage to protected riparian resources.
3 Mr. Bugbee plans on returning to Las Cienegas NCA in July and August 2026 to hike,
4 recreate and look for wildlife.

5 15. Mr. Bugbee first camped in the Gila Box RNCA in April 2021, within active
6 grazing allotments containing designated critical habitat. In May 2021, Mr. Bugbee
7 returned to Gila Box RNCA with his family and a group of students to research cattle
8 impacts on endangered riparian species in Arizona. On this trip Mr. Bugbee hiked, camped,
9 and photographed imperiled native fish, including Gila chub. Mr. Bugbee returned to the
10 Gila Box RNCA again in February 2022 to research and document unresolved, continued
11 impacts of trespass cattle on ecologically important waterways in the area. Mr. Bugbee
12 returned to Gila Box RNCA again in 2023 and October 2024, and plans to undertake
13 another family camping trip in fall 2026 with relatives visiting from out of state.

14 16. Since the late 1980s, Dr. Robin Silver—who is a member of both Plaintiff
15 organizations—has photographed and studied imperiled species found on BLM public
16 lands within the Gila District, including the species at issue here (i.e., the southwestern
17 willow flycatcher, western yellow-billed cuckoo, acuña cactus, Chiricahua leopard frog,
18 northern Mexican gartersnake, narrow-headed gartersnake, Gila chub, razorback sucker,
19 spikedace, Gila topminnow, and loach minnow). Dr. Silver was a co-author of, and
20 signatory to, the 1998 cuckoo listing petition submitted to the Service that ultimately led
21 to the species' protections under the ESA. Dr. Silver was also a co-author of, and signatory
22 to, the 1992 flycatcher listing petition. In addition, he helped organize the 1998 listing
23 petition for the Chiricahua leopard frog and the 2002 acuña cactus listing petition submitted
24 to the Service.

25 17. Dr. Silver regularly visits critical, occupied and potential habitat of rare,
26 threatened, and endangered species in the Gila District to observe, photograph, study, and
27 otherwise enjoy these species and their habitat. For example, Dr. Silver visited the
28 Horsetrack and Box O allotments in October 2012 and March 2024, and he made an

1 additional visit to the Box O allotment in November 2019 to search for threatened and
2 endangered species, including the acuña cactus. He has visited the Empire Cienega
3 allotment for decades, most recently in May and February of 2024. His interest in the
4 leopard frog has brought him to locations within and outside the Gila District where he has
5 observed the species, most recently in Miller Canyon in May 2025.

6 18. Dr. Silver has been looking for flycatchers and cuckoos, and assessing their
7 riparian habitats, for decades. For example, he visited the Day Mine allotment in October
8 2012 to assess flycatcher and cuckoo habitat. He visited the Day Mine and Tom Springs
9 allotments most recently in June 2023, October 2024, and August 2025. He visited the
10 Sand Wash allotment most recently in January and May of 2024, to evaluate flycatcher
11 habitat. Dr. Silver plans to return to the Tom Springs and Day Mine allotments in the late
12 spring or early summer of 2027, and to the Sand Wash allotment before July 2027. He has
13 searched for flycatchers and cuckoos on many other BLM lands in the Gila District,
14 including the Morenci allotment near the confluence of the San Francisco River and the
15 Gila River in December 2020, as well as along the main stem of the San Francisco River
16 and the Gila River watershed between Fort Thomas and Bylas in August 2025, and near
17 the Coolidge Dam in May 2026. His interest in the health of flycatcher habitat also recently
18 took him, in December 2025, to Trinity, Utah, on a pilgrimage to the site where the tamarisk
19 leaf-eating beetle was first introduced. With respect to cuckoos specifically, Dr. Silver also
20 recently searched for cuckoos in June 2025, in the Babacomori allotment. He has specific
21 plans to return to the Bonita Creek watershed in July 2027 to search for cuckoos.

22 19. Dr. Silver has searched for the elusive narrow-headed gartersnake and
23 northern Mexican gartersnake in Eagle Creek in December 2020, and in the Gila River and
24 San Francisco River watersheds in July 2021, and again in February 2022. He visited the
25 Babocomari allotment in March 2021, March 2023, and March and June 2025, to search
26 for threatened and endangered species, including the narrow-headed gartersnake and
27 northern Mexican gartersnake, and to evaluate gartersnake and cuckoo habitat conditions.
28 Despite years of searching, he has been able to photograph the narrow-headed gartersnake

1 only once, in May 2012. Dr. Silver plans to return in April 2027 to search for gartersnakes
2 on BLM lands within Gila River drainages and the Babocomari allotment.

3 20. Dr. Silver has been searching for Arizona native fish, including the fish at
4 issue in this suit, for decades. He first photographed these fishes in the late 1980s, including
5 the Gila chub in Cienega Creek, the spikedace and loach minnow on BLM land in Aravaipa
6 Creek, and the razorback sucker in Lake Mojave. He searched for and assessed the habitat
7 of the loach minnow, Gila topminnow, spikedace, and Gila chub in Aravaipa Creek in
8 October 2010. He also searched for Gila chub in the Empire Cienega allotment in May
9 2024 and plans to return to that allotment in May 2027 to search for Gila chub and leopard
10 frog. Dr. Silver has made several trips to the Bonita Creek watershed to assess habitat
11 quality and search for native fish species, including Gila chub, loach minnow, and
12 spikedace in riffles of the creek, and Gila topminnow in pools, as well as gartersnakes, in
13 February 2022, January 2024, and May 2024. He plans to return to the Bonita Creek
14 watershed in spring 2027 to search for threatened and endangered species, including those
15 at issue in this suit. Dr. Silver has also searched for the razorback sucker and assessed its
16 habitat in the Zorilla allotment in July 2021, February 2022, and May 2024, and he plans
17 to return to the Zorilla allotment in the late spring or early summer of 2027 to search for
18 and assess razorback sucker habitat.

19 21. Dr. Nicolaus Hawbaker, who also recreates in the Gila District, is an amateur
20 angler, birder, and mountain biker. Dr. Hawbaker has completed multiple bicycle camping
21 (“bikepacking”) trips along the Arizona Trail, a rugged mountain bike trail that runs along
22 the banks of the Gila River through the Gila District, including through many of the grazing
23 allotments and critical habitat at issue in this complaint. During his bikepacking trips in the
24 Gila District, Dr. Hawbaker rides his mountain bike, camps, searches for wildlife and
25 wildlife sign, photographs scenery and wildlife, and writes about his experience with the
26 land.

27 22. After his first bikepacking trip through the Gila District in 2018,
28 Dr. Hawbaker wrote an online blog post discussing the shocking livestock presence and

1 riparian damage he observed. Dr. Hawbaker again bikepacked the Arizona Trail through
2 the Gila District in 2023, and he plans to return to the Gila District in spring 2027 to
3 bikepack, search for and photograph wildlife, and enjoy the rugged desert scenery.

4 23. Dr. Hawbaker also has amateur interests in native fish biology and
5 ornithology. He chooses to bikepack in the Gila District in part because he enjoys searching
6 for, observing, and photographing native fish and birds and their habitats, including the
7 threatened and endangered species and critical habitat at issue in this complaint.
8 Dr. Hawbaker's experience in the Gila District is greatly enhanced knowing that threatened
9 and endangered species and their critical habitat occur or may occur in the area.

10 24. The aesthetic, recreational, inspirational, spiritual, scientific, and educational
11 interests of Mr. Bugbee, Dr. Silver, Dr. Hawbaker, and other Center members have been
12 and will continue to be adversely affected and irreparably injured if Defendants' ongoing
13 violations of the ESA continue. These are actual, ongoing, concrete injuries caused by
14 Defendants' ESA violations, and the relief sought will redress these injuries.

15 25. The Center has long advanced ESA protections for several of the imperiled
16 species at issue in this litigation. Among other actions, the Center petitioned in 2002 to list
17 the acuña cactus as endangered and subsequently entered a settlement with the Service
18 establishing timelines for protections. In 1998, the Center petitioned to list the Chiricahua
19 leopard frog; after two Center lawsuits, the Service listed the frog as threatened. In 2018,
20 the Center sued the Service for failing to designate critical habitat for the narrow-headed
21 and northern Mexican gartersnakes. In 1998, the Center petitioned to list the Gila chub and
22 filed two lawsuits to secure protections. The Center also petitioned in 1992 to list the
23 southwestern willow flycatcher, petitioned in 1998 to list the western yellow-billed cuckoo,
24 and sued the Service in 1993 to compel critical habitat designations for the spikedace and
25 the loach minnow.

26 26. Plaintiff Maricopa Bird Alliance is a nonprofit organization with more than
27 2,300 members dedicated to the study and enjoyment of birds and other wildlife, and to the
28 protection and restoration of habitat in the Southwest. Maricopa Alliance is run by

1 volunteers and strives to protect and restore wildlife habitat through education and
2 community involvement.

3 27. Since the 1950s, Maricopa Alliance has played a strong role in protecting
4 endangered and threatened species in the Southwest through public education efforts, field
5 surveys, public field trips, and position papers. For example, in 1998, Maricopa Alliance
6 petitioned with the Center for federal endangered species listing protection for the western
7 yellow-billed cuckoo. This action resulted in designation of the cuckoo as threatened by
8 the Service in 2014. In addition, Maricopa Alliance conducts field trips with members of
9 the organization and non-members from the general public to critical habitat areas of
10 species listed under the ESA, including the Cuckoo.

11 28. Maricopa Alliance brings this action on behalf of its adversely affected
12 members, including but not limited to Dr. Robin Silver. The aesthetic, recreational,
13 inspirational, spiritual, scientific, and educational interests of Dr. Silver and other Maricopa
14 Alliance members have been and will continue to be adversely affected and irreparably
15 injured if Defendants' ongoing violations of the ESA continue. These are actual, ongoing,
16 concrete injuries caused by Defendants' ESA violations, and the relief sought will redress
17 these injuries.

18 29. Defendant United States Bureau of Land Management is an agency within
19 the Department of the Interior. The BLM and its officers are responsible for the lawful
20 management of the grazing allotments within the Gila District, including those within the
21 Gila Box RNCA. Like all federal agencies, the BLM must comply with all applicable ESA
22 requirements, including the ongoing duty to comply with ESA Section 7 requirements in
23 relation to grazing authorizations.

24 30. Defendant United States Fish and Wildlife Service is an agency within the
25 Department of the Interior that is charged with implementing the ESA, and shares
26 responsibility with the BLM for completing consultation under ESA Section 7 in relation
27 to grazing authorizations.

LEGAL BACKGROUND

I. THE ENDANGERED SPECIES ACT

31. Congress enacted the Endangered Species Act in 1973 to provide “a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved,” and establish “a program for the conservation of . . . endangered species and threatened species.” 16 U.S.C. § 1531(b). The ESA declares that it is “the policy of Congress that all Federal departments and agencies shall seek to conserve endangered species and threatened species and shall utilize their authorities in furtherance of the purposes of this Act.” *Id.* § 1531(c)(1).

32. The ESA reflects “an explicit congressional decision to afford first priority to the declared national policy of saving endangered species.” *Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 185 (1978). “The plain intent of Congress in enacting this statute was to halt and reverse the trend toward species extinction, whatever the cost.” *Id.* at 184. As such, the ESA “represent[s] the most comprehensive legislation for the preservation of endangered species ever enacted by any nation.” *Id.* at 180.

33. To achieve the statute’s objectives, the ESA directs the Secretary of the Interior, through the Service, to determine which species of plants and animals are “threatened” and “endangered” and place them on the list of protected species. 16 U.S.C. § 1533. An “endangered” or “threatened” species is one “in danger of extinction throughout all or a significant portion of its range,” or “likely to become endangered in the near future throughout all or a significant portion of its range,” respectively. *Id.* § 1532(6), (20).

34. Once a species is listed, the ESA provides procedural and substantive protections to ensure the species’ continued survival, and its ultimate recovery, including the designation of critical habitat, the preparation and implementation of recovery plans, the prohibition against the “taking” of listed species, and the requirement for interagency consultation. *Id.* §§ 1533(a)(3), 1533(f), 1536, 1538. “Critical habitat” is the area that contains the physical or biological features essential to the “conservation” of the species and which may require special protection or management considerations. *Id.* § 1532(5)(A).

1 35. ESA Section 7(a)(1) requires each federal agency, in consultation with the
2 Service, to carry out programs for the conservation of threatened and endangered species.
3 *Id.* § 1536(a)(1). The ESA defines “conserve” and “conservation” to mean “the use of all
4 methods and procedures which are necessary to bring any endangered species or threatened
5 species to the point at which the measures provided pursuant to [the ESA] are no longer
6 necessary.” *Id.* § 1532(3).

7 36. ESA Section 7(a)(2) requires each federal agency, in consultation with the
8 Service, to ensure that “any action authorized, funded, or carried out by such agency” “is
9 not likely to jeopardize the continued existence of any endangered species or threatened
10 species or result in the destruction or adverse modification of [the critical] habitat of such
11 species.” *Id.* § 1536(a)(2). This Section 7(a)(2) consultation process is the “heart of the
12 ESA.” *W. Watersheds Project v. Kraayenbrink*, 632 F.3d 472, 495 (9th Cir. 2011).

13 37. The ESA’s implementing regulations broadly define an agency “action” to
14 mean “all activities or programs of any kind authorized, funded, or carried out, in whole or
15 in part, by Federal agencies,” including actions “directly or indirectly causing
16 modifications to the land, water, or air,” and actions “intended to conserve listed species
17 or their habitat.” 50 C.F.R. § 402.02.

18 38. During the consultation process, federal agencies must “use the best
19 scientific and commercial data available.” 16 U.S.C. § 1536(a)(2); 50 C.F.R. § 402.14(d).

20 39. For each proposed action, the action agency must request from the Service
21 whether any listed or proposed species may be present in the area of the proposed action.
22 16 U.S.C. § 1536(c)(1); 50 C.F.R. § 402.12(c). If listed or proposed species may be present
23 in the project area, the action agency must prepare a “biological assessment” to determine
24 whether the listed species may be affected by the proposed action. 16 U.S.C. § 1536(c)(1);
25 50 C.F.R. § 402.12.

26 40. If the action agency determines that its proposed action may affect any listed
27 species or critical habitat, the agency must normally engage in “formal consultation” with
28 the Service. 50 C.F.R. § 402.14. However, the agency need not initiate formal consultation

1 if, as a result of the preparation of a biological assessment or as a result of informal
2 consultation with the Service, the agency determines, with the written concurrence of the
3 Service, that the proposed action is not likely to adversely affect any listed species or
4 critical habitat. *Id.* §§ 402.13, 402.14(b)(1).

5 41. To complete the formal Section 7 consultation process, the Service must
6 provide the action agency with a “biological opinion” explaining how the proposed action
7 will affect listed species and/or critical habitat. 16 U.S.C. § 1536(b); 50 C.F.R. § 402.14(h).

8 42. A biological opinion must include:

- 9 (i) A summary of the information on which the opinion is based;
10 (ii) A detailed discussion of the environmental baseline of the listed
11 species and critical habitat;
12 (iii) A detailed discussion of the effects of the action on listed species
13 or critical habitat; and
14 (iv) The Service’s opinion on whether the action is:
15 (A) Likely to jeopardize the continued existence of a listed
16 species or result in the destruction or adverse modification of
critical habitat (a “jeopardy” biological opinion); or
(B) Not likely to jeopardize the continued existence of a listed
species or result in the destruction or adverse modification of
critical habitat (a “no jeopardy” biological opinion).

17 50 C.F.R. § 402.14(h)(1).

18 43. If the Service concludes in the biological opinion that the proposed action is
19 likely to jeopardize the continued existence of a listed species, or result in the destruction
20 or adverse modification of critical habitat, the Service must suggest “reasonable and
21 prudent alternatives” to avoid those results. 16 U.S.C. § 1536(b)(3)(A); 50 C.F.R.
22 § 402.14(h)(2).

23 44. If the Service concludes in the biological opinion that the action is not likely
24 to jeopardize the continued existence of a listed species or result in the destruction or
25 adverse modification of critical habitat, the Service must provide an “incidental take
26 statement,” specifying the amount or extent of such incidental taking on the species and
27 any “reasonable and prudent measures” that the Service considers necessary or appropriate
28 to minimize such impact, and setting forth the “terms and conditions” that must be

1 complied with by the action agency to implement those measures. 16 U.S.C. § 1536(b)(4);
2 50 C.F.R. § 402.14(i).

3 45. With regard to the incidental take statement, the Service may use a surrogate
4 to express the amount or extent of anticipated take, provided the biological opinion or
5 incidental take statement:

6 Describes the causal link between the surrogate and take of the listed species,
7 explains why it is not practical to express the amount or extent of anticipated
8 take or to monitor take-related impacts in terms of individuals of the listed
9 species, and sets a clear standard for determining when the level of
anticipated take has been exceeded.

10 50 C.F.R. § 402.14(i)(1)(i).

11 46. The Service and the action agency must reinitiate consultation on an action
12 if: (1) the amount or extent of taking specified in the incidental take statement is exceeded;
13 (2) new information reveals effects of the action that may affect listed species or critical
14 habitat in a manner or to an extent not previously considered; (3) the action is subsequently
15 modified in a manner that affects listed species or critical habitat that was not considered
16 in the biological opinion or written concurrence; or (4) a new species is listed or critical
17 habitat designated that may be affected by the identified action. *Id.* § 402.16(a)(1)–(4).

18 47. After the initiation or reinitiation of Section 7 consultation, the action agency
19 is prohibited from making “any irreversible or irretrievable commitment of resources with
20 respect to the agency action which has the effect of foreclosing the formulation or
21 implementation of any reasonable and prudent alternative measures which would not
22 violate” the ESA. 16 U.S.C. § 1536(d).

23 48. ESA Section 9 and its implementing regulations prohibit the unauthorized
24 “take” of any endangered or threatened species unless otherwise provided by a Section 4(d)
25 special rule. *Id.* § 1538(a)(1)(B), (G); 50 C.F.R. §§ 17.21, 17.31. “Take” is defined broadly
26 to include “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to
27 attempt to engage in any such conduct.” 16 U.S.C. § 1532(19).
28

1 49. The Service has further defined “harass” to include “an intentional or
2 negligent act or omission which creates the likelihood of injury to wildlife by annoying it
3 to such an extent as to significantly disrupt normal behavioral patterns which include, but
4 are not limited to, breeding, feeding, or sheltering.” 50 C.F.R. § 17.3. In addition, “harm”
5 is defined as an act which “kills or injures” wildlife, and includes “significant habitat
6 modification or degradation where it actually kills or injures wildlife by significantly
7 impairing essential behavioral patterns, including breeding, feeding or sheltering.” *Id.* Take
8 that is in compliance with the terms and conditions of an incidental take statement in a
9 biological opinion is exempt from the Section 9 take prohibition. 16 U.S.C. § 1536(o)(2).

10 50. The ESA allows citizens to bring suit to enjoin “any person, including the
11 United States and any other governmental instrumentality or agency” “who is alleged to be
12 in violation” of the ESA or a regulation promulgated under the statute. *Id.* § 1540(g)(1)(A).

13 **II. THE ADMINISTRATIVE PROCEDURE ACT**

14 51. The APA, 5 U.S.C. §§ 701–706, provides for judicial review of final agency
15 action. Under the APA, a reviewing court shall “hold unlawful and set aside agency action,
16 findings, and conclusions found to be” “arbitrary, capricious, an abuse of discretion, or
17 otherwise not in accordance with law,” or “without observance of procedure required by
18 law.” 5 U.S.C. § 706(2)(A), (D).

19 52. An agency action is arbitrary and capricious if the agency “relied on factors
20 which Congress has not intended it to consider, entirely failed to consider an important
21 aspect of the problem, offered an explanation for its decision that runs counter to the
22 evidence before the agency,” or if the agency’s decision “is so implausible that it could not
23 be ascribed to a difference in view or the product of agency expertise.” *Motor Vehicle Mfrs.*
24 *Ass’n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983).

25 53. When reviewing agency action under the APA, a court must ensure that the
26 agency reviewed the relevant data and articulated a satisfactory explanation establishing a
27 “rational connection between the facts found and the choice made.” *Id.* The agency’s
28

1 failure to do so renders its decision arbitrary and capricious. *Marsh v. Or. Nat. Res.*
2 *Council*, 490 U.S. 360, 378 (1989).

3 54. A biological opinion produced through ESA Section 7 formal consultation is
4 a final agency action subject to judicial review under the APA's arbitrary and capricious
5 standard. *See Bennett v. Spear*, 520 U.S. 154, 177–78 (1997).

6 **FACTUAL BACKGROUND**

7 **I. Species Background, Listing Status, and Critical Habitat**

8 **a. Acuña Cactus**

9 55. The acuña cactus (*Echinomastus erectocentrus* var. *acunensis*) is a small
10 succulent of the cactus family endemic to the Sonoran Desert scrub in southern Arizona
11 and northern Sonora, Mexico. It is a spherical, typically single-stemmed cactus that has
12 been observed to live for 42 years. Flowering occurs in March, producing rose to lavender-
13 colored blooms, with pale green fruit ripening shortly after in April. The cactus reproduces
14 solely by seed and is pollinated by native bees. As the Service has recognized, foraging
15 plants, habitat, and corridors for bees must be preserved to protect the acuña cactus.

16 56. The Service listed the acuña cactus as an endangered species in 2013. The
17 Service finalized a Recovery Plan for the species in 2022 and completed the first 5-Year
18 Status Review in 2023.

19 57. Acuña cactus is known historically from eight populations in Arizona and
20 one population in Sonora, Mexico. Of these nine populations, one is believed to be
21 extirpated (locally extinct), and four support fewer than 50 individuals.

22 58. In 2016, the Service designated six units of critical habitat, totaling 18,535
23 acres, in Maricopa, Pima, and Pinal Counties, Arizona. Two of the six units fall within
24 allotments covered by the 2024 Biological Opinion: the Mineral Mountain Unit 5, which
25 falls within the Horsetrack allotment, and the Box O Wash Unit 6, located within the Box
26 O allotment. According to the Service, both the Mineral Mountain and Box O Wash units
27 “help to maintain the geographical range of the species and provide opportunities for
28

1 population growth.” Each unit also “provides a core population of the species and contains
2 the PCEs [primary constituent elements] of critical habitat.”

3 59. As detailed in the Service’s 2022 *Final Recovery Plan for Acuña Cactus*
4 (*Echinomastus erectocentrus* var. *acunensis*), the principal cause of the decline of the
5 species is believed to be the loss and degradation of its habitat including due to livestock
6 activity.

7 60. According to the Service’s 2023 5-Year Status Review, the species is
8 declining in all monitored populations, with most populations containing large numbers of
9 dying or dead individuals.

10 **b. Chiricahua Leopard Frog**

11 61. The Chiricahua leopard frog (*Lithobates chiricahuensis*) is a medium-sized
12 amphibian with a snout-vent length ranging from approximately 2.1 to 5.4 inches. It is
13 distinguishable by greenish coloration on its head and back, relatively rough skin on the
14 back and sides, stocky body proportions, interrupted dorsolateral folds, and a distinctive
15 pattern of small, raised, cream-colored spots on the rear of the thigh. The frog is also
16 distinguishable by its characteristic call—a low, drawn-out snore lasting one to two
17 seconds.

18 62. The Chiricahua leopard frog was initially listed as a threatened species in
19 2002, with a Section 4(d) special rule exempting operation and maintenance of livestock
20 tanks on non-federal lands from Section 9 of the ESA’s take prohibition. In 2012, the
21 Service listed the species as threatened rangewide and designated critical habitat across 39
22 areas in Arizona and New Mexico.

23 63. The Chiricahua leopard frog’s range extends across southeastern Arizona,
24 west-southwestern New Mexico, and into Sonora Mexico. The frog has been extirpated
25 from approximately 80% of its historical localities in Arizona and New Mexico. Although
26 the frog is thought to persist in some drainage basins in Arizona and New Mexico, the
27 Service does not have recent detections from many rivers within those drainage basins,
28 valleys, and mountain ranges, including from multiple in Arizona.

1 64. The frog's primary habitat includes oak, mixed oak, and pine woodlands, and
2 ranges into areas of chaparral, grassland, and desert for the southern populations. The frog
3 inhabits a variety of aquatic systems, including natural features like streams, rivers, ponds,
4 and beaver dams, and human-created environments such as stock tanks and irrigation
5 sloughs.

6 65. The Service finalized a Recovery Plan in 2007, outlining specific criteria
7 necessary for the species' recovery. The Recovery Plan includes four Recovery Criteria,
8 which must be met to recover the Chiricahua leopard frog: (1) Each recovery unit must
9 have at least two stable metapopulations in different drainages and one isolated robust
10 population, as verified by scientific monitoring that accounts for drought and wet cycles,
11 as well as the cycles' effects on population persistence; (2) Aquatic breeding habitats
12 (natural, restored, or created) needed to support these populations must be protected and
13 managed per the recovery plan; (3) Additional habitat essential for population connectivity,
14 recolonization, and genetic exchange must also be protected and managed in accordance
15 with the recovery plan; and (4) Key threats and causes of population decline must be
16 reduced or eliminated, and long-term management commitments must be in place in each
17 recovery unit so the species no longer needs ESA protection.

18 66. The Recovery Plan divides the species' range into eight recovery units in
19 portions of Arizona, New Mexico, and Mexico. Management Areas were identified in each
20 recovery unit where the recovery team and stakeholders think the potential for successful
21 recovery actions is greatest. As of 2018, 155 sites in Arizona were known to be occupied
22 by Chiricahua leopard frogs.

23 67. In 2012, the Service designated 39 critical habitat units (approximately
24 10,346 acres) in the eight recovery units in Arizona and New Mexico. Primary constituent
25 elements of the Chiricahua leopard frog's critical habitat include:

- 26 (1) Aquatic breeding habitat and immediately adjacent uplands exhibiting the
27 following:
28

- a. Standing bodies of fresh water (with salinities <5 parts per thousand, pH ≥ 5.6 , and pollutants absent or minimally present), including natural and manmade ponds, slow-moving streams or pools within streams, off-channel pools, and other water bodies that typically hold water or rarely dry for more than a month.
 - b. Emergent and or submerged vegetation, root masses, undercut banks, fractured rock substrates, or some combination thereof, with open water surface maintained.
 - c. Low or absent levels of nonnative predators (e.g., crayfish, American bullfrogs, nonnative predatory fishes).
 - d. Absence of chytridiomycosis, or conditions that allow frog persistence despite its presence.
 - e. Adjacent upland areas suitable for foraging and basking.
- (2) Dispersal and non-breeding habitat, consisting of areas with ephemeral, intermittent, or perennial water, and associated upland or riparian habitat that provides corridors for frogs among breeding sites in a metapopulation with the following:
- a. Distances not exceeding: 1.0 mile overland, 3.0 miles along ephemeral/intermittent drainages, or 5.0 miles via perennial drainages (total movement not exceeding 5.0 miles).
 - b. In overland and non-wetted corridors, vegetated or structural features for shelter, forage, and protection from predators; wetted corridors, provide some aquatic habitat.
 - c. Free from movement barriers such as urban/agricultural development, large reservoirs (≥ 50 acres) with predatory nonnative animals, highways lacking in frog fencing and culverts, and other physical obstructions like walls or dams.

1 68. The Empire Cienega allotment within the Gila District contains designated
2 critical habitat for the Chiricahua leopard frog. Occupied BLM allotments within the Gila
3 District also include Guadalupe West, Clyne Ranch, and the Sierrita allotments.

4 69. Threats to the Chiricahua leopard frog include predation by nonnative
5 organisms, the fungal disease chytridiomycosis (*Bd*), drought, degradation and loss of
6 habitat because of water diversions and groundwater pumping, livestock grazing, and
7 altered fire regimes (including by grazing that has increased the likelihood of crown fires),
8 disruption of metapopulation dynamics, and increased chance of extirpation or extinction
9 resulting from small numbers of populations and individuals. Climate change and increases
10 in UV radiation are expected to exacerbate many of these threats.

11 **c. Narrow-Headed Gartersnake**

12 70. The narrow-headed gartersnake (*Thamnophis rufipunctatus*) is a small to
13 medium-sized, highly aquatic gartersnake that historically ranged across the Mogollon Rim
14 and along associated perennial stream drainages from central and eastern Arizona to
15 southwestern New Mexico at elevations ranging from 2,300 to 8,000 feet. The species
16 relies heavily on clear, rocky streams with perennial flow, featuring pools and riffles
17 essential for foraging and reproduction. Due to its dependence on healthy aquatic
18 ecosystems and native fish populations for prey, the narrow-headed gartersnake is
19 particularly vulnerable to changes in habitat quality.

20 71. Recognizing its declining population and threats to its habitat, the Service
21 listed the species as threatened under the ESA in 2014. Critical habitat for the species was
22 designated in 2021 in eight units in Arizona and New Mexico, totaling 23,785 acres. The
23 species' critical habitat includes 46 stream miles along the Gila River, 71 stream miles of
24 the San Francisco River, and two stream miles along Eagle Creek. No recovery plan has
25 been developed for this species.

26 72. According to the Service, existing sampling data suggests that “only three
27 populations of narrow-headed gartersnakes are considered relatively dense where the
28 species remains somewhat reliably detected.” Of these locations, only one—Oak

1 Creek/West Fork Oak Creek—is in Arizona. Detection rates of narrow-headed
2 gartersnakes in Oak Creek declined drastically from 0.65 snakes detected per person-search
3 hour in 1985 to 0.1 per person-search hour in 2015.

4 73. The narrow-headed gartersnake has experienced marked and sustained
5 population declines across the Gila River, San Francisco River, and Eagle Creek, portions
6 of which occur within the Gila District. The Gila River historically supported narrow-
7 headed gartersnake populations in its upper reaches, with documented records spanning
8 from 1973 to 2009. However, survey efforts—including tens of thousands of trap-hours
9 from 2009 through 2022—have yielded no confirmed detections of the species. According
10 to the Service’s 2024 Biological Opinion, the substantial survey efforts needed to
11 adequately assess the status of narrow-headed gartersnakes along the Gila River’s entire
12 course have not been completed.

13 74. The San Francisco River has experienced a dramatic collapse in narrow-
14 headed gartersnake numbers. Survey efforts spanning 1995 to 2022 document a precipitous
15 decline—from 328 individuals detected in the mid-1990s, to three detections during survey
16 efforts from 2008-2011, to a single detection in 2019, with no detections in 2004, 2005,
17 2020, 2021, or 2022 despite high-effort trapping and search hours. According to the
18 Service’s 2024 Biological Opinion, “the documented significant decline of a formerly
19 healthy population is of serious concern for the future of this population and more survey
20 work is needed.”

21 75. Once observed as abundant in 1987 in Eagle Creek, detection rates of
22 narrow-headed gartersnakes have plummeted. Surveys in the 2000s and 2010s yielded no
23 detections, except for a single individual observed incidentally in 2013. In the Service’s
24 2024 Biological Opinion, the Service states that the “notable decline of this once-reliably
25 detected population of narrow-headed gartersnakes is of serious concern,” and stresses that
26 new survey work is needed in Eagle Creek to improve its knowledge of the aquatic
27 community and, “more importantly, the status of the narrow-headed gartersnake
28 population.”

d. Northern Mexican Gartersnake

76. The northern Mexican gartersnake (*Thamnophis eques megalops*) is a terrestrial-aquatic snake capable of reaching lengths of up to 44 inches. The body typically ranges in color from olive to olive-brown or olive-gray and is marked by three lighter-colored longitudinal stripes. The central stripe often darkens toward the tail, enhancing the snake's distinctive appearance.

77. Recognizing its declining populations and the ongoing threats to its habitat, the Service listed the northern Mexican gartersnake as threatened under the ESA in July 2014. Critical habitat was designated in 2021, including nine units in portions of Arizona and New Mexico totaling 20,326 acres. No recovery plan has been developed for this species.

78. The northern Mexican gartersnake was historically distributed across western, central, and southeastern Arizona, as well as southwestern New Mexico. Its historic range extends into Mexico, covering Sonora, Chihuahua, and further south along the Sierra Madre Occidental. The species occupies elevations ranging from 140 to 8,497 feet and utilizes a variety of biotic communities, including Sonoran Desert scrub to Petran Montane Conifer Forest. The gartersnake is associated with riparian and terrestrial habitats, relying on perennial and intermittent streams, backwaters, cienegas, stock tanks, and upland habitats for foraging, thermoregulation, and reproduction.

79. The northern Mexican gartersnake has experienced persistent range-wide declines across the American Southwest. Historical records document the northern Mexican gartersnake along the Gila River mainstem from Cliff to Virden, New Mexico, with records spanning 1973 through 2015. Survey effort along the mainstem has been intermittent but includes substantial trapping and person-search effort in 2017 to 2019, during which no gartersnakes were detected. Although survey methods were often designed for the narrow-headed gartersnake, the absence of northern Mexican gartersnake detections strongly suggests extremely low population density, if the species remains extant at all. Due to the apparent lengthy stretch of potential habitat and the complexity of

1 the Gila River System, the Service acknowledges that it is “difficult to fully ascertain the
2 status of such a rare and secretive snake.”

3 80. Results from survey efforts within the Las Cienegas National Conservation
4 Area and adjacent Cienega Creek Natural Preserve from 2000 through 2019 show a low-
5 density population of northern Mexican gartersnake. Capture rates have declined sharply
6 since the early 2000s, indicating increasing rarity. Reintroductions from captive breeding
7 have occurred since 2012, though no follow-up surveys have been conducted in areas
8 where releases occurred.

9 81. Outside the Gila District, survey information is sparse and dated. Within the
10 Buenos Aires National Wildlife Refuge, no recent gartersnake surveys have been
11 conducted; the last known effort occurred in 2000. Along the lower San Pedro River
12 (downstream of I-10), the species’ status remains uncertain due to limited access and
13 survey efforts. Similarly, survey efforts in the Babocomari River and Cienega have been
14 limited; the most recent effort in 2000 failed to detect the species.

15 **e. Gila Chub**

16 82. The Gila chub (*Gila intermedia*) is a thick-bodied, secretive fish, with dark
17 overall body coloration, sometimes with diffuse, longitudinal stripes, and a lighter belly
18 speckled with gray. Breeding males, and sometimes breeding females, develop red or
19 orange on parts of their heads, bodies, and bases of fins. Female Gila chub can reach nearly
20 ten inches in length, while males generally do not exceed six inches.

21 83. The Service listed the Gila chub as endangered with critical habitat in 2005.
22 At the time of listing, the Service estimated that 90% of the Gila chub’s then-occupied
23 habitat had been degraded, either by the presence of nonnative species or by land use,
24 including livestock grazing. Critical habitat for the Gila chub is organized into seven river
25 units and encompasses approximately 160.3 miles of stream reaches in Arizona and New
26 Mexico.

27 84. The Gila chub commonly inhabits pools in smaller streams, cienegas, and
28 artificial impoundments throughout its range in the Gila River basin at elevations between

1 2,000 and 5,500 feet. The species generally remains near cover including undercut banks,
2 terrestrial vegetation, boulders, root wads, fallen logs, and thick overhanging or aquatic
3 vegetation in deeper waters.

4 85. Following a taxonomic revision in 2016, the Gila chub, along with the
5 headwater chub and roundtail chub, is recognized by the Service as a single taxonomic
6 species—the roundtail chub (*Gila robusta*). Accordingly, the Service’s 2024 Biological
7 Opinion relies on a 2021 Species Status Report for the roundtail chub in the Lower
8 Colorado River Basin for the status and distribution of the Gila chub populations.

9 **f. Gila Topminnow**

10 86. The Gila topminnow (*Poeciliopsis occidentalis occidentalis*) is a small tan-
11 to olive-bodied fish, usually with white on the belly, native to the Gila River drainage.
12 Males typically do not exceed one inch in length, while females reach up to two inches.

13 87. The Gila topminnow was listed as endangered under the Endangered Species
14 Protection Act of 1966 in 1967 without critical habitat. The Gila topminnow was once
15 considered one of the most common fishes in the southern part of the Colorado River basin.
16 Today, only nine Gila topminnow populations are considered extant, down from sixteen
17 naturally occurring populations recorded in the last 50 years. Of the remaining populations,
18 the Service considers eight secure from nonnative fish threats. Despite active stocking
19 through a recovery program, Gila topminnow persist in only 33 of at least 200 sites stocked.
20 The eventual disposition of reestablished sites—which may not contain viable
21 populations—is unknown. Meanwhile, natural sites continue to decline.

22 88. The Gila Topminnow Recovery Plan was finalized in 1984 and revised in
23 1998. The 1998 revision—created over 27 years ago—is not final. The goal of the draft
24 plan—which recognizes that delisting is not feasible in the foreseeable future—is to
25 prevent extirpation of the species’ naturally occurring U.S. populations.

26 **g. Razorback Sucker**

27 89. The razorback sucker (*Xyrauchen texanus*) is a large-bodied fish with a dark
28 brown to olive-colored body, a white to yellow belly, and a distinctive bony, sharp-edged

1 keel, or hump, along its back. Adults can grow to just over 1 yard in length, weigh between
2 11 and 13 pounds, and live for more than 40 years.

3 90. The Service listed the razorback sucker as endangered in 1991 and
4 designated critical habitat for the species in 1994. In July 2026, the Service reclassified the
5 razorback sucker from endangered to threatened status. Endemic to the Colorado River
6 basin, the razorback sucker was once abundant throughout the basin and occupied a wide
7 range of riverine and floodplain habitats. According to the Service's 2012 Biological
8 Opinion, all critical habitat reaches were considered to be occupied at the time of
9 designation.

10 91. The Razorback Sucker Recovery Plan was completed in 1998, and recovery
11 goals that amend and supplement the recovery plan were adopted in 2002. At that time, the
12 Service determined that remaining wild populations were "in serious jeopardy" despite
13 recovery efforts. Primary threats to the species include habitat loss and modification,
14 including changes in flow, temperature, and sediment regimes, as well as competition with
15 and predation by nonnative fish species. The species' critical habitat designation identifies
16 livestock grazing as one of the actions that may destroy or adversely modify critical habitat.

17 92. According to the Service's 2018 Species Status Assessment ("SSA"),
18 razorback sucker populations have been reestablished in much of their historical range,
19 though recruitment is rare and self-sustaining populations are lacking. The principal
20 exception was the Gila River system, where repeated reintroduction efforts failed to
21 establish a self-sustaining population. Accordingly, the SSA excluded the Gila River basin
22 from its population viability assessment because of the "lack of survival of stocked fish
23 and lack of recruitment."

24 **h. Spikedace**

25 93. The spikedace (*Meda fulgida*) is a small, silvery fish that typically reaches
26 about 1.5 inches in length and is distinguished by a prominent spine in its dorsal fin.
27 Spikedace inhabit shallow, flowing stream reaches characterized by riffles and runs over
28 gravel, cobble, and sand substrates. Adults are most commonly associated with shear

1 zones, where fast water meets slow water. Primary threats to the species include habitat
2 loss and degradation resulting from water diversions, watershed deterioration, groundwater
3 pumping, channelization, nonnative species, wildfire, drought, and climate change.

4 94. The Service listed the spikedace as threatened in 1986 and subsequently
5 reclassified the species as endangered in 2012, when critical habitat was designated.
6 According the Service's 2024 Biological Opinion, the species was once common
7 throughout the Gila River basin, including the Gila River mainstem upstream of Pheonix,
8 and the Verde, Agua Fria, Salt, San Pedro, and San Francisco subbasins.

9 95. The Spikedace Recovery Plan was completed in 1991 and amended in 2019.
10 By the time the recovery plan was completed, the species had already been extirpated from
11 most of its historic range within the Gila River Basin and persisted primarily in portions of
12 the upper Gila River in New Mexico and in the Aravaipa Creek, Eagle Creek, and the upper
13 Verde River in Arizona. According to the Service's 2024 Biological Opinion, the
14 spikedace's range and abundance has declined substantially from historical levels and the
15 species now only occupies approximately 10 to 15% of its historical range. Spikedace are
16 now considered common only in Aravaipa Creek in Arizona. Although Eagle Creek is
17 presumed occupied, the last captured spikedace form the Eagle Creek population was in
18 1989.

19 96. As acknowledged in the Service's 2024 Biological Opinion, livestock
20 grazing has been one of the most widespread and long-term causes of adverse impacts to
21 native fishes and their habitat, including the spikedace.

22 **i. Loach Minnow**

23 97. The loach minnow (*Tiaroga cobitis*) is a small fish with a long, flat body 3
24 inches or shorter in length, which is characterized by dark blotches on an olive base. Native
25 to the Gila River basin, the loach minnow now occupies just 10 to 20 percent of its historic
26 range.

27 98. The Service listed the loach minnow as threatened under the ESA in 1986,
28 and reclassified the species as endangered in 2012. After several rulemaking processes and

1 lawsuits, the Service issued a final critical habitat designation in 2012, protecting 610 miles
2 of riparian habitat in Arizona and New Mexico. The Loach Minnow Recovery Plan was
3 finalized in 1991 and amended in 2019.

4 99. Key threats to the loach minnow include habitat loss and fragmentation and
5 predation by and competition with non-native fish species. Like the spikedace, the loach
6 minnow requires gravel-laden streams where a mixture of slow- and fast-moving currents
7 create shallow, turbulent riffles. Gravel provides surfaces for the loach minnow to attach
8 eggs and riffles host aquatic prey insects.

9 100. The loach minnow's most recent 5-Year Status Review, issued in 2023,
10 emphasizes that "livestock grazing historically caused some of the more widespread and
11 long-term effects to loach minnow habitat."

12 **j. Southwestern Willow Flycatcher**

13 101. The southwestern willow flycatcher (*Empidonax traillii extimus*) is a small,
14 neotropical migrant songbird with grayish-green wings and back, whitish throat, light grey-
15 olive breast, and pale yellowish belly. The flycatcher spends its breeding season in dense
16 riparian vegetation in the southwestern U.S. and migrates to Mexico and further south in
17 the winter. During its breeding season, the flycatcher seeks suitable nesting habitat in parts
18 of central and southern California, southern Nevada, southern Utah, southwestern
19 Colorado, Arizona, New Mexico, and western Texas. Flycatchers rely on dense, layered
20 riparian vegetation for cover, nesting substrate, and prey availability.

21 102. In 1995, the Service listed the flycatcher as endangered under the ESA, citing
22 "extensive loss of habitat, brood parasitism, and lack of adequate protective regulations."
23 The Service designated 599 river miles of critical habitat for the flycatcher in 1997, and
24 revised it in 2005 to include a total of 737 river miles. In 2013, after reconsideration of its
25 designation, the Service designated approximately 1,227 stream miles as flycatcher critical
26 habitat. 1,904 acres of critical habitat exist within the BLM's Gila District allotments. A
27 recovery plan for the flycatcher was issued in 2003.

1 103. The decline of the southwestern willow flycatcher has been primarily driven
2 by the loss, degradation, and alteration of riparian breeding habitat. Contributing factors
3 include groundwater pumping and livestock grazing. Additional pressures include impacts
4 to wintering habitat and brood parasitism by brown-headed cowbirds, which lay their eggs
5 in flycatcher nests. The presence of livestock, along with range developments such as water
6 sources, corrals, and nearby agricultural or urban areas can increase cowbird foraging
7 opportunities. When these food sources are located near flycatcher breeding areas,
8 especially where habitat is already degraded, rates of cowbird parasitism may rise, further
9 threatening flycatcher reproductive success.

10 104. The flycatcher's most recent 5-Year Status Review, finalized in 2025,
11 confirms the subspecies continues to face a high degree of threat and experience conflict
12 impacts associated with aquatic and riparian habitats. Ongoing threats associated with land
13 and water management combined with the spread of the leaf beetle, which has entered the
14 flycatcher's breeding range, are likely to cause population declines.

15 **k. Western Yellow-Billed Cuckoo**

16 105. The western yellow-billed cuckoo (*Coccyzus americanus*) is a medium-
17 sized, neotropical migrant bird about twelve inches in length, with grayish-brown and
18 white plumage, reddish primary flight feathers, boldly patterned tail feathers, and blue-
19 black and yellow bills. Cuckoos have a short hatch-to-fledge time and therefore require
20 access to abundant food sources to successfully rear their rapidly growing offspring.

21 106. In 2014, the Service listed the western distinct population segment ("DPS")
22 of the cuckoo as threatened under the ESA. 298,845 acres of critical habitat across the
23 western United States was designated in 2021. The Service has not yet developed a
24 recovery plan for the cuckoo.

25 107. According to the Service, cuckoo populations in Arizona have declined in
26 many perennial riparian areas from historical levels as well as over the past 35 years, with
27 recent declines at some of the largest populations. However, as the Service acknowledges,
28

1 few systematic survey efforts that would inform the distribution and abundance of the
2 cuckoo have occurred on a large scale.

3 108. Much of the historical riparian habitat where cuckoos have bred has been
4 lost, altered, or degraded. Most riparian habitats in the Southwest have been fundamentally
5 altered by a century or more of urban and agricultural development, water diversions,
6 groundwater pumping, livestock grazing, and other human disturbances.

7 109. Within the western DPS, the cuckoo uses nesting habitat from southern
8 British Columbia, Canada, to southern Sinaloa, Mexico. Their breeding habitat across the
9 DPS exists primarily in riparian woodlands along low-gradient streams, broad floodplains,
10 and open riverine valleys that provide wide floodplain conditions. In the Southwest,
11 breeding habitat is more variable than the rest of its range, containing a greater proportion
12 of xeroriparian and non-riparian plant species, and often narrower, less sheltered, patchier,
13 or sparser than elsewhere. Cuckoo habitat is largely associated with perennial rivers and
14 streams that support the expanse of vegetation characteristics needed by breeding cuckoos.

15 110. Humid and cooler conditions created by above-average canopy closure are
16 important breeding habitat parameters for the cuckoo. The moist and humid conditions that
17 support riparian plant communities typically exist in lower elevation, broad floodplains,
18 and where rivers and streams enter impoundments. In the desert, foothills, and mountain
19 xeroriparian washes and drainages of southeastern Arizona and northwestern Mexico, high
20 humidity and the summer monsoon are important factors in cuckoo occupancy. Drainages
21 may flow only briefly immediately after summer rain in ephemeral drainages where
22 cuckoos breed, with no sustained flow or standing water. Humidity remains high
23 throughout the summer with a corresponding green-up of the herbaceous, shrub, and tree
24 cover.

25 111. Of the 298,845 acres of designated critical habitat for the cuckoo across the
26 western United States, there are nine critical habitat units within the BLM's Gila District,
27 containing 18,121 acres of the total critical habitat the Service has identified as essential to
28 this species' survival and recovery. Designated critical habitat occurs on 51 allotments in

1 the Gila District (thirteen allotments in the Safford Field Office and 38 allotments in the
2 Tucson Field Office).

3 **II. Livestock Grazing Threatens Riparian Values and Wildlife Habitat**

4 112. Scientific study on the impacts of livestock grazing on aquatic and riparian
5 habitats in the Southwest is extensive and universally shows severe and lasting negative
6 impacts, such that complete exclusion of cattle is widely accepted as a minimum baseline
7 management strategy in preserving stream health. Livestock grazing has both direct and
8 indirect effects on streams and is a leading cause of species endangerment in the Southwest,
9 including the ESA-listed species within the Gila District.

10 113. Livestock grazing directly harms riparian habitat through removal of riparian
11 vegetation. Loss of riparian vegetation in turn raises water temperatures, reduces bank
12 stability, and eliminates an important structural component of the stream environment that
13 contributes to the formation of pools.

14 114. Grazing physically alters streambanks through trampling and shearing,
15 leading to bank erosion. In combination, loss of riparian vegetation and bank erosion can
16 alter channel morphology, resulting in downcutting and an increased width/depth ratio, all
17 of which lead to a loss of pool habitats and shallow side and backwater habitats.

18 115. Livestock also indirectly damage aquatic and riparian habitats by compacting
19 soils, altering soil chemistry, and reducing vegetation cover in upland areas, leading to
20 increased severity of floods and sediment loading, lower water tables, and altered channel
21 morphology.

22 116. One consequence of these impacts to watersheds is a reduction in the quantity
23 and quality of pool habitat. A lowered water table, for example, results in direct loss of
24 pool habitats, simply because water is not available to form pools. Increased erosion results
25 in the filling of pools with sediments. Channel incision and increased flood severity both
26 can scour out pools, reducing habitat complexity and resulting in shallow, uniform
27 streambeds, all of which harms the species at issue in this suit.

1 117. The U.S. Department of Justice has recognized that: “It is well-settled that
2 cattle and riparian areas do not mix.” U.S. Department of Justice Environment and Natural
3 Resources Division Senior Trial Attorney Andrew A. Smith, Hearing, *N.M. Cattle*
4 *Growers’ Ass’n v. U.S. Forest Serv.*, 1:23-cv-00150-JB-GBW (D.N.M. Feb. 1, 2024).

5 **III. Plaintiffs’ 2021 ESA Notice Letter, 2021 Litigation, and the Agencies’**
6 **Reinitiation of Consultation**

7 118. On July 22, 2021, Plaintiffs sent a sixty-day notice letter to the Secretary of
8 Interior, the Service, and the BLM, notifying the Service and the BLM of their failures to
9 reinitiate ESA Section 7 consultation on final agency actions—including the issuance of
10 term grazing permits, allotment management plans, and annual operating instructions or
11 plans—authorizing grazing on six allotments within the Gila Box RNCA, regarding the
12 impacts of trespass and unauthorized permitted cattle grazing on ESA-protected species
13 and their critical habitat.

14 119. Plaintiffs filed a Complaint for Declaratory and Injunctive Relief on October
15 7, 2021, and an Amended Complaint for Declaratory and Injunctive Relief on October 27,
16 2021, alleging, in part, that the BLM and the Service violated various provisions of the
17 ESA in relation to the BLM’s administration of livestock grazing on certain allotments
18 within the Gila Box RNCA. *See Am. Compl., Ctr. for Biological Diversity v. Bureau of*
19 *Land Mgmt.*, 4:21-cv-00411-RM-DTF (D. Ariz. Oct. 27, 2021).

20 120. On August 11, 2022, Plaintiffs and Defendants (the Service and the BLM)
21 entered into a stipulated settlement agreement to resolve the litigation. Under the
22 agreement, the federal agencies stipulated that riparian areas within the Bonita Creek,
23 Johnny Creek, Zorilla, Gila, Morenci and Bull Gap Community grazing allotments would
24 be monitored for the presence of unauthorized livestock and damaged fences. The
25 agreement required that any unauthorized livestock be removed and any damaged fences
26 repaired expeditiously during the pendency of the agreement, which was set to expire with
27 the issuance of a new biological opinion. Stipulated Settlement Agreement, *Ctr. for*
28 *Biological Diversity v. Bureau of Land Mgmt.*, 4:21-cv-00411-RM-DTF (D. Ariz. Aug. 11,

2022). Monitoring reports show that the BLM repeatedly documented unauthorized livestock in the subject riparian areas.

121. The new biological opinion, which is the subject of this lawsuit, was issued on January 31, 2024.

IV. The BLM's 2023 Biological Evaluation

122. In October 2023, the BLM issued a Biological Evaluation ("BE") to reinstate consultation for the Gila District Livestock Grazing Program. The BE covers 134 grazing allotments within the Gila District, including 69 allotments in the Safford Field Office, and 65 allotments in the Tucson Field Office.

123. According to the BE, the Gila District grazing program currently permits 83,667 Animal Unit Months ("AUMs") of forage across the 134 allotments subject to reinstatement. The BLM recognizes riparian areas within these allotments as ecologically significant and purports that many are physically or administratively excluded from livestock access—either through fencing, natural landscape barriers, seasonal restrictions, or full closures. Despite these efforts, the BE documents persistent unauthorized livestock intrusion and resultant degradation of riparian habitat.

124. The BE defines the action area, which includes over 850,000 acres of BLM-managed lands across Apache, Navajo, Greenlee, Graham, Cochise, Santa Cruz, Pima, Pinal, and Gila counties.

125. The BE identifies a range of general conservation measures the BLM commits to implement across the Gila District grazing program. These include meetings with the Service every three years to reassess consultation needs, species-specific project evaluations, and measures to address unauthorized livestock use. Additional measures include biological monitoring during field activities, protocols for decontaminating equipment, buffers between BLM equipment and stream channels and washes, not blading new fence lines in critical habitat, sediment control during ground disturbance, riparian vegetation protection, coordination with permittees on installation and repair of enclosure fencing, siting of livestock supplements, such as salt, at least a quarter mile from riparian

1 areas on all renewed permits, and minimizing trailing across aquatic habitats to reduce
2 ecological impact. New infrastructure will be located to avoid disruption to riparian
3 function and species habitat, and efforts to control and/or remove invasive aquatic species
4 will be coordinated, as needed. The BLM also pledges to review and mitigate the risk of
5 nonnative aquatic species introductions via stock water sources and coordinate invasive
6 species control efforts.

7 126. Where allotments fail to meet Arizona Rangeland Health Standards, the
8 BLM commits to working to take corrective action in accordance with federal regulations.

9 **V. The 2024 Biological Opinion on the Gila District Livestock Grazing Program**

10 127. Relying on the BE, the Service issued a Reinitiated Biological Opinion on
11 Livestock Grazing on Bureau of Land Management Administered Lands in the Gila
12 District, Tucson and Safford Field Offices (the “2024 Biological Opinion”) on January 31,
13 2024. The 2024 Biological Opinion partially superseded two previous livestock grazing
14 consultations: (1) the May 21, 2012 Biological Opinion on the Gila District Livestock
15 Grazing Program and (2) the August 20, 2018, Biological Opinion on Eight Grazing Lease
16 Renewals in the Middle Gila.

17 128. The 2024 Biological Opinion assesses the effects of livestock grazing on
18 multiple species, including the endangered acuña cactus and its designated critical habitat,
19 the threatened Chiricahua leopard frog and its critical habitat, the threatened narrow-
20 headed gartersnake and its critical habitat, the threatened northern Mexican gartersnake
21 and its critical habitat, the endangered southwestern willow flycatcher and its critical
22 habitat, and the threatened western yellow-billed cuckoo and its critical habitat.

23 129. The 2024 Biological Opinion also covers the effects of water pumping and
24 livestock trailing on Bonita Creek for the endangered Gila chub, the endangered desert
25 pupfish, the endangered Gila topminnow, the endangered spikedace and its critical habitat,
26 and the endangered loach minnow and its critical habitat.

27 i. The 2024 Biological Opinion’s Analysis of the Effects of the Action

28 130. Under the ESA’s implementing regulations, the Service’s biological opinion

1 must discuss the “environmental baseline of the listed species and critical habitat” and the
2 “effects of the action on listed species or critical habitat.” 50 C.F.R. § 402.14(h)(1).

3 131. ESA regulations define “environmental baseline” as:

4 the condition of the listed species or its designated critical habitat in the
5 action area, without the consequences to the listed species or designated
6 critical habitat caused by the proposed action. The environmental baseline
7 includes the past and present impacts of all Federal, State, or private actions
8 and other human activities in the action area, the anticipated impacts of all
9 proposed Federal projects in the action area that have already undergone
10 formal or early section 7 consultation, and the impact of State or private
11 actions which are contemporaneous with the consultation in process. The
12 impacts to listed species or designated critical habitat from Federal agency
13 activities or existing Federal agency facilities that are not within the agency’s
14 discretion to modify are part of the environmental baseline.

15 *Id.* § 402.02.

16 132. In contrast, the “[e]ffects of the action” encompass “the direct and indirect
17 effects of an action on the species or critical habitat, together with the effects of other
18 activities that are interrelated or interdependent with that action.” 50 C.F.R. § 402.02
19 (2018); *Ctr. for Biological Diversity v. United States DOI*, No. 24-cv-04651-JST, 2026
20 U.S. Dist. LEXIS 68386, at *72 (N.D. Cal. Mar. 30, 2026) (vacating definition of “effects
21 of the action” and reinstating version of 50 C.F.R. § 402.02 in effect prior to 2019
22 amendments). The operative regulations further define “[i]ndirect effects” as “those that
23 are caused by the proposed action and are later in time, but still are reasonably certain to
24 occur.” 50 C.F.R. § 402.02 (2018).

25 133. In its 2024 Biological Opinion, the Service acknowledges that “unauthorized
26 grazing is known to occur[] on BLM lands,” and concedes that such grazing “may occur
27 in any given allotment and therefore may occur in the presence of listed species or their
28 critical habitat (if applicable).” The Service identifies foreseeable and recurring causes of
unauthorized grazing—such as broken fences, open gates, adjacent livestock operations,
and “other” unidentified factors.

1 134. Evidence before the agency demonstrates that the proposed action will harm
2 listed species and their critical habitat due to unauthorized grazing (*i.e.*, permitted cattle
3 grazing in unauthorized areas). That is, but for Gila District Livestock Grazing Program,
4 the unauthorized presence of permitted cattle—and the resulting impacts on listed species
5 and critical habitat—would not occur. For example, the BLM’s 2023 Biological Evaluation
6 for the proposed action catalogs a sustained presence of unauthorized livestock, including
7 from suspected permittees, in critical habitat along the Gila River and Bonita Creek in the
8 Gila Box RNCA for over a decade. Evidence before the BLM from Plaintiff Center’s 2021
9 surveys of six allotments—Bonita Creek, Johnny Creek, Zorilla, Gila, Morenci, and Bull
10 Gap Community allotments—further show widespread cattle damage in cuckoo critical
11 habitat and numerous instances of damaged, nonfunctional or missing cattle exclusion
12 fencing. These impacts occurred immediately prior to, or during, cuckoo nesting and
13 breeding seasons.

14 135. The information before the agency also establishes that this unauthorized
15 grazing and the resulting habitat damage attributable to the proposed action are reasonably
16 certain to occur. The Service itself concedes that unauthorized grazing is an ongoing issue
17 on BLM lands and may occur in any allotment. Furthermore, Plaintiff Center’s 2024 survey
18 data once again confirmed the presence of unauthorized cattle and significant
19 environmental impacts to listed species’ habitat within the allotments at issue.

20 136. Despite this, the Service’s 2024 Biological Opinion does “not consider
21 unauthorized grazing as part of the proposed action,” and therefore excludes unauthorized
22 grazing from its “effects of the action” analysis. Instead, the Service classifies unauthorized
23 grazing as part of the environmental baseline, claiming to consider its impacts in
24 combination with authorized use.

25 137. In short, the Service arbitrarily ignores that the proposed action will lead to
26 unauthorized grazing and the resulting damage to ESA-listed species—including the
27 spikedace, loach minnow, Gila chub, Gila topminnow, cuckoo, and flycatcher—and their
28 critical habitat. The Service’s exclusion of unauthorized grazing due to permitted cattle

1 from its “effects of the action” analysis is arbitrary and capricious and not in accordance
2 with law. *See Ctr. for Biological Diversity v. U.S. BLM*, No. CV-24-00141, 2026 U.S. Dist.
3 LEXIS 68876, at *22 (D. Ariz. Mar. 30, 2026) (“Defendants’ contention that there exists
4 no obligation to consult on the effects of illegal or unauthorized [grazing] is without merit;
5 allowing agencies to turn a blind eye to activities directly enabled but not expressly
6 authorized by their actions is an impermissible result under the ESA.”).

7 138. The Service’s 2024 Biological Opinion is further arbitrary because it
8 repeatedly assumes that cattle are excluded from occupied and critical riparian habitats—
9 such as those of the spikedace, loach minnow, cuckoo, and flycatcher—while ignoring
10 clear evidence that the proposed action leads to unauthorized grazing and associated
11 impacts. The facts before the Service contradict these assumptions.

12 ii. The 2024 Biological Opinion’s Analysis of Effects to the Acuña Cactus

13 139. The 2024 Biological Opinion acknowledges that livestock grazing is a threat
14 to the acuña cactus. For example, the Service noted in its 2024 Biological Opinion that
15 livestock grazing may adversely affect the cactus through direct physical contact, including
16 trampling and dislodging individual plants. The Service further found that livestock
17 grazing and range improvement projects may degrade acuña cactus habitat, leading to
18 adverse lethal and non-lethal effects from reduced reproduction and growth, and long-term
19 surface disturbance to designated critical habitat. The Service also determined that
20 livestock grazing is “likely to adversely affect acuña cactus critical habitat PCEs primarily
21 through changes in vegetation composition and abundance,” which can cause soil erosion
22 and compaction, reduced water infiltration, and increased runoff. Additionally, the Service
23 concluded that designated critical habitat would be affected by livestock grazing through
24 utilization of plants that provide protection to the cactus or pollinator habitat.

25 140. Despite these findings, the Service asserted that the proposed action is not
26 likely to cause acuña cactus to reach a tipping point—*i.e.*, a point at which ongoing and
27 new adverse effects render recovery difficult if not impossible to achieve—on the grounds
28 that the action would not expand the scope or intensity of existing activities. The Service

1 further reasoned that conservation measures included in the proposed action would mitigate
2 adverse effects to the cactus and its critical habitat through surveying and implementation
3 of protective terms and conditions on allotment permits as necessary.

4 141. The Service ultimately concluded that the proposed action “is not likely to
5 jeopardize the continued existence of the acuña cactus and is not likely to destroy or
6 adversely modify designated critical habitat.” The Service based these conclusions on the
7 following factors: (1) more than 60% of acuña cactus individuals occur within lands
8 “protected” from cattle grazing; (2) although the status of the acuña cactus on the Box O
9 and Horsetrack allotments is declining, the cactus is in decline across the Southwest due to
10 baseline conditions; (3) the implementation of “General Conservation Measures” will
11 result in the BLM implementing actions to avoid and/or minimize effects to the cactus and
12 its critical habitat when planning site-specific actions; (4) the proposed action will affect a
13 relatively small portion of the species’ range-wide critical habitat; (5) increased mortality
14 of plants that protect the cactus or provide pollinator habitat is occurring range-wide and
15 “may not be” entirely the result of livestock grazing; additionally, soils underlying the
16 acuña cactus “may be” largely unaffected by grazing, as the underlying substrates are not
17 directly removed or disturbed; and (6) the proposed action is not likely to appreciably
18 diminish the ability for acuña cactus critical habitat to contribute to recovery of the species.

19 142. In reaching its no-jeopardy and no-destruction or adverse modification
20 conclusions, the Service fails to articulate a rational connection between the facts presented
21 and its ultimate determination.

22 143. For example, the Service’s reliance on the fact that more than 60% of acuña
23 cactus individuals occur within lands protected from cattle grazing is arbitrary and does
24 not justify its no-jeopardy and no-adverse-modification conclusions.¹ The fact that a subset
25

26 ¹ According to the Service’s 2022 *Acuña Cactus* (*Echinomastus erectocentrus* var.
27 *acunensis*) *Final Recovery Plan*, the two largest populations of cacti, in Organ Pipe Cactus
28 National Monument and Sonoyta, Mexico, which collectively contain 79% of all known
plants, are within 10.3 miles of the international border where “there is a higher probability
of impact to individual acuña cacti from vehicular traffic and other border activity.”

1 of individuals is theoretically protected elsewhere does not satisfy the requirement that the
2 Service determine whether the action will appreciably diminish the species' likelihood of
3 both survival and recovery. The Service fails to explain how the continued degradation of
4 critical habitat in the action area, where grazing occurs, will not adversely affect the
5 species' overall recovery.

6 144. The Service also improperly discounts the significance of continued habitat
7 degradation within the Box O and Horsetrack allotments by suggesting that the species is
8 already in decline across its range due to baseline conditions. This reasoning ignores the
9 Service's own finding that habitat degradation, including from livestock grazing, is the
10 primary driver of the species' decline. By allowing ongoing habitat destruction under the
11 guise of baseline deterioration, the Service endorses continued harm to a species already at
12 risk of extinction.

13 145. Additionally, the Service's assertion that that the affected habitat constitutes
14 a "relatively small" portion of the species' critical habitat fails to justify how allowing
15 further degradation within these critical habitat units—areas that the Service acknowledges
16 help maintain the species' geographic range and provide opportunities for population
17 growth—will not hinder the species' survival and recovery efforts. *See Ctr. for Biological*
18 *Diversity v. U.S. DOI*, No. 24-cv-04651-JST, 2026 U.S. Dist. LEXIS 68386, at *50 (N.D.
19 Cal. Mar. 30, 2026) ("An adverse modification to a small part of a species' habitat is an
20 adverse modification to the habitat as a whole.").

21 146. Last, the Service's conclusion that the proposed action is not likely to
22 appreciably reduce the likelihood of recovery of the acuña cactus is arbitrary because it
23 fails to reconcile its determination with the best available science. The 2022 Final Recovery
24 Plan for acuña cactus calls for reduction of unauthorized livestock use and improved
25 management of livestock in areas where livestock are allowed. Yet the Service
26 acknowledges in its 2024 Biological Opinion that the proposed action represents an
27 ongoing grazing regime where the geographic scope and intensity remain unchanged,
28 despite its own findings that livestock grazing causes direct mortality, habitat degradation,

1 and long-term adverse effects to the physical and biological features essential to the
2 species' conservation.

3 iii. The 2024 Biological Opinion's Analysis of Effects to the Chiricahua Leopard Frog

4 147. The 2024 Biological Opinion acknowledges that livestock grazing may
5 adversely affect the Chiricahua leopard frog through direct physical harm, including
6 trampling of individuals, destruction of egg masses, and degradation of critical habitat. The
7 Service found that livestock grazing can negatively impact essential aquatic breeding
8 habitats, including through increased sedimentation, wetland and riparian vegetation loss,
9 erosion and/or siltation of stream courses, elimination of undercut banks, spread of disease
10 and non-native predators, and water quality degradation, all of which reduce the frog's
11 ability to survive and reproduce. During periods of drought, the Service admits that
12 livestock grazing is likely to have pronounced harmful effects on the species, as aquatic
13 habitats become smaller or disappear entirely. Additionally, because cattle tend to spend a
14 disproportionate amount of time in riparian zones, they can adversely affect these systems
15 in several important ways.

16 148. Although stock tanks provide refugia for frog populations, the Service's 2007
17 Recovery Plan admits that they may facilitate the spread of infectious disease and non-
18 native aquatic organisms, destroy natural habitats at or downstream of the tank during
19 construction, and are sometimes "mortality sinks with little reproduction or recruitment."

20 149. Despite acknowledging these adverse effects, the Service concluded that the
21 proposed action is not likely to jeopardize the continued existence of the Chiricahua
22 leopard frog or adversely modify its designated critical habitat. This conclusion is based
23 on several factors, including: (1) the implementation of general and species-specific
24 conservation measures by the BLM intended to minimize adverse effects to the Chiricahua
25 leopard frog and its critical habitat; (2) anticipated ongoing removal of nonnative bullfrogs
26 and reintroduction of Chiricahua leopard frogs throughout their range; (3) the assertion that
27 residual effects would not operate on a rangewide scale and are thus unlikely to impede
28

1 leopard frog recovery; and (4) the assumption that critical habitat PCEs are not anticipated
2 to be affected to such an extent that recovery of the frog is “no longer possible.”

3 150. After concluding that the proposed action would not jeopardize the
4 Chiricahua leopard frog or destroy or adversely modify its critical habitat, the Service
5 issued an ITS for the species. The Service anticipates that take of Chiricahua leopard frogs,
6 in the form of harm, harassment, injury and killing, is reasonably certain to occur as a result
7 of the proposed action. More specifically, the Service anticipates (1) death or injury of
8 frogs at occupied stockponds where maintenance activities result in significant disturbance
9 at the tank (e.g. dredging or silt removal, major repair of berms); (2) killing or injury
10 through trampling and destruction of egg masses, tadpoles, metamorphosing or
11 overwintering frogs, and ingestion of larvae and eggs by livestock at occupied stockponds
12 where livestock have access; (3) harm of frogs subject to disease transmission from
13 livestock-related factors; (4) harassment through disrupted feeding and sheltering of
14 Chiricahua leopard frogs due to loss of bankline and emergent vegetation at occupied
15 stockponds where livestock have access; (5) harm and harassment through lost
16 reproductive output of Chiricahua leopard frogs due to sedimentation of pools or other
17 forms of habitat degradation where livestock contribute to erosion in upland areas; and
18 (6) harm to Chiricahua leopard frogs from livestock use of occupied stockponds that results
19 in the deterioration of water quality to such an extent that conditions become toxic for
20 frogs.

21 151. The Service also purports to employ “measurable effects to habitat” as
22 surrogates for evaluating take of the species. Specifically, the ITS states that take will be
23 exceeded if one or both of the following conditions are met:

24 [Criterion 1] One waterbody or 10 percent (whichever is greater) or more of
25 currently or previously occupied, perennially wetted stockponds, or any core
26 breeding habitat outside of stockponds (i.e. Cienega Creek) used by
27 Chiricahua leopard frogs in any one Management Unit where the species
28 occurs or is likely to occur in the future fail to meet any one or more of the
three, specific PCEs . . . for a period of two consecutive years. Effects

1 considered for take must be directly attributable to livestock grazing or
2 livestock management.

3 [Criterion 2] Take will also be exceeded if conditions in any portion of the
4 project area where Chiricahua leopard frogs may occur are found to be within
5 the SPI [Standardized Precipitation Index²] category of D3 (extreme drought)
6 or worse (D4; exceptional drought) for an average value of -1.9 to -1.6 for
7 the first 12 months, and then as measured monthly (continuously) for an
8 additional 12 months at the D3 or D4 levels, if an agreement between the
9 BLM and the appropriate permittees is not entered into, or if action has not
10 been taken per 43 CFR 4110.3-3(b) to either reduce livestock numbers to
11 appropriate AUM levels or close portions of affected allotments.

12 152. The referenced PCEs affected by grazing include: PCE1a (salinity less than
13 5 parts per thousand, pH greater than or equal to 5.6, and pollutants absent or minimally
14 present); PCE1b (emergent and or submerged vegetation, root masses, undercut banks,
15 fractured rock substrates, or some combination thereof, but emergent vegetation does not
16 completely cover the surface of water bodies); and PCE1e (upland areas that provide
17 opportunities for foraging and basking that are immediately adjacent to or surrounding
18 breeding aquatic and riparian habitat).

19 153. The Service's surrogates fail to set forth a clear, enforceable standard for
20 determining when the level of authorized take of the Chiricahua leopard frog has been
21 exceeded. Both criteria provided are vague, ambiguous, and leave substantial room for
22 subjective interpretation.

23 154. With regard to Criterion 1, the threshold for determining when a site has
24 "failed to meet" a PCE is not clearly defined. While some of the PCEs offer some specific
25 metrics (e.g., salinity below 5 parts per thousand and pH above 5.6), the incidental take
26 thresholds do not clearly establish how or when violations of these thresholds constitute a
27 "failure" for two consecutive years and trigger a finding of exceeded take. For example, if

28 ² The Standardized Precipitation Index, or SPI, "is a drought index that captures how
observed precipitation deviates from the climatological average over a given time period."
U.S. Gridded Standardized Precipitation Index (SPI) from nClimGrid-Daily, Nat'l
Integrated Drought Info. Sys., NOAA, <https://www.drought.gov/data-maps-tools/us-gridded-standardized-precipitation-index-spi-nclimgrid-daily> (last visited July 6, 2026).

1 salinity and pH levels are exceeded, what kind and level of pollutants is necessary to
2 constitute a “failure” to meet PCE1a?

3 155. Criterion 1 further requires that effects be “directly attributable to livestock
4 grazing or livestock management.” However, it does not outline a methodology for
5 determining causation. Given that many stressors—such as drought, disease, and nonnative
6 species—overlap in the areas covered by the ITS, failing to establish clear protocols for
7 attributing degradation specifically to grazing leaves the standard vague and without a clear
8 trigger for reinitiation of consultation.

9 156. Criterion 2, which ties take exceedance to prolonged drought conditions as
10 measured by the Standardized Precipitation Index, is similarly flawed. The standard
11 requires prolonged drought conditions (24 consecutive months of D3- or D4-level drought)
12 before recognizing take exceedance. This arbitrary, prolonged timeframe allows ongoing
13 habitat degradation and take of the species for two years before triggering reinitiation of
14 consultation. In other words, regardless of livestock-related habitat destruction or the
15 number of frogs killed, harmed, or harassed by the proposed action, there is no mechanism
16 under this surrogate standard to exceed the ITS within the first two years of the project. By
17 imposing only a temporal limitation, the surrogate permits potentially irreversible harm to
18 the species and its critical habitat before reinitiation is required.

19 157. Criterion 2 is further arbitrary and unenforceable because its requirement of
20 twelve consecutive months of D3- or D4-level drought, measured on a monthly basis using
21 the Standard Precipitation Index, is functionally unattainable in the project area. The
22 Standard Precipitation Index is calculated as a deviation from average precipitation;
23 however, average precipitation in the Gila District is zero or near zero during certain
24 months, including May (and often June). Because precipitation cannot fall below a zero
25 baseline, Standard Precipitation Index values reset during those months. As a result, the
26 ITS establishes a take-exceedance trigger that cannot be met.

27 158. Moreover, even if the arbitrary threshold of 24 consecutive months of severe
28 drought is reached, take may still not be recognized as exceeded if an agreement between

1 the BLM and the appropriate permittees is entered into, some action—however minimal—
2 is undertaken to reduce livestock numbers to what are deemed “appropriate AUM levels,”
3 or unspecified portions of affected allotments are closed. This loophole fails to account for
4 whether those reductions are sufficient to mitigate the actual harm already inflicted on the
5 species and its habitat. Without clear, science-based criteria for determining when livestock
6 reductions are adequate to prevent take, this standard provides an ill-defined and
7 insufficient safeguard. It effectively allows continued harm under the guise of compliance,
8 enabling significant, ongoing habitat degradation and jeopardizing the long-term survival
9 of the species.

10 iv. The 2024 Biological Opinion’s Analysis of Effects to the Narrow-Headed
11 Gartersnake

12 159. The narrow-headed gartersnake faces multiple threats contributing to its
13 population decline and habitat degradation. Chief among these threats is the introduction
14 and spread of predatory nonnative aquatic species, such as bass, catfish, bullfrogs, and
15 crayfish. These invasive species directly reduce the gartersnake’s prey base, outcompete
16 native fish populations, and physically injure gartersnakes attempting to ingest them. The
17 ecological disruptions caused by these nonnative species have fundamentally altered many
18 of the gartersnake’s historical habitats, reducing both prey availability and habitat
19 suitability. Additionally, livestock grazing exacerbates the species’ decline by increasing
20 sedimentation in streams, degrading aquatic and riparian vegetation, reducing prey
21 abundance, and diminishing water quality through heightened turbidity and nutrient
22 loading.

23 160. Additional threats further compound the gartersnake’s vulnerability. Water
24 diversions and groundwater pumping deplete essential aquatic habitats, while wildfires and
25 post-fire flooding devastate fish populations and degrade water quality. Climate change
26 intensifies these threats by altering hydrological patterns, reducing and often eliminating
27 streamflows, and facilitating the expansion of predatory nonnative species. These factors,
28

1 in combination, increase habitat fragmentation and isolation of gartersnake populations,
2 leading to genetic bottlenecks and a diminished capacity for long-term population viability.

3 161. Despite acknowledging the threats posed by livestock grazing and other
4 environmental stressors, the Service's 2024 Biological Opinion concludes that the
5 proposed action would not jeopardize the continued existence of the narrow-headed
6 gartersnake. The Service further concludes that because critical habitat for the narrow-
7 headed gartersnake was designated upstream of the BLM allotments, the action is not
8 anticipated to adversely modify the species' critical habitat.

9 162. The Service bases its no-adverse modification determination on its
10 conclusion that "there is no effect" to narrow-headed gartersnake critical habitat. In doing
11 so, the Service fails to reconcile its conclusion with its own assertion that critical habitat
12 for the narrow-headed gartersnake in the Eagle Creek Unit "may be affected by the
13 proposed action." The Service dismisses its own finding without further analysis by
14 asserting that the location of critical habitat relative to grazing allotments obviates any
15 potential for adverse modification.

16 163. In issuing an ITS for the narrow-headed gartersnake, the Service found that:

17 take of individuals from the lower Eagle Creek population is considered
18 likely from project implementation. Take is anticipated to occur through
19 indirect, watershed-level mechanisms associated with grazing effects to fish
20 species and their habitat from sediment generation and transport into the
21 recipient stream which has been found to adversely affect foraging and
22 reproduction habitat of fish as prey species for the narrow-headed
23 gartersnake. The population status of narrow-headed gartersnakes along the
24 lower Gila and San Francisco Rivers in Arizona remains uncertain and
25 therefore we do not anticipate take of narrow-headed gartersnakes associated
26 with those rivers.

27 164. The Service determined that the "[i]ndirect take caused by the habitat-related
28 effects of this action are difficult to accurately quantify as a numerical level." Therefore,
the Service decided to "use fish as prey species as a surrogate for take of garter snakes,"
because "[f]ish are easier to find, survey, and monitor, and offer a more scientific basis for

1 providing incidental take for gartersnakes.” Therefore, “take of narrow-headed
2 gartersnakes will be considered exceeded if take is exceeded for Gila chub, spikedace, or
3 loach minnow, referencing the 2012 consultation on Gila District Grazing that could co-
4 occur in the Eagle Creek.”

5 165. However, in its 2012 Biological Opinion, the Service concluded that it did
6 not anticipate incidental take for the Gila chub, spikedace, or loach minnow. Thus, the
7 Service’s 2024 ITS—by tying incidental take of the narrow-headed gartersnake to these
8 fish species—effectively sets the allowable take at zero. Yet the Service offers no
9 explanation or rationale for how this zero-take scenario aligns with its own finding that
10 take of gartersnakes is likely to occur or with its conclusion in the 2024 Biological Opinion
11 regarding the adverse effects of the proposed action on the subject fish species. Nowhere
12 in the 2024 Biological Opinion does the Service reconcile these contradictions or explain
13 how its surrogate approach can meaningfully quantify or limit take of gartersnakes when
14 the chosen surrogate species were—in 2012—not expected to experience take themselves.
15 By tethering the ITS for the gartersnake to species for which no take is anticipated, the
16 Service has failed to provide a “statement concerning incidental take that[] [s]pecifies the
17 impact of incidental taking as the amount or extent of such taking.” 50 C.F.R.
18 § 402.14(i)(1)(i). It has also failed to establish a clear standard for determining when the
19 anticipated level of take of the narrow-headed gartersnake has been exceeded. *See id.*

20 166. Additionally, the Service’s conclusion that no take of narrow-headed
21 gartersnakes is anticipated along the lower Gila and San Francisco Rivers in Arizona—
22 based solely on its apparent uncertainty about the species’ population in those areas, and
23 despite record evidence confirming that the gartersnake is extant in the San Francisco
24 River—fails to comply with the Service’s mandatory duty under the ESA to issue a lawful
25 ITS. *See id.* § 402.14(i). Specifically, where, as here, the Service has found that the
26 proposed action may affect, and is likely to adversely affect the narrow-headed gartersnake
27 within the action area, but that no violation of Section 7(a)(2) will occur by the resultant
28

1 incidental take, the Service is required to issue an ITS that specifies the anticipated impact
2 of the incidental taking, expressed as the amount or extent of such taking. *Id.*

3 v. The 2024 Biological Opinion's Analysis of Effects to the Northern Mexican
4 Gartersnake

5 167. The northern Mexican gartersnake faces numerous, well-documented
6 threats, the most significant of which is the introduction and spread of predatory nonnative
7 aquatic species. These species severely impact gartersnake populations by reducing their
8 native prey base, physically injuring gartersnakes attempting to consume them, and directly
9 preying on juvenile snakes. The cumulative effects of these nonnative species have led to
10 drastic declines in the gartersnake's primary prey populations, resulting in cascading
11 ecological disruptions across its habitat.

12 168. Additional environmental stressors, including the depletion of aquatic
13 habitats, exacerbate the species' decline. Habitat degradation from livestock grazing
14 contributes to sedimentation, disrupts aquatic food webs, and depletes riparian vegetation
15 crucial for foraging and cover. The interaction of these threats leads to habitat
16 fragmentation, population isolation, and genetic bottlenecks, reducing the gartersnake's
17 ability to recover and maintain long-term viability.

18 169. Despite recognizing the myriad threats facing the northern Mexican
19 gartersnake, the Service's 2024 Biological Opinion concludes that the proposed action will
20 not jeopardize the northern Mexican gartersnake's continued existence or adversely modify
21 its critical habitat. The Service bases this conclusion in part on its assertion that adverse
22 effects from grazing are anticipated to be "indirect" and limited to "isolated portions" of
23 the species' range; northern Mexican gartersnakes have existed in conjunction with
24 livestock grazing programs on public lands; livestock grazing is not considered to be a
25 leading contributor to the decline of the species; and implementation of conservation
26 measures addressing nonnative species are likely to aid in gartersnake recovery.

27 170. In issuing an ITS for the northern Mexican gartersnake, the Service found
28 that "incidental take is expected to be in the form of harm or direct mortality from effects

1 associated with stockpond maintenance activities (such as dredging) in occupied habitat
2 and adverse effects from livestock and their management on the gartersnake prey base.”

3 171. The Service determined that effects of the proposed action that “result in dead
4 or impaired individuals are unlikely to be detected,” due to the species’ small size, effective
5 camouflage, underground habitats, and potential to occur in water of varying clarity.
6 Additionally, the Service acknowledged that “[s]easonal fluctuations in environmental
7 conditions and population factors such as emigration, immigration, and fluctuating habitat
8 conditions over time further mask detection.” Therefore, the Service decided to “use
9 measurable effects to its preybase” as a surrogate for evaluating take of the species, because
10 “not only are these effects measurable in terms of their effect to primary prey species of
11 the gartersnake, but also because of the tight correlation between occupancy of northern
12 Mexican gartersnakes and an available, functioning, and reliable prey base.” Therefore,
13 “take of northern Mexican gartersnakes will be considered exceeded if take is exceeded for
14 the Chiricahua leopard frog or for Gila chub, Gila topminnow, desert pupfish, spikedace,
15 loach minnow, or razorback sucker as referenced in the 2012 consultation on Gila District
16 Grazing that co-occur with the gartersnake.”

17 172. However, as explained above with respect to the narrow-headed gartersnake,
18 the Service’s reliance on surrogate species in the 2024 Biological Opinion is legally
19 deficient. In its 2012 Biological Opinion, the Service concluded that it did not anticipate
20 incidental take for the Gila chub, spikedace, loach minnow, or razorback sucker.
21 Nevertheless, the ITS ties the allowable take for the northern Mexican garternake to those
22 same species. This effectively sets the allowable take at zero, to the extent that the take of
23 Gila chub, spikedace, loach minnow, or razorback sucker is used as a surrogate. Yet the
24 Service offers no explanation or rationale for how this zero-take threshold aligns with its
25 own finding northern Mexican gartersnakes will be taken as a result of the proposed action
26 or with its conclusion in the 2024 Biological Opinion regarding the adverse effects of the
27 proposed action on the subject prey species. Nowhere in the 2024 Biological Opinion does
28 the Service reconcile these contradictions or explain how its surrogate approach can

1 meaningfully quantify or limit take of gartersnakes when the chosen surrogate species
2 were—in 2012—not expected to experience take themselves. By tethering the ITS for the
3 gartersnake to species for which no take is anticipated, the Service has failed to provide a
4 “statement concerning incidental take that[] [s]pecifies the impact of incidental taking as
5 the amount or extent of such taking.” 50 C.F.R. § 402.14(i)(1)(i). The Service has also
6 failed to establish a clear standard for determining when the anticipated level of take of the
7 northern Mexican gartersnake has been exceeded. *See id.*

8 173. Additionally, for the reasons explained above in Section V.iii, *supra*, the
9 Chiricahua leopard frog incidental take surrogates are unclear and unenforceable.
10 Accordingly, reliance on Chiricahua leopard frog surrogates to measure incidental take of
11 northern Mexican gartersnake fails to provide a clear, enforceable standard for determining
12 when the level of authorized take has been exceeded. Accordingly, by tethering the ITS for
13 the northern Mexican gartersnake to an unenforceable surrogate, the Service compounds
14 its failure to ensure compliance with the ESA’s requirements for its ITS and associated
15 reinitiation triggers.

16 vi. *The 2024 Biological Opinion’s Analysis of Effects to the Gila Chub and Gila*
17 *Topminnow*

18 174. The Gila chub has experienced significant range-wide declines, driven
19 primarily by habitat degradation across the Southwest. These impacts stem from
20 groundwater pumping and increased sedimentation, erosion, and arroyo cutting from
21 livestock grazing, as well as other activities. Compounding these threats is the introduction
22 and proliferation of competitive and predatory nonnative species, which remain among the
23 primary drivers of the chub’s decline—both within the Gila River basin and throughout its
24 native range.

25 175. The Gila topminnow faces a similar suite of threats, including predation and
26 competition from nonnative fishes, climate change, and habitat degradation linked to
27 livestock grazing and other uses. According to the Draft Revised Recovery Plan (1998),
28 these uses continue to present great threats through increased erosion, intensified flood

1 events, and reduced groundwater retention—each posing a serious risk to topminnow
2 habitat.

3 176. Livestock grazing, in particular, has long been recognized as one of the most
4 pervasive and enduring sources of adverse impacts to native fish and their habitats. Grazing
5 practices can destabilize stream channels, impair riparian ecosystem functions, and lead to
6 nutrient loading in aquatic systems. Grazing also strips riparian vegetation critical to fish
7 habitat, resulting in elevated stream temperatures, increased sedimentation, soil erosion,
8 and deteriorating water quality. Although the discontinuation of grazing in riparian areas
9 is known to reduce the adverse effects of livestock grazing, destruction of riparian areas by
10 livestock remains a persistent threat in some areas.

11 177. The 2024 Biological Opinion examines two proposed actions that pertain to
12 Bonita Creek: (1) pumping from Bonita Creek to provide water for livestock in upland
13 areas; and (2) trailing of livestock through Bonita Creek four times annually. The
14 Biological Opinion assumes that all BLM-administered lands within Bonita Creek, which
15 includes Bonita Creek, Johnny Creek, and Bullgap Community allotments, are excluded
16 from grazing.

17 178. Water pumping from Bonita Creek—authorized under an existing water right
18 that allows withdrawal of up to 1,451,718 gallons per year—is conducted at multiple sites.
19 Pumping withdraws water directly from the creek via screened intakes positioned in the
20 water column, posing risks of entrainment or impingement to fish eggs and larvae. The
21 2024 Biological Opinion concedes that it is unknown if the velocity of water intake is
22 sufficiently low to prevent fish from being impinged on the screen surface.

23 179. Beyond direct intake-related risks, water withdrawals have materially
24 degraded the hydrological and ecological integrity of Bonita Creek. Monitoring has
25 documented significant declines in pool volume and connectivity. According to the
26 Service's 2024 Biological Opinion, a nearly half-mile stretch of creek has experienced
27 measurable drying, loss of lateral and vertical pool habitat, sedimentation, and cattail
28 encroachment. Dewatering also impairs water quality, resulting in higher water

1 temperatures and pH and decreased dissolved oxygen. It may also intensify and increase
2 predation and competition. These changes impair breeding and rearing habitat, reduce
3 water quality, and increase exposure to predation and disease. Reduced hydrologic
4 connectivity further limits fish movement, foraging opportunities, and escape responses.

5 180. The proposed action would also permit the trailing of cattle through Bonita
6 Creek four times annually. These drives coincide with sensitive seasonal conditions,
7 including late winter rains and potential flooding, when riparian soils are saturated and
8 most vulnerable to trampling. The 2024 Biological Opinion concedes that even brief
9 livestock presence in riparian zones causes immediate damage to streambanks and instream
10 habitat through chiseling, compaction, and collapse. Trampling can result in the direct
11 mortality of larval fish, which congregate in shallow margins and lack mobility to escape.
12 Moreover, these activities contribute to sedimentation, nutrient loading, and vegetative
13 loss—each of which diminishes the stream’s capacity to support native fish populations.

14 181. The Service acknowledges that concentrated movement of large numbers of
15 cows through Bonita Creek will result in pronounced sedimentation of effected reaches,
16 and that excessive sedimentation can cause the filling of backwaters that provide larval and
17 juvenile fish habitat, reduce food production and availability by smothering invertebrates,
18 and impair fish ability to see and capture food related to turbidity.

19 182. No species-specific protections are in place for any native fish species,
20 including the Gila chub and Gila topminnow. Only the general conservation measures, such
21 as fence repair, “coordination” between the BLM and the Service, and monitoring, are to
22 be implemented.

23 183. Despite the various threats the proposed action poses to native fish species,
24 the Service concludes that the action is not likely to jeopardize the continued existence of
25 the Gila chub and Gila topminnow. The Service bases its conclusion on the following:

26 Gila chub and Gila topminnow have remained demonstrably extant
27 throughout most sampled reaches of Bonita Creek since they were initially
28 stocked, post-renovation. Gila chub are considered to have the most robust
population in Bonita Creek of native fish species present. The very low

1 numbers of nonnative aquatic predators and focused management on
2 sustained conservation of native fishes allow greater tolerance among years
3 to sources of potential take from pumping or livestock trailing effects.
4 Populations of these two species are also replicated within other basins
throughout their ranges.

5 184. After concluding that the proposed action would not jeopardize the Gila chub
6 or Gila topminnow, the Service issued an ITS, anticipating incidental take in the form of
7 harm or direct mortality from effects associated with water withdrawals from, and livestock
8 trailing through, Bonita Creek. The Service noted that drought conditions are also expected
9 to exacerbate effects of the proposed action.

10 185. Anticipating that incidental take of chub and topminnow will be difficult to
11 directly detect, the Service adopted surrogate thresholds to measure take. Specifically, the
12 ITS provides that take will be exceeded if one or both of the following conditions are met:

13 [Criterion 1] More than 20 percent of the alterable stream banks by length
14 along affected reaches of Bonita Creek have not fully recovered from
15 trampling, chiseling, or other physical impact by livestock trailing before a
subsequent trailing event.

16 [Criterion 2] We define official drought status as when the SPI reaches an
17 average value of minus 1.00 or less (condition D1 in SPI) for the preceding
18 12-month period. The SPI for the action area can be evaluated at:
19 [https://www.drought.gov/data-maps-tools/us-gridded-standardized-](https://www.drought.gov/data-maps-tools/us-gridded-standardized-precipitation-index-spi-nclimgrid-daily)
20 [precipitation-index-spi-nclimgrid-daily](https://www.drought.gov/data-maps-tools/us-gridded-standardized-precipitation-index-spi-nclimgrid-daily). Implementation of current drought
21 response measures, as described above in the “Description of the Proposed
22 Action” section, by BLM or permittees/lessees (whether voluntary or not),
23 must be initiated within 12 months of entering official continuous drought
24 status as defined by the SPI, if monthly drought continues. Take will also be
25 exceeded if conditions in any portion of the project area affecting Bonita
26 Creek are found to be within the SPI category of D3 (extreme drought) or
27 worse (D4; exceptional drought) for an average value of -1.9 to -1.6 for the
28 first 12 months, and then as measured monthly (continuously) for an
additional 12 months at the D3 or D4 levels, if an agreement between the
BLM and the appropriate permittees is not entered into, or if action has not
been taken per 43 CFR [§] 41.10.3-3(b) to either reduce livestock numbers to
appropriate AUM levels or close portions of affected allotments.

1 186. The Service’s surrogates fail to set forth a clear, enforceable standard for
2 determining when the level of authorized take of the Gila chub and Gila topminnow has
3 been exceeded.

4 187. Criterion 1 provides no measurable definition of “full recovery,” rendering
5 the 20 percent threshold vague and unworkable for enforcement or monitoring purposes.

6 188. Criterion 2, which ties take exceedance to prolonged drought conditions as
7 measured by the Standardized Precipitation Index, is also flawed. The standard requires
8 prolonged drought conditions (24 consecutive months of D3- or D4-level drought) before
9 recognizing take exceedance. This arbitrary, prolonged timeframe allows ongoing habitat
10 degradation and take of the species for two years before triggering reinitiation of
11 consultation. In other words, regardless of livestock-related habitat destruction or the
12 number of fish killed, harmed, or harassed by the proposed action, there is no mechanism
13 under this portion of the surrogate standard to exceed the ITS within the first two years of
14 the project. By imposing only a temporal limitation, the surrogate permits potentially
15 irreversible harm to the species and its critical habitat before reinitiation is required.

16 189. Criterion 2 is further arbitrary and unenforceable because its requirement of
17 twelve consecutive months of D3- or D4-level drought, measured on a monthly basis using
18 the Standard Precipitation Index, is functionally unattainable in the project area. The
19 Standard Precipitation Index is calculated as a deviation from average precipitation;
20 however, average precipitation in the Gila District is zero or near zero during certain
21 months, including May (and often June). Because precipitation cannot fall below a zero
22 baseline, Standard Precipitation Index values reset during those months. As a result, the
23 ITS establishes a take-exceedance trigger that cannot be met.

24 190. Even if the 24-month drought threshold is met, take is not automatically
25 recognized as exceeded if the BLM and appropriate permittees agree to unspecified
26 measures, undertake minimal reductions in livestock numbers, or close some unspecified
27 portions of affected allotments. This loophole fails to account for whether those reductions
28 are sufficient to mitigate the actual harm already inflicted on the species and its habitat.

1 Without clear, science-based criteria for determining when livestock reductions are
2 adequate to prevent take, this standard provides an ill-defined and insufficient safeguard.
3 It effectively allows continued harm under the guise of compliance, potentially enabling
4 significant, ongoing habitat degradation and jeopardizing the long-term survival of the
5 species.

6 vii. The 2024 Biological Opinion's Analysis of Effects to the Southwestern Willow
7 Flycatcher

8 191. In analyzing the effects of the action on the southwestern willow flycatcher,
9 the Service acknowledges that livestock grazing can cause adverse effects to the flycatcher
10 and its critical habitat, primarily through the degradation and modification of riparian
11 habitat essential to the species' foraging, nesting, and reproductive success. Specifically,
12 the Service acknowledges in its 2024 Biological Opinion that habitat degradation due to
13 grazing can have adverse effects to the birds by "limiting their ability to forage and nest,
14 limiting cover and refuge, impacting the quality and availability of water, which can cause
15 stress ultimately impacting their health, reducing their lifespan, and reducing their
16 reproductive success and fecundity."

17 192. The Service further recognizes that livestock grazing reduces the diversity,
18 density, and structural complexity of riparian vegetation—including cottonwoods and
19 willows—which are key components of suitable flycatcher habitat and necessary to support
20 successful nesting, as well as reduce insect prey populations. For example, livestock can
21 reduce the suitability of riparian areas by reducing canopy covers, including lower levels
22 preferred by flycatchers. These effects are particularly pronounced where grazing occurs
23 year-round or during spring and summer, when riparian vegetation is most vulnerable and
24 when flycatchers are actively nesting. The Service further concedes that reducing permitted
25 livestock numbers alone does little to alleviate these effects, given livestock's tendency to
26 concentrate in riparian areas, causing degradation regardless of overall stocking rates.

27 193. The Service also acknowledges that livestock activity, including herbivory
28 and soil and plant trampling, can alter vegetation composition, increase erosion and

1 sedimentation into streams, and exacerbate the impact of flood events. Livestock promote
2 the establishment of non-native plant species, which are generally more flammable and can
3 alter fire regimes. Impacts originating in upland watersheds can further compromise the
4 structure and function of riparian and stream habitats downstream.

5 194. Beyond habitat degradation, the Service acknowledges that livestock
6 presence and associated range improvements—including water developments and
7 corrals—contribute to increased brood parasitism by brown-headed cowbirds, a known
8 threat to flycatcher reproductive success. Cowbirds are drawn to grazed and disturbed
9 areas, where they exploit the proximity of degraded habitat to parasitize flycatcher nests.
10 Range improvements can also lead to increased modification and fragmentation of habitat.

11 195. The Service further concedes that livestock grazing may result in direct take
12 of flycatcher eggs and nestlings through nest destruction during foraging activity.
13 Additionally, behavioral modifications and nest abandonment may result from livestock or
14 human disturbance in breeding territories.

15 196. In its analysis of critical habitat impacts, the Service anticipates that grazing
16 may impair multiple Primary Constituent Elements of designated flycatcher critical habitat,
17 including:

18 [PCE 1.a] Dense riparian vegetation with thickets of trees and shrubs that can
19 range in height from about 2 to 30 m (about 6 to 98 ft). Lower-stature thickets
20 (2 to 4 m or 6 to 13 ft tall) are found at higher elevation riparian forests and
tall-stature thickets are found at middle and lower-elevation riparian forests;

21 [PCE 1.b] Areas of dense riparian foliage at least from the ground level up
22 to approximately 4 m (13 ft) above ground or dense foliage only at the shrub
or tree level as a low, dense canopy;

23 [PCE 1.c] Sites for nesting that contain a dense (about 50 percent to 100
24 percent) tree or shrub (or both) canopy (the amount of cover provided by tree
and shrub branches measured from the ground);

25 [PCE 1.d] Dense patches of riparian forests that are interspersed with small
26 openings of open water or marsh or areas with shorter and sparser vegetation
27 that creates a variety of habitat that is not uniformly dense. Patch size may
28 be as small as 0.1 ha (0.25 ac) or as large as 70 ha (175 ac).

1 197. Grazing depletes vegetative cover needed for nesting and foraging and can
2 alter vegetative composition through selective browsing and suppression of woody plant
3 regeneration. These habitat changes increase nest visibility to predators and reduce the
4 foraging options. The Service acknowledges that grazing pressure, especially during dry
5 conditions, increase the severity of damage to riparian structure and function.

6 198. Notwithstanding its recognition of these adverse effects, the Service
7 concludes that the BLM's grazing program is not likely to jeopardize the continued
8 existence of the flycatcher, and is not likely to destroy or adversely modify any designated
9 critical habitat. The Service bases these conclusions on the following: (1) livestock have
10 been excluded from flycatcher habitat on most BLM lands, and some non-Federal lands,
11 in the allotments during breeding season, and that livestock in exclosures are purportedly
12 removed as soon as possible; (2) the BLM will implement measures to reduce livestock
13 concentration near flycatcher habitat, monitor cowbird parasitism, and possibly implement
14 livestock management actions to reduce cowbird parasitism; (3) the BLM will continue to
15 manage its lands to "meet the standards and guidelines," which will minimize both direct
16 and indirect watershed effects to flycatcher habitat, including critical habitat, and possibly
17 minimize effects to habitat over time; (4) the recovery potential of critical habitat will not
18 be compromised because the BLM will implement actions that minimize or eliminate
19 adverse effects to the PCEs; (5) the stocking rates on most allotments are generally
20 considered low stocking rates which likely alleviates cowbird parasitism concerns; (6) the
21 number of flycatcher territories on four allotments has increased, thus demonstrating
22 existing grazing management may be commensurate with flycatcher recovery; and
23 (7) livestock may affect the species composition and shrub density in affected areas, but it
24 is unlikely that this will significantly reduce the current or future suitability for breeding
25 flycatchers in the Gila District because the BLM is implementing protective measures such
26 as exclusion or restriction of livestock in riparian areas during the growing seasons, and
27 most of the allotments that have been assessed are meeting Standard 2 of the Arizona
28

Standards for Rangeland Health, which will facilitate the maintenance and development of breeding habitat.

199. In issuing its ITS for the flycatcher, the Service found that:

[I]ncidental take from livestock management [is anticipated] to occur likely in areas where livestock are not wholly excluded [i.e., Day Mine, Sand Wash, and Tom Springs]. . . . In these areas, take may occur from disturbance to nesting flycatchers, affects to nesting habitat from grazing, and from cowbird nest parasitism. Take may be in the form of harm, harassment, injury, or death resulting from the loss or disturbance of a nest, fledgling mortality, or abandonment of nests or territories. Where access is provided, livestock are known to pull down or brush against nests while foraging in or walking through riparian areas; therefore, incidental take of willow flycatcher nests and young is a likely effect of grazing on nonfederal lands in flycatcher breeding areas. Cowbird parasitism to flycatcher nests/chicks on BLM and non-Federal lands in riparian areas during the nesting season is also likely to occur.

200. The Service's conclusion that incidental take of flycatchers is only reasonably certain to occur on three allotments—Day Mine, Sand Wash, and Tom Springs—is based on the assumption that grazing is excluded from flycatcher breeding habitat on all other allotments. However, the Service fails to provide a rational explanation for this conclusion. Pervasive unauthorized grazing in flycatcher critical habitat is known to occur outside of these three allotments. For example, the BLM's 2023 Biological Evaluation states that "incidental unauthorized livestock use along sections of riparian habitat in Bonita Creek and the Gila River has been documented." Additionally, the Service states that "[l]ivestock in the exclosures are removed as soon as possible," acknowledging both that livestock do access areas intended to be off-limits and the human removal of livestock. The Center also repeatedly submitted information to the Service and BLM demonstrating that unauthorized grazing is occurring on flycatcher breeding habitat outside these three allotments. Moreover, the Service admits that incidental take is anticipated in areas where livestock are not wholly excluded from flycatcher breeding habitat and that human disturbances may induce behavioral modifications or nest abandonment, further

1 impacting flycatcher reproductive stress. The Service’s failure to reconcile these facts with
2 its conclusion renders it arbitrary and capricious. *See Ctr. for Biological Diversity v. U.S.*
3 *BLM*, 2026 U.S. Dist. LEXIS 68876, at *21 (“[I]n omitting any discussion regarding the
4 fact that preexisting fences on the Horseshoe Allotment had not been fully effective in
5 keeping cattle out of restricted areas, the agencies entirely failed to consider an important
6 aspect of the problem at hand.”).

7 201. The Service’s ITS provides a surrogate for evaluating take of the flycatcher.
8 Specifically, the ITS states that take will be exceeded “if monitoring documents a reduction
9 of >50% of the number of territories in any of the identified allotments,” *i.e.*, Day Mine,
10 Sand Wash, and Tom Springs allotments, “compared to the previous monitoring results.”
11 The ITS further requires that the reduction in territories be “attributable to grazing,” rather
12 than to drought, flooding, fire, or other factors.

13 202. The ITS fails to provide a methodology for determining whether the
14 reduction in territories is “attributable to grazing.” In areas subject to multiple overlapping
15 stressors, the absence of clear, objective protocols for attributing reduction in territories
16 specifically to grazing leaves the standard vague. Without such guidance, the ITS does not
17 provide a meaningful trigger for reinitiation of consultation, violating the ESA.
18 Additionally, the Service’s Terms and Conditions require the establishment of a baseline
19 condition within 24 months, delaying the point at which any reduction in territories can
20 even be measured against a reference condition. By allowing grazing to proceed for two
21 years without a functioning baseline, the ITS cannot detect whether take is occurring during
22 that period and thus fails to provide an enforceable mechanism for determining when the
23 level of anticipated take has been exceeded.

24 viii. *The 2024 Biological Opinion’s Analysis of Effects to the Western Yellow-Billed*
25 *Cuckoo*

26 203. The 2024 Biological Opinion states that the primary threat to the cuckoo is
27 loss and degradation of its habitat from altered watercourse hydrology and natural stream
28 processes, livestock overgrazing, resulting conversion of native habitat to predominantly

1 nonnative vegetation, among other issues. Additional threats include climate change and
2 drought.

3 204. These ongoing threats, which have resulted in small, isolated populations,
4 cause the rare remaining cuckoo populations to be increasingly susceptible to further
5 declines and local extirpations through various factors including climate change events.
6 The warmer temperatures already occurring in the Southwest may alter the plant species
7 composition of riparian forests over time. An altered climate may also disrupt and change
8 food availability for the cuckoo if the timing of peak insect emergence changes in relation
9 to when the cuckoos arrive on their breeding grounds to feed on this critical food source.

10 205. In analyzing the effects of the action, the Service acknowledges several
11 significant impacts of livestock grazing on the cuckoo and its critical habitat. For example,
12 the Service recognizes that grazing “within riparian woodlands, mesquite bosque, and
13 xeroriparian vegetation communities that provide breeding and foraging habitat for
14 cuckoos . . . could result in direct disturbance to cuckoos nests, eggs, or nestlings from
15 livestock movements.” The Service further recognizes that grazing “can reduce habitat
16 quality by reducing vigor of existing vegetation and preventing growth, reproduction, and
17 recruitment of cottonwoods and willows, and other woody and herbaceous vegetation,”
18 and reducing insect prey availability. Accordingly, the Service expects that “grazing may
19 adversely affect cuckoo habitat through trampling of vegetation and seedbeds, grazing of
20 cottonwood, willow, and other woody plant seedlings, soil compaction, and creation of
21 trails in habitats used for breeding.” These impacts are compounded by the tendency of
22 livestock to remain in riparian zones “because of the availability of shade, water, and
23 forage.”

24 206. Additionally, the Service acknowledges that “[f]ragmentation of riparian
25 habitat can also reduce suitability of nesting habitat, increase nest predator access to cuckoo
26 nests, and reduce nest success.” The Service further notes that “grazing may also adversely
27 affect yellow-billed cuckoos by diminishing recruitment and growth of riparian and
28 xeroriparian vegetation that serves as cuckoo nesting substrates, woody and herbaceous

1 plants in the riparian and xeroriparian understory, and adjacent upland areas in which the
2 birds forage.” It also highlights that “[c]limatic variability may exacerbate the impacts of
3 livestock grazing in sensitive habitats,” that grazing “can result in adverse effects to
4 cuckoos by impacting channel morphology, as well as temporary changes in water quality,”
5 and that “[b]ank alteration from hoof shear during livestock movements can increase
6 incision, reduce bank stability, and remove aquatic vegetation and woody species in
7 affected areas.”

8 207. Despite the Service’s findings that the proposed action would likely result in
9 adverse effects to cuckoos, cuckoo habitat (including designated critical habitat), and
10 cuckoo recovery, the Service concludes in its Biological Opinion that these impacts “will
11 not appreciably reduce survival and recovery of the cuckoo because the effects will not
12 reduce reproduction, numbers, or distribution of the species.” The Service further states
13 that it does “not expect habitat availability to be a limiting factor in the action area due to
14 the cuckoos’ wider tolerance to various types of habitat and habitat conditions.” Citing its
15 view that “cuckoos are widespread,” that nesting cuckoo populations and designated
16 critical habitat occur across portions of nine states, and that “monitoring data from
17 elsewhere in southern Arizona that is also exposed to long term public lands grazing where
18 cuckoos continue breeding, sheltering, or foraging behaviors” indicate habitat retains
19 essential features, the Service concluded that the proposed action “is not likely to
20 jeopardize the continued existence of the cuckoo, and is not likely to destroy or adversely
21 modify designated critical habitat.”

22 208. With regard to the action’s effects to recovery, the Service acknowledged
23 that “[t]he point at which yellow-billed cuckoo will recover (i.e. delisted from its threatened
24 status) is difficult to definitively determine in the absence of a recovery plan.” In the
25 absence of a recovery plan for the cuckoo, the Service assumed that “[t]he proposed action
26 will not push the cuckoo past a tipping point” due to the fact that cuckoo is purportedly
27 widespread at the range-wide scale, because most of the riparian habitat in the action area
28

1 is purportedly excluded from grazing, and because cowbirds are not generally associated
2 with adverse effects to cuckoos via parasitism of their nests.

3 209. In concluding that the proposed action is not likely to jeopardize the
4 continued existence of cuckoo or result in the destruction or adverse modification of
5 cuckoo critical habitat, the Service relies on the assumption that most of the riparian habitat
6 in the action area is excluded from grazing. However, this assumption is not supported by
7 evidence before the agency, including evidence in the BLM's 2023 Biological Evaluation
8 for the Gila District's Livestock Grazing Program, which documents the steady and
9 sustained presence of unauthorized livestock in cuckoo critical habitat in the Gila Box
10 RNCA for over a decade. The Service's assumption is further belied by evidence before
11 the agency from Plaintiff Center's surveys of cattle impacts in cuckoo critical habitat on
12 grazing allotments within the Gila District, including the A-Diamond, Cochran,
13 Horsetrack, LEN, Myers, Teacup Ranch, Whitlow, Bonita Creek, Johnny Creek, Zorilla,
14 Gila, Morenci, Bull Gap Community, Twin C, Mescal Mountain, Christmas, and Hidalgo
15 allotments. These surveys documented widespread cattle damage and numerous instances
16 of damaged, nonfunctional or missing exclusion fencing throughout the survey area
17 immediately prior to, or during, cuckoo nesting and breeding seasons. *See Ctr. for*
18 *Biological Diversity v. U.S. BLM*, 2026 U.S. Dist. LEXIS 68876, at *21 (“[I]n omitting
19 any discussion regarding the fact that preexisting fences on the Horseshoe Allotment had
20 not been fully effective in keeping cattle out of restricted areas, the agencies entirely failed
21 to consider an important aspect of the problem at hand.”).

22 210. After concluding that the proposed action is not likely to jeopardize the
23 continued existence of the cuckoo or destroy or adversely modify designated critical
24 habitat, the Service issued an ITS for the species. However, in doing so, the Service
25 assumed that because some cuckoos continue to use the habitat across other southern
26 Arizona survey sites that are subject to grazing, there would be no incidental take from
27 grazing activities: “We do not anticipate the incidental take of yellow-billed cuckoos from
28 livestock grazing on the [Gila District] based on the analysis of consistent yellow-billed

1 cuckoo occupancy across other southern Arizona survey sites in areas subject to various
2 current grazing practices, including non-use by livestock over varying spatial and temporal
3 scales.”

4 211. Nowhere in the Biological Opinion did the Service attempt to reconcile its
5 finding that the cuckoo would not be taken in any way by the BLM’s grazing programs
6 with the Service’s identification elsewhere in the Biological Opinion of the myriad,
7 concrete effects that are anticipated to adversely affect the cuckoo, including cuckoo eggs
8 and nestlings, and the species’ habitat. In other words, the Biological Opinion fails to
9 explain why the anticipated adverse effects on cuckoo and cuckoo critical habitat do not
10 rise to the level of take. Instead, the Service simply points to the presence of cuckoos across
11 other sites subject to grazing. However, the fact that cuckoos persist outside of the action
12 area has no bearing on whether any form of take, including non-lethal harassment, is
13 reasonably certain to occur as a result of the proposed action within the action area.

14 **VI. The Gila Box Riparian National Conservation Area**

15 212. The Arizona Desert Wilderness Act of 1990 established the Gila Box RNCA
16 “to conserve, protect, and enhance the riparian and associated areas” and “the aquatic,
17 wildlife, archeological, paleontological, scientific, cultural, recreational, educational,
18 scenic, and other resources and values of such areas.” 16 U.S.C. § 460ddd(a).

19 213. The Gila Box RNCA, which consists of scenic, steep-walled desert canyons,
20 includes four perennial waterways: the Gila and San Francisco rivers and Bonita and Eagle
21 creeks.

22 214. In accordance with the Arizona Desert Wilderness Act of 1990, 16 U.S.C.
23 § 460ddd(g), the BLM developed a comprehensive management plan for the Gila Box
24 RNCA in 1998 (the “Gila Box RNCA Management Plan”).

25 215. The Gila Box RNCA Management Plan directs that livestock will be deferred
26 from the riparian areas within the RNCA for the life of the Plan. According to the Plan,
27 this deferment of grazing best meets the statutory mandate to conserve, protect, and
28

1 enhance the riparian areas, and provides the best protection for natural and cultural
2 resources.

3 216. The Gila Box RNCA Management Plan provides that riparian corridors may
4 only be used on a very limited basis to trail livestock as part of pasture rotations that are
5 implemented to achieve RNCA management goals and objectives.

6 217. The Gila Box RNCA Management Plan further provides that the BLM must
7 work closely with livestock operators to remove livestock and repair fencing as quickly as
8 possible when incidental trespasses occur.

9 218. The Gila Box RNCA Management Plan also requires the BLM to monitor
10 populations and habitats of threatened and endangered species. This includes population
11 estimate surveys for Gila chub within lower Bonita Creek, in order to determine the
12 population stability and viability in the upper and lower reaches of the creek.

13 219. For the Johnny Creek allotment, the Gila Box RNCA Management Plan
14 prohibits livestock use in the riparian area along Bonita Creek.

15 220. For the Bonita Creek allotment, the Gila Box RNCA Management Plan
16 prohibits livestock use within the riparian areas along Bonita Creek and the Gila River.
17 Grazing was required to be discontinued on approximately 1,900 acres of upland habitat
18 until fencing was constructed that would exclude livestock from Bonita Creek.

19 221. For the Bull Gap Community allotment, the Gila Box RNCA Management
20 Plan prohibits livestock use within the riparian areas along Bonita Creek and the Gila River.

21 222. For the Gila and Morenci allotments, the Gila Box RNCA Management Plan
22 prohibits livestock use on public land in the riparian areas along the Gila River.

23 223. For the Zorilla allotment, the Gila Box RNCA Management Plan requires a
24 quarter mile of fence to exclude livestock from accessing the Gila River.

25 **VII. The Middle Gila Allotments**

26 224. The Center has also surveyed the Gila District's "Middle Gila" allotments
27 for grazing impacts—both before and after the 2024 Biological Opinion was issued. The
28 Middle Gila allotments include the A-Diamond, Teacup Ranch, LEN, Cochran,

1 Horsetrack, Myers, and Whitlow allotments, which contain occupied or critical habitat for
2 southwestern willow flycatcher and western yellow-billed cuckoo. In addition, Center
3 surveys have also found unauthorized grazing impacts in the Mescal Mountain, Christmas,
4 and Hidalgo allotments, which contain occupied and/or critical habitat for western yellow-
5 billed cuckoo.

6 225. Unlike the Gila Box RNCA, grazing is permitted in riparian areas within the
7 Middle Gila allotments. However, pursuant to the 2012 and 2024 Biological Opinions,
8 riparian areas are closed to grazing during the breeding season for threatened and
9 endangered species in order to protect critical riparian habitat when these species need it
10 most, with the exception of the northern portion of the Christmas Allotment.

11 226. On April 10, 2023, the Center and the Alliance (then known as Maricopa
12 Audubon Society) sent a sixty-day Notice to BLM and the Service detailing the results of
13 biological surveys conducted in April and December 2022, in critical habitat in the Middle
14 Gila allotments. These surveys demonstrated extensive out-of-season cattle presence and
15 degradation of critical habitat.

16 227. On May 1, 2023, the Center sent the agencies an addendum to the April 2023
17 Notice, detailing cattle impact surveys conducted April 11–12, 2023, in critical habitat in
18 the Middle Gila allotments. Once again, these surveys demonstrated extensive cattle
19 presence and degradation of critical habitat in areas where, and at times when, the 2012
20 and 2024 Biological Opinions direct that livestock will be excluded.

21 228. On April 23, 2024, the Center sent BLM and the Service a letter detailing the
22 results of biological surveys conducted April 14, 2024, in critical habitat in the A-Diamond,
23 Teacup Ranch, LEN, and Cochran allotments. Pursuant to the 2024 Biological Opinion,
24 riparian critical habitat in these allotments is closed during breeding season (which includes
25 April). These surveys demonstrated cattle presence in locations and at times when the
26
27
28

1 relevant biological opinions direct that cattle be excluded, and degradation of critical
2 habitat.

3 229. On April 10, 2025, the Center sent BLM and the Service a letter detailing the
4 results of biological surveys conducted April 4, 2025 in critical habitat in the Middle Gila
5 allotments. Pursuant to the 2024 Biological Opinion, riparian critical habitat in these
6 allotments is closed during breeding season (which includes April). These surveys
7 demonstrated cattle presence in locations and at times when the relevant biological
8 opinions direct that cattle be excluded, and degradation of critical habitat.

9 230. On April 15, 2025, the Center sent the agencies an addendum to the April 10,
10 2025 letter, detailing biological surveys conducted in the Mescal Mountain, Christmas, and
11 Hidalgo allotments on April 7–8, 2025. Pursuant to the 2024 Biological Opinion, riparian
12 critical habitat in these allotments is closed during breeding season (which includes April).
13 These surveys demonstrated extensive out-of-season cattle presence and degradation of
14 critical habitat.

15 231. On April 7, 2026, the Center sent BLM and the Service a letter detailing the
16 results of biological surveys conducted from April 2–4, 2026, in riparian areas of the A-
17 Diamond, Teacup Ranch, LEN, Cochran, Horsetrack, Myers, Whitlow, Christmas, and
18 Mescal Mountain allotments. These surveys demonstrated cattle presence in locations and
19 at times when the relevant biological opinions require exclusion, with surveyors observing
20 an estimated total of nearly 100 head of cattle. They also documented widespread damage
21 in designated critical and/or known occupied habitat for southwestern willow flycatchers
22 and western yellow-billed cuckoo. The damage included degraded and sloughing
23 streambanks, trampled and grazed riparian understory vegetation, denuded riparian
24 terraces, and consumption of cottonwood and willow regeneration. Unfortunately, virtually
25 every riparian access point for livestock showed significant, ongoing damage.

26 232. As these surveys have repeatedly shown, the 2024 BiOp's key assumption
27 that riparian critical habitat in the Gila District will be seasonally closed to livestock
28

1 grazing is false. This new information requires reinitiation of consultation to address these
2 widespread impacts to threatened and endangered species and their critical habitat.³

3 **VIII. New Information Reveals Effects of Livestock Grazing Within the Gila District**
4 **in a Manner and to an Extent Not Considered in the 2012 or 2024 Biological**
5 **Opinions**

6 233. In March 2024, August 2024, March–April 2025, August 2025, and March
7 2026, professional biologists contracted by Plaintiff Center conducted field surveys of
8 riparian critical habitat within the Gila Box RNCA.

9 234. In April and December 2022, April 2023, April 2024, April 2025, and April
10 and May 2026, professional biologists contracted by the Center conducted field surveys of
11 riparian critical habitat within the Middle Gila allotments and the Mescal Mountain,
12 Christmas, and Hidalgo allotments.

13 235. These biological surveys documented trespass cattle throughout riparian
14 critical habitat with the Gila District, including in major tributaries such as Bonita Creek.
15 The surveys also documented numerous cows and cattle grazing damage along riparian
16 corridors that are required to be protected from cattle grazing.

17 236. The surveys demonstrated that the Service’s assumption in the 2024
18 Biological Opinion that livestock impacts would be limited to pumping of water from
19 Bonita Creek and trailing of livestock through Bonita Creek four times annually is false.

20 237. Documented livestock-attributable impacts observed across the Gila Box
21 RNCA and Middle Gila allotments included the following: extensive trampling and
22 browsing of riparian vegetation and recruitment, including Goodding’s willow and
23 cottonwood; removal or loss of riparian understory and ground cover; denuded terraces
24 and heavily trampled shorelines; exposed and compacted soils; degraded, sloughing, and

25
26 ³ It appears that that the 2024 Biological Opinion superseded the Service’s August
27 20, 2018 Biological Opinion with respect to the impacts of livestock grazing on the A
28 Diamond, Battle Axe, LEN, Rafter 6, Teacup, and Whitlow allotments. To the extent that
the 2024 Biological Opinion did not supersede the 2018 Biological Opinion, BLM and the
Service must also reinitiate consultation on the 2018 Biological Opinion for the same
reasons described in this Complaint for the 2012 and 2024 Biological Opinions.

1 sheared streambanks; heavily trampled river access points; fragmented and damaged
2 (including cut) fencing and enclosures; live and dead trespass cattle; and widespread cattle
3 tracks and feces indicating sustained livestock presence.

4 238. Along the Gila River, between the Bull Gap Community and Twin C
5 allotments, surveyors documented severe cattle impacts similar to other heavily damaged
6 Gila Box RNCA areas. This area is not even within a designated grazing allotment, yet it
7 is also being heavily damaged by grazing.

8 239. Plaintiffs sent these survey results to the BLM and the Service by letters
9 dated July 22, 2021 (Notice of Intent to Sue); April 10, 2023 (Notice of Intent to Sue); May
10 1, 2023; March 20, 2024; April 23, 2024 (Notice of Intent to Sue); November 20, 2024
11 (Notice of Intent to Sue); April 10, 2025; April 15, 2025; February 23, 2026; March 27,
12 2026; April 7, 2026; April 23, 2026 (Notice of Intent to Sue); and June 3, 2026.

13 240. The following are sample images taken during the biological surveys in
14 March–April 2025 and September 2025 in the Gila Box RNCA, the biological surveys in
15 the Middle Gila allotments in April 2025 and April 2026, and the biological surveys in the
16 Mescal Mountain, Christmas, and Hidalgo allotments in April 2025. Numerous additional
17 images were provided to the Service and the BLM in Plaintiffs’ Notices and letters
18 identified above.



Bonita Creek /Johnny Creek allotments: Significant trespass cattle damage to designated critical habitat for spikedace and yellow-billed cuckoos along Bonita Creek within the Gila Box RNCA. 32.970876, -109.541148. March 31, 2025.



Zorilla allotment: Trespass cattle damage a nursery bar in razorback sucker and yellow-billed cuckoo designated riparian critical habitat within the Gila Box RNCA. Riverbanks in the background are trampled, chiseled and eroding from herds accessing the river. 32.965865, -109.311679. April 2, 2025.



Gila allotment: Willow regeneration browsed and stunted by trespass cattle in razorback sucker and yellow-billed cuckoo designated riparian critical habitat within the Gila Box RNCA. 32.962942, -109.345418. April 2, 2025.



Morenci allotment: Fresh trespass cattle tracks lead to a nursery bar of browsed willow regeneration in designated riparian critical habitat for razorback suckers and yellow-billed cuckoos within the Gila Box RNCA. 32.969463, -109.398493. September 29, 2025.



Twin C allotment: Riverbanks grazed, chiseled and eroding from trespass herds accessing off-limits razorback sucker and yellow-billed cuckoo designated riparian critical habitat within the Gila Box RNCA. 32.919255, -109.460990. September 30, 2025.



Bull Gap Community allotment: Significant soil disturbances from trespass cattle in razorback sucker and yellow-billed cuckoo designated critical habitat within the Gila Box RNCA. 32.932171, -109.438441. September 29, 2025



A-Diamond allotment: Unauthorized/trespass cattle grazing in designated critical habitat for flycatchers and cuckoo. 33.109317, -111.020109. April 2, 2026.



Teacup allotment: Significantly impacted critical habitat designation, continually degraded by unauthorized cattle. 33.103021, -111.123129. April 4, 2025.



LEN allotment: Unauthorized bull in designated cuckoo and flycatcher critical habitat on the LEN allotment. 33.107899, -111.108575. April 4, 2025.



Cochran allotment: Significant cattle impacts including fresh feces, consumption of riparian regeneration and bank shearing in cuckoo and flycatcher critical habitat. 33.095040, -111.173500. April 4, 2025.



Horsetrack allotment: Significant degradation within the riparian exclosure on Horsetrack allotment. 33.093473, -111.182044. April 4, 2025.



Myers allotment: Unauthorized cattle damaging seasonally off-limits designated riparian critical habitat on Myers allotment. 33.100810, -111.247508. April 2, 2026.



Whitlow allotment: Significant cattle impacts, including cattle-stunted riparian regeneration in cuckoo and flycatcher critical habitat. 33.085102, -111.213061. April 4, 2025.



Mescal Mountain allotment: Unauthorized cattle and significant flycatcher-occupied habitat degradation. 33.144241, -110.618558. April 7, 2025.



Christmas allotment: Unauthorized herd of cattle in designated yellow-billed cuckoo critical habitat. 33.114303, -110.656738. April 7, 2025.



Hidalgo allotment: Significant cattle damage in critical habitat for flycatchers and cuckoo. 33.023995, -110.732717. April 8, 2025.

241. On June 13, 2025, the BLM submitted an annual report to the Service regarding compliance with the 2024 Biological Opinion. The report showed that the BLM

1 observed, or received reports of, unauthorized livestock along the Gila River or Bonita
2 Creek in areas closed to such grazing in every month of the year, and that the majority of
3 livestock identified appeared to belong to BLM-authorized permit-holders.

4 242. In addition to the widespread unauthorized grazing revealed by the Center's
5 biological surveys and the BLM's own data, the Center issued three reports in 2024 and
6 2025 demonstrating effects of the grazing program on listed species and critical habitat in
7 a manner and to an extent not previously considered in the 2012 or 2024 Biological
8 Opinions.

9 243. In June 2024, the Center finalized a comprehensive, three-year field survey
10 effort and compiled a report to document the condition of cuckoo critical habitat in Arizona
11 and New Mexico, including in various grazing allotments in the Conservation Area.⁴ The
12 report concludes, on the basis of the best available science (compiled through standardized
13 survey methods applied immediately prior to or during the cuckoo nesting and breeding
14 season), that livestock grazing has adversely modified at least 57% of the cuckoo's critical
15 habitat on public lands grazing allotments in Arizona and New Mexico. The surveys
16 demonstrated moderate to significant impacts and adverse modification of cuckoo habitat
17 on 31,509 acres (*i.e.*, 80% of 39,170 acres of critical habitat surveyed by field biologists).
18 In light of the worsening, combined threats of climate change and livestock grazing on
19 public lands in the Southwest, the report concludes that agencies (such as BLM) should
20 exclude livestock from cuckoo breeding and nesting habitat, and emphasizes that
21 eliminating livestock access to ephemeral, intermittent, and perennial drainages is essential
22 to allow tree and shrub seedlings to grow and survive to support cuckoo breeding and
23 nesting.⁵ The 2024 Biological Opinion's jeopardy and adverse modification determination

24
25 ⁴ See Center for Biological Diversity, *Grazed to Death: Livestock Production*
26 *Adversely Modifying Majority of Drought-Stricken Western Yellow-billed Cuckoo Critical*
27 *Habitat on Public Lands in Arizona and New Mexico* (June 2024), available at
https://biologicaldiversity.org/species/birds/yellow-billed_cuckoo/pdfs/Cuckoo-Adverse-Modification-Report_CBD_2024.pdf.

28 ⁵ The report explained that the Service itself has raised questions about the long-term survival and recovery prospects of the cuckoo, especially given the rapidly worsening

1 for the cuckoo and its critical habitat are based on assumptions regarding the species'
2 region-wide status.⁶ The Center's report demonstrates those assumptions are false.

3 244. In September 2024, the Center issued a report recounting a three-year survey
4 effort which demonstrated that livestock grazing has adversely modified at least 58% of
5 the threatened northern Mexican gartersnake's designated critical habitat on public lands
6 in Arizona and New Mexico.⁷ These biological surveys found moderate to significant
7 impacts and adverse modification across 6,835 acres of critical habitat on public lands (*i.e.*,
8 84% of the 8,127 acres of critical habitat surveyed) and on 58% of all gartersnake critical
9 habitat on public lands managed by federal agencies.⁸ The report concluded, based on the
10 best available scientific information, that grazing-induced degradation of gartersnake
11 critical habitat can only be prevented by complete exclusion of livestock from gartersnake
12 critical habitat.⁹ The 2024 BiOp's jeopardy and adverse modification determination for the
13 northern Mexican gartersnake and its critical habitat are based on assumptions regarding
14 the species' region-wide status.¹⁰ The Center's report demonstrates those assumptions are
15 false.

16
17 threat of climate change.

18 ⁶ See, *e.g.*, 2024 Biological Opinion at 181 ("We also have monitoring data from
19 elsewhere in southern Arizona that is also exposed to long term public lands grazing where
20 cuckoos continue breeding, sheltering, or foraging behaviors, suggesting that the habitat
21 retains the specific physical or biological features that define critical habitat for the species.
Collectively, this information leads us to conclude that the proposed action is not likely to
destroy or adversely modify designated critical habitat for the cuckoo.").

22 ⁷ See Center for Biological Diversity, *Livestock Production Adversely Modifying*
23 *Most Critical Habitat for Northern Mexican Garter Snakes on Public Lands in Arizona*
(Sept. 2024), available at https://biologicaldiversity.org/species/reptiles/Mexican_garter_snake/pdfs/Northern-MX-garter-snake_AdMod-report.pdf.

24 ⁸ *Id.* at 1.

25 ⁹ *Id.* at 10–11.

26 ¹⁰ See, *e.g.*, 2024 Biological Opinion at 95 ("We base this [northern Mexican
27 gartersnake jeopardy and critical habitat adverse modification] conclusion on the
28 following: . . . Northern Mexican gartersnakes have existed on the landscape in conjunction
with livestock grazing programs on public lands. Livestock grazing is also not considered
to be a leading contributor to the declines of the northern Mexican gartersnake.").

245. In March 2025, the Center issued a comprehensive report summarizing the results of eight years of biological surveys of designated critical habitat on public lands in the Southwest—including in the Gila District and the Conservation Area.¹¹ These surveys studied impacts to critical habitat for, among other species, spikedace, loach minnow, Gila chub, razorback sucker, Chiricahua leopard frog, narrow-headed gartersnake, northern Mexican gartersnake, southwestern willow flycatcher, and western yellow-billed cuckoo. Of all riparian critical habitat surveyed, 85% (2070.9 miles—roughly the distance between Detroit and San Francisco) were damaged by livestock grazing.¹² This report again concluded that complete exclusion of livestock from designated critical habitat is the only way to prevent grazing degrading critical habitat.

CLAIMS FOR RELIEF

Claim I – The Service’s 2024 Biological Opinion Violates the APA and the ESA

246. Plaintiffs incorporate by reference all preceding paragraphs.

247. By failing to include the effects of unauthorized grazing—and the resulting harm that those effects would have on listed species and their critical habitat—as an effect of the action in the 2024 Biological Opinion, the Service acted in an arbitrary and capricious manner, and not in accordance with ESA regulations, 50 C.F.R. § 402.14(h)(1), in violation of the APA, 5 U.S.C. § 706(2).

248. By determining in the 2024 Biological Opinion that the BLM’s ongoing grazing program for the Gila District will not jeopardize the acuña cactus, yellow-billed cuckoo, Chiricahua leopard frog, narrow-headed gartersnake, northern Mexican gartersnake, Gila chub, Gila topminnow, or southwestern willow flycatcher, despite the various adverse effects of grazing on these species’ survival and/or recovery that the 2024

¹¹ See Center for Biological Diversity, *Livestock Damage to Aquatic and Riparian Critical Habitat in the U.S. Southwest: Filed Assessment Results 2017 – 2024* (Mar. 2025), available at http://www.biologicaldiversity.org/programs/public_land/grazing/pdfs/Grazing-Report-2017-2024_CBD_March-2025.pdf.

¹² *Id.* at 1.

1 Biological Opinion details, the Service acted in an arbitrary and capricious manner, and
2 otherwise in violation of Section 7(a)(2) of the ESA, 16 U.S.C. § 1536(a)(2), its
3 implementing regulations, in violation of the APA, 5 U.S.C. § 706(2).

4 249. By determining in the 2024 Biological Opinion that the BLM's ongoing
5 grazing program for the Gila District will not destroy or adversely modify critical habitat
6 for the acuña cactus, yellow-billed cuckoo, Chiricahua leopard frog, narrow-headed
7 gartersnake, northern Mexican gartersnake, or southwestern willow flycatcher, despite the
8 serious adverse effects of grazing on these species' respective critical habitats that the 2024
9 Biological Opinion details, the Service acted in an arbitrary and capricious manner, and
10 otherwise in violation of Section 7(a)(2) of the ESA, 16 U.S.C. § 1536(a)(2), its
11 implementing regulations, in violation of the APA, 5 U.S.C. § 706(2).

12 250. By issuing ITSs for the Chiricahua leopard frog, narrow-headed gartersnake,
13 northern Mexican gartersnake, Gila chub, Gila topminnow, southwestern willow
14 flycatcher, and yellow-billed cuckoo that do not provide clear and enforceable triggers for
15 reinitiation of consultation, the Service violated Section 7(a)(2) of the ESA, 16 U.S.C.
16 § 1536(a)(2), its implementing regulations, and acted in an arbitrary and capricious
17 manner, or otherwise not in accordance with law, in violation of the APA, 5 U.S.C.
18 § 706(2).

19 251. Plaintiffs and their members are injured by the Service's violations of ESA
20 Section 7(a)(2).

21 **Claim II – The BLM's Reliance on the Flawed 2024 Biological Opinion Violates the**
22 **ESA**

23 252. Plaintiffs incorporate by reference all preceding paragraphs.

24 253. The BLM's reliance on the unlawful 2024 Biological Opinion to authorize
25 ongoing livestock grazing in the Gila District violates the agency's independent and
26 continuing duty to ensure that its authorization and implementation of livestock grazing for
27 the allotments within the Gila District is not likely to jeopardize the continued existence of
28 any threatened or endangered species, or result in the destruction or adverse modification

1 of designated critical habitat, violates ESA Section 7, 16 U.S.C. § 1536(a)(2), and is
2 arbitrary and capricious, or otherwise not in accordance with law, in violation of the APA,
3 5 U.S.C. § 706(2).

4 254. Plaintiffs and their members are injured by the BLM's violations of ESA
5 Section 7(a)(2).

6 **Claim III – The Service's and the BLM's Failure to Reinitiate Consultation in the**
7 **Face of New Information Violates the APA and the ESA**

8 255. ESA Section 7 requires BLM to consult with the Service to ensure that any
9 action authorized, funded, or carried out by the action agency is not likely to jeopardize the
10 continued existence of any threatened or endangered species, or result in the destruction or
11 adverse modification of the critical habitat of such species. 16 U.S.C. § 1536(a)(2). The
12 reinitiation of consultation is required and must be requested by the Service or the BLM
13 where discretionary federal involvement or control over the action has been retained or is
14 authorized by law, and if new information reveals effects of the action that may affect listed
15 species or critical habitat in a manner or to an extent not previously considered, the action
16 is modified in a manner that causes an effect to the listed species or critical habitat that was
17 not considered in the biological opinion, or a new species is listed or critical habitat
18 designated that may be affected by the identified action. 50 C.F.R. § 402.16(a).

19 256. The Service and the BLM have violated and remain in ongoing violation of
20 the ESA by failing to reinitiate and complete consultation on the ongoing impacts of
21 livestock grazing on the A-Diamond, Cochran, Horsetrack, LEN, Myers, Teacup Ranch,
22 Whitlow, Bonita Creek, Johnny Creek, Zorilla, Gila, Morenci, Bull Gap Community, Twin
23 C, Mescal Mountain, Christmas, and Hidalgo allotments within the Gila District.
24 Significant new information reveals that livestock grazing on the allotments has adversely
25 affected, and will continue to adversely affect, threatened and endangered species
26 (southwestern willow flycatcher, yellow-billed cuckoo, Gila topminnow, Gila chub,
27 razorback sucker, spinedace, loach minnow, the narrow-headed gartersnake, and northern
28 Mexican gartersnake) and their critical habitat (for southwestern willow flycatcher, yellow

1 billed cuckoo, spikedace, loach minnow, razorback sucker, and northern Mexican
2 gartersnake) in a manner and to an extent not considered in the 2012 and 2024 Biological
3 Opinions. 16 U.S.C. § 1536(a)(2); 50 C.F.R. § 402.16(a). As described above, the new
4 information requiring reinitiation of consultation includes the Center's letters, Notices of
5 Intent to Sue, regional and species-specific reports, and the BLM's June 2025 annual
6 report.

7 257. In the absence of the required reinitiated consultation, the BLM is in ongoing
8 violation of its obligation under ESA Section 7 to ensure that its actions are not likely to
9 jeopardize the continued existence of ESA-listed species or result in the destruction or
10 adverse modification of their designated critical habitat. 16 U.S.C § 1536(a)(2).

11 258. Plaintiffs and their members are injured by the BLM's and the Service's
12 violations of ESA Section 7(a)(2) and failure to reinitiate and complete consultation.

13 **REQUEST FOR RELIEF**

14 Plaintiffs respectfully request that the Court:

- 15 1. Declare that the Service and the BLM have violated the ESA and the APA;
- 16 2. Set aside all active BLM grazing authorizations in the Gila District
17 allotments named in this complaint, and the 2024 Biological Opinion upon which those
18 authorizations rely;
- 19 3. Remand the affected BLM grazing authorizations and the 2024 Biological
20 Opinion to Defendants with instructions to immediately reinitiate consultation to address
21 the impacts of the proposed grazing on the acuña cactus and its critical habitat, Chiricahua
22 leopard frog and its critical habitat, narrow-headed gartersnake and its critical habitat,
23 northern Mexican gartersnake and its critical habitat, Gila chub, Gila topminnow,
24 spikedace and its critical habitat, loach minnow and its critical habitat, razorback sucker
25 and its critical habitat, southwestern willow flycatcher and its critical habitat, and western
26 yellow-billed cuckoo and its critical habitat;
- 27 4. Enjoin the BLM from authorizing livestock grazing within the Gila District
28 allotments named in this complaint, and any other allotments from which livestock may be

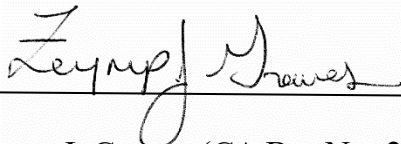
1 entering riparian areas closed to grazing, until the agencies complete lawful ESA
2 consultation, including from making “any irreversible or irretrievable commitment of
3 resources with respect to” that action in violation of 16 U.S.C. § 1536(d), until consultation
4 has been reinitiated and completed;

5 5. Order the BLM to take all actions necessary to prevent unauthorized
6 livestock from entering riparian areas within the Gila District, including inspecting and
7 repairing riparian fencing, conducting monthly inspections of riparian areas for livestock
8 presence, and promptly removing any unauthorized livestock that are found;

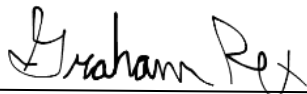
9 6. Award Plaintiffs their reasonable attorneys’ fees and costs associated with
10 this action, as provided by the ESA, § 1540(g)(4), and/or the Equal Access to Justice Act,
11 28 U.S.C. § 2412; and

12 7. Grant Plaintiffs any additional relief as the Court may deem just and proper.
13

14 Respectfully submitted July 29th, 2026.

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