IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLORADO

Civil Action No.: 21-CV-2992

DEFENDERS OF WILDLIFE,

Petitioner,

v.

U.S. FOREST SERVICE, and
U.S. FISH AND WILDLIFE SERVICE,

Respondents.

PETITION FOR REVIEW OF AGENCY ACTION

INTRODUCTION

1. This lawsuit concerns the Canada lynx, a snow-adapted forest cat listed as threatened under the Endangered Species Act ("ESA"). Lynx live in spruce-fir forests in Colorado. In particular, the Rio Grande National Forest (the "Forest") in the San Juan Mountains provides some of the state's most important habitat for lynx. Lynx have survived in the Forest and are reproducing there despite threats from climate change, habitat loss, and, recently, a severe spruce beetle outbreak.

2. Yet lynx in the Forest are in dire straits. The U.S. Fish and Wildlife Service ("FWS") has predicted that lynx may disappear from Colorado altogether in a matter of decades. Protecting lynx in the Forest is essential to arresting this alarming trend, as the Forest contains the majority of locations in Colorado where lynx are consistently found.

3. Keeping lynx in the Forest requires limits on logging. Indeed, at the time the distinct population segment ("DPS") of lynx in the continental U.S. was listed as threatened under the ESA in 2000, FWS identified poor management of national forests as the top threat to the species.

4. The 2008 Southern Rockies Lynx Amendment ("the SRLA") sought to change that. The SRLA ushered in heightened protections for lynx habitat across eight national forests, including the Rio Grande National Forest. Those protections have been instrumental in helping lynx survive in the Forest. The future of logging protections—and thus the future of lynx—in the Forest is the subject of this lawsuit.

5. After the adoption of the SRLA, the U.S. Forest Service (the "Forest Service") identified and mapped approximately one million acres of lynx habitat within the Forest. All of this mapped habitat was subject to the protections of the SRLA, which were incorporated into the Forest Plan in place at the time. Critically, the SRLA restricted logging throughout the million-acre area, and allowed almost no logging in the mature, multi-storied forest that provided the best lynx habitat.

6. Since the SRLA was adopted in 2008, the Forest has undergone significant changes. A spruce beetle outbreak swept through southern Colorado, peaking around 2014. The Forest was hard-hit. The beetle decimated the Forest's largest trees, causing 100% mortality of mature spruce in some areas and significantly altering the mature, multi-storied forest previously mapped as the best lynx habitat.

7. The beetle outbreak not only changed lynx habitat on the Forest, but also created a new incentive to allow commercial salvage logging to remove beetle-killed trees.

8. Fortunately, despite the beetle kill, lynx continue to forage, shelter, and breed in the Forest. In fact, as Forest Service researchers have recognized, lynx have stayed in approximately the same locations as those they used before the beetle epidemic.

9. Responding to these changes, in 2020 the Forest Service revised the Rio Grande National Forest Land Management Plan (the "Revised Forest Plan" or "Plan"). Robust protections against logging are critical to sustain a lynx population that is under severe stress; indeed, Forest Service researchers themselves have warned that the lynx population in Colorado

(much of which is in the Forest) is in the "emergency room." Yet in the Revised Forest Plan the Forest Service rolled back SRLA protections across all one million acres of lynx habitat.

10. In rolling back SRLA protections, the Forest Service adopted a new distinction between core lynx habitat, now labeled "high-use," and other lynx habitat areas (so-called "low-use" areas). The new distinction is critical because the Revised Forest Plan jettisons key SRLA protections outside the "high-use" area. Yet this area was designated arbitrarily, with approximately a third of the previously mapped habitat consigned to the low-use category without any study or analysis at all.

11. The Forest Service went on to abandon key SRLA protections entirely for "low-use" areas, opening hundreds of thousands of acres of habitat to logging. The best available science, however, predicts that lynx can and do use the supposed "low-use" areas. In fact, these areas are important for lynx survival and recovery because they contain vital linkage points allowing dispersal and exchange with lynx elsewhere. Linkage is important to population survival and growth because it allows lynx to find unrelated mates and maintain genetic diversity and provides opportunities for younger lynx to disperse and spread. Abandoning protections in linkage areas threatens to isolate the small lynx population in the Forest and accelerate the existing trend toward extirpation of lynx in the state.

12. Moreover, even in the newly designated "high-use" areas (which overlap with the multi-storied forest where logging was previously all but prohibited) the Plan allows a large and arbitrary increase in logging without even giving a reason, let alone a scientific basis.

13. The Forest Service and FWS analyzed the Revised Forest Plan under the ESA and the National Environmental Policy Act ("NEPA"), but their analysis falls far short of statutory requirements.

14. With respect to the ESA, the Forest Service engaged in formal consultation with FWS regarding the Revised Forest Plan's changes to lynx protections. In the Biological Opinion

issued after consultation, FWS was required—among other things—to analyze thoroughly the serious effects on lynx that will result from arbitrarily delineating "low-use" (and low-protection) zones, stripping habitat protections for a struggling lynx population, and cutting off linkage to lynx elsewhere. The ESA further required the Forest Service to ensure a full and lawful consultation before it proceeded with the Revised Forest Plan.

15. The Biological Opinions issued by FWS—including the operative revised version issued after Petitioner Defenders of Wildlife ("Defenders") served a notice of intent to sue—fall far short of these requirements. The agencies entirely ignored serious effects on lynx, dismissed other effects based on cursory reasoning, failed to consider the best available science, relied on facts that the record directly contradicts, set a flawed and unlawful environmental baseline, and omitted whole sections of required analysis. Because it rests on this shaky foundation, the Biological Opinions' ultimate conclusion—that the Revised Forest Plan will not jeopardize the continued existence of the lynx DPS—cannot stand.

16. With respect to NEPA, the Final Environmental Impact Statement ("EIS") prepared by the Forest Service does not even fully recognize that the Revised Forest Plan rolls back SRLA protections for lynx habitat, let alone adequately analyze the rollback or confront applicable science.

17. The EIS, the Biological Opinion and the Revised Biological Opinion, and the Forest Service's reliance on these documents are arbitrary and capricious and contrary to law. The Court should vacate and remand FWS's Biological Opinions and the challenged portions of the May 12, 2020 Record of Decision and accompanying EIS and Revised Forest Plan.

JURISDICTION AND VENUE

18. This action arises under the ESA, NEPA, and the APA. The Court has jurisdiction over this action under 16 U.S.C. § 1540(g) (the ESA), 5 U.S.C. § 551 *et seq*., (the APA); 28 U.S.C. § 1331 (federal question jurisdiction), and 28 U.S.C. § 1346(a)(2) (agency defendant).

19. Defenders provided notice to the Forest Service of the violations of the ESA identified herein more than 60 days before filing this lawsuit, as required by the ESA. The identified legal violations have not been cured.

20. There exists an actual, justiciable controversy between the parties that is ongoing and has not been remedied.

21. Venue is proper in this Court under 28 U.S.C. § 1391(e) because a substantial part of the events or omissions giving rise to this action occurred in Colorado, because both the lynx and the Rio Grande National Forest are located in Colorado, and because this is an action against agencies of the United States with offices in Colorado.

PARTIES

22. Petitioner DEFENDERS OF WILDLIFE is a non-profit, membership organization headquartered in Washington, D.C. with field offices throughout the country, including in Denver. Founded in 1947, Defenders is a science-based conservation organization with more than 371,000 members nationwide, including more than 9,400 members in Colorado. Defenders is dedicated to the protection of all native wild animals and plants in their natural communities and the preservation of the habitats on which they depend. Defenders advocates new approaches to wildlife conservation that will help keep species from becoming endangered, and it employs education, litigation, research, legislation, and advocacy to defend wildlife and their habitat. Defenders is one of the nation's leading advocates for endangered species conservation and has been involved in issues of ESA implementation since the statute was passed in 1973. Defenders brings this action on its own behalf and on behalf of its members.

23. Many of Defenders' members reside, work, and recreate in or near Colorado near the Rio Grande National Forest. Defenders' members have scientific, aesthetic, recreational, conservation, economic, educational, spiritual, and other interests in the ecosystems, wildlife, and habitat of the Rio Grande National Forest. Its members have spent numerous hours

recreating throughout and enjoying these areas and have concrete plans to continue to do so in the future—including as described below. These recreational activities include hiking, camping, snowshoeing, birdwatching, wildlife viewing, photography, and other activities. Defenders' members and staff have concrete plans to continue pursuing the above activities, which are dependent on the continued existence of a healthy ecosystem supporting native wildlife populations in the wild.

24. As an example, a member and staffer of Defenders counts among her favorite pastimes hiking, snowshoeing, camping, wildlife viewing, and photography in the mountains of Colorado, including the Rio Grande National Forest. This member has repeatedly visited lynx habitat in the Forest to engage in such activities, including camping in Forest campgrounds off Highway 160 and driving through the Forest on State Highway 17, stopping along the way to admire the scenery, appreciate the natural surroundings, and look for wildlife. She also has visited and admired scenery and wildlife around Poncha Pass and the Love Lake areas, among others. Covid-19 safety permitting, the member has concrete plans to return to the Forest in and near lynx habitat, including to hike along the Ute Creek Trail and for visits to see the scenery when the leaves turn in the fall. In visiting these areas, the member loves knowing that the areas are rich in biodiversity and appreciates the trees and understory with the knowledge that they shelter wildlife such as lynx and their prey. This appreciation is what the member enjoys about the area and what makes the member want to return for future visits. The member's pleasure in visiting the above areas and appreciation of their biodiversity is diminished by the knowledge that the Revised Forest Plan opens up lynx habitat to further salvage logging without fulsome and lawful consultation and environmental review.

25. As a further example, a member of Defenders regularly hikes and backpacks in the Rio Grande National Forest, including in lynx habitat. For example, in recent years the member has done multi-day backpacking trips from the Bear Town Trailhead and around the

three forks of the Conejos River area. The member plans to return to the same or similar areas to explore more of the mountains and forests and enjoy the native wildlife. This member looks for and appreciates wildlife while enjoying these activities in the Forest, and plans to do so in the future. This includes looking for lynx, which the member has seen before, including during the release of lynx at the time of reintroduction. The member also enjoys observing the Forest and has seen firsthand that the understory has survived the beetle epidemic and provides habitat for snowshoe hare, the primary prey of the lynx. Part of the member's enjoyment of the Forest comes from the knowledge that it shelters rare wildlife such as lynx, and the knowledge that lynx are protected from human disturbance such as logging. The member's pleasure in visiting the Forest, including the areas described above, as well as the member's appreciation of the Forest's biodiversity, is diminished by the knowledge that the Revised Forest Plan opens up lynx habitat to further salvage logging without fulsome and lawful consultation and environmental review.

26. As another example, a member of Defenders regularly enjoys hiking, photography, wildlife viewing and appreciating the scenery and surroundings in the mountains within the Rio Grande National Forest, including in and around lynx habitat. Some of the areas this member enjoys most include the trails and meadows in the Wolf Creek Pass area near the Continental Divide and the area around the Headwaters of the Rio Grande. This member also visits the Alberta Reservoir area to take pictures of the wildlife there. The member plans to return to the above areas and others in and near lynx habitat in the future. In visiting these areas, the member loves knowing that the area is rich in biodiversity and appreciates the knowledge that large mammals such as lynx are able to call these areas home. This knowledge and appreciation is part of what the member enjoys about the area, and what makes this member plan to visit the area in the future. The member is extremely concerned about the increasing intensity of human activities in the above areas, including logging, which would have a negative impact on lynx and their habitat. The member's pleasure in visiting the above areas and appreciation of

their biodiversity is diminished by the knowledge that the Revised Forest Plan opens up lynx habitat to further salvage logging without fulsome and lawful consultation and environmental review.

27. The legal violations alleged in this Petition cause direct injury to the scientific, aesthetic, recreational, economic, conservation, educational, spiritual, and other interests of Defenders and its members and staff—including the injuries described above. These are actual, concrete injuries to Defenders, caused by FWS and the Forest Service's failure to comply with applicable law, including the ESA, NEPA, and the APA. Unless the requested relief is granted, Defenders' interests will continue to be injured by the agencies' violations of law. The relief sought herein would redress Defenders' injuries. Defenders has no other adequate remedy at law.

28. Respondent UNITED STATES FOREST SERVICE is a federal agency within the Department of Agriculture. The Forest Service is responsible for managing National Forest lands such as the Rio Grande National Forest. The Forest Service prepared and issued the Revised Forest Plan, EIS, and accompanying documents that are at issue in this action.

29. Respondent UNITED STATES FISH AND WILDLIFE SERVICE is a federal agency within the Department of the Interior. FWS is responsible for implementing the ESA, including the Biological Opinions at issue in this action.

LEGAL BACKGROUND

The Endangered Species Act

30. The ESA is "the most comprehensive legislation for the preservation of endangered species ever enacted by any nation." *Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 180 (1978). It was enacted "to provide a program for the conservation of . . . endangered species and threatened species" and "to provide a means by which the ecosystems upon which endangered species and threatened species depend may be conserved." 16 U.S.C. § 1531(b).

31. Section 7(a)(2) of the ESA mandates that all federal agencies "insure that any action authorized, funded, or carried out by [the agency]…is not likely to jeopardize the continued existence of any endangered species or threatened species…." 16 U.S.C. § 1536(a)(2); *see also* 50 C.F.R. § 402.02 (defining jeopardy). To comply with this obligation, the ESA requires agencies to consult with and obtain the opinion of the relevant wildlife agency (here, FWS) before taking any discretionary agency action that "may affect" a listed species. *See* 16 U.S.C. § 1536(a)(2); 50 C.F.R. §§ 402.03, 402.14(a). At the conclusion of such a consultation (called a "formal consultation"), FWS provides the action agency with a biological opinion assessing whether the proposed action is likely to jeopardize the continued existence of any listed species, and, if so, identifies "reasonable and prudent alternatives" that avoid this violation. *See* 16 U.S.C. § 1536(b)(3)(A); 50 C.F.R. §§ 402.14(g), (h).

32. In fulfilling the requirements of section 7(a)(2), "each agency shall use the best scientific and commercial data available." 16 U.S.C. § 1536(a)(2); *see also* 50 C.F.R. § 402.14(d) ("The Federal agency requesting formal consultation shall provide the Service with the best scientific and commercial data available or which can be obtained during the consultation for an adequate review of the effects that an action may have upon listed species or critical habitat."); *id.* 402.14(g)(8) ("In formulating its biological opinion . . . the Service will use the best scientific and commercial data available.").

33. After an action agency receives a biological opinion, it has an independent duty to ensure that it complies with the substantive standards of section 7(a)(2). Accordingly, an action agency may not rely on a biological opinion that is arbitrary and capricious and/or contrary to law in order to meet its section 7(a)(2) obligations.

The National Environmental Policy Act

34. The National Environmental Policy Act ("NEPA"), 42 U.S.C. §§ 4321- 4370h, is the nation's basic charter for the protection of the environment. NEPA's purpose is to help public

officials understand environmental consequences before making decisions, and to assist them in taking actions that protect, restore, and enhance the environment. 40 C.F.R. § 1500.1(c).

35. NEPA requires that, for all major Federal actions significantly affecting the quality of the human environment, the agency prepare a detailed statement addressing the environmental impact of the proposed action and considering alternatives to the proposed action. 42 U.S.C. § 4332(C). An environmental impact statement must "provide full and fair discussion of significant environmental impacts and shall inform decision makers and the public of reasonable alternatives that would avoid or minimize adverse impacts or enhance the quality of the human environment." 40 C.F.R. § 1502.1.

36. NEPA and its implementing regulations require agencies to take a hard look at the direct, indirect, and cumulative impacts of proposed actions and at mitigation measures. 42 U.S.C. § 4332(2)(C)(i)-(iii), (E); 40 C.F.R. §§ 1502.15(f), 1502.16, 1508.9(b), 1508.20, 1508.25(b)(3)-(c)(3). To meet this "hard look" requirement, an agency must examine the relevant data and articulate a rational connection between the facts found and the decision made.

37. "Direct effects" are those "which are caused by the action and occur at the same time and place." 40 C.F.R. § 1508.8(a). "Indirect effects" are those "which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable." *Id.* § 1508.8(b). Cumulative impacts are impacts on the environment which result from a combination of the incremental impact of the proposed action, and other past, present, and reasonably foreseeable future actions, whether taken by the federal government or others. *Id.* § 1508.7.

The Administrative Procedure Act

38. Courts review agency compliance with the above standards under the Administrative Procedure Act ("APA"). Under the APA, an agency's decisions may be set aside when an agency fails to consider the relevant data or fails to put forth a rational connection

between that data and its decision. An agency's decision may also be set aside when the agency entirely failed to consider an important aspect of the problem or offered an explanation for its decision that runs counter to the evidence before the agency or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.

FACTUAL BACKGROUND

I. The Canada Lynx

39. The Canada lynx is a medium-sized, snow-adapted cat. Its long legs and large paws, which act as natural snowshoes, allow it to hunt efficiently in deep, powdery snow. These features help lynx out-compete other predators like mountain lions, bobcats, and coyotes, whose paws sink into the deep snow. The long back legs of the lynx, which are slightly longer than the front legs, make the lynx a fast runner and help it spring on its prey.

40. Lynx primarily hunt and eat snowshoe hare. As a result, lynx populations often fluctuate with the rise and fall of snowshoe hare populations. When snowshoe hare populations are down, lynx in Colorado depend primarily on red squirrels; if both snowshoe hares and red squirrels are in decline, individual lynx may starve to death.

Figure A. Canada Lynx. FWS, https://www.fws.gov/mountain-prairie/es/canadaLynx.php (last visited Nov. 2, 2021).

Figure B. Lynx Kitten. Forest Service, https://www.fs.usda.gov/rmrs/science-spotlights/managing-forests-and-forest-carnivores-canada-lynx-and-forest-mosaics (last visited Nov. 2, 2021).

II. Lynx in the Rio Grande National Forest

41. The Rio Grande National Forest spans approximately 1.83 million acres in the San Juan Mountains in southcentral Colorado.

42. The Forest contains some of the most important habitat in Colorado for the state's small lynx population. In fact, the Forest is the key stronghold for lynx in Colorado. Lynx were historically present in Colorado but were extirpated by the 1990s. Between 1999 and 2006, however, the State of Colorado reintroduced 218 lynx, approximately 85% of which were released on the Forest. Today, the Forest contains at least half of the locations in Colorado that lynx consistently occupy.

43. After the SRLA established new protections for lynx habitat in 2008, the Forest Service mapped the lynx habitat in the Forest. Approximately 1 million acres within the Forest were mapped as lynx habitat.

44. The lynx population in the Forest is likely small. The State stopped actively monitoring the size of the lynx population in 2009, but a recent study by Forest Service scientist Dr. John R. Squires *et al.* suggests a small population size.

45. Regardless of the precise numbers, this population is vulnerable. It is relatively isolated from other lynx populations in the lower 48, and FWS predicted in its 2017 Species Status Assessment ("Lynx SSA") that the Colorado lynx population could be extirpated by the end of the century and potentially even by 2050. In fact, a May 2018 presentation by Forest Service staff and others warned that this population is "currently in the 'emergency room."

III. Protection for Lynx Under the 2008 Southern Rockies Lynx Amendment

46. Getting the Colorado lynx population out of the "emergency room" requires protecting their habitat on national forest lands. Lynx in Colorado and across the West depend heavily on habitat in national forests and other federal lands. Logging on national forest lands poses one of the most significant immediate threats to the Colorado population and its habitat.

Logging creates openings in the forest canopy that lynx avoid and damages the understory that shelters snowshoe hares, the lynx's primary prey. New logging roads also damage lynx habitat and allow competitors such as coyotes, which are not adapted to deep snow, access to lynx habitat and prey.

47. Climate change, large and severe wildfires, and other human activities that affect the lynx or its prey pose additional long-term threats to lynx populations in the lower 48. These threats work together; FWS has recognized that climate change is likely to shrink lynx populations and habitat in the lower 48, increasing the populations' isolation from each other and the species' vulnerability to logging and other threats.

48. In listing the lynx in 2000, FWS concluded that inadequate federal land management plans were the primary threat to the species. 65 Fed. Reg. 16052, 16082 (Mar. 24, 2000). To address this problem, the Rio Grande National Forest, like all national forests in the southern Rockies, adopted the SRLA in 2008 to implement protections for lynx habitat.

49. The SRLA divided lynx habitat on the Forest into lynx analysis units ("Lynx Units" or "LAUs") to help regulate logging. Each Lynx Unit is about the size of the home range of a female lynx, to represent the area and resources needed to support a lynx family.

50. The SRLA's standards were intended, among other things, to maintain sufficient "suitable" lynx habitat within each Lynx Unit to support resident lynx year-round. In contrast, "unsuitable" habitat is lynx habitat within a unit that does not currently meet this definition—because of fire, logging, or other activities—but which could become "suitable" habitat in the future if the forest is allowed to regenerate.

51. To maintain sufficient "suitable" habitat within each Lynx Unit, a SRLA standard called "VEG S1" prohibited logging in a Lynx Unit if more than 30% of lynx habitat in that unit has fallen into "unsuitable" condition due to logging or fire, or for any other reason. A standard called "VEG S2" limited "regeneration" logging projects—usually clear-cuts or similar

activities—to 15% of the habitat within each Lynx Unit in a 10-year period. Under the SRLA, these protections applied to 97% of the lynx habitat in the SRLA area (i.e., the area mapped as habitat across all the Lynx Units).

52. In addition to these protections, a SRLA standard called "VEG S6" protected what was then considered the highest-quality lynx habitat on the Forest: multi-storied spruce-fir forest stands. Under VEG S6, almost no logging (no more than 0.5%) could occur in this high-quality habitat.

IV. Changes in the Forest After the SRLA

53. A spruce beetle outbreak swept through southern Colorado in the years after the SRLA's adoption. The outbreak killed 100% of the mature spruce in some areas. This significantly altered the multi-storied spruce forests that had been considered the lynx's highest-quality habitat.

54. Throughout the beetle epidemic, the Forest transformed. The beetles killed the mature (primarily medium-to-large) trees, and those trees' needles fell. The loss of needles decreased canopy cover, letting more light shine on the forest floor. The dead trees also began to fall, opening space and enabling even more light to enter. The light enabled the growth of dense understory composed of shrubs, forbs (flowering plants), grasses, and new trees.

55. The Forest also changed in other ways. In 2013, the West Fork fire burned 88,000 acres on the Forest (predominantly lynx habitat), and lynx have been largely avoiding the burned area since. By 2018, primarily due to the beetle kill and fire, approximately 238,000 acres of "suitable" lynx habitat had become "unsuitable."

56. After the beetle kill, the Forest Service recognized that VEG S6, one of the key SRLA standards, did not fully cover the most important lynx habitat because the beetle had altered the multi-storied forest that VEG S6 was written to protect. Although some stands that meet the VEG S6 definition still exist in the Forest, many of these stands have been transformed.

57. Despite the change to the multi-storied forest, however, lynx continue to occupy approximately the same areas as the ones used pre-beetle and continue to forage and reproduce. Given recent challenges for lynx, it is more important than ever to protect these essential habitat areas from logging using means other than VEG S6.

V. The Squires Study

58. To understand how lynx were responding to the changes in the Forest, a group of scientists led by Forest Service lynx researcher Dr. Squires launched a study (the "Squires Study") in 2013. The Squires Study evaluated lynx use of habitat in the southern portion of the Rio Grande National Forest. The northern areas were not part of the Squires Study.

59. The figures below depict, on the one hand, the area covered by the Squires Study (Figure D, below right), and, on the other hand, the entire area designated as lynx habitat in the Forest (Figure C, below left). As the figures illustrate, the Squires Study covered only the southern part of the mapped lynx habitat and omitted the northern portion.

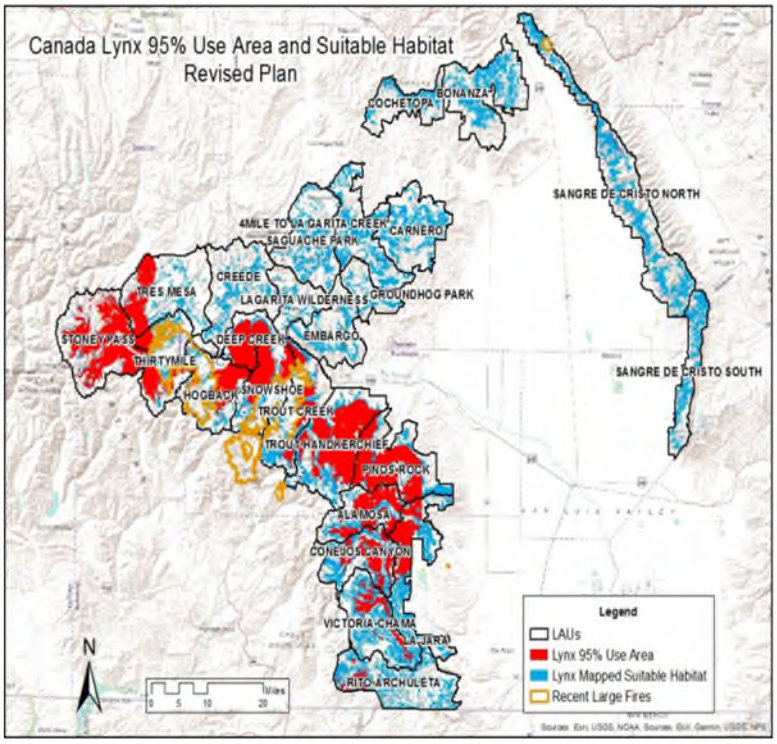

Figure C. Designated Lynx Habitat.

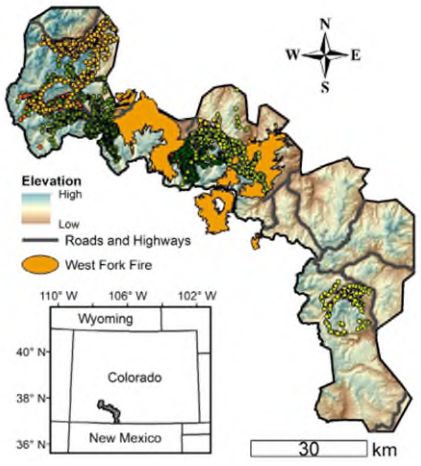

Figure D. Squires Study Area.

Figure C from Revised BiOp at 10, Fig. 2. Figure D from J.R. Squires et al., *A Specialized Forest Carnivore Navigates Landscape-Level Disturbance: Canada Lynx in Spruce-Beetle Impacted Forests*, Forest Ecol. & Mgmt. 475 (2020), at 3, Fig. 1.

60. To assess lynx use of the beetle-impacted forest, the Squires Study authors developed a model. The model made predictions about lynx usage of habitat using (1) data about local conditions such as the type and size of trees and (2) lynx location data gathered from GPS collars placed on 10 adult lynx. The model identified areas that were predicted to represent 95% of lynx use; the other areas were predicted to represent 5% of lynx use.

61. In general, the authors of the Squires Study concluded that lynx stayed in the same areas they had inhabited before the beetle outbreak, even though these areas were heavily impacted by the beetle. Some lynx successfully established dens and produced kittens.

62. In terms of lynx usage of habitat, according to the Squires Study lynx predominantly chose areas with dense understory, which provides habitat for snowshoe hares and provides locations for lynx den sites.

63. As for the lynx's two primary prey species, the snowshoe hare population did not significantly decline as a result of the beetle outbreak, as hares continued to inhabit areas with dense understory despite the death of large trees. In contrast, red squirrels, which are secondary prey for lynx, depend on cones from mature trees and declined after the beetle outbreak. The decline in secondary prey makes lynx vulnerable to fluctuations in snowshoe hare populations.

VI. The Beetle Outbreak and Salvage Logging

64. The beetle kill created an increased incentive for commercial salvage logging. Salvage logging involves cutting down and selling dead, damaged, and/or dying trees.

65. Salvage logging also has significant potential to impact lynx habitat. Salvage logging may target the same areas the Squires Study identified as important lynx habitat. Salvage logging also is likely to damage or destroy the conditions that make this habitat valuable to lynx, for example, by damaging the understory used by lynx and their prey and by creating openings that lynx avoid.

VII. The Revised Forest Plan

66. The small lynx population in the Forest is under stress from the beetle outbreak and recent fire. Yet despite the challenges lynx already face, in 2020 the Forest Service adopted a Revised Forest Plan that weakens lynx protections Forest-wide. In doing so, the Forest Service established an unsupported distinction between "high probability lynx use" areas and other areas (called "low-use" areas in some parts of the record) based on the Squires Study. The Forest Service then weakened lynx habitat protections in *both* types of areas. Among other things, in the Revised Forest Plan, the Forest Service:

a. Arbitrarily consigned all locations outside the Squires Study to the "low-use" category—even though lynx usage of these areas was never studied. As a result, hundreds of thousands of acres of previously mapped lynx habitat in the northern portion of the Forest were simply deemed low-use, without analysis.

b. Arbitrarily dropped two previously mapped Lynx Units in the Sangre de Cristo Mountains without analysis.

c. Stripped the VEG S1 and VEG S2 protections from the "low-use" areas.

d. Significantly weakened prior logging restrictions for the highest-quality habitat, now called "high-use" areas, without any basis in the record. In particular, the revised Forest Plan replaces the previous VEG S6, which capped timber management at 0.5% of the best multistory habitat throughout the SRLA area, with VEG S7, which applies to a smaller area and allows logging of 7% of the high-use zone, with a number of significant exceptions.

67. The Forest Service, like any agency, may change its position (here, by downgrading protections significantly between the SRLA and the Revised Forest Plan), but only if it recognizes the change and provides a reasoned explanation. Here, the Respondent agencies have not fully acknowledged that the Revised Forest Plan weakens protections for lynx habitat, let alone provided a reasoned explanation for these changes.

VIII. FWS's 2019 Biological Opinion for the Revised Forest Plan

68. The Forest Service provided FWS with a Biological Assessment dated September 28, 2018 assessing the effects of the Plan on species. With respect to the lynx, the Biological Assessment determined that the Revised Forest Plan may affect and is likely to adversely affect the species. Accordingly, the Forest Service undertook formal consultation with FWS on the Revised Forest Plan.

69. On March 15, 2019, FWS issued a Biological Opinion (the "2019 BiOp") concluding that the revised Forest Plan is not likely to jeopardize the continued existence of the lynx DPS. On September 14, 2020, Defenders of Wildlife sent a letter to the Forest Service, with a copy to FWS, outlining numerous legal violations arising from the 2019 BiOp including those described herein, and notifying the agencies of Defenders' intent to bring a lawsuit.

70. FWS violated the law through the 2019 BiOp in a number of ways, including because:

a. FWS concluded that the Revised Forest Plan would not jeopardize the continued existence of the lynx DPS without ever confronting the recognized trend toward extirpation of the lynx in the southern Rockies;

b. FWS accepted the Forest Service's decision to deem all locations outside the Squires Study area to be "low-use" and unworthy of protection, without using the best available science and without appropriate analysis of effects;

c. FWS failed to adequately analyze the decision to strip VEG S1 and S2 protections from so-called "low-use" areas;

d. FWS approved extensive logging even in so-called "high-use" areas without a reasoned explanation or adequate analysis of effects;

e. FWS reasoned that "if the anticipated level of take stemming from the proposed action will not appreciably diminish the lynx population in Colorado, the take described herein is unlikely to reduce appreciably the likelihood of both the survival and recovery of lynx in the distinct population segment," without stating the anticipated level of take;

f. FWS failed to adequately analyze the environmental baseline; and

g. FWS completely ignored the Revised Forest Plan's impacts on the recovery of lynx in the DPS, as opposed to merely lynx survival.

71. After receiving Defenders' notice letter describing these legal violations, FWS sent Defenders a response on or about November 10, 2020 stating that it had elected to "provide clarification of our biological opinion" and asking Defenders to refrain from filing suit pending the clarification. As part of FWS's revision to its opinion, the Forest Service provided new information to FWS on or about December 17, 2020. The Forest Service also provided additional language for the Biological Opinion purporting to respond to the issues raised by Defenders. Ultimately, as stated in a cover letter dated February 9, 2021, FWS "decided to revise and reissue our biological opinion for the Land Management Plan" with the additional language from the Forest Service included.

IX. FWS's 2021 Revised Biological Opinion

72. The February 2021 Revised Biological Opinion ("Revised BiOp") again concludes that the revised Forest Plan is not likely to jeopardize the continued existence of the lynx DPS.

73. The Revised BiOp does not reflect any change in the underlying management decisions. It does not substantially alter the flawed reasoning of the 2019 BiOp or correct the errors outlined in Defenders' notice letter.

74. On July 26, 2021, Defenders sent another letter to the Forest Service, with a copy to FWS, outlining numerous legal violations arising from the Revised BiOp including those described herein, and notifying the agencies of Defenders' intent to bring this lawsuit. The legal violations of the Revised BiOp are described further below.

X. FWS's Failure to Comply With Applicable Law in the Revised BiOp

A. FWS Failed to Reconcile its No-Jeopardy Conclusion With the Trend Toward Extirpation of Lynx in Colorado

75. The Revised BiOp violates applicable law in several respects.

76. At the highest level, FWS failed to engage with its own findings in the Lynx SSA that the Colorado lynx population is on a trajectory toward extirpation. The revised Forest Plan's

subsequent rollbacks of lynx habitat protections threaten to accelerate this trend. Yet FWS never explained how it reconciled its no-jeopardy conclusion with a Forest Plan that may push this population toward extirpation.

B. FWS Deemed Huge Swaths of Lynx Habitat "Low-Use" Without Any Basis, Skewing Its Effects Analysis

77. In the Revised BiOp, FWS adopted the Revised Forest Plan's faulty distinction between "high-use" lynx habitat and habitat that is not "high-use"—called "low-use" in the Revised BiOp. The Plan arbitrarily consigned hundreds of thousands of acres of lynx habitat in the northern part of the Forest to the "low-use" category—which it then opened to salvage logging—without even studying the area. FWS in turn accepted the arbitrary decision to deem this area "low-use" without any analysis or explanation of its own.

78. The sole basis for determining which areas were deemed "high-use" lynx habitat was the Squires Study. All previously identified lynx habitat outside the Squires Study's "high-use" zone was characterized as "low-use." Yet the Squires Study did not analyze the whole SRLA habitat area of approximately one million acres. The entire northern portion of the Forest—including about 375,000 acres of lynx habitat in eleven Lynx Units—was omitted from the study. Nonetheless, despite the lack of study, and without any other scientific basis, FWS assumed that this area is "low-use".

79. After Defenders pointed out this shortcoming in its September 2020 notice letter, the Forest Service provided a new paragraph for the Revised BiOp to address the omission of the northern areas. It states:

> Dr. John Squires and colleagues with the U.S. Forest Service's Rocky Mountain Research Station focused their habitat modeling and mapping of Canada lynx use in spruce beetle-impacted forests on the Rio Grande National Forest to the areas known to consistently support Canada lynx. Dr. Squires consulted State and Forest-level biologists before initiating the field study, to ensure [] that the designated study area captured all primary lynx use areas on the Rio Grande. Based on these discussions, the northern area of the [Rio Grande National Forest] was deemed to support little consistent to no lynx use, both currently or historically following the reintroduction. Therefore, Dr. Squires and colleagues concluded that the

> northern portion of the Rio Grande National Forest supported too few Canada lynx to capture enough individuals to inform reliable modeling and mapping products. Instead, they focused on the southern portion of the national forest for the field study, RSF modeling, and eventual delineation of the high probability lynx use area (95% area).

80. FWS reproduced this language in almost identical form in the Revised BiOp, adding, at the end: "We conclude, based on this information, that even though lynx habitat is present on the northern part of the Forest, it likely does not provide high quality lynx habitat, and likely never has, and is unlikely to develop into high quality lynx habitat." Revised BiOp at 15.

81. FWS's conclusion has no scientific basis. FWS cited no scientific or government study establishing that the northern part of the Forest "likely does not provide high quality lynx habitat, and likely never has, and is unlikely to develop into high quality lynx habitat." Nor did the Forest Service provide any such study to FWS. Instead, this conclusion was apparently based on Dr. Squires' informal "consultations" with other biologists. These "consultations" cannot support such a sweeping conclusion.

82. The "consultations" were not contemporaneously documented, published, or peer-reviewed. The published version of the Squires Study itself says nothing about having defined the study area in this way before the study began.

83. Undocumented, informal "consultations" that occurred over eight years ago (before the Squires Study began in 2013) do not constitute the best available science. *See* 50 C.F.R. § 402.14(d); 16 U.S.C. § 1536(a)(2). Yet they were offered by the Forest Service and accepted by FWS as the sole support for stripping protections from a wide swath of lynx habitat.

84. There is no reason the agencies could not have analyzed lynx usage of the northern areas before deeming them "low-use." Indeed, there is scientific evidence (described below) analyzing lynx usage of these areas.

85. As a result of the decision simply to deem the northern parts of the Forest "low-use" without studying them, FWS failed to engage in complete or accurate analysis of the Plan's

effects. Instead, FWS arbitrarily understated the Plan's effects by assuming, without any support in the record, that all of the habitat in the northern part of the Forest is "low-use."

C. FWS's Conclusion That the Northern Areas are "Low-Use" Conflicts With the Best Available Science

86. FWS's conclusion in the Revised BiOp that the northern areas are low-use is not only unsupported, but conflicts with the best available science.

87. First, a 2012 study demonstrated a high probability of lynx being observed across the entire Forest, including in the northern portion. *See* Jake Ivan et al., "Predictive Map of Canada Lynx Habitat Use in Colorado" (2012) ("Ivan 2012") (predicting areas of high probability lynx usage throughout the Forest). This study, which constitutes the best available science on lynx use of the northern part of the Forest, should have been assessed, along with other relevant science. *See* 50 C.F.R. § 402.14(d); 16 U.S.C. § 1536(a)(2). Here, however, even after Defenders pointed out the Ivan 2012 study in each of its notice letters, the Revised BiOp failed to analyze, mention, or cite it.

88. The best available science further demonstrates that the northern areas are not just used, but are critical to this lynx population. The northern areas serve the crucial function of linking lynx habitat in the Forest with habitat in adjacent forests. In fact, FWS and the Forest Service have previously recognized that the northern areas contain two of the four critical "linkage areas" identified by the Forest Service that lynx use to travel to and from adjacent lands, such as the Grand Mesa, Uncompahgre, and Gunnison national forests.

89. Habitat linkage is vital for lynx survival and recovery. Lynx have large home ranges and require space to disperse. Indeed, in 2008, FWS concluded that maintaining a meta-population in the southern Rocky Mountains depends on successful dispersal between and within habitat areas. Forest Service researchers have likewise acknowledged that metapopulation stability depends on dispersal.

90. When, in contrast, linkages are blocked, lynx can become isolated and vulnerable to extirpation.

91. In this case, the Forest Service has stated that connective habitat, such as the linkage in the northern areas, is essential for facilitating movement of lynx across the landscape. For example, North Pass, in the northern area of the Forest, is one of the most important habitat connectivity areas in Colorado because it facilitates lynx movement to habitat outside the Forest. The importance of linkage in general and North Pass in particular is established in the record and in the scientific literature.

92. The best available science predicts—contrary to FWS's findings in the Revised BiOp—that lynx can and do use the northern part of the Forest, and in fact that linkage areas in this region are critical to ensuring against further isolation of this small population.

D. FWS Arbitrarily Dropped Two Lynx Units from Protection, Study, and Analysis Without Basis or Explanation

93. On or about December 17, 2020, the Forest Service provided FWS with "an update and clarification" regarding the removal of two Lynx Units in the Sangre de Cristo mountain area of the Forest—called Sangre de Cristo North and Sangre de Cristo South—from the area mapped as lynx habitat. The Forest Service stated that the reason for the change was that telemetry data and habitat mapping efforts showed little to no lynx use of these areas and limited quality suitable habitat. The Forest Service did not cite the source of the "telemetry data" or describe the nature of the "habitat mapping efforts." It did not otherwise justify the removal of these Lynx Units and the consequent removal of lynx habitat protections.

94. In the Revised BiOp, FWS accepted the arbitrary removal of these Lynx Units without citation to anything but the Forest Service "clarification." The Revised BiOp arbitrarily fails to analyze the effects of the removal, fails to analyze why the habitat in the Sangre de Cristo mountains is unsuitable, and says nothing about whether this habitat might regenerate in the future to provide suitable lynx habitat.

E. FWS Failed to Adequately Analyze the Decision to Abandon Meaningful Protections for So-Called "Low-Use" Habitat

95. After arbitrarily setting the boundaries of the so-called "low-use" area, the Forest Service went on to strip key SRLA protections in most of the newly designated "low-use" lynx habitat. Specifically, a new standard called "S-TEPC-3" removes VEG S1 and S2 protections from at least those Lynx Units containing only "low-use" habitat.

96. The application of the new management standard removing VEG S1 and VEG S2 is poorly and inconsistently described in the record. For example, the Revised Forest Plan and some parts of the 2019 BiOp, Revised BiOp, and Biological Assessment state that "VEG S1 and VEG S2 do not apply within lynx analysis units that have no overlap . . . either wholly or partially, with the high probability lynx use areas." Under this description of the new standard, these SRLA protections remain in place in all Lynx Units that contain at least some land designated "high-use". Yet in other instances, the 2019 BiOp and Biological Assessment treat the new management standard as removing VEG S1 and VEG S2 from *all* designated low-use habitat areas—even when they are contained within a Lynx Unit that also contains "high-use" habitat. The Revised BiOp then proposes a third potential application of the new standard, setting forth an "implementation framework" that would remove VEG S1 and VEG S2 in Lynx Units that contain only "low-use" habitat, while *also* removing VEG S2 protections in the "mixed" Lynx Units that contain both high- and low-use areas. These confusing and inconsistent descriptions make it impossible for FWS to analyze the new standard's effects accurately.

97. Regardless of which conflicting interpretation of the Forest Plan's new management standard is accurate, the Forest Service clearly removed logging restrictions from a broad area. This area includes at least the approximately 375,000 acres of lynx habitat in the northern part of the Forest that contain the Lynx Units entirely designated as "low-use."

98. FWS did not provide a cogent explanation for weakening protections in the "low-use" areas or adequately analyze the resulting effects. The removal of VEG S1 and VEG S2

protections represents a fundamental shift in approach from the SRLA. The SRLA standards ensured that each Lynx Unit included adequate suitable habitat to support lynx, without regard to what habitat the lynx might be using at a particular point in time. In contrast, under the Revised Forest Plan, an (incomplete) survey was conducted to understand which areas lynx are currently using; based on that survey, the highest-use areas still have some protection, but the goal of *also* preserving nearby suitable habitat to allow for expansion and dispersal was abandoned. The effect is to contain this already small population within a shrinking core area, increasing the likelihood of continued isolation and decline.

99. FWS was required to explain why, despite this paradigm shift, the no-jeopardy conclusion of the Revised BiOp is well-supported. Instead, FWS failed to acknowledge the real effects of the Revised Forest Plan, offering a shifting series of arbitrary explanations that conflict with each other and with the facts.

100. In attempting to explain why the so-called low-use areas should not be protected, FWS first cited its conclusion as the rationale, stating that the low-use areas are not frequently used by lynx. This is nonresponsive. Even if FWS were correct that these areas—many of which were not studied—are low-use, FWS does not cite any scientific support for the idea that infrequently used areas should not be protected. This was not the approach of the SRLA.

101. In a further attempt to justify the significantly weakened protections of the Revised Forest Plan, FWS argued that stripping protections from the northern areas would not "result in adverse impacts to lynx connectivity" because "the all S1 standard from the SRLA" will continue to apply. This makes little sense. The ALL S1 standard referenced is a vague and unenforceable suggestion that vegetation management projects must maintain habitat connectivity in a Lynx Unit and/or linkage area. It is not remotely as protective as VEG S1 and VEG S2, which provide hard numeric metrics limiting logging. Lynx will be adversely affected by this shift from enforceable metrics to a vague, unenforceable wish to conserve connectivity in

the future. FWS was required to analyze those effects and explain how the no-jeopardy conclusion was supported nonetheless.

102. FWS went on to justify the removal of protections by stating, incorrectly, that only limited logging is expected in low-use areas and that likely projects there will be of small scale and scope. This estimate is based on *past* projects in the area. The Revised BiOp estimates 426 acres of "anticipated salvage activity and other timber management" based on Forest Service records of *past* logging, from 2010 to 2020, in the northern areas. The 426-acre projection for *future* logging in "low-use" areas is inapposite, however, as the period between 2010 and 2020 included years that predated the peak of the spruce beetle epidemic, and thus predated the increased incentive for salvage logging.

103. Moreover, the Forest Service has *already approved* timber management projects in low-use areas, including La Garita Hills, a large salvage logging project spanning tens of thousands of acres, and Lujan Pass, which, though smaller in acreage, is located directly at a critical linkage site.

104. First, the La Garita Hills Restoration Project is not of small scale and scope—it is a large timber management project approved in 2017. The La Garita project authorizes timber harvest and other "vegetation treatments" on over 93,000 acres, including over 55,000 acres of commercial logging. These lands include several of the Lynx Units that the Revised Forest Plan opened for logging without key SRLA protections. The principal units affected are Four Mile and Carnero, which are "low-use" Lynx Units in the northern areas where VEG S1 and VEG S2 no longer apply. These areas are near the North Pass linkage area and are important "pass-through" zones for lynx. The Forest Service itself has found that these areas are important to facilitating lynx movements from north to south.

105. At the time the Forest Service approved the La Garita Hills project, it estimated that large percentages of spruce-fir and mixed spruce/conifer habitat would remain unharvested.

But the facts have changed since this estimate was made. At the time La Garita was approved, the Forest Service assumed that the strict SRLA limits on logging would continue to apply. The VEG S1 and VEG S2 SRLA caps are now being lifted. The Forest Service has already stated that it intends to conform the La Garita project to the revised Forest Plan, meaning the way will be clear for logging to occur in the area without these SRLA limits.

106. Second, the Lujan Pass Timber Management Project, approved in May 2021, overlaps "entire[ly]" with the North Pass/Cochetopa Hills lynx linkage area. The project calls for salvage cutting, then clearcutting of ten-acre patches over a 722-acre area within this critical linkage zone. The project documents provide only for a 200-foot-wide screening cover for lynx and associated prey along a drainage, without even saying how long the "screen" extends, let alone analyzing why this buffer will allow lynx to navigate ten-acre clearcuts. This cursory analysis of habitat linkage belies any suggestion in the Revised BiOp that habitat connectivity will be protected at the project level.

F. Even in "High-Use" Areas, FWS Approved Extensive Salvage Logging Without Adequately Analyzing Its Effects

107. In addition to allowing logging free of the SRLA caps across the so-called "low-use" areas, the Revised Forest Plan allows a significant amount of salvage logging in the highest-value habitat remaining on the Forest. The SRLA's VEG S6 standard allowed vegetation management projects in only 0.5% of the highest-quality lynx habitat: the multi-storied spruce-fir forests that have since been essentially eliminated by the spruce beetle outbreak. This standard applied to the multi-storied forests throughout the roughly 1 million acres of lynx habitat across the Forest.

108. In contrast, the Revised Forest Plan allows more logging within its identified "high-use" zone, which is smaller than the area previously covered by VEG S6. Specifically, the Revised Forest Plan's VEG S7 allows an arbitrary amount of logging—7% of the total acreage—in the identified "high-use" areas within the Forest's timber base (i.e., lands pre-designated as

suitable for logging). VEG S7 places no cap on logging in "high-use" areas *outside* the timber base, and also allows significant logging under exemptions for roads and the like, even within "high-use" areas. FWS approved these changes without explaining the reasoning behind them and without fully analyzing the resulting effects on lynx.

109. The Revised Forest Plan's new VEG S7 standard applies only where the so-called "high-use" areas overlap with the suitable timber base. VEG S7 allows 7% of this high-quality habitat to be logged—far more than the previous 0.5% allowance for the best lynx habitat—without providing any rationale for the 7% number at all. Instead, the 7% threshold appears to be arbitrary.

110. After a series of interagency discussions (in April, May, June, and August 2018) a preliminary VEG S7 threshold was agreed to in concept by the Forest Service. Meanwhile, in May 2018, Forest Service researchers were warning that this lynx population was in the "emergency room." Nonetheless, the agreed-upon standard was later increased for no stated reason other than the involvement of the Forest Service's Regional Office.

111. Allowing an arbitrary amount of salvage logging in a shrinking core of high-quality habitat will harm the small and struggling Colorado lynx population. This is particularly true given the simultaneous, and even more drastic, removal of habitat protections in "low-use" areas; the current precarious status of Colorado's lynx population; and the dramatic alterations to the Forest's lynx habitat after the beetle outbreak.

112. In the Revised BiOp, FWS failed even to acknowledge the significant rollback of protections for the best lynx habitat—let alone analyze the resulting effects on lynx. On the contrary, FWS claimed, misleadingly, that VEG S7 improves conditions for the lynx compared to the SRLA. This is at odds with the facts. Forest Service scientists have found that, despite the loss of multi-storied conditions, lynx are occupying approximately the same areas as those used before the beetle outbreak and are reproducing. In other words, even if the prior standard is no

longer effective given the changes caused by the beetle, the lynx remain in place, and protection of their best habitat is still important. Yet the Forest Service decreased these protections, and FWS refused to examine the effects of degrading this "similar habitat." As a result, FWS made no rational connection between its conclusions and the facts.

113. FWS also failed to explain its apparent conclusion that increased logging in core habitat improves conditions for lynx. There is no obvious reason this would be true, and in fact the record supports the opposite conclusion. Further, even if FWS were correct that increased logging in core habitat represents an improvement for the lynx, it must provide a justification for allowing 7% of this habitat to be logged. It also must explain why logging at this level does not jeopardize the lynx DPS. The Revised BiOp provides no such justification or explanation.

114. In the Revised BiOp, FWS also failed to provide a rational explanation for the decision to place no limits on salvage logging in "high-use" lynx areas outside of the timber base. Salvage logging outside the timber base may be significant because, unlike other forms of timber harvest, salvage logging can easily occur outside the timber base as well as within it. *See* 36 C.F.R. § 219.11(c) (Forest Service planning rule, stating that timber harvest "for salvage, sanitation, or public health or safety" may be allowed "throughout the plan areas" regardless of whether the land is designated for timber production); Forest Service Land Management Planning Handbook 1909.12, ch. 60, § 63 (salvage harvest can occur on "lands suited or not suited for timber production").

115. Here, FWS provided no rational justification for allowing salvage logging to proceed free of VEG S7 limits outside the timber base, nor did it analyze the effects of doing so. The Revised BiOp points out that 4,300 acres of salvage harvest occurred in areas outside the timber base from 2005-2020 and concludes that most salvage logging therefore occurs within the timber base. FWS further concluded that "salvage activity in areas outside of their suitable timber base, but within LAUs containing lynx high use areas will not exceed 4,300 acres over the

life of the revised plan, as the RGNF indicated occurred over the previous 15 years." FWS did not attempt to explain the consequences to a small, stressed lynx population of destroying thousands of acres of the best remaining habitat.

116. Moreover, the 4,300-acre projection itself is not reliable given that many of the years between 2005 and 2020 predated the height of the beetle kill that made salvage harvest more appealing. Going forward, salvage harvest is all but certain to increase; indeed, facilitating salvage harvest post-beetle is an objective of the Revised Forest Plan.

117. Finally, an allowance in the VEG S7 standard for hazard tree removal and salvage logging in so-called buffer areas near roads, trails, and other sites will open significant acreage to logging. Activities like "hazard tree removal" do not necessarily involve small or isolated cuts, but instead may resemble clear-cuts. Accordingly, this exception will allow activities like clear-cuts in "high-use" lynx habitat far exceeding what was allowed under prior management. Indeed, total logging under these exceptions is estimated to reach almost 18,000 acres—far more than what was allowed for similar exceptions under the SRLA. Despite this sharp uptick in logging under these "exceptions," FWS did not fully assess the resulting effects on lynx. FWS stated, among other things, that "[t]he consequences to lynx of these treatments will vary in intensity and severity depending on habitat conditions within the LAU at the time," and acknowledged that there will be adverse consequences to lynx "where hazard tree treatments occur in those LAUs where existing conditions exceed VEG S1 (30 percent SISS)." Revised BiOp at 21. However, FWS gave no reason for confining its analysis to these particular LAUs, nor did it analyze the overall effects of the increase in hazard treatments that resemble clearcuts.

G. FWS's Environmental Baseline is Unlawful

118. The Revised BiOp improperly defines the environmental baseline by omitting the La Garita Hills project, discussed in paragraphs 103 to 105 above. This omission skews the Revised BiOp's analysis of the Plan's effects. *See* 50 C.F.R. § 402.14(g).

119. The La Garita Hills project is a federal project in the action area that has already undergone formal section 7 consultation. 50 C.F.R. § 402.02. Applicable regulations therefore required its inclusion in the environmental baseline for the Revised BiOp. 50 C.F.R. §§ 402.02; 402.14(g). Including the La Garita Hills project in the environmental baseline would have demonstrated the significant effects to lynx arising from the removal of SRLA protections from the northern areas, as described in more detail in paragraphs 86 to 106, above.

H. FWS Failed to Analyze Species Recovery

120. In the Revised BiOp, FWS entirely omitted required analysis of the effect of the action on lynx recovery, as opposed to just survival. The jeopardy regulation under the ESA requires the Service to consider both recovery and survival impacts.

121. Here, FWS reasoned that, because its five-year review of lynx concluded that the lynx DPS does not currently meet the definition of a threatened species, recovery criteria are not necessary. This rationale is both legally inadequate and factually unsupported. While the lynx is listed, FWS must follow ESA requirements for the species. Any delisting would require careful consideration and a full administrative rulemaking process. *See* 5 U.S.C. § 553. Here, FWS has not undergone that delisting process and FWS must analyze recovery. It did not do so.

XI. The Forest Service's Reliance on the Unlawful Revised BiOp

122. The Forest Service unlawfully relied on the Revised BiOp—and, to the extent not superseded, the 2019 BiOp—in proceeding with the Revised Forest Plan. The Forest Service has thus failed to "insure" that the revised Forest Plan is not likely to jeopardize the Canada lynx, as required by the ESA. 16 U.S.C. § 1536(a)(2).

123. The Forest Service also failed to provide FWS with the best available science and key relevant information in the Biological Assessment, then ultimately relied on an incomplete, arbitrary, and unlawful Biological Opinion to approve the Record of Decision.

XII. The Forest Service's Unlawful NEPA Analysis for the Revised Forest Plan

124. The Forest Service's EIS for the Revised Forest Plan—like the ESA documents the Forest Service relies upon—failed to adequately analyze the serious consequences of the Revised Forest Plan for lynx and lynx habitat. Instead, in the EIS the Forest Service omitted or contradicted important facts and failed to provide a rational connection between the facts found and the choices made.

125. NEPA requires that, for all major Federal actions significantly affecting the quality of the human environment, the agency prepare a detailed statement addressing the environmental impact of the proposed action and considering alternatives to the proposed action. 42 U.S.C. § 4332(C). An environmental impact statement must "provide full and fair discussion of significant environmental impacts and shall inform decision makers and the public of reasonable alternatives that would avoid or minimize adverse impacts or enhance the quality of the human environment." 40 C.F.R. § 1502.1. Courts review agency compliance with these standards under the APA.

126. Here, the Forest Service failed to fulfill the requirements of NEPA and the APA in several respects:

A. The Forest Service Failed to Adequately Analyze the Rollback of Lynx Habitat Protections in "Low-Use" Areas

127. The Forest Service failed to take a hard look at the rollback of the SRLA's VEG S1 and VEG S2 standards in the "low-use" areas—primarily the Lynx Units in the northern part of the Forest. As a threshold matter, the geographic extent of the rollback lacks scientific support and adequate analysis. The Forest Service relied exclusively on the Squires Study to identify high-use areas, without adequately justifying or analyzing the decision not to include the northern portion of the Forest as part of the Squires Study (see paragraphs 58 to 63 and 77 to 92, above). The EIS for the Revised Forest Plan does not grapple with this omission. In fact, in discussing the Squires Study, the EIS does not analyze the omission at all. The Plan itself (like

the Revised BiOp) states that the omission was based solely on Dr. Squires' informal "consultations," not on the best available science (*see* paragraphs 79 to 83, above).

128. Moreover, even if the geographic extent of the rollback had been properly delineated, the Forest Service failed to fully analyze the effects of the rollback on lynx. The rollback will allow logging, without enforceable caps, in hundreds of thousands of acres of previously mapped lynx habitat. In the EIS, the Forest Service did not even fully acknowledge that this change will detrimentally affect lynx, let alone explain the reasons for the change and the resulting impacts. The EIS also fails to grapple with scientific literature explaining the importance of these areas—which contain critical habitat linkage points—to the survival and recovery of the lynx population.

129. First, the Forest Service failed even to fully acknowledge that the Revised Forest Plan weakens SRLA protections in low-use areas in a manner that will adversely impact lynx. The Forest Service recognized that forest management practices can impact lynx, and that logging can damage the understory and impact the "vegetative cover" required by lynx and its prey. The Forest Service nonetheless failed to acknowledge that the rollback of VEG S1 and S2 exposes a vast area of lynx habitat to damage from logging. Instead, the Forest Service stated: "Vegetation management has the greatest potential to impact Canada lynx and lynx habitat at the project level. Given the plan components that are designed to protect the lynx and lynx habitat, there are minimal indirect effects from vegetation management." In addition, in a "Draft Wildlife Report" that appears in the record in draft form and full of internal bubble comments, the Forest Service stated that potential adverse effects "are expected to be minimized with the incorporation of the existing SRLA direction, the addition of a new vegetation standard, and the plan component MACS intended to address other uncertainties associated with the changed habitat condition." Draft Wildlife Report at 32.

130. The Forest Service did not explain its conclusion that "there are minimal indirect effects" to lynx from logging given that the Revised Forest Plan significantly increases logging in the northern Lynx Units. Moreover, the recitation of supposedly mitigating factors set forth in the Draft Wildlife Report has no connection to the actual management decision. The "existing SRLA direction" cited as a mitigating influence is in fact being rolled back, and the "new vegetation standard" VEG S7 applies only to the southern part of the Forest—not the northern areas that contain key linkage points. Moreover, other than an ambiguous reference to "MACS," the EIS fails to explain what "plan components" it is relying upon to minimize indirect effects to lynx from opening a vast area to logging. It also failed to explain why these "plan components"—even if they were relevant—mitigate the harm lynx will suffer from the removal of logging restrictions in lynx habitat.

131. The Forest Service's conclusion that there will be "minimal indirect effects" to lynx from logging under the Plan also conflicts with the facts in the record. First, this conclusion is at odds with the prior approval of the large La Garita Hills project, discussed above in paragraphs 103 to 105. Moreover, to the extent the EIS can be read to conclude that there will be "minimal indirect impacts" resulting from the rollback of logging protections in the northern portion of the Forest because lynx do not use this portion of the Forest, this conclusion conflicts with the findings of the Ivan 2012 study (*see* paragraph 87, above), which predicted lynx usage of this area.

132. The Forest Service also made no attempt in the EIS to analyze the habitat connectivity impacts of rolling back logging protections in the northern areas of the Forest. The Forest Service acknowledged that "[c]onnective habitat between administrative units in the San Juan Mountains and beyond is essential for facilitating Canada lynx movement across the landscape," Plan Assessment 5 at 11, but failed to take a hard look at the impacts of increased logging on this "essential" habitat feature. For example, as mentioned, the northern areas in

which the Revised Forest Plan entirely removes SRLA protections contain two critical linkage points that facilitate lynx movement across the landscape. The EIS briefly mentions that the Revised Forest Plan will likely have some impact on habitat connectivity, but makes no attempt to quantify these impacts or assess whether lynx will still be able to use the linkage areas given increased logging near linkage points. The Forest Service merely stated that these impacts will depend on "site-specific factors." EIS at 251.

B. The Forest Service Failed to Take a Hard Look at Significantly Increased Logging in "High-Use" Lynx Habitat

133. The Forest Service's analysis of increased logging in "high-use" lynx habitat is likewise inadequate and unlawful.

134. In the EIS the Forest Service did not even acknowledge that logging in the most important lynx habitat is being increased under the Revised Forest Plan's VEG S7 relative to the far more stringent protection previously provided under the SRLA's VEG S6. Instead, the EIS treats VEG S7, which allows 7% of the key habitat to be logged, as comparable to the VEG S6 SRLA standard, which applied in a larger area and allowed only 0.5% of the key habitat to be logged. For example, the Draft Wildlife Report appended to the EIS states that "*[a]s with the current SRLA VEG S-6 standard*, timber harvest is not prohibited in [high-quality habitat] stand conditions; however if entry occurs, effects to understory conditions are intended to be minimized." Wildlife Report at 32 (emphasis added). This draft report also states that any adverse impacts "are expected to be minimized with . . . the addition of a new vegetation standard," *id.*, but does not even mention that the new vegetation standard, VEG S7, is significantly less protective than the previous one (VEG S6).

135. After mischaracterizing VEG S7 as comparable to previous management, the Forest Service went on to discuss the new VEG S7 standard without taking the required hard look at the consequences of significantly increased logging in key lynx habitat. The Forest Service's analysis focused on side issues rather than explaining, analyzing, or justifying VEG

S7's 7% threshold. The Draft Wildlife Report states, for example, that "all action alternatives pose some risk of impact above baseline conditions to understory values associated with the new VEG S-7 standard. That risk is expected to be highest under [action alternatives] Alternative C, B, and D, respectively, because of their differences in suitable timber base." *Id.* However, the reference to the "suitable timber base" as a metric for impacts makes little sense given that salvage logging can occur inside or outside the suitable timber base.

136. Finally, the Forest Service made no attempt to quantify or analyze the extent of increased logging under VEG S7, aside from a draft table in the Draft Wildlife Report which appears to focus on the inapposite "suitable timber base" metric and which contains internal Forest Service bubble comments calling the table "a little confusing." Draft Wildlife Report at 31.

CLAIMS FOR RELIEF

First Claim for Relief
(Against FWS)
Revised BiOp (and 2019 BiOp, to the Extent Applicable) Violate the ESA and APA

137. Petitioner hereby realleges and incorporates by reference each and every allegation set forth in this Petition as if set out in full below.

138. Under section 7(a)(2) of the ESA, federal agencies must consult with a wildlife agency (here, FWS) before taking a discretionary action that may affect a listed species. 16 U.S.C. § 1536(a)(2); 50 C.F.R. §§ 402.03, 402.14(a). At the conclusion of this "formal consultation," FWS provides the action agency with a biological opinion assessing whether the proposed action is likely to jeopardize the continued existence of any listed species. See 16 U.S.C. § 1536(b)(3)(A); 50 C.F.R. §§ 402.14(g), (h).

139. In fulfilling the requirements of section 7(a)(2), "each agency shall use the best scientific and commercial data available." 16 U.S.C. § 1536(a)(2); *see also* 50 C.F.R. § 402.14(d) (action agency must provide the best scientific and commercial data available); *id.*

402.14(g)(8) ("In formulating its biological opinion . . . the Service will use the best scientific and commercial data available.").

140. During formal consultation, FWS must "[e]valuate the current status and environmental baseline of the listed species or critical habitat." *Id.* § 402.14(g)(2). The biological opinion in turn must include a "detailed discussion of the environmental baseline of the listed species and critical habitat." *Id.* § 402.14(h)(1)(ii). "The environmental baseline includes the past and present impacts of all Federal, State, or private actions and other human activities in the action area, the anticipated impacts of all proposed Federal projects in the action area that have already undergone formal or early section 7 consultation, and the impact of State or private actions which are contemporaneous with the consultation in process." *Id.* § 402.02.

141. As part of formal consultation, FWS also must "[e]valuate the effects of the action and cumulative effects on the listed species or critical habitat." *Id.* 402.14(g)(2). The biological opinion must then include a "detailed discussion of the effects of the action on listed species or critical habitat." *Id.* § 402.14(h)(1)(iii). The effects discussed include indirect effects. Under applicable regulations, "effects of the action" include "all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. . . . Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action." *Id.* § 402.02.

142. A biological opinion also must analyze species recovery—not merely whether the species or DPS will survive the contemplated agency action.

143. Compliance with these standards is reviewed under the Administrative Procedure Act ("APA"). The APA allows a reviewing court to "hold unlawful and set aside agency action, findings, and conclusions found to be . . . arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. § 706(2). An agency's decisions may be set

aside when an agency fails to consider the relevant data or fails to put forth a rational connection between that data and its decision. An agency's decision may also be set aside when the agency entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.

144. The Revised BiOp is arbitrary and capricious and violates ESA requirements in numerous respects, including because it: fails to reconcile its no-jeopardy conclusion with the trend, recognized by FWS itself, toward extirpation of lynx in Colorado; fails to adequately analyze the effects of the Revised Forest Plan by accepting the Forest Service's decision to deem the northern part of the previously mapped lynx habitat to be "low-use" without any basis; concludes, contrary to the best available science, that the northern habitat areas are "low-use" lynx habitat; arbitrarily drops the Lynx Units in the Sangre de Cristo Mountains from protection without study, analysis, or explanation; fails to adequately analyze the effects of abandoning protections for the so-called "low-use" habitat; fails to adequately analyze the effects of allowing extensive salvage logging in "high-use" areas; adopts an unlawful environmental baseline; and fails to analyze the recovery of the lynx DPS, as opposed to its mere survival. Accordingly, for at least these reasons the Revised BiOp is arbitrary and capricious and not in accordance with law and must be set aside under the APA, 5 U.S.C. § 706(2).

145. The 2019 BiOp has been superseded and can no longer be relied upon by FWS and/or the Forest Service as a basis for compliance with the ESA.

146. Although the 2019 BiOp has been superseded, to the extent the 2019 BiOp is still operative and/or relied upon by FWS and the Forest Service, Petitioner asserts that the 2019 is arbitrary and capricious and violates the ESA and APA for the reasons described herein, including those described in paragraphs 70 and 144, above.

Second Claim for Relief
(Against the Forest Service)
Reliance on Revised BiOp and/or 2019 BiOp Violates ESA and APA

147. Petitioner hereby realleges and incorporates by reference each and every allegation set forth in this Petition as if set out in full below.

148. Under the ESA, after an action agency receives a biological opinion, it has an independent duty to ensure that it complies with the substantive standards of section 7(a)(2). Accordingly, an action agency may not rely on a biological opinion that is arbitrary and capricious and/or contrary to law in order to meet its section 7(a)(2) obligations.

149. The Revised BiOp and, to the extent it is operative and/or relied upon, the 2019 BiOp, are arbitrary and capricious and not in accordance with law in numerous respects, set forth herein.

150. The Forest Service has relied upon the Revised BiOp and, to the extent applicable, the 2019 BiOp, in issuing and implementing the Revised Forest Plan. Accordingly, the Forest Service has failed to "insure" that the Revised Forest Plan is not likely to jeopardize the lynx, as required by the ESA. 16 U.S.C. § 1536(a)(2). The Forest Service's reliance on an unlawful BiOp is also arbitrary and capricious and not in accordance with law under the APA.

151. Moreover, the Forest Service failed to provide FWS with the best available science and key relevant information in the Biological Assessment, in violation of the ESA, then ultimately relied on an incomplete, arbitrary, and unlawful Biological Opinion, in violation of the ESA and APA.

152. For at least these reasons, the Forest Service has violated the ESA and APA in its adoption and implementation of the Revised Forest Plan for the Rio Grande National Forest.

Third Claim for Relief
(Against the Forest Service)
EIS Violates NEPA and the APA

153. Petitioner hereby realleges and incorporates by reference each and every allegation set forth in this Petition as if set out in full below.

154. NEPA requires that, for all major Federal actions significantly affecting the quality of the human environment, the agency prepare a detailed statement addressing the environmental impact of the proposed action and considering alternatives to the proposed action. 42 U.S.C. § 4332(C). An environmental impact statement must "provide full and fair discussion of significant environmental impacts and shall inform decision makers and the public of reasonable alternatives that would avoid or minimize adverse impacts or enhance the quality of the human environment." 40 C.F.R. § 1502.1.

155. NEPA and its implementing regulations require agencies to take a hard look at mitigation measures and at the direct, indirect, and cumulative impacts of proposed actions. 42 U.S.C. § 4332(2)(C)(i)-(iii), (E); 40 C.F.R. §§ 1502.15(f), 1502.16, 1508.9(b), 1508.20, 1508.25(b)(3)-(c)(3). To meet this "hard look" requirement, an agency must examine relevant data and articulate a rational connection between the facts found and the decision made.

156. Courts review agency compliance with these standards under the APA.

157. The EIS violates NEPA, its implementing regulations, and the APA, including because the EIS fails to take a hard look at, or to adequately analyze, usage of the northern portions of the Forest; the rollback of lynx habitat protections in "low-use" areas; and the impacts of significantly increased logging in "high-use" areas. In analyzing these issues, the EIS omits consideration of important issues, fails to consider relevant factors, fails to analyze applicable science, reaches conclusions that are at odds with the record, and fails to rationally connect the facts in the record with the decisions reflected in the Revised Forest Plan.

158. The defects with the EIS and Plan alleged herein were raised during comments and objections relating to the Revised Forest Plan and EIS. All available administrative remedies have been exhausted.

PRAYER FOR RELIEF

WHEREFORE, Petitioner respectfully requests that the Court grant the following relief:

1. Declare that Respondents are in violation of ESA section 7(a)(2), 16 U.S.C. § 1536(a)(2), its implementing regulations, and the APA, 5 U.S.C. § 701 *et seq.*, based on the Revised Forest Plan, the Revised BiOp, and/or, to the extent applicable, the 2019 BiOp;
2. Declare that Respondents are in violation of NEPA, 42 U.S.C. § 4332(C), and the APA, 5 U.S.C. § 701 *et seq.*, based on the Revised Forest Plan, the EIS, and the accompanying Record of Decision;
3. Vacate and remand the Revised BiOp and (to the extent applicable) the 2019 BiOp, as well as the challenged portions of the Revised Forest Plan, the EIS, and the accompanying Record of Decision, pending compliance with the law;
4. Award Petitioner its reasonable costs and expenses, including attorney's fees, associated with this litigation; and
5. Award Petitioner any other further and additional relief this Court may deem just and proper.

DATED: November 8, 2021

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