Timothy J. Preso
Adrienne D. Maxwell
Earthjustice
313 East Main Street
Bozeman, MT 59715
(406) 586-9699
Fax: (406) 586-9695
tpreso@earthjustice.org
amaxwell@earthjustice.org

Attorneys for Plaintiffs

UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MONTANA
MISSOULA DIVISION

CENTER FOR BIOLOGICAL DIVERSITY; CONSERVATION NORTHWEST; FRIENDS OF THE CLEARWATER; GREATER YELLOWSTONE COALITION; IDAHO CONSERVATION LEAGUE; JACKSON HOLE CONSERVATION ALLIANCE; KLAMATH-SISKIYOU WILDLANDS CENTER; and ROCKY MOUNTAIN WILD, Plaintiffs, v. SALLY JEWELL, Secretary, U.S. Department of the Interior, in her official capacity; DAN ASHE, Director, U.S. Fish and Wildlife Service, in his official capacity; and UNITED STATES FISH AND WILDLIFE SERVICE, Defendants.	Case No. **COMPLAINT FOR DECLARATORY AND INJUNCTIVE RELIEF**

INTRODUCTION

1. This case challenges the United States Fish and Wildlife Service's ("FWS") decision on August 13, 2014 to withdraw a proposed rule to list the distinct population segment ("DPS") of the North American wolverine occurring in the contiguous United States as a threatened species under the Endangered Species Act ("ESA"). 79 Fed. Reg. 47,522 (Aug. 13, 2014) ("Rule Withdrawal").

2. In the lower-48 United States, the wolverine is a rare and elusive resident of high mountain landscapes. Wolverines are adapted to live in high-altitude and high-latitude ecosystems characterized by deep snow and cold temperatures. Deep snow is particularly important for wolverine reproduction, but wolverines of both sexes rely on these same cold, snowy areas year-round.

3. Wolverines once ranged across the entire northernmost tier of the United States from Maine to Washington and California, and in the Rocky Mountains as far south as Arizona and New Mexico. Today, the last wolverine populations remaining in the lower-48 states exist only in the Northern Rocky Mountain regions of Idaho, Montana, and Wyoming, in the Cascade Mountains of Washington, and in a single mountainous region of eastern Oregon. Biologists estimate that, in total, the lower-48 wolverine population consists of no more than 300 individuals.

4. These last remaining wolverines face a significant threat of habitat loss in a warming climate. The best available scientific information shows that the snowy habitat required by wolverines is predicted to shrink dramatically as climate change progresses, with significant detrimental impacts on the wolverine species. The most authoritative study of this issue, involving a model developed by McKelvey et al. (2011), predicts that "31 percent of current wolverine habitat in the contiguous United States will be lost due to climate warming by … 2045" and "[t]hat loss expands to 63 percent of wolverine habitat by … 2085."

5. This threat of habitat loss associated with climate change is compounded by other threats facing the wolverine population in the lower-48 states, including highly isolated and fragmented habitat, extremely low population numbers, recreational wolverine trapping in Montana and incidental trapping elsewhere, and disturbance from winter recreation activities that has been demonstrated to disrupt wolverine reproductive denning.

6. Recognizing the threat posed to the lower-48 wolverine population by climate change in conjunction with recreational trapping and an extremely small and fragmented population, FWS on February 4, 2013, issued a proposed rule to list the contiguous United States wolverine DPS as a threatened species under the ESA. U.S. Fish and Wildlife Service, Threatened Status for the Distinct

Population Segment of the North American Wolverine Occurring in the Contiguous United States; Proposed Rule, 78 Fed. Reg. 7684, 7867 (Feb. 4, 2013). FWS accompanied the proposed listing rule with a separate rule to establish an experimental, non-essential population area for wolverines under ESA section 10(j), 16 U.S.C. § 1539(j), in Colorado, northern New Mexico, and southern Wyoming, where no wolverine populations currently exist, for the purpose of facilitating a state-led reintroduction effort, which FWS deemed important to help safeguard the wolverine against the threat of climate change. 78 Fed. Reg. 7890 (Feb. 4, 2013).

7. FWS continued to advance the listing proposal announced in its February 2013 rulemaking notices for the next 15 months, including in a May 17, 2014 internal memorandum from one of the agency's assistant regional directors that reflected the best judgment of the expert biologists assigned by FWS to address the wolverine listing issue.

8. Then, on May 30, 2014, FWS abruptly changed course. The agency's change of heart came in a memorandum authored by FWS's regional director for the Mountain-Prairie Region, which rejected the conclusions reached by the assistant regional director and expert biologists and determined that listing was unwarranted. FWS then formalized the regional director's decision in the August

2014 Rule Withdrawal. In executing this sudden about-face, FWS did not identify any new scientific information that cast doubt on the previous conclusions of the agency's own expert biologists. Nor did FWS identify any existing scientific information that the agency's biologists had overlooked. Instead, FWS attempted to apply a new interpretation of the existing scientific record in an effort to justify a refusal to afford the wolverine any protections under the ESA. In so doing, FWS disregarded the best available scientific information and the recommendations of its own scientists, made numerous analytical errors, and ultimately violated the ESA.

JURISDICTION, VENUE AND ADMINISTRATIVE REMEDIES

9. This action is brought pursuant to the Endangered Species Act, 16 U.S.C. § 1540(g)(1)(C), which waives the defendants' sovereign immunity. This Court has jurisdiction over plaintiffs' claims pursuant to 28 U.S.C. § 1331 (federal question) and may issue a declaratory judgment and further relief pursuant to 28 U.S.C. §§ 2201-02.

10. Venue is proper in this District under 28 U.S.C. § 1391 because a substantial part of the ESA violations alleged in this complaint occurred in this district and a significant number of the remaining wolverines impacted by the challenged Rule Withdrawal are located in this district.

11. Plaintiffs provided defendants with 60 days' written notice of plaintiffs' intent to sue on August 13, 2014, as required by 16 U.S.C. § 1540(g)(2).

PARTIES

12. Plaintiff Center for Biological Diversity (the "Center") is a nonprofit organization dedicated to the preservation, protection and restoration of biodiversity, native species and ecosystems. The Center was founded in 1989 and is based in Tucson, Arizona, with offices throughout the country. The Center works through science, law, and policy to secure a future for all species, great or small, hovering on the brink of extinction. The Center is actively involved in species and habitat protection issues and has more than 50,500 members throughout the United States and the world. The Center brings this action on its own institutional behalf and on behalf of its members. Many of the Center's members and staff reside in, explore and enjoy mountain landscapes in the lower-48 states occupied by wolverines.

13. Plaintiff Conservation Northwest is a non-profit conservation organization based in Bellingham, Washington. Conservation Northwest was founded in 1988 and now has more than 9,000 members and supporters. Conservation Northwest seeks to maintain the ecological integrity of the

Northwest's wildlands and advocates for protection of imperiled wildlife such as the lynx, the fisher, and the wolverine.

14. Plaintiff Friends of the Clearwater ("Friends") is a non-profit conservation organization based in Moscow, Idaho. Friends is dedicated to protecting the National Forests and public lands of the Greater Salmon-Selway Ecosystem in central Idaho. Friends has actively advocated for protection of the wolverine by sponsoring free public-education presentations about the wolverine in Idaho, publishing articles about the wolverine in its newsletter, gathering wolverine sightings information from the public agencies in the region, and participating in public-involvement processes that affect wolverines and their habitat.

15. Plaintiff Greater Yellowstone Coalition ("GYC") is a conservation organization dedicated to protecting and restoring the Greater Yellowstone Ecosystem and the unique quality of life it sustains. Formed in 1983, GYC is a non-profit corporation and has approximately 5,000 members. Central to GYC's mission is maintaining the Greater Yellowstone Ecosystem's signature populations of rare and imperiled wildlife, including the wolverine.

16. Plaintiff Idaho Conservation League ("ICL") is a non-profit conservation organization based in Boise, Idaho, that seeks to preserve Idaho's

clean water, wilderness and quality of life through citizen action, public education, and professional advocacy. ICL was founded in 1973 and today has approximately 9,000 members. ICL seeks to preserve Idaho's wildlife habitat for a variety of species, including the wolverine.

17. Plaintiff Jackson Hole Conservation Alliance is a non-profit conservation advocacy organization based in Jackson, Wyoming with more than 2,000 supporters. The Jackson Hole Conservation Alliance works to protect the wildlife, wild places, and community character of Jackson Hole by empowering the whole community to live in balance with nature.

18. Plaintiff Klamath-Siskiyou Wildlands Center ("KS Wild") is a non-profit organization incorporated in Oregon with offices in Ashland and Williams, Oregon. KS Wild has 3,500 members in over 10 states, with most members concentrated in southern Oregon and northern California. KS Wild advocates for the forests, wildlife, and waters of the Rogue and Klamath Basins, and works to protect and restore the extraordinary biological diversity of the Klamath-Siskiyou region of southwest Oregon and northwest California. KS Wild uses environmental law, science, education, and collaboration to help build healthy ecosystems and sustainable communities.

19. Plaintiff Rocky Mountain Wild is a non-profit wildlife conservation organization based in Denver, Colorado, and has more than 4,880 members and supporters in Colorado. Rocky Mountain Wild works to protect the biological diversity of the Rocky Mountain West, and monitors the status of over 500 species and conserves core habitats that sustain wildlife and native plants.

20. Plaintiffs' members and staff seek to observe, photograph, and study the wolverine and/or signs of the wolverine's presence in its native habitat. Members and staff of the plaintiff organizations also live and/or recreate throughout the current and historic range of the wolverine. Plaintiffs use and enjoy, on a continuing and ongoing basis, the habitat of the wolverine and the larger ecosystem upon which it depends. Plaintiffs derive aesthetic, recreational, scientific, inspirational, educational, and other benefits from these activities.

21. An integral aspect of Plaintiffs' interest in the wolverine is the expectation and knowledge that the wolverine is present, healthy, and wild in its native range. Members of each of the plaintiff groups have conservation and aesthetic interests in the continued existence of wolverines in the western landscape in part because the reclusive wolverine is a living symbol of our nation's remaining wilderness. As the pioneering American wildlife biologist and conservationist Olaus Murie once wrote, "I wonder if there is another inhabitant of

northern wilderness that so excites the imagination." Murie described coming upon a wolverine trail in an early winter snowfall: "Merely seeing those tracks in the snow made it a red-letter day." Plaintiffs have an interest in preserving the possibility of such experiences and activities in the future. Plaintiffs' interest in the wolverine is entirely dependent on the continued existence of a healthy wolverine population in the wild. Plaintiffs' members and staff have participated in efforts to protect and preserve the habitat essential to the continued survival of the wolverine.

22. The legal violations alleged in this complaint cause direct injury to the aesthetic, conservation, recreational, inspirational, educational, and wildlife preservation interests of the plaintiffs and members of the plaintiff organizations. These are actual, concrete injuries to plaintiffs, caused by defendants' failure to comply with the ESA and its implementing regulations and policies. These injuries would be redressed by the relief requested in this complaint. Plaintiffs have no other adequate remedy at law.

23. Defendant Sally Jewell is the United States Secretary of the Interior. In that capacity, Secretary Jewell has supervisory responsibility over the United States Fish and Wildlife Service. The Secretary of the Interior is the federal official vested with responsibility for properly carrying out the ESA with respect to

terrestrial mammals such as the wolverine. Defendant Jewell is sued in her official capacity.

24. Defendant Dan Ashe is the Director of the United States Fish and Wildlife Service. Defendant Ashe signed the Rule Withdrawal challenged in this case. Defendant Ashe is sued in his official capacity.

25. Defendant United States Fish and Wildlife Service is a federal agency within the Department of Interior. FWS is responsible for administering the ESA with respect to terrestrial wildlife such as wolverines, including species listing determinations under ESA Section 4.

THE ENDANGERED SPECIES ACT

26. The ESA was enacted to "provide a program for the conservation of … endangered species and threatened species" and to "provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved." 16 U.S.C. § 1531(b).

27. The ESA is a call to species protection: a commitment, in the words of the U.S. Supreme Court, "to halt and reverse the trend toward species extinction—whatever the cost" by rejecting the "economic growth and development untempered by adequate concern and conservation" that gave this country its

legacy of extinctions. Tennessee Valley Auth. v. Hill, 437 U.S. 153, 154 (1978); 16 U.S.C. § 1531(a)(1).

28. To be protected by the ESA's conservation program, a species must first be listed under the ESA as endangered or threatened. The ESA defines "endangered species" as "any species which is in danger of extinction throughout all or a significant portion of its range." Id. § 1532(6). A "threatened species" is "any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." Id. § 1532(20). The term "species" is defined to include "any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature." Id. § 1532(16). Under these definitions, FWS can list as endangered or threatened a distinct population segment of a vertebrate species.

29. In making decisions to list a species, including a DPS, the ESA requires the Secretary to "determine whether the species is an endangered species or a threatened species because of any of the following factors:

a. the present or threatened destruction, modification, or curtailment of its habitat or range;
b. overutilization for commercial, recreational, scientific, or educational purposes;
c. disease or predation;
d. the inadequacy of existing regulatory mechanisms; or
e. other natural or manmade factors affecting its continued existence."

Id. § 1533(a)(1).

30. The Secretary must base its listing determinations "solely on the basis of the best scientific and commercial data available to him after conducting a review of the status of the species." Id. § 1533(b)(1)(A).

31. Courts interpreting these statutory provisions have repeatedly held that "failure by the agency to utilize the best available science is arbitrary and capricious." Consol. Delta Smelt Cases, 717 F. Supp. 2d 1021, 1060 (E.D. Cal. 2010); see also Rock Creek Alliance v. U.S. Fish and Wildlife Serv., 390 F. Supp. 2d 993, 1009 (D. Mont. 2005). An agency's failure to draw rational conclusions from the evidence before it also constitutes arbitrary and capricious action. Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43 (1983). FWS's listing actions have frequently been held arbitrary and capricious on these specific grounds. A recent case on grizzly bear delisting, for example, vacated FWS's delisting rule because "[t]he Rule did not articulate a rational connection between the data before it and its conclusion." Greater Yellowstone Coal., Inc. v. Servheen, 665 F.3d 1015, 1030 (9th Cir. 2011).

THE WOLVERINE

32. The wolverine (Gulo gulo) is the largest terrestrial member of the weasel family. In attempting to describe the wolverine, the early American

naturalist Ernest Thompson Seton said as follows: "The wolverine is a tremendous character … a personality of unmeasured force, courage, and achievement so enveloped in a mist of legend, superstition, idolatry, fear, and hatred, that one scarcely knows how to begin or what to accept as fact. Picture a weasel—and most of us can do that, for we have met the little demon of destruction, that small atom of insensate courage, that symbol of slaughter, sleeplessness, and tireless, incredible activity—picture that scrap of demoniac fury, multiply that mite by some fifty times, and you have the likeness of a wolverine."

33. Adult wolverines normally weigh 20 to 40 pounds and are three to four feet long. Wolverines typically exhibit a thick, glossy, dark-brown coat of fur, often with a pale buff stripe running laterally from the shoulders along the animal's side and crossing the rump just above a long, bushy tail.

34. Wolverines once ranged across the northernmost tier of the United States from Maine to Washington, and south into the Adirondacks of New York, the Rocky Mountains as far south as Arizona and New Mexico, and the Sierra Nevada-Cascade and Siskiyou Mountains as far south as California. Today, the wolverine has been eliminated from all but a fragment of this historic range by the destruction of its wilderness habitat and trapping by European-American settlers. Wolverines were extirpated from the upper Midwest states by the early 1900s, and

from the Northeast shortly thereafter. Although lone male wolverines have recently traveled to California and Colorado, wolverine populations are known to exist today in the contiguous United States only in the Rocky Mountain regions of Idaho, Montana, and Wyoming, in the Cascade Mountains of Washington, and in the Wallowa Mountains of eastern Oregon.

35. Wolverines within the contiguous United States currently exist as a "metapopulation," or "a network of semi-isolated subpopulations" that "require some level of regular or intermittent migration and gene flow" to maintain genetic viability. 78 Fed. Reg. at 7867. The entire wolverine metapopulation in the contiguous United States is estimated to be just 300 wolverines or fewer. 79 Fed. Reg. at 47,524.

36. The "effective population size" of wolverines in the lower-48 states—meaning the portion of the population that engages in reproductive activities and thereby passes on its genes to the next generation—is even smaller. The effective population of wolverines in the Northern Rocky Mountains, which is the largest population in the contiguous United States, is estimated to be only 35 individuals. This is well below the population the best available science shows to be necessary to preserve both short-term and long-term genetic diversity and viability. 78 Fed. Reg. at 7884.

37. There is considerable scientific uncertainty as to the wolverine population trend. Wolverines have large home ranges, often exist at high elevation, and largely avoid humans and human infrastructure making them an elusive species that is difficult to track and count. Recent long-range dispersals of individual wolverines into areas where the species has not been documented in generations have led some to optimistically conclude the population may be expanding. However, the historic record over the past several decades also featured such dispersal events, so the recent dispersals may not represent a significant new trend. Further, other data indicate that decreasing habitat quality, rather than population growth, may be the driving force behind recent wolverine dispersals.

38. Individual wolverines require large home ranges to access sufficient food to sustain themselves throughout the year, with the size of those ranges varying by habitat and food conditions, age, and gender. Home ranges of studied wolverines in Idaho averaged approximately 1,522 square kilometers for adult males and 384 square kilometers for adult females. In northwest Montana, adult males had home ranges of 422 square kilometers, while females occupied ranges averaging 288 square kilometers.

39. Wolverines primarily rely on scavenging ungulates killed by other predators or by natural causes such as disease, injury, or weather. Wolverines also prey on rodents and other small mammals, and are capable of taking even large ungulates such as deer, elk, and moose as live prey when the opportunity arises.

40. Wolverines have a low reproductive rate. Female wolverines attain sexual maturity at about 15 months, but fewer than half of potentially reproducing females actually produce young, known as kits, in any given year. Wolverine litter size averages two to three kits in the years when a female does give birth. On average, an Idaho study found that wolverines reproduced at a rate of less than one kit per female per year.

41. Wolverines are a snow-dependent species and select areas that are cold and receive enough winter precipitation to reliably maintain deep, persistent snow late into the warm season. This relationship with snow is particularly important for female reproductive denning, and snow cover during the wolverine denning period (February through May) is essential for successful wolverine reproduction. Although the precise reasons why female wolverines choose den sites in deep snow are not known, scientists hypothesize that a den dug deep below the surface of the snow provides protection from extreme cold in the early spring and also protects young kits from predators. Regardless of the mechanism, it is

clear that the correlation between spring snow and female reproductive dens is extremely tight: the most comprehensive study (Copeland et al. (2010)) found that every one of the 562 verified wolverine den sites in North America and Scandinavia occurred in snow.

42. Furthermore, the correlation with snow extends beyond the denning season—"[w]olverine year-round habitat use also takes place almost entirely within the area defined by deep persistent snow." 78 Fed. Reg. at 7868 (citing Copeland et al. (2010)). Indeed, according to the Copeland et al. (2010) study, 95 percent of worldwide summer wolverine observations and 89 percent of year-round observations fell within an area that tended to have persistent spring snowpack. Copeland et al. (2010), at 239. Another recently developed model of wolverine habitat, using a different method, coincides more than 96 percent with this snow-driven model. See Inman et al. (2013), at 283. Wolverines of both sexes rely on these cold, snowy areas year round, perhaps because snow helps provide "refrigeration" for the carcasses that wolverines feed on, and perhaps also because there is less competition for food in these cold, harsh regions.

WOLVERINES AND THE ENDANGERED SPECIES ACT

I. WOLVERINE LISTING HISTORY

43. The wolverine's low population numbers and fragmented habitat in the lower-48 states, together with the species' reliance on snowy alpine landscapes that are rapidly disappearing in a warming climate, have given rise to efforts by members of the public, including the plaintiffs here, to obtain new legal protections for the wolverine under the ESA. In response, FWS has repeatedly refused to apply the ESA's protections to the North American wolverine. FWS's Rule Withdrawal challenged in this case is the latest move in a 14-year saga in which the public's repeated attempts to secure needed legal protections for this imperiled species have met with ongoing resistance from FWS, frequently requiring judicial intervention to compel FWS to take the actions required by the ESA.

44. On July 14, 2000, various conservation organizations, including certain of the plaintiffs here, submitted a petition to list the wolverine within the contiguous United States as a threatened or endangered species under the ESA and to designate critical habitat for the species. From 2000 to 2008, conservation groups were forced to seek judicial enforcement of the ESA on multiple occasions to overcome FWS's refusal to respond lawfully to this petition. These proceedings concluded in 2009 with a settlement agreement filed in this Court by which FWS

committed to issue a 12-month finding on wolverine listing by December 1, 2010. On December 14, 2010, FWS finally published its 12-month finding, which determined that the wolverine within the contiguous United States constituted a distinct population segment that warranted listing under the ESA due to the predicted impacts of climate change and other threats. 75 Fed. Reg. 78,030 (Dec. 14, 2010). In its finding, FWS estimated wolverines were "likely to lose 63 percent of their current habitat area over the next century," and "by 2045, maintenance of the contiguous U.S. wolverine population in the currently occupied area will require human intervention to facilitate genetic exchange." Id. at 78,054. However, FWS still refused to extend ESA protections to the wolverine, finding that an actual listing decision was "precluded by higher priority listing actions." Id.

45. FWS did not set a timetable for issuing a listing decision on the wolverine until it was required to do so by a separate court settlement addressing FWS's chronic backlog of listing determinations in litigation brought by plaintiff the Center. Endangered Species Act Section 4 Deadline Litig., Misc. Action No. 10-377 (EGS), MDL Docket No. 2165 (D.D.C. Sept. 9, 2011). As part of this settlement, FWS agreed to issue a proposed listing rule for the wolverine, or

withdraw the "warranted" 12-month finding, by the end of the 2013 Fiscal Year. Id.; see also 78 Fed. Reg. at 7866.

II. PROPOSED LISTING RULE

46. Pursuant to this settlement, on February 4, 2013, FWS issued a rule proposing to list the distinct population segment of the North American wolverine occurring within the contiguous United States as threatened under the ESA. 78 Fed. Reg. at 7864. The proposed rule found that climate change posed a primary threat to the wolverine's survival, and that trapping and small population size also posed threats when acting in concert with climate change. Id. at 7885-86.

47. FWS concluded in the proposed rule that "[d]eep, persistent, and reliable spring snow cover (April 15 to May 14) is the best overall predictor of wolverine occurrence in the contiguous United States." Id. at 7872 (citing Aubry et al. (2007); Copeland et al. (2010)). This tight correlation between snow cover and wolverine occurrence allowed scientists to develop a snow-dependent model of baseline wolverine habitat, Copeland et al. (2010).

48. The best available scientific information predicts that the wolverine's snowy habitat will shrink dramatically as climate change progresses, with significant detrimental impacts on the species. FWS's proposed rule accordingly concluded "[w]olverine habitat is projected to decrease in area and become more

fragmented in the future as a result of climate changes." 78 Fed. Reg. at 7877. These habitat changes, in turn, "are expected to have direct and indirect effects to wolverine populations in the contiguous United States," posing a significant threat to the continued survival of this wolverine DPS. Id.

49. The most authoritative study of how wolverines' range might shift with a changing climate was done by McKelvey et al. (2011). Their study used a combination of scientifically accepted global climate models to project the impacts of changing temperature and precipitation on the wolverine habitat defined by Copeland et al. (2010). Based on this sophisticated analysis, FWS's proposed rule concluded that "McKelvey et al. (2011, entire) represents the best scientific information available regarding the impacts of climate change to wolverine habitat." 78 Fed. Reg. at 7874.

50. FWS found McKelvey et al.'s analysis to be the best available science for four principal reasons: (1) their habitat projections are based on global models that are recognized as "the most reliable predictors of future climate available," (2) they downscaled their analysis to infer climate impacts "at a scale relevant to wolverine habitat," (3) their hydrologic model predicts snow cover during the spring denning period, which is "the strongest correlate with wolverine reproductive success," and (4) they used the Copeland et al. (2010) habitat model

"to relate projected climate changes to wolverine habitat." 78 Fed. Reg. at 7876-77. FWS noted that other studies analyzing the impacts of climate change on wolverine habitat "have been superseded by a more sophisticated analysis provided by McKelvey et al. (2011, entire)," 78 Fed. Reg. at 7876, but these other studies nonetheless "all support the conclusion that climate changes caused by warming are likely to negatively affect wolverine habitat," id. at 7877.

51. The McKelvey et al. (2011) model predicts that "31 percent of current wolverine habitat in the contiguous United States will be lost due to climate warming by … 2045" and "[t]hat loss expands to 63 percent of wolverine habitat by … 2085." 78 Fed. Reg. 7876 (citing McKelvey et al. (2011)). Because "deep snow maintained through the denning period is required for wolverines to successfully live and reproduce," 78 Fed. Reg. 7874-75, this severe decline in spring snow is predicted to have a significant detrimental impact on the reproduction and survival of the species. Moreover, these severe habitat declines will have the effect of "reducing the number of wolverines that can be supported by available habitat and reducing the ability of wolverines to travel between patches of suitable habitat, with negative consequences for gene flow and genetic viability." 78 Fed. Reg. at 7877.

52. As climate change shrinks the patches of suitable habitat occupied by wolverine subpopulations and enlarges the distance between them, scientists predict that the difficulty of dispersal between subpopulations will increase. Thus, gene flow will decrease. If this breakdown of metapopulation dynamics occurs, "the entire metapopulation may be jeopardized." 78 Fed. Reg. at 7867. Therefore, as severe as the projected habitat declines are, the proposed rule found "gross loss of habitat area is likely to result in a loss of wolverine numbers that is greater than the overall loss of habitat area." Id. at 7876 (emphasis added).

53. The dire threat of habitat loss compounds other existing and future threats to wolverines. For example, both intentional and incidental trapping pose a threat to wolverines, and the impact of both will only increase as climate change further fragments habitat and threatens metapopulation dynamics. FWS found that trapping poses a threat to the lower-48 wolverine population "when working in concert with climate change." Id. at 7886.

54. Low wolverine population numbers are also a threat compounded by habitat loss. FWS agreed that the effective population size of the remaining wolverine population in the contiguous United States is "below what is thought necessary for short-term maintenance of genetic diversity." 78 Fed. Reg. at 7884. Furthermore, FWS found that climate-driven isolation of certain populations

"would result in a high likelihood of reduced genetic diversity due to inbreeding within a few generations." Id. at 7876 (citing Cegelski et al. (2006), at 209). FWS therefore concluded that "the risk factor of small population size … is a threat to the North American wolverine DPS when considered cumulatively with habitat loss resulting from climate change." Id. at 7885.

55. In addition to the threats recognized by FWS, increased winter recreation, roads, and other human infrastructure all pose a threat to wolverines' successful denning and reproduction. Denning females are extremely sensitive to human disturbance, which frequently results in den abandonment, often forcing the female to move to a less suitable site. Human activity also threatens wolverine populations by causing direct mortality and limiting dispersal, threatening to reduce gene flow.

III. FWS'S COURSE REVERSAL

56. After publishing a proposed rule, the ESA requires FWS to publish a final rule or withdraw the proposed rule within one year, 16 U.S.C. § 1533(b)(6)(A), except that the Secretary may extend the period for six months for the purpose of "soliciting additional data," id. § 1533(b)(6)(B)(i). In this case, FWS took the six-month extension citing several states and a few scientists'

disagreement with the best available science presented by FWS. 79 Fed. Reg. 6874 (Feb. 5, 2014).

57. During the six months, FWS convened a "science panel workshop" during which FWS and several states gathered the views of scientists on climate change modeling and wolverine science. The scientists confirmed that deep snow is crucial to the ability of wolverines to reproduce successfully with the panel reporting concluding: "nine out of nine panelists expressed pessimism for the long-term (roughly end-of-century) future of wolverines in the contiguous US because of the effects of climate change on habitat." Wolverine Science Panel Workshop Report at 13 (April 3-4, 2014).

58. As the six-month extension neared its conclusion, FWS's scientific experts affirmed that listing was warranted in a memorandum written by the Assistant Regional Director for Ecological Services in FWS's Pacific Region, summarizing the conclusions of the scientists in FWS's Montana Field Office who had worked on the listing determination. Memorandum from Theresa Rabot, Assistant Reg'l Dir. for Ecological Servs., U.S. Fish & Wildlife Serv., to Noreen Walsh, Reg'l Dir., Region 6, U.S. Fish & Wildlife Serv. (May 2014) ("FWS Field Memo"). The memorandum based its conclusions on a review of the proposed

rule, the peer reviews of the proposed rule, and the outcome of the "science panel workshop" FWS hosted in April 2014.

59. The memorandum highlighted that the recommendation of threatened status is supported by the best available science on wolverines, stating, in no uncertain terms, "we conclude that relying on Copeland et al. (2010) and McKelvey et al. (2011) as the best available scientific information regarding the effects of climate changes on wolverine habitat remains scientifically justified." Id. at 10. The FWS Field Memo stated further:

> In our review we have been unable to obtain or evaluate any other peer reviewed literature or other bodies of evidence that would lead us to a different conclusion. While we recognize there is uncertainty associated with when population effects may manifest themselves, any conclusion that there will not be population effects appears to be based on opinion and speculation. In our opinion that would not represent the best available scientific or commercial data available.

Id. Based on this information, the Montana Field Office recommended that the wolverine listing as threatened be finalized under the ESA. The Assistant Regional Director added, unwaveringly, "I support these recommendations." Id.

60. Then, just months before the final rule was due, FWS abruptly changed course from its previous finding, rejecting the science it had previously relied on and the results of the Science Panel Workshop, and unexpectedly determined that neither climate change nor other risks posed significant threats to

the survival of the wolverine. The agency embodied its about-face in a memorandum from FWS Mountain-Prairie Regional Director Noreen Walsh that rejected the recommendation of the FWS Field Memo and directed agency staff to "prepare a withdrawal of the proposed rule." Memorandum from Noreen Walsh, Reg'l Dir., Region 6, U.S. Fish & Wildlife Serv. to Theresa Rabot, Assistant Reg'l Dir. for Ecological Servs., Region 1, U.S. Fish & Wildlife Serv., 17 (May 30, 2014) ("Walsh Memo").

61. The Walsh Memo did not identify any new scientific information that cast doubt on the FWS Field Memo's conclusion and did not conclude that there was scientific information the field office had overlooked. Rather, the Walsh Memo took existing information and applied a new interpretation of the record in an effort to justify a reversal of the field office's position. The Walsh Memo concluded that FWS no longer believed it was able to make a reliable prediction about the impact of climate change on wolverine habitat, despite these earlier findings to the contrary. Walsh Memo at 15. Primarily on this basis, the regional director determined that listing was unwarranted. Id. at 17.

IV. CHALLENGED AGENCY ACTION

62. On August 13, 2014, FWS issued a withdrawal of its proposed listing determination for the wolverine that largely echoed the Walsh Memo. 79 Fed.

Reg. 47,522. In this Rule Withdrawal, FWS reversed course from its previous determination, disregarded the best available science and the recommendations of its own scientists, and instead concluded that the wolverine faces no significant threats that likely will make it become endangered within the foreseeable future within all or a significant portion of its range. Id. at 47,543.

63. FWS failed to accept the best available science showing wolverines depend on deep spring snow, and the best available climate modeling showing that areas with deep spring snow are likely to shrink dramatically as the climate warms. Instead, FWS claimed this massive decline in spring snowpack—the one feature scientists know is essential for wolverine denning and reproduction—will have no foreseeable impact on wolverines' reproductive success. To reach this conclusion, FWS attempted to create uncertainty about the importance of spring snow to wolverines.

64. In some cases, FWS's determination of uncertainty was based on a misunderstanding of the available science. For example, in the Rule Withdrawal, FWS emphasized that not all dens fall within the habitat area described by May 15th snow cover, and further noted that Copeland et al.'s May 15th snow model includes areas that contained snow on that date "in as few as 1 in 7 years." 78 Fed. Reg. 47,527. This analysis misinterprets the data presented in Copeland et al.

(2010). Though some sites within the model did not contain snow on May 15th of every single year, wolverines used those sites only during years when they did in fact contain deep spring snow. Copeland et al. (2010) found that 100 percent of dens were located in spring snow, and 98 percent of those dens occurred in locations where the snow persisted through at least May 15th in the year they were used, with the remaining 2 percent (12 dens) individually investigated and determined to be snow dens. Copeland et al. (2010). FWS misinterpreted these data in attempting to justify the Rule Withdrawal.

65. In other instances, FWS created uncertainty by insisting on a level of specificity that the best available scientific information cannot provide. For example, FWS rejected McKelvey et al. (2011) in part because McKelvey's climate modeling purportedly failed to predict habitat changes at a sufficiently precise scale for projecting impacts on individual den sites. 79 Fed. Reg. at 47,533-34. By claiming that McKelvey et al.'s analysis at the 500-meter scale was insufficient, FWS effectively contended that wolverines make their denning decisions at a scale of less than 500 meters, with no supporting evidence. Furthermore, downscaling complex global climate models is simply not possible beyond a certain point. McKelvey et al. (2011) downscaled their modeling to a

degree that is consistent with the best available climate science. McKelvey et al. (2011), at 2883-84.

66. Based on its assertion that McKelvey et al. (2011) does not project impacts at a small enough scale to predict changes at specific den sites—despite the fact that this would be scientifically impossible—FWS went on to speculate that specific den sites may not actually lose spring snow cover at the same rate as the overall projected snow loss. Without predictions at the scale of individual den sites, FWS argued, the loss of persistent spring snow cover projected by McKelvey et al. (2011) may not necessarily "represent an equivalent loss of habitat." 79 Fed. Reg. at 47,535. This speculative conclusion runs directly counter to the best available information that found a 100 percent correlation between den sites and snow and a massive acknowledged snow loss, and has no support in the record. Even if some small number of den sites retained enough snow to support reproduction as speculated by FWS, there is no evidence in the record to show that wolverines would not in fact still be threatened with extinction.

67. FWS similarly failed to rely on the best available information when it discounted well-established correlations between spring snow and year-round habitat use by emphasizing the fact that the precise mechanism or reason for this correlation is not well understood. 79 Fed. Reg. at 47,534. Because scientists do

not fully understand the mechanism behind wolverines' snow-dependency, FWS asserted, changes in snow cover will not necessarily result in foreseeable impacts to all wolverines. 79 Fed. Reg. at 47,534. However, FWS's own scientists have explained that "[t]he precise mechanism(s) behind the relationship between wolverines and deep snow is less important than the fact that deep snow appears to be an obligate habitat feature for this species." FWS Field Memo at 5. In other words, the best available scientific information demonstrates that wolverines rely on deep snow for essential life functions; regardless whether FWS understands the precise mechanism underlying that reliance, loss of such deep-snow habitat will disrupt those essential life functions and threaten the continued persistence of the species.

68. Not only did FWS irrationally dismiss the threat that climate change poses to the lower-48 wolverine population, but FWS went further by relying on that arbitrary decision to dismiss other significant threats to the population. For example, regarding the lower-48 wolverine population's effective population size, FWS admitted that the effective population size for the Northern Rocky Mountains wolverine population, which is the largest in the DPS, "is low and is below what is thought necessary for short-term maintenance of genetic diversity." 79 Fed. Reg. at 47,542. Further, although FWS recognized that "population connectivity

exchange with the larger Canadian/Alaskan population would likely be required for long-term genetic health of the DPS," FWS recognized that "[i]mmigration of wolverines from Canada is not likely to bolster the genetic diversity of wolverines in the contiguous United States" because "[t]here is an apparent lack of connectivity between wolverine populations in Canada and the United States based on genetic data." Id. Nevertheless, when it ultimately addressed the genetic threat caused by the lower-48 wolverine population's extremely low effective population size, FWS merely referenced its proposed rule, which deemed low effective population size a threat when considered cumulatively with the threat of climate change; because FWS no longer deemed climate change to threaten the lower-48 wolverine population, it simplistically concluded that low effective population size also was not a threat. FWS never even undertook to consider whether the lower-48 wolverine population's extremely low effective population size constitutes an independent threat warranting listing under the ESA regardless of the impact of climate change. In failing even to consider this important issue, FWS again acted irrationally and unlawfully.

69. At another point in its Rule Withdrawal, prior to its discussion of the ESA listing factors, FWS offered a different response to the problem of low effective population size, claiming that this concern was not a threat warranting

listing because "we expect that continued population growth is likely to ameliorate the effects of small effective population size by increasing the wolverine population and providing for better connectivity between subpopulations." Id. at 47,532. In so stating, FWS offered no scientific evidence that the wolverine population in the lower-48 states is currently growing, that it is likely to do so in the future, or that such growth, even if it were to occur, would provide for greater connectivity between the lower-48 population and the Canadian population.

70. In sum, FWS based its challenged Rule Withdrawal on manufactured uncertainty as to climate modeling and wolverine habitat needs and reached speculative conclusions about the wolverine's future prospects that run directly counter to all of the evidence in the record, the best available information, and the conclusions of their own biologists. In reliance on such flawed reasoning, FWS concluded that the last 300 wolverines in the lower-48 states do not face any significant threat of extinction even as a warming climate threatens the very existence of their already-fragmented, high-elevation, deep-snow habitat.

71. In addition to irrationally reversing its prior recognition of significant threats to the wolverine, the Rule Withdrawal arbitrarily dismissed other factors threatening the wolverine. FWS concluded in the Rule Withdrawal that winter recreation activities in wolverine habitat pose no threat to the species, despite

documented instances of female wolverines abandoning dens due to human disturbance. To justify this conclusion, FWS asserted that preliminary results from a study of recreation impacts on wolverines in central Idaho "indicate that wolverines are present and reproducing in this area in spite of heavy recreational use." 79 Fed. Reg. at 47,537. In fact, the Idaho study's preliminary findings on female wolverines demonstrate an unsuccessful denning attempt and some failures even to attempt denning in heavily recreated landscapes and otherwise refutes FWS's conclusion. FWS also dismissed the threat to wolverines posed by intentional and incidental trapping, but wrongly concluded, in defiance of the best available scientific evidence, that human-caused trapping mortality is not additive to natural wolverine mortality. FWS also failed to consider the impact of unreported instances of incidental trapping.

72. Finally, despite acknowledging that wolverines occupy only a small portion of their available habitat and historic range, FWS failed to consider whether the species' absence from large portions of its available habitat and historic range rendered it endangered or threatened throughout a significant portion of its range. Instead, examining only the wolverine's current range in the lower-48 states, FWS concluded that no such finding was warranted. FWS did not address,

much less explain, why the unoccupied area where the wolverine cannot or does not live fails to constitute a significant portion of its range.

FIRST CAUSE OF ACTION
(Violation of Endangered Species Act – Failure to rely on the best available scientific information)

73. Plaintiffs hereby reallege and incorporate Paragraphs 1 through 72.

74. FWS violated ESA section 4, 16 U.S.C. § 1533, in issuing its Rule Withdrawal because FWS failed to rely on "the best scientific and commercial data available." Id. § 1533(b) (listing determinations shall be made "solely on the basis of the best scientific and commercial data available"). In making such listing determinations, FWS must rely on the "best scientific … data available" and "may not ignore evidence simply because it falls short of absolute scientific certainty." Nw. Ecosystem Alliance v. U.S. Fish and Wildlife Serv., 475 F.3d 1136, 1147 (9th Cir. 2007).

75. Here, FWS rejected the best available scientific information, including state-of-the-art habitat and climate modeling projections, in favor of speculation and manufactured uncertainty. FWS also ignored the best available scientific information that did not support its challenged Rule Withdrawal.

76. Because FWS impermissibly failed to rely on the best available scientific information, its conclusions were arbitrary and capricious in violation of

the ESA's statutory mandate, and the Rule Withdrawal must be set aside. 16 U.S.C. § 1533(b)(1)(A); 5 U.S.C. § 706(2).

SECOND CAUSE OF ACTION
(Violation of Endangered Species Act – Arbitrary and capricious evaluation of ESA listing factors)

77. Plaintiffs hereby reallege and incorporate Paragraphs 1 through 76.

78. FWS violated ESA section 4, 16 U.S.C. § 1533, in issuing its Rule Withdrawal because FWS acted arbitrarily and capriciously in its evaluation of the factors for listing the wolverine in the lower-48 states as an endangered or threatened species. FWS arbitrarily and capriciously concluded that wolverines in the lower-48 states are not at risk of extinction from "the present or threatened destruction, modification, or curtailment of its habitat or range," that wolverines are not at risk of extinction from small population size and genetic isolation, and that wolverines are not at risk of extinction from trapping, inadequate regulatory mechanisms, and other manmade factors affecting their continued existence. See 16 U.S.C. § 1533(a)(1)(A),(B), (D), (E) (listing factors).

79. In its Rule Withdrawal, FWS unjustifiably reversed its position from the proposed rule with respect to the listing factors and did not articulate a rational connection between the facts found and the choice ultimately made by the agency.

Accordingly, FWS violated the ESA and the Rule Withdrawal must be set aside. 16 U.S.C. § 1533; 5 U.S.C. § 706(2).

THIRD CAUSE OF ACTION

(Violation of Endangered Species Act – Failure to analyze threats to wolverine throughout a significant portion of its range)

80. Plaintiffs hereby reallege and incorporate Paragraphs 1 through 79.

81. In addition to threats within currently occupied wolverine habitat, wolverine populations are also threatened in a significant portion of their overall range due to the substantial contraction of the species' historical range.

82. The loss of wolverine populations in these historically occupied areas constitutes a dramatic contraction of the wolverine's range. Inman et al. (2013), for example, indicates that wolverines no longer exist in nearly half of their suitable range in the western United States. Inman et al. (2013), at 282. Indeed, Inman et al. (2013) found that the Southern Rockies alone contain 21 percent of suitable habitat in the western United States, id. at 284, yet no breeding populations have existed there for at least 50 years, Aubry et al. (2007), at 2150.

83. The ESA defines a threatened species as one that is likely to become endangered "throughout all or a significant portion of its range." 16 U.S.C. § 1532(20). The total extirpation of wolverine populations from these vast expanses of habitat warrants a finding that wolverines are threatened throughout a significant

portion of the species' range, or at least an explanation from FWS as to why this is not so. FWS failed to consider whether the wolverine's lost historical range constitutes a basis for listing throughout a significant portion of the species range. FWS's conclusion in its Rule Withdrawal was arbitrary, capricious, an abuse of discretion, and otherwise contrary to the ESA, 16 U.S.C. § 1533(a), (b), and must be set aside.

PRAYER FOR RELIEF

THEREFORE, plaintiffs respectfully request that the Court:

84. Declare that FWS acted arbitrarily and capriciously and violated the ESA and its implementing regulations in the August 13, 2014 Rule Withdrawal;

85. Set aside and remand the August 13, 2014 Rule Withdrawal for further analysis and agency action consistent with this Court's decision;

86. Award plaintiffs their reasonable fees, costs, and expenses, including attorneys fees, associated with this litigation; and

87. Grant plaintiffs such further and additional relief as the Court may deem just and proper.

Respectfully submitted this 13th day of October, 2014.

/s/Timothy J. Preso
Timothy J. Preso
Adrienne Maxwell
Earthjustice
313 East Main Street
Bozeman, MT 59715
(406) 586-9699
Fax: (406) 586-9695
tpreso@earthjustice.org
amaxwell@earthjustice.org

Attorneys for Plaintiffs