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September 12, 2014

SENT VIA U.S. MAIL (DELIVERY CONFIRMATION) AND E-MAIL

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Dan Ashe
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Re: Sixty-day notice of intent to sue for violating Section 4 of the Endangered Species Act when revising critical habitat for the contiguous U.S. distinct population segment of Canada lynx.

Dear Secretary Jewell and Director Ashe:

The Western Environmental Law Center (WELC) hereby provides this sixty-day notice of intent to sue for violations of Section 4 of the Endangered Species Act (ESA), 16 U.S.C. §1533, when revising critical habitat for the contiguous United States distinct population segment of Canada lynx (hereinafter "lynx").

This notice is provided by WELC on behalf of WildEarth Guardians, Oregon Wild, Cascadia Wildlands, and Wilderness Workshop. These organizations have a significant, concrete interest in ensuring the long-term survival and recovery of lynx in the contiguous United States and ensuring the U.S. Fish and Wildlife Service (the Service) utilizes the best available science and complies with the ESA when designating critical habitat for lynx.

On September 12, 2014, the Service published a notice in the Federal Register (Docket No. FWS-R6-ES-2013-0101) of a final rule revising the designation of critical habitat for lynx.

The Service's final rule designates approximately 38,954 square miles of land in five "units" within the contiguous United States as critical habitat lynx, including portions of Washington, Montana, and Wyoming. The Service's final rule, however, excludes large areas of occupied and unoccupied lynx habitat that are essential to the long-term survival and recovery of the species in the contiguous United States from the critical habitat designation.

Specifically, the Service's final rule excludes all occupied lynx habitat in the Southern Rockies, from south-central Wyoming, through western Colorado, and into north-central New Mexico from the critical habitat designation. As such, no critical habitat in the lynx's southern Rocky Mountain range – which is currently home to approximately 120 lynx - is included in the final rule.

The Service's final rule also excludes: (1) all lynx habitat (both occupied and unoccupied) in Oregon, including areas along the spine of the Cascades and parts of northeastern Oregon (Blue and Wallowa Mountains) that were historically occupied by lynx; (2) all lynx habitat in Utah; (3) nearly all lynx habitat – including occupied lynx habitat -- and Idaho, including all of the Clearwater National Forest, Nez Perce National Forest, Salmon-Challis National Forest, Targhee National Forest, and most of the Idaho Panhandle National Forest; (4) large and important portions of Washington, including the Kettle Range and Wedge in northeastern Washington where state biologists estimate there is approximately 765,000 acres of good lynx habitat and high hare densities (0.6 to 3.6 hares/ha); (4) large and important portions of Wyoming, including portions of the Bridger-Teton National Forest, Shoshone National Forest, and BLM land; and (5) large and important portions Montana, including portions of BLM land, the Kootenai National Forest (Cabinet Mountains), Gallatin National Forest, Custer National Forest, Helena National Forest and Lolo National Forests, all of the Beaverhead-Deerlodge and Bitterroot National Forests, and the State's (DNRC's) HCP lands in the Seeley-Swan and Great Yellowstone area from the lynx critical habitat designation.

As detailed below, the Service's decision to exclude these and other important areas of lynx habitat (both occupied and unoccupied) from the critical habitat rule, including the entire Southern Rockies, all of Oregon and Utah, most of Idaho, and portions of Washington, Wyoming and Montana described above (hereinafter "the Service's decision" or "decision" or "areas excluded") violates the ESA and is arbitrary, capricious, and not in accordance with law. The method(s) employed by

the Service to determine which areas to designate as critical habitat for lynx, as well as the assumptions, findings, and data used, fail to comply with Section 4 of the ESA.

Best available science

Pursuant to Section 4(b)(2), 16 U. S.C. § 1533 (b)(2), the Service's implementing regulations, and the Service's 2011 policy on scientific integrity, the Service must base any revisions of critical habitat on the basis of the best scientific data available. The Service failed to do so when revising critical habitat for lynx.

Notably, the standard – often referred to as the “best available science” standard – does not require scientific certainty (assuming it even exists) or prohibit the Service from making decisions in the face of uncertainty or even scientific disagreement. On the contrary, reliance upon the best available science, as opposed to requiring absolute scientific certainty, “is in keeping with congressional intent” that an agency “take preventive measures before a species is ‘conclusively’ headed for extinction.” *Defenders of Wildlife v. Babbitt*, 958 F. Supp. 670, 679–80 (D.D.C.1997) (emphasis in original); *see also American Wildlands v. Norton*, 193 F.Supp.2d 244, 251 (D.D.C.2002) (same).

Here, the Service's decision to exclude large and important areas of lynx habitat from the final rule (as described above) failed to utilize and incorporate the best available science on: (1) the lynx's historic and present range, home range size, diet, distribution, and habitat in the contiguous United States (including the best available science conducted by Colorado Parks and Wildlife and others on available lynx habitat, including hare density surveys, in the Southern Rockies); (2) the existence, amount, and spatial arrangement of the physical and biological features – often referred to as the primary constituent elements or PCEs -- essential to the conservation of lynx in the contiguous United States (the Service, in fact, admits it does not know what or how to measure requisite quantity and spatial arrangement of the PCEs lynx need); (3) the historic and on-going threats to the species and its habitat, including but not limited to new papers on climate change and how it may affect lynx distribution and habitat and the impacts of timber management (in the final rule, for example, the Service fails to recognize how thinning projects – in addition to clearcuts, adversely impact lynx movement); (4) the importance of maintaining and recruiting certain habitat conditions and components for lynx, especially lynx winter habitat; (5) the cause of historic and current population declines and fluctuations in lynx numbers in the contiguous United States; (6) the importance of maintaining travel corridors and linkage zones for lynx and the location of such corridors in the contiguous United States; (7) reliable survey methods for verifying the presence of lynx; (8) the importance of protecting

unoccupied areas for lynx conservation, especially in response to climate change; and (9) the importance of the Southern Rockies to lynx conservation in the contiguous United States.

The Service failed to recognize that under the ESA's best available science standard, relatively minor flaws in scientific data or the absence of "precise mechanisms" and "definitive conclusions" do not render that information unreliable. Moreover, under the "best available science" standard and in accordance with the precautionary principle and Congress' intent in the ESA to be proactive, any ambiguity or uncertainty should weigh in favor of designating critical habitat. In other words, the "benefit of the doubt" should go to providing more (not less) protections for lynx. The Service also failed to provide information on the methods it used to document the presence (or not) of the PCEs in the areas excluded for public comment. This lack of transparency conflicts with the "best available science" standard.

Improper definition of the PCEs

Under the ESA, areas that were occupied at the time of listing (March, 2000), include the physical and biological features – the PCEs -- essential to the conservation of the species, and may require special management qualify for designation as critical habitat.

The Service is to define PCEs for lynx that describe the specific features or combination of features that are essential to the conservation of the species. 50 C.F.R. § 424.12 (b). These include: (1) space for individual and population growth; (2) food, water, air, light, minerals – physiological requirements; (3) cover and shelter; (4) sites for breeding, reproduction, rearing of offspring, germination, seed dispersal, etc. . . ; and (5) habitat protected from disturbance or representative of historic geographical and ecological distribution of the species. *Id.*

In the final rule, the Service states the PCEs specific to lynx include boreal forest landscapes supporting a mosaic of differing successional forest stages and containing: (a) the presence of snowshoe hares and their preferred habitat conditions, which include dense understories of young trees, shrubs or overhanging boughs that protrude above the snow, and mature multistoried stands with conifer boughs touching the snow surface; (b) winter conditions that provide and maintain deep fluffy snow for extended periods of time; (c) sites for denning that have abundant coarse woody debris, such as downed trees and root wads; and (d) matrix habitat (e.g., hardwood forest, dry forest, non-forest, or other habitat types that do not support snowshoe hares) that occurs between patches of boreal forest in close

juxtaposition (at the scale of a lynx home range) such that lynx are likely to travel through such habitat while accessing patches of boreal forest within a home range.

This definition of the lynx PCEs, fails to adequately define and describe the features that – according to the best available science – are essential to the conservation of lynx.

For example, the terms “boreal forest landscapes” and “matrix habitat” are too broad (and subject to competing and inconsistent interpretations) and need to be clearly defined. The broad definition of “matrix” habitat has created a loophole whereby mature boreal forest stands can and are clear-cut and/or aggressively logged via regeneration harvest prescriptions (shelterwood or seed-tree) in occupied lynx critical habitat. The Service also fails to define what the “presence of hares” means, specifically, what levels of snowshoe hare densities are required (and how they are determined and measured) in order to document the “presence” of hares in the PCEs.

Also missing from the PCE definition are the habitat components needed for lynx winter habitat which, according to the best available science, is essential to lynx conservation in the contiguous United States.

The lynx PCEs– as defined in the final rule -- fail to recognize, include, and ensure habitat components needed for lynx during the winter are adequately protected. Merely protecting winter *hare* habitat (which is broader than lynx winter habitat and may include stand initiation or young regenerating forests) does not suffice. Squires et al. (2010) found that, in contrast to populations in Canada and lynx in other areas in the contiguous U.S., lynx in the Northern Rockies selected mature, multistoried forests composed of large-diameter trees with high horizontal cover during winter, which is the most constraining season for lynx in terms of resource use.

For this reason, Squires recommends that land management agencies like the Forest Service prioritize retention and recruitment of abundant and spatially well distributed patches of mature, multi-storied forest stands. But such habitat – lynx winter habitat-- is not included in the lynx PCEs so retention and recruitment of such habitat in designated critical habitat is not occurring. As such, the PCEs used to designate lynx critical habitat are not providing the protective measures needed to ensure the long-term survival and recovery of the species in the lower 48, as required by the ESA.

The Service's reference to "large landscapes" also needs to be defined. The Service states that "actions that would reduce or remove understory vegetation within boreal forest stands on a scale proportionate to the large landscape used by lynx" would likely qualify as adverse modification. But the Service never explains or defines what this terms means, i.e., is the Service referring to the critical habitat unit, sub-populations within the unit, home ranges, LAUs, a single LAU, project areas, or some other analysis area.

Misapplication of the PCEs

In determining that large and important areas of lynx habitat (both occupied and unoccupied) in the Southern Rockies, Idaho, Utah, and Oregon, and portions of Montana, Wyoming and Washington (as described above) should be excluded from the lynx critical habitat designation, the Service failed to properly analyze and apply whether such areas possess all or some of the PCEs essential to lynx conservation in the contiguous United States.

Specifically, the Service: (1) failed to utilize the best available science on the existence, quantity, and spatial arrangement of the PCEs in the areas excluded (as mentioned above); (2) failed to apply the PCE definition to all areas excluded and in a consistent manner; (3) failed to document and explain how the PCEs were applied to certain areas, what evidence is needed to show PCEs "in sufficient quantity and spatial arrangement" and what this means, and/or how contiguous areas within the same mountain range (and occupied by lynx) can be treated differently - one deemed to have PCEs and the other not; (4) imposed more stringent requirements and/or different requirements than required by the ESA or PCE definition; (5) failed to recognize that each PCE does not have to be present or present in "sufficient quantity and spatial arrangement" to qualify an area for critical habitat designation; (6) used unreliable and arbitrary methods and proxies to determine the presence (or absence) of PCEs in the areas excluded; (7) used factors (e.g., proximity to Canada or other populations, viability, need for "self-sustaining" population etc. . .) not included in the PCE definition or imposed by the ESA; (8) failed to consider and apply the PCEs to meet the ESA's recovery goals (only looked at survival); (9) used one or two PCE factors as a litmus test for critical habitat designation instead of as relevant factors; (10) excluded areas without applying the PCE definition; (11) required a "specific quantity and spatial arrangement" of PCEs but admits these are "not known" and that such quantities and arrangement may differ across the lynx's range; (12) used artificial political (state lines, county lines, etc. . .) , National Forest, and transportation boundaries -- instead of the presence of PCEs -- to demarcate critical habitat boundaries; (13) failed to recognize that areas not currently containing all the PCEs but with the capability to do so in the future may qualify for

critical habitat designation; and (14) did not apply the PCEs equally to each area excluded.

Unoccupied areas

Under the ESA, areas that were “unoccupied” at the time of listing (March, 2000) but are nonetheless deemed essential to the conservation of the species are to be considered for critical habitat designation. 16 U.S.C. § 1532(5)(A).

Here, the Service determined no “unoccupied” areas warranted designation as critical habitat. In so doing, the Service: (1) failed to conduct, use, rely on, or otherwise consult any reliable lynx surveys or data demonstrating the areas deemed “unoccupied” – including areas that were historically occupied by lynx and where anecdotal observations exist -- where in fact unoccupied at the time of listing or remain unoccupied today; (2) failed to utilize the best available and latest science on the location and importance of “unoccupied” travel corridors and linkage zones between sup-populations of lynx within the contiguous United States and lynx in the contiguous United States and Canada to lynx conservation; (3) failed to utilize the best available and latest science on the location and importance of “unoccupied” areas to lynx in response to climate change; (4) never explained and documented why certain “unoccupied” areas – including but not limited to the Central Linkage Ecosystem in Montana’s Beaverhead-Deerlodge National Forest – are not essential to the conservation of the species; (5) failed to analyze the need for other areas – beyond those areas that are “occupied” and designated as critical habitat – that may need to be set aside and protected for the future expansion and recovery of lynx in the contiguous United States; (6) relied on other factors, such as existing regulatory protections or management plans, unrelated to the ESA obligations, in deciding not to designate “unoccupied” areas as critical habitat; and (7) applied the wrong standard when evaluating unoccupied areas (i.e., refused to designate unoccupied areas because they would “not address the threat for which the DPS was listed” instead of evaluating whether such areas are essential to lynx conservation).

Misapplication of the ESA’s standards

As mentioned above, the Service’s listing decision is premised on a misapplication of the term “best available science.” The Service’s listing decision is also premised on a misapplication of the terms “conservation” and “occupied” as used and applied in the ESA.

“Conservation” means to use any and all methods necessary to bring a listed species to the point at which the measures provided by the ESA are no longer

required. 16 U.S.C. § 1532 (3). Use of the term conservation therefore includes a recovery component and the need to protect enough areas to ensure not only the species' survival but recovery (de-listing). *Gifford Pinchot Task Force v. USFWS*, 378 F.3d 1059, 1069 (9th Cir. 2004). A species requires more area – more habitat -- for recovery than just survival. *Id.* In revising the lynx critical habitat designation and excluding large and important areas of lynx habitat from the final rule, however, the Service failed to take the needs of lynx recovery into account and focused solely on the areas it deemed essential to lynx survival, i.e., the areas necessary to ensure the species “persists” in the contiguous United States. This is a violation of the ESA.

The Service's definition of “occupied” also violates the ESA. The Service states the definition of “occupied” took into account two variables: (1) whether the area was within the lynx's known historic range based on McKelvey et al. (2000a) and Hoving et al. (2003); and (2) whether verified occurrence records of lynx since 1995 exist. To be considered a “verified” lynx record, the Service requires an animal (live or dead) in hand or observed closely by a person knowledgeable in lynx identification, genetic (DNA) confirmation, snow tracks but only when confirmed by genetic analysis, or location data from a radio or GPS-collared lynx. Under the Service's definition both variables must be met in order for an area to be deemed “occupied” by lynx at the time of listing. This definition is too restrictive for a rare and difficult to detect species like lynx.

For example, the Service's definition of “occupied” excludes large areas of western Montana that contain suitable lynx habitat where lynx have been trapped (and where lynx tracks have been documented and observed by local residents and MFWP) for decades. Some of these observations occurred before 1995, but if the area contains suitable habitat for lynx and if lynx have been historically trapped in (or observed) in the area and no subsequent, meaningful surveys of the area have been undertaken to clearly demonstrate it is not occupied, then the presumption should be the area is “occupied.” But the Service's definition assumes such areas are unoccupied unless proven otherwise and no effort to prove otherwise is being undertaken. No reasonable and reliable effort to survey those areas for lynx has been undertaken by the Service. Under the current definition of “occupied,” this is arbitrary.

Insufficient data to support decision in the record

Pursuant to the ESA and APA, the Service's listing decision must be supported by reliable and meaningful data and evidence and there must be a rational connection between the facts found in the record and the ultimate choice made. *See Defenders of Wildlife v. Babbitt*, 958 F. Supp. 670 (D.D.C. 1997).

Here, the Service's decision fails to utilize the best available science (as outlined above) and provide biological support and data for its conclusion that: (1) there is no evidence of broad scale lynx population declines in the contiguous United States; (2) there is no evidence of significant lynx range contraction in the contiguous United States; (3) there is no evidence that substantial geographic areas that historically supported persistent lynx populations no longer do; (4) there are no verified historic records of lynx in northern New Mexico or any verified records of lynx in Colorado from 1937-1968 and hare densities in the Southern Rockies are too low to support a self-sustaining lynx population; (5) there is no compelling evidence the Southern Rockies or other areas excluded in the final rule ever supported lynx populations; (6) boreal forest habitat is insular, isolated, patchily distributed, and marginal in the Southern Rockies; (7) lynx in the Southern Rockies and other areas excluded do not contribute to the conservation of and are not essential to the conservation of lynx in the contiguous United States; (8) the areas excluded from the critical habitat designation – including the Southern Rockies, Oregon, Utah, Idaho, and portions of Washington, Wyoming and Montana – do not have the PCEs or the PCEs is sufficient quantity or spatial arrangement essential to lynx conservation; (9) it is able to reliably analyze boreal forests to determine which areas contain the PCEs in sufficient quantity and spatial arrangement essential to lynx conservation or which areas lynx need in order to survive and recovery in the contiguous United States; (10) areas deemed “occupied” by lynx at the time of listing (March, 2000) are sufficient for the conservation of the species; (11) under the wave analogy, only “lasting puddles” are the ones that have PCEs in sufficient quantity or spatial arrangement;(12) areas excluded from the final rule, including portions of Montana, Idaho, Wyoming, Utah, Oregon, and Washington deemed “unoccupied” have been “well surveyed” for lynx; (13) that areas excluded from the final rule only provide “temporary habitat” for “transient” lynx; and (14) that the benefits of excluding tribal lands and HCP lands (in Montana and Washington) outweigh the benefits of including such lands in the final rule.

While the Service can “draw conclusions based on less than conclusive scientific evidence, it cannot base its conclusions on no evidence.” *National Assoc. of Home Builders v Norton*, 340 F.3d 835, 847 (9th Cir. 2003).

Wherefore, this sixty day notice letter serves to put the Service on notice of its liability for violating the ESA and inform the Agency of our intent to file a citizen suit under the ESA seeking the appropriate relief.

This notice is provided pursuant to, and in accordance with, Section 11 (g)(2) of the ESA, 16 U.S.C. § 1540(g)(2).

Sincerely,

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