



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Washington D.C. 20240



In Response Reply
to: FWS/DIR/074051

Memorandum

To: Secretary of the Interior

Through: Assistant Secretary for Fish and Wildlife and Parks

From: Aurelia Skipwith, Director

Date: January 7, 2021

Re: Extinction Analysis for the Northern Spotted Owl

I recommend excluding approximately 3,472,064 acres of habitat from the current total of 9,577,342 acres of critical habitat for the northern spotted owl (NSO). The purpose of this memorandum is to present to you my analysis, based upon the best scientific and commercial data available, of whether my recommended exclusions would result in extinction of the species. These specific exclusions would include the following:

1. All lands that were revested to the Federal Government under the Chamberlin-Ferris Act of 1916 (39 Stat. 218) (approximately 1,391,714 acres)¹;
 2. Additional Forest Service “matrix lands” included in the 2009 Forest Service Northwest Forest Plan excluding the O&C lands (approximately 2,047,929 acres);
 3. Additional Bureau of Land Management (BLM) “matrix lands” excluding the O&C lands (approximately 12,046 acres)²
 4. NSO critical habitat lands within the Forest Service Special Use Permit for the White Pass Ski Area (approximately 211 acres);
 5. Additional Tribal lands (approximately 20,177 acres)
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TOTAL Exclusion = approximately 3,472,064 acres

TOTAL NSO Critical Habitat Designation 2020 = approximately 6,105,278 acres

ADDITIONALLY, there are several million acres of spotted owl habitat protected in wilderness or National parks that are not included in the 2012 designation³

¹ This includes Forest Service and BLM lands designated as O&C lands.

² These lands are also noted as BLM’s Harvest Land Base pursuant to its 2016 resource management plans.

³ Per email from Paul Henson, FWS, Oregon, 12/15/2020.

TOTAL Habitat protected for NSO = approximately 6,105,278 acres of designated critical habitat plus several million acres of reserve habitat.

The U.S. Fish and Wildlife Service (FWS) field office responsible for management of the NSO has offered two concerns regarding these exclusions. First, the head of the field office has expressed concern that exclusion of these lands may preclude recovery of NSO. Second, he explained that the exclusions discussed here are greater than those modeled in the scenarios in the NSO recovery plan⁴ dated May 13, 2008. Thus, the exclusions present greater extinction risk than the modeled scenarios (modeled between 25 and 250 years into the future) and that those exclusions would “preclude recovery of the NSO.”⁵ He goes on to state, “Most scientists (including myself) would conclude that such an outcome will, therefore, result in the eventual extinction of the listed species. No one can give a precise timeframe for when this would occur, but it is a reasonable scientific conclusion.”⁶

In consultation with the Solicitor’s office, I have reviewed both the legal standard stated in section 4(b)(2) of the ESA and the modeled scenarios in the Recovery Plan and I do not conclude that these exclusions will result in extinction of the NSO.

The legal standard under which exclusions are evaluated is whether, based on the best scientific and commercial data available, exclusions “will result in extinction of the species.” Although there are no cases directly on point, the two cases that have discussed “extinction” have done so with references to the “survival” of the species rather than recovery of the species. *See Northern New Mexico Stockman’s Association v. United States Fish and Wildlife Service*, ___ F. Supp.3d ___, 2020 WL 6048149, 117 (D.N.M. 2020); *Gifford Pinchot Task Force v. USFWS*, 378 F.3d 1059 (9th Cir. 2004) (rejecting the prior FWS ESA section 7 regulation defining “destruction or adverse modification” of critical habitat for conflating survival and recovery). Thus, while the FWS field office is considering extinction in relationship to long term recovery of the species, the correct analysis for purposes of 4(b)(2) is whether the Secretary concludes that the specific exclusion of these areas of critical habitat will⁷ result in the extinction of the species. For the following reasons, based on the best scientific and commercial data available, I do not conclude that the failure to designate the particular areas described in the final rule will result in extinction of the northern spotted owl.

First, the determination to exclude an area from critical habitat designation does not affect the requirement that federal agencies comply with the section 7 obligation to avoid discretionary actions that are likely to jeopardize the continued existence of a listed species. Similarly, the decision to exclude an area from critical habitat does not eliminate the need to comply with the

⁴ Email Communication dated December 12, 2020 from Paul Henson to Deputy Assistant Secretary (DAS) Jeremy Carl, FWS Director Aurelia Skipwith, Deputy Solicitor (Dep. Sol.) Karen Budd-Falen.

⁵ Email Communication dated December 9, 2020 from Paul Henson to DAS Jeremy Carl, FWS Director Aurelia Skipwith and Dep. Sol. Karen Budd-Falen.

⁶ *Id.*

⁷ The term “will,” like the word “shall” connotes a mandatory action or something that must occur. <https://www.lawinsider.com/dictionary/shall-must-will-mandatory>

section 9 prohibitions of the Endangered Species Act. Therefore, any assumptions regarding the future activities that take place on federal or private lands must recognize the very likely compliance with those provisions of the ESA, where applicable.

Second, despite the significant acreages of critical habitat that have been set aside for the NSO since 1990, estimated populations of NSO have declined more than 70 % since the listing of the NSO. 85 FR at 81145. In fact, the recent 12-Month Finding for the NSO (85 FR 81144 (12/15/2020)) determined that an uplisting from threatened to endangered was warranted but precluded by higher priorities. *Id.* In a recent published demographic study for the NSO (Dugger *et al.* 2016, entire) found that the nonnative barred owl has the largest negative impact on the NSO through competition for resources. Thus, while it may be true that old growth forests are important for the NSO (although it is not clear from the scientific literature about how much old growth habitat is needed and where it should be located and as shown by the data above that despite significant critical habitat designations, the populations of NSOs have significantly declined), the legal standard for excluding critical habitat is whether the Secretary concludes that the exclusion of a particular area **will** result in extinction of the species. Based on these facts, I conclude that it is speculative at best to determine that these exclusions will result in extinction. Because the plain language of section 4(b)(2) expresses the exclusion analysis as a certainty, I conclude that these exclusions of critical habitat can occur.

Third, with regard to the modeling in the Recovery Plan, none of the modeling scenarios show extinction of the NSO within 100 years, if an aggressive barred owl eradication program is put in place. Even taking into consideration the Field office's concern that these exclusions are greater than the scenarios modeled for in the Recovery Plan, I conclude that the best scientific data does not conclude that the proposed exclusions "will result in extinction" of the NSO. If extinction of the NSO were to occur in the future, it would most likely be because of the failure to adequately fund and fully implement a barred owl removal plan. Therefore, currently the best scientific and commercial data available does not support the premise that simply excluding these areas of critical habitat will result in the extinction of the NSO.

Additionally, the modeling in the Recovery Plan also ignores the possibility that FWS will, in the future, comprehensively address the threat from barred owls. Preliminary attempts to control and eliminate the invasive barred owls in forest regions have been promising. As the FWS noted on our recently-released species status assessment on the NSO:

The Barred Owl Removal Experiment has been underway since 2013. There are encouraging signs of a positive spotted owl response to the removal of barred owls on some study areas. For example, on all study areas the number of occupied sites on the treatment areas (where barred owls are removed) have been maintained while the number of occupied sites on the control area continue to decline. On the Hoopa treatment area, the apparent survival rate of spotted owls has increased by almost 10 percent compared to the period immediately before removal began.

Fourth, scientists have observed, and the FWS Field office staff has affirmatively stated, that NSOs use disturbed and/or logged habitat.⁸ The data on this subject leads to the conclusion that

⁸ Personal communication to DAS and Dep. Sol. from FWS field office staff.

simply because an area is not designated as critical habitat does not lead to the conclusion that it is not used by the NSO. Additionally, even in areas excluded from critical habitat, federal agencies will have to consult under the ESA section 7 jeopardy standard if NSOs are present. This will ensure that the NSO is not jeopardized by discretionary actions or decisions of a federal agency.

Fifth, the mere exclusion of land from critical habitat does not mean that the habitat will actually be changed (harvested) in the foreseeable future. The Field office based its recovery concerns on the notion that the “exclusion [of additional lands from critical habitat] leads to subsequent habitat management on these lands that is inconsistent with the current BLM and FS land management plans.”⁹ In response, it is the degree of any change in management that is important. To the extent the Field office director is suggesting that exclusion from critical habitat will lead to immediate and drastic change in management across the excluded portion, history shows that result is very unlikely. For example, the Northwest Forest Plan was adopted in 1994 to protect older forests while recognizing the importance of timber harvest to local communities and counties. Only 3,975,300 acres of the approximately 24 million NWFP acres were allocated as “matrix lands” intended for multiple use including timber harvests. According to the environmental report received during the comment period on the draft rule, despite the designation as matrix lands, by 2012, only 1.2% (13,900 acres) of the Western Cascades had been “lost” as NSO habitat, with timber harvest comprising only 6,900 acres, well below the allocation in the NWFP. Within the same time period, in the Eastern Cascades, the northern spotted owl habitat loss was estimated at 13.6% (113,600 acres), with only 24,400 acres caused by timber harvest. In sum, there were 24 million acres were in the NFWP and only 16.5 % were allocated as matrix multiple use lands. Out of that 16.5%, between 1995 and 2012, only 31,300 total acres or .8% of the acreage available for timber harvest was actually harvested. Rather the vast majority of habitat loss that did occur was a result of wildfires and insect damage, not timber harvest. Although the Secretary in 2012 exercised his discretion to increase NSO critical habitat because of a concern with logging, my conclusion, in looking at the data available at the time plus additional data that have come available since, is that concern was misplaced. As stated above, despite the increase in the critical habitat acreage in 2012, populations of NSO are still declining. Thus, in response to the concerns that exclusion of these matrix lands and O&C lands will result in immediate timber harvesting, in reality and for a variety of economic, social or other reasons, significant portions of the excluded habitat may be left undisturbed for years, decades or even longer. And, even if logging occurs within the excluded areas, the federal agencies will still be required to comply with section 7 consultation to ensure that the species is not jeopardized if any of the species is detected in the area. Additionally, because the NSO was listed as threatened prior to the rule that required a 4(d) special rule to accompany a threatened listing, there is no special rule for the northern spotted owl, thus the prohibitions in ESA section 9 apply. Therefore, I do not conclude these exclusions will result in extinction. Although exclusion from critical habitat may result in increased logging—and indeed increased logging opportunities is one of the benefits of exclusion supporting the contemplated exclusions---I conclude that any increased logging will be incremental and will take place over time.

⁹ Personal communication to DAS and Dep. Sol. from FWS field office staff.

I also note that the modeling for the Recovery Plan was based on the flawed assumption that the NSO does not use “disturbed habitat.” Contrary to that assumption, recent statements from the Field office staff confirm that the NSO does use younger or timbered forest lands for dispersal and feeding, and that NSOs in California nest in second growth forest if small patches of old growth areas are intermixed with the timbered areas.

Sixth, in addition to the critical habitat exclusions that I am recommending, there are several million additional acres of NSO habitat in National Parks, designated wilderness, and wilderness study areas that contain hundreds of NSO nesting pairs.¹⁰ These areas are not officially designated as critical habitat because no additional management is needed in these areas to protect the habitat. Absent invasions by the barred owl or wildfire, this habitat and the owls living therein will be maintained in their current state regardless of any critical habitat exclusions. Thus, based on the fact that NSOs will continue living in these reserved areas absent displacement by wildfire or barred owl invasions, the proposed exclusions will not cause the extinction of the NSO under the 4(b)(2) standard.

Finally, based on a review of the USGS reports and in talking with the USGS and Forest Service experts, there are valid indications that the population modeling process for the NSO leads to results that are too conservative and may undercount the species.¹¹ According to the NSO study protocols, the USGS and other researchers yearly survey 11 populations of NSO across its range. Those populations represent an estimated 10% of the birds and the study areas only make up approximately 9% of the species range. At least three study areas include private, state and National Park lands that are not designated as critical habitat and the USGS researchers have no access to that data. Even with 25 years of study data accessible to or generated by the federal government, there are no precise total population numbers for the NSO. Additionally, there was no baseline against which to compare current population demographic studies so the declining trend lines are based on unknown starting point. Additionally, while the modeling for the study sites attempts to accommodate for the fact that actually locating and counting NSOs is very difficult and not at all precise, it is not possible to determine the number of birds at each site. Without this information it is difficult to accurately extrapolate such few sites across the entire range and populations of the birds. Finally, the locations of the study sites are not randomly selected, again making it speculative to ascertain the exact number of NSO. Although this appears to be the “best scientific and commercial data available” for making population estimates, it is imprecise at best in determining if the habitat exclusions proposed “will result” in extinction of the species.

In conclusion, based on the best scientific and commercial data available, I do not conclude that the exclusion of the acreage described above will result in the extinction of the NSO. As stated above, the FWS has protected an extensive amount of acreage for the NSO since its listing and while the population of NSO is declining primarily because of the presence of the aggressive and invasive barred owl, the NSO population continues to persist. Second, none of the modeling

¹⁰ Conversation with DAS and Dep. Sol. and FWS field office on 12/8/2020.

¹¹ See e.g. Annual Report, Demography of Northern Spotted Owl (*Strix occidentalis caurina*) on the Willamette National Forest Oregon, Nov. 19, 2020; conversation notes, 12/28/2020.

scenarios show extinction of the species within 100 years as long as an aggressive barred owl eradication program is implemented. Additionally, the modeling scenarios do not incorporate the possibility and effectiveness of a strong barred owl eradication program. Third, NSOs can use habitat that is harvested as shown by the fact that owls persist in second growth forests. Fourth, there is a significant amount of protected habitat located in National Parks and wilderness that will never be logged and is used by the NSO. Fifth, to the extent the FWS field office interpret the models to suggest that designating less critical habitat will frustrate recovery and result in extinction of the species, it is important to temper that interpretation in light of the inherent limitations to the models for the NSO that require speculation far into the future. Finally, regardless of the critical habitat designations, all discretionary federal actions where NSOs are found will be subject to section 7 consultation to ensure that the continued existence of the NSO is not jeopardized. Additionally, the NSO will also be protected by the prohibition against “take” of the species under ESA section 9. Thus, for the reasons listed above and based on the additional protections for the species under the ESA, I do not conclude that, based upon the best scientific and commercial data available, that the proposed exclusions will result in the extinction of the NSO.