Fish and Wildlife Service seeks public comment on draft strategy to manage invasive barred owls Management strategy is needed to protect northern and California spotted owls from extinction

Nov 8, 2023 Media Contacts Jodie Delavan

PORTLAND, Ore. – The U.S. Fish and Wildlife Service is seeking public input on a draft environmental impact statement and draft Barred Owl Management Strategy that addresses the threat of the non-native and invasive barred owls to native northern and California spotted owls. Populations of the northern spotted owl, which is listed as threatened under the Endangered Species Act, are rapidly declining due to habitat loss and competition with barred owls.

Based on a recent analysis, northern spotted owl populations in study areas throughout their range declined by 35% to more than 80% over the past two decades. California spotted owls, which the Service proposed for ESA <u>listing</u> earlier this year, face a similar risk from barred owl competition as barred owl populations continue to expand southward.

"We've been working with partners to manage northern and California spotted owl habitat for years, but we also urgently need a management tool that addresses the increasing barred owl threat," said Kessina Lee, state supervisor for the Service's Oregon office. "If finalized, this management strategy and associated permit would provide a mechanism for willing Tribes, agencies, companies, or individuals to implement barred owl management on their lands."

Barred owls are generalist predators and opportunistic hunters, eating almost any species they encounter, including small mammals, birds, reptiles, amphibians, fish, earthworms, snails, slugs, insects, and crayfish. They have invaded western forests from their historical range in eastern North America, threatening the long-term survival of spotted owls and impacting a variety of native wildlife species that either prey for or compete with barred owls for the same food resources.

The draft Barred Owl Management Strategy recommends actions to reduce barred owl populations in certain areas of the northern spotted owl's range and focuses on limiting barred owl expansion into the range of the California spotted owl. Widespread implementation of barred owl management is necessary for the conservation of spotted owls, and the Service intends to coordinate closely with Tribes, federal, state, and private partners on its implementation, which would be voluntary.

The Service prepared the draft environmental impact statement and Barred Owl Management Strategy using information and comments received during the public scoping period and the best available science, including results from the large-scale <u>barred owl removal experiment</u>. This study showed that barred owl removal had a strong, positive effect on northern spotted owl survival, which ultimately stopped population declines in areas where barred owls were removed.

A 60-day public comment period will start when the notice of availability publishes in the *Federal Register* later this month. Information on how to submit comments is available at http://www.regulations.gov/ by searching under docket number FWS-R1-ES-2022-0074.

The Service will host two informational virtual public meetings during the comment period on the following days:

— Dec. 4 from 6-8 p.m. Pacific Time. This meeting will focus on the barred owl management within the northern spotted owl's range.

— Dec. 14 from 6-8 p.m. Pacific Time. This meeting will focus on management within the range of California spotted owls.

A link and access instructions to the virtual meetings will be posted at www.fws.gov/office/oregon-fish-and-wildlife at least one week before the public meeting date.

Frequently Asked Questions

What action is the U.S. Fish and Wildlife Service taking?

The Service is announcing the availability of a <u>draft environmental impact statement</u> and <u>Barred Owl Management Strategy</u>, along with the opening of a 60-day public comment period. The draft strategy addresses the threat of the invasive and non-native barred owl to native northern spotted owls and California spotted owls in the West. It includes actions to reduce barred owl populations and their negative impact on the federally listed northern spotted owl. The strategy also focuses on limiting barred owl expansion into the range of the California spotted owl, which is proposed for listing, before the invasive bird becomes more established.

What alternatives were analyzed in the draft EIS?

The Service analyzed the impacts on the human environment from the no-action alternative and five action alternatives. All action alternatives include management options to reduce barred owl populations in areas within the northern spotted owl range and to prevent the development of barred owl populations within the California spotted owl range. Alternatives are detailed in Section 2 of the draft EIS and include:

- Alternative 1: No Action
- Alternative 2: Proposed Action Strategy Implementation
- Alternative 3: Management Across the Range
- Alternative 4: Limited Management by Province/Population
- Alternative 5: Management Focused on Highest Risk Areas
- Alternative 6: Management Focused on Best Conditions

What is the proposed action?

Alternative 2 is the proposed action in the draft EIS. In the northern spotted owl range, the draft Barred Owl Management Strategyincludes barred owl management across the range at varying scales, including management at spotted owl sites, in general management areas, and specially designated areas. The details of management under these approaches may vary by province, depending on the condition of spotted owls, barred owls, and habitat within the province, as described further in the strategy.

In the California spotted owl range, the strategy focuses on locating and removing barred owls before they can establish populations. Barred owls could be removed anywhere they are found.

The Service is proposing to hold the necessary permit under the Migratory Bird Treaty Act to implement the strategy. If the strategy is finalized, it could be implemented by designated Tribes, federal and state agencies, and landowners with federal and state laws and policies.

A full description of this alternative can be found in Section 2 of the draft EIS.

What types of comments were received during scoping, and how is the Service addressing them?

The Service received a variety of comments during the Notice of Intent scoping period regarding which barred owl control methods to use, including when and where to use them. Some suggested the Service focus on habitat management or other factors, instead of barred owl management. The Service also received comments asking for additional research into non-lethal strategies to manage barred owls, gathering additional genetic data for barred owls to management, and conducting additional research on whether forest management has contributed to barred owl invasion and how forest type affects both species.

Additionally, there was a suggestion to utilize private individuals with extensive training and incentive programs to remove barred owls on multiple land ownership types including private and county lands. Finally, the Service was asked to describe how non-target impacts would be avoided. All of these comments were evaluated with the best available science to develop this draft Barred Owl Management Strategy. A summary of the public comments received is available in Appendix 5 of the draft EIS.

What areas are included in the draft Barred Owl Management Strategy?

In the range of the northern spotted owl, 10 physiographic provinces are included in the strategy: Olympic Peninsula, Western Washington Cascades, Eastern Washington Cascades, Oregon Coast Ranges, Western Oregon Cascades, Eastern Oregon Cascades, Oregon Klamath, California Klamath, California Cascades, and California Coast. In the California spotted owl's range, the Sierra Nevada and Coastal-Southern California distinct population segment ranges are included in the strategy. In addition, the strategy includes areas that may provide pathways for barred owls to enter California spotted owl range, such as coastal mountains south of San Francisco.

Why is a Barred Owl Management Strategy needed?

Barred owls invaded western forests from their historical range in eastern North America, threatening the long-term survival of the native northern spotted owl and, more recently, the California spotted owl. If barred owls are not managed, the northern spotted owl will likely become extirpated from some or all of its range. California spotted owls face a similar risk as barred owl populations continue to expand southward into their range. Proactive barred owl management to limit their expansion throughout the California spotted owl's range will help prevent barred owls from becoming a severe threat to California spotted owls.

How can the Service propose to manage barred owls if they are protected under the Migratory Bird Treaty Act and state regulations?

Implementation of the Barred Owl Management Strategy would require authorization under the Migratory Bird Treaty Act. The Service can authorize the take of a migratory bird species to protect species that are listed under the Endangered Species Act. For all authorizations that take a migratory bird, the Service ensures the species will continue to be conserved overall. Washington, Oregon, and California also require permits or authorization for the management of barred owls. The Service is working with all states to ensure that state authorizations are also available.

Where could barred owl management occur?

In the northern spotted owl range, barred owl management under the strategy could occur around spotted owl sites, in specific general management areas, and specially designated areas. These are prioritized in each province to focus barred owl management on areas with the greatest need or the greatest potential for success.

Site management is an early and high-priority focus of barred owl management in all provinces. Removing barred owls in and near active or recently occupied spotted owl sites would help maintain existing spotted owl populations while the Service develops and implements barred owl management in larger blocks. Ideally, currently, active spotted owl locations would provide a source of spotted owls to recolonize additional areas in the future.

General management areas are large, mapped areas capable of supporting 200-300 spotted owl sites. Within each general management area, smaller focal management areas would be delineated at the time of implementation using the best available data and local knowledge. The location and size of focal management areas will vary, depending on the conditions.

There are five types of special designated areas. These include:

- 1) A 15-mile-wide swath of forest habitat along the border of California spotted owl's range in the California Cascades, designed to create a barrier limiting barred owl populations' further expansion.
- 2) A county-based zone in the far southern tip of the northern spotted owl's range that includes Sonoma and Marin counties, where dense barred owl populations are not yet established.
- 3) Connectivity areas in Washington and Oregon are intended to facilitate connectivity between general management areas.
- 4) The Canadian Connector, along the border, was established for future connection to spotted owl management efforts in British Columbia.
- 5) Spotted Owl Special Emphasis Areas designated by the State of Washington.
- In California spotted owl range, where the focus is on early detection and rapid response to prevent barred owls from becoming established, barred owl management could occur anywhere in the range of the subspecies or potential invasion pathways. The Service will continue to coordinate with the California Department of Fish and Wildlife to allow for effective implementation of the strategy following state laws and policies.

If finalized, will implementing the Barred Owl Management Strategy be a requirement?

No, implementing the strategy is voluntary, however, the Service strongly believes widespread implementation of the strategy is necessary for the conservation of spotted owls, and will coordinate closely with our Tribes, federal, state, and private partners on its implementation.

If finalized, the strategy and associated permit under the Migratory Bird Treaty Act would provide a mechanism for Tribes, federal and state agencies, companies, or individuals to implement barred owl management on their lands under the Service's permit, consistent with the strategy and all conditions of our permit. Implementation of the strategy will be limited to the lands of willing landowners and land managers and would need to be implemented with state laws and policies.

Have others been involved with developing the draft Barred Owl Management Strategy?

The Service's draft Barred Owl Management Strategy was developed by the Service with the assistance of an interagency, intergovernmental team. The team included representatives from the U.S. Forest Service, Bureau of Land Management, National Park Service, states of Washington, Oregon, and California, and Yakama Nation. The Service also sought public and stakeholder input with the issuance of a Notice of Intent to prepare an EIS in July 2022, which opened a public comment period.

How has the Service previously engaged the public on barred owl management issues?

The Service's 2011 Northern Spotted Owl Recovery Plan, which identified the need to manage barred owls, and the Barred Owl Removal Experiment initiated by the Service in 2013, were developed with stakeholder and public input. On July 22, 2022, the Service published a Notice of Intent to prepare an EIS to consider a range of alternatives for managing the threat of the nonnative, invasive barred owl to the native northern and California spotted owls through the development and implementation of a Barred Owl Management Strategy.

The Service held a virtual public meeting during the 30-day public comment period and received 37 written comments from 22 Tribes, governmental agencies, organizations (including environmental, conservation, animal welfare, and industry groups, professional societies, and zoological parks), and 15 individuals.

Is this a natural range expansion of barred owls?

The expansion of barred owls from their historical range in eastern North America was likely a result of human-caused changes to the conditions in the Great Plains and northern boreal forest. Changes in climate, fire suppression, the extirpation of bison and beaver, and tree planting associated with European settlement created patches of forested habitat in the Great Plains, in turn altering natural barriers that previously inhibited the barred owl's expansion westward. As a result, barred owls were able to move westward and are now competing with native species in western forests.

Why are barred owls considered an invasive species in the western United States?

The Service evaluated the status of barred owls under Executive Order 13112 - Invasive Species to determine if barred owls met the definition of an invasive species in the ranges of the northern and California spotted owl. The Service concluded it does meet the definition of "invasive" because the barred owl is not native to the range of the northern and California spotted owls, and barred owls were introduced unintentionally through human-caused changes to the previous barrier created by the generally treeless conditions of the Great Plains and harsh conditions in the northern boreal forest.

Barred owls are causing significant environmental harm to northern spotted owls, a subspecies of spotted owls listed as threatened under the ESA and are likely to cause significant harm to California spotted owls as barred owl populations continue to expand. Barred owls are also likely to harm other species through predation or competition and are considered a risk to create a trophic cascade in some forest systems.

What are the main threats to the northern spotted owl?

The two primary threats to the survival of the northern spotted owl are competition from invasive barred owls and habitat loss. Both were identified when the northern spotted owl was listed as threatened under the ESA in 1990, but their magnitude has changed over the years. Barred owls are considered a much higher threat today than they were at the time northern spotted owls were listed. The Service is concerned the northern spotted owl is likely to be extirpated from some or all of its range, unless barred owls are managed, and habitat continues to be conserved.

How do invading barred owls affect northern spotted owls?

Barred owls are larger, more aggressive, and have a wider prey base than spotted owls. Consequently, they displace northern spotted owls, disrupt their nesting, compete with them for food, and occasionally attack them. Some hybridization between spotted and barred owls has also occurred, though generally at very low levels.

In many parts of the northern spotted owl's range, barred owls now greatly outnumber spotted owls. Because northern spotted owl populations are already struggling from historical habitat loss, the barred owl's presence represents an added stressor. Research clearly shows that northern spotted owl population declines are more pronounced in areas where barred owls are present, and declines are greatest where barred owls have been present the longest and are in larger populations.

When did barred owls start moving into the northern spotted owl's range?

Barred owls are native to eastern North America, and their populations began to expand west of the Mississippi River around the turn of the 20th century. Barred owls reached the northern spotted owl range in British Columbia, Canada, around 1959 and continued to expand southward. They were first documented in Washington in the 1970s and now outnumber northern spotted owls in most of the subspecies' range in California, Oregon, and Washington.

Should the Service let nature take its course?

European settlement allowed barred owls to breach the historic barrier of the Great Plains and northern boreal forest, so their presence here is not natural. Unless the Service manages the invasive barred owl population, the federally listed northern spotted owl will be extirpated in all, or a significant portion, of its range. On behalf of the American people, the Service, and other federal agencies have a legal and ethical responsibility to do everything the Service can, within the confines of our respective authorities and funding, to prevent the extinction of the northern spotted owl and help it recover.

What is the Service currently doing to address the threat of barred owls to northern spotted owls?

Section 7 (a)(1) of the Endangered Species Act directs the Secretary of the Interior and all federal agencies to proactively use their authorities to conserve threatened and endangered species. The 2011 Revised Northern Spotted Owl Recovery Plan identified habitat loss and barred owl competition as the primary threats to spotted owls.

The Northwest Forest Plan addressed habitat loss on federal lands, and several habitat conservation plans have done the same for some state and private lands. These plans have reduced the loss of spotted owl habitat from timber harvest on these lands. However, increasing loss of habitat to severe, large-scale wildfires continues to be a concern throughout their range.

About one-third of the recovery plan focuses on addressing the threat of the invasive barred owl. The Service, along with partners, initiated an experimental removal of barred owls in 2013 to test the feasibility of barred owl removal and determine whether it improves conditions for spotted owls. The experiment, completed in 2021, showed that barred owl removal helped northern spotted owls within the removal areas.

The Service has also permitted experimental removal of barred owls by the Hoopa and Yurok Tribes, Green Diamond Resource Company, Sierra Pacific Industries, and the University of Wisconsin. Information from these studies was used to develop the Barred Owl Management Strategy that, if finalized, could be implemented by Tribes, federal and state agencies, landowners, and land managers.

Is there evidence that barred owl removal would benefit spotted owls? What are the findings from the experimental removal of barred owls?

Yes. The Service's barred owl removal experiment compared spotted and barred owl populations in four study areas across the range of the northern spotted owl — one in Washington, two in Oregon, and one in northern California. The experiment demonstrated success in the removal of barred owls, resulting in reduced and declining barred owl populations within the removal areas. In areas where no removal occurred, barred owl populations continued to increase.

The removal of barred owls had a strong and positive effect on the survival of spotted owls. In the treatment areas where barred owls were removed, spotted owl populations stabilized after three to six years of removal. In paired control areas without barred owl removal, spotted owl populations continued to decline at 12% per year. The removal experiment demonstrated that barred owl removal can be an effective method for the conservation of spotted owls.

The experiment was completed in 2021. For additional information about the study, please visit https://www.fws.gov/project/barred-owl-study-update.

Is lethal control necessary? Would other management methods work?

In developing a draft Barred Owl Management Strategy, the Service used the best available scientific information and considered various management approaches, including both lethal and nonlethal barred owl management. The Service considered a variety of nonlethal methods, none of which were able to meet the purpose and need of the draft strategy, which is to rapidly reduce barred owl populations to improve the survival and recovery of northern spotted owls and to prevent declines in California spotted owls from barred owl competition.

Translocation of barred owls, which would involve the capture and transport of barred owls out of spotted owl management areas, is not an option. Given their invasive nature and potential impact on a wide variety of prey species, the Service would not release barred owls in the wild outside their historical range. Translocating barred owls back to their historical range is also not an option, as the most suitable barred owl habitat is already occupied by the species, coupled with concerns that translocation would introduce new parasites and diseases from the West into their historical range. Permanent captivity was also considered but requires humane facilities willing to accept them. The Service also evaluated a variety of reproductive interference methods, such as hazing, sterilization, destroying nests and eggs, and immune-contraceptive vaccines. Hazing is not an effective method to prevent successful barred owl reproduction since they are not very susceptible to disturbance.

Other reproductive interference methods were either technically and/or economically infeasible, unsafe to implement due to potential non-target effects, or would not result in rapid reduction of barred owl populations in time to help spotted owls. The Service evaluated habitat management to favor spotted owls; unfortunately, there are no habitat conditions where spotted owls have been shown to outcompete barred owls.

Is there a limit on the number of barred owls that can be lethally removed?

Yes. Implementation of the Barred Owl Management Strategy would require authorization under the Migratory Bird Treaty Act, through the issuance of a special purpose permit. These permits may be issued for up to three years and can be renewed. The permit would contain several barred owls authorized for removal under the permit, based on our estimate and request in the application. However, these values would represent the 3-year estimate and may be revised with each renewal. The strategy does not set a limit on the number of barred owls removed but instead focuses on describing areas where barred owls could be managed.

Did the Service take ethical considerations into account when developing the Barred Owl Management Strategy? Yes. The Service considered ethical issues in the development of the Barred Owl Removal Experiment in 2013 and again in the development of the draft Barred Owl Management Strategy. As part of the Service's development of the barred owl removal experiment, a stakeholder group was established in early 2009. This group included representatives of broad-interest environmental organizations, bird-specific conservation groups, animal welfare organizations, the timber industry, Tribes, state and local government agencies, and others.

The information provided by the group was one of a variety of sources of information that helped the Service consider the ethical aspects of potential barred owl research decisions, which included the public comments received in response to our Notice of Intent to prepare an environmental impact statement on the strategy.

The Service used the information from the stakeholder group and public comments in the development of the strategy, particularly in the development of the methodology for removal and the early detection and rapid response approach in the California spotted owl range.

What is the status of California spotted owls, and how do barred owls impact them?

The California spotted owl is comprised of two primary populations. In February 2023, the Service proposed listing the Coastal-Southern California distinct population as endangered and the Sierra Nevada DPS as threatened under the ESA. California spotted owls are listed as a species of concern by the California Department of Fish and Wildlife. Barred owls have recently invaded the range of California spotted owls in the Sierra Nevada. California spotted owls face similar threats from barred owl competition as barred owl populations continue to expand southward.

Why is the Service including California spotted owls in the Barred Owl Management Strategy if they are not currently federally listed (only proposed for listing) and there are fewer barred owls within their range? The southward invasion of the barred owl has reached the range of California spotted owls in the Sierra Nevada. Without barred owl management, the distribution and density of the invasive barred owls are expected to increase throughout the California spotted owl's range, similar to the history in the northern spotted owl range. Invasive species are difficult to remove once established. By including California spotted owls in the strategy, the Service can limit the invasion of barred owls into the range of the California spotted owl.

If barred owls succeed in establishing populations in the range of California spotted owl, the strategy will allow a rapid response to reduce those barred owl populations and prevent them from impacting California spotted owl populations.

Would other species benefit from barred owl management?

Although the purpose of the draft Barred Owl Management Strategy is to conserve the northern spotted owl and limit barred owl expansion into the California spotted owl's range, other native wildlife species that are prey for or competitors with barred owls are likely to benefit from barred owl removal. One example is the western screech owl, which is both preyed upon by barred owls and suffers from competition for resources with barred owls; screech-owl population declines have also been linked to the barred owl expansion.

Barred owls are generalist predators and opportunistic hunters, eating almost any species they encounter, including small mammals, birds, reptiles, amphibians, fish, earthworms, snails, slugs, insects, and crayfish. Where barred owls are plentiful, reducing their numbers can alleviate local predation impacts on native prey species and lessen competition with other native wildlife for the same food resources.

As a novel predator and competitor in western forests, the impact of the barred owl is likely more serious for species that are already rare or at risk. Some at-risk species that are potential prey for barred owls include red tree voles, western grey squirrels, foothill yellow-legged frogs, and marbled murrelets. Species that may compete with barred owls for food resources include spotted owls, Pacific martens, fishers, Sierra Nevada red foxes, and Cascade red foxes. Table 3-26 of the draft EIS has a more complete list of at-risk forest species that may be affected by barred owl management actions.

Has wildlife removal been used as a management tool in other situations?

Yes, wildlife removal has been used as a management tool by many agencies across the country to control invasive species such as invasive carp, Burmese python, feral hogs, rats, mongoose, and nutria. Invasive species can thrive in areas where they do not naturally occur. They degrade, change, or displace native habitats, prey upon and compete with native wildlife, and thus are major threats to biodiversity. Consequently, invasive species control is commonly used to protect and maintain native species and ecosystems.

There have been many occasions when the Service and other agencies found it necessary to carry out removal measures for one species to safeguard another species listed under the ESA or a species of concern. A few examples include the removal of red-tailed hawks to help endangered parrots in Puerto Rico; rat and mongoose removal to protect seabirds in

Hawaii; brown-headed cowbird removal to protect Kirtland's warblers and southwestern willow flycatchers; and removal of foxes, crows, and ravens to protect western snowy plovers. Such measures are given careful consideration and include evaluating the potential for other, non-lethal options.

When managing barred owls, is there a chance that spotted owls might accidentally be killed in a case of mistaken identity?

Potentially, however, the removal methods protocol included in the draft Barred Owl Management Strategy and draft EIS was developed from proven methods used during several experiments involving barred owl removal. The protocol contains specific training requirements and elements to greatly reduce the potential for such a mistake. Since 2013, more than 4,500 barred owls have been removed under scientific collecting permits with no loss of spotted owls.

The protocol has specific requirements that removal specialists under the strategy be able to accurately identify spotted owls and barred owls using both visual and auditory means, and confidently distinguish between the two species and prove this ability before being authorized to conduct removal. In case of any doubt on the identification, the removal attempt would be halted, and a new attempt would be conducted later.

While this protocol is designed to avoid injury to non-target species, to conduct removals the removal specialists would be required to identify the nearest veterinary resources, wildlife rehabilitation facilities, and specialists, in case they are needed. Appendix 3 of the draft EIS outlines the specific methodology for barred owl removal.

What happens if a barred owl is wounded during a removal attempt?

Every effort would be made to minimize the risk of unnecessary injury or trauma to barred owls. Protocols would be in place so that barred owl removal methods would be conducted as safely, humanely, and efficiently as possible. To ensure that any barred owls wounded, but not killed, during removal do not continue to suffer, all people involved in removal would be trained in effective, humane methods of field euthanasia and have all necessary material available at all times during removal.

How long is barred owl management needed?

Barred owls are now well-established in the West. Their populations will continue to produce young that can disperse within and beyond the current range of barred owls. Therefore, barred owl management will be required at some level for the long term.

When managing invasive species, there are two general approaches depending on the progression of the invasion. At the advancing front where few individuals are present, management is focused on early detection and rapid response to remove invaders and limit the invasion. Once invasive species are established, the focus is on control and management. Both require a long-term commitment.

In the California spotted owl range, and the very southern tip of the northern spotted owl range in Marin and Sonoma Counties, barred owls are at the early stages of invasion and as described in the purpose and need, an early detection and rapid response mode is appropriate. In the remainder of the northern spotted owl range, barred owls are established, and a control and management approach is needed.

Will there be effective monitoring or checks and balances to determine whether barred owl management should continue under this Barred Owl Management Strategy?

The strategy does include effective monitoring. This information will allow the Service to periodically evaluate the successes and failures of the various implementation efforts. The Service will use this information to determine if modification to the location or approach would be justified and how to best implement the components of the strategy.

If barred owls are the key threat to northern spotted owls, does the Service need to keep protecting and conserving habitat?

Yes. Although the magnitude of the barred owl threat has increased greatly and is a primary concern, habitat loss remains a threat for the northern spotted owl. When the spotted owl was listed in 1990, the Service estimated its old-growth habitat had declined by between 60% and 88% since the early 1800s. Under the Northwest Forest Plan and subsequent land management plan amendments, the Bureau of Land Management, U.S. Forest Service, and other partners have significantly slowed the loss of northern spotted owl habitat on federal lands.

Since the time of listing, habitat loss from timber harvest has been significantly reduced and occurs at rates lower than anticipated in the Northwest Forest Plan. However, in recent years, the amount of habitat lost to catastrophic wildfire on federal land has exceeded what was lost to timber harvest each year. Northern spotted owl recovery requires a combination of habitat and barred owl management.

How long has barred owl management been ongoing?

The 2011 Revised Recovery Plan for the northern spotted owl identified past and current habitat loss, along with competition from barred owls as the most pressing threats to the northern spotted owl. This was an early discussion of barred owl management, though research on potential barred owl management methods began in 2009 on Green Diamond Resource Company lands in northern California. The recovery plan identified 12 recovery actions specific to the barred owl threat, including Recovery Action 29: Design and implement large-scale control experiments to assess the effects of barred owl removal on spotted owl site occupancy, reproduction, and survival.

In 2013, the Service and its partners initiated the <u>Barred Owl Removal Experiment</u> to investigate the effect of barred owl removal on spotted owl population dynamics. The Barred Owl Removal Experiment demonstrated success in reducing populations of barred owls, a strong, positive effect on the survival of northern spotted owls, and a weaker, though still positive, effect on spotted owl dispersal and recruitment.

The Barred Owl Removal Experiment provided the information necessary for the implementation of Recovery Action 30: Manage to reduce the negative effects of barred owls on spotted owls. The Service intends to reduce the negative effects of barred owls through the development and implementation of a barred owl management strategy.

How can I learn more and provide input on the draft EIS and Strategy?

The Service encourages anyone with an interest in spotted owl recovery and barred owl management to provide written comments on the draft Barred Owl Management Strategy and draft EIS. The Service opened a 60-day public comment period when the notice publishes later in November. After it publishes, the notice and supporting documents can be obtained online in Docket No. FWS-R1-ES-2022-0074 at http://www.regulations.gov/.

Public comments can be submitted in writing via:

- *Internet*: https://www.regulations.gov/. Follow the instructions for submitting comments on Docket No. FWS-R1-ES-2022-0074
- *U.S. mail:* Public Comments Processing; Attn: Docket No. FWS-R1-ES-2022-0074; U.S. Fish and Wildlife Service Headquarters, MS: PRB/3W; 5275 Leesburg Pike, Falls Church, VA 22041–3803.

Comments submitted online at http://www.regulations.gov/ must be received by 11:59 p.m. Eastern Time on January 16, 2024. Hardcopy comments must be received or postmarked on or before January 16, 2024.

The Service will host two virtual public meetings during the comment period to present information on the draft EIS, give an overview of the strategy, and answer any questions from the public. This will not be an opportunity to submit comments; it is designed to provide information for the public in aid of submitting written comments. The meetings will be held on the following days:

- Dec. 4 from 6-8 p.m. Pacific Time. This meeting will focus on the barred owl management within the northern spotted owl's range.
- Dec. 14 from 6-8 p.m. Pacific Time. This meeting will focus on management within the range of California spotted owls.

A link and access instructions to the virtual meetings will be posted to www.fws.gov/office/oregon-fish-and-wildlife at least one week before the public meeting date.

The Service will continue to maintain a webpage for the development of this strategy and its implementation, if finalized, here https://www.fws.gov/project/barred-owl-management.