

**FINDINGS AND RECOMMENDATIONS
FOR ISSUANCE OF AN ENDANGERED SPECIES ACT SECTION 10(a)(1)(A)
ENHANCEMENT OF SURVIVAL PERMIT (TE 18227A-0) ASSOCIATED WITH THE
OREGON DEPARTMENT OF FORESTRY
SAFE HARBOR AGREEMENT
FOR THE NORTHERN SPOTTED OWL**

I. DESCRIPTION OF THE PROPOSED ACTION

The U. S. Fish and Wildlife Service (Service) proposes to issue an enhancement of survival permit (permit) to the Oregon Department of Forestry (ODF) under the authority of section 10(a)(1)(A) and section 10(a)(2) of the Endangered Species Act (ESA), as amended, and the Service's Final Policy for Safe Harbor Agreements (64 FR 32717, June 17, 1999). The permit will be in effect for a period of 50 years. Documents used in the preparation of this statement of Findings and Recommendations include: the "Programmatic Safe Harbor Agreement for the Northern Spotted Owl Between U.S. Fish and Wildlife Service, Oregon Department of Forestry and USDA Natural Resources Conservation Service" (Agreement)(Service 2010a); the associated environmental action statement (Service 2010b); and the Service's biological opinion on the proposed issuance of the permit (Service 2010c). All of these documents are incorporated by reference as described in 40 CFR § 1508.13.

The ODF is requesting a permit for the northern spotted owl (*Strix occidentalis caurina*) (spotted owl). The USDA Natural Resources Conservation Service (NRCS) will be providing funds to purchase conservation easements and to conduct some forest management practices that support the purposes of the Agreement when funds are available.

Status of the Spotted Owl

The spotted owl was federally listed as threatened on June 26, 1990, pursuant to the ESA, due to widespread loss and alteration of suitable habitat across the owl's entire range, and the inadequacy of existing regulatory mechanisms to conserve the owl. In 2008, the Service re-designated critical habitat for the spotted owl in 29 units on approximately 5,312,300 acres of Federal lands in California, Oregon, and Washington (Service 2008a).

The spotted owl was listed as threatened throughout its range "due to loss and adverse modification of suitable habitat as a result of timber harvesting and exacerbated by catastrophic events such as fire, volcanic eruption, and wind storms" (Service 1990a: 26114). More specifically, threats to the spotted owl include: small and declining populations; limited and declining habitat; inadequate distribution of habitat or populations; isolation of provinces¹ predation and competition; lack of coordinated conservation actions; and vulnerability to natural

¹The range of the spotted owl is partitioned into 12 physiographic Provinces based on recognized landscape subdivisions exhibiting different physical and environmental features (Figure A1, Thomas *et al.* 1993).

disturbance (Service 1992b). These threats were characterized for each province as severe, moderate, low or unknown (Service 1992b).

At the time of listing, loss and decline of habitat were recognized as severe or moderate threats to the spotted owl throughout its range; isolation of populations was identified as a severe or moderate threat in 11 provinces; and a decline in population was a severe or moderate threat in 10 provinces. Together, these three factors represented the greatest concerns about range-wide conservation of the spotted owl. Limited habitat was considered a severe or moderate threat in nine provinces, and low populations were a severe or moderate concern in eight provinces, suggesting that these factors were also a concern throughout the majority of the spotted owl's range. Vulnerability to natural disturbances was rated as low in five provinces.

The degree to which predation and competition may pose a threat to the spotted owl was unknown in more provinces than any of the other threats, indicating a need for additional information. Few empirical studies exist to confirm that habitat fragmentation contributes to increased levels of predation on spotted owls (Courtney et al. 2004). However, great horned owls (*Bubo virginianus*), an effective predator on spotted owls, are closely associated with fragmented forests, openings, and clearcuts (Johnson 1992, Laidig and Dobkin 1995). As mature forests are harvested, great horned owls may colonize fragmented forests, thereby increasing spotted owl vulnerability to predation.

Term and Covered Area of the Permit and Provisions for Site-Specific Plans

The permit and Agreement would be in effect for a period of 50 years. In accordance with 50 CFR § 17.32(c)(8), we conclude the duration of the permit is sufficient to provide a net conservation benefit to the spotted owl by contributing to their recovery (see discussion below in part III.B).

The proposed permit would authorize ODF to extend incidental take coverage with assurances through issuance of Certificates of Inclusion to eligible landowners (Cooperators) who are willing to carry out habitat management measures on their lands that would benefit the spotted owl. Landowners will have to enter into a Stewardship Agreement with ODF and develop a site-specific management plan that will be reviewed and approved by the Service and made available for public comment before ODF could issue them a Certificate of Inclusion. The site-specific plan will include at a minimum: a property description, including a description of the existing baseline; an implementation plan; and monitoring and reporting provisions. The non-federal Cooperators would receive assurances under the Service's regulations for Safe Harbor Agreements [50 CFR § 17.32(c)(5)] by signing the Certificate of Inclusion. Incidental take would be authorized for spotted owls above the originally determined baseline conditions (discussed further below). Baseline conditions are established based upon the known number of spotted owls using an enrolled property or the amount of suitable habitat present at the time of enrollment.

The covered area or geographic scope of the proposed permit and Agreement includes non-federal forest lands within the range of the spotted owl in Oregon, which is estimated at about 9

million acres. However, the acreage likely to be enrolled under the Agreement is likely to be only a small fraction of this total since not all landowners will be interested in developing a Stewardship Agreement with ODF or be interested in long-term forest management to develop and retain suitable spotted owl habitat. We have estimated that the enrolled acreage will not exceed 50,000 acres over the term of the permit and Agreement. We have consequently set a limit of 50,000 acres (total) to be covered under the permit and Agreement.

Take of the spotted owl would occur in association with certain management activities that may occur on private lands within Benton, Clackamas, Clatsop, Columbia, Coos, Curry, Deschutes, Douglas, Hood, Jackson, Jefferson, Josephine, Klamath, Lane, Lincoln, Linn, Marion, Multnomah, Polk, Tillamook, Wasco, Washington, and Yamhill counties of Oregon.

Conservation Needs of the Spotted Owl on Non-Federal Lands in Oregon

In the report from the Interagency Scientific Committee (Thomas et al. 1990), the Service's draft recovery plan for the spotted owl (Service 1992c), and the report from the Forest Ecosystem Management Assessment Team (Thomas and Raphael 1993), it was noted that limited Federal ownership in some areas constrained the ability to form a network of old-forest reserves to meet the conservation needs of the spotted owl. In these areas in particular, non-federal lands would be important to the range-wide goal of achieving conservation and recovery of the spotted owl. However, the Service's final recovery plan for the spotted owl relies on Federal land to provide the major contribution for their recovery. The primary expectations for private lands are for their contributions to demographic support (pair or cluster protection) to Federal lands, or their connectivity with Federal lands (Service 2008b, page 55).

Baseline Determination

Prior to the enrollment of a Cooperator through a Certificate of Inclusion under this Agreement, a current baseline determination will be made for the covered species. The baseline will be established by mutual agreement, and, if greater than zero, will be described and mapped as occupied habitat in each site-specific plan. For the purposes of this Agreement, the presence of spotted owls and/or the presence of forest conditions conducive to spotted owl breeding (i.e., suitable habitat) will be used to describe the baseline condition. Under this Agreement, baseline conditions will be primarily based upon habitat acreage. A baseline of greater than zero will generally be established for acreage of enrolled properties that possesses: older trees (> 80 years old); more structurally complex, multi-layered conifer forest containing some large diameter trees (> 30 inches dbh); high amounts of canopy cover (> 60 percent); sufficient space below the canopy for spotted owls to fly; broken-topped live trees; large snags, trees with large cavities; and fallen trees (downed wood). A landowner/Cooperator with suitable spotted owl habitat may elect to have surveys conducted on their property following established protocols if recent information is otherwise not available about the presence of spotted owls in the area. If surveys indicate no spotted owls within 1.5 miles of the enrolled lands, then the baseline will be 'zero'. In these circumstances, it is likely spotted owls would not be harmed (i.e., incidentally taken) by harvest operations within such lands. Because of the complexity of evaluating potential spotted

owl habitat conditions, baseline conditions will be established on a case-by-case basis using the above referenced forest qualities and professional judgment.

If no suitable spotted owl habitat is present on the landowner's enrolled acres, then the baseline will be 'zero'. ODF will seek information from existing databases or knowledgeable sources on the presence of spotted owls in the vicinity of a landowner's property to assess whether there could be any potential impacts to these spotted owls as a result of the landowner's proposed management activities (due to disturbance for example).

Types of Covered Activities

The types of activities proposed to be covered under the permit are otherwise lawful activities which are described in section 4.3 of the Agreement. Covered activities include restoration and management actions intended to benefit spotted owl habitat. Such activities will be detailed in individual site-specific plans. Management action types to be covered include: 1) silvicultural practices intended to maintain and develop older forest conditions which may include uneven-aged stand treatments, individual tree selection, thinning from below, thinning from above to encourage multi-canopy structure and tree species diversity, patch cuts, snag creation, increasing downed wood retention, and harvest deferral; 2) surveys and monitoring of spotted owls; and, 3) re-planting and under-planting to achieve tree species diversity following treatments.

Incidental take of spotted owls caused by management activities and/or a return to baseline conditions may occur, and is the principle reason an enhancement of survival permit under section 10 is being requested by the ODF and the Cooperators.

Conservation Strategy under the Agreement

Cooperators must carry out habitat restoration and/or management activities that are consistent with the Agreement and are anticipated by the Service and ODF (collectively, the Parties) to produce a net conservation benefit for the spotted owl. As noted above, work to be conducted on a Cooperator's enrolled lands will be described in a site-specific plan that must be approved by the Service and incorporated as part of the Certificate of Inclusion for the enrolled lands. The management considerations discussed in section 4.3 of the Agreement, summarized below, provide guidance and principles for designing site-specific plans.

There are a variety of forest management actions that a private landowner can implement to create or improve suitable spotted owl nesting, roosting, foraging and/or dispersal habitat. The Service's 2008, final Recovery Plan for the Northern Spotted Owl (pp. 50-53) provides a description of spotted owl habitat that can guide forest management actions. Stewardship Agreements that include silvicultural practices (e.g., uneven-aged stand treatments, individual tree selection, thinning from below, patch cuts, snag creation, increasing downed wood retention) likely to achieve the characteristics of spotted owl habitat on the enrolled property, taking into account the landscape context in which the site is located, are likely to provide for a net conservation benefit to the spotted owl. Mixed conifer/hardwood stands may require additional measures to balance the tree species composition so as to best meet the needs of spotted owls while also reflecting more natural stand conditions. Past harvest or fire suppression may have

resulted in stands dominated by hardwoods or conifers, when under more natural conditions they may have been dominated by conifers or hardwoods, respectively.

In some cases, a deferral of harvest alone may produce future, desirable habitat conditions for the spotted owl. One of the purposes of the Agreement is to provide an incentive to increase harvest age intervals and alter prescriptions that would encourage spotted owl use of the managed stands, but also allow some future harvest of trees within spotted owl habitat that is developed. Under this Agreement, the potential incidental take that may occur if a Cooperator opts to partially or fully return the enrolled lands back to the baseline condition is weighed against the benefits to the spotted owl accrued prior to harvest activities. For the reasons discussed herein, the Service concludes that the Agreement can provide the needed incentive to generate these benefits that would otherwise not occur. We anticipate that most landowners who wish to participate under this Agreement will have a zero spotted owl baseline. Landowners will have to maintain any existing baseline above zero for the term of their enrollment. We will encourage landowners to commit to an elevated baseline where and when practicable. An elevated baseline would mean a long-term commitment to maintain spotted owl habitat in excess of what would otherwise be required based on the initial baseline determination.

The silvicultural practices utilized under the Agreement should result in a net increase in tree diameters and potentially increased stand diversity at the end of the Stewardship Agreement at a minimum. Management for a diversity of tree species, large snags, and multiple canopy layers will be included in site-specific plans, where feasible. Stewardship Agreements will offer important benefits to spotted owl populations and to landowners who choose among the management actions listed below. ODF and the Service will review each Stewardship Agreement to ensure that the management actions taken will be reasonably expected to provide a net conservation benefit to spotted owls.

Forest Management. ODF may enroll a landowner under a Certificate of Inclusion if the landowner agrees to maintain or implement a forest management strategy or plan on the enrolled property that would provide habitat for spotted owls. An eligible forest management strategy or plan would include either of the following circumstances:

- a) For enrolled properties with existing spotted owl habitat, the landowner agrees to implement or continue a forest management strategy that maintains or enhances that habitat. Examples include the use of uneven-aged silvicultural treatments, thinning from below, snag creation, increases in downed wood retention, etc. This will provide an immediate net conservation benefit.
- b) For enrolled properties that do not have suitable spotted owl habitat at the time of enrollment, the landowner agrees to implement or maintain a forest management strategy or plan that promotes the development of habitat to a condition that will, in the future, provide potentially suitable spotted owl habitat. The net conservation benefit will not be achieved until the area where the forest management strategy is implemented or maintained either becomes occupied by spotted owls or becomes potentially suitable habitat, for a sufficient time for the benefit to accrue.

Future Conservation Measures/Adaptive Management. There may be a time in the future when a conservation measure is identified, based on future spotted owl research, that may be determined to be critical to the recovery of the spotted owl. Enrolled landowners may voluntarily modify their conservation measures to include new conservation measures if the landowner, the Service, and ODF determine that these modifications are necessary or appropriate to achieve a greater benefit to the spotted owl and still meet the landowner's objectives.

Due to the diversity of forest conditions and individual landowner constraints, site-specific management prescriptions are not provided in this Agreement. Management prescriptions will be developed in site-specific plans on a property-by-property basis to maximize the potential benefits to spotted owls in as timely a manner as possible. Forest management activities adopted under this Agreement will be those that create potential spotted owl habitat where and when it would not likely otherwise occur.

Conserving existing spotted owl populations and actively maintaining, enhancing, and expanding the size of existing old forest habitats will be essential for recovery of the spotted owl. In addition, reestablishing habitat connectivity by creating and maintaining habitat links between the Cascade and Coast Ranges will improve the prospects for individual spotted owls to reach other suitable habitats for reproduction, dispersal and re-colonization and allow for genetic exchange.

By improving the quality of older forest habitat, increasing the quantity of older forest habitat, and targeting private lands where there are large gaps in available older forest habitat, it is hoped that existing spotted owl habitat can be maintained or enhanced, functional dispersal corridors can be established, and new habitat areas can be created for northern spotted owls.

Successful establishment of spotted owl habitat will require multiple years of habitat manipulation, depending on prior management actions, forest stand age, and tree species composition. This process is expected to take more than one forest stand entry over decades of time. Maintenance or management of existing spotted owl habitat will generally involve less work and more immediate benefits. For example, a prescription for adding additional snags and downed wood will only involve a few trees within any given stand and individual trees can be girdled or cut down to provide benefits within a few years. Some restoration and management activities not specifically described in the Agreement may occur; however, baseline conditions will always be maintained at a minimum.

Monitoring and Reporting

The ODF shall conduct compliance monitoring to determine if activities were carried out by enrolled landowners in accordance with this Agreement and their respective Stewardship Agreement. The ODF shall prepare an annual report describing any covered activities taking place within the year of reporting. The report shall be due no later than December 31 of each year, and shall include the following information: the number, location, and total acres of enrolled properties; any changes in baseline conditions on enrolled lands ; the current status of

forest management activities on enrolled properties, including implemented management actions, and a description of any activities that may have resulted in incidental take of spotted owls, such as habitat modification or destruction, burning, etc.; and, a listing of any expired or terminated Stewardship Agreements and Certificates of Inclusion to date.

The ODF shall contact each enrolled landowner annually to evaluate the landowner's implementation and maintenance of the conservation measures specified in the landowner's Stewardship Agreement and to identify any modifications of the conservation measures that may be necessary. At least one third of all enrolled properties will be visited annually by ODF to verify compliance with the Stewardship Agreement. All properties where incidental take of the spotted owl was likely to occur will be visited to determine permit compliance. The ODF shall maintain accurate records for each property enrolled in this Agreement, and shall make these records available to the Service upon request. Each enrolled landowner shall submit a completed monitoring checklist to ODF annually by November 30.

Enrolled landowners shall allow the Parties or persons designated by any Party to enter the enrolled property. The ODF and/or the Service shall make occasional field visits to verify whether a Stewardship Agreement is being properly implemented, to identify any unanticipated benefits or deficiencies, and to assist enrolled landowners in developing corrective actions when necessary.

II. PUBLIC COMMENT

A notice of availability of the permit application, the proposed Agreement, and the Environmental Action Statement was published in the Federal Register on July 21, 2009 (74 FR 35883). Public comments on the permit application, the proposed Agreement, and the Environmental Action Statement were requested to be received by August 20, 2009. Three individuals and a non-profit corporation representing three organizations provided comments. The non-profit corporation provided a separate request for an extension of the public comment period. A notice of reopening of the public comment period for an additional 30 days was published in the Federal Register on October 8, 2009 (74 FR 51872). Two individuals, an Oregon state agency, and the non-profit corporation provided comments in response to the second comment period.

Two comments objected to the Agreement without providing any specific comment. One comment suggested including a 1,000-foot buffer for aerial herbicide spraying around occupied dwellings. Herbicide spraying is not a covered activity under the proposed Agreement and we expect any use of chemicals to follow the application guidelines listed on the herbicide label. One comment stated that the Agreement should be supportive of the Oregon Conservation Strategy, that the overall goals of the Oregon Conservation Strategy include maintaining healthy fish and wildlife populations, preventing declines of at-risk species, restoring functioning habitats, and that the heart of the strategy is for voluntary action to address the long-term needs of Oregon's fish and wildlife. We agree and we believe the purposes of the proposed Agreement are supportive of the goals of the Oregon Conservation Strategy since it encourages the development and maintenance of suitable spotted owl habitat where it may not otherwise occur.

A few comments suggested that the proposed Agreement should specifically target certain areas to generate the greatest benefits for the spotted owl or that could best contribute towards recovery. We do not believe this voluntary Agreement is the proper mechanism for such a strategy. Such a targeted strategy would potentially alienate landowners who are interested in providing spotted owl habitat. Targeting certain areas and properties would not automatically lead to those properties being enrolled under the Agreement since it is voluntary and since not all landowners are going to be interested in managing their lands for spotted owls. Furthermore, if at some point in the future, we have information that suggests areas to target for spotted owl habitat management, nothing in the Agreement prevents the Parties from doing so as well as enrolling landowners not within targeted areas. We recognize that some enrolled properties will provide greater benefits to the spotted owl than others, and that some enrolled properties may never be used by spotted owls. We cannot predict where and when spotted owls will occur, especially in areas with developing habitat and limited predictability of surrounding forest management practices. We have added language to the Agreement that indicates that if a large number of properties are being considered for enrollment and that staffing and/or funding would limit the ability of ODF, NRCS, and/or the Service to complete the enrollment process in a timely manner, we would prioritize the properties for enrollment based upon their potential value to recovery.

A couple of comments suggested that spotted owls would only benefit if older trees are developed in existing spotted owl home ranges that have deficient habitat or where new habitat patches adjacent to existing ones could help foraging or dispersing owls meet their needs. We disagree with this statement, in part, because it does not consider the value of new habitat to support new owl sites. The number of owl sites and spotted owl habitat acreage has been declining over at least the past few decades, due primarily to timber harvest and wildfire. This has created gaps in available habitat in certain areas relative to what was historically available.

The proposed management measures under the Agreement have the potential to create spotted owl habitat and increase the owl population instead of just maintaining existing sites. The suggested strategy does not take into consideration natural events such as wildfire or potential displacement of spotted owls by barred owls that can eliminate or otherwise preempt spotted owl use of suitable habitat in areas where it may be considered important to do so in order to maintain a well-dispersed yet integrated spotted owl population. While some spotted owl sites may be occupied for long periods of time, others may be abandoned at times for unknown reasons.

We do, however, recognize the importance of maintaining existing spotted owl sites, where known. Safe harbor agreements require the maintenance of baseline conditions and emphasize the creation of habitat and/or enhancement of existing conditions. We will work with any landowner interested in conserving spotted owls, whether those benefits may be achieved in the shorter term for known sites or the longer term for currently unoccupied sites that may become occupied in the future. The latter point is largely why the safe harbor policy was developed.

We do not believe it is necessary to focus our efforts exclusively on known spotted owl-occupied sites for the reasons discussed above, as well as the inability to dictate the lands to be enrolled in this voluntary program. If in the future, we have to prioritize who we work with based on staff

limitations, we will focus on those landowners that may provide the greatest contribution to spotted owl recovery; however, we would still attempt to respond to all interested landowners in as timely a manner as possible.

A related comment was that we should utilize demographic data and metapopulation principles to identify spotted owl subpopulations and to understand population dynamics before implementing any conservation measures for spotted owls. As stated above, we do not believe it is necessary or appropriate to limit the enrollment of properties to known occupied sites in order to achieve conservation benefits for the spotted owl. Demographic data have informed estimates of spotted owl population changes over time and demographic study sites have received more intensive surveys, especially on Federal lands. However, outside of these study sites, there are limited data available on currently known spotted owl nest sites due to a lack of surveys, especially on private lands.

A couple of comments mentioned that the proposed Agreement could only be effective if it included more information about particular areas where conservation efforts would be focused. We do not believe it is necessary to limit the areas eligible for enrollment for the reasons discussed above. We believe this type of focusing should best be handled in a planning document such as the spotted owl recovery plan that could integrate the role of Federal lands.

One comment suggested that the proposed Agreement did not contain specific descriptions of the types of activities that would occur. Because of the potentially varied nature of baseline forest conditions on enrolled lands and the differences in the types of management that individual landowners would be interested in pursuing to achieve a net conservation benefit for the spotted owl, the programmatic Agreement contains the criteria that the forest management activities must be geared towards, namely the creation and maintenance of suitable spotted owl habitat. A description of spotted owl habitat is provided in the Agreement. There are many viable forest management options to create stand types that would function as spotted owl habitat. Standard forest management practices will be used in the course of thinning and patch cutting. These practices will include felling trees and removing them, cutting trees and retaining them in place (i.e., on the ground) to increase the amount of downed wood, or girdling/topping trees to create snags. The primary purpose of forest management activities will be to increase the growth of trees, increase the number of canopy layers, increase tree species diversity through selective harvest and/or planting, and increase downed wood and snags when needed. When landowners enroll and prepare Stewardship Agreements with ODF, individual site management plans will provide additional details for the specific property following the guidelines contained in the Agreement. These plans will be reviewed and approved by the Service. Furthermore, the Service's Safe Harbor policy recognizes the significant conservation benefits that can be provided in programmatic Safe Harbor Agreements, including those where a State agency is the permit holder. Programmatic-type agreements by their nature provide for future enrollment of properties without specifically identifying them upfront.

A comment indicated that not enough information was provided for the NRCS's Healthy Forest Reserve Program. The Healthy Forest Reserve Program provides funding to manage or purchase forest properties. Management undertaken by this program under the Agreement will be similar to standard forest management techniques. As stated above, the objective of forest management

on enrolled lands, regardless of whether NRCS monetary support is involved, is to develop spotted owl habitat over time.

One comment stated that the Agreement suggests that ODF will make the necessary findings that the Service is required to make. The Service makes all the necessary findings at the time of issuance of the permit as to whether permit issuance criteria have been met. Those findings are stated herein. The ODF will initially determine whether individual Stewardship Agreements and management plans qualify for enrollment under the Agreement, and the Service will review all Stewardship Agreements to assure consistency with the Agreement.

Another comment stated that the Agreement does not explain how conservation of the spotted owl will be promoted. We believe the Agreement addresses spotted owl conservation in several ways including: providing a 'safe harbor' for actions that might attract spotted owls in the future; promoting forest management practices that are geared toward creating spotted owl habitat; and garnering multi-decade commitments to retain forest conditions on the landscape that can potentially support spotted owl nesting and dispersal. The Agreement provides the needed incentive for some forest landowners to promote spotted owl conservation that would otherwise not be willing to do so because the level of future uncertainty and the concerns for future land-use restrictions that could change over time.

Concern was expressed in the public comments about the lack of opportunity for the public to comment on specific conservation measures in landowner site specific plans. The Agreement includes the requirement that ODF request public comment on individual Stewardship Agreements prior to enrollment. The public will have access to information to indicate whether potential forestland enrollees' activities will meet the criteria set forth in the Agreement. The Service will review the Stewardship Agreements before and after public comment. The public will be able to review the actions of ODF, the Service, and individual enrollees to determine whether they are meeting the requirements of the Agreement and the related requirements under Federal law.

A comment was submitted about the ability of enrolled property owners to amend their conservation measures without going through public comment. The Agreement does allow for only minor changes to survey, monitoring and reporting protocols, and does allow for modification of forest management practices if those being implemented aren't achieving the desired outcome or a better means of achieving the desired outcome is developed (these are examples of 'adaptive management') over the term of the Agreement. We anticipate that any modification of forest management practices to achieve the desired future condition of spotted owl habitat will be relatively minor. We expect potential changes in the timing of implementation, small adjustments to the intensity of thinning, and adjustments to how much tree underplanting may need to occur if survival and growth rates are lower than anticipated. We believe the measures outlined in sections 4.3 and 4.8 of the Agreement are sufficient to address any needed changes to baseline conditions or forest management practices due to new information or natural causes.

One commenter stated that the Agreement should develop clearer standards for determining whether a landowner has developed the forest structure that will meet the needs of spotted owls

and lead to a net benefit to the species. Monitoring the development of a forest stand and determining exactly when it becomes suitable habitat is not possible because of all the many vegetative and physical criteria involved that gradually develop, and because habitat cannot be defined that precisely. By deferring timber harvest, allowing trees to grow beyond the more typical 40-60 years when many forests are being harvested under intensive management, and by treating the enrolled forest stand to encourage more rapid growth and increasing within-stand diversity, more spotted owl habitat will exist on the landscape with implementation of the Agreement than if the landowners were not a party to the Agreement. The spotted owl habitat that is created under the Agreement will be maintained for many years. Any loss of habitat that may occur at the end of the enrollees' permit term will be more than offset by the years that the habitat was available for use by spotted owls and any resultant reproduction, and/or juvenile and adult dispersal.

Another comment states that landowners should not get incidental take coverage for habitat improvements that do not actually amount to creating suitable habitat. If a landowner's actions do not result in creating suitable habitat that supports spotted owls, then there would be no incidental take coverage needed or granted since there would be no incidental take resulting from any timber harvest of those types of areas. Generally, the intent of the Agreement is to allow for habitat to be developed from an initial baseline of 'zero', and to allow for some harvest activities within that habitat toward the end of the permit term. We do not anticipate much harvest of suitable spotted owl habitat that might constitute incidental take during the early or middle portions of an individual landowner's permit term. We also expect that at least some landowners will not return their properties to baseline conditions at the end of the permit term because they are not interested in doing so.

One comment questioned whether any set of conservation measures could constitute a net conservation benefit, especially when baseline conditions may not be promoting recovery. The Service's final Safe Harbor Policy states that safe harbor agreements must contribute, directly or indirectly, to recovery of the covered species and that this contribution will vary and may not be permanent. The Service's policy also states that we will not rely on these benefits as a basis to delist any species, which recognizes their potentially temporary nature. The policy lists some potential conservation benefits including: reduction of habitat fragmentation; maintenance, enhancement, or restoration of habitats; increasing habitat connectivity; maintenance or increase of population numbers; and, establishment of buffers for protected areas, among others. It is likely that properties enrolled under this Agreement will provide one or more of those listed benefits to the conservation of the spotted owl as a result of harvest deferral and forest management. Although these benefits may be temporary because the Safe Harbor Policy allows for a return to baseline conditions on enrolled lands at the end of the permit, they will contribute to recovery of the spotted owl by providing more habitat on non-federal lands while additional spotted owl habitat is developing on Federal lands which are expected to provide the largest contribution to owl recovery. As noted above, at least some landowners will not return their properties to baseline conditions at the end of the permit term because they are not interested in doing so.

The public comments also included a concern about the allowance for emergency harvests in the event of natural (wildfire, blow down, or insect infestations) or personal (illness or death)

emergencies. We do not anticipate that either of these situations is likely to occur very often. The Safe Harbor Policy and the regulations specifically allow for landowners to terminate agreements and return to baseline conditions for circumstances beyond their control even if the net conservation benefit has not been realized, as participation in these agreements is voluntary.

One comment questioned whether proposed thinning that could lower canopy cover to 40 percent provides benefits to spotted owls, even if it allows bigger trees to grow faster. While there is allowance for lowering the canopy to this level, we do not expect every thinning operation to reduce the canopy coverage to this degree. In most cases, canopy coverage will quickly increase after thinning and likely reach pre-treatment levels within a few years. Most thinning is likely to occur in stands that are not functioning as suitable spotted owl habitat. This lower limit of 40 percent canopy cover provides for sufficient operational flexibility that some landowners may want from a silvicultural and economic perspective, but this limit would only be available in the context of a Service reviewed and approved site-specific plan that is likely to provide a net conservation benefit for the spotted owl. Thinning at this level may be needed to establish a second or third canopy layer, which provides desirable stand diversity. Many understory tree species may need additional sunlight to successfully compete with the dominant layer(s), or to become established when underplanting is utilized to increase species diversity. Thinning operations will also be used to create snags and additional downed wood, where needed. Further limiting the level of thinning may reduce the ability to create these important habitat components. Any short-term adverse effects will be more than offset by the longer term availability of better quality habitat for the spotted owl.

One comment stated the proposed Agreement ignores the potential threat that barred owls (*Strix varia*) may pose on spotted owls and suggested that site-specific plans should specifically address this issue. The Agreement does acknowledge the potential impacts of barred owls (e.g., sections 3.1 and 3.2). Unfortunately, there is not enough information currently available to provide recommendations or strategies that are likely to lessen the potential impact. However, nothing in the Agreement prevents the Service from working with landowners in the future to address this issue if the reasons and means to do so have been identified.

It was suggested in the public comments that the Service alter the proposed 50-year term of the permit so that the public has opportunities to review how well the Agreement is contributing to the conservation of the species. The comment suggests a permit term of about 12 years. We believe that a permit term of this length is inappropriate for several reasons. We anticipate that only a few landowners will enroll each year under the Agreement and any timber management actions taken will require several years to a decade or more to become effective in promoting spotted owl habitat conditions. Most landowners will only treat a fraction of their lands in any given year and we expect not all enrolled acreage to be managed within any 12-year period. Ongoing monitoring will allow there to be changes if information is available to indicate that changes should be made and the types of changes that would likely be effective in creating spotted owl habitat. The public will be reviewing all Stewardship Agreements as they are being proposed and may comment at any time on the effectiveness of these Agreements to promote spotted owl recovery. Regardless of the permit term, the public will have access to information on how activities conducted under the permit are promoting spotted owl habitat conditions in the form of annual reports submitted by the ODF to the Service.

One comment expressed a concern that landowners may be able to enroll their lands for as little as ten years and that the Agreement should promote only long-term and sustainable timber harvest strategies. The intent of including such a statement in the Agreement is to illustrate that there will be a wide range of properties and initial forest conditions that are likely to be enrolled under the Agreement. However, prior to any property being enrolled, a determination will be made by the ODF and the Service relative to the adequacy of the site-specific plan under the Stewardship Agreement to provide a net conservation benefit for the spotted owl. We do not anticipate many landowners being interested in enrolling for a period any less than ten years, and we do not anticipate many landowners whose plans would meet the net conservation benefit standard in ten years. However, we can envision at least a few scenarios where it is possible. For example, a landowner may currently have suitable spotted owl habitat present on the property or immediately adjacent to their property. Under current practices, spotted owl habitat can be removed within the home range of an existing spotted owl nest site without the risk of incidental take if there is sufficient habitat within the territory to maintain an owl pair even after the harvest. A purposeful deferral of harvest would have some benefit and may not result in any incidental take should it occur. Deferral of timber harvest adjacent to known habitat, even if the harvest area is not actually suitable habitat, could still benefit spotted owls by reducing fragmentation and maintaining connectivity between suitable habitat areas. In order to promote long-term and sustainable timber harvest, we proposed the 50-year term of the Agreement and permit, and have allowed for some timber harvest to occur that would both provide long-term benefit to the spotted owl and an economic return to landowners over the term of their enrollment.

One comment stated that there should be a monitoring role for the Service. The Service does have a monitoring role; that role is described in section 4.7 of the Agreement.

One comment stated that the Landowner Monitoring Checklist in Appendix B of the Agreement should include whether surveys were conducted for spotted owls and the results. The checklist did include this component, which was listed as item number 1. The comment suggested that the name of the surveyor, their qualifications, the protocol used, and how the surveys accounted for the potential presence of barred owls should be provided. Spotted owl surveys are not required under the Agreement. However, if surveys are conducted, the Service will always review the protocol used and the surveyors' qualifications in determining the validity of the survey results. We have added language to Appendix B that clarifies the need to submit information about the protocol used, if the potential presence of barred owls was addressed, and the names and qualifications of surveyors in cases where spotted owl surveys are conducted.

A comment suggested that the Agreement should contain numerical limits on the amount of incidental take provided for under the permit, and should discuss more thoroughly how that take will impact the spotted owl. The Agreement does include more information about the anticipated level of take, but will not contain numerical limits as that is addressed through the enhancement of survival permit. More discussion has been added to the Agreement regarding the effects of incidental take on the spotted owl caused by implementation of the Agreement.

One comment suggested that the Agreement amounted to a major policy determination and that the Service should not proceed with permitting the Agreement until after approval of a final recovery plan, final critical habitat, and completion of the most recent demographic study update for the spotted owl. The Agreement is not a policy determination and does not establish any policy regarding spotted owl conservation. We are responding to a permit application from ODF and do not see any need to delay the processing of the application. As discussed above, the Agreement is not intended to be an integral part of any comprehensive conservation plan for the spotted owl, nor do we believe it will interfere with any other conservation strategies being implemented for the spotted owl. If new information indicates the need for potential changes, we can ask the ODF to consider formally amending the Agreement or develop additional Safe Harbor Agreements, as appropriate, to meet the needs of spotted owls and landowners on non-federal lands in Oregon.

One comment suggested that ODF has not shown the capability to implement the Agreement and that they are not knowledgeable enough about spotted owl biology. The Agreement is driven, in part, by the development of Stewardship Agreements, as provided under Oregon state law and statute. These Stewardship Agreements will address forest practices that landowners are committing to and that ODF has experience in evaluating. The ODF will have the assistance of the Service and the Oregon Department of Fish and Wildlife, where needed, to address any questions regarding spotted owl biology, evaluating baselines, and reviewing forest management practices designed to improve spotted owl habitat. The Service has not delegated any of its responsibilities to ODF. The ODF has committed to carrying out their responsibilities as stated in the Agreement. If it is determined that they cannot meet their commitments, then they will not be in compliance with the Agreement, and their permit could be suspended or revoked.

One comment noted that the Agreement and permit do not qualify for a categorical exclusion under the National Environmental Policy Act. As stated in the Service's responses to public comment in the publication of the final Safe Harbor policy: "Because these permits can result in incidental take of individuals and/or habitats that would not exist but for these Agreements, and because current baseline conditions will be maintained under these Agreements, the Services expect that activities conducted within the Safe Harbor Program would qualify for a categorical exclusion." The justification for a categorical exclusion is provided in the Environmental Action Statement screening form, which was available for public review and comment. Due to related comments about the large area in which landowners were initially eligible for enrollment (i.e., all non-federal lands in Oregon within the range of the spotted owl), we provided clarifications in the Agreement. In order to more accurately reflect the expected level of enrollment, we estimated that up to 50,000 acres might be enrolled over the term of the Agreement and amended the Agreement to reflect this figure as the maximum acreage to be included.

There was a request in the public comments that the Service require ODF to include in the Agreement the current and historical areas inhabited by spotted owls so that the public and the Service would know where conservation efforts should be focused. We do not believe this information is needed in the Agreement for several reasons, including: the Agreement does not focus on specific areas but is open to all interested non-federal landowners; much of the existing information on spotted owl distribution is out-of-date; any new information would be considered

as it becomes available; and we do not believe that actions to recover the species should be limited to known occupied sites.

One comment stated that the Service should describe the kinds of landowners that will be the focus of the Agreement. We have edited the Agreement to indicate that non-industrial forest land owners (typically those with ownerships of less than 5,000 acres) will be the focus of the Agreement. Landowners with greater acreage may need to develop additional, site-specific criteria, and may want to work with the Service to develop a separate proposal to meet their individual needs.

One comment suggested that the Agreement should identify species of concern that may be found in the covered area, and should include monitoring and take avoidance measures for them. Safe harbor agreements can only address take of federally-listed species. The ESA section 10 permit to be issued will only cover incidental take of spotted owls by enrolled landowners primarily as a result of returning the covered area to baseline conditions. No other take of any listed species is to be authorized. The Agreement focuses on spotted owls partly because improvements to habitat conditions and continued forest management are believed to be compatible measures that can be accomplished over the term of the Agreement. These same measures are compatible with ODF's Stewardship Agreement program, which is the foundation for this Agreement.

III. INCIDENTAL TAKE PERMIT CRITERIA – ANALYSIS AND FINDINGS

The final Safe Harbor Agreement policy and associated regulations specifying the permit issuance criteria were published in the Federal Register on June 17, 1999 (*see* 64 FR 32706 and 32717). As set forth in this policy, the Agreement includes: the listed species and habitats covered; the agreed upon baseline condition criteria for the northern spotted owl; management actions that will be undertaken to accomplish the expected net conservation benefit and the agreement term; the incidental take associated with management conditions; a notification requirement to provide the Service with a reasonable opportunity to rescue individuals of the spotted owl; and the activities that would be expected to return the property to baseline conditions and the associated incidental take; and a monitoring schedule with identified responsible parties.

As set forth in 50 CFR § 17.32(c)(2), the Service finds that the section 10(a)(1)(A) permit issuance criteria for a safe harbor agreement are met as outlined below:

A. The taking will be incidental.

The Service finds that any take of spotted owls under the Agreement will be incidental to, and not the purpose of, otherwise lawful activities. The activities for which incidental take coverage is sought under the permit include primarily forest management activities associated with timber harvest operations. They include commonly used practices such as planting, tree cutting using chainsaws, and cable and tractor yarding. A return to baseline conditions on enrolled lands would involve clear-cut timber harvest, or heavy or selective thinning of mature trees. Any take of spotted owls (or any other listed species) resulting from unlawful activities is not covered.

B. The implementation of the terms of the Agreement will provide a net conservation benefit to the affected species by contributing to their recovery.

Without the Agreement, landowners within the area covered by the Agreement are more likely to grow stands dominated by a single species, with high stem densities, uniform structure in diameter and height, and little downed wood and snags. Many landowners would harvest their timber before 60 years of age for concern about potential harvest restrictions should spotted owls be attracted to the developing habitat.

The terms of the Agreement involve the maintenance and development of older forest conditions, characterized by large trees, multiple tree species, multiple canopy layers, some larger snags and downed wood. Suitable habitat for the spotted owl should increase in both quantity and quality since measures promoting habitat diversity are included. Under the Agreement, spotted owl habitat would be created and remain on the landscape for several years to a few decades. We do not anticipate all landowners will return their enrolled land to baseline conditions at the end of their permit term.

Habitat created for spotted owls under the Agreement could be used for nesting and foraging, and could provide connectivity for spotted owls moving across the landscape to reach other habitat areas. Any spotted owl offspring produced within the created habitats will disperse to other habitats and add to the population. Spotted owls need habitat to move through and forage in while they are dispersing. Juvenile spotted owls are susceptible to predation and starvation in their somewhat random dispersal patterns. They need access to suitable habitat as they move across the landscape. Much of the remaining spotted owl habitat, especially on private lands, is very patchily distributed. Having additional habitats/patches, such as those created under the Agreement, will increase the chances for spotted owls to successfully move and disperse.

Federal forest lands are currently relied upon for spotted owl recovery. Not all Federal forest lands currently support spotted owl habitat and some spotted owl habitat found on Federal lands is isolated because of prior harvest and dominant forest practices on the adjacent and surrounding private lands. Additional spotted owl habitat created on non-federal lands, even for a temporary period, can still contribute to enhancing the resiliency of the overall spotted owl population by facilitating the production of offspring and providing additional opportunities for spotted owl movement while additional large blocks of habitat are developing on Federal lands.

The Agreement stipulates that written notice will be given prior to any activities that might incidentally take spotted owls. This will allow the amount of incidental take to be monitored and allow the Parties to work with the enrolled landowner to provide site-specific suggestions to minimize the impacts of take, where practicable. Any reduction in adverse effects will contribute to the conservation of the spotted owl.

Forest management techniques for creating spotted owl habitat are still being tested and evaluated on both Federal and non-federal lands. Information gathered through these efforts and the implementation of the Agreement will be valuable for future restoration efforts. Monitoring reports will provide details of forest management actions taken and the outcomes of those actions

for all enrolled properties so that management techniques can be evaluated during the term of the Agreement.

The Agreement and permit term of 50 years will provide adequate time for ODF, the Service, and NRCS to contact landowners, to propose management activities and develop site-specific plans, and to then create or improve spotted owl habitat conditions. There should also be sufficient time within this period for the habitat to develop and for spotted owls to discover and use those new sites for many years until the end of the 50-year permit term. However, we expect not all of the habitat created will be used by spotted owls or will provide equal benefits because we know from past surveys that not all existing habitat is being used.

Based upon the above analysis, the Service concludes that a net conservation benefit will be achieved with implementation of the Agreement over the 50-year term of the permit. Without this Agreement and permit, the covered lands may not otherwise be used by spotted owls in the foreseeable future.

C. The probable direct and indirect effects of any authorized take will not appreciably reduce the likelihood of survival and recovery in the wild of any species.

The Service finds that the taking to be authorized under the proposed permit will not appreciably reduce the likelihood of the survival and recovery of the spotted owl in the wild. The ESA's legislative history establishes the intent of Congress that this issuance criterion be identical to a finding of "no jeopardy" pursuant to section 7(a)(2) of the ESA and the implementing regulations pertaining thereto (50 § CFR 402.02). The Service has reviewed the Agreement under the section 7 consultation provisions of the ESA. In our biological opinion (Service 2010c), which is incorporated herein by reference, the Service has concluded that the issuance of the proposed permit is not likely to jeopardize the continued existence of the spotted owl or adversely modify its critical habitat. This determination was based upon reviewing the current status of the spotted owl, the environmental baseline for the action area, and the direct and indirect effects of the proposed action together with any cumulative effects.

D. Implementation of the terms of the Agreement is consistent with applicable Federal, State, and Tribal laws.

The Agreement does not preclude the need to comply with any Federal, State, local, or Tribal laws, but solely serves as an instrument to comply with certain provisions of the ESA under which an enhancement of survival permit is being sought. The Agreement involves many activities for which any legal compliance measures have not changed as a result of the Agreement. Continued operations and future operations will continue to be regulated by applicable laws.

E. Implementation of the terms of the Agreement will not be in conflict with any on-going conservation or recovery programs for the covered, listed species.

This Agreement is an extension of on-going efforts by the Service, ODF, and NRCS in Oregon to restore and manage older forest habitats for the conservation of the spotted owl. Safe Harbor

Agreements are specifically intended to address situations like this one involving voluntary actions that encourage federally-listed species to occupy private lands. We are not aware of any other on-going conservation programs within the covered area, or involving the spotted owl for which the Agreement might be in conflict.

F. The applicants have shown capability for and commitment to implementing all the terms of the Agreement.

The ODF has shown the capability for, and commitment to, implementing all the terms of the Agreement through their roles as a state agency with responsibilities in state-wide forestry laws and administrative rules. Much of their responsibility under the Agreement is based upon their ability to carry out the requirements of the state's Stewardship Agreement program. The ODF has a fiscal and executive responsibility to carry out this program. The ODF has devoted many of their resources to forest restoration activities and has experienced staff available to devise and carry out these activities with the assistance of other interested parties, as needed.

IV. GENERAL CRITERIA AND DISQUALIFYING FACTORS - FINDINGS

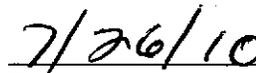
The Service has no evidence that the permit application should be denied on the basis of the criteria and conditions set forth in 50 CFR § 13.21(b) through (c). We have met the criteria for the issuance of the permit and approval of the Agreement, and do not have any disqualifying factor that we are aware of that would prevent the permit from being approved under current regulations.

V. RECOMMENDATION ON PERMIT ISSUANCE

Based on the foregoing findings with respect to the proposed action, I endorse the approval and issuance of an enhancement of survival permit (Permit Number TE 18227A-0) to authorize the incidental take of the northern spotted owl in accordance with the Agreement.



State Supervisor
Oregon Fish and Wildlife Office



Date

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