# PROGRAMMATIC SAFE HARBOR AGREEMENT WITH CRAIG BLENCOWE AND CHRISTOPHER BLENCOWE FOR NORTHERN SPOTTED OWL, MENDOCINO COUNTY, CALIFORNIA Permit No. TExxxxxx-0

### 1. INTRODUCTION

This Safe Harbor Agreement (Agreement) is entered into as of the day XXXX, XX, 2022, between Registered Professional Foresters (RPFs) Craig Blencowe and Christopher Blencowe (Permittee), and the United States Department of the Interior, Fish and Wildlife Service (Service); hereinafter collectively called the "Parties." The purposes of this Agreement includes the following: 1) serves as a programmatic agreement under which individual landowners (Landowners) whose timberlands are managed by the aforementioned RPFs will be enrolled through Cooperative Agreements and Certificates of Inclusion; 2) enhance and improve habitat functionality for the federally and State-listed northern spotted owl (*Strix occidentalis caurina*; NSO) on the Enrolled Properties; and 3) provide certain regulatory assurances to the Permittees conducting timber harvesting activities and the Landowners as they apply the habitat conservation measures described in this document.

This Agreement is entered into pursuant to the Service's Final Safe Harbor policy (64 Fed. Reg. 32717 (June 17, 1999)) and final regulations (64 Fed. Reg. 32706 (June 17, 1999)), as revised (69 Fed. Reg. 24084 (May 3, 2004)), in accordance with the requirements of Section 10(a)(1)(A) of the Endangered Species Act of 1973 (ESA), as amended (16 U.S.C. § 1531 et seq.).

The Section 10 Enhancement of Survival Permit (Permit) issued by the Service under the terms of this Agreement will authorize the incidental taking of NSO at the end of the permit term, for as many as six NSO territories (i.e., 12 NSO [2 NSO per territory]) that exceed the number of territories at the start of the permit term, if habitat is returned to habitat baseline conditions at the end of the permit term. Under the Safe Harbor regulations, the Service may permit the incidental take of species only after finding that the Safe Harbor Agreement meets the following criteria:

- the take will be incidental to an otherwise lawful activity;
- the implementation of the terms of the Agreement will provide a net conservation benefit to the affected listed species by contributing to the recovery of listed species included in the Permit and the Agreement otherwise complies with the Safe Harbor policy available from the Service;
- the probable direct and indirect effects of any authorized incidental take will not appreciably reduce the likelihood of survival and recovery in the wild of any listed species;
- implementation of the terms of the Agreement is consistent with applicable federal, state, and tribal laws and regulations;
- implementation of the terms of the Agreement will not be in conflict with any ongoing conservation or recovery programs for listed species covered by the Permit; and

• the applicant has shown capability for and commitment to implementing all of the terms of the Safe Harbor Agreement.

This Agreement was developed primarily through coordination between RPFs Craig Blencowe in Healdsburg, California, Christopher Blencowe in Fort Bragg, California, Arcata Fish and Wildlife Office (AFWO) staff biologist Bill McIver in Arcata, California, and California Department of Fish and Wildlife staff biologist Virginia O'Rourke in Fort Bragg, California.

### 2. LIST OF COVERED SPECIES

The Agreement covers the NSO, federally listed as threatened as of July 23, 1990, pursuant to Section 1531, Title 16 United States Code *et seq*, and State listed as threatened under the California Endangered Species Act pursuant to Fish and Game Code Section 2050 *et seq* since June 21, 2017. The northern spotted owl may hereafter in this document be referred to as the Covered Species.

### 3. BACKGROUND

### 3.1. Species Recovery

The northern spotted owl was federally listed as a threatened species throughout its range in Washington, Oregon, and northern California effective July 23, 1990 (Service 1990a). The northern spotted owl was listed in response to widespread habitat loss and modification of suitable habitat as a result of timber harvesting across its entire range and due to the inadequacy of existing regulatory mechanisms to provide for the owl's conservation. Northern spotted owl biology and ecology are well known and described in numerous publications, some of which include the following: Forsman et al. (1984), the Interagency Scientific Committee Report (Thomas et al. 1990), the 1990 Status Review (USDI 1990b), the Final Rules for Listing (USDI FWS 1990a) and Critical Habitat (USDI FWS 2012), the Revised Recovery Plan for the Northern Spotted Owl (USDI FWS 2011), the Report of the Scientific Analysis Team (Thomas et al. 1993), the Forest Ecosystem Management Assessment Team Report (USDA 1993), demographic reports (Forsman et al. 1996 and Franklin et al. 1999), as well as the Status Review of the Northern Spotted Owl in California (CDFW 2016).

Descriptions of nesting and roosting habitat were provided in the early- to mid-1990s (Solis and Gutiérrez 1990, Thomas et al. 1990, Bart and Forsman 1992) and have been validated by extensive research across most of the northern spotted owl's range (Gutiérrez et al. 1995, Hunter et al. 1995, Meyer et al. 1998, Lahaye and Gutiérrez 1999, Swindle et al. 1999, Weathers et al. 2001, Courtney et al. 2004, USFWS 2008, USFWS 2011). The following description of nesting and roosting habitat from the Conservation Strategy for the Northern Spotted Owl remains an accurate portrayal of what is widely recognized throughout the range of the owl: "With the exception of recent studies in the coastal redwoods of California, all studies of habitat use suggest that old-growth forests are superior habitat for northern spotted owls. Throughout their range and across all seasons, spotted owls consistently concentrated their foraging and roosting in old-growth or mixed-age stands of mature and old-growth trees. Exceptions were found, but even they tended to support the usual observations that spotted owls nested in stands with structures characteristic of older forests. Structural components that distinguish superior spotted

owl habitat in Washington, Oregon, and northwestern California include: a multilayered, multispecies canopy dominated by large (>30 inches dbh) conifer overstory trees, and an understory of shade-tolerant conifers or hardwoods; a moderate to high (60-80 percent) canopy closure; substantial decadence in the form of large, live coniferous trees with deformities - such as cavities, broken tops, and dwarf mistletoe infections; numerous large snags; ground cover characterized by large accumulations of logs and other woody debris; and a canopy that is open enough to allow owls to fly within and beneath it" (Thomas et al. 1990).

The subject properties are located in Mendocino County, within the Northern California Coast Province, and described as the Redwood Coast Region in the Northern Spotted Owl Recovery Plan (USDI FWS 2011). The Northern California Coast Province contains all or portions of Del Norte, Humboldt, Mendocino, Trinity, Sonoma, Napa, and Marin Counties, and encompasses approximately 40 percent of the northern spotted owl range in California (USDI FWS 1992, USDI FWS 2012).

### 3.2. Importance of Private Lands

Large-scale conservation efforts on non-federal lands have been important for conservation and recovery of the northern spotted owl since the species was listed (Thomas et al. 1990, 1993; USDI FWS 1992, 2011). Nonfederal lands provide suitable habitat and developing habitat throughout the species' range, and are particularly important in areas where public lands are lacking. Private lands can play several roles in owl conservation, such as helping reduce the risk of local or widespread extirpation of owl populations by maintaining owl pairs and a variety of habitat conditions throughout the range; and providing for the survival and movement of local populations by protecting core use areas and maintaining habitat conditions and spacing between local populations. Approximately 92 percent of the Northern California Coast Province is in non-Federal ownership (USDI Fish and Wildlife Service 1992). In 2016, a Service GIS exercise (Service files) reported 1,683 known northern spotted owl territories (with multiple Activity Centers) within the California Department of Forestry and Fire Protection (CAL FIRE) Coast Forest District. The majority of sites are on privately-owned timberlands that have been subject to timber management for decades. In recognition of the importance of non-federal lands in supporting recovery of the northern spotted owl, the Recovery Plan (USFWS 2011) contains the following Recovery Actions:

**Recovery Action 14:** Encourage applicants to develop Habitat Conservations Plans and Safe Harbor Agreements that are consistent with the recovery objectives.

**Recovery Action 20:** The Service will request the cooperation of CAL FIRE and individual stakeholders in an evaluation of: (1) the potential recovery role of spotted owl sites and high-quality habitat on non-federal lands in California, and (2) evaluation and implementation of appropriate conservation tools (e.g., carbon sequestration, Habitat Conservation Plans, Safe Harbor Agreements) to assist with supporting spotted owl recovery actions outlined in this Recovery Plan.

**Recovery Action 32:** Because spotted owl recovery requires well distributed, older and more structurally complex multi-layered conifer forests on Federal and non-federal lands across its range, land managers should work with the Service as described below to maintain and restore such habitat while allowing for other threats, such as fire and

insects, to be addressed by restoration management actions. These high-quality spotted owl habitat stands are characterized as having large diameter trees, high amounts of canopy cover, and decadence components such as broken-topped live trees, mistletoe, cavities, large snags, and fallen trees.

Private timberland management in California can be divided into two categories: industrial and nonindustrial. Industrial timberland within the Northern California Coastal Province is managed, with few exceptions, on an even-aged basis. Even-aged management targets the older timber age classes and through regeneration timber harvest, usually clearcutting but also other silviculture methods such as variable retention and transition, creates plantations resulting in a loss or severe degradation of suitable spotted owl habitat. Nonindustrial timberland using uneven-aged management silviculture creates multiple age classes within timber stands, usually through individual tree or small group selection silviculture. Uneven-aged forest management provides the opportunity for the development and maintenance of high quality functional northern spotted owl nesting, roosting and foraging habitat. This Agreement envisions enrolling landowners utilizing nonindustrial timberland practices.

Based on recommendations included in the NSO Recovery Plan (USFWS 2011), an objective of this Agreement and the associated nonindustrial timberland management plans (NTMPs) includes employing forestry techniques that encourage development of late-successional forest characteristics, including a multi-layered, multispecies canopy dominated by large (>30 inches dbh) conifer overstory trees, an understory of shade-tolerant conifers and hardwoods, moderate to high (60-80 percent) canopy closure, live coniferous trees with deformities such as cavities, broken tops, and dwarf mistletoe infections, large snags, and retention of woody debris. This Agreement is designed to improve the functionality of northern spotted owl nesting, roosting and foraging habitats and meet the recovery actions described above.

### 4. **DEFINITIONS**

**Abandonment** – When an activity center, defined below, is considered unable to support NSO now or in the future, typically due to habitat loss. Requests for technical assistance on abandonment of activity centers can be made to CAL FIRE, CDFW, or AFWO.

Activity Center – A mapped point located at the highest-ranking detection for each breeding season (e.g. nest, then daytime pair, then daytime single, etc.) at an area of concentrated activity. Activity centers occur within, but not necessarily in the exact center of the "core use area", defined below. An NSO home range may have multiple mapped activity centers and multiple activity centers may need protection to prevent take. Generally, single nighttime detections where an owl cannot be located during adequate daytime follow-ups should not be considered a valid activity center. All activity centers within a home range should be identified, mapped, and considered; however, not all activity centers are of equal value and site-specific information may be useful in determining which activity centers require more or less protection on an annual basis as determined by the NSO review agencies.

"Attachment A" – A document provided to CAL FIRE by the Service, dated November 1, 2019, that establishes minimum guidelines for northern spotted owl habitat retention, surveys, and timing of timber harvest activities. The purpose of the guidelines serves to avoid the

incidental take of the federally listed as threatened northern spotted owl that may result from timber operations occurring within the range of the coast redwood (*Sequoia sempervirens*) ecotype, in CAL FIRE's Coast Forest District.

Baseline – For this Agreement, includes: (1) the number of northern spotted owl territories with a minimum of one activity center located within the property boundaries at the time the landowner is enrolled in the Agreement; (2) the amount (in acres) of high quality nesting/roosting habitat and suitable foraging habitat as defined above at the time the landowner is enrolled in the Agreement; (3) the numbers and locations of all nest trees located within the property boundaries at the time the landowner is enrolled in the Agreement; and 4) the numbers and locations of all nest trees found subsequent to the landowner's enrollment in the Agreement (see section 6). Baseline conditions are quantified and described in Cooperative Agreements, each pertaining to specific properties included in this Agreement.

**Breeding Season** – The time period from 1 February through 31 August that includes courtships, nesting, nestling, and fledgling dependency periods. The time period may vary by geographic locale.

**Certificate of Inclusion** – Document associated with the Safe Harbor Agreement certifying the property is being managed by the Permittee (Registered Professional Forester) (Appendix B).

**Cooperative Agreement** – Document that describes the baseline conditions at the start of the permit term, proposed management actions, and other descriptions or actions associated with a specific property, tiered to this Safe Harbor Agreement (Appendix A).

**Diameter at breast height (dbh)** – The average diameter of a tree measured outside the bark, at breast height, a point 4.5 feet (1.37 m) above the average ground level (CAL FIRE 2015).

**Enrolled Properties** – Properties whose applications have been approved by the Permittee and the Service, and are managed in accordance with the provisions outlined in this Safe Harbor Agreement and associated Cooperative Agreement documents.

Foraging Habitat – Habitat that provides foraging opportunities for northern spotted owls, but without the structure to support nesting and roosting (USFWS 1992b). Owls often forage in forest conditions that meet the definition of nesting/roosting habitat, but also use a broader range of forest types for foraging. For purposes of this Agreement, foraging habitat is defined as maintaining the following minimum criteria:

- 1) Basal area  $\geq$ 75 square feet per acre of trees  $\geq$  11 inches dbh
- 2)  $\geq$ 40 percent canopy closure of trees that are  $\geq$  11 inches dbh
- 3) Trees may be conifer or hardwood

**Functionality** – Describes nesting, roosting, or foraging habitat type that is retained or improved. The habitat is capable, post-harvest, of serving the specific purpose for which it is intended.

**Harm** – Defined by Service regulations (50 Code of Federal Regulations [CFR] 17.3) to include significant habitat modification or degradation which actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering.

**Incidental Take** – Incidental take is any take of federally listed wildlife, or State-listed or candidate plant or wildlife species, that is incidental to, but not the purpose of, otherwise lawful activities.

**Legacy Tree** – An old tree that has been spared during harvest or has survived stand-replacing natural disturbances (Mazurek & Zielinski 2000). A tree that was dominant or co-dominant at the time of the original harvest. Minimum age varies by species. For practical purposes, these trees are irreplaceable features in most forests.

Minor Road Maintenance – Activity associated with any road that does not involve changing the road prism, including but not limited to: grading, installation or removal of water breaks and rolling dips, road watering, or application of Regional Water Quality Control Board approved dust retardant materials, and tree/brush clearance, so long as the activities occur outside of NSO Core Areas or outside the breeding season.

**Nesting** – A status of an activity center, determined through surveys and mousing techniques that reveals northern spotted owls are attempting to nest (e.g., nest tree found, prey items taken to nest) or have nested (e.g., nest tree found, fledgling northern spotted owls observed). Surveys and techniques to determine nesting status will be conducted according to the most current Service endorsed survey protocol.

Nesting and Roosting Habitat – Habitat that provides nesting and roosting opportunities for northern spotted owls. Important stand elements may include high canopy closure, a multilayered, multi-species canopy with large overstory trees, and a presence of broken-topped trees or other nesting platforms (e.g. mistletoe clumps (USFWS 1992b). For purposes of this Agreement, the minimum definition of nesting/roosting habitat contains the following post-harvest:

- 1) Maintain 66 percent of the pre-harvest basal area per acre of trees  $\geq$  18 inches dbh
- 2) Maintain 66 percent of the pre-harvest basal area per acre of trees  $\geq$  30 inches dbh
- 3) Maintain canopy closure >60 percent of trees  $\ge 18$  inches dbh
- 4) Maintain basal area  $\geq$ 150 square feet per acre of trees  $\geq$  18 inches dbh
- 5) Trees may be conifer or hardwood

**Nonindustrial Timber Management Plan (NTMP)** – a timber management resource planning document and strategy under the California Forest Practice Rules, that guides private nonindustrial landowners with properties less than 2,500 acres in the planning and scheduling of uneven-aged timber management practices.

Non-nesting – A status of an activity center, determined through surveys and mousing techniques that reveals northern spotted owls may or may not have attempted to nest (e.g., nest tree found) but evidence of eggs or fledglings were not found. Surveys and techniques to determine non-nesting status will be conducted according to the most current Service-endorsed survey protocol.

**Occupied** – Annual status of an activity center, determined through protocol-level surveys, which reveals one or more northern spotted owls utilizing the area.

**Safe Harbor Policy** – This policy, published in the Federal Register on June 17, 1999, provides incentives for private and other non-Federal property owners to restore, enhance, or maintain habitats for listed species. Under the policy, the Service will provide participating property owners with technical assistance to develop Safe Harbor Agreements that manage habitat for federally-listed species, and provide assurances that additional financial commitments, land, water, and/or natural resource use restrictions will not be imposed as a result of their voluntary conservation actions to benefit covered species.

**Survey Protocol** – The current Service endorsed protocol for northern spotted owls. As of this writing, this refers to the USFWS *Protocol for Surveying Proposed Management Activities That May Impact Northern Spotted Owls February 2, 2011, revised January 9, 2012.* 

**Survey Period** – In the California Coast Range, local information suggests that northern spotted owls defend established territories as early as March 1. Therefore, the survey period can be initiated on or after March 1 and continue through August 31. Surveys otherwise consistent with the current USFWS protocol may be counted toward a complete survey. Determinations for nesting and non-nesting status are to be conducted during specific periods of the survey season.

**Take** – Defined in Section 3(19) of the Endangered Species Act of 1973, as "to harass, harm pursue, hunt, shoot, kill, capture, or collect, or attempt to engage in any such conduct". Implementing regulations under the Act further define harm as "any act which actually kills or injures wildlife". Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering.

**Territory** –An area of northern spotted owl activity that indicates probable nesting or roosting behaviors. Territories can include multiple Activity Centers. Territories are identified by a unique alpha-numeric descriptor (assigned by the California Department of Fish and Wildlife Biogeographic Data Branch) with the three uppercase letters "MEN" (i.e., Mendocino County) followed by a four-digit numeral (e.g., "0123").

**Timber Operations** – Defined as any operation described under the California Public Resources Code (PRC) 4527.

**Unknown** – A status of an activity center, determined through surveys, which reveals the presence or response of two northern spotted owls of the opposite sex where pair status cannot be determined and at least one of the owls is a "resident single," according to the most current Service-endorsed survey protocol.

Watercourse and Lake Protection Zone (WLPZ) – A strip of land along both sides of a watercourse or around the circumference of a lake or spring where additional practices may be required for protection of the quality and beneficial uses of water, fish, riparian habitat, other forest resources, and for controlling erosion (CAL FIRE 2015).

**Wildlife Retention Tree Strategy** – Wildlife tree management recommendations adapted from California Department of Fish and Wildlife; see Appendix C.

### 5. DESCRIPTION OF THE ENROLLED PROPERTIES

The enrolled properties are owned by Landowners that have applied to enroll under this Agreement, have been approved by the Permittee and the Service, have agreed to implement best

practices for retaining nesting/rooting habitat and foraging habitat when allowing for nonindustrial timber harvest, and over which Safe Harbor assurances apply and on which incidental take of the covered species is authorized. The Parties reasonably expect the covered species may occupy all or a portion of the enrolled properties as a result of management actions undertaken through this Agreement. Timberland properties that occur in Mendocino County, California, which are managed by the Permittees, are comprised of forest habitat suitable for use by NSO for the purposes of breeding, feeding and sheltering. Such habitat includes, but is not limited to, coniferous tree species such as coast redwood and Douglas-fir (*Pseudotsuga menziesii*), and deciduous tree species such as tanoak (*Notholithocarpus densiflorus*) and madrone (*Arbutus menziesii*). Enrolled Properties (and associated NTMPs) at the start of the permit term may include, but are not limited to: Bradford Ranch (1-97NTMP-043 MEN), Miller Tree Farm (1-92NTMP-001 MEN) and Weger Ranch (1-01NTMP-005MEN). A Landowner Cooperative Agreement will be completed and signed by the landowner for each property enrolled, in addition to the Permittee or RPF managing the respective NTMP on the Enrolled Property. Each Landowner Cooperative Agreement includes:

- a map of the property and associated northern spotted owl territories;
- the portion of the property to be enrolled and its acreage;
- description and acreage of the habitat types (i.e., nesting, roosting and foraging) assessed within each NTMP to be enrolled; and
- the geographic locations of all activity centers associated with northern spotted owl territories on and within 0.7 mile of the Enrolled Properties.

In addition, each Cooperative Agreement includes a description of the current land-use practices and existing development, and expected land-use changes and proposed development. The Service will ultimately decide whether a property can be enrolled.

A Certificate of Inclusion will be signed by the Permittees managing the Enrolled Properties, certifying that the forested areas of each Enrolled Property are included within the scope of the permitted activities of the Agreement.

### 6. BASELINE DESCRIPTION FOR NORTHERN SPOTTED OWL

The baseline conditions described in each Cooperative Agreement consists of the following information: (1) the number of northern spotted owl territories with a minimum of one activity center located within the property boundaries at the time the landowner is enrolled in the Agreement; (2) the amount (in acres) of nesting/roosting habitat and foraging habitat as defined above at the time the landowner is enrolled in the Agreement; (3) the numbers and locations of all nest trees located within the property boundaries at the time the landowner is enrolled in the Agreement; and 4) the numbers and locations of all nest trees found subsequent to the landowner's enrollment in the Agreement. Each Cooperative Agreement specifically describes the baseline for the particular property covered under the Cooperative Agreement.

### 7. RESPONSIBILITIES OF THE PARTIES

In addition to the following stipulations, the Parties agree to work cooperatively on other issues as necessary to further the purposes of the Agreement. Moreover, nothing in this Agreement

shall limit the abilities of Federal and State wildlife agencies to perform their lawful duties, and conduct investigations as authorized by statute, code, and by court guidance and direction.

### 7.1. The Permittee

- 1. The Permittees will manage the Enrolled Properties in compliance with (1) this Agreement, and (2) the NTMPs associated with the Enrolled Properties (3) all other Federal, State, and local laws.
- 2. Retain all snags not constituting a hazard under the California Forest Practice Rules (FPRs).
- 3. Conduct northern spotted owl surveys according to the current USFWS endorsed survey protocol, to survey in association with proposed harvest activities, submit all northern spotted owl survey data to the CDFW Spotted Owl Observations Database at the conclusion of each survey season, and report to the Service at the conclusion of each survey season/monitoring effort. The surveys are intended to locate new Activity Centers, locate nests, and determine the reproductive status of each territory. At the start of the survey season associated with each timber harvest, the Permittee will notify the appropriate staff member at AFWO and CDFW (email is acceptable) that surveys are commencing, so that the wildlife agencies are aware of the upcoming proposed timber harvest entry.
- 4. Ensure all active nest sites identified during the Permit term are protected by a 500-foot radius (approximately 18 acres) no-cut buffer. In the event more than one nest site is found for a territory on the Enrolled Properties, the Permittee and Service will coordinate to determine which nest site is active during the year of proposed harvest, and the Service will provide technical assistance regarding the distribution of no-harvest protection areas.
- 5. Ensure no harvest operations will occur, except for the use of existing haul roads, within 1,000 feet of any active northern spotted owl nest site during the breeding season (i.e., location where nesting behavior has been observed within the previous three years) unless reviewed and approved by the Service through Technical Assistance in advance (see Service Responsibility #2 below).
- 6. Upon reasonable notice, allow access by the Service, CDFW, or other agreed-upon party, on the Enrolled Properties for purposes of carrying out monitoring and management activities. In the event of an emergency, the wildlife agencies may enter the premises to care for and protect listed species at any time.
- 7. Coordinate with the Service and CDFW at regular intervals, agreed upon by all Parties, to "check in" to evaluate and implement potential adaptive management procedures, if any actions are found not to be in compliance with the terms of the Agreement.
- 8. During the Permit Term, coordinate with the Service and CDFW if Permittee is interested in including any additional property or properties in the Programmatic Agreement. Baseline conditions, proposed management activities, and property-specific actions will be described in detail in a property-specific Cooperative Agreement (see Section 5) and Certificate of Inclusion, which will be reviewed and approved by the Service prior to inclusion as part of the Agreement.

- 9. The Permittee will send to the Service and CDFW, no less than 30 days in advance of proposed harvest operations, a Notice of Timber Operations with a cover letter explaining how the proposed operations comply with this Agreement.
- 10. The Permittee will send (email is acceptable) to the Service and CDFW results of all NSO surveys conducted as a part of this Agreement, as soon as is practicable before timber operations commence for that particular timber harvest entry.

### 7.2. The Service

- 1. Upon execution of the Agreement and satisfaction of all other applicable legal requirements, the Service will issue a Permit to the Permittee in accordance with Endangered Species Act section 10(a)(1)(A), authorizing incidental take of the northern spotted owl as a result of lawful activities in compliance with this Agreement on the Enrolled Properties. The term of the Permit will be 40 years, which would allow the Permittee 5 years beyond the end-date of the Agreement to return the Enrolled Lands to baseline conditions (though this scenario is considered unlikely).
- 2. Will provide written technical assistance, after consulting with CDFW, within 30 days of notification of operations under the NTMP and this Agreement if operations other than the use of existing haul roads are proposed within 1,000 feet of any active northern spotted owl nest site during a breeding season.
- 3. Will monitor compliance with the terms of the Agreement (through the required reporting), and coordinate with the Permittees to evaluate and implement potential adaptive management procedures if any portion of the Agreement is found not to be in compliance with the terms of the Agreement. In addition, the AFWO will notify the Permittees, landowners, and CDFW if a different AFWO staff member becomes the point of contact for this Agreement.
- 4. Will coordinate with the Permittees on evaluating activity center status (i.e., whether an activity center status is nesting, non-nesting, unknown, unoccupied or "abandoned") of any northern spotted owl activity center associated with the Enrolled Properties.
- 5. Will coordinate with the RPF and CDFW in a timely manner to develop a Cooperative Agreement and Certificate of Inclusion for additional NTMPS managed in the same manner to be added to the Programmatic Agreement during the permit term.
- 6. Will provide information on potential Federal funding programs.
- 7. Will provide technical and regulatory assistance, in cooperation with the State, regarding possible management activities on the Enrolled Properties pertaining to barred owls (*S. varia*).

### 8. NET CONSERVATION BENEFITS

This Agreement between the Service, Permittees and the landowners they represent provides a net conservation benefit to the northern spotted owl, primarily through the growing of high-quality nesting/roosting habitat for northern spotted owls. Assurances in the Agreement provide

incentives for the Permittees and the landowners they represent to retain a larger, older tree component, a multilayered, multispecies canopy dominated by large (>30 inches dbh) conifer overstory trees, an understory of shade-tolerant conifers or hardwoods, a moderate to high (60-80 percent) canopy closure, decadence in the form of large, live coniferous trees with deformities - such as cavities, broken tops, and dwarf mistletoe infections, large snags, and ground cover characterized by accumulation of logs and other woody debris on the Enrolled Properties, thus increasing the quantity and quality of northern spotted owl habitat over what might otherwise be provided and developed without the Agreement.

Absent this Agreement, the Enrolled Properties would likely experience uneven-aged management under the NTMP, but there would be no incentive to retain large, old trees and complex canopy structure within the stands. The removal of the large, old tree component would keep the stands in a relatively younger age class and reduce the structural diversity commonly associated with high-quality northern spotted owl habitat.

The retention of the larger, older tree component (especially trees with broken tops, complex crowns and large canopy limbs) in the development of a multi-aged timber stand provides an important element to the structural diversity of the canopy. Structural diversity provides multiple perch sites at varying canopy heights, facilitates the species' thermoregulation, and affords an additional measure of protection from predators. A larger, older tree component can provide cavities for nest sites, cover for the broken tops of younger trees (also potential nest sites), and habitat for prey species. The development of coarse woody debris on the forest floor provides habitat for small mammals and other animals that serve as prey species for northern spotted owls. Through uneven-aged management and by employing late-successional forest restoration techniques that mimic natural disturbance events, development of late successional forest characteristics (e.g., multi-layered canopy, mixed tree species composition, retention of snags, deformities, and downed wood) will be accelerated on the Enrolled Properties, and functionality of northern spotted owl nesting, roosting and foraging habitat will be improved (see Appendix A). The 40-year term of the Agreement also provides benefits to the northern spotted owl as it allows ample time for the development and use of the high-quality nesting and roosting habitat.

Agreements such as this encourage private timberland owners in California to manage their land under NTMPs and provide incentives for management that creates high-quality northern spotted owl habitat, thereby contributing to the recovery of the northern spotted owl. In addition, the Permittees have proposed measures within the associated NTMPs that reduce sedimentation into watercourses for the purpose of improving habitat conditions for salmonids in downstream watercourses. The Permittees will coordinate with NOAA Fisheries to avoid impacts to listed salmonids.

The Parties anticipate this Agreement will result in an increased number of northern spotted owl territories, use and/or an increase in the quality of suitable habitat for northern spotted owls within the Enrolled Properties. The Agreement will provide an example of a mutually beneficial relationship between government agencies and private landowners to benefit endangered and threatened species, and evidence that such species can coexist with well-planned current land-use practices. Therefore, the cumulative impacts of this Agreement and the activities it covers, which are facilitated by the authorized take, will provide a net conservation benefit to the species.

### 9. AGREEMENT AND PERMIT DURATION

This Agreement will be in effect for a duration of 40 years following its approval and signing by the Parties. The Permit and Agreement may be extended beyond the specified terms through amendment, upon agreement of the Parties.

### 10. ASSURANCES REGARDING TAKE OF NORTHERN SPOTTED OWL

### **10.1** Covered Activities

The Permit will authorize incidental take of species and their progeny, or alteration of occupied habitat, resulting from lawful activities in compliance with this Agreement within the Enrolled Properties, from the time this Agreement is signed until Permit expiration. For this Agreement, the Permit, unless amended if additional properties are included in the Agreement, will authorize incidental take of as many as but not more than 12 NSO, based on an assumption that as many 2 additional NSO territories (2 NSO per territory) could occur on each of the three enrolled properties, and assuming that habitat at these additional territories would returned to baseline conditions. Listed below are activities which are covered under this Agreement and may result in incidental take of the species covered under this Agreement.

1. Long-term timber management and related activities that include but are not limited to: felling, skidding, and transport of timber and other related forest products.

Incidental take during the Permit term may occur through timber harvest-related noise disturbance in proximity of an active nest site as discussed below.

### 10.2. Noise Disturbance

The Service has determined that timber harvest-related noise that significantly exceeds ambient levels has the potential to incidentally take northern spotted owl when conducted within 0.25 mile of an active nest site. The impacts of this type of incidental take range from a potential loss of reproduction due to nest abandonment, to increased risk of adult predation. This Agreement requires annual northern spotted owl surveys in accordance with Service Survey Protocol guidelines in association with proposed timber harvest operations.

### 11. REPORTING AND MONITORING

### 11.1. Compliance/Biological Monitoring

The Permittees will be responsible for monitoring and reporting activities related to implementation of the Agreement and fulfillment of its provisions, including verification of baseline maintenance, submission of stand inventory data, implementation of agreed-upon conservation measures, and incidental take authorized by the Permit.

Annual spotted owl surveys shall be conducted in accordance with the current Service-endorsed survey protocol. All northern spotted owl survey data shall be submitted to the CDFW Spotted Owl Observations Database at the conclusion of each survey season, and information reported to the Service at the conclusion of each survey season/monitoring effort. The surveys are intended to locate new activity centers, locate nests, and determine the reproductive status of each territory within the enrolled properties.

Each planned harvest under this Agreement will be preceded by the submission to the Service and CDFW, no less than 30 days in advance of proposed harvest operations, a Notice of Timber Operations with a cover letter explaining how the proposed operations comply with this Agreement. This notification, in conjunction with the northern spotted owl survey data and monitoring information, will allow the Service and CDFW the opportunity to monitor compliance with the Agreement (retention of baseline habitat conditions and the application of the no harvest buffer(s)) and to propose, within the 30 days, any reasonable modifications to the NTO the Service feels are necessary to minimize potential adverse impacts of the operations to the northern spotted owl, including noise disturbance. As part of that review, this Agreement will grant the Service and CDFW, after reasonable prior notice to the Permittees (10 days), permission to enter the Enrolled Properties to ascertain compliance with the Agreement.

### 11.2. Net Benefit Monitoring/Reporting

As part of fulfilling the responsibilities under the Permittee's NTMP, the property is inventoried at 10-year intervals and reported to the California Department of Forestry, and under this Agreement, provided concurrently to the Service and CDFW. The inventory reports will include data that indicates the development and/or maintenance of the characteristics of high-quality northern spotted owl habitat and shall be indicated by the maintenance or increase of the average basal area per acre and average tree dbh by species.

### Quantitative Habitat Typing

To comprehensively analyze stand data and identify the highest quality northern spotted owl habitat, the RPFs may employ the following datasets:

- Plot inventory data at a 2.5-acre plot level, including
  - o Percent canopy cover;
  - o Quadratic mean diameter (QMD); and
  - O Average basal area per acre (BA/acre)
- LiDAR-derived canopy height at the QL1 quality level;
- National Agriculture Imagery Program (NAIP) photographic imagery provided by the USDA Farm Service Agency.

### 12. MODIFICATIONS

### 12.1. Modification of the Agreement

Any party may propose modifications or amendments to this Agreement, as provided in 50 CFR 13.23, by providing written notice to, and obtaining the written concurrence of, the other Parties. Such notice shall include a statement of the proposed modification, the reason for it, and its expected results. The Parties will use their best efforts to respond to proposed modifications within 60 days of receipt of such notice. Proposed modifications will become effective upon the other Parties' written concurrence.

### 12.2. Amendment of the Permit

The Permit may be amended to accommodate changed circumstances (see section 13 below) in accordance with all applicable legal requirements, including but not limited to the Endangered Species Act, the National Environmental Policy Act, and the Service's Permit regulations (50 CFR 13 and 50 CFR 17). The party proposing the amendment shall provide a statement describing the proposed amendment and the reasons for it.

### 12.3. Termination of the Agreement

As provided for in Part 12 of the Service's Safe Harbor Policy (FR 64, p. 32717), the Landowner, via the Permittee, may terminate implementation of the Agreement's voluntary management actions prior to the Agreement's expiration date, for circumstances beyond the Permittee's/Landowner's control. In such circumstances, the Permittee/Landowner may return the enrolled lands to baseline conditions even if the expected net conservation benefits have not been realized. If the Permittee/Landowner is unable to continue implementation of the plans and stipulations of the Agreement, whether due to catastrophic destruction of the species population numbers or habitat or due to unforeseen hardship, the Permittee/Landowner would relinquish the Permit to the Service. Species management on the Permittee's/Landowner's lands would return to its status prior to the signing of the Agreement (i.e., original baseline). The Permittee may terminate this Agreement due to uncontrollable circumstances upon 30 days prior written notice to the other Parties, provided that the baseline conditions have been maintained and the Service is provided an opportunity to relocate affected species within 30 days of that notice. The Permittee also may terminate the Agreement at any time for any other reason, but termination shall extinguish the Permittee's authority to take the species or occupied habitat under the Permit.

### 12.4. Permit Suspension or Revocation

The Service may suspend or revoke the Permit for cause in accordance with the laws and regulations in force at the time of such suspension or revocation. The Service also, as a last resort, may revoke the Permit if continuation of Permitted activities would likely result in jeopardy to the northern spotted owl (50 CFR 13.28(a)). Prior to revocation, the Service would exercise all possible measures to remedy the situation.

### 12.5. Remedies

Each party shall have all remedies otherwise available to enforce the terms of the Agreement and the Permit, except that no party shall be liable in damages for any breach of this Agreement, any performance or failure to perform an obligation under this Agreement or any other cause of action arising from this Agreement.

### 12.6. Dispute Resolution

The Parties agree to work together in good faith to resolve any disputes, using dispute resolution procedures agreed upon by all Parties.

### 13. CHANGED CIRCUMSTANCES

Nothing in this Agreement prevents the Permittee from implementing management activities not described in the Agreement, as long as such actions comply with the requirements of the Agreement and do not affect the benefit for the covered species expected under this Agreement. Emergency situations such as natural disasters (e.g., fires, excessive rainfall, extreme drought, insect infestations, or epidemic disease) may require initiation of certain management actions

such as salvage or sanitation harvesting within less than 30 days prior notification. The Permittee will notify the Service within 10 days of discovering such a situation and will make reasonable accommodations to the Service for; (1) review of timber harvesting operations in response to emergency situations, and (2) survey and/or relocation of species individuals prior to the action. The Parties acknowledge that survey and translocation may be precluded by certain urgent situations.

### 14. UNFORESEEN CIRCUMSTANCES

Unforeseen circumstances could involve habitat impacts resulting from catastrophic (force majeure) events such as severe rainstorms, severe drought, lethal forest fires, or insect disease epidemics. Such events are beyond the reasonable control of, and do not occur through, the fault or negligence of the Permittee, including but not limited to "acts of God" or sudden actions of the elements such as those described above. Such catastrophes could either locally destroy the species population or render the habitat unsuitable, thereby reducing population numbers or occupied acreage below the original baseline conditions.

After approval of the Agreement, the Service may not impose any new requirements or conditions on, or modify any existing requirements or conditions applicable to, a landowner or successor in interest to the landowner, to mitigate or compensate for changes in the conditions or circumstances of any species or ecosystem, natural community, or habitat covered by the Agreement except as stipulated in 50 CFR 17.22(c)(5) and 17.32(c)(5).

If additional conservation measures are necessary to respond to unforeseen circumstances, the Service may require additional measures of the Permittees and enrolled Landowners where the SHA is being properly implemented, only if those measures maintain the original terms of the SHA to the maximum extent possible. Additional conservation measures will not involve the commitment of additional land, water, or financial compensation, or additional restrictions on the use of land, water, or other natural resources available for development or use under the original terms of the SHA without the consent of the Permittees and enrolled Landowner(s).

### 15. ADDITIONAL MEASURES

### 15.1. Neighboring Lands

Non-participating private landowners, including adjacent landowners with Timber Harvest Plans or NTMPs, are not covered under the take Permit associated with this Agreement.

### 15.2. Succession and Transfer

This Agreement shall be binding on and shall inure to the benefit of the Parties and their respective successors and transferees, in accordance with applicable regulations (50 CFR 13.24 and 13.25). The rights and obligations under this Agreement shall run with the ownership of the enrolled property and are transferable to subsequent non-Federal property owners pursuant to 50 CFR 13.25. The enhancement of survival Permit issued to the Permittee also will be extended to the new owner(s). As a party to the original agreement and Permit, the new owner(s) will have the same rights and obligations with respect to the Enrolled Property as the original owner. The new owner(s) also will have the option of receiving Safe Harbor assurances by signing a new Agreement and receiving a new Permit. The Permittee shall notify the Service of any transfer of ownership, so that the Service can attempt to contact the new owner, explain the baseline conditions, and the responsibilities applicable to the property, and seek to interest the new owner

in signing the existing Agreement or a new one to benefit the listed species on the property. Assignment or transfer of the Permit shall be governed by Service regulations in force at the time.

### 15.3. Availability of Funds

Implementation of this Agreement is subject to the requirements of the Anti-Deficiency Act and the availability of appropriated funds. Nothing in this Agreement will be construed by the Parties to require the obligation, appropriation, or expenditure of any funds from the U.S. Treasury. The Parties acknowledge that the Service will not be required under this Agreement to expend any Federal agency's appropriated funds unless and until an authorized official of that agency affirmatively acts to commit to such expenditures as evidenced in writing.

### 15.4. Relationship to Other Agreements

There are currently no other Agreements with the Service associated with the Enrolled Properties. Timber management practices associated with each enrolled property are described in detail in the associated NTMPs.

### 15.5. No Third-Party Beneficiaries

This Agreement does not create any new right or interest in any member of the public as a third-party beneficiary, nor shall it authorize anyone not a party to this Agreement to maintain a suit for personal injuries or damages pursuant to the provisions of this Agreement. The duties, obligations, and responsibilities of the Parties to this Agreement with respect to third parties shall remain as imposed under existing law.

### 15.6. Other Listed Species, Candidate Species, and Species of Concern

The possibility exists that other listed, proposed, or candidate species, or species of concern may occur on lands enrolled in the Agreement as a direct result of the Permittee's voluntary conservation actions. If biological surveys determine this Agreement will provide a net conservation benefit to any such species or their potential habitat, the Parties may agree to amend the Agreement and Permit to cover additional species, at the Permittee's request. If federally designated candidate species should occur on the property, the Service may recommend measures for including them in a joint Agreement/Candidate Conservation Agreement with Assurances to contribute toward the conservation of those species. If appropriate measures are included in such an agreement, the Service, consistent with its "No Surprises" policy, will not impose additional requirements on the Permittee as a result of any such species later being listed as threatened or endangered.

### 15.7. Notices and Reports

Any notices and reports, including monitoring and annual reports, required by this Agreement shall be delivered to the persons listed below, as appropriate:

Field Supervisor Arcata Fish and Wildlife Office U.S. Fish and Wildlife Service 1655 Heindon Road Arcata, California 95521 Senior Environmental Scientist (Specialist) California Department of Fish and Wildlife Timberland Conservation Program 32330 North Harbor Drive Fort Bragg, California 95437

Craig Blencowe, Registered Professional Forester 2339 Mill Creek Lane Healdsburg, California 95448

Christopher Blencowe, Registered Professional Forester Blencowe Watershed Management 32001 O'Bayley Dr. Fort Bragg, CA 95437

IN WITNESS WHEREOF, THE PARTIES HERETO I Agreement to be in effect as of the date that the Service	
Craig Blencowe	Date
Christopher Blencowe	Date
Tanya Sommer, Field Supervisor, Arcata Fish and Wildlife Office U.S. Fish and Wildlife Service	Date

### References

Bart, J., and E.D. Forsman. 1992. Dependence of Northern Spotted Owls, *Strix occidentalis caurina*, on Old-Growth Forests in the Western United States. Biological Conservation 62:95-100.

California Department of Fish and Wildlife. 2016. Report to the Fish and Game Commission – a status review of the northern spotted owl (*Strix occidentalis caurina*) in California. State of California Natural Resources Agency Department of Fish and Wildlife, Sacramento California. January 27, 2016. 238 p.

Courtney, S.P., J.A. Blakesley, R.E. Bigley, M.L. Cody, J.P. Dumbacher, R.C. Fleischer, A.B. Franklin, J.F.Franklin, R.J. Gutiérrez, J.M. Marzluff, and L. Sztukowski. 2004. Final Report: Scientific evaluation of the status of the Northern Spotted Owl. Sustainable Ecosystems Institute, Portland, Oregon.

Forest Ecosystem Management Team (FEMAT). 1993. Forest Ecosystem Management: An Ecological, Economic, and Social Assessment. Report of the FEMAT. Washington, D.C.: U.S. Government Printing Office.

Forsman, E. 1975. A preliminary investigation of the Spotted Owl in Oregon [Thesis]. Oregon State University, Corvallis. 145 p.

Forsman, E.D., S. DeStefano, M.G. Raphael, and R.J. Gutiérrez, editors. 1996. Demography of the northern spotted owl. Studies in Avian Biology No. 17.

Franklin, A.B., K.P. Burnham, G.C. White, R.G. Anthony, E.D. Forsman, C. Schwarz, J.E. Nichols, and J. Hines. 1999. Range-wide status and trends in northern spotted owl populations. Colorado Cooperative Fish and Wildlife Research Unit, USGS, Biological Resources Division, Colorado State University, Ft. Collins, CO, and Oregon Cooperative Fish and Wildlife Research Unit, USGS, Biological Resources Division, Department of Fish and Wildlife, Oregon State University, Corvallis, OR.

Gutiérrez, R.J., A.B. Franklin, and W.S. LaHaye. 1995. Spotted Owl (*Strix occidentalis*) in A. Poole and F. Gill (editors), The birds of North America, No. 179. The Academy of Natural Sciences and the American Ornithologists' Union, Washington, D.C. 28 p.

Hunter, J.E., R.J. Gutiérrez, and A.B. Franklin. 1995. Habitat configuration around spotted owl sites in Northwestern California. The Condor 97:684-693.

LaHaye, W.S. and R.J. Gutiérrez. 1999. Nest sites and nesting habitat of the northern spotted owl in northwestern California. Condor 101:324-330.

Meyer, J.S., L.L. Irwin and M.S. Boyce. 1998. Influence of habitat abundance and fragmentation on northern Spotted Owls in western Oregon. Wildlife Monographs 139:1–51.

- Solis, D.M., and R.J. Gutiérrez. 1990. Summer habitat ecology of northern spotted owls in northwestern California. Condor 92:739–748.
- Swindle, K.A., W.J. Ripple, E.C. Meslow, and D.J. Schafer. 1999. Old-forest distribution around spotted owl nests in the central Cascade Mountains, Oregon. J. Wildlife Management 63:1212-1221.
- Thomas, J.W., E.D. Forsman, J.B. Lint, E.C. Meslow, B.R. Noon, and J. Verner. 1990. A conservation strategy for the northern spotted owl. Interagency Scientific Committee to Address the Conservation of the Northern Spotted Owl. USDA Forest Service, USDI Bureau of Land Management, USDI Fish and Wildlife Service, and USDI National Park Service. Portland, Oregon. 458 p.
- Thomas, J.W., E.D. Forsman, J.B. Lint, E.C. Meslow, B.R. Noon, and J. Verner. 1990. A conservation strategy for the northern spotted owl. Interagency Scientific Committee to Address the Conservation of the Northern Spotted Owl. USDA Forest Service, USDI Bureau of Land Management, USDI Fish and Wildlife Service, and USDI National Park Service. Portland, Oregon. 458 p.
- Thomas, J.W., M.G. Raphael, M.G. Anthony, E.D. Forsman, A.G. Gunderson, R.S. Holthausen, B.G. Marcot, G.H. Reeves, J.R. Sedell and D.M. Solis. 1993. Viability assessments and management considerations for species associated with late-succession and old-growth forests of the Pacific Northwest—the report of the Scientific Analysis Team. Washington, DC: U.S. Department of Agriculture, Forest Service, National Forest System. 530 p.
- U.S. Fish and Wildlife Service (USFWS). 1990. Endangered and threatened wildlife and plants; determination of threatened status for the northern Spotted Owl. Federal Register 55:26114–26194.
- U.S. Fish and Wildlife Service (USFWS). 1992. Recovery plan for the Northern Spotted Owl. Unpublished Report. U.S. Department of Interior, Washington, DC.
- U.S. Fish and Wildlife Service (USFWS). 2008. Final Recovery Plan for the Northern Spotted Owl (*Strix occidentalis caurina*). Portland, Oregon.
- U.S. Fish and Wildlife Service (USFWS). 2011. Revised Recovery Plan for the Northern Spotted Owl (*Strix occidentalis caurina*). Portland, Oregon.
- U.S. Fish and Wildlife Service (USFWS). 2012a. Protocol for Surveying Proposed Management Activities that May Impact Northern Spotted Owls. Portland, Oregon.
- U.S. Fish and Wildlife Service (USFWS). 2012b. Revised Northern Spotted Owl Critical Habitat. Portland, Oregon.
- Weathers, W.W., P.J. Hodum and J.A. Blakesley. 2001. Thermal ecology and ecological energetics of the California Spotted Owl. Condor 103:678-690.

### Appendix A. Cooperative Agreement template.

## LANDOWNER COOPERATIVE AGREEMENT FOR THE [insert PROPERTY NAME] UNDER THE BLENCOWE PROGRAMMATIC SAFE HARBOR AGREEMENT, MENDOCINO COUNTY CALIFORNIA

This is a voluntary agreement that recognizes the unique and important role that private landowners in California can play in helping wildlife valued by the people of the state and of the nation. The purpose of the Agreement is to enable land management activities beneficial to northern spotted owl to be carried out on privately owned land while minimizing the impact of such activities on the right and ability of the owner or manager thereof to use it as he or she wishes. The terms of the agreement are as follows:

### 1. INVOLVED PARTIES

This Cooperative Agreement, between Craig and [or Christopher Blencowe, if applicable] and [insert property owner's full name(s)] (Cooperator), is intended to promote good land stewardship by assisting the Cooperator in carrying out actions to benefit northern spotted owl (*Strix occidentalis caurina*) on land owned by the Cooperator. Participation in this Cooperative Agreement is a prerequisite for obtaining a Certificate of Inclusion [reference attachment to this Cooperative Agreement] from the Service as part of the agreement between the Service and Craig Blencowe titled, *Programmatic Safe Harbor Agreement with Craig Blencowe and Christopher Blencowe for Northern Spotted Owl, Mendocino County, California* (Agreement).

Safe Harbor Agreements do not release landowners from the responsibility to avoid taking any listed species that already occupy portions of the property.

### 2. ENROLLED PROPERTY

The Cooperator owns the property known as the [insert property name], a xxxx-acre property located in Sections [insert section numbers]; Township [insert township number] North, Range [insert range number] West, M.D.B. & M., in Mendocino County, California. The property contains habitat that is used by northern spotted owl. The Service will enroll xxxx acres of this property under the Agreement, as shown on the attached property map [reference map attached to this Cooperative Agreement]. No other species of listed plants or animals are known to occur on the property, and no incidental take of species other than northern spotted owl is authorized or permitted under this Cooperative Agreement.

### 3. BASELINE RESPONSIBILITIES

The baseline for this property is set at xxxx acres of forested habitat suitable for nesting, foraging and sheltering by northern spotted owls (reference map attached to this Cooperative Agreement). Specifically, based primarily on tree size, basal area and canopy cover, the entire xxxx-acre property has been categorized as northern spotted owl nesting/roosting habitat. There [is/are] [insert number] historical NSO territories on the [insert property name]: [insert territory monikers (format: "MEN1234")]. There [is/is not] a known location for a nest tree [associated with (e.g., MENxxxx) insert all known territory monikers here] [if applicable, insert geographic

location(s) of nest tree(s)] at the start of this Agreement. Any additional nest trees found during the permit term of the SHA will be considered to be part of the baseline.

"Force majeure" events such as severe storms, severe drought, fires, or insect/disease epidemics are beyond the reasonable control of the Cooperator, and could either extirpate northern spotted owl from enrolled lands or render northern spotted owl habitat on enrolled lands unsuitable for continued occupation. These events may reduce northern spotted owl numbers or habitat below original baseline conditions through no fault of or negligence of the Cooperator. In such circumstances the Cooperator, the Registered Professional Forester (RPF) holding the permit, and the Service may agree to revise the Cooperative Agreement's baseline conditions to reflect the new circumstances.

### 4. CONSERVATION MEASURES

The [insert NTMP name (NTMP number)] describes in detail, and this document summarizes timber management goals to be implemented on the [insert property name] property that would serve as conservation measures for northern spotted owl and are expected to benefit the species.

In general, the management goals would improve functionality of northern spotted owl habitats by: 1) increasing the average quadratic mean diameter (at breast height; dbh) of the conifer trees on the Property after each harvest entry; 2) retaining a greater average post-harvest basal area (square feet per acre) for trees greater than 12 inches dbh than the post-harvest basal area for trees of these dimensions from the previous harvest entry; 3) increasing number of legacy trees averaged on the property, including trees with basal hollows and other defects, or mistletoe infections, regardless of size, with a target goal of one legacy tree per acre; and 4) retaining downed cull logs and snags.

Specifically, timber management on the [insert property name] property would adhere to the following conditions:

- No-cut buffer of 500' around the activity center.
- From 500'-1000' from the site, no more than 25% of the standing volume shall be harvested in any one entry.
- Specifically, from 500'-1000', to ensure a multi-storied canopy, harvest shall be limited within each tree size class as follows:

12-16 inches dbh	No more than [insert percentage (e.g., 20%)] of the volume]
18-24 inches dbh	No more than [insert percentage (e.g., 25%)] of the volume]
26-34 inches dbh	No more than [insert percentage (e.g., 25%)] of the volume]
36 and greater inches dbh	No more than [insert percentage (e.g., 30%)] of the volume]

- No change in NSO habitat shall occur pre- to post-harvest
- No openings shall be created larger than 0.5 acre
- The only silviculture shall be single-tree selection
- No operations within 0.25 miles until after 15 July

The following late seral features are to be retained to provide potential NSO nesting structure:

- All bona fide old-growth trees
- All 90-100 year-old Douglas-fir with more than 50% conk
- All green culls, regardless of species or size
- All snags, where worker safety is not a concern
- The large tree diameter class (ie. 36"dbh+) is managed to continually comprise at least 15% of the stand volume.

Northern spotted owl surveys and monitoring will be conducted, as follows:

- 1) Surveys will adhere to current Service guidelines and will commence no later than 2 years prior to proposed timber harvest activities in the NTMP area;
- 2) For any year when timber harvest activities are proposed to occur in the NTMP area, survey data will be provided (electronic mail is acceptable) to the appropriate AFWO biologist a minimum of 15 days prior to the start of harvest activities;
- 3) For any year when timber harvest activities are not proposed to occur in the NTMP area, surveys may occur but are not required, and information regarding whether surveys were conducted or not (including survey results, if surveys were conducted) will be provided (electronic mail is acceptable) to the appropriate AFWO biologist by 31 July;
- 4) Survey monitoring information from adjacent landowners (e.g. Mendocino Redwood Company) may be used in conjunction with monitoring information from the NTMP area.

### 5. RESPONSIBILITIES OF THE PARTIES

The Cooperator and the permitted RPF agree to carry out certain responsibilities under this Cooperative Agreement. The Cooperator understands that in order to fulfill the responsibilities of the Safe Harbor Agreement, the permitted RPF must report to the Service all implementation and monitoring activities related to northern spotted owl management in accordance with the Safe Harbor Agreement. Responsibilities of the Parties (Permittee and Service) are described in details in section 7 of the Blencowe Safe Harbor Agreement.

### 6. AGREEMENT DURATION

Obligations under this Cooperative Agreement will be in effect from the date the Cooperative Agreement is executed until the permit term (40 year permit term) of Safe Harbor Agreement expires. Upon signing of the Cooperative Agreement, the permitted RPF will issue a Certificate of Inclusion to the Cooperator under the federal permit [permit reference number] the permitted RPF holds, authorizing the incidental take of northern spotted owl on the Enrolled Lands. The Certificate of Inclusion will authorize incidental take of northern spotted owl from [date] to [date].

### 7. INCIDENTAL TAKE

The Service's responsibilities include administering the Endangered Species Act of 1973, as amended (Act). Section 3(19) of the Act defines take to mean harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Incidental take is defined as take that is incidental to, but not the purpose of, carrying out an otherwise lawful activity. "Harm" is further defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns such as breeding, feeding, or sheltering. Incidental take is any take of federally-listed wildlife or statelisted wildlife and plants that is incidental to, but not the purpose of, otherwise lawful activities.

Under the terms of this Cooperative Agreement, the Cooperator is authorized to make use of his/her enrolled property in any manner that does not result in reducing the population and/or occupied habitat of northern spotted owl below the established baseline conditions, as described in section 10 of the Blencowe Safe Harbor Agreement.

### 8. TERMS AND CONDITIONS

This Cooperative Agreement is subject to all the terms and conditions described in the *Programmatic Safe Harbor Agreement with Craig Blencowe and Christopher Blencowe for Northern Spotted Owl, Mendocino County, California.* 

### 8.1 Termination of the Cooperative Agreement

As provided for in Part 12 of the Service's Safe Harbor Policy (64 FR 32717), Cooperators may terminate implementation of their Cooperative Agreements before their expiration date for circumstances beyond the Cooperator's control. In such instances, Cooperators will provide 90 calendar days' prior written notice to the permitted RPF, who will notify the Service. In such circumstances, the Cooperator may return the enrolled property to baseline conditions even if the expected net conservation benefit has not been realized, provided that baseline conditions have been maintained and as long as agreed upon conservation measures were implemented. Cooperators must provide the permitted RPF the opportunity to locate northern spotted owl(s), possibly with the assistance of the Service, within 60 calendar days of receiving that notice. The Cooperator also may terminate his/her Cooperative Agreement at any time for any other reason, but termination for reasons other than uncontrollable circumstances shall terminate the Cooperator's permission to take northern spotted owl, and the Cooperator must relinquish his/her Certificate of Inclusion to the permitted RPF.

### 8.2 Certificate of Inclusion Suspension or Revocation

The Service or permitted RPF may suspend or revoke a Cooperator's Certificate of Inclusion if a Cooperator has breached his/her obligations under a Cooperative Agreement and has failed to cure the breach in a timely manner, and the effect of the breach is to diminish the likelihood that the Cooperative Agreement will achieve its goals.

### 8.3 Succession and Transfer

The rights and obligations under this Cooperative Agreement shall run with the ownership of the enrolled property and are transferable to subsequent private property owners pursuant to 50 CFR 13.25. The Certificate of Inclusion issued to the Cooperator will be extended to the new owner. By becoming a party to the original Cooperative Agreement and permit, the new owner will have the same rights and obligations with respect to the enrolled property as the original owner at the original baseline. The Cooperator shall notify the permitted RPF of any transfer of ownership at least 90 calendar days prior to the intended transfer, so that the permitted RPF can attempt to contact the new owner, explain the baseline responsibilities applicable to the property, and seek to interest the new owner in signing the existing Cooperative Agreement or a new one to benefit northern spotted owl on the property.

### 8.4 Remedies

Each party shall have all remedies otherwise available to enforce the terms of the Cooperative Agreement and the Certificate of Inclusion, except that no party shall be liable in damages for any breach of this Agreement, any performance or failure to perform an obligation under this Cooperative Agreement or any other cause of action arising from this Cooperative Agreement.

### 9. NOTIFICATION

Communication and correspondence required by this Cooperative Agreement should be directed to the addresses below. Names and addresses may be changed upon written notice to all Parties.

[name and address of Cooperator]

Craig Blencowe, Registered Professional Forester 2339 Mill Creek Lane Healdsburg, California 95448 IN WITNESS WHEREOF, each party hereto has caused this Cooperative Agreement to be executed by an authorized official on the day and year set forth opposite their signature.

COOPERATOR
By:
Date:
CRAIG BLENCOWE
Registered Professional Forester (#2003
By:
Date:

### **Appendix B. Certificate of Inclusion template.**

## CERTIFICATE OF INCLUSION FOR THE [insert PROPERTY NAME] UNDER THE BLENCOWE PROGRAMMATIC SAFE HARBOR AGREEMENT, MENDOCINO COUNTY CALIFORNIA

This certifies that the property describes as follows, [DESCRIPTION], owned by [NAME OF PROGRAM PARTICIPANT], is included within the scope of Permit No. [PERMIT NO.] issued to Craig Blencowe and Christopher Blencowe by the U.S. Fish and Wildlife Service on [DATE] for a period of 40 years to Registered Professional Foresters Craig and Christopher Blencowe under the authority of section 10(a)(1)(A) of the Endangered Species Act of 1973, as amended, 16 U.S.C. 1539(a)(1)(A). Such permit authorizes certain activities by participating landowners as part of a safe harbor program to restore and enhance habitat for the northern spotted owl. Pursuant to that permit and this certificate, the holder of this certificate is authorized to engage in activities on the above described property that may result in the incidental taking of such species, subject only to the terms and conditions of such permit and the agreement entered into pursuant thereto by Craig or Christopher Blencowe and [NAME OF PROGRAM PARTICIPANT] on [DATE].

Craig Blencowe
Date
Christopher Blencowe
•
Date

## Appendix C. Wildlife Tree Retention Strategy (from California Department of Fish and Wildlife).

### Wildlife Tree Retention Strategy

### Key to Wildlife Tree Retention/Late Seral Element Scorecard

Trees and Snags with obvious wildlife value that may not need to be evaluated with the Scorecard

Residual tree (Legacy tree): A tree that existed in a stand prior to the most recent harvest entry. This is clearly most distinct and applicable if the stands were managed under even-aged silviculture methods – however, the concept still applies in selection systems.

Description: Structure and appearance varies substantially depending on residual tree age, species, and harvest history of the stand. For conifers, the residual tree will almost always exhibit a greater age and diameter (i.e. predominant tree) than the trees regenerated by the prior harvests. If the residual has a live top it will likely project well above the surrounding canopy.

Two types of residual trees may be recognized:

<u>Old-growth residual</u> (Legacy tree): A tree that was dominant or co-dominant at the time of the original harvest. Minimum age varies by species. For practical purposes, these trees are irreplaceable features in most forests under current management programs.

Description: Usually has a greater diameter than the second-growth trees in the stand and often relatively tall (at "true" site potential height for site class). In addition to large size, old-growth residual trees usually exhibit one to several readily observable features of "old-growth" including: broken top; large reiterations and large-diameter limbs; thick bark that may have deep furrows; fire scars; a basal cavity; other cavities; and possibly well-developed duff layers, moss, or lichen accumulations on horizontal limbs or platforms. Crown architecture visible from the air may include emergent crown (where the surrounding stand is relatively young), irregular or flat-topped shape (as opposed to conical top), obvious dead or spike top (note these may also occur in large second-growth trees), and/or multiple leaders due to large reiterations (which may give the crown the appearance of a cluster of tall young trees).

"<u>Mature" residual</u> ("Bastard-growth"; Legacy tree): A tree that was sub-canopy at the time of the initial harvest. These trees are variably replaceable under current management timber management programs.

Description: Usually at or above the maximum dbh of the second-growth trees in the stand. Other characteristics (height and defect) vary depending on age, age relative to other trees in the stand, fire history, and whether the tree was damaged to the residual during the initial entry. Typically, "mature" residuals show a much smaller dbh than an old-growth residual for the site class and exhibit fewer of the structural features listed above for old-growth residuals. From the air, the crown of a "mature" residual tree may emerge above the surrounding canopy (where the surrounding stand is relatively young) or may not be particularly evident if the surrounding stand is mature second-growth. A "mature" residual that grew for an extended period above a regenerating stand may exhibit a relatively broad crown and high degree of taper, but otherwise be relatively free of physically induced defect.

Snag: A standing dead tree.

Description: Snags vary tremendously in appearance and function for wildlife depending on species, size, and decay class.

Page 1 of 8

### Wildlife Tree Scorecard Definitions and Values

For all trees larger than 36 inches in diameter at breast height, assess the base, bole and canopy for the elements, features, and structures described below. Calculate a wildlife tree score by entering the associated value for each applicable feature; then add all the associated tree values to determine a score for the assessed tree. A structural element may score under several categories, include all applicable values for the feature (i.e. a reiterative limb may have epiphytic growth and epicormic branching, or a tree with minor conk may have a cavity and sloughing bark).

#### **BOLE FEATURES**

### Cavities and Hollows

<u>Cavity</u>. Cavity (or void within a tree bole or large limb) with a relatively small entrance suitable for use by a variety of wildlife species, such as small to large woodpeckers, secondary cavity-nesting birds, wood ducks, Vaux's swift, Purple Martin, bats, Douglas squirrel, owls, wood rats, Pacific fisher, or American marten. The small entrance precludes the entry of larger predators into the cavity. Cavities with larger entrances may also be used by these species. A cavity may be as large as several feet deep with an entrance size ranging from about 1.5 to 6 inches diameter. Entrance height is often at least 10 feet above the ground, but lower entrances may also be used. In practice, interior dimensions will usually just be a guess based on entrance size and appearance, as well as the characteristics of the tree, plus any observations of wildlife use of the cavity. More than a single entrance hole suggests more extensive internal cavity development.

- CAVITY SMALL (1 per opening) Opening 1.5 inches to 3 inches in diameter
- CAVITY LARGE (3 per opening) Opening >3 inches in diameter

<u>Hollow</u>: A large cavity with an entrance or opening greater than 6 inches diameter. Description: Hollows have similar interior dimensions as large cavities and may be used by the same suite of species for cover, however, the larger entrance size of a hollow may not prevent larger predators from entering the hollow.

- HOLLOW MINOR (3) A bole hollow with an opening > than 6 inches diameter and less than 2 feet<sup>2</sup>
- HOLLOW MAJOR (5) A bole hollow with an opening > than 2 feet<sup>2</sup>

<u>Basal hollow</u> (Goose pen/cat faces): A hollow at or near ground level typically created by fire that destroys the cambium on a portion of the bole's circumference. Repeated fires play an important role in maintaining and enlarging basal hollows<sup>1</sup>.

Description: A basal hollow is a hollow that extends into the bole near the buttress. A cavity may have formed above the opening. Basal hollows are used by a large assortment of wildlife.

Page 2 of 8

¹ <u>Fire Cavities: Indicators of Past Fire Regimes in Coast Redwood</u> provides a discussion of the role of fire and basal hollow formation, as well as a Redwood Cavity Index (RCI) classification system.

- BASAL HOLLOW MINOR (1)— cat face or basal burn scar, 2 feet<sup>2</sup> with no opening or cavity (RCI 1 or potentially 2)
- BASAL HOLLOW MEDIUM (3)—basal hollow with an opening > 2 feet<sup>2</sup> and/or with a
  cavity extending > 6 inches above the top of the hollow opening (RCI 2 and
  potentially 3)
- BASAL HOLLOW MAJOR (5)—basal hollow with an opening >4 feet<sup>2</sup> and/or with a
  cavity extending >2 feet above the top of the basal hollow opening (RCI 3, 4, and 5)

<u>Crack</u> (Fissure): A longitudinal gap in the bole of a tree caused either by physical damage (including wind, lighting, or fire) or by growth of two trees or leaders into each other where the gap provides cover for wildlife.

Description: Cracks must be sufficiently deep relative to their width to provide partial cover for foraging birds or complete cover for nesting birds, roosting bats, or small- to medium sized mammals. Longitudinal indentations in which the deepest portions are visible from outside the tree are not considered cracks unless they are capable of providing cover for foraging or roosting small vertebrates.

- CRACK SMALL (0.5 per crack) Crack >2 feet in length, >1 inch deep and >0.5 inch wide
- CRACK MEDIUM (1 per crack) Crack >5 feet in length, >1 inch deep and >0.5 inch wide
- CRACK LARGE (2 per crack) Crack >10 feet in length, >1 inch deep and >0.5 inch wide
- CRACK EXTRA-LARGE (3) Crack >20 feet in length, >4 inch deep and >0.5 inch

Internal decay (Heart rot): Widespread or localized heart rot fungus infection within the bole of a tree. Decayed, softened wood encompasses at least enough volume to allow excavation of a small cavity.

Description: Decayed wood in old scars may be visible at ground level or with binoculars well above the ground. Good indicators of internal decay include fungal fruiting bodies, such as conk, cavity entrances, and sloughing wood and bark. In practice, it may be difficult to discern the extent of internal decay in some cases.

- DECAY MINOR (1) Trees with obvious decay over less than 25% of the bole. May show minimal conk in only a small portion of the bole.
- DECAY MEDIUM (3) Trees with 25% to 75% effected boles. They may show
  evidence of conk over a portion of the bole's length. Increased likelihood to be a cull
  tree.
- DECAY MAJOR (5) Trees with more than 75% effected boles. They may show
  evidence of extensive conk and have sloughing bark or wood. Most likely to be a cull
  tree.

Page 3 of 8

<u>Epicormic branching and structures</u>: Re-sprouting limbs from dormant, damaged, or scarred branch nodes. Often associated with decadent tree
Description: Epicormic branching may be develop ledges and/or platforms at the branching

Description: Epicormic branching may be develop ledges and/or platforms at the branching node/s. These structures may support epiphytic growth and/or provide resting and nesting habitat for various wildlife species.

- EPICORMIC BRANCH MINOR (1) Early epicormic branching 3 branches (or more) < 1 inch in diameter at a single node.</li>
- EPICORMIC BRANCH MEDIUM (2) Developing epicomic branching 3 branches (or more) >1 inch and < 3 inches in diameter at a single node.</li>
- EPICORMIC BRANCH MAJOR (4) Developed epicormic branching with a high
  potential for ledges and/or platforms 3 branches (or more) >3 inches in diameter at
  a single node.

<u>Furrowed bark</u>: A relatively deep linear indentation in the bark of a tree capable of providing cover for roosting bats or foraging bole-gleaners.

Description: Furrowed bark occurs where an underlying defect (crack, old lightning or fire scar, narrow strip of removed cambium) or the line of contact between two trees growing into each other has been covered by bark. The furrow is sufficiently deep and narrow to be capable of providing cover for small vertebrates or colonies of invertebrates.

FURROWED BARK (3)

<u>Loose bark</u>: A discrete, large piece of bark that has separated from the underlying tree bole but remains attached to the tree.

Description: "Loose bark" refers to a portion of a tree's bark that provides cover for roosting bats, nesting birds, or possibly foraging bole gleaners. Typically, such bark pieces provide relatively tight, stable cover for small animals. The distance of separation from the underlying tree should be 2 inches or less and should not be so loose that the bark piece flaps in the wind. As a general rule, loose bark is attached along at least one edge at least 1 foot long. Although some bear-stripped trees may meet the definition of "loose bark", most recently bear-stripped trees have bark that has been pulled away from the bole along most of the strip's edges, flaps against the underlying wood in the wind, and only provides a small amount of cover at one end of the strip. Such recent bear-stripped bark should not be scored as "loose bark".

- LOOSE BARK MINOR (1) Bark segment <3 feet in length</li>
- LOOSE BARK MAJOR (3) Bark segment >3 feet in length

<u>Deformities/Scarring:</u> Basal fire scars and burls resulting from damage to the bole. These deformities may provide ledges, cracks/crevices, or cavities.

SCAR – SMALL (1 each) Scarring or burls up to 2 feet<sup>2</sup> extending out from the >4 inches

Page 4 of 8

- SCAR MEDIUM (2 each) Scarring or burl up to 4 feet<sup>2</sup> extending out from the bole >6 inches
- SCAR LARGE (4 each) Scarring or burl > 4 feet<sup>2</sup> extending out of the bole > 6 inches

### CROWN FEATURES

<u>Epiphytic growth:</u> Fern, Mistletoe (Witch's broom), moss, lichen, other growth supported within on limbs, forks, and nodes within the canopy. A compact spray of branches infected with mistletoe

Description: A tree should be scored for mistletoe broom if the structure is large and solid enough to provide an opportunity for resting or nesting of vertebrate wildlife, or if smaller brooms occur in multiple locations within the tree.

- EPIPHYTE MINOR (0.5 each patch) Epiphytes/Fems/Mistletoe present in lesser amounts (patch size is < 16 inches² (4 inch by 4 inch area) on larger limbs, deformities, broken top/s, branch nodes or within the canopy structure.
- EPIPHYTE MAJOR (2 each patch) Epiphytes/Ferns/Mistletoe or other growth present in patch size of > 16 inches<sup>2</sup> (4 inch by 4 inch area) on larger limbs, deformities, broken top/s, branch nodes or within the canopy structure.

### Complex Crown

Dead top (Spike): A dead tree leader.

Description: "Dead top" refers to dead leaders that are evidenced by leaf die-back along at least the top one-fifth of the tree height or with a minimum diameter at the lowest extent of leaf die-back of about 12 inches.

DEADTOP (5)

Broken top: A tree with the original leader broken off.

Description: "Broken top" refers to broken-topped trees with a minimum diameter at the original break of about 12 inches.

BROKEN TOP (5)

Reiteration (Reiterated top, Bayonet, "Schoolmarm", Candelabra): A sprouted leader or limb that exhibits apical dominance.

Description: Reiterations vary greatly depending on relative age and position on tree. All reiterations include some vertical growth that gives them the appearance of a "tree-on-a-tree". Reiteration can provide opportunities for resting, denning, or nesting, and may support epiphytes.

REITERATION SMALL (2 each) Reiterative limbs < 6 inches in diameter</li>

Page 5 of 8

- REITERATION MEDIUM (3 each) Reiterative limbs >6 inches and <12 inches in diameter
- REITERATION LARGE (5 each) Reiterative limbs > 12 inches in diameter

Forked top: A split in a tree's leader.

Description: A tree should be scored for a forked top if the structure provides an opportunity for resting or nesting for vertebrate wildlife, or if defect associated with the fork suggests that other structures may be present (such as internal rot or cavity).

FORKED TOP (3)

<u>Large limb</u> (Platform limb): A relatively horizontal limb of sufficient girth for vertebrate wildlife to use the structure for resting or nesting (but not including bird perches).

- LARGE LIMB MINOR (0.5 each) Limb/s with a diameter >6 inches
- LARGE LIMB MEDIUM (2 each) Limbs with a diameter >8 inches
- LARGE LIMB MAJOR (5 each) Limbs with a diameter >12 inches

Intermingled limbs with HIGH VALUE WILDLIFE TREE: Trees with limbs intermingled with HIGH VALUE WILDLIFE trees and/or residuals provide cover (screening) and can maintain microclimates favorable to wildlife such as daytime shading and/or wind shielding or cover from precipitation.

- INTERMINGLED LIMBS MINOR (1) Tree that intermingles less than 1/3 of the HIGH WILDLIFE TREE canopy radius.
- INTERMINGLED LIMBS MAJOR (5) Tree that intermingles greater than 1/3 of the HIGH WILDLIFE TREE canopy radius.

### ACTIVELY USED WILDLIFE TREES

<u>Trees associated to raptor nesting and/or Sonoma red tree vole:</u> A tree used by nesting raptors or that has Sonoma red tree vole, including perch and/or screen trees.

NEST TREE (5) Tree containing the nest of raptor or Sonoma red tree vole, or tree
providing screening or associated raptor perch tree.

### <u>Granaries</u>

- GRANARY SMALL (3) Tree with less than 100 holes that are either filled with acorns
  or capable of containing acorns.
- GRANARY LARGE (5) Tree with 100 or more holes that are either filled with acorns or capable of containing acorns.

Page 6 of 8

## Wildlife Tree Retention Strategy WILDIFE TREE SCORECARD – Side A

WILDIFE TREE SCORECARD - Side A																
			Score	/Value				Tree Tally								
Feature/ Struc	ture	Category	0.5	1	2	3	4	5		Tree 1	Tree 2	Tree 3	Tree 4	Tree 5	Tree 6	Tree 7
	Country	Small		1												
	Cavity	Large				3										
	Hollow	Minor				3										
	Hollow	Major						5								
jing.		Minor		1												
Bole opening	Basal Hollow	Medium				3										
Bole		Major						5								
		Small	0.5													
	Crack	Medium		1												
	Clack	Large			2											
		Extra-large				3										
		Minor		1												
Evidence of D	Evidence of Decay					3										
								5								
		Minor		1												
Epicomic Bran	ching	Medium			2											
		Major					4									
Deep	furrowed b	oark				3										
Lease Bed	L.	Minor		1												
Loose Ban	Loose Bark					3										
	Scarring/deformities			1												
Scarring/deform					2											
							4									
Eninhi tia Con	Epiphytic Growth Majo		0.5													
Epipnytic Gro					2											
С	Dead Top							5								
Bi	Broken Top							5								
Side A	Side A (bole feature) total To be add			B for total	wildlife t	ree score										
									Įι			ь—		-		ь—

Page 7 of 8

### Wildlife Tree Retention Strategy WILDLIFE TREE SCORECARD - Side B

WILDLIFE TREE SCORECARD - Side B															
				Score	/Value		Tree Talley								
Feature/ Structure	Category	0.5	1	2	3	4	5		Tree 1	Tree 2	Tree 3	Tree 4	Tree 5	Tree 6	Tree 7
Limb Reiteration	Small			2											
	Medium				3										
	Major						5								
Split bole/forked	itop				3										
	Minor	0.5													
Large Limb	Medium			2											
	Major						5								
Interming ling limbs with HIGH VALUE WILDLIFE TREE	< 1/3 canopy radius		1												
	>1/3 canopy radius						5								
Raptor/tree vole nest trees							5								
Granary	small				3										
	large						5		·						
Side B (Canopy feature) total															
TOTAL WILDLIFE TREE SCORE/S (Side A + Side B)															

Trees with a score equal to/or greater than 5 are HIGH VALUE WILDLIFE trees and shall be retained.

If there are less than 6 HIGH VALUE WILDLIFE trees per acre in the area under the planned NTO, the 6 highest scoring trees per acre shall be retained.

Note: Trees not meeting the minimum retention score but exhibiting high potential defect (standing slash) or high harvesting costs so as to negate their value should also be considered as prime candidates for meeting green tree retention guidelines if high-scoring trees are not available