Safe Harbor Agreement
for the
Northern Spotted Owl

between

Roseburg Resources Company,
Oxbow Timber I, LLC,
and
The U.S. Fish and Wildlife Service

in the Oregon Coast Ranges Study Area
of the Barred Owl Removal Experiment

January 2016

1 INTRODUCTION

The U.S. Fish and Wildlife Service (USFWS) is conducting a Barred Owl Removal Experiment to test benefits to the threatened northern spotted owl (spotted owl) by implementing Recovery Action 29 of the 2011 Revised Recovery Plan for the Northern Spotted Owl (USFWS 2011). The experiment will be conducted on two study areas in Oregon, one in the Oregon Coast Ranges west of Eugene, Oregon, and one in the forest lands around Canyonville, Oregon. While the experiment is focused on Federal lands, the study area contain significant interspersed private land including lands owned by Roseburg Resources Company (RRC) and Oxbow Timber I, LLC (Oxbow). Through this Safe Harbor Agreement, RRC and Oxbow will contribute to the implementation of the experiment on the Oregon Coast Ranges Study Area (Study Area) allowing the researchers legal access to and through RRC and Oxbow lands in the Study Area for both barred owl survey and subsequent removal work, in accordance with the provisions of the Road Access Licenses (Appendix 1). This information and access is crucial to efficient and effective implementation of this experiment. Information from this experiment is critical to the development of a long-term management strategy to address the barred owl threat to the spotted owl.

1.1 Background on the barred owl effect on spotted owls

Because the Safe Harbor Agreement is specific to the implementation of the Barred Owl Removal Experiment, understanding the approach to and value of the experiment is important to understanding the conservation value of the agreement.

The USFWS noted in their Final Environmental Impact Statement (FEIS) for the experiment that spotted owl populations have been declining for many years, particularly in the northern part of their range (USFWS 2013a, p. 325). Spotted owl populations on the Cle Elum Demography Study Area in the Washington Cascades declined 85 percent between 1990 and 2012. In the Oregon Coast Ranges, spotted owl populations fell by 73 percent between 1997 and 2012. Even in southern Oregon, on the Klamath Demography Study Area, spotted owl populations have declined 45 percent from 2002 to 2012. Some of the declines are likely driven by habitat loss, but not all areas experienced significant declines in habitat during these decline timeframes.

Many of these declines appear to correlate with the invasion by, and increase in, barred owls. Barred owls are not native to the Pacific Northwest, arriving from the East sometime after the 1950s. Recent spotted owl population demography analysis show that barred owls have a strong negative effect on spotted owl survival and colonization of new sites on some study areas. (For more information on the background, see USFWS 2013a).

The maintenance and development of spotted owl habitat is important to the long-term conservation of the spotted owl, but habitat management alone will not recover the spotted owl. The effects of barred owl competition may overwhelm habitat management efforts in the short term, and may result in the extirpation of the spotted

owl from large portions of the range. Thus, management of barred owl populations in the Pacific Northwest is crucial to the conservation of the spotted owl.

As early as 2005, scientist, biologists, and managers began exploring options for managing barred owl competition with spotted owls (Buchanan et al. 2007). After several workshops and publications, the option that appears most likely to succeed was the removal of some barred owls in designated areas to increase spotted owl populations (Gutierrez et al. 2007, Johnson et al. 2008). The USFWS identified the need to conduct an experiment to test this option in Recovery Action 29 of the 2011 Revised Recovery Plan for the Northern Spotted Owl.

In September 2013, the USFWS signed the Record of Decision to conduct experimental removal of barred owls to benefit threatened northern spotted owls (USFWS 2013b). The experiment is being conducted on four study areas distributed across the range of the spotted owl, including the Oregon Coast Ranges Study Area where RRC and Oxbow lands are located. The experiment involves dividing each study area into treatment and control areas. Barred owls will be removed from the treatment area and not from the control area. If spotted owl populations respond positively to the removal of barred owls, USFWS anticipates spotted owls will reoccupy historic sites that are currently unoccupied within the treatment area. In this case, spotted owl populations will increase in the treatment area. Spotted and barred owl population trends in the control area are not anticipated to change as a result of the experiment.

To conduct the experiment, researchers will survey the entirety of each study area for barred owls. Barred owls will be removed from the treatment portion of the study area during the non-breeding season (approximately September to March). Ongoing spotted owl surveys conducted under the Northwest Forest Plan Monitoring program will continue. USFWS will use the data from these ongoing efforts to determine the effect that the removal of barred owls has on spotted owls.

RRC and Oxbow lands are intermingled with Federal and other lands on the Oregon Coast Ranges Study Area. While the experiment can be conducted by surveying from public roads and removing barred owls on Federal lands, the results would be stronger and the efficiency would be greatly enhanced by access to RRC and Oxbow lands. In the Oregon Coast Ranges Study Area, the experiment will be greatly enhanced by such access in accordance with the provisions of the Road Access Licenses (Appendix 1) for barred owl surveys, and removal.

1.2 Goals and Objectives

1.2.1 USFWS goals and objectives

The goal of the USFWS is to contribute to the conservation of the threatened northern spotted owl by rapidly implementing experimental research in accordance with Recovery Action 29 of the Recovery Plan (USFWS 2011, p. III-65).

The purpose of the experiment is to implement experimental research necessary for conservation of the spotted owl in accordance with Recovery Action 29 of the Recovery Plan (USFWS 2011, p. 111-65). This action should provide needed information regarding:

- the effects of barred owls on spotted owl vital rates of occupancy, survival, reproduction, and population trend through experimental removal of barred owls;
- the feasibility of removing barred owls from an area and the level of effort required to maintain reduced barred owl population levels for the duration of the experiment;
- the cost of barred owl removal; and
- the evaluation of this technique to contribute to developing future options for potential management of barred owls as expeditiously as possible.

The experiment will gather information essential to the development of a barred owl management strategy, thereby assisting the USFWS in implementing Recovery Action 30: Manage to reduce the negative effects of barred owls on spotted owls so that Recovery Criterion 1, a stable or increasing northern spotted owl population trend over 10 years, can be met.

1.2.2 RRC and Oxbow goals and objectives

The goal of both RRC and Oxbow is to manage their timberlands for timber production providing economic, community and stewardship values on a long term sustained yield basis while meeting State and Federal regulatory requirements. The RRC and Oxbow lands within the Study Area are an important part of each company's overall operating plans from both a short term and long term perspective.

RRC and Oxbow recognize the Barred Owl Removal Experiment is recommended within the Revised Recovery Plan with the work plan funded and scheduled. RRC's and Oxbow's ownership footprint and operational considerations within the Study Area requires cooperation.

RRC and Oxbow are anticipating:

- Significant changes and fluctuations regarding spotted owl occupancy status of well surveyed sites and areas on or near RRC and Oxbow lands in the treatment area after barred owl removal occurs.
- Potential short term regulatory impacts to operation plans after barred owl removal in the treatment area occurs.

The purpose of RRC and Oxbow participation is to demonstrate good faith cooperation with USFWS regarding this recovery action while being held harmless and, to the maximum extent allowable under the Endangered Species Act, ensuring that adjacent landowners are held harmless, by maintaining a reasonable level of certainty regarding the anticipated biological response and subsequent regulatory requirements impacting

both forest operations and management during and after the experiment period.

1.3 Contents of this Safe Harbor Agreement

This Safe Harbor Agreement submitted in support of an Enhancement of Survival Permit (Permit) will include information about the following:

- Conservation measures, including baseline for the spotted owl within the Safe Harbor Agreement covered lands and actions that would be undertaken by RRC and Oxbow to support the Barred Owl Removal Experiment;
- Contribution to recovery of the northern spotted owl;
- Net conservation benefits;
- Assessment of incidental take during the term of the Safe Harbor;
- Monitoring and reporting requirements;
- Responsibilities of RRC, Oxbow, and USFWS;
- Landowner assurances;
- Duration of the permit;
- Process for land additions, amendments, dispute resolution, and permit termination, transfer, and renewal; and
- Consistency of the Safe Harbor Agreement with applicable Federal, State, and county laws and regulations.

2 AUTHORITY AND PURPOSE

2.1 Regulatory Environment

2.1.1 Federal - Sections 2, 7, and 10 of the Endangered Species Act of 1973, as amended, allow the USFWS to enter into this Safe Harbor Agreement. Section 2 of the Endangered Species Act states that encouraging interested parties to develop and maintain conservation programs, through Federal financial assistance and a system of incentives, is a key to safeguarding the nation's heritage in fish, wildlife, and plants. Section 7 of the Endangered Species Act requires the USFWS to review programs that it administers and to use such programs to further the purposes of the Endangered Species Act. By entering into this Safe Harbor Agreement, the USFWS will use its programs to promote such conservation. Section 10(a)(1)(A) of the Endangered Species Act authorizes the USFWS to issue enhancement of survival permits for listed species. This Safe Harbor Agreement is entered into pursuant to the Final Safe Harbor Policy (U.S. Department of the Interior and U.S. Department of Commerce 1999), Final Rule (U.S. Department of the Interior 1999), and Revisions to the Regulations for Safe Harbor Agreements and Candidate Conservation Agreements With Assurances (U.S. Department of the Interior 2004), and implements the intent of the Applicants and the USFWS to follow the procedural and substantive requirements of section 10(a)(1)(A) of the Endangered Species Act.

The purpose of this Safe Harbor Agreement is for USFWS to provide assurances to RRC and Oxbow that, in allowing the USFWS to remove barred owls from RRC and

Oxbow lands as part of the Barred Owl Removal Experiment, RRC or Oxbow will not be encumbered with additional regulatory requirements that may affect the management of their lands, beyond the current baseline condition, if spotted owls reoccupy currently unoccupied sites. By permitting the USFWS and its contractors/agents to survey for and remove barred owls from RRC and Oxbow lands within the Oregon Coast Ranges Study Area, RRC and Oxbow will contribute greatly to the strength and quality of data from this experiment. The information from this experiment is crucial for the development of a barred owl management strategy to support the conservation of northern spotted owls. RRC and Oxbow will receive a permit that authorizes incidental take of any spotted owls that reoccupy currently unoccupied sites as a result of the removal of barred owls under the experiment.

2.1.2 State of Oregon - In Oregon, the Forest Practices Act (ORS 527.610) identifies forest practices as any operation conducted on or pertaining to forestland, including but not limited to: (a) reforestation of forestland; (b) road construction and maintenance; (c) harvesting of forest tree species; (d) application of chemicals; (e) disposal of slash; and (f) removal of woody biomass. The rules specifically state that compliance with the forest practices rules does not substitute for or ensure compliance with the Endangered Species Act and nothing in the rules imposes any state requirement to comply with the Endangered Species Act. Landowners and operators are advised that Federal law prohibit a person from taking certain threatened or endangered species, which are protected under the Endangered Species Act.

Forest management operations must submit to the State Forester a written plan as required by ORS 527.670(3) before conducting any operations requiring notification under OAR 629-605-0140, including those operations within (1) 300 feet of a specific site involving threatened or endangered wildlife species, or sensitive bird nesting, roosting, or watering sites; or (2) 300 feet of any resource site identified in OAR 629-665-0100 (Sensitive Bird Nesting, Roosting and Watering Resource Sites on Forest lands), 629-665-0200 (Threatened and Endangered Species that use Resource Sites on Forest lands), or 629-645-0000 (Significant Wetlands), or (3) 300 feet of any nesting or roosting site of threatened or endangered species listed by the USFWS or by the Oregon Fish and Wildlife Commission by administrative rule. Written plans required under OAR 629-605-0170 must contain a description of how the operation is planned to be conducted in sufficient detail to allow the State Forester to evaluate and comment on the likelihood that the operation will comply with the Forest Practices Act or administrative rules.

Landowners that enroll in a Safe Harbor Agreement for barred owl control will receive regulatory assurances under the Forest Practices Act under OAR 629-665-0210(5). This rule states "Exceptions to the requirements for protecting northern spotted owl nesting sites are allowed if the operator is in compliance with, and has on file with the State Forester, an applicable incidental take permit issued by Federal authorities under the Endangered Act." In other words, if a spotted owl establishes a territory on or near the enrollee's property during the term of the Safe Harbor Agreement, OAR 629-665-

0210(5) will apply and Forest Practices Act regulations will not be required for nearby operations during the term of the Agreement.

3 BACKGROUND

3.1 Description of Covered Area

This section describes the lands and species covered under the agreement and the species baseline conditions of RRC and Oxbow lands.

3.1.1 General Area

Oregon Coast Ranges Study Area: The Oregon Coast Ranges Study Area is located along the western coast of Oregon, west of Eugene and south of Highway 20 in Lincoln, Benton, Douglas, and Lane Counties (Map 1). The study area includes a total of 418,000 acres. Barred owl removal would occur on approximately 150,000 acres of the total study area. This area is one of the eight long-term ongoing spotted owl demography study areas selected as part of Northwest Forest Plan Effectiveness Monitoring Program.

The area consists of a mixture of Federal, State, and privately owned lands. The Siuslaw National Forest and the Salem and Eugene Districts of the Bureau of Land Management (BLM) administer approximately 67 percent of the study area. Oregon Department of Forestry includes 5 percent of the study area. RRC and Oxbow own or manage 3 percent of the study area. The remaining 25 percent of the study area is in private ownership.

The treatment portion of the study area includes lands managed by the Siuslaw National Forest and the Salem and Eugene Districts of the BLM, Oregon Department of Forestry, RRC, and other private landowners. Federal lands represent 57 percent of the treatment area, State lands 12 percent of the treatment area, RRC and Oxbow 6 percent of the treatment area, and other private lands 23 percent of the treatment area.

3.1.2 Covered Area

Oxbow owns approximately 9,000 acres of forest lands within the treatment portion of the Oregon Coast Ranges Study Area in Lane County, Oregon (Map 1). RRC manages these lands for Oxbow. All Oxbow lands within the sections listed in Table 1, column 3 are covered in this Safe Harbor Agreement.

RRC owns approximately 400 acres of forest lands within the treatment portion of the Oregon Coast Ranges Study Area in Lane County, Oregon (Map 1). Lands within the sections listed in Table 1, column 4 are covered in this Safe Harbor Agreement.

Map 1. Land ownership for Oregon Coast Ranges Study Area, including treatment and control areas, with RRC and Oxbow lands identified.

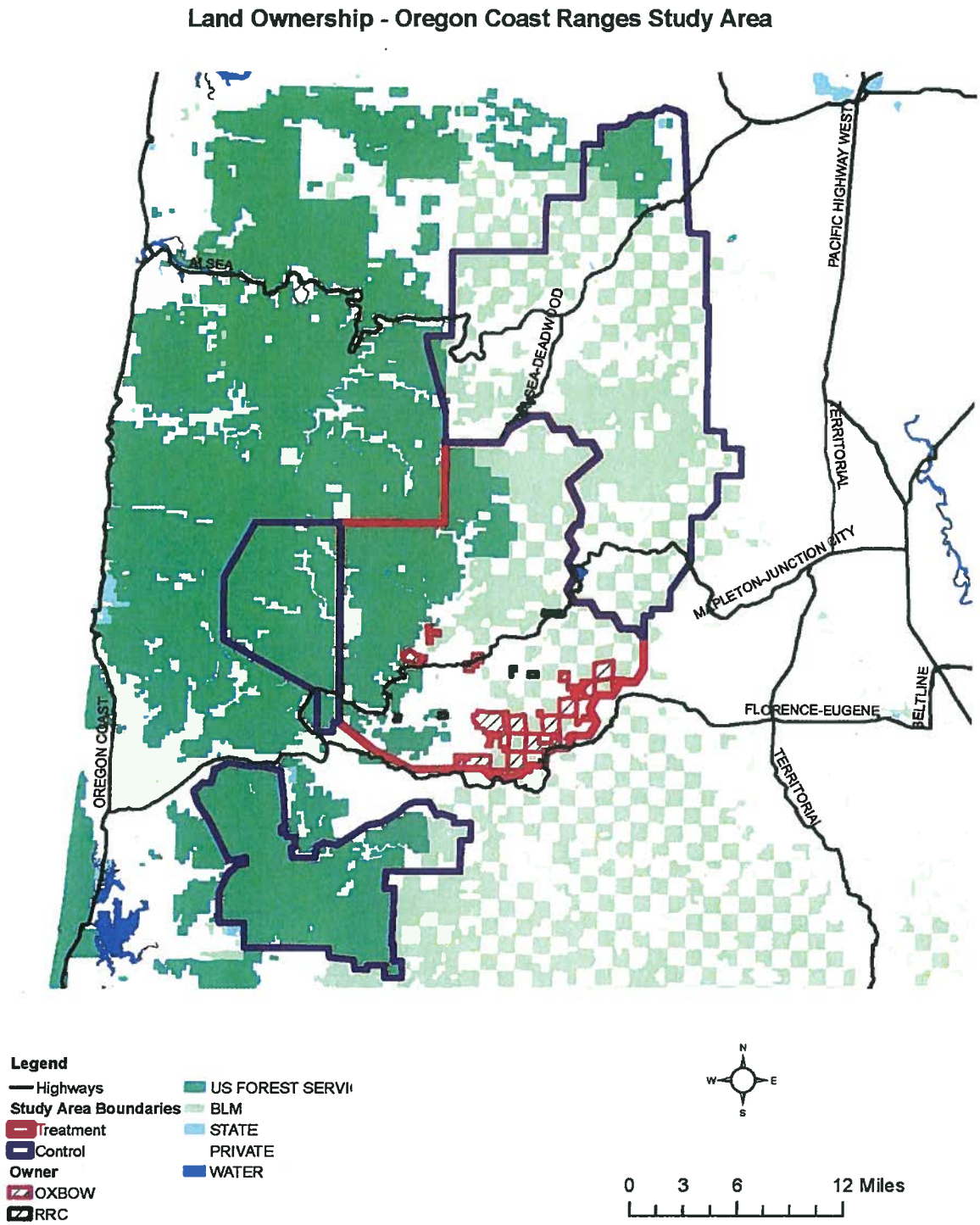


Table 1. Sections within the treatment portion of the Oregon Coast Ranges Study Area where RRC and Oxbow own and manage lands and sections where RRC and Oxbow have easements and agreements allowing access and operational activities. These represent the covered areas for the safe harbor agreement.

Location				
Township	Range	Sections with Oxbow Ownership	Sections with RRC ownership	Section with potential operational activities for RRC and Oxbow
16S	7W	None	None	32, 33
16S	8W	None	36	4-10, 15-20, 25-34
16S	9W	None	None	13, 14, 22-28, 33-36
17S	7W	16, 18, 19, 20, 22, 28, 30, 32	None	3-5, 8-10, 15, 17, 21, 27, 29, 31
17S	8W	8, 17, 18, 26, 28, 29, 32-34, 36	14, 15	2-7, 9, 10, 13, 16, 19-25, 27, 30, 31, 35
17S	9W	2, 9, 10, 11, 14, 15	33, 36	1, 3-8, 12, 13, 16, 17, 20-32, 34, 35
18S	7W	6	None	5
18S	8W	1, 2, 4, 5, 7, 8, 10, 15-17	None	3, 5, 9, 11
18S	9W	None	None	1-3, 10-12

In addition to the covered lands, RRC and Oxbow hold easements and agreements that allow them to access the covered lands for timber haul and management. These easements and agreements allow for a variety of activities, including but not limited to road use, road construction, road maintenance and the normal management activities associated with managing private forestland for timber production such as planting, spraying, fertilizing, monitoring, measuring patrolling and fighting wildfire. These activities could, depending on the specific circumstances, result in the disturbance of nesting spotted owls or the loss of some spotted owl habitat. Activities under existing agreements, easements, or other conveyances of rights, to access and manage lands covered under this safe harbor agreement are covered on lands listed in Table 1, column 5.

3.1.2 Adjacent Landowners

In the treatment portion of the Oregon Coast Ranges Study Area, RRC and Oxbow lands are intermingled with Federal lands managed by the U.S. Forest Service and the BLM, Oregon Department of Forestry lands, various timber companies and small landowner-owned properties (Map 2). BLM and State lands are immediately adjacent to many of these lands in the treatment area.

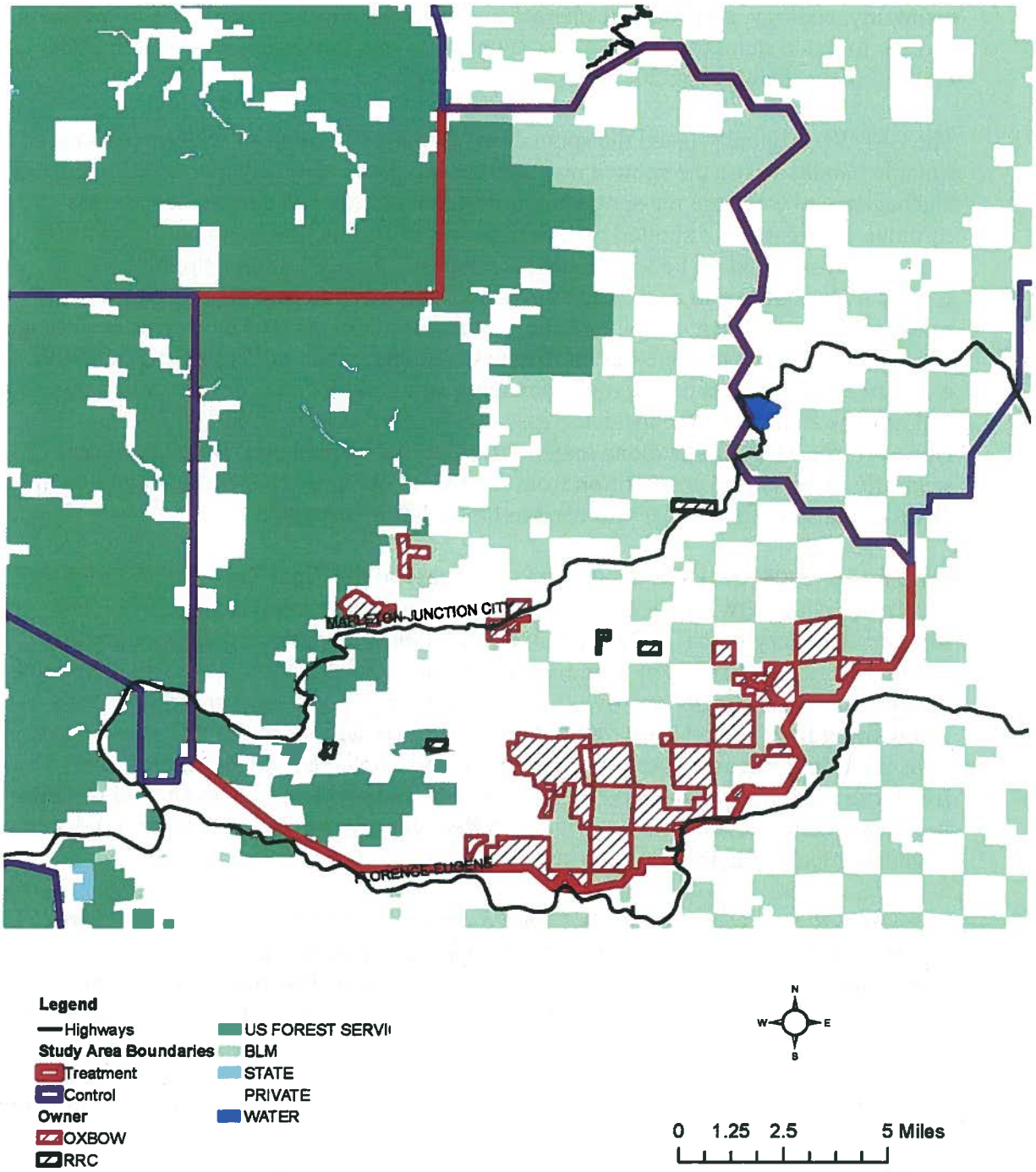
Flexible regulatory assurances for non-participating neighboring landowners could contribute to increased enrollment by other landowners and ultimately increased conservation for the northern spotted owl by helping to maintain good relations with neighbors and by demonstrating that northern spotted owl recruitment during this study will not significantly limit land use, except as agreed by cooperating landowners. For this reason, USFWS will, to the maximum extent allowable under the Endangered Species Act, implementing regulations and Final Safe Harbor Policy, extend incidental take coverage to non-participating landowners should northern spotted owls reoccupy non-baseline sites that affect their ownership as a result of the conservation efforts made pursuant to this Safe Harbor Agreement.

If the RRC/Oxbow Safe Harbor Agreement results in the reoccupany of non-baseline spotted owl sites that affect neighboring private landowners not covered by a Safe Harbor Agreement or Habitat Conservation Plan, the USFWS will use the flexibility allowed under the Act in addressing neighboring properties under Safe Harbor Agreements and associated take authorizations (USFWS 1999). The implications to neighboring landowners and any actions or conditions needed to meet the requirements of the Endangered Species Act for neighboring lands not enrolled under this agreement will be determined on a case-by-case-basis at the time of a voluntary request for coverage. To receive incidental take authorization, neighboring landowners would only be required to agree to such conditions as would be necessary to ensure that the Agreement meets the requirements for issuance of such permits contained in the Endangered Species Act, implementing regulations and Final Safe Harbor Policy. Neighboring landowners would be required to sign an agreement that would define the baseline condition and any necessary conditions in order to receive take authorization.

For this Safe Harbor Agreement, we define neighboring properties as private lands within the spotted owl site Thiessen polygons in which RRC or Oxbow own lands (Table 3). These are the areas where RRC and Oxbow grant of access to conduct barred owl surveys and remove barred owls for the Barred Owl Removal Experiment may contribute to the temporary reoccupancy of the area by spotted owls, and where landowners of neighboring lands containing spotted owl habitat may be affected by the change in spotted owl occupancy. Based on the conditions in the Oregon Coast Ranges Study Area treatment area and location of private lands within the Thiessen polygons, the USFWS anticipates that any actions or conditions needed to meet the requirements of the Endangered Species Act for neighboring landowners could include some or all of the responsibilities listed in Section 5.1, but would not be anticipated to exceed these responsibilities. The level of contribution necessary to meet the requirements of the Endangered Species Act would be determined on a case by case basis, taking into consideration the existing contributions of RRC and Oxbow under this Safe Harbor Agreement.

Map 2. Ownership within the treatment portion of the Oregon Coast Ranges Study Area.

Land Ownership - Oregon Coast Ranges Study Area
Treatment Area



3.2 Covered Species

3.2.1 Northern Spotted Owl

Status – The northern spotted owl was federally-listed as threatened under the Endangered Species Act on June 26, 1990 (USFWS 1990a). Detailed accounts of the taxonomy, ecology, reproductive characteristics, and status and trends of the spotted owl are found in numerous Federal documents (Courtney et al. 2004, USFWS 2008, USFWS 2011, Davis et al. 2011).

The USFWS originally listed the spotted owl primarily because of widespread loss of suitable habitat across the spotted owl's range and the inadequacy of existing regulatory mechanisms to conserve the spotted owl. Past habitat loss and current habitat loss continue to threaten the spotted owl, though loss of habitat due to timber harvest has been greatly reduced on Federal lands for the past 2 decades. Some populations of spotted owls continue to decline even with extensive maintenance and restoration of suitable habitat in recent years, especially in the northern parts of the subspecies' range. The spotted owl has become rare in British Columbia, much of Washington, and the northern coastal ranges of Oregon. Managing sufficient habitat for the spotted owl now and into the future is still considered essential for its recovery (USFWS 2011). However, securing habitat alone may not recover the spotted owl. Based on recent scientific information, competition from the barred owl poses a significant and complex threat to the spotted owl that will need to be further investigated.

On May 16, 2008, the FWS announced the release of the Final Recovery Plan for the Northern Spotted Owl (USFWS 2008, entire). The Plan was revised in 2011. The Revised Recovery Plan (USFWS 2011, entire) identified past habitat loss, current habitat loss, and competition from the recently arrived barred owl as the most pressing threats to the northern spotted owl (USFWS 2011, p. I-6.). Concern for the effects of competition from barred owls resulted in 10 recovery actions in the Revised Recovery Plan, including Recovery Action 29 – Design and implement large-scale control [removal] experiments to assess the effects of barred owl removal on spotted owl site occupancy, reproduction, and survival and Recovery Action 30 – Manage to reduce the negative effects of barred owls on spotted owls.

The Revised Recovery Plan states, "Barred owls reportedly have reduced spotted owl site occupancy, reproduction, and survival. Limited experimental evidence, correlational studies, and copious anecdotal information all strongly suggest barred owls compete with spotted owls for nesting sites, roosting sites, and food, and possibly predate spotted owls.... Because the abundance of barred owls continues to increase, the effectiveness in addressing this threat depends on action as soon as possible" (USFWS 2011, p. III-62). Given the continuing range expansion and population growth of barred owl populations in the western United States and concurrent decline in northern spotted owl populations, information on the effectiveness of a removal program is urgently needed.

Recovery Action 29 focuses on acquiring the information necessary to help identify potential effective management approaches and contribute to future decisions on the implementation of appropriate management strategies for barred owls. It proposes experimental removal of barred owls on a scale sufficient to determine if the removal would increase spotted owl site occupancy and improve population trends (USFWS 2011, pp. III-62, III-65) , which in turn would contribute toward recovery of the species. Results from these experiments would be used to inform future decisions on potential long-term management strategies for barred owls.

Ecology – The current range of the spotted owl extends from southwest British Columbia through the Cascade Mountains, coastal ranges, and intervening forested lands in Washington, Oregon, and California, as far south as Marin County (USDI FWS 1990a, p. 26115). Northern spotted owls generally rely on structurally complex forest habitats because they contain the structures and characteristics required for nesting, roosting, foraging, and dispersal. These characteristics include the following: (1) a multi-layered, multi-species canopy dominated by large overstory trees; (2) moderate to high canopy closure; (3) a high incidence of trees with large cavities and other types of deformities; (4) numerous large snags; (5) an abundance of large, dead wood on the ground; and (6) open space within and below the upper canopy for flight (Thomas et al. 1990; USFWS 1990b).

3.3 Current Conditions

3.3.1 Northern Spotted Owl

Spotted owl population dynamics

Spotted owl populations have been monitored at eight long-term study areas on Federal lands in Washington, Oregon, and California and additional study areas on State, private, and Tribal lands during the same period. These studies were initiated between 1985 and 1991 (Lint et al. 1999, entire), and have continued through the present. Data from these areas have been analyzed and region wide analyses have been conducted approximately every 5 years with the most recent completed in 2014 (Dugger et al. 2016).

The 2014 analysis indicated that since monitoring began in the early 1990s, spotted owl populations declined 55-77 percent in Washington, 31-68 percent in Oregon and 32-55 percent in California (Dugger et al. 2016). In addition, population declines are currently occurring on study areas in southern Oregon and northern California that were previously experiencing little to no detectable decline through 2009 (Forsman et al. 2011). For the meta-analysis of all 11 areas combined, the analysis showed a 3.8 percent average annual decline during the 20 plus year time period, which is an increased rate of decline (3.8% vs. 2.9%) from previous meta-analysis conducted in 2009 (Forsman et al. 2011).

In 2014, an occupancy analysis was added to the demographic analyses. Over the

period from 1993-2013, modeled occupancy estimates showed 44 to 74 percent, 22 to 47 percent and 32 to 37 percent declines in spotted owl occupancy in Washington, Oregon and California, respectively (Dugger et al. 2016). As demonstrated in the individual study area annual reports, the empirical occupancy rates across individual territories have been in decline for years on most of the areas throughout the range of the northern spotted owl. Factors likely influencing occupancy included competition with barred owls and/or the interactive effects of barred owls and habitat loss on a spotted owl territory (Dugger et al. 2016).

Threats

The northern spotted owl was listed as a threatened species under the Endangered Species Act in June of 1990, primarily due to the widespread habitat loss throughout the subspecies' range. Since 1990, conservation efforts have focused primarily on securing forest habitat with characteristics essential for the spotted owl's survival.

In the initial listing, competition from the barred owl was identified as a potential threat, though the level of this threat was unknown. By 2004, scientists involved in the status review for the 5-year review of the spotted owl noted that the understanding of this [barred owl] threat has improved, raising it from an issue of concern to a primary threat of greater imminence. Scientists were convinced that Barred Owls are having a negative impact on Spotted Owls at least in some areas (Gutiérrez et al. 2004:7-43).

The 2008 Northern Spotted Owl Recovery Plan identified two predominant threats: increasing competition from barred owls, and habitat loss from timber harvest and fire. The 2011 Revised Recovery Plan confirmed barred owl competition as a predominant threat and noted that barred owls pose perhaps the most significant short-term threat to spotted owl recovery. (USFWS 2011 p. II-4)

4 CONSERVATION AGREEMENT

4.1 Conservation Measures

4.1.1 Baseline

For the purposes of this Safe Harbor Agreement, the baseline condition is defined as habitat that is supporting current resident spotted owls prior to any barred owl removal actions based on annual spotted owl surveys and forest stand/habitat information according to the following process. Thanks to continued monitoring of spotted owls on RRC and Oxbow lands as part of the ongoing spotted owl surveys conducted under the Northwest Forest Plan Monitoring program, we have strong annual survey data for most of the area that may be included in the Safe Harbor Agreement, and can establish a baseline based on the estimated occupancy status of each spotted owl site.

Approach to defining baseline: All protocol surveys to date include at least two years

of survey data to make a firm determination of current spotted owl presence. Multiple years of data are even more important now as the spotted owl's response to the presence of barred owls may have reduced their propensity to respond to call surveys further. Therefore, for the purposes of this Safe Harbor Agreement, spotted owl sites on which annual surveys detected the presence of at least one resident spotted owl over the last three year period from 2013 through 2015 will be considered to support current spotted owls in the Coast Range Study Area.

Both currently occupied and historic spotted owl territories are delineated by Thiessen polygons. We used these territories to define spotted owl sites. To delineate the Thiessen polygons, biologists defined annual site centers (i.e. the most biologically important location from each year based on the following hierarchical ranking: 1) active nest, 2) fledged young, 3) primary roost location, 4) diurnal location, and 5) nocturnal detection) for each site. They used the Euclidean Allocation Distance tool in ArcGIS (ESRI 2011) to delineate a Thiessen polygon around all the annual center locations for each territory. Thus, the Thiessen polygon represents the cumulative area of use by a single or pair of spotted owls during the survey period (March to August). The Thiessen polygon encompasses all the annual territory center locations, and extends outward to a maximum of one half the median nearest neighbor distance, or midway between the annual territory center locations of spotted owls occupying adjacent territories, whichever distance is shorter.

For RRC and Oxbow lands that lie outside of any Thiessen polygon, we examined habitat maps and forest inventory information, as well as general survey information, to determine if the area might be capable of supporting an undetected resident spotted owl.

Baseline: We analyzed data for all spotted owl sites on the treatment portion of the Oregon Coast Ranges Study Area. The determination of baseline status for the site applies to all areas with the Thiessen polygon for that site. Spotted owl sites listed in Table 2 are baseline sites for the RRC and Oxbow Safe Harbor Agreement. These sites all have a response from at least one resident spotted owl between 2013 and 2015.

Table 2. Baseline spotted owl sites for the RRC and Oxbow Safe Harbor Agreement.

BASELINE SPOTTED OWL SITES	
Master Site #	**Spotted Owl Site Name**
0812	Barber Creek
0762	Failor Creek
0160	Miller Creek
3553	Raleigh Creek
2721	Rock Creek
2723	San Antone Creek
4474	Upper McVey Creek
0159	Walker Creek West
4559	West Fork Deadwood

Spotted owl sites on Tables 3 and 4 have been well surveyed, and have not had any resident spotted owls found between 2013 and 2015. These sites would not be in the baseline for this safe harbor agreement.

Table 3. Spotted owl sites that are not baseline sites, in which RRC or Oxbow owned lands.

NON-BASELINE SPOTTED OWL SITES		
Master Site #	**Spotted Owl Site Name**	**Last Year With Resident Spotted Owl Response**
0526	Boyle Creek	2012
0779	Brush Creek	2008
2545	Chickahominy Creek	2010
4491	Chicken Creek	2010
0524	Elk Mountain	2011
2549	January Creek	2012
2546	Knapp Creek	2008
4088	McVey Creek	2012
0519	Meadow Creek	2011
3554	Nelson Creek	2003
4600	North San Antone	2008
3362	Pat Creek	2007
2722	Wheeler Creek	2011

Table 4. Spotted owl sites that are not baseline sites, in which RRC or Oxbow has easements and agreements.

NON-BASELINE SPOTTED OWL SITES		
Master Site #	**Spotted Owl Site Name**	**Last Year With Resident Spotted Owl Response**
2637	Buck Creek	2008
3251	Lake Creek	2010
3126	Lower Deadwood	2009
2313	Lower Greenleaf	2010
4686	Upper Hula	2006
0764	Velvet Creek	2008

We analyzed data for RRC and Oxbow lands outside of any Thiessen polygon on the treatment portion of the Oregon Coast Ranges Study Area. All of the RRC and Oxbow lands outside of the Thiessen polygons on the Study Area are not likely to support undetected resident spotted owls and are not part of the baseline (Table 5).

Table 5. List of lands outside of Thiessen polygons that USFWS has determined are not likely to support current spotted owls, and that are therefore, not considered baseline for the RRC and Oxbow Safe Harbor Agreement. This applies to all lands outside of Thiessen polygons in the following sections.

Location		
Township	Range	Sections
16S	8W	36
17S	7W	19, 20, 22, 28, 30
17S	8W	14, 28, 29, 32, 34, 36
17S	9W	2, 9, 10
18S	7W	6
18S	8W	1,2,7,8,10, 16, 17
18S	9W	24

4.1.2 RRC/Oxbow Contributions

To support the Barred Owl Removal Experiment, RRC and Oxbow will:

- Provide access (gate keys) and permission for USGS and USFWS biologists to access RRC and Oxbow lands to survey barred owls throughout the Study Area, in accordance with the provisions of the Road Access Licenses (Appendix 1). Surveys are conducted using digital callers from vehicles along improved roads or by walking unimproved, blocked, or decommissioned roads. Surveys for barred owls do not change the baseline condition of spotted owls and do not change any current limitations on RRC management as a result of spotted owl presence.

- Provide access to RRC and Oxbow roads and permission for USGS and USFWS biologists to remove barred owls located on RRC and Oxbow lands within the treatment portion of the Study Area, in accordance with the provisions of the Road Access Licenses (Appendix 1) (Map 2).

- Provide permission for USGS and USFWS biologists to use roads owned or managed by RRC and Oxbow to access sites for the removal of barred owls located on Federal lands, and any other lands for which USFWS has landowner permission to remove barred owls within the treatment area of the experiment.

- Maintain habitat in the nest stand to support nesting spotted owls that may reoccupy non-baseline sites during the nesting and rearing season (March 1 to September 30 of the year). The intent is to allow spotted owls that initiate nesting to complete nesting and fledge young. Actual habitat to be maintained will be determined in good faith by mutual agreement of the USFWS and RRC or Oxbow. At any time that biologists determine the pair is no longer nesting, this seasonal restriction would no longer be in effect. Determination of nesting failure will follow the described in Appendix 2.

4.2 Contribution to Recovery

The 2011 Revised Recovery Plan for the Northern Spotted Owl identified competition from barred owls as one of the primary threats to northern spotted owl. In the Recovery Plan, 10 of the 33 recovery actions address the barred owl threat, including Recovery Action 29 concerning a barred owl removal experiment.

> <u>Recovery Action 29</u>: Design and implement large-scale control experiments to assess the effects of barred owl removal on spotted owl site occupancy, reproduction, and survival.
>
> We [USFWS] believe removal of barred owls would provide benefits to spotted owls in the vicinity of the removal and may have larger population effects. Given the rapidity and severity of the increasing threat from barred owls, barred

> owl removal should be initiated as soon as possible in the form of well-designed removal experiments. These experiments will have the potential to substantially expand our knowledge of the ecological interactions between spotted owls and barred owls (Dugger et al. in press) and the effectiveness of barred owl removal in recovering spotted owls. Removal experiments should be conducted in various parts of the spotted owl's range, including a range of barred owl/spotted owl densities, to provide the most useful scientific information. (USFWS 2011, p. III-65)

4.3 Net Conservation Benefits

This Safe Harbor Agreement supports implementation of Recovery Action 29. As USFWS noted in developing the experiment, barred owl competition has the potential to result in continuing and increasing impacts to northern spotted owl.

> "Although northern spotted owl populations have been declining for many years, the presence of barred owls exacerbates the decline. Recent studies (Olson et al. 2005, p. 918; Forsman et al. 2011, pp. 69-70, 75-76) have established negative relationships between barred owl presence and declines in spotted owl population performance across the range of the subspecies. This could result in the extirpation (local extinction) or near extirpation of the northern spotted owl from a substantial portion of their historical range, even if other known threats, such as habitat loss, continue to be addressed. Given the continuing range expansion and population growth of barred owl populations in the western United States and concurrent decline in northern spotted owl populations, information on the effectiveness of a removal program is urgently needed (USFWS 2013a (FEIS) p. xxiv)." As scientists note, "there are no grounds for optimistic views suggesting that Barred Owl impacts on Northern Spotted Owls have been already fully realized" (Gutiérrez et al. 2004:7-38)."

To develop a barred owl management strategy that will conserve northern spotted owls, the USFWS needs information on feasibility of potential management tools. Scientist, biologists, and managers have identified barred owl removal as the most realistic and practical tool described to date for such management. Given the controversy around any removal of wildlife, particularly raptors, the USFWS needs clear and credible information on effectiveness and cost of removal as a management tool.

To gather the strongest, most credible information from a removal experiment, USFWS chose to conduct the Barred Owl Removal Experiment on ongoing spotted owl demography study areas with their over a decade of pre-treatment data. While these study areas are focused on Federal lands in most cases, they still contain significant interspersed non-Federal lands. To complete the experiment in the most efficient and complete manner, USFWS requires access on non-public roads and the ability to remove barred owls on the non-Federal lands within the treatment area. While the experiment is possible without access to non-Federal lands, failure to remove barred owls from portions of the treatment area could reduce the power of the experiment to

detect any changes in spotted owl population dynamics resulting from the removal of barred owls and potentially extend the duration of the experiment. The USFWS has repeatedly indicated the need to gather this information in a timely manner. Failure to access non-Federal lands could delay the results.

RRC and Oxbow own lands in the treatment portion of the Oregon Coast Ranges Study Area. Access to the RRC and Oxbow lands in this area, are important to the efficient and effective completion of the Barred Owl Removal Experiment within a reasonable timeframe.

All of the currently occupied spotted owl sites are within the baseline and no take of these sites is authorized under this Safe Harbor Agreement. There are nine baseline spotted owl sites associated with RRC and Oxbow lands or easements/agreements within the treatment area (Table 2).

If barred owl removal does allow spotted owls to reoccupy sites that are not currently occupied (not baseline), RRC and Oxbow will be allowed to take these spotted owls. It is highly unlikely that these sites would ever be reoccupied by spotted owls without the removal of barred owls.

The USFWS anticipates removing barred owls on the treatment portion of the study areas for four years and that scientifically credible results can be reached in these four years. However, the Record of Decision (USFWS 2013b) for the experiment does allow for up to 10 years of barred owl removal if needed to reach significant results or for a shorter duration of removal if such results are achieved earlier. In all cases, the removal of barred owls on the study areas will end. The USFWS anticipates that, once released from the removal pressure, barred owl populations will rebound to pre-treatment levels within 3 to 5 years. This is likely to result in the loss of the newly reoccupied sites. Therefore, any occupancy of these sites is likely to be temporary and short term.

Under this Safe Harbor Agreement, RRC and Oxbow will be authorized to take spotted owls on 19 non-baseline sites starting with the initial year of the study and extending for 10 years. Take resulting from disturbance and not habitat loss is temporary and is not anticipated to so disrupt the spotted owl sites to a level that would affect the results of the experiment. Take resulting from habitat loss has longer term effects, and the degree to which it may affect the study depends on the amount of potential habitat loss compared to the condition of the spotted owl site.

On six spotted owl sites where RRC or Oxbow have easements or agreements with other landowners allowing them to cross those lands and use roads to access RRR and Oxbow lands, we anticipate that any take likely to occur on these sites would result from disturbance by forest management activities.

Based on the information in Section 4.4, the removal of habitat from the RRC and Oxbow lands may result in the incidental take of spotted owls associated with up to 13

spotted owl sites, but only if these non-baseline sites are reoccupied during the experiment. However, on all but 2 of these sites, the effect of the take is unlikely to impact the experimental study results due to the low percentage of suitable habitat that could be harvested under the Safe Harbor Agreement.

The primary conservation value of the Barred Owl Removal Experiment is the information it provides on the efficacy of removal as a tool to manage barred owl populations for the conservation of the spotted owl. This information is crucial to the development of a long-term barred owl management strategy, itself essential to the conservation of the northern spotted owl. Thus, the take of spotted owls on the temporarily-reoccupied sites is more than offset by the value of the information gained from the experiment and its potential contribution to a long-term barred owl management strategy. This Safe Harbor Agreement advances the recovery of the northern spotted owl.

4.4 Incidental Take - Northern Spotted Owl

There are a total of 113 current and historic spotted owl territories in the Oregon Coast Ranges Study Area, 28 of which overlap some portion of the RRC or Oxbow lands and operation base in the treatment portion of the Study Area. The currently occupied sites listed in Table 2 are part of the baseline. Incidental take will not be authorized for these spotted owl sites through the permit. The experimental removal of barred owls from the treatment areas are likely to result in some currently unoccupied sites or areas outside of historic sites being reoccupied by spotted owls. Spotted owls that reoccupy these non-baseline sites or areas could be taken as part of RRC's or Oxbow's ongoing forest operations and management activities. It is highly unlikely these sites would be re-occupied by spotted owls without the experimental removal of barred owls. It is also likely that these sites will become unoccupied again once the experiment ends and barred owls are allowed to expand into the treatment area again. These sites and areas are not baseline, and are listed in Table 3 and 4, and shown on Map 3.

Incidental take of spotted owls under this Safe Harbor Agreement would likely be in the form of harm from forest operation activities that result in habitat degradation, or harassment from forest management activities that cause disturbance to spotted owls. Incidental take in the form of harassment by disturbance is most likely to occur near former spotted owl nest sites if they become reoccupied. Harm and harassment could occur during timber operations and management that will continue during the permit term. RRC and Oxbow will perform routine harvest, road maintenance and construction activities, including rock pit development, spraying and fertilization that may disturb spotted owls. The conditions of incidental take are described below.

If currently unoccupied sites are re-occupied by spotted owl pairs and those pairs initiate nesting, RRC and Oxbow will alter harvest unit configurations and potentially harvest scheduling necessary to maintain sufficient habitat in the nest stand either on or adjacent to RRC or Oxbow lands only during the nesting and rearing season (March 1 to September 30 of the year). The intent is to allow spotted owls that initiate nesting to

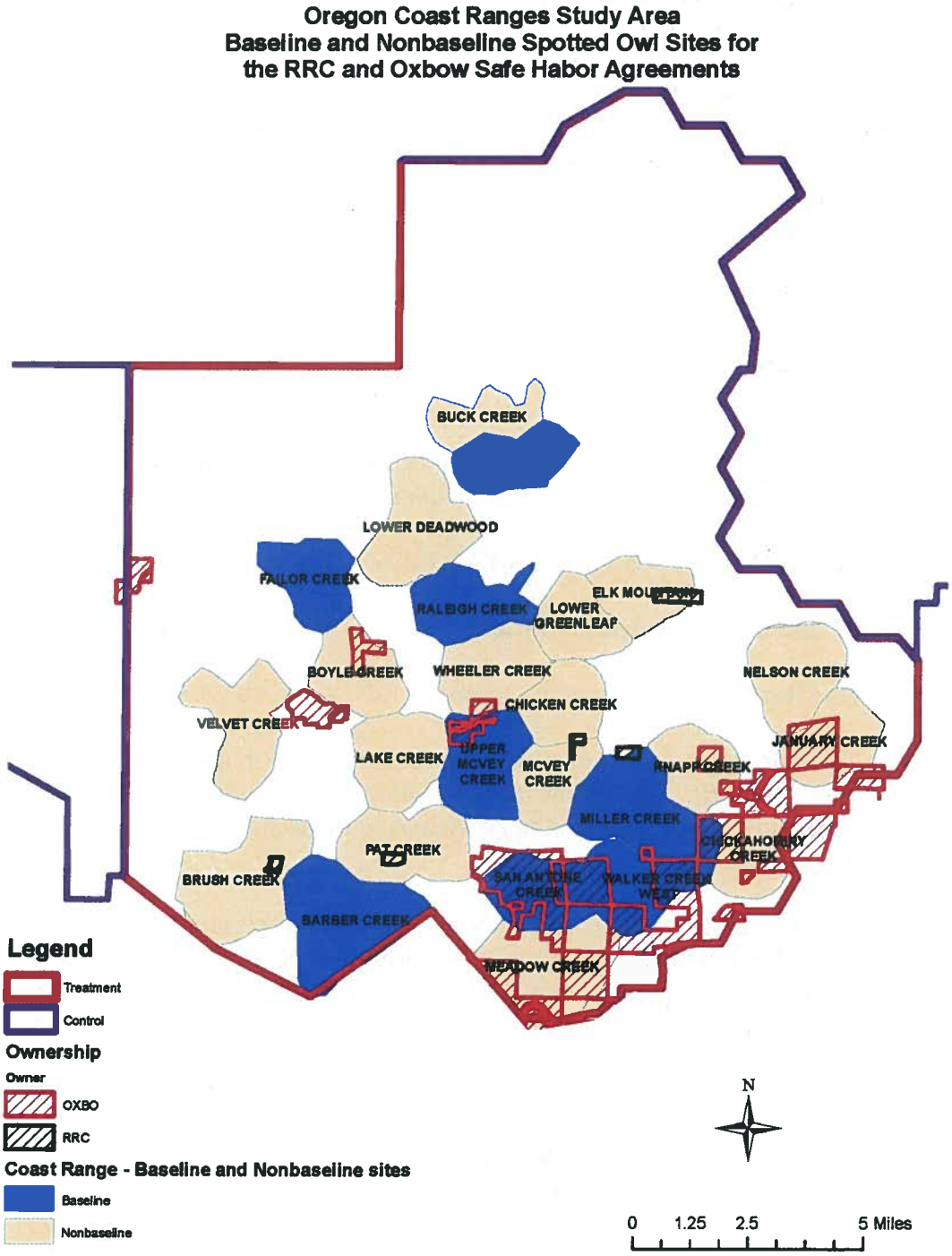
complete their nesting and fledge young, so that these young may contribute to the spotted owl population. At any time that biologists determine the pair is no longer nesting, this seasonal restriction will no longer be in effect.

Beyond nesting spotted owl pairs, RRC and Oxbow may continue to conduct their normal forest operations and management activities, including removal of spotted owl habitat within the non-baseline spotted owl sites. The permit authorizes the incidental take, via habitat removal or harassment of spotted owls, of spotted owls that may occupy the 19 non-baseline sites (as defined by the Thiessen polygons) listed in Tables 3 and 4 and area outside of the Thiessen polygons shown on Map 3. Take would occur throughout the term of the permit.

The potential effect of the removal of spotted owl habitat under this Safe Harbor Agreement on the experiment depends on the amount of habitat lost relative to the available habitat. Of the 19 non-baseline spotted owl sites in the treatment area (Table 3 and 4) where take is authorized under this Safe Harbor Agreement, 13 include varying amounts of RRC or Oxbow lands. RRC and Oxbow are minor owners on seven of these Thiessen polygons with less than 10 percent of the land ownership and less than 5 percent of the remaining suitable habitat on these sites, and 1 percent or less on six of the seven sites. Federal lands make up the majority of two of these seven sites, and contain the majority of the remaining suitable habitat on five of the seven.

On the remaining 6 sites, RRC and Oxbow own between 10 and 46 percent of the land within the Thiessen polygon. However, on four of these six sites, RRC and Oxbow manage less than 10 percent of the remaining suitable habitat. Again, Federal lands make up a significant portion of one of these sites, and contain the majority of remaining suitable habitat on four of these six sites.

Map 3. Baseline and non-baseline spotted owl sites, showing coverage of Thiessen polygons, in the treatment portion of the Oregon Coast Ranges Study Area.



4.5 Monitoring and Reporting

As part of the ongoing spotted owl demography studies and the Barred Owl Removal Experiment, all sites within the Study Area will be surveyed for spotted owls each year. Currently, most of the spotted owl surveys are conducted under the Northwest Forest Plan and the USFWS and USGS will access this data to track conditions on each spotted owl site. If RRC or Oxbow conducts surveys of spotted owls on the study area, USFWS and USGS will have access to these data.

RRC and Oxbow will provide the following information to USFWS annually by the first day of March:

- Data collected on RRC NSO Surveys within the study area, if any are conducted.
- The total amount of forest acres harvested within the treatment portion of the study area.

USFWS or their contractor USGS, will provide barred owl survey data collected on RRC and Oxbow lands to RRC and Oxbow annually.

5 RESPONSIBILITIES OF THE PARTIES

5.1 RRC and Oxbow Responsibilities

To support the Barred Owl Removal Experiment, RRC and Oxbow will:

5.1.1 Provide access (gate keys) and permission for USGS and USFWS biologists to access RRC and Oxbow lands to survey barred owls throughout the Study Area, in accordance with the provisions of the Road Access Licenses (Appendix 1)

5.1.2 Provide access to RRC and Oxbow roads and permission for USGS and USFWS biologists to remove barred owls located on RRC and Oxbow lands within the treatment portion of the Study Area, in accordance with the provisions of the Road Access Licenses (Appendix 1) (Map 2).

5.1.3 Provide permission for USGS and USFWS biologists to use roads owned or managed by RRC and Oxbow to access sites for the removal of barred owls located on Federal lands, and any other lands for which we have landowner permission to remove barred owls within the treatment area of the experiment.

5.1.4 Maintain habitat in the nest stand to support nesting spotted owls that may reoccupy non-baseline sites during the nesting and rearing season (March 1 to September 30 of the year). Actual habitat to be maintained will be

determined by mutual agreement of the USFWS and RRC or Oxbow. At any time that biologists determine the pair is no longer nesting, this seasonal restriction would no longer be in effect. Determination of nesting failure will follow the protocol in Appendix 2.

5.2 U.S. Fish and Wildlife Service Responsibilities

5.2.1 Upon execution of the Safe Harbor Agreement and satisfaction of all other applicable legal requirements, USFWS will issue an enhancement of survival permit to RRC and Oxbow in accordance with Endangered Species Act section 10(a)(1)(A), authorizing take of the covered species as a result of lawful activities on the enrolled property in accordance with the term of such permit. The permit will run from the date it is issued to August 31, 2025.

5.2.2 The USFWS, or its contractors with USGS, will provide annual reports on the activities within the covered areas to RRC.

5.3 Shared Responsibilities

5.3.1 RRC, Oxbow and USFWS will ensure that the Safe Harbor Agreement and the actions covered in the Safe Harbor Agreement are consistent with applicable Federal, state, tribal, and local laws and regulations.

5.3.2 Nothing in this Safe Harbor Agreement will be construed to limit or constrain RRC, Oxbow or USFWS, or any other entity from taking additional actions at its own expense to protect or conserve the covered species.

5.3.3 Nothing in this Safe Harbor Agreement will limit the ability of Federal and state conservation authorities to perform their lawful duties, and to conduct investigations as authorized by statute and by court guidance and direction.

5.3.4 RRC, Oxbow and USFWS will have all remedies otherwise available to enforce the terms of the Safe Harbor Agreement and the permit, except that neither will be liable in damages for (1) any breach of this Safe Harbor Agreement, (2) any performance or failure to perform and obligation under this Safe Harbor Agreement, (3) termination of the permit or Safe Harbor Agreement, or (4) any other cause of action arising from this Safe Harbor Agreement.

5.3.5 RRC, Oxbow and USFWS agree to work together in good faith to resolve any disputes, using dispute resolution procedures agreed upon by the parties.

6 LANDOWNER ASSURANCES

Through this Safe Harbor Agreement, USFWS provides RRC and Oxbow with

assurances that the USFWS may not require additional or different management activities to be undertaken by Roseburg or Oxbow without the consent of Roseburg or Oxbow. If USFWS finds that additional or different conservation measures may be necessary, USFWS may request that Roseburg or Oxbow agree to such measures, but only if they are limited to modifications within the enrolled property, if any, for the covered species and these measures maintain the original terms of the Safe Harbor Agreement. Further, any such additional conservation measures are still subject to agreement from Roseburg or Oxbow.

Further, the USFWS and Roseburg or Oxbow may agree to revise or modify the management measures set forth in a Safe Harbor Agreement if the USFWS determines that such revisions or modifications do not change the prior determination that the Safe Harbor Agreement is reasonably expected to provide a net conservation benefit to the listed species, or result in additional incidental take. These assurances allow RRC or Oxbow to alter or modify their enrolled property, even if such alteration or modification results in the authorized incidental take of the covered species consistent with the Safe Harbor Agreement and permit. These assurances depend on compliance with the obligations in the Safe Harbor Agreement and in the permit.

The assurances provided herein apply only to this Safe Harbor Agreement, only if the Safe Harbor Agreement is being properly implemented by RRC or Oxbow, and only with respect to the covered species.

7 IMPLEMENTATION

7.1 Safe Harbor Agreement Term

The term of the Safe Harbor Agreement and permit is 10 years from the initiation of barred owl removal on the Oregon Coast Ranges Study Area. The removal will start on September 1, 2015 on the Oregon Coast Ranges Study Area. The permit will start on the date of issuance and end on August 31, 2025.

7.2 Safe Harbor Agreement Renewal

The Safe Harbor Agreement can be extended with the written approval of RRC or Oxbow and USFWS. Upon the mutual written agreement of the Parties, and compliance with all laws then applicable, the USFWS may extend the permit and the Safe Harbor Agreement beyond its initial term. If barred owl removal on the experiment extends beyond 4 years, for a maximum of 10 years as described in the Record of Decision (USFWS 2013b), the USFWS intends to extend the permit to 5 years after the final removal season. The extended permit would be based on continuation of the existing baseline.

The barred owl removal experiment may change the occupancy of spotted owl sites within the treatment area. The USFWS expects the return of barred owls within 3 to 5 years which will likely mitigate this change. If a different removal program is initiated

in this same area during the initial term of this Safe Harbor Agreement, or if barred owl populations do not recover as anticipated, the USFWS will strongly consider extending this Safe Harbor Agreement using the same baseline under either of these circumstances. The USFWS will also strongly consider extending this Safe Harbor Agreement if removal of barred owls is continued beyond the current Experiment. This may require an amendment of the Safe Harbor Agreement.

The first case might occur if, for example, a landowner or manager in the area decides to conduct removal as a mitigation measure for other impacts to spotted owls. This would require the project proponent apply for a separate Migratory Bird Treaty Act permit (as the experiment would be completed and the associated permit no longer in effect) and they would have to conduct any additional analyses required for the permit. The second case may occur if barred owl populations do not respond and recover within 3 to 5 years as anticipated in the Final EIS (USFWS 2013b, p. 172-3).

7.3 Safe Harbor Agreement Modifications and Amendments

Either party may propose minor modifications to the Safe Harbor Agreement or the permit by providing written notice to the other party. RRC, Oxbow and USFWS will have 30 days to evaluate proposed modifications. Minor modifications must be approved in writing by each party.

7.4 Transfer of Safe Harbor Agreement Benefits

RRC and Oxbow agree to notify USFWS in writing if ownership of all or a portion of the enrolled property is to be transferred to another owner. If RRC or Oxbow transfers full or partial ownership of the enrolled property, USFWS will regard the new landowner as having the same rights and obligations as the RRC and Oxbow under this Safe Harbor Agreement, if the new landowner agrees, in writing, to become a Party to the original Safe Harbor Agreement, permit, and any subsequent amendments.

7.5 Land Acquisitions & Dispositions

RRC and Oxbow may enroll, at their discretion, new forest lands acquired within the boundary of the treatment portion of the Oregon Coast Ranges (Map1) Study Area to the Safe Harbor Agreement. Baseline for new lands will be determined using the same approach as the original Safe Harbor Agreement, except that the determination of occupancy will include the 3 years previous to the land acquisition, not the years used in the initial baseline development. RRC and Oxbow must notify USFWS of the proposed inclusion of additional lands and USFWS will have an opportunity to review, establish the baseline, and concur or object. The USFWS will make a determination as to whether the inclusion of the lands would provide a net benefit to the species, would be consistent with the permit, and not increase the take authorized in the permit. In evaluating the net conservation benefit to the conservation of the spotted owl, the USFWS will consider how the inclusion of the lands complement and support the totality of the experiment. The contribution will be considered in the context of RRC and Oxbow's entire

contribution to the study, and not strictly on the value of specific parcels, consistent with the analysis described in section 4.3 This action will not require an amendment or modification of the Safe Harbor Agreement if the amount of incidental take does not increase.

7.6 Safe Harbor Agreement Termination

RRC and Oxbow can relinquish this Safe Harbor Agreement by providing USFWS with 30 days written notice. RRC and Oxbow acknowledges that terminating the Safe Harbor Agreement will result in a corresponding termination of the permit and the RRC's and Oxbow's loss of the regulatory assurances provided by the Safe Harbor Agreement and permit for the covered species.

8 SIGNATURES

S. Folk 1/15/2016

Scott Folk, Vice President of Resources Date
Roseburg Resources Co.

S. Folk 1/15/2016

Scott Folk, Vice President of Resources
Roseburg Resources Co. as Manager for Oxbow Timber I, LLC Date

1-14-2016

Theresa Rabot Date
Deputy Regional Director,
Region 1, U.S. Fish and Wildlife Service

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Unpublished Data

Dugger et al. unpublished data 2015 video link. web link http://www.reo.gov/monitoring/reports/20yr-report/forum/

Appendix 1 - Draft Form of Road Access License

ROAD ACCESS LICENSE
-Coast Range Experimental Area-

THIS ROAD ACCESS LICENSE (the "License") is made as of the [___] day of [_____], 201[___] (the "**Effective Date**"), between **Roseburg Resources Co.**, an Oregon corporation (hereinafter "Licensor") and **The United States of America,** acting by and through the **Department of the Interior**, through the **U.S. Fish and Wildlife Service,** a Federal agency ("USFWS"), and the **U.S. Geological Survey**, a Federal agency ("USGS" and together with the USFWS hereinafter the "Licensees" and each a "Licensee").

For and in consideration of the covenants and mutual promises contained herein, and in that certain [Agreement] dated [_____, 2015] between Licensor and USFWS (as amended, the "Safe Harbor Agreement"), Licensor and the Licensees agree as follows:

1. <u>THE LICENSE</u>.

Licensor grants to each Licensee the right to use all currently-existing roadways (including improved and maintained all weather surfaced and natural surfaced roadways) located on and within the portions of Licensor's real property generally depicted in the gross areas shown on attached Exhibit A. The specific portions of Licensor's property which are subject to this License are more particularly defined as the "Study Area" in the Safe Harbor Agreement and depicted on Map 1 included in the Safe Harbor Agreement (such area, for purposes of this License, the "License Area"). This License is granted for the limited purpose of providing Licensees with vehicular ingress and egress on and over the existing roads, limited foot travel access on existing unimproved roads and lands (solely for the purpose of survey and removal of barred owls) for safe and efficient operational purposes within the License Area to facilitate Licensee's biological survey and removal needs as stated under the Safe Harbor Agreement only, and for no other purpose whatsoever. The Licensees bear all responsibilities to ensure that any permissions required from third parties have been obtained prior to Licensees' use of Licensor roads in situations where the Licensor's lands and roads within the License Area are accessed through third party easements or permits. Licensees acknowledge that the rights granted under this License are temporary and non-possessory and are not in any way intended by Licensor to create in Licensees any easement, leasehold or other estate in the real property of Licensor or otherwise be coupled with any interest whatsoever. Licensor reserves for itself, its successors and assigns the unrestricted right to use the roads and Licensor's other property for any and all purposes whatsoever. Licensees may permit their employees, agents and contractors to exercise the rights granted to them under this License during the term hereof provided such use is directly related to the limited purposes for which this License is granted and such use is in compliance with the terms of this License.

2. TERM.

The term of this License shall commence as of the Effective Date first written above and shall expire [_____, 20[__]].

3. FIRE PREVENTION AND SUPPRESSION.

Licensees will exercise the highest degree of care to prevent fires on the License Area and the adjacent Licensor lands, and will comply with all applicable laws, lawful rules and regulations pertaining to fire protection and suppression and any Licensor regulations pertaining to fire protection and suppression that are now or hereafter in effect during the term of this License. Each Licensee further agrees as follows:

A. Smoking- No smoking is allowed on Licensor lands outside an enclosed vehicle during fire season. No exceptions.
B. Reporting and Control of Fires- Licensee will exert every reasonable effort to control, extinguish and prevent the spread of fire on, to, or from Licensor lands. Licensee will immediately report any fire which may arise upon or threaten Licensor lands or adjoining lands to Licensor and the applicable state fire official.

4. MAINTENANCE.

Licensees shall be solely responsible for damages caused to the property of Licensor caused by use of the roadways or exercise of their rights under this License. Licensees shall instruct all employees, agents, contractors or other persons operating under Licensees' authority of this License that no littering or dumping on Licensor's property is permitted, and if caught littering the person will no longer be permitted entry to Licensor's property.

5. ROADWAYS & GATES.

Licensor makes no express or implied warranties or representations as to the condition of any roadways or the suitability of such roadways for Licensee's intended use. Licensees shall inspect the roadways and assure themselves of the suitability thereof at the commencement of the term hereof and as reasonably required during the term hereof. Each Licensee, on behalf of itself, its employees, contractors, and agents, assumes the risk of any and all latent or patent dangers or hazards on or about Licensor's property. Some roadways may be gated. Licensees will be issued keys to gate locks, however Licensor makes no express guarantee that keys and locks will be fully functional at all times. During the term of this License, all Licensor gates will be locked controlling public access during fire season. Licensees will ensure all gates are locked after their use of Licensors roadways. In situations where Licensees find gates in an altered or disrepair condition, Licensees will notify Licensor immediately.

6. ADJACENT LANDS.

Licensees shall not travel by vehicle off the improved roadways in areas which have been planted with tree seedlings or on roads with dead grass or brush in the running surface and/or obviously not maintained for current use. Repeated failure, in Licensor's opinion, by Licensees to enforce this provision with Licensees' respective

employees, contractors and agents shall give Licensor the right to terminate this License upon ten (10) days notice notwithstanding any right to cure granted to Licensee in paragraph 9 below.

7. INSURANCE .

At all times while this License is in effect, Licensees shall cause any private contractors or agents exercising any rights of Licensees hereunder to carry insurance coverage of the types, with the minimum limits and otherwise meeting the insurance requirements set forth on attached Exhibit B, which policies shall name Licensor as an additional insured and expressly provide or be endorsed to provide Licensor with the same scope and coverage of insurance and the same limits of liability as are afforded to the named insured under such policies. Licensor shall be provided a certificate of insurance stating that 10 days written notice shall be given to Licensor prior to any cancellation or material change of coverage.

8. INDEMNITY.

Each Licensee, in a manner and to the fullest extent provided by applicable law, including but not limited to the Federal Tort Claims Act, as amended (28 U.S.C. §§ 1346, 2671-2680), shall be liable for, and shall indemnify and hold Licensor harmless from claims for damage or loss of property, personal injury or death caused by the negligent or wrongful acts of omissions of any employee of the Federal government while acting within the scope of his or her office or employment in the performance of the rights granted under this License; *provided*, that in the event that the Federal government has to pay for any loss, such payment shall not entail expenditures which exceed appropriations available at the time of the loss; provided further, that nothing herein shall be interpreted as implying that the United States Congress will, at any later date, appropriate funds sufficient to meet any deficiencies. Licensees shall not be liable to indemnify Licensor for damages incurred by the Licensor to the extent such damages are finally determined to have been caused by the negligence of the Licensor.

9. NON-COMPLIANCE.

Should either Licensee (or any person exercising any right of either Licensee under this License) fail to comply with any of the terms and conditions contained herein, Licensor may give Licensees written notice of such non-compliance. If, after ten (10) days from the date of such notice, the applicable Licensee has not corrected or caused the applicable person to correct the default or condition identified in such notice, Licensor may terminate this License by giving oral or written notice to Licensees, and such termination shall be effective upon the giving of such notice. However, such termination shall not relieve the Licensees of any liability, consistent with paragraph 8, for such breach or default occurring prior to the effective time of such termination or impair or prevent the Licensor from exercising any right or remedy available to Licensor for such default or breach.

10. SUSPENSION OF LICENSE.

Licensor may suspend Licensees' use of all or any part of the roadways in the License Area at any time during the term hereof upon oral or written notice to Licensee

to enable Licensor to remove forest products from its land, to construct or maintain roads on its lands, to protect its lands from rutting or potential fire hazard or otherwise if, in Licensor's sole opinion, it is necessary to suspend use of the roadway. In such event, Licensor shall endeavor to give Licensee as much advance notice as possible.

11. COMPLIANCE WITH LAWS.

Each Licensee shall at all times during the term hereof comply, and cause its respective employees, agents, invitees, and contractors to comply, in all respects, with all applicable Federal, state and local laws, rules and regulations, which in any way relate to this License or the activities of such persons acting under this License. This License shall be construed in accordance with applicable Federal law and the laws of the State of Oregon as appropriate.

12. ATTORNEY'S FEES.

In the event that any suit, action or other proceeding is instituted by either of the parties hereto to enforce or interpret any of the terms or provisions of this License, attorney fees will be governed by applicable Federal law.

13. MERGER; WAIVER.

Failure by either party to allege a default or breach or seek remedies for a default or breach of this License shall not be deemed a waiver by said party to subsequently claim a default or breach hereof. This License and the provisions of the Safe Harbor Agreement relating to road access (including the provisions of Section 4.1.2 of the Safe Harbor Agreement, which are incorporated by reference herein) constitute the entire understanding of the parties hereto with respect to the use of Licensor's roads, and all previous negotiations, representations, and understandings with respect to such subject matter are merged herein.

14. CONTACT INFORMATION AND VEHICLE DESCRIPTIONS.

Prior to Licensees' commencement of operations in the License Area and appropriately thereafter when material changes occur during the License term, Licensee agrees to provide Licensor with a complete list of all employees, contractors and agents of the Licensees exercising any rights of Licensees under this License together with contact information, vehicle descriptions and license plate numbers to aid in Licensor communication with local enforcement and interpretation of camera surveillance data.

15. GENERAL.

This License may be executed in one or more counterparts, each of which will be deemed an original, and all of which will together constitute the same License. The terms, conditions and provisions of this License may be modified, changed, terminated, waived, amended or supplemented only in a writing signed by each party hereto.

[Signature Page(s) Follow]

IN WITNESS WHEREOF, the parties hereto have executed this Road Access License as of the Effective Date first written above.

LICENSOR:

ROSEBURG RESOURCES CO.

By:_____

Printed:_____

Title:_____

LICENSEES:

UNITED STATES OF AMERICA, acting by and through the **Department of the Interior**, through the following agencies:

U.S. Fish and Wildlife Service

By:_____

Printed:_____

Title:_____

U.S. Geological Survey

By:_____

Printed:_____

Title:_____

EXHIBIT A

Map of Oregon Coast Ranges Study Area

Land Ownership - Oregon Coast Ranges Study Area

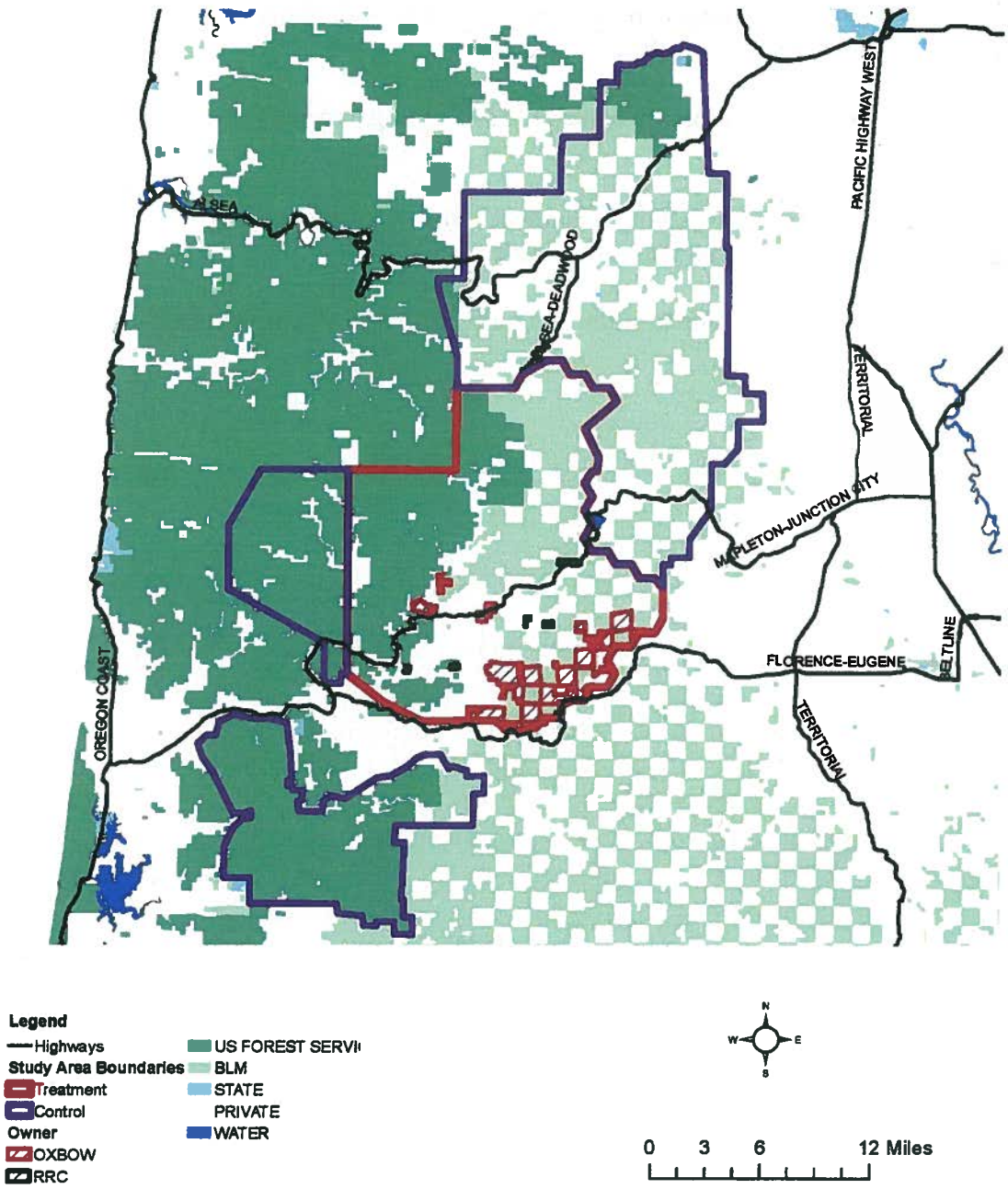

EXHIBIT B

Insurance Required for Private Contractors and Agents of Licensees

(i) Commercial general liability against liability imposed by law or assumed under contract, for injury to or death of any person or persons or for loss of or damage to property, with occurrence limits at least $1,000,000 per occurrence.

(ii) Loggers broad form property damage (fire-fighting expense) insurance with limits of $1,000,000 each accident.

(iii) Business automobile liability insurance with a combined bodily injury and property damage liability limit of $1,000,000 each accident.

(iv) Statutory Workers Compensation insurance covering all employees as required by law.

Appendix 2. DRAFT Determination of Spotted Owl Site Nesting Failure

Protocol for determining if spotted owl nesting has failed where nesting status has been established using existing protocols. This would apply to spotted owl sites where monitoring surveys concluded that the pair was nesting. USFWS and RRC/Oxbow would mutually examine the data and determine whether the nesting attempt has failed for the year based on that data and the following approach.

Failure of nesting attempt:

To avoid undue disturbance to the spotted owls, conduct no more than 4 visits to determine continued nesting status.

Early Season – before June 1 (fledging). This is the period when the adults should still be tending the nest and the young should be near, if not in, the nest.

Failure of nesting determination is appropriate if, on 2 visits, separated by at least 1 week, between the initial determination of nesting and August 1 one of the following is found:

1. The female is observed roosting and away from the nest for at least 60 minutes on two occasions (Be aware that nesting females with large nestlings often roost outside the nest during warm weather.); **OR**

2. Prey is offered to 1 or both members of the pair and they cache the prey, sit with prey for an extended period of time (60 minutes), or refuse to take additional prey beyond the minimum of 2 prey items. To be considered a valid nesting survey, an owl must take at least 2 prey items. Surveys where the bird(s) leaves the area with prey and it is not possible to determine the fate of the prey do not count toward the required 2 visits because nesting status could not be classified.

Mid-Season – Approximately June 1 to August 1. During this period, the young begin to move around and the adults range farther and farther to provision them. As the young get older, one parent (or even both) may end up roosting far from the nest site. Young are usually reasonably close the nest at this time, moving more as they become better flyers.

Failure of nesting determination is appropriate if, on 2 visits, separated by at least 1 week, between the June 1 and August 1, the following is found:

Prey is offered to 1 or both members of the pair in the vicinity of the nest area and they cache the prey, sit with prey for an extended period of time (60 minutes), or refuse to take additional prey beyond the minimum of 2 prey items. To be considered a valid nesting survey, an owl must take at least 2 prey items.

Because at this time of year, young are likely still somewhere near the nest area, adults found far from the core area may not be inclined to take small prey to the young, especially during the day when temperatures are high. Therefore, failure of adults to transport mice to the nest area, if they are a significant distance from that nest area is not evidence that the nesting attempt has failed.

During the **Late Season** (August 1 to September 30) adult spotted owls may not be roosting with the young, or take prey to young. There is no way to reliably determine whether the spotted owls are still feeding young. Therefore, nesting status cannot be reliably determined at this time. However, coupled with one of the above results, and after examination of the survey details, a determination may still be made by mutual agreement of USFWS and RRC/Oxbow