

UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF COLUMBIA

**CARPENTERS INDUSTRIAL COUNCIL**, )  
12788 SE Stark Street, Portland, OR 97233; )  
**SISKIYOU COUNTY, CALIFORNIA**, 201 )  
Fourth St., Yreka, CA 96097; **AMERICAN** )  
**FOREST RESOURCE COUNCIL**, 5100 )  
SW Macadam Ave., Ste. 350, Portland, OR )  
97239; **HAMPTON AFFILIATES**, 9600 )  
SW Barnes Road, Ste. 200, Portland, OR )  
97225; **THE MURPHY COMPANY**, 2350 )  
Prairie Road, Eugene, Oregon 97402; )  
**ROUGH & READY LUMBER LLC**, 30365 )  
Redwood Highway, Cave Junction, OR )  
97523;; **PERPETUA FORESTS** )  
**COMPANY**, 30365 Redwood Highway, )  
Cave Junction, OR 97523; **SENECA** )  
**SAWMILL COMPANY**, 90201 Highway )  
99, Eugene, OR 97402; **SENECA JONES** )  
**TIMBER COMPANY**, 90201 Highway 99, )  
Eugene, OR 97402; **SWANSON GROUP** )  
**MFG. LLC**, 2695 Glendale Valley Road, )  
Glendale, OR 97442; and **TRINITY RIVER** )  
**LUMBER COMPANY**, 1375 Main St, )  
Weaverville, CA 96093, )

Plaintiffs, )

v. )

**KEN SALAZAR**, Secretary of Interior, )  
1849 C Street, NW, Washington, D.C. 20240; )  
and **DANIEL M. ASHE**, Director, U.S. Fish )  
and Wildlife Service, 1849 C Street NW, )  
Washington, D.C. 20240, )

Defendants )

Civil No. 13-361-RJL

Action for Declaratory and Injunctive  
Relief to Remedy Violations of Oregon  
and California Railroad and Coos Bay  
Wagon Road Grant Lands Act of 1937, 43  
U.S.C. §1181a; Administrative Procedure  
Act, 5 U.S.C. §§ 551-706; National  
Environmental Policy Act, 42 U.S.C. §§  
4321 *et. seq.*; and unlawful abuse of  
discretion under the Endangered Species  
Act (ESA), 16 U.S.C. §§ 1531 *et seq.*

**COMPLAINT**

For their complaint herein, plaintiffs allege as follows:

**INTRODUCTION**

1. This is an action for declaratory and injunctive relief against Ken Salazar, Secretary of

Interior, and Daniel M. Ashe, Director, United States Fish and Wildlife Service (FWS), to remedy violations of the Oregon and California Railroad and Coos Bay Wagon Road Grant Lands Act of 1937 (O&C Act), 43 U.S.C. §1181a.; the Administrative Procedure Act (APA), 5 U.S.C. §§ 551-706, the National Environmental Policy Act (NEPA), 42 U.S.C. §§ 4321 *et. seq.*, and unlawful abuses of discretion under the Endangered Species Act (ESA), 16 U.S.C. § 1531 *et seq.*, concerning the FWS' Final Rule revising critical habitat for the northern spotted owl published in the Federal Register on December 4, 2012. 77 Fed. Reg. 71876. Plaintiffs have transmitted a 60 day notice of intent to assert additional claims under the ESA, and will amend this complaint to add those ESA claims after the passage of 60 days time from defendants' receipt of the letter.

### **JURISDICTION AND VENUE**

2. This Court has jurisdiction over this action under 28 U.S.C. § 1331 (federal question). Venue in this district is proper under 16 U.S.C. §1540(g) because the violations occurred in this district. Venue in this district is proper under 28 U.S.C. §1391(e) because the defendants reside in this district and a substantial part of the events or omissions giving rise to the claims occurred in this district.

### **PARTIES**

3. Plaintiff Carpenters Industrial Council (CIC) is a labor organization that represents some 10,000 forest products workers in Oregon, Washington and northern California, and about 120,000 members nationwide. The CIC was chartered July 1, 2006, by the United Brotherhood of Carpenters and Joiners of America, which is headquartered in Washington, D.C. The CIC was formed after the

merger of four Regional Industrial Councils – the Carpenters East Coast Industrial Council, the Midwestern Council of Industrial Workers, the Southern Council of Industrial Workers, and the Western Council of Industrial Workers (WCIW).

4. Many CIC members live in remote communities that are heavily dependent on timber, particularly federal timber sold by the U.S. Forest Service (Forest Service) and the Bureau of Land Management (BLM) . Several thousand of these workers have experienced, and continue to be threatened with, permanent job loss caused by the timber supply reductions resulting from land management restrictions and delays imposed for the protection of the northern spotted owl. There are few, if any, prospects to replace CIC members' jobs at a comparable wage in their home towns. Many CIC members use Forest Service and BLM forests for recreation, enjoyment, solitude and other purposes, and have a keen interest in maintaining the long-term health and stability of these forests, and in achieving the environmentally sound and sustainable management of all the resources of these forests.

5. One of CIC's predecessors, the WCIW, was the lead plaintiff in a suit against the FWS in 2002 to compel the completion of a 5-year status review of the northern spotted owl required by the ESA after the FWS failed to conduct any statutorily-mandated review over a 12 year period, and also challenging the 1992 northern spotted owl critical habitat designation. *WCIW v. Secretary of Interior, et. al.*, Civ. No. 02-06100-AA (D. Or.). FWS settled the case in 2003 by agreeing to conduct a five year review of the northern spotted owl and to revise critical habitat for the northern spotted owl. The five year review was completed in 2004 and the critical habitat rule was ultimately

revised, as explained further below, in 2008. 73 Fed. Reg. 47326 (Aug. 13, 2008). CIC also subsequently sued the Secretary of Interior challenging the revised 2008 critical habitat rule. *CIC v. Kempthorne*, 08-cv-101409 - EGS (D.D.C.).

6. Plaintiff Siskiyou County, California is a municipal subdivision of the state of California, lying at its northern border contiguous to Oregon. Siskiyou County is the fifth largest California county by area, and has a population of approximately 45,000. Over sixty percent of the land base of Siskiyou County lies within five national forests managed by the Forest Service: the Klamath, Shasta-Trinity, Modoc, Six Rivers and Rogue-Siskiyou National Forests. Since the northern spotted owl was listed in 1990, timber supply from Siskiyou County's national forests has declined drastically, and local wood products manufacturing capacity and related employment have proportionately declined. Over the past decade these national forests have sold less than fifty percent of the sharply reduced annual allowable sale levels. As of 2011, Siskiyou County had an unemployment rate of 16.6 percent, one of the highest in California. Because natural resources are the life-blood of Siskiyou County, the County has staff permanently assigned to monitor natural resource policies including timber supply policies.

7. Plaintiff American Forest Resource Council (AFRC), a nonprofit corporation organized under the laws of the state of Oregon, is a forest products trade association headquartered in Portland, Oregon which represents approximately 60 lumber and plywood manufacturing companies and landowners throughout the states of Washington, Oregon, California and elsewhere in the western United States. Many of AFRC's members suffer economic losses and may not be able to

continue to operate without a reliable and adequate supply of timber sold by the national forests in Washington, Oregon and California and BLM districts in Oregon that are located within the geographic range of the northern spotted owl. In recent years restrictions and delays in land management activities by the Forest Service and BLM from measures related to conservation of the northern spotted owl have greatly reduced the availability of Forest Service and BLM timber for AFRC's members, adversely affecting their business operations.

8. AFRC and many of its members have a deep and continuing interest in FWS decisions relating to the conservation of the northern spotted owl. Many of AFRC's members own private forest land within the range of the northern spotted owl that are managed to minimize losses from insects, disease, and wildfire but are adjacent to high risk unmanaged federal lands subject to spotted owl restrictions. Measures for the conservation of the northern spotted owl have harmed and continue to harm the business, environmental, and procedural interests of AFRC and its members. AFRC has participated in every FWS decisional process relating to the northern spotted owl since before its listing, and has played a key role in FWS actions regarding spotted owl conservation actions for many years. AFRC was a co-plaintiff with CIC in the lawsuits discussed in paragraph 5.

9. Plaintiff Hampton Affiliates (Hampton) is a family-owned enterprise which began as a retail lumber yard in Tacoma, WA in 1935. In 1942, Mr. L.M. "Bud" Hampton bought a small sawmill in Willamina, Oregon, to furnish lumber for the retail yard. Today, Hampton has developed into a major entity in timberland ownership, lumber manufacturing, and global wholesale lumber and

panels sales exceeding \$900 million annually and 1,400 employees. Hampton now includes eight sawmill complexes which manufacture lumber for domestic and export markets. The Hampton mills have a combined production capacity in excess of 2 billion board feet of lumber per year, making Hampton one of the largest lumber producers in North America, with manufacturing operations in Darrington, Morton, Randle, Napavine and Arlington, Washington, and Willamina, Tillamook, and Warrenton, Oregon as well as in Canada. Hampton also maintains a wholesale lumber and panel operation headquartered in Oregon which markets over 2.5 billion board feet of outside lumber and panels annually, on top of the Hampton mills production. In addition, Hampton Affiliates owns approximately 92,000 acres of timberland in Oregon and Washington, which provide a base load of raw material to its Oregon and Washington mills, which is supplemented by federal and state timber sales, open-market purchases of logs, and acquisitions of private timberland. Hampton continues to be owned by members of the Hampton family.

10. Plaintiff The Murphy Company, Inc. (Murphy), based in Eugene, Oregon, has been owned by the Murphy family since its founding one hundred years ago, and currently manufactures hardwood and softwood plywood products, laminated veneer lumber products, and green and dry veneer. It operates manufacturing facilities in Eugene, Sutherlin, Rogue River and White City, Oregon and Elma, Washington. Murphy does not own private timberland, and depends for its log supply on federal timber sales, other public sales and private log purchases. Murphy is currently experiencing economic loss due to the lack of available log supply for its business.

11. Plaintiff Rough & Ready Lumber LLC (Rough & Ready) is a family-owned company

that operates a forest product manufacturing facility in Cave Junction, Oregon employing approximately 90 workers at its mill and associated facilities. Rough & Ready has access to only a small amount of private timber owned by its affiliate Perpetua Forests Company, and primarily relies on timber purchased from the BLM's Medford District and the Rogue-Siskiyou National Forest. Without an adequate supply of BLM and Forest Service timber, Rough & Ready is experiencing economic loss and may not be able to continue to operate its facility and keep its current work force employed.

12. Plaintiff Perpetua Forests Company (Perpetua) is under the same ownership as Rough & Ready, and supplies timber to Rough & Ready. Perpetua owns approximately 28,000 acres of forest land in Jackson, Josephine and Douglas Counties, Oregon. These forested acres provide a supply of timber to complement Rough & Ready's purchases of federal timber sales. This privately-held forest land provides recreation for Perpetua and Rough & Ready employees and their families. Most of the Perpetua forest land is adjacent to or intermingled with federal land affected by restrictions imposed for the protection of the northern spotted owl including restrictions on access across federal lands to reach Perpetua's private land. Perpetua is deeply concerned that the designation of critical habitat on adjacent or intermingled federal lands will delay or prevent forest health maintenance and restoration activities in the designated areas which will create a severe risk that insects, disease or wildfire will spread from adjacent areas of designated critical habitat to its private timberland, potentially damaging or destroying its property.

13. Plaintiff Seneca Sawmill Company (Seneca) was founded by Aaron U. Jones in Eugene,

Oregon in 1953 and continues to be owned by members of the Aaron U. Jones family. Seneca is a leading innovator in lumber manufacturing, and Seneca holds over 25 U.S. and Canadian patents in various sawmill technologies. Seneca manufactures over 500 million board feet of studs and dimension lumber products annually from its manufacturing facilities in Eugene and Noti, Oregon. Seneca relies heavily for its timber supply from federal lands in Oregon managed by the BLM and Forest Service, which complement the timber made available from Seneca's affiliate Seneca Jones Timber Company. Seneca cannot maintain its current production level without a steady or increasing supply of federal timber, and has suffered and will continue to suffer economic losses from the northern spotted owl critical habitat designation challenged in this case.

14. Plaintiff Seneca Jones Timber Company (Seneca Jones) is a family business owned by members of the Aaron U. Jones family that grows high-quality timber to supply its affiliate Seneca Sawmill Company. Seneca Jones manages over 165,000 acres of forestland in Western Oregon. The company forestland is both adjacent to and intermingled with forestland administered by the BLM and Forest Service. Seneca Jones' forestland shares 561 miles of common boundary with O&C lands alone and more with Forest Service land. The designation of northern spotted owl critical habitat challenged in this case has resulted and will result in neglect and mis-management of adjoining federal lands that creates and retains forests with high fuel loads, increasing the risk, spread and intensity of wildfire and threatening Seneca Jones' forestland. Wildfire from federal land has spread to and destroyed timber growing on Seneca Jones' forestland. Continued neglect and mis-management of federal lands is a threat to Seneca Jones' forest land.

15. Plaintiff Swanson Group Mfg. LLC (Swanson) is a family-owned business that operates forest product manufacturing facilities in Glendale, Roseburg and Springfield, Oregon and employs over 750 workers at its sawmills and related operations. Swanson manufactures structural plywood panels, concrete form and specialty industrial plywood, studs and dimension lumber. Swanson normally processes between 190 to 400 million board feet of timber per year at its manufacturing facilities. Swanson owns no privately-held timber land, and relies primarily on timber purchased from BLM lands (principally the Medford, Roseburg, Coos Bay, Eugene and Salem districts), from the Rogue Siskiyou, Umpqua, Willamette and Siuslaw National Forests, other private forests, and state and local forests. Continued restrictions in federal timber sales are causing economic loss to Swanson, and threaten additional future economic loss. Currently demand for lumber and plywood for home construction is growing, and Swanson is unable to obtain enough timber to meet the demand for its products.

16. Plaintiff Trinity River Lumber Co. (Trinity River) is a family-owned business headquartered in Weaverville, California which produces dimension lumber for the California and western home building markets from its sawmill in Weaverville, which has been under its ownership since 1983. It also operates a log yard in Oroville, California. With over 100 employees, Trinity River is the largest private employer in Trinity County. To supply its mill in Weaverville, it purchases logs from the Six Rivers, Shasta-Trinity, Klamath and Mendocino National Forests which lie within the range of the Northern Spotted Owl. Trinity River is experiencing log shortages leading to economic losses, and expects to continue to do so in the future, due to restrictions imposed by the

2012 Northern Spotted Owl Critical Habitat designation.

17. Defendant Ken Salazar, Secretary of Interior, has the statutory duty to implement the ESA, and has supervisory responsibility over Defendant Daniel M. Ashe, the Director of the FWS, who is responsible for administration of the ESA with respect to terrestrial species including the northern spotted owl. FWS shares ESA enforcement responsibility with the National Marine Fisheries Service (NMFS) within the Commerce Department, which has responsibility for certain predominantly marine species.

### **BACKGROUND ALLEGATIONS**

#### **A. The O&C Act.**

18. In 1866 and 1870 Congress passed legislation that led to grants of large amounts of federally-owned land in western Oregon to the Oregon and California Railroad Company in exchange for construction of a north-south rail line from the Columbia River to California. The grant was conditioned on requirements that the land be resold by the railroad to "actual settlers" in parcels not to exceed 160 acres and for no more than \$2.50 per acre. The railroad completed construction of the rail line and initially complied with the terms of the grant, but eventually ceased reselling lands to actual settlers. In 1916 Congress passed the Chamberlain-Ferris Revestment Act revesting the grant lands ("O&C lands") to the United States. A smaller amount of land associated with the Coos Bay Wagon Road was also reconveyed to the United States in 1919 in a similar manner and is also included herein in the reference to "O&C lands."

19. The 1916 Chamberlain-Ferris Act required that the O&C lands be classified as

timberlands, agriculture lands or power-site lands, that the timber on these lands be sold as rapidly as reasonably possible, and that the cutover lands classified as timber or agricultural lands be returned to private ownership and county tax rolls by selling them for \$2.50 per acre. However, counties in which the O & C lands are located (“O&C Counties”) received no payments from 1916 until 1926. Congress passed additional legislation in 1926 that appropriated funds for the O & C Counties but did not alter the liquidation philosophy of the 1916 law. In 1937 Congress enacted the O&C Act, abandoning the liquidation philosophy of the 1916 and 1926 laws, and replacing it with a new policy calling for permanent timber production from the O&C lands based on the scientific forestry principle of “sustained yield” requiring reforestation to produce a permanent timber supply and to provide revenues to the O&C Counties that had been promised but not delivered by prior legislation. To implement the new policy the O&C Act provided:

[O & C lands] classified as timberlands . . . shall be managed . . . for permanent forest production, and the timber thereon shall be sold, cut, and removed in conformity with the principal [*sic*] of sustained yield for the purpose of providing a permanent source of timber supply, protecting watersheds, regulating stream flow, and contributing to the economic stability of local communities and industries, and providing recreational facilities.

The annual productive capacity for such lands shall be determined and declared . . . Provided, that timber from said lands in an amount not less than one-half billion feet board measure, or not less than the annual sustained yield capacity when the same has been determined and declared, shall be sold annually, or so much thereof as can be sold at reasonable prices on a normal market.

43 U.S.C. §1181a. Thus, the O&C Act imposes four mandatory duties on the BLM:

1. All of the O & C lands classified as timberlands “shall be managed . . . for permanent forest production.”

2. The timber on those lands “shall be sold, cut, and removed in conformity with the princip[le] of sustained yield ....”
3. “The annual productive capacity for such lands shall be determined and declared.”
4. Timber from the O&C timberlands “in an amount not less than one-half billion feet board measure, or not less than the annual sustained yield capacity when the same has been determined and declared, shall be sold annually, or so much thereof as can be sold at reasonable prices on a normal market.”

20. After the BLM determined the annual productive capacity of the O & C lands (which it divided among six administrative districts), the agency steadily increased the allowable sale quantities until starting in 1959 the BLM began selling an average of more than 1.1 billion board feet (bbf) of timber from the O&C lands every year for the next 32 years, with the peak sale level of 1.662 bbf occurring in 1960.

21. To provide a reliable stream of income to the O&C Counties, the O&C Act mandated that 50 percent of the gross revenues from timber sales on the O & C lands be paid to the counties, 43 U.S.C. §1181f (a), and that an additional 25 percent of the gross revenues from timber sales on the O & C lands also be paid to the counties under certain conditions. 43 U.S.C. §1181f (b). The remaining 25 percent of gross revenues would go to the government to cover the administrative cost of running the sale program.

22. The BLM currently manages approximately 2.5 million acres of O&C lands.

**B. Resource Management Plan Development and Revision under FLPMA.**

23. FLPMA, adopted in 1976, requires the BLM to “develop, maintain, and, when appropriate, revise land use plans which provide by tracts or areas for the use of the public lands.” 43 U.S.C.

§1712(a). FLPMA’s procedural measures apply to the O&C lands, but in the event FLPMA conflicts with the substantive measures of the O&C Act “insofar as they relate to the management of timber resources,” the O&C Act prevails. 43 U.S.C.A. § 1701 Savings Provision Note (West 2010).

**C. The Northern Spotted Owl.**

24. The spotted owl (*strix occidentalis*) is a medium-sized nocturnal bird that inhabits forests of western North America from southern British Columbia through Washington, Oregon, California, Arizona and New Mexico and into northern Mexico. Three subspecies of the spotted owl have been recognized: northern (*strix occidentalis caurina*), California (*strix occidentalis occidentalis*) and Mexican (*strix occidentalis lucida*).

**1. Listing.**

25. The ESA protects fish, wildlife and plants through the process of “listing” a species of fish or wildlife or plants as threatened or endangered. 16 U.S.C. §1533(c)(1). A subspecies is included within the definition of species. 16 U.S.C. §1532(16). On June 26, 1990 FWS listed the northern spotted owl as a threatened species throughout its range. 55 Fed. Reg. 26114.

**2. Previous Designations of Critical Habitat; Adoption of Northwest Forest Plan.**

26. The ESA directs the Secretary “to the maximum extent prudent and determinable” to designate “critical habitat” for a listed species. 16 U.S.C. § 1533(a)(3). The ESA defines critical habitat as:

(I) the specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the provisions of section 4 of this Act, on which are found those physical or biological features (I) essential to the conservation of the species and

(II) which may require special management considerations or protection; and

(ii) specific areas outside the geographical area occupied by the species at the time it is listed in accordance with the provisions of section 4 of this Act, upon a determination by the Secretary that such areas are essential for the conservation of the species.

16 U.S.C. § 1532(5).

27. The Secretary can designate or revise critical habitat only “after taking into consideration the economic impact, and any other relevant impact, of specifying any particular area as critical habitat.” 16 U.S.C. § 1533(b)(2). The Secretary has discretionary power to exclude areas from designation as critical habitat:

The Secretary may exclude any area from critical habitat if he determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless he determines, based on the best scientific and commercial data available, that the failure to designate such area as critical habitat will result in the extinction of the species concerned.

*Id.*

28. FWS regulations require the agency to include in any critical habitat designation the primary constituent elements (PCEs) that constitute the “physical or biological features ... essential to the conservation of the species” in the statutory definition of critical habitat. 50 C.F.R. §424.12(b).

29. On January 15, 1992 the FWS designated 6,887,000 acres of federal land as critical habitat for the northern spotted owl in 190 Critical Habitat Units (CHUs). 57 Fed. Reg. 1796, 1809. The CHUs were largely based on Habitat Conservation Areas proposed in 1990 by the Interagency Scientific Committee (J.W. Thomas, E.D. Forsman, J.B. Lint, E.C. Meslow, B.R. Noon, and J.

Verner, *A Conservation Strategy for the Northern Spotted Owl* (1990)) (Thomas Report). 55 Fed. Reg. 1800-11.

30. The FWS exercised its discretionary authority under 16 U.S.C. § 1533(b)(2) in 1992 to exclude all private and tribal lands from critical habitat, totaling about 3,100,000 acres, because the FWS believed the benefits of excluding these acres outweigh the benefits of inclusion. 57 Fed. Reg. at 1806.

31. In 1994 the Secretaries of Interior and Agriculture adopted a land management plan known as the Northwest Forest Plan (NWFP) for the administration of the O&C lands as well as all or parts of 19 national forests in Washington, Oregon and California that lie within the range of the northern spotted owl. The Northwest Forest Plan established a set of land use allocations including late-successional reserves, connectivity blocks, managed late-successional areas, and managed and reserve spotted owl pair areas where, along with other Congressionally reserved areas and administratively withdrawn areas, little or no timber harvest can occur. The Northwest Forest Plan established four million acres of “matrix lands” where sustained-yield timber harvest would be permitted. The expected annual timber sale level from the matrix lands is currently set, after several reductions, at 802 million board feet per year. The Northwest Forest Plan also created 1.5 million acres of Adaptive Management Areas where experimentation in timber harvest could in some circumstances occur, although it has occurred only rarely in fact. The NWFP was incorporated into BLM resource management plans (RMPs) in 1995, which as subsequently amended authorize the BLM to offer 208 million board feet of timber per year from the O&C lands, an 82% reduction from

the 1.176 billion board foot harvest level previously in effect. Certain Plaintiffs and other citizens filed a legal challenge in this court against the Secretary of Interior's adoption of the NWFP in *American Forest Resource Council et al. v. Caswell*, No. C94-1031 (D.D.C.).

32. On February 10, 1994, FWS issued a biological opinion concluding that the NWFP as proposed was not likely to jeopardize the continued existence or result in destruction or adverse modification of designated critical habitat of the northern spotted owl. The FWS promised to "approach the public to re-examine the need for critical habitat if [the NWFP] is adopted." However it failed to do so.

33. In April 2002 many of the plaintiffs in this case filed a complaint against the Secretary of Interior, challenging, among other things, the Secretary's failure to consider revising critical habitat as the FWS had promised in 1994. *Western Council of Industrial Workers v. Secretary of Interior*, Civ. No. 02-6100-AA (D. Or.) The parties settled that case in 2003, and as part of the settlement the Secretary agreed to consider revising critical habitat for the northern spotted owl. 73 Fed. Reg. 47328. FWS published a final rule on August 13, 2008 revising critical habitat for the northern spotted owl, which totaled approximately 5,312,300 acres. 73 Fed. Reg. 47326.

34. The 2008 revised critical habitat rule for the northern spotted owl was challenged in this Court by many of the plaintiffs in this case, who alleged that the revised rule unlawfully included areas that may not properly be designated as critical habitat under the ESA, and was unlawful for other reasons as well. *Carpenters Industrial Council v. Kempthorne*, No.1:08-cv-01409-EGS (filed August 13, 2008). Environmental advocacy organizations joined the case to challenge some aspects

of the critical habitat designation while defending other aspects.

35. Following the change in Presidential administrations in 2009, FWS moved for voluntary remand and vacatur of the 2008 critical habitat. The court granted the motion for voluntary remand but denied the motion for vacatur of the 2008 critical habitat, and set a deadline of November 15, 2012 for completion of a revised critical habitat rule, later extended to November 21, 2012. On that date, the Final Rule was forwarded to the Federal Register for publication, which occurred on December 4, 2012.

### **3. Recovery Planning for the Northern Spotted Owl.**

36. FWS is required to prepare a “recovery plan” for listed species unless “such a plan will not promote the conservation of the species.” 16 U.S.C. §1533(f)(1). A “recovery plan” for a listed species must contain “objective, measurable criteria which, when met, would result in a determination ... that the species be removed from the list.” 16 U.S.C. §1533(f)(1)(B)(ii). “A species may be delisted on the basis of recovery only if the best scientific and commercial data available indicate that it is no longer endangered or threatened.” 50 C.F.R. § 424.11(d)(2) (1984). The ESA uses the term “conservation” to describe actions “to bring any endangered species or threatened species to the point at which the measures provided [in the ESA] are no longer necessary.” 16 U.S.C. §1532(3). Thus, a “recovery plan” seeks “recovery” through “conservation.”

37. In 1992 FWS prepared a draft recovery plan for the northern spotted owl, but never finalized the document. In 2008 FWS issued a Recovery Plan for the northern spotted owl.

Following the 2009 change in Presidential administrations, and the filing of a legal challenge

by environmental advocacy organizations in the *Carpenters Industrial Council v. Kempthorne* case seeking to invalidate the 2008 Recovery Plan, FWS obtained permission from the court to withdraw the 2008 Recovery Plan and prepare a Revised Recovery Plan. On June 30, 2011 FWS issued a Revised Recovery Plan for the Northern Spotted Owl (Rev. Rec. Plan).

38. The 2011 Recovery Plan recommends (at pages II-1-2) three principal recovery criteria for the northern spotted owl:

1. Recovery Criterion 1 recommends that recovery should require a finding that “[t]he overall population trend of spotted owls throughout the range is stable or increasing over 10 years.”

2. The Recovery Plan recommends dividing the geographic range of the northern spotted owl (from the Canadian border to Marin County, California) into 11 physiographic “provinces” that would serve as “recovery units” for a listed species. Rev. Rec. Plan III-1-2. Recovery Criterion 2 recommends that recovery should require that “Spotted owl subpopulations within each ... province ... achieve viability.” *Id.*

3. Recovery Criterion 3 recommends that recovery should further require that “[t]he future range-wide trend in spotted owl nesting/roosting and foraging habitat is stable or increasing throughout the range, from the date of Revised Recovery Plan approval ....” *Id.* (underlining added).

#### **4. Development of the FWS Modeling Framework.**

39. When FWS began work in 2010 on the Revised Recovery Plan and revised critical habitat designation, FWS decided to develop a new computer modeling framework for the Revised Recovery Plan that would be used for the critical habitat designation and possibly other future

spotted owl conservation decisions. FWS appointed an advisory Spotted Owl Modeling Team from federal agencies and the private sector, and chose to allow the Modeling Team to work and deliberate in secret with no public access to its documents, meetings or discussions.

40. Plaintiffs CIC and AFRC protested the secrecy of the Modeling Team’s work, and in January 2011 filed a legal action under the Federal Advisory Committee Act, 5 U.S.C. App 2, seeking to gain access to Modeling Team documents, meetings and deliberations. *Carpenters Indus. Council v. Gould*, Civil No. 1:11-cv-00181-EGS. In April 2011 FWS reopened the public comment period on the revised recovery plan to allow a 30-day comment period on a 76-page draft plan appendix written by the Modeling Team describing its work. 76 Fed. Reg. 22720 (April 22, 2011). In May 2011 the court ruled in *Carpenters Indus. Council v. Gould* that the Modeling Team likely qualified for an exemption from FACA under an ESA provision, and that the plaintiffs were therefore unlikely to succeed on their claims. *Id.*, Minute Order (May 26, 2011). The case was thereafter voluntarily dismissed. *Id.*, Minute Order (August 8, 2011).

41. When FWS issued its final Revised Recovery Plan on June 30, 2011, FWS explained that “[t]he first step in this recovery strategy is to develop a state-of-the-science modeling framework for evaluating spotted owl habitat and populations.” Rev. Rec. Plan II-2. In Appendix C attached to the Rev. Rec. Plan, the advisory Spotted Owl Modeling Team described the new Modeling Framework it had developed, which involves the sequential use of four computer models: 1) the *GNN-LT model*, developed by the U.S. Forest Service, was selected to provide geographic information to be used in the *MaxEnt model*, an off-the-shelf academic product, to create a map of the “relative habitat

suitability” (RHS) of the entire 57 million acre U.S. spotted owl range from Marin County, California to the Canadian border; 2) MaxEnt’s RHS data was fed into the *Zonation model*, another off-the-shelf academic product, to create a set of possible habitat conservation networks (*i.e.*, potential critical habitat designations); and 3) the *HexSim model*, developed by an EPA employee who was appointed to the Modeling Team, was then used to evaluate the relative effectiveness of the networks.

42. The Recovery Plan included a recommended “recovery action” requiring that federal agencies must “[u]se the habitat modeling process ... to test[] the efficacy of various habitat conservation network scenarios at conserving spotted owl habitat” and must “[u]se the results from this effort to inform decisions concerning the possible development of habitat conservation networks.” Rev. Rec. Plan III-5 (Recovery Action 4). The Modeling Team specifically designed the Modeling Framework to be used for “revisions to the spotted owl critical habitat designation,” Rev. Rec. Plan II-3, and both “hope[d],” *id.*, and “expect[ed]” the Modeling Framework would be used for the critical habitat rule. Rev. Rec. Plan App. C-1.

43. In addition to Appendix C explaining the Modeling Team’s methods, FWS also published a set of responses to public comments (Comment Responses) on the Revised Recovery Plan, including responses to some of the comments on the modeling framework submitted in the reopened comment period. However, FWS did not make any changes to the Modeling Framework in response to the comments; FWS rejected every comment or criticism of the models.

44. In Appendix C and the Comment Responses FWS lavished praise on the Modeling

Framework, describing it as “state-of-the-art science,” Rev. Rec. Plan App. C-2, “a significant advancement in spotted owl recovery planning,” *id.*, “state-of-the-art modeling tools,” Rev. Rec. Plan App. C-3, which “allow the use of powerful, up-to-date scientific tools in a repeatable and scientifically accepted manner,” Rev. Rec. Plan App. C-4, “the best available scientific and quantitative measures for assessing viability,” Comment Responses 3, and “the best available information and understanding of spotted owl biology.” Comment Responses 21. However, FWS has refused to allow the public to see, review or test the actual models it ran within the Modeling Framework, and has never fully disclosed the parameters, variables and inputs used in the models. Comment Responses 63.

45. The Modeling Framework begins with maps produced by the GNN-LT model, which “is a method for predictive vegetation mapping that uses direct gradient analysis and nearest-neighbor imputation to ascribe detailed attributes of vegetation to each pixel in a digital landscape map, using Gradient Nearest Neighbor (GNN) imputation ... and LandTrendr algorithms.” Rev. Rec. Plan App. C-16. “The assumption behind GNN methods is that two locations with similar combined spatial ‘signatures’ should also have similar forest structure and composition.” *Id.* For its modeling, FWS used two separate data sets encompassing a three year period surrounding 1996 and 2006, respectively, which it referred to as “bookends.” “This novel bookend mapping approach presents challenges associated with spectral differences due to different satellite image dates, which might produce false vegetation changes. To minimize the potential for this, the bookend models were based on Landsat imagery that was geometrically rectified and radiometrically normalized using the

LandTrendr process.” *Id.*

46. FWS chose to apply the GNN data base to 30 square meter pixels of land, although such fine-level analysis is not the intended purpose of the data base: “The GNN vegetation database was specifically developed for mid- to large-scale spatial analysis ..., suggesting that accuracies at the 30-m pixel scale may be less influential to results obtained at larger scales.” Rev. Rec. Plan App. C-16. Yet FWS did no formal evaluation of the inaccuracy of misapplying GNN data to 30 meter pixels, and does not know how accurate the GNN-LT data is for a 30 meter pixel. *Id.*

47. The MaxEnt model assigns an RHS calculation to each pixel based on the overall habitat characteristics of approximately 1,100 acres of land found within a half mile radius circle around each pixel. Rev. Rec. Plan App. C-41. FWS admitted that the MaxEnt-produced RHS calculation for each 30 meter pixel can be very inaccurate, and can produce both false positives and false negatives: “It is important to understand that a high RHS value is possible for a pixel that has little inherent value (*e.g.*, there are no trees in the 30x30 m focal pixel).” *Id.* Conversely, an area assigned a relatively high RHS by MaxEnt does not necessarily contain any suitable spotted owl habitat. FWS reported a comment that based on review of empirical data MaxEnt’s “overall combined error rate was over 40 percent.” Dunk *et al.* 2012b (Modeling Supplement made available on FWS website on November 24, 2012 for review with Final Rule) at 81.

48. Thus, when the Rev. Rec. Plan was issued on June 30, 2011, FWS had created the new Modeling Framework for its critical habitat designation, and had determined that the Modeling Framework constitutes the “best scientific and commercial data available” for the critical habitat

designation, but the Modeling Framework had never been applied or evaluated for any real-world application, and the significance and utility of its outcomes were unknown.

**5. Presidential Memorandum on Northern Spotted Owl Critical Habitat.**

49. On February 28, 2012 the President issued a memorandum directing the Secretary of Interior to take a series of procedural steps regarding the northern spotted owl critical habitat designation. Final. Econ. An. ES-2. The very first directive was for FWS to prepare and publish “a full analysis of the economic impacts of the proposed rule, including job impacts.”

**6. Use of Modeling Framework for the critical habitat rule.**

50. FWS never considered using any methodology except the Modeling Framework in the critical habitat rulemaking in 2011-2012. The advisory Spotted Owl Modeling Team (writing as “Dunk *et al.* 2012”) foreclosed any alternative to the Modeling Framework by definitively stating in February 2012, in a report intended to be reviewed with the proposed critical habitat rule, that “[t]he approach we have adopted makes use of the best available quantitative modeling tools.” *Id.* at 1.

51. FWS’ unwavering commitment to its Modeling Framework is demonstrated most clearly by the Draft and Final Environmental Assessment (EA) issued along with the critical habitat rule. The proposed rule identified 13,962,449 acres of land that meet the definition of critical habitat and should be designated. Draft EA at 5; 77 Fed. Reg. 14067. The proposal represented “Composite 7” that FWS had produced through application of the Modeling Framework. However, an environmental assessment must consider a range of alternatives. The Draft EA identified Composite

7 as its preferred alternative, but the only identified alternatives to designating Composite 7 were three variations of Composite 7 in which certain categories of the areas within the Composite 7 network (national parks, congressionally-designated wilderness areas, state parks, private land managed under a Habitat Conservation Plan (HCP) approved by FWS and other private land) might be “excluded” from critical habitat on non-biological grounds under the authority provided in 16 U.S.C. §1533(b)(2), or a small military base in Washington state might be excluded for non-biological reasons under the separate authority provided in 16 U.S.C. §1533(a)(3). 77 Fed. Reg. 14068; Draft EA at 14-25. Similarly, in the Final EA, the only identified alternatives were the Final Rule and comparable variations excluding the same categories of land. Final EA at 23-38. In all the alternatives, the Modeling Framework was the only basis for the biological analysis of land areas that meet the legal definition of critical habitat. While the Modeling Team recognized that “[t]here are likely to be multiple defensible approaches to the challenge of identifying a species’ critical habitat,” Dunk *et al.* 2012 at 1, FWS refused to consider any alternative approach that was not based on its Modeling Framework.

52. FWS stated that the purpose and need for the critical habitat designation was to “designate areas that are essential to the conservation of the owl, either because they contain the essential features or are essential themselves, but simultaneously minimize effects to other land and resource uses by using an efficient network design in determining what is essential.” Final EA at 3. FWS chose to rely exclusively on the Modeling Framework to determine what habitat is essential and what network is most efficient. “[M]odeling enabled us to assess the amount and configuration of habitat

essential to the conservation of the northern spotted owl, ... [and] helped us propose an efficient network design.” Draft EA at 25; Final EA at 42. FWS rejected the No Action Alternative (the 2008 designated critical habitat) after FWS found, using the Modeling Framework, that “it does not meet the purpose and need” of the designation because “it includes some lands that do not meet the definition of critical habitat and does not include other lands that are essential to conserve the species.” Final EA at 23.

53. FWS generalized that approach, and determined that no alternative could meet the purpose and need for the critical habitat rule except the single habitat network developed through the Modeling Framework that contains the land “essential to the conservation of the northern spotted owl in the most efficient configuration possible.” 77 Fed. Reg. 71878. Any other network would by definition be either too big (because it is not the most efficient) or too small (because it does not include land considered essential to conservation): “Some scenarios did not contain all the habitat that was essential for conservation and recovery of the spotted owl based on modeled population performance of the spotted owl. The other reason scenarios failed to meet the purpose and need was that they encompassed more acreage than was necessary to provided habitat that was essential for conservation of northern spotted owls ....” Final EA at 43-44. By establishing from the start that the Modeling Framework would produce the only habitat network that will contain all habitat that is essential to conservation and no habitat that is unnecessary for conservation, FWS assured that it could neither consider nor select any other alternative.

**7. Public comments on use of the Modeling Framework for the critical habitat rule.**

54. As part of its comments on the proposed critical habitat rule, plaintiff AFRC submitted a five-page comment criticizing the use of the GNN-LT habitat data layer as the basis for the entire Modeling Framework. AFRC's critique was supported by a 54-page paper from Dr. Larry Irwin, one of the world's renowned northern spotted owl experts who works for the National Council for Air and Stream Improvement (NCASI), a research organization funded by a mix of private and federal funds. Dr. Irwin has conducted peer-reviewed biological field research on spotted owls for 25 years in Oregon and Washington, was a peer reviewer of the proposed rule, and has served on several FWS northern spotted owl advisory teams. AFRC was also supported by a 13-page paper by Drs. Bryan F.J. Manly and Andrew Merrill, biostatisticians with Western EcoSystem Technology, Inc. of Laramie and Cheyenne, Wyoming. AFRC and all three of the Ph.D.-level scientists severely criticized the use of the GNN-LT model to provide the "factual" basis for the modeling framework, including identification of the PCEs in the designated areas "that are essential to the conservation of the species." 50 C.F.R. §424.12(b). AFRC explained:

The use of the GNN-LT database is inappropriate to determine what stands contain the primary constituent elements (PCEs) needed for the conservation of the species. This is because it does not depict what actual vegetative components exist on the ground, but is rather a computer simulation of what might exist on the ground. The researchers who developed the GNN-LT maps stated clearly that these tools are only suitable for use in broad scale assessments, and should not be used for site specific applications such as the delineation of stands that contain specific attributes, i.e. PCEs.

AFRC Comment at 2. "One of the reasons that the GNN-LT vegetation layer is only appropriate for broad scale use is that there are significant errors between the predicted vegetative attribute of a

stand and the actual values. ...The GNN's predicted values for the basic tree species found on a plot of land are erroneous between 11% and 47% of the time depending on the species." AFRC Comment at 4.

55. The three Ph.D.-level scientists also criticized the use of the MaxEnt model. Dr. Irwin found that the suitable spotted owl habitat identified through the combined use of the GNN-LT habitat layer and the MaxEnt model had misidentified 57 percent of actual occupied spotted owl sites on Dr. Irwin's long-time study area near Springfield, Oregon.

56. Dr. Irwin further explained: "If MaxEnt relative habitat suitability (RHS) values truly are related to NSO population performance, a reasonably strong pattern of increasing rates of occupancy and reproductive success by owl pairs with increasing RHS values would be expected. However, we found no strong relationship between RHS values and the number of years that sites were occupied by NSOs or with average reproductive rates for our western Oregon study area. Similarly, we could not demonstrate that MaxEnt RHS values were correlated with average annual reproductive success for NSOs in the 14-year study in the eastern Washington Cascades. In fact, owl pairs at sites with high RHS values in that study area generally exhibited reduced reproductive rates. Also, reproductive rates for owls at sites with relatively low RHS values, not considered 'suitable' for owls by HexSim modeling, exhibited occupancy and reproductive rates as high or higher than those owls at sites with high RHS values. These results suggest that Maxent is not reliable for identifying high-quality habitats or 'good' owl sites." NCASI Comments on the Draft Proposed Critical Habitat Rule for the Northern Spotted Owl (2 July 2012) at 4.

57. Drs. Manly and Merrill criticized MaxEnt from a theoretical standpoint, relying in part on two peer-reviewed studies published in 2012 (known as “Torres *et al.*” and “Royle *et al.*”) that had found serious deficiencies in the performance of the MaxEnt model. Torres *et al.* found that MaxEnt overidentified suitable habitat for a species: while some areas with a high RHS rating had a high number of species (although the correlation was very weak) other areas with a high RHS rating had a very low number of species. As Drs. Manly and Merrill explained: “a high habitat suitability index does not necessarily mean that a species is present in an area.” Comments on Statistical Aspects of the U.S. Fish and Wildlife Service's Modeling Framework for the Proposed Revision of Critical Habitat for the Northern Spotted Owl (6 July 2012) at 4. The Royle *et al.* paper, principally written by a well-known biostatistician with the U.S. Geological Survey, was even more broadly critical of MaxEnt: "MaxEnt produces a number of poorly defined indices that are not directly related to the actual parameter of interest - the probability of occurrence". The authors applied MaxEnt to an actual set of data for a bird species, and found that "MaxEnt's 'logistic output' greatly underestimates the probability of occurrence throughout the core of the species' range and overestimates the occurrence probability in regions where the species was never detected." Dr. Royle recommended use of a different modeling approach called the “maximum likelihood estimation method.”

58. Drs. Manly and Merrill obtained from FWS the actual data set used by FWS to determine critical habitat in two of its 11 modeling regions, and applied MaxEnt and the maximum likelihood estimation method to the actual data. They found MaxEnt’s predictive power was “far from being strong. It appears that if the probability of an owl being present is 0.2 or less then the MaxEnt habitat

suitability index can be anything within a range from 0 to over 0.6, while if the MaxEnt habitat suitability index is over 0.2 then the probability of a presence can be anything between about 0.2 to 1.0.” They found that the two models produced “very different maps” of suitable owl habitat and that the maximum likelihood map was superior to the MaxEnt map: while “the maximum likelihood map shows clear areas of very high probability of a presence [of owls], in the MaxEnt map those areas “are not separated from areas with lower probabilities of a presence.” Comments on Statistical Aspects of the U.S. Fish and Wildlife Service's Modeling Framework for the Proposed Revision of Critical Habitat for the Northern Spotted Owl (6 July 2012) at 6.

59. On December 4, 2012 FWS published the Final Rule revising northern spotted owl critical habitat in the Federal Register. 77 Fed. Reg. 71876. The revised designation became effective January 3, 2013.

60. The Final Rule is causing current and threatened injury to plaintiffs, who have no remedy at law for these injuries.

### **Claims for Relief**

#### **FIRST CLAIM**

**(Violation of O & C Act, 43 U.S.C. §1181a; arbitrary and capricious agency action under 5 U.S.C. §706(2) – Final Rule prevents Secretary from complying with non-discretionary duty in the O & C Act to offer for sale annually the volume of timber determined and declared as the allowable sale quantity)**

61. Plaintiffs repeat and reallege the allegations in paragraphs 1-60 as if fully set forth herein.

62. The O & C Act requires that the “annual productive capacity” of the O & C lands “shall be determined and declared [and] . . . timber from said lands in an amount not less than ... the annual

sustained yield capacity ... shall be sold annually, or so much thereof as can be sold at reasonable prices on a normal market.” 43 U.S.C. §1181a.

63. Each of the BLM's 1995 RMPs for its western Oregon districts determines and declares the annual productive capacity of the district. The O & C Act imposes on the BLM a non-discretionary duty to sell, or at least offer for sale at reasonable prices, that volume of timber every year in every district.

64. The Final Rule designates as critical habitat over 500,000 acres of O & C timberlands that are classified as matrix lands under the NWFP and the 1995 RMPs. Final Economic Analysis (Final Econ. An.) 4-15. All of those lands are currently managed for sustained-yield timber harvest under the O & C Act in accordance with the provisions of the governing 1995 RMPs. However, the critical habitat designation will compel the BLM to change the management of the 500,000 designated acres of O & C matrix lands in order to assure its actions that are “not likely to ... result in the destruction or adverse modification of [designated critical] habitat,” as required by 16 U.S.C. §1536(a)(2).

65. The Final Rule will make it impossible for Defendant to conduct the sustained-yield timber management on the designated matrix lands mandated by the O & C Act. FWS acknowledges that the designation of these lands as critical habitat means that future timber management in these areas will “likely be significantly different than a traditional matrix timber-harvest prescription.” Final Econ. An. App. B-12. FWS also states that “[w]here spotted owl habitat would be harvested within proposed critical habitat in these land-use allocations, we would likely request a modification to the prescriptions in an effort to retain and improve spotted owl habitat to better meet critical habitat

goals.” Final Econ. An. App. B-11. Such an FWS “request” to the BLM in an ESA consultation is effectively a mandate to BLM to make the “requested” change. In addition, FWS admits that following a catastrophic wildfire, a frequent occurrence on the O & C lands, the critical habitat designation will also limit salvage logging that would otherwise be allowed under the 1995 RMPs: “critical habitat designation could shift post-fire salvage management guidelines in the matrix from extraction of timber resources to ‘conserving and restoring habitat elements ....” Final EA at 4-5 (footnote omitted). The BLM advised FWS during the public comment period on the proposed rule that the proposed designation of the 500,000 acres of matrix O & C lands would likely result in a 68% reduction in the annual timber sale level on those lands compared to the annual productive capacity for the lands that was determined and declared for each BLM district in the 1995 RMPs.

66. In response to comments suggesting that designation of critical habitat on O & C timberlands is not lawful, FWS stated in the Final Rule its erroneous belief that “[t]he O&C Act ... does not limit the Service’s authority to designate critical habitat for the northern spotted owl.” 72010, 72032. FWS thus erroneously interpreted the critical habitat provisions of the ESA to override and nullify the mandatory terms of the O & C Act, contrary to authoritative Supreme Court precedent addressing conflicts between statutes, and implied repeals of conflicting statutes.

67. Defendant Salazar implements both the O & C Act and the ESA, and is obligated by law to seek to administer both laws to the maximum extent possible. Defendant Salazar violated that duty in this case. By effectively prohibiting BLM from complying with its non-discretionary duty under the O & C Act to sell, or offer for sale at reasonable prices, the declared annual sustained yield

harvest level of timber every year in every district, the Final Rule violates the O&C Act, 43 U.S.C. § 1181a, and FLPMA, 43 U.S.C. § 1732(a), and is arbitrary and capricious, an abuse of discretion, not in accordance with law, without observance of procedure required by law, in excess of statutory authority and short of statutory right under 5 U.S.C. § 706(2).

## SECOND CLAIM

**(Violation of O&C Act, 43 U.S.C. §1181a; arbitrary and capricious agency action under 5 U.S.C. §706(2); Final Rule prevents Secretary from managing O&C timberlands for permanent sustained yield timber production)**

68. Plaintiffs repeat and reallege the allegations in paragraphs 1-60 and 62-67 as if fully set forth herein.

69. The Final Rule violates the duty imposed on the Secretary of Interior by the O&C Act, 43 U.S.C. § 1181a, that “[O & C lands] classified as timberlands . . . shall be managed . . . for permanent forest production, and the timber thereon shall be sold, cut, and removed in conformity with the principal [*sic*] of sustained yield.” The Final Rule effectively prohibits the sustained yield timber production on the 500,000 acres of designated matrix O & C lands mandated by the O & C Act. The Final Rule constitutes a finding that the O & C Act was impliedly repealed by the ESA, a finding that has no basis in law.

70. By effectively prohibiting BLM from managing the 500,000 acres of designated O & C matrix lands for sustained yield timber harvest, the Final Rule violates the O&C Act, 43 U.S.C. § 1181a, and FLPMA, 43 U.S.C. § 1732(a), and is arbitrary and capricious, an abuse of discretion, not in accordance with law, without observance of procedure required by law, in excess of statutory

authority and short of statutory right under 5 U.S.C. § 706(2).

### THIRD CLAIM

**(Violation of 5 U.S.C. §553; arbitrary and capricious agency action under 5 U.S.C. §706(2); – Final Rule based on unlawful recovery criteria improperly adopted from Revised Recovery Plan without adequate notice and comment)**

71. Plaintiffs repeat and reallege the allegations in paragraphs 1-60 as if fully set forth herein.

72. FWS announced in its proposed critical habitat rule that it was applying the recovery criteria established in the Revised Recovery Plan:

[W]e developed a rule set for the identification of critical habitat based on the ability of that habitat to meet the recovery objectives and criteria set forth in the Revised Recovery Plan for the Northern Spotted Owl ....

[O]ur evaluation of the various habitat scenarios ... enabled us to determine the amount and configuration of habitat essential to the conservation of the owl, based on the relative ability of that habitat network to meet the recovery criteria of stable or increasing populations and adequate distribution of viable populations.

77 Fed. Reg. 14098, 14100.

73. By designating critical habitat in the Final Rule to achieve the standards in Recovery Criteria 2 and 3, FWS applied an incorrect legal standard to the Final Rule that resulted in a critical habitat designation far in excess of permissible limits. FWS has no authority to designate critical habitat for a listed species to achieve any objective beyond delisting the species.

74. Recovery Criterion 2: Requirement for a stable or increasing population for every subregion. Recovery Criterion 2 requires that the species population in every individual subregion achieve stability before delisting of the species can occur. FWS commonly establishes recovery criteria for listed species that do not require achieving separate recovery for every subpopulation of

the species. By requiring a stable or increasing population for all 11 of the provincial subpopulations, Recovery Criteria 2 requires a biological status far more demanding than recovery under the ESA. FWS lacks legal authority to designate critical habitat to achieve any outcome except delisting.

75. Recovery Criterion 2: Requirement for self-sustaining “viable populations”. Recovery Criterion 2's requirement that all 11 subpopulations be “viable” demands an even higher biological status. A “viable population” is defined in the Rev. Rec. Plan to mean “a self-sustaining population.” Rev. Rec. Plan at Appendix G-4. A “self-sustaining” population means that population stability results from the local breeding of owls rather than immigration of birds from another subregion. *See* 77 Fed. Reg. 71924 (questioning whether a designated critical habitat subunit “is capable of supporting a self-sustaining subpopulation of owls without support from the subunit to the north.”). The ESA does not prohibit delisting a species due in part to relocation of animals from one area to another. The requirement for 11 “self-sustaining” regional subpopulations thus commands a biological status well beyond ESA recovery, and improperly commands that status for each of the 11 subpopulations. FWS has no legal authority to designate critical habitat to achieve that goal.

76. The requirements in Recovery Criterion 2 to achieve stable, self-sustaining populations in all 11 regions profoundly distorted the northern spotted owl critical habitat designation. Five of the provinces, North Coast Olympics (NCO), West Cascades North (WCN), West Cascades Central (WCC), East Cascades North (ECN) and East Cascades South (ECS) are and will remain in the

future at high risk of extirpation (*i.e.*, extinction at a local level). As the Modeling Team explained, these five provinces “exhibited consistently poor population performance regardless of network design.” Dunk *et al.* 2012b at 35. These results were no surprise to the Modeling Team: “These results are consistent with past conservation planning efforts that identified the North Cascades, North Cascades East, Olympic Peninsula, and Southwestern Washington as Areas of Special Concern due to low population sizes, sparse distribution of suitable habitat due to high elevations, high proportions of private industrial timberlands ..., and past management practices ....” *Id.* at 36. A sixth region, the Oregon Coast Range (OCR) province, long recognized as weak among spotted owl subregions, also “exhibit[ed] poor population performance, regardless of network design or habitat change scenario.” *Id.*

77. The five southern regions are much different. “In contrast to the northern modeling regions, the Klamath-Siskiyou region and southwestern Cascades supported relatively robust populations of spotted owls. ...[and] represented from 80-87% of the total range-wide population of spotted owls ....” Dunk *et al.* 2012b at 37. The FWS modeling projected that under the Final Rule 86 percent of all the spotted owls that would be alive in the future would be found in the five southern regions. *Id.* at 64 (Table 30). The projected future population of the five southern subregions was not statistically different (to the standard 95 percent confidence interval) from the projected total population in all 11 subregions (*i.e.*, the 95 percent confidence interval for the five southern subregions overlapped the 95 percent confidence interval for all 11 subregions). *Id.* The critical habitat in the six weak northern regions did not add anything to the projected total owl

population.

78. Yet to meet Recovery Criterion 2, FWS designated almost five million acres of critical habitat in the six northern subregions. 77 Fed. Reg. 71919 (Table 6). FWS also designated additional acres of critical habitat to provide “connectivity” between the low-performing subregions and “adjacent regions with larger spotted owl populations.” 77 Fed. Reg. 71889. Recovery Criterion 2 prohibited FWS from considering any configuration of critical habitat that did not include the six northern subregions.

79. Recovery Criterion 3. Recovery Criterion 3's recommendation that, regardless of population trends, recovery must also require stable or increasing habitat throughout the range, relative to the habitat existing on the date of Revised Recovery Plan approval, also has no basis in the ESA, no justification in the Final Rule, and led to the designation of more habitat than legally permitted. Recovery Criterion 3 creates the potential that even if the northern spotted owl achieved the seemingly-impossible goal of a self-sustaining stable or increasing population in all 11 subregions, the species would still remain listed indefinitely because the existing habitat for the species at that future time is smaller than the habitat that existed on June 30, 2011 when the Revised Recovery Plan was adopted. This perverse outcome has no support in the language of the ESA and would actually frustrate the objectives of the ESA – to recover species to the point that listing is no longer necessary. 16 U.S.C. §§1532, 1533. Currently large amounts of suitable spotted owl habitat are unoccupied by spotted owls due to the presence of barred owls; if FWS proceeds with a barred owl removal program much more currently unoccupied suitable habitat will become available for

northern spotted owls. Yet by adopting Recovery Criteria 3, the Final Rule will create even more unoccupied owl habitat in the future – even if the population is fully recovered.

80. In the Final Rule FWS expanded Recovery Criterion 3 with a “rule set” that added two more habitat requirements: “[e]nsure distribution of northern spotted owl populations across representative habitats [and] [m]aintain distribution across the full ecological gradient of the historical range.” 77 Fed. Reg. 71914 (underlining added). The ESA does not incorporate either of these habitat requirements into its recovery standard, and FWS offered no explanation for its insistence on achieving those goals, even though AFRC challenged those components in its written comments. Critical habitat designated to fulfill the rule set is unlawful.

81. The FWS requirement for spotted owl habitat to remain at or above its June 30, 2011 level also represents an unexplained reversal of science-based policy FWS has endorsed for more than two decades holding that regional spotted owl habitat levels are expected to decline for many decades before reaching a stable population level in the future. This policy was first articulated in the 1990 Thomas Report which stated that “[a]n implied assumption of this conservation strategy is that the owl population will reach a new, stable equilibrium at some future time. We are confident in this assumption, even though the amount of suitable habitat and the number of owls will continue to decline over the short term. ... This equilibrium will, of course, be at a lower population number than existed historically. Further, ... considerable time may be required for the population to stabilize at a new equilibrium number.” *Id.* at 35 (underlining added). The landmark 1993 Forest Ecosystem Management Assessment Team (FEMAT) Report prepared at the direction of President Clinton

estimated that the downward trend for the northern spotted owl population and habitat level “will likely occur during the first 50-150 years after a management plan is implemented.” FEMAT Report at IV-183. The 1994 Northwest Forest Plan Record of Decision found that the plan “would adequately provide for the continued viability of the northern spotted owl on federal lands,” *id.* at 30, even though “[a]pproximately two and one-half percent of the extant amount of spotted owl habitat likely will be harvested per decade under our decision.” NWFP ROD at 46.

82. FWS never acknowledged that Recovery Criterion 3 reversed this longstanding and widely-accepted policy, and never explained why it had jettisoned the “best available science” it has employed for two decades. FWS presented no scientific data or analysis showing that the habitat level existing on June 30, 2011 must be maintained for eternity in order to recover the northern spotted owl. Rather, with no discussion, FWS simply adopted Recovery Criterion 3, enhanced by its “representative habitats” and “full ecological gradient” requirements in its “rule set,” as a binding floor to its critical habitat decision. That decision was arbitrary and capricious.

83. Rulemaking Violation. In the proposed critical habitat rule, FWS did not identify the decision to adopt the Recovery Plan’s Recovery Criteria as one of its lengthy list of subjects for public comment. 77 Fed. Reg. 14071-72. Nonetheless AFRC submitted a lengthy written comment (over 1,250 words in length) to FWS during the public comment period explaining that the Revised Recovery Plan’s recovery criteria, including using provinces as recovery units, were inconsistent with the ESA definition of recovery, required conditions beyond the ESA’s requirements for recovery, and had no lawful basis. AFRC Comments 41-44.

84. FWS ignored AFRC's comment, and ignored the entire issue of using the Revised Recovery Plan recovery criteria to guide designation of critical habitat. With no explanation, the Final Rule summarily confirmed that "[w]e relied on the recovery criteria set forth in the Revised Recovery Plan for the Northern Spotted Owl (USFWS 2011) to determine what is essential to the conservation of the species ...." 77 Fed. Reg. 71877. FWS offered no justification for that decision, and in its "comment responses" section of the Final Rule, 77 Fed. Reg. 71989-72046, did not identify or respond to any comment concerning adoption of the Revised Recovery Plan recovery criteria.

85. The FWS decision adopting the non-binding Revised Recovery Plan recovery criteria to guide the critical habitat designation, without any explanation or justification, without soliciting comment on that decision, and without either considering or responding to AFRC's lengthy written comment objecting to that decision, violates the rulemaking requirements of the APA, 5 U.S.C. §553.

## **CLAIMS RELATING TO MODELING FRAMEWORK**

### **FOURTH CLAIM**

**(Arbitrary and capricious agency action under 5 U.S.C. §706(2) – Modeling Framework fails to bear a rational relationship to reality)**

86. Plaintiffs repeat and reallege the allegations in paragraphs 1-60 as if fully set forth herein.

87. The FWS Modeling Framework fails to bear a rational relationship to reality in its representation of two of the most important influences on the recovery of the northern spotted owl: 1) the interactions between barred owls and northern spotted owls, and 2) future habitat conditions.

For both factors, using actual current conditions as model inputs rendered the Modeling Framework useless. FWS responded to these results not by adjusting or abandoning the Modeling Framework but by adopting arbitrary, unrealistic and implausible assumptions for each of the two factors that bear no relation to reality.

**A. Barred Owl Encounter Rates**

88. The common barred owl (*strix varia*) arrived on the Pacific coast of Washington state near the time the northern spotted owl was listed under the ESA, and in the past 10 years has aggressively expanded its presence southward into the entire range of the spotted owl. Draft Environmental Impact Statement on Experimental Removal of Barred Owls to Benefit Threatened Northern Spotted Owls (Barred Owl DEIS) (March 2012) at 299. Barred owls disperse and often kill spotted owls, and take over their forest habitat. In the past few years barred owl displacement of northern spotted owls has been accelerating rapidly. 77 Fed. Reg. 72000-01. The Rev. Rec. Plan states: “Barred owls reportedly have reduced spotted owl site occupancy, reproduction, and survival.” Rev. Rec. Plan III-62. FWS has found that “[t]he evidence indicates that barred owls may outcompete northern spotted owls in the area of foraging, ability to densely occupy habitat, reproduction, and physical aggression.” Barred Owl DEIS at 314.

89. In the initial development of the Modeling Framework in 2010-11, the modelers examined the effects of barred owls on spotted owls by using four “barred owl encounter rates” (the likelihood of a northern spotted owl surveyor detecting a barred owl at a site occupied by a northern spotted owl) ranging from 0 (no barred owls) to 0.5 (barred owls present in half the spotted owl sites). Dunk

*et al.* 2012 at 19. At the higher rates, “[b]arred owl impacts were substantial,” *id.* at 21, leading to dramatic projected population declines.

90. By 2011, however, the observed barred owl encounter rates began to exceed 0.5, in one province reaching 0.7. At that level, the models were unable to identify any habitat network that achieved recovery of the northern spotted owl because “the negative effect of barred owls would essentially mask the positive effect of habitat on spotted owl populations.” 77 Fed. Reg. 14066.

91. In the FWS models, the northern spotted owl survival rate was shown to have the greatest impact of any single variable on whether recovery is possible. Dunk *et al.* 2012b at 16. A mere 2.5 percent reduction in the projected northern spotted owl survival rate increases its likelihood of extinction by 250 times. *Id.* Increased presence of barred owls directly reduces northern spotted owl survival rates. *Id.* at 29. Small inaccuracies in the barred owl encounter rates therefore have hugely disproportionate impacts on spotted owl recovery, making the barred owl encounter rate the single most influential statistic in the entire Modeling Framework.

92. FWS also recognizes that the Modeling Framework inherently understates the harmful impact of barred owls on northern spotted owl recovery. While “[b]arred owls reportedly have reduced spotted owl site occupancy, reproduction, and survival,” Rev. Rec. Plan III-62, barred owl encounter rates are only used in the HexSim model, and that model only incorporates the effect barred owls have on spotted owl survival:

In the northern spotted owl HexSim model we used, barred owls only affected northern spotted owl survival, not occupancy or reproduction. ... We did not simulate barred owl impacts on reproduction, territory establishment, site fidelity, or movement behavior.

77 Fed. Reg. 71999.

93. One of the peer reviewers criticized the omission of those impacts from the model. J. David Wiens, Science Peer Review of the 2012 Proposed Revised Critical Habitat Rule for the Northern Spotted Owl. The Wildlife Society, the nation's leading professional organization of wildlife biologists, concurred that "it appears the effects of barred owls in the HexSim modeling are underestimated, maybe severely in some regions." Comment of The Wildlife Society (6 July 2012).

94. The Final Rule confirmed that within the Modeling Framework the higher barred owl encounter rates made it "impossible to determine which specific areas provide the essential physical or biological features." 77 Fed. Reg. 72000. "[E]ffectively all populations did uniformly poorly." 77 Fed. Reg. 72022. "[E]ven doubling the size of the habitat network produced no discernible difference," 77 Fed. Reg. 72000, a telling admission since the final designation is "approximately 50 percent" of all owl habitat, 77 Fed. Reg. 71916, and "doubling the size of the habitat network" would mean designating all owl habitat, which still would not achieve recovery of the northern spotted owl under current barred owl encounter rates. A federal agency peer reviewer wrote: "Unfortunately, the question of whether these [proposed critical habitat] areas are sufficient to sustain spotted owl populations in the face of competition with barred owls is unanswerable given our current understanding of the population-level implications of competitive interactions between barred owls and spotted owls." Letter from Peter Singleton, USFS, PNW Research Station, to Dr. Paul Henson (June 20, 2012) at 3. The rapid spread of the barred owl has now convinced FWS that "[u]sing habitat protection as the only or primary strategy for recovering the northern spotted owl

has not worked in the past and is unlikely to work in the future because, with the barred owl invasion, reserves are not in and of themselves capable of conserving breeding populations of northern spotted owls.” Barred Owl DEIS at 315.

95. Nonetheless, FWS never considered abandoning its Modeling Framework for the critical habitat designation, and could find only one way to attempt to rehabilitate the failed models: “The only avenue that allowed us to discriminate between potential networks ... was to adjust the encounter rates with barred owls to some reasonable level, as might potentially be achieved through management actions.” 77 Fed. Reg. 72000. “We used various metrics of population viability to determine the habitat network – the amount and configuration of habitat – that is essential to the conservation of the northern spotted owl. However, the overwhelming negative influence of barred owls on those measures of population viability confound those results, unless we make some reasonable assumptions that the barred owl threat will be addressed to some degree in the course of recovery implementation.” Dunk *et al.* 2012b at 26.

96. FWS therefore arbitrarily changed the barred owl encounter rate for all 11 regions, with no explanation for the amount of any of the adjustments. For three regions (Oregon Coast Range, North Coast Pacific and Klamath West), FWS reduced the current rate by 20-50 percent. Dunk *et al.* 2012b at 27 Table 4. For the other eight regions, FWS froze the encounter rates for the other eight regions at their current observed level for 20 years, and then limited the future rate to an artificial ceiling level bearing no relation to reality, although FWS agrees that without “barred owl control[,] barred owls [will] continue to increase across the range of the northern spotted owl

unabated,” Dunk *et al.* 2012 at 25 and Table 4. FWS incorrectly claimed that “we decreased barred owl encounter probabilities in only 3 of 11 modeling regions, and increased encounter probabilities in 8 of 11 modeling regions,” 77 Fed. Reg. 72002, because FWS effectively reduced the likely encounter rates in every region by holding the encounter probabilities for those eight regions at current observed levels for 20 years (from “time-step 40” to “time-step 60,” which are modeling surrogates for today and 20 years from today) and suppressing the increases that are in fact occurring everywhere.

97. The Wildlife Society faulted FWS for using reduced encounter rates that “make it very difficult to evaluate the effect of barred owls in the modeling of spotted owl populations; this needs to be clarified and corrected.” Comment of The Wildlife Society (6 July 2012).

98. FWS does not claim its artificially reduced encounter rates can be achieved in the future. “It is important to recognize that the barred owl encounter probabilities we established for modeling purposes do not represent predictions about conditions that will be achieved through management actions, [and are not] an estimate of what is likely to occur in the future.” 77 Fed. Reg. 14066. The 2011 Revised Recovery Plan called for an experimental project to study removal of barred owls from northern spotted owl habitat to determine whether barred owl removal would aid recovery of the spotted owl, and to determine the feasibility and cost of barred owl removal. Barred Owl DEIS at xxiii. Thus, currently FWS does not know if barred owl encounter rates can be reduced at all, let alone reduced to the artificial rates used in the Final Rule.

99. While the FWS Modeling Framework assumed immediate reductions in barred owl

encounter rates, in reality many years will pass before FWS can ever see results from a barred owl removal program even if the experimental project finds that removal is feasible and effective. If FWS decides to conduct an experimental removal program (following completion of a final EIS and other mandated procedural duties), FWS will require between four and ten years of study before any decision could be made to initiate a rangewide barred owl removal program. 77 Fed. Reg. 14066. Removing barred owls is not a short-term proposition; FWS estimates that 50-75 percent of all barred owl sites that undergo removal in one year will be reoccupied by a new barred owl the next year. Barred Owl DEIS at 351-53. The study itself would be enormous, requiring the removal of between two thousand and nine thousand barred owls in various locations across three states. Barred Owl DEIS at xxxii (Table S-1). After the study is completed, FWS would then be required to analyze the study results and conduct another decision-making process, including completion of another environmental impact statement, before deciding to initiate a rangewide removal program. *Id.* at xxii. Multiple years of barred owl removal would then be required for the removal program to be effective, due to barred owl reoccupancy of empty sites. *Id.* at 351-53. There is no plausible way a rangewide barred owl program could be successfully implemented in fewer than ten to fifteen years, even if it proved feasible and effective.

100. A rangewide barred owl removal program, if adopted, would be so vast as to be improbable. The largest of the study alternatives, which would remove nine thousand barred owls, covers less than 7 percent of northern spotted owl habitat. *Id.* At that rate, a rangewide removal program would have to remove well over one hundred thousand barred owls. This vast removal

program would have to be permanent because “[o]nce ... removal ceases, barred owl populations are capable of rapidly refilling vacant territories, both within the treatment area and within the surrounding area where barred owl populations may be temporarily reduced.” Barred Owl DEIS at 353. A rangewide removal program would be enormously expensive: FWS estimates the experimental removal of barred owls on 7 percent of spotted owl habitat will cost seventeen million dollars, *id.* at xxxv, and at that rate, 100 percent removal could easily cost two hundred million dollars – a permanently recurring expense.

101. A rangewide barred owl removal program would also be highly controversial. A federal agency peer reviewer questioned the ecological value of seeking to recover the northern spotted owl by physically removing barred owls: “If, at some point, it is determined that barred owls will inevitably prevent the recovery of northern spotted owls regardless of any, and all, management actions, barring physical removal, the entire feasibility of proceeding to recover the northern spotted owls should be re-evaluated. The proposed physical removal of barred owls would only constitute a temporary intervention. The removal of barred owls will not contribute to the sustainability of long-term ecological processes that promotes and/or maintains habitat for northern spotted owls, or any other organism for that matter. If it does not lead to a sustainable ecological solution, it has no legitimate basis in applied ecology.” Letter from Thomas Sensenig, Ph.D., to U.S. Fish and Wildlife Service (June 3, 2012) at 2.

102. Thus, FWS chose to incorporate into its Modeling Framework a set of arbitrarily-adjusted barred owl encounter rates – central to the model outcomes – that do not match current reality, may

never be achievable, if achievable may not be administratively or financial manageable, and in any event could not plausibly achieve any results for ten to fifteen years from now, even as actual barred owl encounter rates continue to rise rapidly and the numbers of detected spotted owls continue to decline just as rapidly. The result is a model that fails to represent the reality it seeks to portray.

**B. Future habitat conditions.**

103. In the modeling, FWS applied two “habitat change scenarios” to simulate future habitat conditions. Dunk *et al.* 2012b at 23. In the “optimistic” scenario, “within potential critical habitat networks, future gains and losses in RHS occurred as estimated from 1996-2006, whereas outside of habitat networks gains were reduced by 50 percent and losses occurred as observed.” Dunk *et al.* 2012b at 24 (italics omitted). In the “pessimistic” scenario “we held RHS *within* network areas constant at its 2006 estimated level, and treated all areas outside of habitat networks as non-habitat.” *Id.* at 25 (italics in original). FWS did not find that either scenario is likely, but instead “believed that the future reality on the ground would likely fall somewhere between the optimistic and pessimistic RHS scenarios we developed.” *Id.* at 24.

104. The optimistic scenario, using 1996-2006 to project future habitat losses within the designated critical habitat, was very conservative. It overstates losses for the three million or more acres of now-designated critical habitat that were not designated in 1996-2006, since the Final Rule itself makes it clear that habitat losses from timber harvest in the pre-designation days are very unlikely to continue at the same rate after designation. Further, FWS’ assumption that habitat gains observed outside of the habitat network in 1996-06 would be reduced by 50 percent was both

unexplained and arbitrary because there is no reason the habitat gains that occurred in that decade (from younger trees growing into spotted owl habitat) would not continue indefinitely or even accelerate, as both BLM and Forest Service have predicted.

105. For the pessimistic scenario, FWS assumed that within the 9.5 million acre designated habitat network there would never be any increase in the amount of suitable habitat that existed in 2006 (as determined by the models). Yet 6.9 million acres of the designation lies within LSRs and other Northwest Forest Plan reserves, where no sustained-yield timber management is permitted, and the principal management objective is to create and preserve large amounts of new suitable spotted owl habitat. These reserves are designed to create several million additional acres of suitable spotted owl habitat, and the FWS assumption that not a single acre of that additional habitat will ever come into existence is has no reasonable basis (and FWS offered no basis for the assumption).

106. FWS also assumed in the pessimistic scenario that outside the designated network every acre of forest managed by the Forest Service, BLM, the states of Washington, Oregon and California and every private landowner would be permanently reduced to non-habitat status akin to a parking lot. Short of the world ending, there is no imaginable scenario in which that could occur. The Forest Service is mandated to manage its forest lands under the sustained yield management principle that flatly prohibits the pessimistic scenario. 16 U.S.C. §§529, 531. The BLM follows a similar but even stronger sustained yield management principle. 43 U.S.C. §1181a. State lands have similar mandated management plans. Private landowners are not legally mandated to follow sustained yield management, but most landowners have found that sustained yield management is economically

optimal and choose to follow that style of management. All these management regimes have as their principal objective the permanent existence of a forest that undergoes no more harvest in a year than the amount of tree growth that occurs in that year. There is a zero probability under these management plans that all suitable spotted owl habitat could ever cease to exist on these millions of acres of forestland.

107. The problem the FWS modelers experienced is that under the far-more-likely (if conservative) optimistic scenario, the Modeling Framework offered no meaningful insight into the relative efficacy of the various networks. *Id.* at 25. All of the models predicted little change in spotted owl habitat over time, and as a result FWS found that “[a]ll network scenarios performed quite well ....” *Dunk et al.2012b* at 34. The pessimistic scenario, with its implausible assumptions, not surprisingly showed greater differences between larger and smaller networks. *Id.*

108. FWS ignored the failure of the models in the far-more-likely optimistic scenario, and never addressed whether to abandon the models in light of that failure. Instead, FWS chose to “put more emphasis on population results from pessimistic scenarios, and the optimistic minus pessimistic evaluations.” *Id.* at 25 and Tables 8,9,10,13,15,17,19,21,24,26,28,30 and Figure 6 (only displaying model results for pessimistic scenario). The agency’s only explanation for doing so was: “if a habitat network scenario performed well under pessimistic RHS conditions, it would perform even better under more optimistic conditions.” *Id.* at 25. That argument contradicts the models, which had told FWS that all the networks were indistinguishable “under more optimistic conditions,” and none performed better than any others. Further, FWS offered no reason why model outcomes

under an implausible scenario would have any relationship to outcomes in the real world. Thus, FWS neither acknowledged nor confronted the failure of the Modeling Framework in the far-more-realistic (and hardly optimistic) optimistic scenario, further rendering reliance on the Modeling Framework arbitrary and capricious.

109. The FWS decision to base the Final Rule on a Modeling Framework with barred owl encounter rates and future habitat projections that fail to bear a rational relationship to reality is arbitrary and capricious, an abuse of discretion, not in accordance with law, without observance of procedure required by law, in excess of statutory authority and short of statutory right under 5 U.S.C. § 706(2).

#### FIFTH CLAIM

**( Arbitrary and capricious agency action under 5 U.S.C. §706(2) – FWS reliance on Modeling Framework that fails to bear a rational relationship to reality – massive errors in range-wide calculations of spotted owl habitat, designated non-habitat and designated unoccupied suitable habitat; refusal to change or abandon models after receiving reliable contrary information from other federal agencies.)**

110. Plaintiffs repeat and reallege the allegations in paragraphs 1-60 as if fully set forth herein.

111. The Modeling Framework produced massive errors in three of its fundamental outputs that further demonstrate its failure to bear a reasonable relationship to reality.

**A. Six million acre overestimate of range-wide spotted owl habitat**

112. In March 2012 FWS reported, in the Barred Owl DEIS, that there are currently 12.1 million acres of northern spotted owl nesting, roosting and foraging habitat throughout the northern spotted owl's geographical range. *Id.* at xxi. The Barred Owl DEIS informed readers at least 15

times that “[a]pproximately 12,104,100 acres of spotted owl habitat occurs within the range of the northern spotted owl.” *Id.* at xxxii, 117, 122, 123, 126, 128, 131, 134, 142, 144, 145, 147, 148, 150, 152. The DEIS defined nesting, roosting and foraging habitat for spotted owls – as FWS has for two decades – to mean: “[o]lder, multilayered structurally complex forests that 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.” *Id.* at 250-51.

113. The Rev. Rec. Plan similarly estimated that as of 2006 there existed approximately 12,100,000 acres of northern spotted owl nesting, roosting and foraging habitat. Rev. Rec. Plan App. B-5-7 (noting estimate of 13,052,000 acres of suitable habitat in 1994, and subsequent loss of 679,400 acres rangewide due to timber harvest and 268,000 acres due to fires and other natural causes). The Revised Recovery Plan also used the same standard definition of “high quality owl habitat.” *Id.* at III-67. In 2009 Forest Service scientists at the Pacific Northwest Research Station in Oregon, with participation by FWS scientists, conducted a detailed and thorough analysis of existing northern spotted owl nesting, roosting and foraging habitat, and also found 12 million acres of such habitat rangewide. Davis *et al* 2009 at iii.

114. The Modeling Framework was designed to identify the same rangewide total of nesting, roosting and foraging habitat. Rev. Rec. Plan App. C-15 (“we evaluated and modeled nesting-roosting and foraging habitat, but not dispersal habitat.”). In the critical habitat rulemaking, FWS evidently calculated a rangewide estimate of nesting, roosting and foraging habitat generated by the MaxEnt model based on the GNN-LT data layer, although the calculation was never directly reported

or exposed to public comment. The calculation can be inferred from two statements in the Final Rule justifying the critical habitat decision on the ground that it “designat[es] a habitat network consisting of approximately 50 percent of the available high-suitability spotted owl habitat rangewide.” 77 Fed. Reg. 71916 (columns 2 and 3).

115. FWS had earlier determined that 4.6 percent of the proposed designated areas was not currently suitable owl habitat. Final Econ. An. App. B-7. As the proposed designation encompassed 13,962,449 acres, the non-suitable acres could not exceed 642,000 acres (4.6 percent of the proposed total). If all of that non-suitable land remained in the final designation of 9,577,969 acres of land (information FWS did not disclose), almost nine million acres of the final designation would, according to FWS, be “high-suitability spotted owl habitat,” which, if it represents “approximately 50 percent of the available high-suitability spotted owl habitat rangewide,” would mean the Modeling Framework had identified approximately 18 million acres of such high quality suitable spotted owl habitat within the owl’s range.

116. A rangewide estimate of 18 million acres of suitable spotted owl habitat – six million acres more than the 12.1 million acre estimate FWS employed in the 2011 Revised Recovery Plan and the 2012 Barred Owl DEIS – bears no rational relationship to reality, and is therefore arbitrary and capricious. A six million acre error, a 50 percent miscalculation, can not be overlooked as a minor mistake that can be explained away by generalized invocations of agency expertise. Six million acres of land equals 9,375 square miles, larger than the entire state of New Jersey. Nor is this massive overestimate of suitable owl habitat surprising: it is precisely the outcome of the flawed

use of the MaxEnt model that was predicted by Drs. Irwin, Manly and Merrill and the authors of the 2012 Torres *et al.* and Royle *et al.* peer-reviewed publications. FWS never acknowledged or responded to any of those commenters.

117. Yet apparently FWS never noticed the enormous gap between the its own calculation of 12.1 million acres of high-quality owl habitat (and the same estimate by the Forest Service PNW Research Station) and the models' calculation of 18 million acres. FWS did not disclose the discrepancy even in the Final Rule except in the obscure fashion noted above, did not discuss it, and did not explain or justify the discrepancy.

118. AFRC reported in its comments that comparing the proposed critical habitat network to the findings of the 2009 Forest Service habitat study shows that 50 percent of the land identified by FWS in its proposed rule as being "essential to the conservation of the species" is either unsuitable for owls or marginal habitat, and just 24 percent of the acres are considered "highly suitable." This discrepancy should have further called into question the validity of the FWS models' 18 million acre habitat estimate. However, FWS ignored the comment.

119. The FWS' six million acre error in the amount of existing suitable spotted owl habitat – the foundation for the entire critical habitat designation – demonstrates that the Modeling Framework fails to bear a rational relationship to reality, and is arbitrary and capricious, an abuse of discretion, not in accordance with law, without observance of procedure required by law, in excess of statutory authority and short of statutory right under 5 U.S.C. § 706(2).

**B. Massive underestimate of designated non-suitable habitat.**

120. The FWS' estimate that just 4.6 percent of the proposed designation was non-suitable for spotted owls was carefully reviewed by the BLM and the Forest Service. Each agency has a large professional staff responsible for maintaining current information on the lands under their control.

121. The BLM examined the 1,267,000 acres of its lands that were included within the proposed critical habitat. FWS had estimated that just 58,300 acres (4.6 percent) of this land was not suitable for spotted owl nesting, roosting or foraging, but the BLM found that 536,000 acres of proposed critical habitat was not suitable spotted owl habitat, which equals 42 percent of the proposed designation rather than 4.6 percent. Another 338,000 acres – 27 percent of the total – was marginal spotted owl habitat that does not contain the structurally complex features required for nesting and roosting habitat. Thus, 69 percent of the proposed critical habitat on BLM land lacked the structurally complex features found in nesting, roosting and foraging habitat, rather than the 4.6 percent predicted by the models.

122. The Forest Service also provided FWS a detailed assessment of its land that fell within the proposed designation, which was reported in the Final Rule: “There are approximately 9.5 million acres of USFS lands in the proposed critical habitat. Of these, 6.9 million acres are reserves and 2.6 million are matrix lands. Of the matrix lands, approximately 1.1 million acres are predominantly younger forests (considered to be unoccupied) and 1.6 million acres are northern spotted owl habitat.” 77 Fed. Reg. 72028. The Forest Service data thus showed that 41 percent of the matrix lands (the intended source for the sustained yield supply of timber needed for local mills

and communities) that were designated as critical habitat is not suitable owl habitat, rather than the 4.6 percent claimed by FWS.

123. Drs. Irwin, Manly and Merrill provided other information to FWS that further demonstrated the Modeling Framework's inability to identify spotted owl habitat. Dr. Irwin compared the proposed habitat network to on-the-ground conditions on his two-decade old research area in Oregon and found that "[o]f 61 occupied NSO sites in our western Oregon sample, 43% were classified correctly as occupied, while 57% were mis-classified by MaxEnt as unoccupied, or at least as having poor habitat quality." Drs. Manly and Merrill reported that the GNN model's predictions of the basic tree species found on a plot of land, the most fundamental part of any habitat assessment, were erroneous between 11% and 47% of the time.

124. The BLM and Forest Service habitat data and the additional information provided by Drs. Irwin, Manly and Merrill were the most accurate information for the critical habitat designation – far more reliable and trustworthy than the computer models. Yet FWS ignored the best information, and chose to rest its decision entirely on its computer models despite the contradictory information. The models' massive underestimate of the amount of non-suitable designated habitat demonstrates that the Modeling Framework fails to bear a rational relationship to reality, and is arbitrary and capricious, an abuse of discretion, not in accordance with law, without observance of procedure required by law, in excess of statutory authority and short of statutory right under 5 U.S.C. § 706(2).

**C. Massive overestimate of occupied spotted owl habitat**

125. FWS instructed the Economic Analysis contractor that only "6.5 percent of the spotted

owl habitat is likely to be unoccupied by territorial spotted owls.” Final Econ. An. App. B-12. FWS was confident of the estimate: “The modeling process we used for the proposed critical habitat designation was designed to maximize the amount of high-quality habitat that would support nesting spotted owls which is likely why so little presumed [*sic*] unoccupied habitat is included in the proposed designation.” *Id.* Yet FWS also acknowledged in the Final Rule that spotted owl populations in many areas “are now in precipitous decline due to rapid increases in barred owl populations,” 77 Fed. Reg. 72000, but never reconciled its estimate of 93.5 percent current occupancy of suitable habitat with this ongoing “precipitous decline” in spotted owls.

126. BLM reviewed the proposed habitat network and informed FWS that the 6.5 percent unoccupied estimate had greatly understated the unoccupied areas. “BLM estimates that approximately 50 percent of regular to lower quality habitat is likely to be unoccupied by the NSO. ... [T]his implies that 26.6 percent of NSO habitat on BLM matrix lands is likely to be unoccupied.” Final Econ. Anal. 4-37. Far from disputing this information, FWS “incorporated this lower occupancy rate provided by the BLM into our analysis of effects” in the Final Environmental Assessment (EA). Final EA at 55. Thus, FWS acknowledged its 6.5 percent non-occupied assumption was off by a factor of four for BLM land. Further, FWS evidently never considered if the Forest Service occupancy estimate was similarly flawed, which should have been obvious since most BLM land is intermingled with or adjacent to land managed by the Forest Service, and owls certainly do not know which agency manages which lands.

127. While conceding the error in its model outputs for BLM land in the Final EA, FWS did

nothing to investigate the breadth of the error, to correct the error for the Final Rule, to modify the models to remove the error, or to explain why the error does not undercut the validity of the models. FWS stubbornly stuck with its plan to “let the models identify the high-value areas for spotted owls,” Comment Responses at 51, regardless of the accuracy of the modeling outputs.

128. This massive overestimate of the amount of occupied designated habitat demonstrates that the Modeling Framework fails to bear a rational relationship to reality, and is arbitrary and capricious, an abuse of discretion, not in accordance with law, without observance of procedure required by law, in excess of statutory authority and short of statutory right under 5 U.S.C. § 706(2).

### **SIXTH CLAIM**

**(Arbitrary and capricious agency action under 5 U.S.C. §706(2) – arbitrary and capricious reliance on untested and unreliable predictions of extinction risk in 300-325 years)**

129. Plaintiffs repeat and reallege the allegations in paragraphs 1-60 as if fully set forth herein.

130. The Modeling Framework produces predictions of spotted owl population persistence – on a range-wide or modeling region basis – over 350 “time steps,” which “are analogous to years, but should not be equated with ‘years from the present.’” Dunk b 9. The first 25-50 time steps bring the initial hypothesized population to equilibrium with the available habitat, *id.*, which under the models equates to the current day. Thus, the end of the 350 time steps is 300-325 years into the future. FWS used the models’ predictions of the size and distribution of the spotted owl population in 300-325 years as the basis for its evaluation of the various habitat networks considered for designation.

131. Plaintiffs’ research indicates that FWS has never before in its history based a critical

habitat designation or a recovery plan on population predictions 300 years or longer in the future, the equivalent of a person in 1713 trying to make a prediction for today. The normal FWS time frame for such extinction predictions is 20-100 years. FWS offered no explanation for relying in this case on predictions of spotted owl populations in 300-325 years, and never considered or evaluated how accurate such predictions could be. Yet contradictorily the Final Rule also found it was “not surprising” the habitat network protected in the 1994 NWFP had become less effective in just 18 years due to unforeseen events occurring since 1994 (increased barred owl presence and wildfires). 77 Fed. Reg. 71997. FWS also did not explain why a 300 year time frame is justified for predicting extinction but the FWS limited its Economic Analysis to projected economic effects for just 20 years because events beyond that short time frame were not “foreseeable.” Final Econ. An. 2-15.

132. The FWS unexplained reliance on an unprecedented 300-325 year spotted owl population projection is arbitrary and capricious, an abuse of discretion, not in accordance with law, without observance of procedure required by law, in excess of statutory authority and short of statutory right under 5 U.S.C. § 706(2).

### **SEVENTH CLAIM**

**(Arbitrary and capricious agency action under 5 U.S.C. §706(2) – reliance on arbitrary and capricious cross-validation of modeling results)**

133. Plaintiffs repeat and reallege the allegations in paragraphs 1-60 as if fully set forth herein.

134. FWS used data from 3,783 spotted owl sites for the relative habitat suitability calculations in MaxEnt model. Rev. Rec. Plan App. C-22. After the use of that data was widely

criticized as inaccurate for predicting spotted owl habitat use at the time of listing, FWS ran a “cross-validation” of MaxEnt. “We tested this assumption by analyzing the relationship between our 1996 habitat suitability map and the distribution of 3,723 spotted owl sites known to be occupied at the time of listing (1987–1996).” 77 Fed. Reg. 71912. This was the same set of data FWS used to make the calculations, so its statistical validity is dubious. In any event, FWS reported that “over 85 percent of the proposed critical habitat area was within the estimated home ranges of known spotted owl sites, strongly supporting our assumption that the model reliably predicted areas were occupied at the time of listing.” *Id.* This cross-validation was FWS’ principal response to a wide array of criticism of the Modeling Framework:

1. “Because our models performed well in both cross-validation and when tested against on independent data sets, we elected not to conduct further evaluations of sampling bias.” Dunk *et al.* 2012b at 84.

2. “The fact that all of our MaxEnt models performed well under cross-validation and (when available) with independent data undercuts the contention that they are overfit.” *Id.* at 5.

3. “Acknowledging that all vegetation databases will exhibit some degree of error, if the GNN layer was inadequate for predicting northern spotted owl habitat, we would not expect the reliable predictive models that we obtained.” 77 Fed. Reg. 71993.

135. In fact, the cross-validation proved nothing, in part because FWS misreported the results of the test. FWS has no data showing where the “home ranges of known spotted owl sites” actually are, or what configuration of habitat is included in each home range. The data point FWS

was reporting is the percentage of habitat within a circle drawn arbitrarily around a known spotted owl site. FWS uses such owl circles for calculating incidental take, even though the Court in *U.S. v. West Coast Forest Res. Ltd. Partnership*, 1997 WL 33100698 \*6 (D.Or. 1997), found that for northern spotted owls “[h]ome ranges are not circles, as [FWS] assumes here. Nor are the nest sites located in the center of the home range.” *Id.* \*8.

136. The FWS habitat circles used for the cross-validation review range in size from 1.2 miles radius to 2.9 miles radius, translating into acreage from 2,895 to 14,657 acres within each circle. If each owl circle were to contain an average of 6,000 acres, the circles around the 3,783 owl sites would contain over 22 million acres of forest, virtually equal to the total of 23 million acres of forest within the range of the spotted owl. 77 Fed. Reg. 72022. Any random selection of 9.5 million forested acres would fall 85 percent within those circles. The FWS cross-validation – its principal defense of its Modeling Framework – is meaningless, and reliance on it is arbitrary and capricious, an abuse of discretion, not in accordance with law, without observance of procedure required by law, in excess of statutory authority and short of statutory right under 5 U.S.C. § 706(2).

### **EIGHTH CLAIM**

**(Arbitrary and capricious agency action under 5 U.S.C. §706(2) – failure to determine combined error rate of Modeling Framework)**

137. Plaintiffs repeat and reallege the allegations in paragraphs 1-60 as if fully set forth herein.

138. A peer reviewer, Dr. Martin Raphael of the U.S.D.A. Pacific Northwest Research Station, a frequent collaborator with FWS on spotted owl research, expressed concern over the FWS’

failure to determine the combined error rate of the four models used in the Modeling Framework: “There is uncertainty in the underlying vegetation data (GNN) used to build the Maxent model. There is uncertainty in the Maxent output. There is uncertainty in the Zonation process. There is uncertainty in the Hexsim models. How this uncertainty is propagated through all these modeling steps is unknown, and I am sure the overall uncertainty is far greater than any of us would be comfortable with.” While supporting the limited use of the Modeling Framework to provide comparative results among habitat network (a limitation later abandoned by FWS), Dr. Raphael commented that “[w]hat we are left wondering though, is whether the degree of uncertainty in the final model projections is so great that differences among scenarios are trivial compared with confidence intervals in the model results.” Each of the separate models contains multiple assumptions and simplifications, each of which adds to the overall uncertainty of the outputs of the Modeling Framework.

139. Despite the recommendation from its peer reviewer, FWS never attempted to calculate the combined uncertainty rate within the Modeling Framework. The failure to do so in response to the recommendation of its peer reviewer is arbitrary and capricious, an abuse of discretion, not in accordance with law, without observance of procedure required by law, in excess of statutory authority and short of statutory right under 5 U.S.C. § 706(2).

## NINTH CLAIM

**(Arbitrary and capricious agency action under 5 U.S.C. §706(2) – absence of statistically significant differences among habitat networks renders comparison among networks meaningless)**

140. Plaintiffs repeat and reallege the allegations in paragraphs 1-60 as if fully set forth herein.

141. FWS disclosed in the Final Rule that there is no statistically meaningful difference among nine of the 11 habitat networks analyzed for the Final Rule. A commenter had faulted FWS for basing later composites on one network which performed “relatively poorer” than another network. In response, FWS explained that “[r]elatively poorer performance ... is not equivalent to ‘poor performance.’ In fact, the 95 percent confidence intervals of the mean estimated population sizes at time-step 350 overlapped for composites 1, 3, 4 (highest point estimate), 5, 6, and 7 indicating that the differences may not be statistically significant.” 77 Fed. Reg. 72021. Three of the later-tested composites (9, 10a and 11) were also statistically indistinguishable from those six. Dunk 2012b at 71 Figure 6. Thus, even after the arbitrary model adjustments for barred owls and future habitat change, nine of the 11 composites (including the final critical habitat network) had results that were not significantly different from each other, rendering the comparison of their relative performance – the only actual purpose of the models – meaningless.

142. The inability of the Modeling Framework to produce any statistically meaningful comparative results among the alternative habitat networks is further demonstration that the Modeling Framework fails to bear a rational relationship to reality, and is arbitrary and capricious,

an abuse of discretion, not in accordance with law, without observance of procedure required by law, in excess of statutory authority and short of statutory right under 5 U.S.C. § 706(2).

### TENTH CLAIM

**(Arbitrary and capricious agency action under 5 U.S.C. §706(2) – failure of designated habitat network to achieve recovery or approved recovery objectives )**

143. Plaintiffs repeat and reallege the allegations in paragraphs 1-60 as if fully set forth herein.

144. Even if the FWS models were flawless, the models themselves show that the habitat network designated in the Final Rule will not achieve its intended objectives of recovering the northern spotted owl and reaching the additional goals established in Recovery Criteria 2 and 3. The Modeling Supplement clearly reports the predicted failure of the network to successfully recover owls in six of the 11 modeling regions (NCO, OCR, ECN, ECS, WCN and WCC), which among them contain over 4.8 million acres of critical habitat. Dunk *et al.* 2012b Table 30 (page 64). One region – WCN – has an 83 percent likelihood of extinction. Two others have an extinction risk over 22%. The total number of owls projected in the four weakest regions is 135. Five of the six regions are 100 percent assured to have fewer than 100 owls; the sixth has a 63 percent chance of less than 100 owls. There is no characterization of these results that meets Recovery Criterion 2's call for “[s]potted owl subpopulations within each ... province ... [to] achieve viability.” Populations of that small size are not stable, and since the reported numbers include birds entering these provinces from nearby areas, those tiny populations are not self-sustaining.

145. Not only do the northern regions have the weakest populations, but two of them, NCO

and OCR, had to be given the largest reductions in barred owl encounter rates of any of the regions even to produce their meager reported results. The OCR encounter rate was reduced 47 percent (from .71 to .375), while the NCO encounter rate in NCO was reduced 25 percent (from .505 to .375). Using the actual higher encounter rates would have shown an even greater certainty of extinction. OCR was yet farther from the Recovery Criterion 2's goal of a "self-sustaining" population since the modeling showed that its tiny population was dependent on immigration from three other regions, and therefore was not self-sustaining. Dunk *et al.* 2012b 65.

146. More than 86 percent of the projected spotted owl population of the designated network is in the five southernmost provinces. Dunk *et al.* 2012b 37. In fact, the total number of birds projected in the six weak northern provinces (440) is less than the 95% confidence interval of the entire population (505). *Id.* Table 30. In other words, the entire population is not statistically different than the population in the five southern provinces. *Id.* At best, the designated habitat network could recover the owl populations in less than half its geographic range. Yet FWS completely ignores this plain failure to achieve its own recovery objectives. The Final Rule never acknowledges these data, and provides no explanation why recovering the owl in five provinces meets the recovery objectives.

147. The FWS decision to designate a critical habitat network that the Modeling Framework predicts will fail to achieve recovery of the northern spotted owl and will fail to meet the modeling-region based Recovery Objectives 2 and 3, even with artificially-reduced barred owl encounter rates, is arbitrary and capricious, an abuse of discretion, not in accordance with law, without observance

of procedure required by law, in excess of statutory authority and short of statutory right under 5 U.S.C. § 706(2).

### **ELEVENTH CLAIM**

**(Violation of APA rulemaking requirements – failure to allow opportunity for public comment on key issues; failure to respond to major public comments on other key issues)**

148. Plaintiffs repeat and reallege the allegations in paragraphs 1-60 as if fully set forth herein.

149. The APA, 5 U.S.C. §553(c), directs that “[a]fter notice required by this section, the agency shall give interested persons an opportunity to participate in the rule making through submission of written data, views, or arguments with or without opportunity for oral presentation. After consideration of the relevant matter presented, the agency shall incorporate in the rules adopted a concise general statement of their basis and purpose.”

150. FWS published the proposed critical habitat rule in the Federal Register and allowed a period of public comment on the proposed rule. However, FWS failed to disclose important information in the proposed rule, and thereby prevented plaintiffs and the public from submitting complete and fully-informed comments on many of the key issues in the rulemaking, including:

- a. FWS failed to disclose until the Final Rule the three major factual errors in modeling outputs: the six million acre overestimate of range-wide suitable habitat, the million acre or greater underestimate of designated non-habitat, and the multi-million acre underestimate of designated unoccupied habitat.
- b. FWS failed to disclose until the Final Rule that the models treated reserved areas

such as Wilderness, National Parks, Wild and Scenic River corridors, State Parks and Natural Areas, and private lands with Habitat Conservation Plans or Safe Harbor Agreements like critical habitat even if they are not designated as critical habitat. Dunk *et al.* 2012b at 57.

- c. FWS failed to disclose in the Proposed Rule that it would not consider designating any habitat network suggested during the public comment period that did not achieve the same level of model-based conservation effects as the habitat network that constituted the proposed rule.

151. FWS failed to respond to many of the major comments offered by plaintiffs and experts associated with the plaintiffs, including:

- a. FWS did not acknowledge or respond to any of the comments submitted by Drs. Manly and Merrill of WEST, Inc., including their reference to two peer-reviewed 2012 publications questioning the use of the MaxEnt models in the manner employed by FWS for this critical habitat rule.
- b. FWS did not respond to many of Dr. Irwin's comments on the modeling outputs.
- c. FWS did not respond to many of AFRC's comments.

152. FWS' failure to give Plaintiffs a full and adequate opportunity to comment on the proposed rule, and its failure to respond to major comments submitted on the proposed rule, in violation of 5 U.S.C. §553(c) is arbitrary and capricious, an abuse of discretion, not in accordance with law, without observance of procedure required by law, in excess of statutory authority and short

of statutory right under 5 U.S.C. §706(2).

## TWELFTH CLAIM

### **(Arbitrary and capricious agency action under 5 U.S.C. §706(2) – determination of “geographical area occupied at the time of listing”)**

153. Plaintiffs repeat and reallege the allegations in paragraphs 1-60 as if fully set forth herein.

154. The ESA provides two different definitions of critical habitat depending on whether or not a tract of land is “within the geographical area occupied by the species, at the time it is listed” (GAOTL). For land within the GAOTL, critical habitat can only be designated on specific areas “on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection.” 16 U.S.C. §1532(5) (underlining added). For land outside the GAOTL, designation is allowed if the land itself (regardless of its “features”) is “essential for the conservation of the species.” *Id.* Thus, even if a tract of land within the GAOTL were considered “essential for the conservation of the species,” it may not be designated as critical habitat unless the land currently contains “physical or biological features” (PBFs) that are essential to the conservation of the species, and those “features” may require special management. Conversely, outside the GAOTL, land can be designated purely for future contribution to recovery even if it currently has no essential features, But an area can not be designated merely because it has essential features – the area itself must be essential for conservation.

155. For the northern spotted owl FWS decided that basing the GAOTL decision on known

spotted owl sites would not be satisfactory, and instead chose to use the MaxEnt model to make the GAOTL determination: “We used this model rather than just relying on surveyed sites at that time because large areas within the species’ geographical range had not been surveyed; therefore the distribution of northern spotted owl populations was incompletely known at the time the species was listed, and remains so today.” 77 Fed. Reg. 71911. FWS therefore adopted a never-before-used definition of “occupied at the time of listing” with three components:

“occupied at the time of listing” encompasses (1) home ranges of resident, territorial northern spotted owls known from surveys to be present at the time of listing, (2) home ranges of territorial owls that would have been present at the time of listing based on a model developed specifically to predict owl presence based on relative habitat suitability, and (3) areas used by nonterritorial and dispersing owls that were likely to be present within the matrix of territories in a given landscape known to be occupied by resident owl pairs.

77 Fed. Reg. 71912.

**1. Misuse of Modeling Framework to determine occupancy.**

156. FWS used the Modeling Framework to determine what habitat was “occupied at the time of listing” although the advisory Modeling Team had specifically warned that the models were not designed to predict occupancy of habitat by spotted owls. The Modeling Team reported that it had “elected not to employ occupancy modeling approaches.” Rev. Rec. Plan App. C -6. For that reason, the models “did not necessitate the development of statistical relationships with occupancy.” Dunk *et al.* 2012b at 82. The Modeling Team did not determine that there is a statistical relationship between the RHS numbers assigned by MaxEnt and occupancy of an area by owls; instead, the general existence of such a relationship was “an assumption in our modeling process.” Dunk *et al.*

2012b at 82. “[W]e used MaxEnt to predict areas of varying (relative) habitat suitability, not occupancy per-se.” *Id.* at 78. When Dr. Irwin of NCASI criticized the use of MaxEnt to predict occupancy by spotted owls, FWS took him to task for a “mistaken ... characterization of our use of MaxEnt”:

One reviewer [Dr. Irwin] was critical that the Service did not evaluate the rate that at which MaxEnt may mistakenly assign owl-site status to locations that do not contain northern spotted owls. They suggested that using MaxEnt output could lead to including relatively large tracts of habitat that were unoccupied in 1990 in the Springfield study area, and also lead to excluding an unsatisfying proportion of productive owl sites along the eastern Washington Cascades.

**Our Response:** We believe the commenter is mistaken in their characterization of our use of MaxEnt. We did not use MaxEnt to assign occupancy status; we used MaxEnt to identify relative habitat suitability (RHS).

*Id.* at 81 (underlining added).

157. Yet FWS did use the MaxEnt RHS numbers as the basis for the statutory “occupied at the time of listing” determination required for critical habitat. “[W]e used the relative habitat suitability models to predict the distribution of areas that would have supported occupancy by spotted owls at the time of listing.” 77 Fed. Reg. 71911. “[O]ccupied at the time of listing’ encompasses ... home ranges of territorial owls that would have been present at the time of listing based on a model developed specifically to predict owl presence based on relative habitat suitability ....” *Id.* at 71912. Using the models to make determinations the models were not designed to make is arbitrary and capricious, an abuse of discretion, not in accordance with law, without observance of procedure required by law, in excess of statutory authority and short of statutory right under 5

U.S.C. §706(2).

2. **Using a model-derived determination of “suitable habitat” to define the geographical area “occupied at the time of listing,” with no evidence of actual site-specific occupancy, is arbitrary and capricious**

158. FWS never made any site-specific determinations of areas that were occupied at the time of listing. Relying on its models, FWS only offered vague generalizations like “[w]e estimate that the vast majority of the areas being designated in this rule were occupied at the time of listing,” 77 Fed. Reg. 72048, and “our evaluation indicated that the large majority of the proposed designation was occupied at the time of listing.” *Id.* at 72024. For millions of acres of unsurveyed land, FWS has no evidence a spotted owl has ever been present at any time. FWS relies solely on an assumption that all the areas identified by the MaxEnt model as suitable spotted owl habitat were occupied at the time of listing in 1990. A bare assumption that all suitable habitat was occupied at the time of listing is arbitrary and capricious, an abuse of discretion, not in accordance with law, without observance of procedure required by law, in excess of statutory authority and short of statutory right under 5 U.S.C. §706(2).

3. **FWS improperly made occupancy decisions for critical habitat “units” and “subunits” larger than 100,000 acres, based on anecdotal reports of some owls in some forest stands, without knowing the number or location of owls within the unit.**

159. FWS designated the 9.5 million acres of critical habitat in 11 “units” containing 60 “subunits.” 77 Fed. Reg. 71918. Ten of the 11 units exceed 800,000 acres, *id.* at 71919, most of the subunits exceed 100,000 acres (roughly 160 square miles), and some subunits are as large as 300,000 acres. *Id.* at 71920-37. FWS summarily asserted: “we find that all units and all subunits meet the

Act's definition of being within the geographical area occupied by the species at the time of listing." *Id.* at 71917. Yet FWS also admits "some units may include some smaller areas that were not known to be occupied at the time of listing." *Id.* at 71918. FWS never reported how many owls occupied each unit and subunit at the time of listing, or where these owls were. For all that the Final Rule reveals, FWS may have considered an entire 100,000 acre subunit to be occupied based on the presence of a single owl anywhere in the 100,000 acres.

160. The possible presence of a listed species near a designated area is not sufficient proof the species occupied the designated area at the time of listing. FWS can not label an entire 100,000+ acre area occupied because some owls may have occupied some particular stands of trees in the area at the time of listing. If this approach were permissible, FWS could evade the GAOTL requirement altogether by calling all proposed critical habitat one big unit, and finding the unit occupied because one listed animal occupies one area within the unit. The ESA requires information that a listed creature occupied a specific area at the time of listing; the presence of a species in a nearby area is not sufficient.

**4. The FWS assumption that sites occupied as late as 1999 were all occupied in 1990 is arbitrary and capricious.**

161. The MaxEnt RHS estimates were not based on 1990 habitat because no habitat data was available for 1990. Instead, FWS based the MaxEnt RHS estimates on a data base of spotted owls sites found between 1993 and 1999. Rev. Rec. Plan App. C-20; 77 Fed. Reg. at 71911. Nonetheless, FWS assumed that the MaxEnt model's later-era RHS estimate (*i.e.*, a 30 meter pixel with an RHS equal to or greater than 35 out of 90 was arbitrarily considered suitable for spotted owls) "is a

reasonable representation of the habitat that would have been occupied by northern spotted owls at the time of listing.” 77 Fed. Reg. at 71912. “[W]e made an explicit assumption that the 1996-based habitat suitability model would reliably predict the distribution of spotted owls at the time of listing (1990).” *Id.* FWS explained:

This assumption was based on: (1) Our expectation that patterns of habitat selection by spotted owls would not change over a 6-year period; (2) the high degree of site fidelity exhibited by territorial spotted owls over many years; and (3) the fact that the amount and distribution of older forest habitat, which takes many decades to develop and is a primary component of northern spotted owl habitat, would not have increased significantly in the period between listing and 1996.

77 Fed. Reg. 71911-12.

162. The FWS assumption that all MaxEnt-identified suitable spotted owl habitat was occupied in 1990 contradicts numerous FWS statements from the time of listing, and thereafter, asserting that suitable habitat is not always occupied. In fact, one of the key premises of the FWS’ 1989 proposal to list the northern spotted owl as a threatened species was: “Many apparently suitable sites are not occupied every year.” 54 Fed. Reg. 26668 (June 23, 1989). In the 1990 listing decision, FWS again confirmed that “[n]ot all spotted owl sites are occupied by pairs each year.” 55 Fed. Reg. at 26136. The absence of occupancy in suitable sites was considered a key factor supporting listing: “Field biologists believed the population had declined based on occupancy rates for established territories.” *Id.* at 26137. The BLM reported that only 70 percent of its known owl sites were occupied in 1989. *Id.* at 26131. As recently as in the 2011 Revised Recovery Plan, FWS reported (presumably employing the “best available science”) that “[i]t is not uncommon for an occupied spotted owl site to be unoccupied in subsequent years, only to be re-occupied by the same or

different spotted owls two, three or even more years later.” Rev. Rec. Plan III-45. Thus, it would be “not uncommon” for an owl site occupied sometime between 1993 and 1999 to be unoccupied at the time of listing in 1990. Even in the Final Rule, FWS admitted: “Habitat is dynamic, and northern spotted owls may move from one area to another over time.” 77 Fed. Reg. 71897.

163. In the Final Rule, FWS responded to Dr. Irwin’s data that many of the owls in his western Oregon study area were in areas that MaxEnt had assigned low RHS values by acknowledging that spotted owl occupancy in suitable habitat is not constant:

There are many possible reasons that an organism (northern spotted owl in this case) may not occupy suitable habitat (e.g., death, competition, population is not at equilibrium with its environment), and that it might occupy sub-optimal habitat (e.g., territoriality). ... We did not use the RHS values to predict the number of years a site would be occupied.

Dunk *et al.* 2012b at 81. FWS did not reconcile its assumption of 100 percent occupancy of all suitable owl habitat at the time of listing with its own many contrary pronouncements. It merely explained: “Because adult northern spotted owls are long-lived and have high site fidelity, it is reasonable to assume that these sites identified as occupied several years post-listing were also occupied by owls at the time of listing.” 77 Fed. Reg. 72018. The explanation ignored all of the agency’s contradictory past pronouncements, and significantly misstates the assumption, which finds 1990 occupancy from a detection as long as nine years later, far longer than “several years.”

**5. FWS improperly included non-territorial owls in the GAOTL determination.**

164. For the first time in its history, FWS defined habitat occupied at the time of listing to include “areas used by nonterritorial and dispersing owls that were likely to be present within the

matrix of territories in a given landscape known to be occupied by resident owl pairs.” 77 Fed. Reg. 71912. Yet FWS admits it has no idea where these “nonterritorial and dispersing owls” are, and the models expressly disclaimed any ability to predict where such nonterritorial owls may be. “Nonterritorial owls are difficult to detect in surveys .... Because they are difficult to detect, the number and distribution of nonterritorial and dispersing owls is poorly known for any given northern spotted owl population.” 77 Fed. Reg. 71912. The Modeling Team reported that “relatively little is known about the characteristics of areas used by dispersing spotted owls. In the spotted owl modeling effort, the modeling team therefore elected not to define or attempt to model dispersal habitat.” Rev. Rec. Plan C-57 (underlining added). By using the MaxEnt model to identify dispersal habitat occupied at the time of listing, FWS (once again) used the models for a purpose for which they were never intended. The decision to include nonterritorial owls in the determination of “occupied at the time of listing” even contradicts the agency’s 2011 Revised Recovery Plan, which defines an “Occupied Site” as “[a]ny location where territorial spotted owls are known to be present.” Rev. Rec. Plan App G (underlining added). The decision also contradicts FWS’ approach to occupancy in the Economic Analysis, where FWS used “territorial spotted owls” to determine the currently occupied habitat for its incremental effects review. Final Econ. An. B-12 (“6.5 percent of the spotted owl habitat is likely to be unoccupied by territorial spotted owls”); *Id.* at ES-15 n. 18 (“unoccupied” means “not currently occupied by territorial or nesting owls.”).

6. **FWS improperly defined the PCEs in the “geographical area occupied at the time of listing” to include dispersal habitat, although the MaxEnt model expressly does not identify dispersal habitat.**

165. For the northern spotted owl critical habitat designation, FWS identified four PCEs: 1) forested areas that contain 2) nesting or roosting habitat, 3) foraging habitat, or 4) dispersal habitat. Critical habitat must contain the first PCE and one of the final three. 77 Fed. Reg. 71908. Thus, any forested area of spotted owl dispersal habitat would qualify as critical habitat under this definition. Yet the Modeling Framework does not predict dispersal habitat: “we elected not to formally model dispersal habitat. This is because relatively little is known about habitat selection during dispersal and, more importantly, the likely influences of habitat conditions on dispersal success.” Rev. Rec. Plan App. C-15; C-57. The modelers intended MaxEnt to be used only to assess suitability of nesting, roosting and foraging habitat. *Id.* at C-14. Defining dispersal habitat as one of the PCEs of areas identified by the MaxEnt model, although MaxEnt expressly declined to identify dispersal habitat, is arbitrary and capricious.

7. **FWS failed to determine that the PCEs “are found” within the geographical area occupied at the time of listing.**

166. The ESA imposes a temporal limit of critical habitat to “the specific areas within the geographical area occupied by the species, at the time it is listed ... on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection ....” 16 U.S.C. §1532(5) (underlining added). The required features must be “found” in the specific areas, and must be present in the specific areas at the time of designation (“are found”). “PCEs must be ‘found’ on occupied land before that land can

be eligible for critical habitat designation.” *Cape Hatteras Access Preservation Alliance v. U.S. Dept. of Interior*, 344 F.Supp.2d 108, 122 (D.D.C. 2004). FWS cannot designate an area as critical habitat unless it determines that the PCEs present in the area may be in need of special management. 77 Fed. Reg. 71908. To make that required determination, FWS must be able to identify the geographical area occupied at the time of listing, and must know what PCEs are present in each area. Yet for the spotted owl FWS never determined if any of the designated critical habitat within the GAOTL actually contains any of the PCEs. The Modeling Framework does not have the capability to identify the vegetation in any particular area. The Relative Habitat Suitability that MaxEnt calculates involves so many processing steps that it does not have any relationship to the vegetation on the ground.

167. An area given a relatively high RHS by MaxEnt does not necessarily contain any of the PCEs identified in the Final Rule. Dr. Larry Irwin’s comments to FWS reported that MaxEnt’s “overall combined error rate was over 40 percent.” *Dunk et al.* 2012b at 81. Areas with high RHS values did not have owls, while owls were found in many areas with low RHS values. FWS dismissed this information as irrelevant to its analysis. *Id.*

168. FWS did not “find” PCEs on the lands designated within the GAOTL. Its pixel-based vegetation analysis prevents it from determining if PCEs are found in any specific area because it is possible that “there are no trees” in a pixel with a high RHS value. C-41. The designation of areas within the GAOTL that FWS has not determined to currently have PCEs is arbitrary and capricious.

169. All of these unlawful decisions make the Final Rule arbitrary and capricious, an abuse of discretion, not in accordance with law, without observance of procedure required by law, in excess of statutory authority and short of statutory right under 5 U.S.C. §706(2).

### **THIRTEENTH CLAIM**

**(Arbitrary and capricious agency action under 5 U.S.C. §706(2) – determination that designated areas within geographic area occupied at the time of listing contain features “essential to the conservation of the species” and designated areas outside that geographic area are “essential for the conservation of the species”)**

170. Plaintiffs repeat and reallege the allegations in paragraphs 1-60 as if fully set forth herein.

#### **A. Misuse of Modeling Framework in making the determinations**

171. FWS misused the Modeling Framework to identify the critical habitat network that it judged to satisfy both of the ESA’s two alternative “essential to the conservation of the species” requirements for critical habitat: areas within the geographical range occupied by the species at the time of listing that contain physical or biological features “essential to the conservation of the species” (and which may require special management or protection), and other areas that are “essential for the conservation of the species.” The Modeling Team repeatedly emphasized that its Modeling Framework was not designed to identify a habitat network that meets those criteria, but rather that the Modeling Framework was only designed to compare the relative performance of different habitat networks: “[t]he modeling team did not have a threshold of ‘recovery’ with which to evaluate various scenarios; we are simply comparing predicted population outcomes across management scenarios.” Comment Responses at 50. “Simulations from these models are not meant

to be estimates of what will occur in the future, but rather ... allowed us to compare the relative performance of various habitat change scenarios.” Dunk *et al.* 2012b 4 (underlining added). “Our modeling is not designed to predict or estimate actual population size at any point in time. It is, however, designed to compare relative spotted owl population trends over time under varying habitat conservation networks.” Comment Responses at 52. “It is important to recognize that the intended use of the modeling framework is for ranking scenarios, not for estimating specific numbers.” Comment Responses at 81 (underlining added). “Developing a modeling process to determine the rank-ordering of scenarios was the modeling team's primary goal.” Rev. Rec. Plan App. C-75. The Modeling Team also emphasized that its model runs “start[ing] with 10,000 female birds ... [are] not intended to be realistic; it simply provides a broad population base to equilibrate with the simulated environment that is provided to HexSim.” Comment Responses at 82.

172. One of the chief reasons the Modeling Team emphasized the limited comparative purpose of the models was to answer its critics who cited multiple reasons to believe the models were not accurate enough to select critical habitat: “Such relative comparisons have the advantage that they are largely immune to model imperfections that cause under- or over-predictions in population size, since these types of errors can be assumed to appear consistently across all potential critical habitat networks as well as barred owl and RHS scenarios.” Dunk *et al.* 2012b at 10.

173. The Modeling Team repeatedly answered its critics with the argument that because the models were only designed to compare the relative performance of habitat networks, it was unnecessary to determine or evaluate the accuracy of various data points fed into the models:

- a. “One of the benefits of using the northern spotted owl HexSim model that we did, and the way that we used it, is that the relative differences in northern spotted owl population performance are unlikely to be influenced by changes we might make to varying amounts of environmental stochasticity. Because we used the same underlying parameters in HexSim ... for each potential Critical Habitat network, any biases would occur in each network ..., but the ranking or relative performance of the networks are unlikely to be influenced.” Dunk *et al.* 2012b at 84.
- b. “Given the uncertainties about variation in barred owl impacts within modeling regions, it is possible that our modeling overestimated or underestimated negative barred owl impacts. However, because we used HexSim to compare relative population performance among alternative potential critical habitat networks ..., we believe the representation of barred owl impacts we used allowed us to accurately evaluate which networks, on a comparative basis, best met the objectives in our guiding principles.” 77 Fed. Reg. 72001.
- c. “Incorporating fire impacts would have had a similar proportional effect to the relative outputs of each modeled scenario, thereby not elucidating real differences between the effectiveness of the modeled scenarios.” 77 Fed. Reg. 71994.
- d. “We used lambda [a measure of population trend] as one basis for comparison between the various alternative potential critical habitat networks ... [O]ur use of lambda at 10-year intervals was appropriate for our intended use of relative

population performance between habitat scenarios under consideration.” 77 Fed. Reg. 71994.

- e. “[B]ecause we used the HexSim model to compare the relative differences in population size resulting from different reserve design assumptions, any biases that may have been introduced into the process from the use of a females-only model would essentially be zeroed out, since that bias would be the same across all populations; in such a case, the net relative difference would still be accurately reflected between populations.” 77 Fed. Reg. 71993.

174. FWS similarly rejected criticism of its “pseudo-extinction” levels of 1,250, 1,000 and 750 birds that are a key part of the models, 77 Fed. Reg. 71999, because, while admitting the levels are “arbitrary,” nonetheless “these thresholds provide a consistent way to compare the relative risk of various reserve networks.” Dunk *et al.* 2012b at 30.

175. Despite these more than ample warnings about the limited intended use of the Modeling Framework, FWS used the models to do exactly what the Modeling Team warned against – to select its preferred critical habitat network: “The comparison of HexSim results is the process by which the Service evaluates what amount and distribution of these features is essential to the conservation of the northern spotted owl.” 77 Fed. Reg. 71998.

176. The FWS use of the models to select the designated critical habitat is arbitrary and capricious:

1. FWS ignored the warnings of the Modeling Team that “[s]imulations from these

models are not meant to be estimates of what will occur in the future,” Dunk *et al.* 2012b at 4, that the initial modeling population of 10,000 birds was “not intended to be realistic;” and that the pseudo-extinction levels were “arbitrary.” Dunk *et al.* 2012b at 30, and based its decision on absolute results of the modeling: “Under the final designation, modeled rangewide populations have less than a 10 percent probability of declining to fewer than 1,000 females, and a 3 percent probability of declining to fewer than 750 females.” 77 Fed. Reg. 71916. FWS explained that “modeled rangewide population sizes in this final designation were 1.7 times larger than under the proposed rule’s Possible Outcome 4 ... and nearly twice the size of populations under 2008 critical habitat. This larger population size ... results in low extinction risk.” 77 Fed. Reg. 71916. None of these absolute factual assertions can properly be based on the models, which should at best only provide comparative results.

2. FWS misused the models to determine that its final designation – and only its final designation – meets the statutory “essential to the conservation of the species” standard in the ESA because the models are unable to make that determination. FWS claimed the models allowed it to “ensure[] that northern spotted owl populations are sufficiently large to exhibit low extinction risk at the rangewide scale,” and “ensure[] that northern spotted owl populations are well-distributed across the geographic range of the species by selecting a habitat network that supports population sizes with low extinction risk within each of 11 modeling regions.” 77 Fed. Reg. 71916.

177. The models simply cannot be used in this manner because the models offer FWS no basis to say that any given amount or distribution of habitat will, or will not, lead to recovery of the

northern spotted owl (even before considering current barred owl encounter rates). “The modeling team did not have a threshold of ‘recovery’ with which to evaluate various scenarios.” Comment Responses at 50. The models at best indicate which habitat networks may, under the many assumptions in the models, perform better than others at achieving recovery of the northern spotted owl. The models cannot determine what amount or distribution of habitat is “enough” to achieve recovery of the northern spotted owl. Every alternative network may be sufficient for recovery; or none. The models can not provide that information.

178. Strikingly, FWS never presented a coherent description of precisely how it determined what amount and distribution of habitat was “essential to meet recovery objectives.” FWS claims it first identified “a critical habitat network that we considered essential to meet recovery objectives [before] we impose[d] the secondary criterion of network efficiency.” 77 Fed. Reg. 72023. But there was no “threshold of ‘recovery’ with which to evaluate various scenarios.” Comment Responses at 50. FWS never articulated any quantitative or qualitative standard for determining what is “essential to the conservation of the species” for the northern spotted owl. FWS never identified what minimum level of habitat, or habitat configuration, or extinction risk, or geographic distribution, is required to meet the “essential to the conservation of the species” requirement.

179. Nowhere in the Final Rule is there an explanation of how FWS determined what is “essential to the conservation of the species.” Absent an explanation, it can be inferred from various remarks in the rulemaking documents that FWS proposed as its critical habitat the network that it decided had the lowest “extinction risk” among the various networks the models evaluated (which

it referred to as “Composite 7”). “We selected habitat scenarios for further evaluation if they outperformed the other scenarios.” 77 Fed. Reg. 71915. Between the proposed rule and final rule FWS arbitrarily (and without explanation or opportunity for public comment) limited its further consideration to modified networks that had the same or lower extinction risk as Composite 7, including the alternative it selected, known as “Composite 11.” “We considered but rejected potential critical habitat networks ... because these networks had a significantly lower likelihood of meeting recovery objectives ....” 77 Fed. Reg. 71916. Composite 8, recommended by the BLM and the Forest Service to reduce the negative impact of the designation on their timber sale programs, was rejected by FWS on the ground that “many of the lands proposed for removal were essential to conservation of the northern spotted owl because the rangewide population declined by 39 percent and population risk increased by 44 percent.” 77 Fed. Reg. 71889. FWS judged it necessary to reject this alternative “[t]o bring the spotted owl population results back up to levels comparable to proposed critical habitat.” *Id.* Apparently FWS must have equated “essential to conservation” with “no higher extinction risk than the proposed habitat network.” But no explanation ever appears for this presumed policy.

180. FWS never determined how large a rangewide spotted owl population in 300-325 years is sufficient for recovery, and for good reasons since the modelers did not support using the models for that purpose. The FWS analysis of the reserves already set aside in the Northwest Forest Plan predicted a rangewide spotted owl population in 300 years of 2,088 owls (based, of course, on the arbitrary and “unrealistic” starting point of 10,000 owls). Dunk *et al.* 2012b 33. FWS never

explained why a population of two thousand owls persisting for 300 years is not a “recovered” population. The final designated network has a predicted rangewide spotted owl population in 300 years of 3,224 owls. Dunk *et al.* 2012b 64. FWS never determined that recovery of the spotted owl requires a rangewide spotted owl population in 300 years of three thousand two hundred owls. FWS never gave any reason why 2,088 owls is not “enough” for recovery: it simply observed that 3,224 is more than 2,088. That mathematical truism does not imply that 2,088 owls is insufficient for recovery, and FWS never found that 2,088 owls is insufficient for recovery.

181. Instead, it appears FWS simply picked as the final critical habitat the network with a predicted population 300 years in the future that is 1) statistically identical (at the 95% confidence interval) to the highest population of all the composites, Dunk *et al.* 2012b 70 (“Because confidence intervals overlapped broadly across all composites and modeled population size for Comp11 was higher than other composites, we considered Composite 11 to be the top performing or equivalent to the top performing composites in this comparison.”), and 2) has the lowest acreage of all the composites with statistically identical populations. 77 Fed. Reg. 71993. “Top performing” does not equate to “essential to conservation,” and FWS never claimed it did. The “top performing” habitat network is not “essential to the conservation of the species” unless FWS finds that all lesser performing habitat networks will not achieve conservation/recovery of the species. Selecting a habitat network because it produces a predicted future population of 3,224 owls is irrational unless that number can be shown to have some relation to recovery. Yet FWS never had “a threshold of ‘recovery’ with which to evaluate various scenarios.” Comment Responses at 50. While FWS often

sets numerical population recovery goals in its recovery plans, as discussed above, it chose not to do so for the northern spotted owl. Lacking a numerical population recovery goal for the spotted owl, FWS has no target to judge its critical habitat network against. Selecting a habitat network because it produces a particular predicted future population that has no demonstrated relationship to recovery is arbitrary and capricious.

**B. Failure to evaluate any model-based habitat network with less than 9.5 million acres of land, making its determination that 9.5 million acres is the minimum required habitat network size arbitrary and capricious.**

182. The FWS rationale for selecting the final critical habitat network was that its “[m]odeled population size and extinction risk results for the designation are within the top 10 percent of all alternative networks, yet the designation is much smaller than other top-ranking alternatives.” 77 Fed. Reg. 71916. FWS boasted that had substantially reduced the amount of designated habitat: “The changes to the proposed revised critical habitat designation identified above result in a final designation of 9,577,969 ac (3,876,064 ha), a decrease of 4,197,484 ac (1,689,072 ha) from the 13,962,449 ac (5,649,660 ha) identified as meeting the definition of critical habitat in the March 8, 2012 (77 FR 14062) proposed rule.” 77 Fed. Reg. 71894.

183. The record contradicts this explanation in three respects that collectively render the decision arbitrary and capricious:

1. Composite 11 is not “within the top 10 percent of all alternative networks.” The Modeling Supplement (Figure 6) shows that the projected population size of Composite 11 is statistically indistinguishable from that of Composites 1,3,4,5,6,7,9 and 10. Dunk *et al.* 2012b 71.

The regional extinction probabilities for Composite 11 are higher than those for Composites 7, 9 and 10. Dunk *et al.* 2012b 52,60,62,64.

2. Composite 11 is in no meaningful way “much smaller than other top-ranking alternatives.” The November 2012 Modeling Supplement (Dunk *et al.* 2012b) revealed a key fact that was not disclosed in the Final Rule: the HexSim model treats legally reserved areas such as “Wilderness, National Parks, Wild and Scenic River corridors, State Parks and Natural Areas, and private lands with Habitat Conservation Plans (HCPs) or Safe Harbor Agreements (SHAs)” like critical habitat even if they are not designated as critical habitat. Dunk *et al.* 2012b 57. Thus, removing such areas from designated critical habitat “do[es] not influence population results in HexSim.” Dunk *et al.* 2012b 58.

184. The Modeling Supplement further reveals that “[a]lthough Composite 11 is 4.4 million acres smaller than Composite 7, the amounts of RHS available to spotted owl populations are very similar between the two Composites. ... This is largely due to Section 4(b)2 exclusions of Congressionally Reserved areas, State parks, and private lands with HCPs (see above) that were not included in the final rule but were still considered to maintain their RHS value for spotted owls.” Dunk *et al.* 2012b 68. Out of all the exclusions, the models treated just “165,861 acres of private lands (without HCPs or SHAs)” – only 1 percent of the original proposed designation and just 4 percent of the supposed reduction between the proposed and final rules – as having any biological affect from the exclusion. Dunk *et al.* 2012b at 68. The rest of the 4.4 million acre reduction was just an accounting trick.

185. When habitat network size is restated in a more meaningful manner to include the areas that remain reserved even if dropped from critical habitat, Composite 11 is less than one percent different in size from Composites 6,7,9 and 10a, Dunk *et al.* 2012b Tables 34A and 34B – not “much smaller.”

186. In fact, Composite 11 is larger than Composite 9 in the adjusted table, had a statistically indistinguishable population size and had about the same extinction rates (some slightly higher, some slightly lower) as Composite 9. Dunk *et al.* 2012b Tables 26 and 28. If the Section 4(b)(2) exclusions applied in Composite 11 had been applied to Composite 9, that composite would have been 78,000 acres smaller than Composite 11 with statistically indistinguishable modeling results. The final network was neither the best performing nor the smallest network assessed in the models. But under Composite 9, an additional 78,000 acres of BLM and Forest Service land would have become available for sustained-yield timber management under the Northwest Forest Plan without the legal restrictions applicable to critical habitat. Dunk *et al.* 2012b Table 25.

187. Viewing the modeling results through the adjusted acreage totals leads to the most significant issue that FWS failed to consider: whether a habitat network with fewer designated acres of BLM and Forest Service matrix land might have performed at a level sufficient to satisfy whatever undisclosed “essential to conservation” standard FWS applied in this case. The failure of the FWS to consider this highly relevant factor was arbitrary and capricious.

188. The BLM and the Forest Service wanted FWS to reduce the amount of matrix land in the designation. They proposed an alternative habitat network that removed about 1.5 million acres

of sustained-yield matrix lands from the proposed critical habitat network. Dunk *et al.* 2012b 57-58 and Table 23. FWS evaluated their proposal as Composite 8 and found that it resulted in a population level much lower than the proposed network, and higher extinction rates. Dunk *et al.* 2012b 59.

189. Yet when FWS analyzed Composite 9 with a 78,000 acre reduction and found that it had no measurable impact on population size and extinction rates, FWS did not pursue the proposal further to determine if further reductions in the size of the habitat network on BLM and Forest Service land could be achieved without measurably changing the modeled population sizes and extinction rates. Nor, as discussed above, did FWS ever try to determine if a habitat network with a smaller population size and higher extinction rates would achieve recovery of the northern spotted owl. Thus, even in the functionally-meaningless comparison of designated acres (ignoring the reserved areas that remain protected), the final critical habitat network was smaller than the others only because FWS chose not to consider any smaller networks after seeing the favorable results of Composite 9. That failure was arbitrary and capricious.

190. FWS “recognize[d] the concern over the inclusion of certain Federal lands in the designation of critical habitat for the northern spotted owl, and particularly of lands in the matrix land use allocation or the O&C lands,” 77 Fed. Reg. 72007, because the Northwest Forest Plan “provides less than the anticipated level of commercial timber harvest on matrix lands.” 77 Fed. Reg. 71881. Yet FWS refused to attempt to minimize the amount of matrix lands in the designation, which would have reduced the economic impacts substantially. FWS could have made this effort

simply by trying to prioritize the designation of NWFP reserve areas (such as Late-Successional Reserves (LSRs)) over matrix lands, but refused to do so: “Late-successional reserves (LSRs) were not prioritized in this approach based solely on their status as a reserved land allocation.” 77 Fed. Reg. 71895. Rather, in a reversal of the policy followed in the 2008 critical habitat designation, matrix lands were treated no differently than LSRs. *Id.* As a result, FWS eliminated from critical habitat 1.2 million acres of LSRs that had been designated as critical habitat in 2008, 77 Fed. Reg. 71894-95, and added three million acres of matrix lands, three-quarters of the entire amount of matrix lands established in the Northwest Forest Plan. Although the 1.2 million acres of LSRs will remain available as spotted owl habitat regardless of their elimination from critical habitat, FWS chose to assume in its prevailing “pessimistic” scenario that every square inch would be eliminated. FWS thus chose deliberately to blind itself to the conservation benefits that LSRs omitted from the designation will continue to provide to the spotted owl, while unnecessarily designating matrix lands that will likely no longer support sustained-yield timber management needed for local industries and communities. That policy is foolish, irrational, contrary to the Memorandum on the subject of northern spotted owl critical habitat issued by President Obama on February 28, 2012, and for all those reasons is arbitrary and capricious.

**C. 4.8 million designated acres of critical habitat in the six northern regions are not essential to conservation because they make no significant contribution to recovery.**

191. The final critical habitat network is not “essential to conservation” because 4.8 million acres of designated habitat make no significant contribution to recovery. As shown above, the designated habitat network fails to recover the northern spotted owl in six of the 11 provinces, in

which 4.8 million acres of critical habitat has been designated. One province has an 83 percent likelihood of extinction, two others have an extinction rate over 22 percent, and five are certain to have fewer than 100 birds under any circumstances. Dunk *et al.* 2012b 64 Table 30. The 4.8 million acres of designated critical habitat in those six provinces is not “essential to conservation” because that vast acreage makes no meaningful contribution to recovery at all. As discussed above, the total number of birds projected in the six weak northern provinces (440) is less than the 95% confidence interval of the entire population, meaning that statistically the 4.8 million acres of critical habitat in those six provinces makes no contribution to recovery. It is arbitrary and capricious to designate 4.8 million acres of critical habitat that make no contribution to conservation or recovery.

192. All of these unlawful decisions make the Final Rule arbitrary and capricious, an abuse of discretion, not in accordance with law, without observance of procedure required by law, in excess of statutory authority and short of statutory right under 5 U.S.C. §706(2).

## **CLAIMS RELATING TO OTHER LEGAL VIOLATIONS**

### **FOURTEENTH CLAIM**

**(Arbitrary and capricious agency action under 5 U.S.C. §706(2); 5 U.S.C. §553 (c) – failure to consider and respond to AFRC request for exclusion of O & C timberlands; application of erroneous legal standard to consideration of other exclusions)**

193. Plaintiffs repeat and reallege the allegations in paragraphs 1-60 as if fully set forth herein.

#### **A. Failure to consider AFRC’s request for exclusion of O & C timberlands**

194. In the 2008 northern spotted owl critical habitat rulemaking, AFRC asked FWS to

exclude the O & C timberlands managed by the BLM from designation as critical habitat. The request was based on the economic significance of those lands and the unique historical circumstances that brought these lands under federal control. FWS failed to consider that request, and AFRC filed suit in this court challenging that failure. In the 2012 rulemaking, AFRC again asked FWS to exclude the O & C timberlands from designation as critical habitat. Again, FWS failed to consider the request, and failed to exclude any federal lands (other than the reserved areas) from the Final Rule. The failure to consider AFRC's exclusion request was arbitrary and capricious and violated the APA, 5 U.S.C. §553 (c), which requires an agency conducting a rulemaking to consider and respond to significant comments.

**B. Application of wrong exclusion standard to other requests for economic exclusions.**

195. The statutory exclusion authority in 16 U.S.C. §1533(b)(2) has a clear standard for exclusion decisions: "The Secretary may exclude any area from critical habitat if he determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless he determines, based on the best scientific and commercial data available, that the failure to designate such area as critical habitat will result in the extinction of the species concerned."

196. An exclusion decision thus has two parts: an exclusion is permitted if the benefits of exclusion outweigh the benefits of designation, but an otherwise permitted exclusion is prohibited if the exclusion "will result in the extinction of the species concerned." The term "benefits" is understood to include economic benefits, but is not limited to that factor. The granting of an exclusion under this section is never mandated, but remains within the discretion of the FWS (as the

delegate of the Secretary).

197. Although FWS failed to consider AFRC's request to exclude the O & C timberlands, FWS did consider a request from the BLM and Forest Service to exclude about 1.5 million acres of their sustained-yield timberlands. Dunk *et al.* 2012b 57. FWS denied the request in full. In making that decision, FWS failed to apply the correct legal standard, rendering its decision arbitrary and capricious.

198. The record does not show that FWS ever sought to determine what the economic benefits (or any other benefits) of excluding 1.5 million acres of BLM and Forest Service timberlands would be. Thus, FWS was unable to determine (and the record does not show that it did determine) whether the "benefits" of exclusion outweigh the "benefits" of designation.

199. FWS also failed to determine if excluding the 1.5 million acres of land "will result in the extinction of the species concerned," as the ESA requires. The FWS modeling simulations of Composite 8 show a region-wide spotted owl population of 1,850 pairs in 350 years, Dunk *et al.* 2012b 59, so there does not appear to be any basis for FWS to conclude that Composite 8 "will result in the extinction" of the spotted owl. Rather than apply the statutory standard, FWS rejected Composite 8 because "simulated owl populations performed comparatively poorly under this potential critical habitat network," Dunk *et al.* 2012b 72, "with substantially lower population sizes and greater extinction risks than in Composite 7." Dunk *et al.* 2012b 59.

200. FWS also explained that the measuring the economic benefits of excluding sustained-yield timberlands from critical habitat was unimportant to the agency because "even if there were

likely to be higher economic impacts, we would not exclude these lands from designation under section 4(b)(2) because a critical habitat designation in these areas will likely have regulatory benefits in conserving this essential habitat.” 77 Fed. Reg. 72028. Yet the ESA does not prohibit exclusion of an area because FWS believes a designation “will likely have regulatory benefits in conserving ... essential habitat,” but only if the exclusion will result in the extinction of the species. By plainly misapplying the statutory exclusion standard, FWS limited its discretion to approve exclusions in a manner that is arbitrary and capricious.

### **FIFTEENTH CLAIM**

**(Violation of APA, 5 U.S.C. §553; arbitrary and capricious agency action under 5 U.S.C. §706(2) – unlawful application and use of Owl Estimation Methodology for Final Rule; adoption of Owl Estimation Methodology without complying with APA rulemaking procedures)**

201. Plaintiffs repeat and reallege the allegations in paragraphs 1-60 as if fully set forth herein.

202. Under the APA, 5 U.S.C. §551(4), a “‘rule’ means the whole or a part of an agency statement of general or particular applicability and future effect designed to implement, interpret, or prescribe law or policy or describing the organization, procedure, or practice requirements of an agency.” The Owl Estimation Methodology, Version 2.0, adopted by FWS, BLM and the Forest Service on September 15, 2008, is a rule under the APA, 5 U.S.C. §551(4). The OEM is a statement of general applicability to Section 7 consultations concerning northern spotted owls in Oregon and elsewhere; it implements, interprets or prescribes law or policy for such consultations; and it describes the procedures to be followed by the FWS as well as the BLM and the USFS. The OEM

constitutes the final, settled position of the FWS, the BLM and the USFS, and is the consummation of the agencies' decision making process as to the issues addressed in the OEM.

203. In practice the OEM obligates the BLM and the USFS to conduct effects analysis on proposed agency actions that may affect northern spotted owls in accordance with the OEM's precise methodology, and denies the BLM and the USFS the discretion to select a different method of conducting effects analysis. The OEM's effects formulae dictate when the BLM or the USFS must initiate formal consultation or informal consultation on a proposed agency action. FWS has employed the OEM in Oregon on every occasion it has had the opportunity to do so since the OEM was issued in 2008, and the BLM and USFS have also similarly employed the OEM since the OEM was issued in 2008, demonstrating that the OEM is a final, binding agency rule for all three agencies.

204. FWS relied on the OEM in the Final Rule. FWS explained that “in the absence of information to the contrary, in the section 7 consultation process the land managing agencies may rely on habitat characterization as a proxy for occupancy, assuming that structurally complex or other NSO habitat, such as that suitable for foraging, is presently occupied.” Final Econ. An. 4-37. FWS thus relied on the OEM in its immediately-following assertion that “[t]he Service estimates that 6.5 percent of NSO habitat is not occupied.” *Id.* FWS instructed the contractor producing its Economic Analysis to assume that every consultation by the BLM or Forest Service involving an unoccupied area of spotted owl habitat that is assigned a “predicted owl” through the OEM process is to be evaluated as a consultation on occupied spotted owl habitat, which therefore can produce no incremental economic effects from the designation of that area as critical habitat, aside from a trivial

4-6 hours of staff time on the consultation. The OEM is arbitrary and capricious, and lacks a rational basis. By treating every “predicted owl” under the OEM as an actual owl, FWS vastly overstated the percentage of occupied spotted owl habitat, and thus vastly understated the economic effects of the critical habitat designation, at the same time distorting the Secretary’s exercise of discretion in granting or denying exclusions under 16 U.S.C. §1533(b)(2).

205. Under the APA, a rule having the textual or practical force of law must be adopted through rulemaking procedures, including a requirement for notice to the public and an opportunity for the public to comment on a proposed rule. 5 U.S.C. §553(b). The OEM was not adopted through APA rulemaking procedures. There was no notice to the public and no opportunity for the public to comment on a proposed rule as required under 5 U.S.C. §553(b). FWS did not disclose its reliance on the OEM in the proposed rule, and there was no opportunity for the public to comment on the use of the OEM for the Final Rule. Defendant’s violation of 5 U.S.C. §553 is arbitrary and capricious, an abuse of discretion, not in accordance with law and in excess of statutory authority under 5 U.S.C. §706(2).

206. The APA requires that any agency decision must articulate a satisfactory explanation for the decision including a rational connection between the facts found and the choice made, and may not be arbitrary and capricious. The OEM does not present a rational connection between the facts found and the choice made, and has no rational basis. The OEM is arbitrary and capricious, an abuse of discretion, not in accordance with law and in excess of statutory authority under 5 U.S.C. §706(2).

## SIXTEENTH CLAIM

### **(Arbitrary and capricious agency action under 5 U.S.C. §706(2) – Economic Analysis failed to properly present economic and other effects of critical habitat designation)**

207. Plaintiffs repeat and reallege the allegations in paragraphs 1-60 as if fully set forth herein.

208. The ESA requires that FWS can only designate critical habitat “after taking into consideration the economic impact, the impact on national security, and any other relevant impact, of specifying any particular area as critical habitat.” 16 U.S.C. § 1533(b)(2).

209. Historically FWS had limited a critical habitat Economic Analysis strictly to the incremental effects of designation or exclusion, and customarily had concluded there were no incremental effects because the effects of a critical habitat designation were no broader than the effects of the original listing of the species. However, the Tenth Circuit Court of Appeals in *New Mexico Cattle Growers*, 248 F.3d 1277 (10th Cir. 2001), rejected the FWS incremental effects analysis: “Congress intended that the FWS conduct a full analysis of all of the economic impacts of a critical habitat designation, regardless of whether those impacts are attributable co-extensively to other causes.” *Id.* at 1285. FWS initially acquiesced in the *New Mexico Cattle Growers* decision, and began to analyze and consider coextensive impacts as well as incremental impacts in its critical habitat designations. FWS took that approach with its Economic Analysis of the 2008 northern spotted owl designation. More recently, FWS has reversed itself and begun once again to limit its critical habitat economic analysis strictly to incremental effects, as it did in this case.

210. The proposed rule would have designated 3,138,411 acres of matrix land as critical

habitat. The Final Rule slightly reduced the matrix land designation to approximately 3 million acres. *See* 77 Fed. Reg. 71889. The designated matrix lands represent 75 percent of all matrix lands available for sustained yield timber management under the Northwest Forest Plan (although some part of these lands may lie within another 1.5 million acres of Adaptive Management Areas where timber harvest is theoretically if not actually permitted). The current probable annual sale quantity of the Northwest Forest Plan lands is 802 million board feet of timber; if 75 percent of the lands intended to provide that flow of timber are converted into critical habitat for the northern spotted owl, the economic impacts could well be regionally massive. Yet the FWS Economic Analysis fails to present even a bare minimum of meaningful economic analysis of those impacts.

211. Remarkably, and unlawfully, FWS failed to comply with the February 28, 2012 Presidential Memorandum: the Final Economic Analysis does not address the job impacts of the designation. The only reference to jobs appears in recitation of several estimates of the direct jobs that are created in Oregon and Washington by every million board feet of timber harvest, which range from 9.6 jobs to 17.4 jobs. ES-18-19. But the Economic Analysis does not offer any estimate or projection of the job losses that will result from the critical habitat designation. The Economic Analysis also disregards the indirect job creation of timber harvest even though the document admits “many indirect jobs result from timber harvesting.” ES-18 n. 21.

212. The FWS failure to present the job impacts of the designation is a subset of a larger failure: the failure to consider any economic impact on the private sector. The Economic Analysis presents no information on the effect of a timber volume reduction on the loggers who cut the trees,

the truckers who transport the trees to mills, the manufacturers who convert timber into finished wood products, the railroads that transport finished wood products to customers, the wholesale and retail establishments that sell finished wood products, the end-user (most often a home builder) who purchases the finished wood products for construction, and the homeowner who purchases a newly-constructed home. Nor does it consider the many businesses that provide services to these entities, or the professionals who dispense advice to these entities. The Economic Analysis does not recognize that private sector businesses will suffer economic losses from a reduction in federal timber sales. The Economic Analysis erroneously views the world as if the federal government is the only economic actor that could suffer harmful impacts from a critical habitat designation.

213. Although FWS acknowledged that reduction in timber volume from federal lands was the primary economic effect of the designation, FWS made no attempt to determine how large a reduction in timber volume could result from the designation. Instead, FWS merely chose to present a 20 percent volume reduction on the affected lands to “illustrate the potential magnitude of this potential effect.” ES-16. BLM advised FWS during the comment period that BLM anticipates a 68 percent reduction in timber harvest within designated unoccupied or non-suitable habitat – far higher than 20 percent, but the Final Economic Analysis ignored this information and continued to portray a maximum 20 percent reduction.

214. FWS provided a directive to the authors of the Economic Analysis instructing how incremental effects were to be determined for this rule. “Incremental Effects Memorandum for the Economic Analysis of the Proposed Rule to Revise Critical Habitat for the Northern Spotted Owl”

(May 2, 2012) (App. B to Final Econ. An.). The Incremental Effects Memorandum and other decisions made in the preparation of the Economic Analysis improperly and unlawfully limited the effects the contractor was allowed to consider, and prevented Defendants from making an informed and rational decision on the designation of spotted owl critical habitat:

- a. FWS directed that in critical habitat that FWS considers “occupied” by spotted owls, there would be no incremental effects on timber sale projects except a trivial increase in federal administrative costs. Final Econ. An. B-9. “We presume that there will not be incremental impacts to timber harvest due to critical habitat in occupied areas.” 77 Fed. Reg. 72028. In ruling out incremental effects in occupied habitat, FWS never considered that over time all occupied habitat may no longer be occupied by a spotted owl (especially in light of the rising presence of barred owls displacing spotted owls from suitable habitat), and that the incremental effects of designation would apply to the no-longer-occupied areas wherever they may be.
- b. Having limited the incremental effects to non-habitat and unoccupied habitat, FWS improperly constrained the amount of such land that could be analyzed for incremental effects. FWS directed that just 4.6 percent of the designated matrix areas should be considered to be non-suitable habitat, Final Econ. An. B-7, 4-6, and that of the remaining 95.4 percent of the designated area that contains suitable owl habitat, only 6.5 percent should be considered currently unoccupied by spotted owls. FWS relied in part on the unlawful Owl Estimation Methodology to make this

occupancy determination, greatly exaggerating the amount of “occupied” habitat. Final Econ. An. B-6 (“the consulting action agency often assumes spotted owl habitat within a project area is occupied if the localized habitat conditions are suitable for resident spotted owls and survey data are out of date.”); Final Econ. An. 4-7 n. 139. FWS thus limited the economic effects analysis to 1,389,787 acres (out of the original 13.961 million acres proposed) that were believed to be either unoccupied habitat or non-suitable habitat. Final Econ. An. ES-15. The non-habitat figure was shown to be severely underestimated, and the occupied percentage of habitat was shown to be severely overestimated, but the Final Economic Analysis continued to use these figures, greatly underestimating the likely economic losses resulting from the critical habitat designation.

- c. FWS instructed that the incremental effects of the critical habitat designation do not include voluntary conservation measures that federal agencies (BLM and Forest Service) may add to their projects beyond the legal requirements of the ESA. FWS further limited the incremental timber volume impacts to “conservation efforts required by the Service through section 7 consultation to avoid potential destruction or adverse modification of critical habitat,” Final Econ. An. 2-9, excluding any timber sale project changes requested by FWS during a consultation and voluntarily agreed to by the BLM or Forest Service.
- d. FWS determined the only incremental effects of the designation on Late-Successional

Reserves and other areas reserved by the Northwest Forest Plan would be a minor increase in administrative costs of section 7 consultation. Final Econ. An. B-10. Yet FWS admitted that the critical habitat designation will override and limit post-fire salvage logging within such reserves that otherwise is permissible under the Northwest Forest Plan. Final Econ. An. B-10. The reserved acres that have recently burned in wildfires every year is easily determined, and a projection of likely timber harvest reductions from the designation would be easy to calculate, yet FWS failed to do so.

- e. “The analysis does not consider potential changes in timber activities on lands outside the proposed critical habitat designation.” Final Econ. An. ES-19. With the ultimate exclusion of all private land, no impacts to private landowners were considered, although the fact of such impacts was acknowledged.

215. The totality of the economic analysis was a calculation that the unoccupied/non-suitable designated habitat has the potential to produce 122 million board feet of timber per year, Final Econ. An. 4-23, and the multiplication of that figure by 20 percent to reach a timber volume reduction of 24 million board feet per year. Final Econ. An. 4-32. FWS monetized the volume reduction at two different rates – \$100 and \$250 per thousand board feet of timber – to calculate the total projected annual economic loss at \$2.6-\$6.1 million. *Id.* No other economic impacts from a timber harvest reduction were shown.

216. Since the designated matrix areas make up 75 percent of the total matrix lands in the

Northwest Forest Plan, and the total annual sale quantity from the matrix lands is over 800 million board feet, the BLM's estimate of a 68 percent timber volume reduction on its designated matrix would, if applicable to the Forest Service as well, produce a total annual timber reduction resulting from the critical habitat designation of 400 million board feet – 17 times greater than the FWS estimate. The maximum potential annual reduction in timber harvest, the true worst case, is approximately 600 million board feet – 25 times greater than the FWS estimate.

217. FWS' reliance on such a badly flawed Economic Analysis is arbitrary and capricious, an abuse of discretion, not in accordance with law, without observance of procedure required by law, in excess of statutory authority and short of statutory right under 5 U.S.C. § 706(2).

#### **SEVENTEENTH CLAIM**

**(Violation of NEPA; arbitrary and capricious agency action under 5 U.S.C. §706(2) – failure to prepare environmental impact statement)**

218. Plaintiffs repeat and reallege the allegations in paragraphs 1-60 as if fully set forth herein.

219. The Council on Environmental Quality (CEQ) regulations implementing NEPA, which are binding on defendant Secretary of Interior, require that unless a federal agency has already determined that it is required to prepare an environmental impact statement (EIS) under NEPA, 42 U.S.C. § 4332(2)(C), the agency must prepare an environmental assessment (EA) to determine if a proposed action is likely to significantly impact the environment and therefore require preparation of an EIS. 40 C.F.R. §§ 1501.4(b), 1508.9. If a federal agency makes a “finding of no significant impact” based on the EA, it need not prepare an EIS before proceeding with the action.

220. FWS prepared a Final Environmental Assessment on the proposed critical habitat designation, and based on that assessment made a Finding of No Significant Impact. However, FWS also asserted that it has no duty to comply with NEPA for a critical habitat designation, except within the jurisdiction of the U.S. Court of Appeals for the Tenth Circuit, which held in *Catron County Board of Comm. v. U. S. Fish and Wildlife Serv.*, 75 F.3d 1429, 1436 (10<sup>th</sup> Cir. 1996), that NEPA compliance is required for a critical habitat designation. 77 Fed. Reg. 72050. Based on the Finding of No Significant Impact, FWS did not prepare an EIS before adopting the Final Rule.

221. The Final Environmental Assessment did not consider an adequate range of alternatives, and failed to take a hard look at the potential environmental effects of the designation. The Final EA only considered a narrow range of environmental issues that appear to be of particular interest to the FWS: impacts on the northern spotted owl, on other ESA-listed species in the same geographic area; and on the barred owl. FWS looked only within the designated network, and refused to consider any environmental impacts that could occur elsewhere, though the existence of such effects was known to FWS. While FWS recognized, in response to a comment from AFRC, that it is possible to consider a much broader range of environmental effects of the critical habitat designation than FWS had presented in the Draft EA, FWS refused to consider any of those environmental effects on the ground it was not “prudent” to do so. FWS also found that every one of the few potential environmental impacts it did consider was “not reasonably foreseeable” and therefore provided no analysis of any potential environmental impact. FWS adopted an unreasonably restricted “purpose and need” for the designation that ruled out any alternative except the one it

chose, failing to consider the necessary range of alternatives required by NEPA. FWS failed to make a convincing case that no significant environmental impacts would result from the critical habitat designation.

222. The FWS' failure to prepare an EIS for the Final Rule is arbitrary and capricious, an abuse of discretion, not in accordance with law, without observance of procedure required by law, in excess of statutory authority and short of statutory right under 5 U.S.C. § 706(2).

#### PRAYER FOR RELIEF

WHEREFORE, plaintiffs pray for judgment as follows:

1. A declaration that Defendants have committed the legal violations alleged in the First through Seventeenth Claims pleaded herein.
2. An order setting aside, vacating and remanding the Final Rule.
3. An award of plaintiffs' attorneys fees under the Equal Access to Justice Act, 28 U.S.C. § 2412.
4. Such further relief as the Court may deem just and proper.

Dated this 21<sup>st</sup> day of March, 2013.

By: \_\_\_\_\_/s/  
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