Appendix C – Biological Assessment
Blowout Thin Project

Amended Biological Assessment
(Gifford Pinchot Lawsuit Sale)\(^1\)

A. SCOPE OF THE ACTION
The amended Biological Assessment (BA) is limited to proposed activities in the Blowout Thin project that might modify northern spotted owl critical habitat. The area of the assessment is limited to Critical Habitat Unit (CHU) OR-14 located on the Santiam River Zone (formerly Detroit and Sweet Home) Ranger District in the Detroit Reservoir-Blowout Divide Creek 5\(^{th}\) field watershed of the Willamette National Forest (WNF).

All Blowout Thin project activities addressed by this assessment will have a signed NEPA (National Environmental Policy Act of 1969) record of decision, decision notice or decision memo.

B. BASIS FOR THE ASSESSMENT
The basis for reinitiation of consultation on this timber sale within northern spotted owl critical habitat on the Willamette National Forest is due to a recent appellate Gifford Pinchot Task Force decision\(^2\) that partially invalidates five biological opinions (FWS Biological Opinions: 1071995F290; 1071996F207; 1071996F459; 1071997F396; 1071998F381) which cover Forest Service and Bureau of Land Management activities in the Willamette Province.

C. CONSULTATION HISTORY
The project is identified as a Willamette National Forest – Detroit Ranger District activity in the FY 1997 Biological Assessment (BA) Habitat Modification projects in the Willamette Province and is covered by FWS Biological Opinion (BO) #1-7-96-F-459.

D. ASSESSING NEW INFORMATION
There is new information that has come to light since the completion of consultation with FWS on these proposed activities. This section will briefly discuss and disclose the differences of the new information from that used in the previous biological assessments

---

\(^1\) This sale was over-looked in the submittal of Forest GP lawsuit sales to the FWS on May 19, 2005 and is now going through reinitiation of consultation separately for the critical habitat portion of this activity.

\(^2\) On August 6, 2004, the Ninth Circuit Court of Appeals rendered a decision in the Gifford Pinchot Task Force v. U.S. Fish and Wildlife Service, No. 03-35279, finding that the Service’s regulatory definition of “destruction or adverse modification” of critical habitat, at 50 C.F.R. §402.02, is contrary to law.
for these activities. The updated information will be used in this assessment to evaluate the potential affects of the proposed activities on critical habitat.³

5-Year Owl Trend Information

The effects to the spotted owl from this proposed project have been reviewed and evaluated in light of new information to spotted owls. New information includes potential threats to the spotted owl from barred owls, West Nile virus, sudden oak death syndrome, wildfires, climate change on regional vegetation patterns, effects of past timber harvest, and spotted owl population declines. Although the effects to the spotted owl from these threats is in some cases uncertain, the project effects analysis and the affect determinations in the original BO (listed above) remain valid with respect to the northern spotted owl. The FY 2005- FY 2006 Habitat Modification BA and BO provides a thorough analysis of the new information from the potential threats to the spotted owl listed above (USDA/USDI 2005, pp. 15 to 28).

The District wildlife biologist on the Willamette NF has reviewed the new information from the 5-year status trend of the northern spotted owl on all the proposed activities listed in Table 1 (Courtney, S.P., et al., 2004). The results of their review is that the original effect determinations made on the northern spotted owl for this sale, remains unchanged from the effects identified in the individual project biological assessment and accompanying FWS Biological Opinion (FWS BO-1071996F459).

New Northern Spotted Owl Information

The Central Cascade Demography Area has been surveyed for the northern spotted owl since 1987. Annual surveys are conducted on 364,225-acre area (approx. 600 sq. miles), which includes portions of the McKenzie River and Sweet Home Ranger Districts, where over 120 pairs of owls have been tracked.

The analysis of owl populations and habitat during the first ten years of implementing the Northwest Forest Plan found that the largest average rate of decline to be 7.1 percent annually (occurred in the 4 demographic areas of Washington). The Plan estimated a 3.4 percent rate of decline. This report presents results from monitoring spotted owl populations and habitat during the first ten years of implementation of the Northwest Forest Plan (the Plan). Results from the H.J. Andrews study area indicate a 20 to 30 percent decline in the population (Lint et al. 2004 in press).

E. PROPOSED ACTION

The proposed action is to lightly thin 270 acres and regeneration harvest 24 acres of northern spotted owl dispersal habitat in Critical Habitat Unit OR-14 on the Santiam River Zone of the Willamette National Forest. In addition, there will 18 acres of regeneration harvest and 30 acres of light thinning in non-owl habitat that is slated to

³ Refer to Willamette NF Biological Assessment for the reinitiation of consultation for the Gifford Pinchot Lawsuit (May 19, 2005) for updated owl habitat and CHU baseline conditions.
occur in this CHU with the project. The project is not located within the Santiam Area of Concern, or in an LSR.

F. ENVIRONMENTAL BASELINE

Table 5 describes the various ownership patterns in critical habitat unit OR-14 located on the Willamette NF.

Table 5. 2004 Critical Habitat Unit Ownership Statistics

<table>
<thead>
<tr>
<th>CHU</th>
<th>BLM</th>
<th>Corps of Engineers</th>
<th>Willamette NF</th>
<th>Total</th>
<th>State</th>
<th>Private Land</th>
</tr>
</thead>
<tbody>
<tr>
<td>OR-14</td>
<td>0</td>
<td>315</td>
<td>61,676</td>
<td>61,992</td>
<td>0</td>
<td>868</td>
</tr>
</tbody>
</table>

Table 6 describes the reserve allocation statistics for CHU OR-14 on the Willamette NF. These special reserve allocations are a result of the management guidance from the NWFP and each has a unique set of conditions and requirements that must be met for both vegetation and “wildlife” species. This table provides a quick overview of the land use allocations within CHU OR-14 on the Forest. 85% of the land area is this CHU is in reserve allocations designed to ensure an adequate distribution of owl habitat across the landscape.

Table 6. Acres of Reserve Areas by Critical Habitat Unit

<table>
<thead>
<tr>
<th>CHU#</th>
<th>LSR 100 ac</th>
<th>CRA</th>
<th>Matrix</th>
<th>RR</th>
<th>AMA</th>
<th>AWA</th>
<th>Non FS**</th>
</tr>
</thead>
<tbody>
<tr>
<td>OR-14</td>
<td>42,709</td>
<td>1,269</td>
<td>602</td>
<td>8,698</td>
<td>8,065</td>
<td>0</td>
<td>579</td>
</tr>
</tbody>
</table>

Table 9 summarizes northern spotted owl critical habitat on the Forest. Each CHU is described by the amount of NRF and dispersal habitat that is contained within an individual CHU.

Table 9. 2004 Critical Habitat Statistics

<table>
<thead>
<tr>
<th>CHU</th>
<th>Total Acres of CHU</th>
<th>NRF Owl Habitat</th>
<th>Percent of CHU</th>
<th>Dispersal Habitat</th>
<th>Percent of CHU</th>
</tr>
</thead>
<tbody>
<tr>
<td>OR-14</td>
<td>62,860</td>
<td>34,451</td>
<td>52</td>
<td>7,094</td>
<td>11</td>
</tr>
</tbody>
</table>

All relevant number and tables are taken directly from the May 19, 2005 WNF BA covering the GP Lawsuit Sales
G. Effects of the Proposed Action

Critical Habitat Unit OR-14 is located just south of Detroit Lake along the western boundary of the Forest (Detroit and Sweet Home Ranger Districts) and consists of approximately 62,860 acres. The Middle Santiam Wilderness and LSR RO213 cover a large portion of this CHU on the Forest. Approximately 17,342 acres of this CHU falls outside of the LSR, wilderness boundary, and 100-acre LSRs (located in the original reinitiation package).

The 2002 Lucky Fire (81 acres) has affected stand conditions in this CHU. Since most of these acres (50+) were unsuitable in 1995 and are still unsuitable only about 5 acres of NRF habitat was affected.

Table 10 lists the LAA activities that are proposed in CHU OR-14. The Echo project has already been consulted on (reinitiation BO 1-7-05-F-0599; 8/11/05). This assessment is to amend the GP Lawsuit Sales for the Willamette NF Supplemental BA for LAA Timber Sales and subsequent BO 1-7-07-F-0599 with units 13, 104, 106, 121, 161 of the Blowout Thin project.

Table 10. Proposed Activity Statistics in Critical Habitat Unit OR-14

<table>
<thead>
<tr>
<th>Sale and Unit#</th>
<th>Acres of CH</th>
<th>Harvest Rx</th>
<th>NSO Habitat Type</th>
<th>Post Harvest Effect to NSO Habitat</th>
<th>Effects Call</th>
<th>Land Allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Echo U-3</td>
<td>5</td>
<td>HCR</td>
<td>NRF</td>
<td>Remove</td>
<td>LAA</td>
<td>Matrix</td>
</tr>
<tr>
<td>Blowout Thin Units 13, 104, 106, 121, 161</td>
<td>24</td>
<td>HCR</td>
<td>DISP</td>
<td>Remove</td>
<td>LAA</td>
<td>Matrix</td>
</tr>
</tbody>
</table>

Table 11 lists the NLAA activities that are proposed in CHU OR-14. The Shore Nuf project has already been consulted on (reinitiation LOC 1-7-05-I-0516; 8/04/05). This assessment is to amend the GP Lawsuit Sales for the Willamette NF Supplemental BA for NLAA Timber Sales and subsequent LOC 1-7-05-I-0516 with units 2-6, 12, 16, 17, 18 to the Blowout Thin project.
Table 11. Proposed Activity Statistics in Critical Habitat Unit OR-14

<table>
<thead>
<tr>
<th>Sale and Unit#</th>
<th>Acres of CH</th>
<th>Harvest Rx</th>
<th>NSO Habitat Type</th>
<th>Post Harvest Effect to NSO Habitat</th>
<th>Effects Call</th>
<th>Land Allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shore Nuf U-13</td>
<td>76</td>
<td>LThin</td>
<td>DISP</td>
<td>Degrade</td>
<td>NLAA</td>
<td>Matrix</td>
</tr>
<tr>
<td>Blowout Thin Units 2, 3, 4, 5, 6, 12, 16, 17, 18</td>
<td>268</td>
<td>LThin</td>
<td>DISP</td>
<td>Degrade</td>
<td>NLAA</td>
<td>Matrix</td>
</tr>
<tr>
<td>Blowout Thin Unit 12</td>
<td>2</td>
<td>LThin</td>
<td>NRF</td>
<td>Degrade</td>
<td>NLAA</td>
<td>Matrix</td>
</tr>
<tr>
<td>Blowout Thin Units 1, 12, 14, 16, 23, 24, 121</td>
<td>48</td>
<td>LThin/HCR</td>
<td>Non-Owl</td>
<td>Resetting Stand&lt;sup&gt;5&lt;/sup&gt;</td>
<td>Not Applicable</td>
<td>Matrix</td>
</tr>
</tbody>
</table>

A. Direct and Indirect Effects

Units<sup>6</sup> 2 – 6, 12, 14, 16, 17, 18, 23, 24, 104, 106, 121 and 161 of the Blowout Thin project are proposed within Critical Habitat Unit OR-14. The project proposes to harvest with a light thin (LThin) and regeneration prescription approximately 294 acres of northern spotted owl critical habitat. The LThin prescription in dispersal habitat is designed to provide greater than 60% canopy closure post harvest and therefore, should not appreciably reduce the ability of the stand to provide for owl dispersal. In addition, there will be 18 acres of regeneration harvest and 30 acres of LThin in non-owl habitat.

In Blowout Thin units 2, 3, 4, 5, 6, 16<sup>7</sup> 17 and 18 where a LThin prescription is applied to 268 acres of dispersal habitat, the objective is to improve the health, vigor and overall size and diameter of the trees in the stand. The same objective applies to the non-owl habitat, but occurs in these stands at an earlier age. The prescription should improve the ability of the future stand to provide the components for late-successional stands. In the 2 acres of NFR habitat in Blowout Thin unit 12<sup>8</sup> the LThin would retain snags, clumps of large trees, down wood to meet existing northwest Forest Plan requirements. The stands would provide for greater than 60% canopy cover and still provide for owl dispersal post harvest.

In Blowout Thin units 13, 104, 106, 121<sup>9</sup> and 161, the HCR prescription is applied to 24 acres of dispersal habitat retaining less than a 30% canopy closure and generally setting the stand back for 20-30 years before dispersal conditions for owls are provided again.

---

<sup>5</sup> The thinning of non-owl habitat is to increase the average stand diameter of stand to promote dispersal habitat conditions sooner.

<sup>6</sup> Blowout Thin units 1, 12, 14, 16, 23, 24, 121 are in non-owl habitat that is capable of producing owl habitat.

<sup>7</sup> Unit 16 contains 10 acres of dispersal and 8 acres of non-owl habitat.

<sup>8</sup> Unit 12 contains 2 acres of NRF and 13 acres of non-owl habitat.

<sup>9</sup> Unit 121 contains 1 acre of dispersal and 5 acres of non-owl habitat.
Even though some structural components (snags, clumps of large trees, down wood) would be retained to meet existing Northwest Forest Plan requirements, the overall effect to dispersal habitat, is the stand would no longer function as dispersal habitat.

The units in this sale occur within the matrix land allocation of the Northwest Forest Plan (NWFP). The effects on this CHU are minimal as there are currently 34,451 acres of NRF, 7,094 acres of dispersal habitat and 21,547 acres of capable but currently non-habitat (FWS BO 1-7-05-f-0228) that are distributed across this CHU prior to this activity (see table 9). Ninety-eight (98%) of CHU OR-14 is managed by the Willamette NF, of which 70% of the area is under LSR or congressionally reserved area management (see Table 6 and 8). About 86% of this CHU is in LSR, LSR100, Riparian Reserve, Congressionally Reserved or Administratively Withdrawn Area land allocations that are distributed across the CHU and provide habitat for owl dispersal. This activity will not diminish the functionality of this CHU to provide for habitat conditions that support the recovery of the northern spotted owl.

B. Fragmentation within an Individual CHU

The western portion of this CHU (outside the Forest boundary) is comprised of Bureau of Land Management (BLM) and private land holdings and is considered to be moderately to heavily fragmented due to ownership patterns and past and present harvest activities. On the Forest, CHU OR-14 has large complexes of NRF habitat throughout a majority of the CHU, especially where the Middle Santiam Wilderness and LSR RO213 overlay the CHU. This area is considered to be lightly fragmented (see Map 1). The western edge of the CHU is moderately fragmented, especially the portions of the CHU outside of the LSR. However, good connectivity for owl movement in this part of the CHU remains (see Map 1).

The 294 acres of treatment in 2, 3, 4, 5, 6, 12, 13, 16, 17, 18, 104, 106, 121 and 161 of the Blowout Thin timber sale occur within large blocks of dispersal habitat and NRF habitat (2-acres) along the northeastern boundary of the CHU. Degrading 270 acres of dispersal and NRF habitat and removing 24 acres of dispersal habitat will not have an appreciable effect on the ability of this CHU to provide dispersal for owls. Overall, the surrounding stands and rest of the CHU provide well-connected NRF and dispersal habitat where owls can disperse. This activity will not appreciably diminish the functionality of this CHU to provide for habitat conditions that support the recovery of the northern spotted owl.

Post harvest large blocks of NRF habitat remain and are managed under LSR standards in this portion of the CHU. Approximately 71% of this CHU is in LSR, LSR100 and Congressionally Reserved land use allocations. An additional 14% is in Riparian Reserve or Administratively Withdrawn Area land allocations. These distributed across the CHU provide additional habitat for owl dispersal (see Table 8). This harvest activity will not appreciably diminish the functionality of this CHU to provide for habitat conditions that support the recovery of the northern spotted owl.
C. Fragmentation between CHU’s
 Approximately 7 miles to the north of CHU OR-14 is CHU OR-12. These two CHUs are physically separated by Detroit Lake and small amounts of private land (see Map 1). Past harvest activities have removed a considerable portion of the NRF habitat between these two CHUs, but there still remains a good network of dispersal habitat conditions, which provide areas for owls to disperse north and south.

Approximately 2.5 miles to the east and northeast of CHU OR-14 is CHU OR-13. Private land and past harvest activities have fragmented the connection (see Map 1). Due east of CHU OR-14 are considerable amounts of NRF and dispersal habitat that are generally located within matrix lands, 100-acre LSRs and in riparian reserve corridors.

Owl movement to the northeast is more limited than owl movement due east of CHU OR-14. However, there remains a viable network of NRF and dispersal habitat to provide areas where owls can disperse across to CHU OR-13. There is keen interest in the management of the eastern edge of CHU OR-14, and the western edge of CHU OR-13, because of the location of the Santiam AOC.

D. Cumulative Effects of State and Private Lands
 There are no parcels of State land within the CHU. Approximately 868 acres of private land consisting of patent mining claims and private timberlands occur within the boundary of the CHU, but is not designated as critical habitat. The private land was cut a number of years ago and currently about 75% of the acres provide dispersal type conditions for owls. The remaining 25% of the private land is considered to be non-owl habitat.

H. Effects Determination
 The effects determination for Blowout Thin units 2, 3, 4, 5, 6, 12 16, 17, 18 on northern spotted critical habitat is a, “may affect, but not likely to adversely affect.” This determination is based on the fact that affected stands post harvest will still function as nesting, roosting, forage and dispersal habitat. The treatment is of low impact where only scattered individual down trees are removed and the designated stands. Therefore, with only a minor intrusion from this activity, the stands will retain the same structure and functions post harvest as they did after the storm event and should not diminish the functionality of this CHU to provide for habitat conditions that support the recovery of the northern spotted owl.

The effects determination for Blowout Thin units 13, 104, 106, 121, 161 on northern spotted critical habitat is a, “may affect, and is likely to adversely affect.” This determination is due to the removal of currently functional dispersal habitat, thereby, resetting the biological clock on these stands. While the activity alters the biological setting in a portion of the CHU, it also adds cumulatively to the decline of the primary constituent elements dispersal habitat) of northern spotted owl critical habitat within this portion of the CHU.
AMENDED BA was developed by:

/s/ Daryl Whitmore 8/15/05
Daryl Whitmore
Wildlife Biologist
Santiam River Zone Ranger District

/s/ Fred Wahl 8/15/05
Fred Wahl
Forest Wildlife Biologist
Willamette National Forest
Dear Kemper McMaster:

I have enclosed an amended biological assessment to the Willamette Province programmatic biological assessment for the fiscal years 2005 and 2006 for the proposed Blowout Thin project on the Santiam River Zone Ranger District (formerly the Sweet Home and Detroit Ranger Districts) of the Willamette National Forest that would modify critical habitat of the northern spotted owl.

The type of project evaluated by this assessment is: light thinning and regeneration harvest in northern spotted owl critical habitat.

We request:

- You amend the informal consultation letter of concurrence, for those actions described in the assessment that may affect, but are not likely to adversely affect the northern spotted owls; and
- That you amend the formal consultation and biological opinion, for those actions described in the assessment that may affect, likely to adversely affect the northern spotted owls.

The amended biological assessment describes how the project might modify the habitat of the northern spotted owl. All activities of the proposed project are consistent with the Record of Decision for the Northwest Forest Plan, and with the approved land use plan for the Willamette National Forest.

This project is expected to have a decision on it in December of 2005 and logging would commence in 2006.
If you have questions concerning the amended biological assessment, please contact Fred Wahl, Willamette National Forest (541-225-6433), or Sonja Weber, Willamette National Forest (541-225-6449). Thank you.

Sincerely,

/s/ Y. Robert Iwamoto (for)
DALLAS J. EMCH
Willamette Forest Supervisor

Anthony, R., F. Wagner, K. Dugger, and G. Olson. 2002b. Identification and evaluation of northern spotted owl habitat in managed forests of southwestern Oregon and the development of silvicultural systems for managing such habitat. Report on Step 2: Analysis of habitat characteristics and owl demography on three density study areas. Oregon Cooperative Fish & Wildlife Research Unit, Department of Fisheries and Wildlife, Oregon State University, Corvallis, OR.


