

Environmental Assessment  
for  
Salvage Sam Blow Down Recovery  
ORO90-EA07-04

August 2007

United States  
Department of the Interior  
Bureau of Land Management  
Eugene District Office  
Siuslaw Resource Area

**UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
EUGENE DISTRICT OFFICE  
ENVIRONMENTAL ASSESSMENT No. OR090-07-04  
Salvage Sam Blow Down Recovery**

## **1.0 INTRODUCTION**

This Environmental Assessment will address a blow down recovery project in the Siuslaw Resource Area of the Eugene District of the Bureau of Land Management (BLM). The proposed project area is approximately 40 acres located within the Lake Creek Watershed in Section 1, Township 16 South, Range 8 West, Willamette Meridian, Lane County, Oregon, within the Late Successional Reserve and Riparian Reserve Land Use Allocations.

### **1.1 BACKGROUND**

In 1999, the Bureau of Land Management analyzed the Sammy Hill Density Management Treatment Area. The preferred alternative proposed treatment of approximately 120 acres of 60- to 65-year-old timber within the Late-Successional Reserve Land Use Allocation (LUA), and approximately 30 acres of timber within the Riparian Reserve LUA. The objective of this treatment was to hasten the development of late-successional forest structural characteristics (Environmental Assessment for the Sammy Hill Density Management Project, p. 3) (Sammy Hill EA). The stand was thinned, and ¼-acre and ½-acre gaps were cut and underplanted. Within the Riparian Reserves, three trees per acre were cut and left for down woody debris. Approximately 670 feet of existing road was renovated and approximately 2,285 feet of new road was constructed and fully decommissioned. In December of 2006, a large wind event occurred which caused approximately 40 contiguous acres of timber in the Sammy Hill Density Management Treatment Area to fall, along with smaller islands of blow down scattered throughout the area.

### **1.2 PURPOSE OF AND NEED FOR THE ACTION**

The purpose of the action is to actively respond to stand disturbance caused by windthrow creating excessive amounts of blow down. The blow down may interfere with stand regeneration activities and may contribute to future disturbance of adjacent stands by increasing the susceptibility of these stands to infestation by insects or increase the risk of fire.

The need for the action is to reduce the susceptibility of the stand and adjacent stands to potential future disturbances and to continue to improve habitat for late-successional species. The Late Successional Reserve Assessment for the Oregon Coast Province – Southern Portion (RO267, RO268) has established specific goals to consider when prescribing activities within Late Successional Reserve (LSR); identified management triggers, including an existing condition of disturbance greater than 10 acres and less than 40% canopy closure that affects the goals and objectives of the LSR; and identified appropriate management options (pp. 34-46). Further, the Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents within the Range of the Northern Spotted Owl (1994) directs that management following a stand-replacing event in an LSR should be designed to accelerate or not impede the development of high-quality habitat for species associated with late-successional forest conditions (p.C-14).

### 1.3 CONFORMANCE WITH LAND USE PLAN

The alternatives are in conformance with the "Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents within the Range of the Northern Spotted Owl", April 1994 (NSO ROD); and the "Eugene District Record of Decision and Resource Management Plan", June 1995 (Eugene District ROD/RMP), as amended. This EA is tiered to these Environmental Impact Statements.

Additional site-specific information is available in the Salvage Sam Blow Down Recovery Project analysis file. This file and the above referenced documents are available for review at the Eugene District Office.

## 2.0 ISSUES

### 2.1 ISSUES SELECTED FOR ANALYSIS

**Issue 1: *What level of risk to adjacent stands would result from salvage activities?***

*Measures: Fire: acres in fuel models 5, 10, 12 and 13*

*Bark beetle: number green trees in adjacent stand killed*

**Issue 2: *How would management activities affect acceleration and development of late-successional forest characteristics?***

*Measures: Number of trees planted per acre; acres of accelerated late-successional forest trajectory*

### 2.2 ISSUES CONSIDERED BUT NOT SELECTED FOR ANALYSIS

Threatened and Endangered wildlife species were considered but not analyzed because no suitable habitat would be modified by this proposed salvage, and there would be no adverse effect to federally listed species as a result of timber haul on proposed routes.

Special Status and Survey and Manage botany species were considered but not analyzed because a botanical survey completed in April of 2007 found no listed species.

Effects of salvage on attainment of Aquatic Conservation Strategy (ACS) objectives was considered but not analyzed because neither the Proposed Action nor the No Action alternative would retard attainment of the ACS objectives at either the project or watershed scale.

## 3.0 ALTERNATIVES

Alternative A considers salvage activities on a project area of approximately 40 acres (see map). Approximately 650 thousand board feet (MBF) of blown down timber would be removed via a timber sale.

### 3.1 ALTERNATIVE A (PROPOSED ACTION)

#### Roads and Yarding

Approximately 1,000 feet of road decommissioned in the Sammy Hill action would be recommissioned (Spur A and a portion of Road No. 16-8-2.2). Use of these roads would be limited to the dry season. Upon completion of salvage activities, these roads would be tilled, blocked, and waterbarred as needed, and limbs and logging debris would be scattered on the road prisms.

Harvesting of salvage material would be done with both ground-based and cable yarding systems. Full suspension would be required when yarding over streams. One-end suspension would be required for other cable settings.

### **Retention**

Green trees and snags that do not present a safety hazard would be retained.

Downed trees with a diameter at breast height (DBH) of 30 inches or greater would be retained where operationally feasible.

In the uplands, at least five downed trees per acre would be retained on approximately 17 acres as down woody debris (at least 85 trees; estimate that approximately 71 (83%) would be greater than 12" dbh).

### **Reserves**

In the Lake Creek Watershed, the height of one site-potential tree has been determined to be 210 feet. Riparian Reserves 210 feet (slope distance) wide on either side of non-fishbearing streams would be managed in accordance with the standards and guidelines in the NSO ROD (Appendix C, pp. 31-38).

In the Riparian Reserves, at least eight downed trees per acre (TPA) would be retained on approximately 23 acres as down woody debris (at least 184 downed trees; estimate that approximately 153 (83%--see Existing Conditions) would be greater than 12" dbh). Retention of down woody debris in stream-adjacent side slopes within the project area would be designed to maintain existing water quality and bank stability to meet ACS objectives at the project scale.

### **Silviculture**

Upon completion of harvest, site preparation would include excavator piling on slopes up to 35%, hand piling on steeper slopes, and burning of the piles in the late fall when smoke dispersal is optimum and risk of fire spread away from piles is low. Seedlings planted would be primarily Douglas-fir, western redcedar and western hemlock, depending on seedling availability. Trees would be planted at densities ranging from approximately 200-400 TPA dependent on available planting spaces.

## **3.2 ALTERNATIVE B- NO ACTION**

There would be no salvage activities; no management activities described under the Proposed Action would occur. No trees would be planted.

## **4.0 EXISTING CONDITIONS**

The plant and animal communities in the project area do not differ significantly from those discussed in the Eugene District Proposed Resource Management Plan/Environmental Impact Statement (RMP EIS) (Chapter 3). The project area is described in the Sammy Hill Environmental Assessment No. OR 090-EA-99-15, pages 10-15, which is incorporated by reference, with the exceptions of the descriptions below.

### **4.1 STAND DESCRIPTION**

The project area is comprised of a second-growth Douglas-fir/western hemlock stand with a western redcedar component. The stand became established after logging in the 1930s. A 40-110 TPA density management treatment occurred in 2000-2003.

The project area is approximately 40 acres that blew down in December 2006. Within the project area there are few remaining live standing trees, some of which are leaning severely. There are approximately 4,000 downed trees; approximately 3,300 (83%) of them are greater than 12 inches dbh. (For details on the derivation of the number of downed trees, see the Appendix.)

Adjacent to and east of the project area is a riparian buffer which has a large component of the original overstory still intact. This riparian buffer was not treated in the Sammy Hill action and was comprised of densities ranging from 240-320 TPA.

The original understory of western hemlock advanced regeneration is present. Some small natural seedlings, primarily western hemlock and Douglas-fir, have seeded in since thinning operations were completed. In the patch cut areas within the Sammy Hill Density Management Treatment, a few Douglas-fir, western hemlock and western redcedar that were planted in 2003 have survived. However, these seedlings, especially the western redcedar, are being browsed. The seedlings are also threatened with brush competition.

## **4.2 FUELS DESCRIPTION**

The dominant brush species are salal, vine maple, Pacific rhododendron and evergreen huckleberry. Ground cover consists primarily of sword fern, bracken fern and Oregon-grape.

The current fuel models are approximately 35 acres of heavy slash (Fuel Model 13) with approximately 2 acres of a brush component (Fuel Model 5). Some pockets of heavy timber litter/understory (Fuel Model 10) were observed where windthrow and breakage was more scattered (approximately 3 acres).

## **4.3 WILDLIFE RESOURCES**

### **Threatened and Endangered Species**

This area is surveyed annually for northern spotted owls. There are no known activity centers for this species within the unit. The Druggs Creek owl site is located approximately 0.6 mile to the east. The Major Teiko owl site is approximately 1.2 miles to the north. In 2006, the Druggs Creek site was occupied by barred owls while Major Teiko was occupied by a non-nesting spotted owl pair. No other northern spotted owl activity centers are known to be located within 1.5 miles (the provincial home range for this species) of the project area.

Adjacent habitat qualifies as dispersal habitat for the northern spotted owl. Approximately 30 acres of suitable habitat is located within 0.25 mile, but beyond 65 yards, of the project area.

In 2001, standard protocol surveys for marbled murrelets resulted in no detections. However, these surveys have met their five-year expiration date. Habitat surveyed in 2001 is considered unsurveyed and assumed occupied. There are no trees with suitable nesting structure within the project area. The closest site known to be occupied by murrelets is approximately five miles to the southwest.

No portion of the project area is considered suitable habitat for any other federally listed or proposed terrestrial wildlife species known to occur in the vicinity.

### **Other Wildlife Species**

The extensive windthrow precludes red tree vole habitat.

No other Special Status Species are known to occur in the project area.

No mitigation measures for the above species are recommended at this time.

### **Special or Unique Habitat and Features**

No special or unique habitats were encountered during field reviews.

## 5.0 DIRECT AND INDIRECT EFFECTS

### 5.1 UNAFFECTED RESOURCES

The following resources are either not present or would not be affected by any of the alternatives: Areas of Critical Environmental Concern; prime or unique farm lands; Native American religious concerns; solid or hazardous wastes; Wild and Scenic Rivers; Wilderness; minority populations; visual resources management; air quality; bald eagle habitat; and low income populations.

### 5.2 SUMMARY OF EFFECTS

Table 1: *Summary of Effects*

Issue	Alternative A Proposed Action	Alternative B No Action
<p><b>Issue 1:</b> <i>Risk to adjacent stands from salvage activities.</i></p> <p><b>Measures:</b></p> <p><u>Fire:</u> acres in fuel models 5, 10, 12, 13</p> <p><u>Bark beetles:</u> number of green trees killed in adjacent stand</p>	<ul style="list-style-type: none"> <li>• FM 5: 25 acres</li> <li>• FM10: 0 acres</li> <li>• FM12: 15 acres</li> <li>• FM13: 0 acres</li> <li>• Approximately 72 green trees killed</li> </ul>	<ul style="list-style-type: none"> <li>• FM 5: 2 acres</li> <li>• FM10: 3 acres</li> <li>• FM12: 0 acres</li> <li>• FM13: 35 acres</li> <li>• Approximately 1,056 green trees killed</li> </ul>
<p><b>Issue 2:</b> <i>Effect on late-successional forest characteristics from management activities.</i></p> <p><b>Measures:</b></p> <p>number trees planted per acre</p> <p>acres accelerated late-successional forest trajectory</p>	<ul style="list-style-type: none"> <li>• 200-400 trees planted per acre</li> <li>• 40 acres of accelerated late-successional forest trajectory</li> </ul>	<ul style="list-style-type: none"> <li>• 0 trees planted per acre</li> <li>• 0 acres of accelerated late-successional forest trajectory</li> </ul>

### 5.3 Issue 1: *What level of risk to adjacent stands would result from salvage activities?*

#### Alternative A

##### Fire

**Fuel Model 5** (brush) – Fire is generally carried in the surface fuels, made up of litter, shrubs and the grasses or forbs in the understory. **Fuel Model 5** can exhibit intense fire behavior under severe weather conditions involving high wind, high temperature and low humidity.

**Fuel Model 10** (heavy timber litter/understory) – Fires burn in surface and ground fuels with greater intensity than other timber models due to higher fuel loadings. Crowning, spotting and tree torching is frequent in this fuel type. **Fuel Model 12** (moderate logging slash) - Rapidly spreading fires with high intensities capable of long range spotting can occur. If a fire starts, it is generally sustained until a fuel break or change in fuel type is encountered. **Fuel Model 13** (Heavy Slash or blow down) – Fire is generally carried by a continuous layer of slash.

Large quantities of material larger than 3" in diameter are present. Active flaming is sustained for long periods and a wide variety of fire brands can be generated contributing to spotting problems as weather conditions become more severe. If in a 'red slash' condition when burned, higher spread rates may closely resemble Fuel Model 12.

If the Proposed Action were selected, salvage operations would cause the residual slash to be mostly uniform and continuous throughout the harvest unit, resulting in a mixed Fuel Model 5 and 12 condition. Fuel Model 12 under these site conditions yields active fire behavior with flame lengths of 4 to 6 feet, except under extreme weather conditions, where flame lengths could exceed 10 feet. A lack of overstory within the salvage area and the crown spacing in the surrounding commercially thinned timber would make the occurrence of a crown fire under even extreme weather conditions unlikely. The residual slash would be moved and compacted by the yarding operations. Yarding would create openings in the fuel bed, buried slash, and slash concentrations. A portion of the slash would be brought to and sorted on landings as cull material. Landing piles would vary in size and quantity, depending upon how much unmerchantable material reaches each landing. Excavator piling on slopes up to 35%, hand piling on steeper slopes, and pile burning would reduce the fuels loading and create planting spots for reforestation. These treatments would result in converting the mixed Fuel Model 5 and 12 to a light model 5 on approximately 25 acres. The treatments would reduce brush competition. If a fire ignited within the project area, fire intensities, rates of spread, potential long range spotting, and fire severity would be reduced.

### **Bark Beetles**

Douglas-fir bark beetle (*Dendroctonus pseudotsugae*) infests standing and down trees with a DBH greater than 12 inches. Infestations associated with tree mortality occur for approximately two years following large storm events.

Predicting bark beetle infestations is not an exact science because of the many factors that affect probability of an outbreak. Given the hazard from the blowdown, an estimate of potential bark beetle mortality could be made considering the guidelines issued by Hostetler and Ross in 1996, and the research released by them in 2006.

In 1996, Hostetler and Ross referenced a general rule of thumb proposed in several papers that suggested the number of live Douglas-fir trees likely killed would equal roughly 60% of the downed Douglas-fir trees greater than 12 inches DBH. The research in 2006 showed a response of one live tree killed per 25 downed Douglas-fir (4%). Taking the mid-point of these two estimates (32%), and estimating that approximately 224 downed trees greater than 12" dbh would be retained with the Proposed Action, green tree mortality could be estimated at 72 trees in the adjacent stand.

### **Alternative B**

#### **Fire**

Due to slow decomposition of large tree boles, areas of no treatment would retain heavy dead ground fuels for more than 20 years. Assuming no further major disturbance such as fire occurs within the project area, the current dominant Fuel Models 5 and 13 would persist during this decomposition period but transition to a dominant Fuel Model 10 over time as a tree overstory re-establishes.

Should ignition occur, the heavy large fuels from the blow down would severely limit fire suppression and contribute smoke emissions into the air shed. The heavy large fuels would also result in potential long-range spotting and high fire severity under dry conditions due to long-term smoldering and the resulting deep soil heating.

### **Bark Beetles**

Estimating that approximately 3,300 of the existing downed trees within the project area are greater than 12" dbh, and using 32% green tree mortality could be estimated at 1,056 trees in the adjacent stand if the No Action alternative is selected.

## **5.4 Issue 2: How would management activities affect acceleration and development of late-successional forest characteristics?**

### **Alternative A**

Planting and subsequent survival of planted seedlings are highly dependent on the degree of site preparation. Excavator and hand piling of slash, then burning the piles, along with the brush and ground cover mastification by logging operations, provides good site preparation for planting. This method of site preparation would yield planting spots for 200 to 400 TPA.

Browsing control and/or manual maintenance to control competing brush may be needed in the future. With these management actions, a high degree of probability would then exist that the planted seedlings would reach the free-to-grow stage of development. The brush component would begin to die out as the canopy closed and light to the forest floor diminished. The stand would continue to mature, achieving dispersal habitat (40% canopy closure, 11" dbh trees) within 40 years. Retention of 5-8 downed TPA would provide the coarse woody debris component important to the prey base for some species associated with late-successional stands. A fully stocked stand would provide future sources of coarse woody debris, including snags.

Over time the stand would be evaluated for future management opportunities. However, once the free-to-grow stage has been achieved, natural processes may take over. Late-successional forest characteristics such as large diameter trees, large limbs, snags, and a multi-layered canopy could be reached without further active management.

Considering that the management objectives of the Sammy Hill Density Management Project were "hastening the development of late-successional forest structural characteristics" (page 3 of the Sammy Hill EA), this alternative would provide the greatest degree of future management options toward achieving that goal.

### **Alternative B**

Planting in the present blow down area is not feasible. Some natural seedlings have seeded into the blow down area and may survive to the point of free-to-grow. However, the density would be expected to be low, resulting in severe brush competition.

Current coarse woody debris levels are more than adequate and would remain so without further action. However, although approximately 4000 downed trees would be retained on site with this alternative, foraging opportunities would be reduced because brush would dominate the site. Achievement of other late-successional characteristics such as large diameter trees, large limbs, and a multi-layered canopy would happen at a much slower rate than with Alternative A.

Considering the management objectives of the Sammy Hill Density Management Project, this alternative would limit future management options toward attainment of those objectives.

## **6.0 CUMULATIVE EFFECTS**

This analysis incorporates by reference the analysis of cumulative effects in the Final Supplemental Environmental Impact Statement on Management of Habitat for Late-Successional and Old-Growth Forest Related Species Within the Range of the Northern Spotted Owl (NSO FSEIS) (Chapter 3 & 4, pp. 4-10) and the Eugene District Resource Management Plan/Environmental Impact Statement (RMP EIS) (Chapter 4). Those documents analyze most cumulative effects of timber harvest and other related management activities. None of the alternatives analyzed here would have cumulative effects on soils, water or air quality beyond those effects analyzed in the above documents.

It is likely that some stands on BLM-administered lands in the Lake Creek Watershed will be treated with commercial thinnings or regeneration harvests. In 2003, the Sammy Hill Density Management Treatment was completed. In 2004 the BLM analyzed approximately 12,700 acres for commercial thinning opportunities in the Lake Creek Watershed (North Lake Creek Thinning Project Environmental Analysis, June 2004). Since this EA was completed, Jason Thin, Blacktop, Chinkapin, Whitebark, Ben Lane, and Poolside have been sold and awarded. In 2006, the Rock Fish timber sale (commercial thinning, T16S, R7W, Sec. 23 – Long Tom and Lake Creek Watersheds) was completed. Ten High (T15S, R7W, Sec. 10 and 15) was sold in 1998 and is part of a long-term density management study.

On private lands in the watershed, more intensive timber management actions, including clearcutting and broadcast burning, are occurring and are likely to continue. Also, it is possible that some forest stands on private land will be converted to non-forest land, for either agricultural or residential use. Private lands provide habitat for deer, elk, and neotropical birds but will primarily alternate between early- to mid-seral stages.

## 7.0 CONSULTATION AND COORDINATION

### 7.1 LIST OF PREPARERS

The Proposed Action and alternative were developed and analyzed by the following interdisciplinary team of BLM specialists.

NAME	TITLE	DISCIPLINE
Leo Poole	Fisheries Biologist	Aquatics
Dave Reed	Fuels Specialist	Fuels/Air Quality
Larry Johnston	Forester	Silviculture
Dan Crannell	T & E and Wildlife Biologist	Wildlife Habitat
Chris Haubrich	Timber Cruiser	Timber Cruising
Janet Zentner	Forester	Logging Systems
Rick Colvin	Landscape Planner	Planning and Environmental Coordination

### 7.2 CONSULTATION

This proposed action is addressed in the North Coast Range Programmatic Biological Opinion for FY 2007/08 Habitat Modification Projects.

The Proposed Action “May Affect, but is Not Likely to Adversely Affect” the northern spotted owl due to disturbance of habitat. There would be “No Effect” due to habitat modification.

The Proposed Action “May Affect, but is Not Likely to Adversely Affect” the marbled murrelet due to disturbance to unsurveyed suitable habitat. There would be “No Effect” due to habitat modification.

There are no suitable nesting trees for the bald eagle within the project area and there are no known nest or roost sites for that species in the vicinity. Consequently, the Proposed Action would have “No Effect” on this species as a result of habitat modification or disturbance. The Magnuson-Stevens Fishery Conservation and Management Act (MSA) requires the BLM to consult with the Secretary of Commerce on all actions, or proposed actions, authorized, funded, or undertaken by the agency, that may adversely affect Essential Fish Habitat (EFH) identified under the Act. Programmatic Consultation has been completed for Essential Fish Habitat in the Lake Creek drainage for Oregon Coast Coho Salmon and Oregon Coast Chinook Salmon dated July 2, 2001 (OSB2001-0070-PC). Coho salmon use the Siuslaw River and tributaries for migration, spawning and rearing. The proposed project is in the ESU for the federally-proposed threatened Coastal coho salmon. No listed fish species have been identified in the area associated with this Federal Action within Greenleaf Creek, a tributary of Lake Creek (a major tributary of the Siuslaw River). No proposed critical coho habitat has

been identified in or adjacent to this action (multiple headwater streams and segments). There is no Essential Fish Habitat (EFH) located in this project area. There will be no adverse effects to EFH located 1.5 miles downstream of the project area. Consequently, no consultation with the National Marine Fisheries Service (NMFS) is required.

During the development of the Sammy Hill Density Management Project EA, the Bureau of Land Management consulted with the Confederated Tribes of Coos, Lower Umpqua, and Siuslaw Indians regarding Native American religious concerns, cultural properties, and sacred sites that might be present in the project area. No response was received.

## **8.0 REFERENCES**

USDI Bureau of Land Management. July 1999. Environmental Assessment for the Sammy Hill Density Management Project. Eugene, Oregon.

USDA Forest Service and USDI Bureau of Land Management. February 1994. Final Supplemental Environmental Impact Statement on Management of Habitat for Late-Successional and Old-Growth Forest Related Species Within the Range of the Northern Spotted Owl. Portland, Oregon.

USDA Forest Service and USDI Bureau of Land Management. April 1994. Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents within the Range of the Northern Spotted Owl.

USDI Bureau of Land Management. November 1994. Eugene District Resource Management Plan/Environmental Impact Statement. Eugene, Oregon: Eugene District Office.

USDI Bureau of Land Management. June 1995. Eugene District Record of Decision and Resource Management Plan. Eugene, Oregon: Eugene District Office.

USDA Forest Service and USDI Bureau of Land Management. October 1996. Late-Successional Reserve Assessment Oregon Coast Province – Southern Portion (R0267, R0268). Portland, Oregon.

Ross, Darrel W., and Hostetler, Bruce B. 1996. Generation of Coarse Woody Debris and Guidelines for Reducing the Risk of Adverse Impacts by Douglas-fir Beetle.

Ross, Darrel W., and Hostetler, Bruce B. 2006. Douglas-Fir Beetle Response to Artificial Creation of Down Wood in the Oregon Coast Range. *Western Journal of Applied Forestry*, 21(3).

National Marine Fisheries Service (NMFS). 2001. Biological Opinion – 2001 Essential Fish Habitat Consultation. Conducted by the NMFS, Northwest Region. 49 pages.

To estimate the number of windthrown trees currently down in the project area, one can use the stand descriptions and prescriptions from the Sammy Hill Analysis file. The Sammy Hill EA describes three strata; the Salvage Sam Project Area contains two of these (Strata 1 and 2). Using the pre- and post-treatment descriptions from the Sammy Hill EA, and the approximate acres of each that occur within the Salvage Sam project area (those acres per stratum left untreated in Sammy Hill maintaining pre-treatment description, those acres treated converting to post-treatment description), the estimated number of windthrown trees in the Salvage Sam project area is 3,956. For analysis purposes, this will be rounded to 4,000. Using an estimation of the percentage of the trees greater than 12" dbh\* per stand description, the estimated number of windthrown trees greater than 12" dbh is 3,298, rounded to 3,300. For the project area as a whole, approximately 83% of the downed trees are estimated to be greater than 12" dbh.

**Table 2: Estimation of Number of Downed Trees**

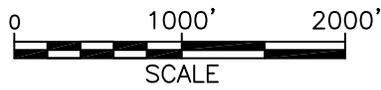
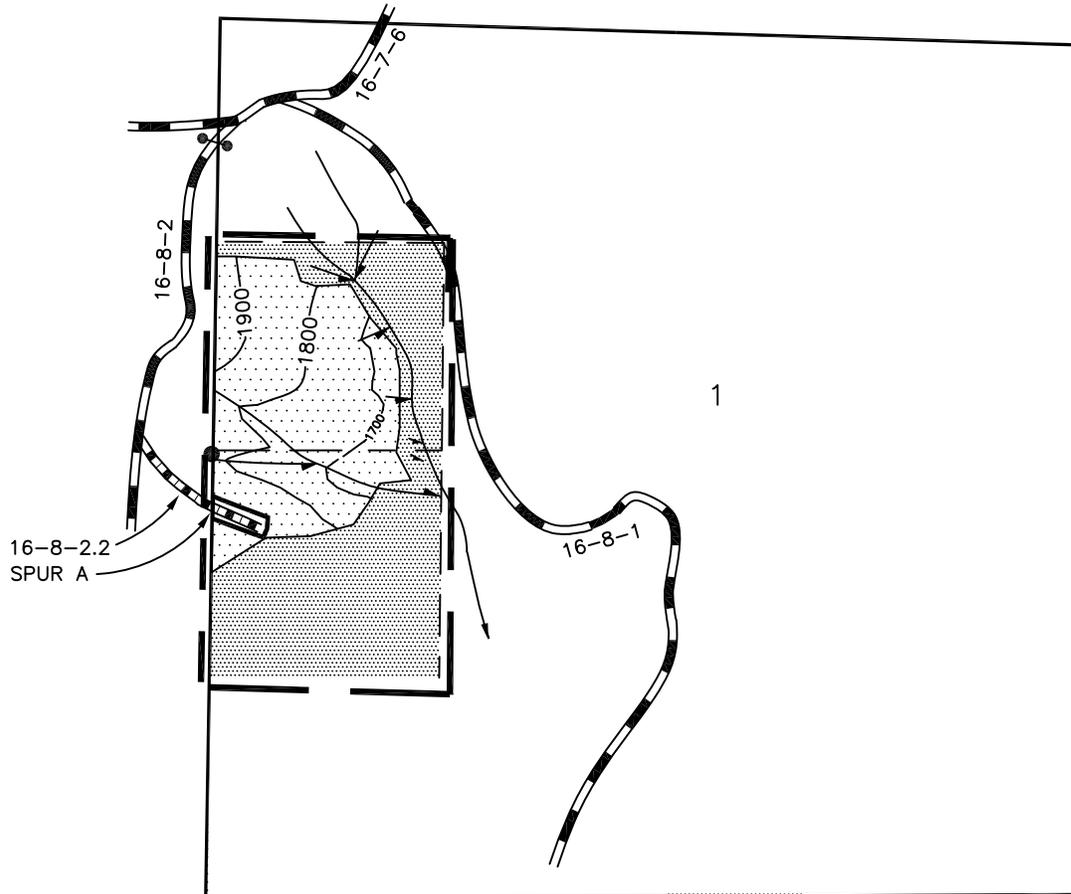
Note: Numbers of acres, windthrown trees and trees >12" are estimates									
STRATA	Sammy Hill <u>pre-treatment</u> stand description	<u>Untreated</u> acres occurring in Salvage Area	Windthrown trees in Sammy Hill <u>untreated</u> area (tpa)(ac)	Trees >12"* (per stand description)	Sammy Hill <u>post-treatment</u> stand description	<u>Treated</u> acres occurring in Salvage Area	Windthrown trees in Sammy Hill <u>treated</u> area (tpa)(ac)	Trees >12* (per stand description)	Total Windthrown trees
1	240 tpa 15" avg. dbh	1	240	240*77% = 185	55 tpa** (40-70 tpa) 20" avg. dbh	20	1,100	1,100*99.95% = 1,099	
2	279 tpa 14" avg. dbh	4	1,116	1,116* 77% = 859	100 tpa** (90-110 tpa) 15" avg. dbh	15	1,500	1,500*77% = 1,155	
			<b>1,356</b>				<b>2,600</b>		<b>3,956(4,000)</b>
				<b>1,044</b>				<b>2,254</b>	<b>&gt;12" dbh 3,298(3,300)</b>

\*Stand exams for nearby stands were used to determine the estimated % of trees greater than 12" dbh for the Sammy Hill stand descriptions. For those stand exams with similar "leave tree" average dbhs, the number of trees less than 12" was divided by the total number of trees to obtain the % of trees less than 12". This figure was then subtracted from 100 to obtain the % of trees greater than 12".

\*\*The median TPA was used rather than the range of TPA.

UNITED STATES  
 DEPARTMENT OF THE INTERIOR  
 BUREAU OF LAND MANAGEMENT  
 SALVAGE SAM BLOW DOWN RECOVERY  
 ENVIRONMENTAL ANALYSIS  
 PROPOSED ACTION

T. 16S. , R. 8W. , SEC. 1 , WILL. MER., EUGENE DISTRICT



LEGEND

- |   |                       |   |   |
|---|-----------------------|---|---|
|  | PROPOSED SALVAGE AREA |  | APPROXIMATE LOCATION OF PROJECT AREA BOUNDARY |
|  | RESERVE AREA          |  | ROAD TO BE RECOMMISSIONED                     |
|   |                       |  | ROCK SURFACED ROAD                            |
|   |                       |  | CORNER FOUND                                  |
|   |                       |  | GATE  |

DATE: 4/04/07

**UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
EUGENE DISTRICT OFFICE  
Preliminary Finding of No Significant Impact  
for  
Salvage Sam Blow Down Recovery  
ORO90-EA-07-04**

Determination:

On the basis of the information contained in the Environmental Assessment, and all other information available to me, it is my determination that implementation of the proposed action or alternatives will not have significant environmental impacts beyond those already addressed in the Record of Decision (ROD) for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl (April 1994), and the Eugene District Record of Decision and Resource Management Plan (June 1995), with which this EA is in conformance, and does not, in and of itself, constitute a major federal action having a significant effect on the human environment. Therefore, an environmental impact statement or a supplement to the existing environmental impact statement is not necessary and will not be prepared.

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William Hatton  
Field Manager, Siuslaw Resource Area

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Date